HOW TO BUILD A CRC CONSORTIUM

Australia's best capability working together

This Guide is part of a series of Guides aimed at industry, including small and medium enterprises, and others who are new to the CRC Program.

INTRODUCTION

Cooperative Research Centres (CRCs) are engines of innovation for Australia. An initiative of the Australian Government, CRCs bring together the best scientific minds from research and industry to work as a team.

Together, and driven by the needs of the ultimate user (end-user), they turn research results into products, services and technologies and address national priorities within a local and global context.

This Guide has been developed by the CRC Association to help interested parties understand how CRCs can be formed or joined, how an application/bid can be put together and funded and what is involved in being part of a CRC.

KEY DIMENSIONS OF CRCS

MANAGEMENT OF THE CRC PROGRAM

The CRC Program is managed by the Department of Innovation, Industry, Science and Research which issues the Guidelines for the selection of new CRCs approximately every two years. An independently chaired CRC Committee oversees the CRC Program and makes recommendations to the Minister on the selection, monitoring and evaluation of CRCs.

SELECTION ROUND GUIDELINES

Selection round guidelines are released at the time a new selection round is announced by the Government and will be available from the CRC website (www.crc.gov.au). Also as a useful reference, copies of the guidelines from previous rounds can be found under the “Selection Rounds” section of the CRC website.

PARTICIPANTS

CRCs must include at least one university and at least one end-user participant, though it is usual to have multiples of each. Participants can include companies based in Australia or other countries, small and medium enterprises, research and development corporations, government agencies and other users of research such as industry associations. Research providers can include universities, the CSIRO (Commonwealth Scientific and Industrial Research Organisation), research institutes, companies and other government laboratories.

TIMELINE

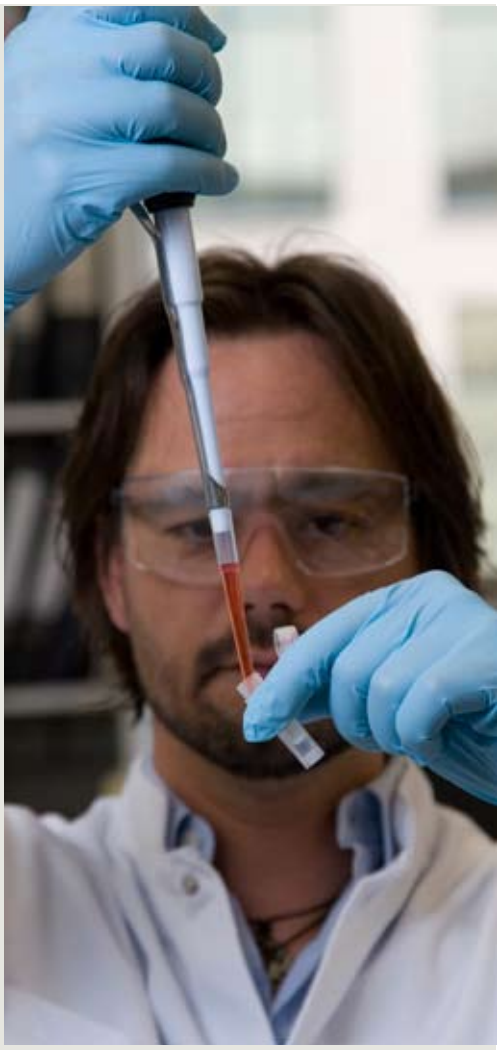
Planning a competitive CRC is similar to planning a start-up business. Usually the selection process from submission of proposal (application) to approval, takes approximately nine months. Preparation of the proposal can commence anywhere from nine months to two years before that selection round starts.

