

# A SMART WAY TO FACILITATE CONCRETE RESEARCH



## WHAT IS SMARTCRETE CRC?

The SmartCrete Cooperative Research Centre (CRC) is a Research & Development organisation that is set up to provide practical world class industry led research by accessing grant funding that leverages platforms to access best practice resources and facilities across Australia. This will help facilitate industry step changes that would otherwise be more costly to progress.

SmartCrete CRC's objective is to **guarantee the long-term viability of crucial concrete infrastructure in Australia.**

## SMARTCRETE CRC'S BACKGROUND

- Allocated \$21 million funds by the Australian Government for concrete research.
- The CRC is industry driven with an intention to help address industry-based issues.
- Three program core themes were developed and identified as industry problem areas.



- SmartCrete CRC offers two generic partner types.
  - Industry (commercial & government)
  - Academic institutions
- Cash funding is essential from partners (industry and academic)
- Funding in kind also desirable
- There are four SmartCrete CRC Partner levels in order of partner contribution.
  - Core
  - Supporting
  - Associate
  - Affiliate

## BENEFITS OF BECOMING A PARTNER

- Opportunity to contribute to industry innovation.
- Implement concrete research into practice.
- Research will enable change in: -
  - Product improvement
  - Commercial & economic improvement

- Skills and capability development
- Regulatory Standards development
- Risk reduction and management
- Driving the research dollar further
- Networking opportunities
- The chance to connect with experts in academia and industry.
- Implementation of research project outcomes
- Showcasing knowledge to the broader industry
- Comprehensive CRM database of partner organisations
- Provide co-operative opportunities for partner organisations.
- Royalties generated from IP ensures continued research programs.

## HOW IT WORKS

- Partners are invited to join SmartCrete CRC in categories including:
  - Infrastructure and building contractors.
  - Roads and other Authorities
  - Suppliers
  - Designers
  - Utilities
  - Specialist groups
  - Academia
- Partner cash contributions are equally matched by SmartCrete CRC (minus a small administrative component) to be allocated to research projects fitting one of the CRC core themes.
- SmartCrete CRC helps facilitate matching of industry and a academic partners.
  - Research needs are determined, and a research idea generated.
  - Approved ideas then progressed to research project development phase which includes a project budget.
  - Research project assessed by an Expert Committee.
  - Approved projects allocated funding through SmartCrete CRC.

## MANAGING IP

- SmartCrete CRC projects will generate IP at the research project level.
- IP initially invests in SmartCrete CRC with a view to application in practice.
- Partners get the opportunity to acquire rights to use the IP generated from research projects for commercial purposes that are in line with SmartCrete CRC funding objectives.

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## DOING COMMERCIAL RESEARCH

An organisation, particularly working in the commercial sphere, normally needs to have a focussed offering that considers revenue and cost. There are always opportunities to provide improved offerings that rely on outcomes of commercial R&D.

In a traditional approach, such an organisation would:-

- Identify an area of need in its organisation where improvements could be made through a structured study;
- Identify research partner(s) that could support their focussed work (locating such a partner can be difficult if the organisation is not networked in the research provider space);
- Determine the R&D scope and the funding requirements, and
- Budget for doing this work, obtaining outcomes and implementing research into practice.

An organisation will often fund its own research and retain outcomes for its own use, be it for commercial development or for a number of other reasons. The total R&D funding is essentially capped at what the company puts in. If we assume the company to put in \$75,000 towards its R&D, then that becomes the level of funding for research.

## DOING RESEARCH WITHOUT SMARTCRETE CRC AT A UNIVERSITY

If a company spends the same amount of money for R&D (\$75,000) with a university, it is often the case that the university will also contribute to funding of the R&D, particularly where it sees opportunities where it can apply its knowledge into practice and where it has a technical interest in the subject of the R&D.

As an example of this type of R&D funding would be:-

- \$75,000 put in by the commercial partner, and
- \$100,000 put in by the university (academic partner)

This would lead to:-

- A total of \$175,000 funding for the research project
- An increase in the industry partner return multiple to 2.3 of the amounts invested (as opposed to 1 in the previous case), and
- An academic partner return multiple of 1.8 (noting that the academic partner had no role in the previous case).

## DOING RESEARCH THROUGH SMARTCRETE CRC

If the commercial (industry) partner and the academic partner do the same research under SmartCrete CRC, it is likely that the academic partner will see further benefit and leveraging of its work as the Commonwealth government would supplement R&D funds. In this case, the following would apply:-

- A total of \$301,000 funding for the project
- An increase in industry partner return multiple to 4.0 for the amount invested (as opposed to 2.3 in the previous case), and
- An academic partner return multiple of 2.2 (as opposed to 1.8 in the previous case).

SmartCrete CRC would assist in facilitating links between academics and commercial organisations and bring together like minded groups to progress R&D. All participants would share in the benefits.

MODEL	INDUSTRY PARTNER CONTRIBUTION	ACADEMIC PARTNER CONTRIBUTION	TOTAL R&D FUNDING	INDUSTRY RETURN MULTIPLE	ACADEMIC RETURN MULTIPLE
Direct Commercial Funding	\$75,000		\$75,000	1	-
Funding University Model (without SmartCrete CRC)	\$75,000	\$100,000	\$175,000	2.3	1.8
SmartCrete CRC Funding Model	\$75,000	\$140,000	\$301,000	4.0	2.2
• SmartCrete CRC Central Services Fee	(\$22,500)	(\$42,000)			
• SmartCrete CRC Matching Contribution	\$52,500	\$98,000			

## CONTACT SMARTCRETE CRC

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