RESOURCES

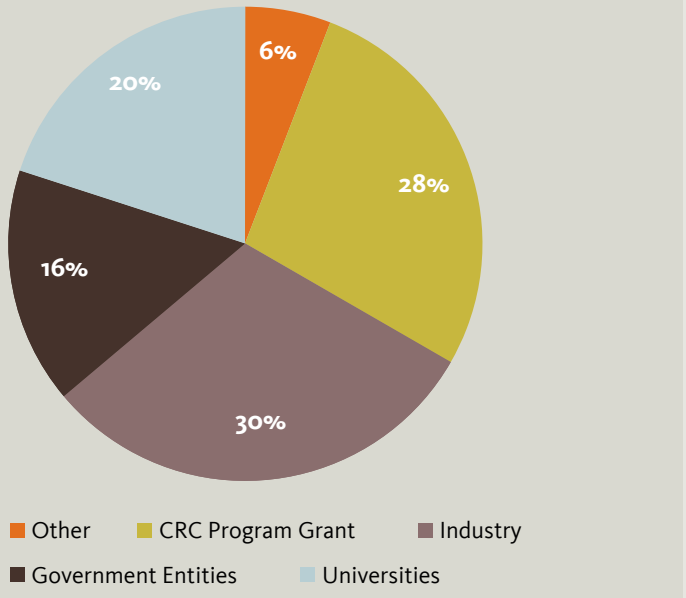
CRCs are resourced through the use of both cash and in-kind contributions from their participants. In-kind contributions include making research facilities and staff available to the CRC. The amount of cash and/or in-kind contribution can be substantial, considering the scale of the research task to be undertaken and the degree of benefit received by the participants.

Over the life of the CRC Program, the Commonwealth has granted on average $16.8 million to each CRC. In recent selection rounds, the amount of a seven year grant has increased per CRC, and ranged between $20 million and $40 million in the 2006 selection round.

As a minimum, the total contributions from the participants of a CRC must match the Commonwealth grant. However, for a competitive application, the total participant contributions may need to be in excess of the dollar for dollar matching required by the Guidelines. In fact, in the 2006 CRC selection round, the CRC Program grant on average comprised only 28% of a CRC's resource profile.



Average resource profile of a CRC - average 2006 figures



Source: Department of Innovation, Industry, Science and Research 2008

The average resource contributions by industry of both cash and in-kind in the 2006 selection round amounted to $350.4 million over the seven year life of a CRC (when calculated across all CRCs). By comparison, government entities (excluding the CRC and universities) contributed on average $185.6 million of cash and in-kind over the seven year life of a CRC, universities contributed $231.5 million and "other" institutions $66 million.

THE MAKING OF A STRONG BID

To create a strong application, there are several proven key elements. These topics are briefly introduced below and will be covered in detail in the other Guides in this series.

Successful CRCs are expected to have:

- sound governance and management structures (with a clearly articulated vision/plan and committed participants) and leadership team (including strong researchers and a capable proposed CEO)
- a strong research plan
- utilisation/commercialisation strategies (including technology transfer and path to utilisation/adoption), and
- an education and training plan

Importantly, all applicants should continually ask themselves "why should the taxpayer fund this CRC?"

GOVERNANCE AND MANAGEMENT

CRCs adopt a structured approach to governance and management, normally as an incorporated company. Their board takes responsibility for governance, delivery of outcomes and outputs as well as compliance with contractual arrangements with participants and the Commonwealth. Also important is the calibre of the leadership team, including the head researchers and the proposed CEO.

UTILISATION/COMMERCIALISATION STRATEGY

As well as a strong and well articulated research plan, a successful CRC will have to clearly demonstrate an achievable path to adoption for the CRC's research outputs (though full utilisation may not occur until after the CRC has ceased operation). Adoption/utilisation is where the CRC will usually draw upon its industry and other end-user participants. CRCs use various strategies to protect and manage the use of new technologies and other innovations they generate. Four basic options are generally used by CRCs as management strategies for intellectual property (IP):

- licensing of intellectual property for commercialisation
- licensing of intellectual property for utilisation
- starting a new company for commercialisation of all or particular intellectual property
- assignment of intellectual property

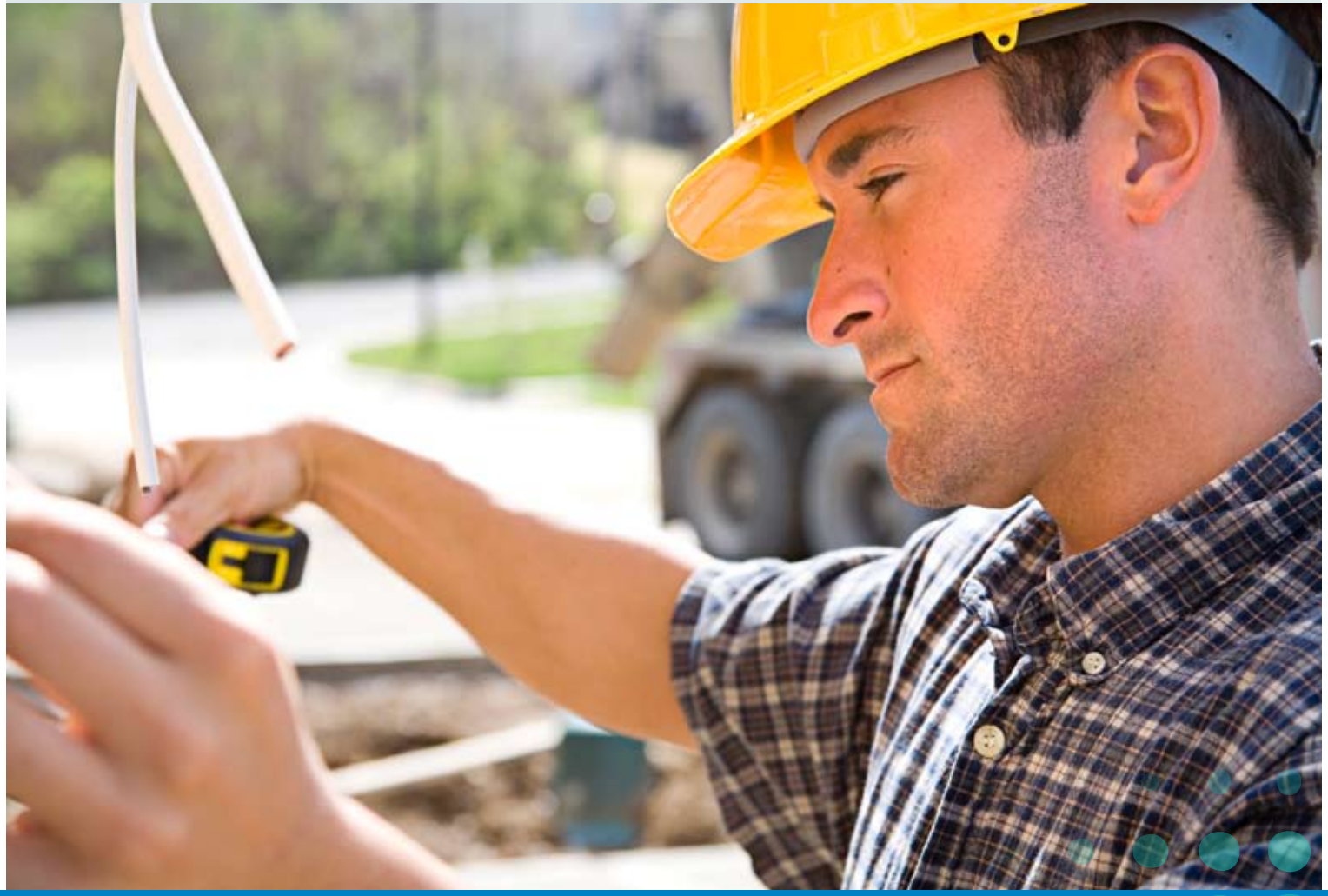
However, CRCs may choose another strategy as long as they can demonstrate the adequacy of their strategy to the CRC Committee.

EDUCATION AND TRAINING STRATEGY

In addition to the innovation deliverable(s), CRCs must have a postgraduate program. However, CRCs often decide to promote their education and training activities beyond postgraduate research training and include a range of knowledge transfer activities, with many CRCs offering education/ training for industry, professionals, stakeholders, community and schools, to support adoption of their new technologies.

LEGACY AND EXIT STRATEGY

At the outset of planning a CRC, it is imperative to have a plan for the CRC's proposed legacy and exit strategy. Will it be one or more spin-off companies or a more competitive industry utilising intellectual property developed by the CRC?



FINDING CRC CONSORTIUM MEMBERS

Developing a clear focus and finding suitable consortium members is usually a challenge for most CRC applications. Successful bidding consortia in the past have been formed through several ways, including:

- using existing contacts
- networking amongst competitors and industry/ professional associations
- attending conferences on the research subject or allied areas
- following up authors in relevant magazine articles
- contacting the CRC Association
- contacting existing CRCs to see if they want new participants or intend rebidding, or
- searching the Internet

It's also important to decide whether a consortium member needs to be a core participant (and makes a significant contribution and commitment to the CRC), or a supporting participant (and makes a limited contribution and commitment to the CRC). Obviously this will depend largely on the resources and capacity of the potential participant as well as their familiarity with the consortium and the CRC Program. And remember that a consortium can allow a supporting participant to increase their level of engagement at a later date, subject to agreement by the CRC's board.

MODELS OF BUILDING A CRC

Formation of a CRC consortium typically depends on the industry sector(s) involved and the technology being developed. The following models describe the context of consortia initiated either by industry, researchers or government, which have been used by consortia in previous CRC selection rounds.

1. INITIATED BY INDUSTRY

BID LED BY COMPANY

In a company initiated proposal, that company has the advantage of being able to provide the vision for clearly defined industry needs. A clear definition of these needs is vital for any competitive CRC application. However, challenges also exist for company initiated proposals. If the company does not have established in-house research capability then it needs to build links to the necessary external research groups. Also, there is a need for CRCs to deliver national and industry-wide, as well as company benefits, and the company initiated proposal will need to demonstrate it has strongly addressed all these areas.

Where the research undertaken by a CRC is close to commercialisation, the approach to involving companies, particularly in activities such as project engagement, will need to address any competitive issues between companies involved. For example, will companies only be involved in pre-competitive research or will the companies select non-competing jurisdictions in which to utilise the intellectual property?

BID LED BY RESEARCH AND DEVELOPMENT CORPORATION (RDC) OR INDUSTRY ASSOCIATION

Where industry associations or research and development corporations lead the development of a CRC consortium, they have the advantage of well established industry and company linkages. In addition, RDCs have many established linkages to research providers. These links can form a fertile context for developing the strategic overview of a CRC and defining industry needs.

These organisations also tend to have sector wide or national perspectives that help to define the national and industry benefit aspects of the CRC proposal. A key challenge for these consortia is to address any competitive issues arising from the group of companies involved or the structure of the industry sector.

2. INITIATED BY RESEARCHERS

BID LED BY RESEARCHERS WITH INDUSTRY SECTOR FOCUS

Researcher initiated consortia have the advantage of using the research needs of a defined sector to focus the objectives of the CRC. Where good linkages with industry organisations exist they may be able to provide initial introductions and facilitation of discussions with companies. Iterative discussions with the companies can help to refine the focus of the CRC application and define industry needs. Even so, there may be a need to balance differing perspectives between industry's normal focus on short-term commercial considerations and researchers who often have a longer-term focus on developing fundamental knowledge. The challenge for researcher led proposals is often to develop an appropriate commercialisation/ utilisation strategy. In this area industry leadership is invaluable to ensure that the CRC will meet industry needs and provide an appropriate path to adoption.

BID LED BY RESEARCHERS WITH TECHNOLOGY FOCUS

In new and emerging areas of research, there may be little opportunity for established industry engagement. In these situations the CRC concept can be more focused on the capabilities of the technology, as opposed to well established industry or commercial needs. Considerable work is often required to develop understanding of the adoption value of the emerging technology, which may be termed "breakthrough technology" and its successful articulation in the bid.

3. GOVERNMENT PRIORITY AREAS

CRCs usually decide on their own area of research focus. However, on occasion, Governments can identify priority areas for CRCs built around a specific goal of national importance. The CRC Committee, upon direction from the Minister, may invite an application at any time, or call for applications in specific research areas. These applications are assessed by the CRC Committee against the same selection criteria as other CRC applications.

POINTERS FOR NEW APPLICANTS

A number of key considerations have been identified that contribute to the successful formation of a CRC consortium and application for funding. These include:

KEY PRINCIPLES

- be sure that the CRC Program suits the strategic needs of your consortium and project. Other development mechanisms might be more appropriate, like going it alone or accessing programs such as the Australian Research Council's National Competitive Grants Program – Linkage (www.arc.gov.au)
- develop a shared 'vision' among participants including identifying the research field, how to utilise and/or commercialise research outputs (path to adoption), value of research outputs, commercial terms, return from expected outcomes and value for investors; embody the vision clearly into the application so it will continue to both 'ground' and inspire the team during preparation of a competitive application. Remember, the integration of all parties into the consortium is critical
- ensure that you have a key person or group who will 'drive' the bid, 'sell' the vision, help 'gel' a team from differing cultures of industry and research, and generally advocate for the consortium. Consider developing networks including CEOs or Business Managers of CRCs to use as a sounding board – the CRC Association CEO is a useful contact. The CRC Association annual conference is another avenue for networking and identifying current developments
- decide whether a participant needs to be a core participant (and makes a significant contribution and commitment to the CRC) or a supporting participant (and makes a limited contribution and commitment to the CRC)
- recognise that there are a multiplicity of approaches to developing a successful CRC and that there isn't "one correct" approach or formula – just because one approach achieved success for one CRC does not mean it will work for you
- establish from the outset that the process will be end-user driven – and keep this at the forefront of your continuing discussions
- ensure you have a world class research team
- conduct all the difficult conversations (like governance, rewards, commitments, any use of Background IP, etc) before lodging your application

PROCESS ASPECTS

- start early to build a soundly based concept and commitments from participants – many successful consortia start two years before lodging applications
- gather sufficient resources to cover the application process
- create a research proposal that balances the interests of the participants with national benefit; clearly identify the scope of the field to be addressed by the CRC and how it contributes to Australia's national priorities. Other government documents may also highlight a field of national importance in which a CRC might contribute substantial benefit
- hold workshops for potential participants, and consider use of an independent facilitator to assist strategic planning
- maintain focus as it's easy to get sidetracked – develop a core concept for the application and a structure for the process of developing the application, and then keep referring to it
- assemble adequate commitments of cash and in-kind resources (including time, expertise and research facilities) for the CRC. Don't ask for more funds than the CRC will need – the CRC Committee will scrutinise the budget and decide the appropriate level of CRC grant
- identify participants you want and need early in the process of developing your application – planning a clear focus for the proposal will help to identify who you should include (i.e. core or supporting participants)
- ensure you understand and cover every detail of the CRC Guidelines and related competitiveness and compliance issues; attend Commonwealth and State government information sessions – advertised on relevant websites and in the national press after the release of CRC Guidelines, and source CRC Program information from the CRC website (www.crc.gov.au)
- ensure compliance with the current Guidelines in the application – consider using an experienced independent adviser on CRC competitiveness and compliance issues. Many State governments provide financial or other assistance to bidding consortia from their State
- consider approaching the Department throughout the process to clarify uncertainties – they are on your side
- prepare a case that emphasises the high quality of the proposed research and demonstrates the applicants' ability and resources to carry it out

- the Department will provide electronic application templates to assist your application process. But don't wait till the last few days to enter information into them – uncover complications and resolve them; provide strong administrative support for the application process and ongoing accountability requirements – engage people who are skilled at uploading information
- allow time for the briefing of individuals who will be the signatories to the bid documents and the final agreements
- start addressing issues of governance and structure as early as possible with proposed participants; don't try and negotiate the details through legal documents once your bid has been successful
- ensure that participants are aware of the parameters of the Commonwealth and Centre Agreements once you have developed a working relationship

FURTHER ASSISTANCE

CRC Association
02 6270 6524
www.crca.asn.au

CRC Program
1300 363 079
www.crc.gov.au

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REFERENCES

Economic Impact Study of the CRC Programme, Insight Economics, October 2006, www.crc.gov.au

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