

CEO REPORT

DECEMBER 2019



FUNDING AND COLLABORATION

In October, we finalised our \$25 million Commonwealth Grant Agreement and the required research, education and training outputs and milestones for the CRC.

We have also now executed the common Participant Agreement developed after extensive review and consultation with 14 of our 19 core and key participants and have also executed individual agreements with 14 of our 38 associates and affiliates.

Our participants include companies across the value chain, seven universities, state governments, SMEs and research and education institutions.

Several new participants have joined in recent months which add global reach to the CRC and bring new technologies in key areas. In particular, I am pleased to confirm BASF, one of the world's leading chemicals companies, has joined the CRC as a core participant.

We will prioritise finalising all outstanding agreements ahead of our official launch in early 2020 as execution of all agreements is essential to commencing our research program.



RESEARCH PROGRAM

We have set ambitious targets for our research program.

To date, 53 expressions of interest have been received from our research partners, laying a strong foundation for the delivery of the first and subsequent wave of projects.

In early 2020, the Board will announce the funding for the first phase of an initial five flagship research projects to progress to full project proposal stage.

- A pilot plant facility for the production of (NCM / nickel-cobalt-manganese) cathode precursor powders and subsequently the lithiated cathode active material.

- A national battery testing facility for the testing of lithium ion and vanadium redox flow battery energy storage systems.
- A new environmentally friendly direct leach process to access nickel and cobalt resources to significantly add to the economic reserve base of Western Australia.
- New processes to enhance the recovery and yield of mineral processing operations and lithium refineries, while lowering the environmental and energy footprint.
- Novel processes for mine and refinery waste reuse, repurposing and recycling.

The Research Investment Plan of the CRC has been finalised, providing options for industry participants to deem cash and in kind support to priority projects.

Three scene setting projects have been commissioned:

- Governance of battery value chains to help inform policy design by governments, and project development by business, in international partnering (Perth USAAsia Centre, UWA)
- Cathode precursors project to provide the initial directions and feasibility for pushing further down the value chain (QUT)
- A state of play mapping of the battery industries to establish a baseline against which the development and growth in the industry and developments in capability in know-how, skills and facilities can be measured (CSIRO).

Results from these initial research projects will be published in the new year. They will be a forerunner for how the CRC is aiming to embed advocacy and communications activities in its research programs.

Work is also underway to deliver the next wave of projects, ensuring the CRC addresses the core requirements of its Commonwealth Agreement and the common challenges identified by its participants across its three research programs.



OPERATIONAL UPDATES



Derek Hall has joined our executive team as Chief Financial Officer. We will progress in the new year to finalise the organisational structure and make further appointments.



A refurbishment and lease of part of Building 220 at Curtin University's Resources & Chemistry Precinct as a home for the CRC is in progress.



A refresh of FBICRC collateral is underway with a website scheduled to go live in January as an initial step.



FROM ESTABLISHMENT TO START UP PHASE



Remaining Board Committees, including commercialisation, to be developed



Systems, policies and templates to be further developed



Step up in participant engagement including establishing a Participants Reference Council



Develop education, training and SME programs



Contracting of first round of flagship projects and development of next round



Six year capability of circa \$2M cash and in kind investment per month



Continue to grow the CRC where activities and participants are complementary



Targeting steady-state phase July 2020 onwards

International engagement and related initiatives

FBICRC, while representing the largest focused research collaboration around future battery industries in Australia, recognises that it needs to partner effectively in the global and national ecosystem to maximise its impact.

Jacques Eksteen, the COO, visited Germany in November where he presented at an International Battery Production Conference. He met with BASF, the battery divisions of the key German car makers and the Fraunhofer Gesellschaft which has developed a training package/seminar for battery manufacturing and recycling. Germany's Original Equipment Manufacturers (OEMs) and capabilities in battery materials and module manufacture, deployment and recycling strongly complement the battery value chain associated with activities in Australia.

Two recent announcements of interest:



Participant **Deakin University** opened a hi-tech energy storage centre in Melbourne in December: The new StorEnergy centre - supported with a \$4.4 million Federal Government grant - will produce battery materials on a commercial scale and seek to increase knowledge and develop innovative solutions for Australia's energy needs.



In coming years, the **European Commission** will provide up to approximately €3.2 billion in funding for future batteries projects, which is expected to unlock an additional €5 billion in private investments. The scope of the project covers all segments of the battery value chain, including areas in which FBICRC could be a very complementary partner.



2020 KEY DATES

20 February

Meeting of the Research Implementation Advisory Committee, Perth

12 March

Meeting of the Board, Perth

To be scheduled in Q1:

- Official FBICRC launch event
- Announcements of the first five flagship research projects
- A mini summit or assembly of participants



CRC GOVERNANCE

At an inaugural AGM on 11 December, the members of the company (the initial directors and those core participants who have elected to become members of the CRC Company) ratified the appointment of the initial three directors and three new appointments effective 1 February 2020.

The directors bring a diverse and complementary skill set across a range of critical talent areas and sectors, with candidates recommended by an expanded Board Nominations & Selection Committee which included representatives from MRIWA and the University of Melbourne.



Tim Shanahan (Chair)

Tim is a renowned and highly respected leader, who has made significant contributions to WA during a decorated corporate and civic career, including as CEO of WA Chamber of Minerals and Energy founding Director of the UWA Energy and Minerals Institute (EMI), Chair of the Western Australian Regional Development Trust and Principal Advisor to the UWA Vice Chancellor. Currently, Tim also serves as chair for the Zetta Group, WA Super and WA SuperNet, and is a Director of RAC Holdings and the Committee for Perth.



Lisa Paul AO PSM

Lisa is a leader with extensive senior executive experience in both the public and private sectors, including as Secretary for the Commonwealth Department of Education, Science and Training and the later Department of Education, Employment and Workplace Relations. Lisa has joined three company boards, both listed and private, several not-for profits, and served on the Federal Government's Naval Shipbuilding Advisory Board.



Mark Woffenden

Mark has more than 40 years' experience as a senior executive in the minerals industry, including serving in senior management positions with Rio Tinto subsidiaries, including Hamersley Iron and Comalco. He is a former Director for the Centre for Mining Technology and Equipment and Member of the CSIRO Minerals Exploration and Mining Sector Advisory Committee.



Graeme Hunt

Graeme is a respected international executive, with a professional career spanning more than 40 years. He holds a Bachelor of Metallurgy and served as President of the iron ore, uranium, aluminium and manganese divisions of BHP Billiton Ltd. He subsequently was the CEO and Managing Director of Lihir Gold Ltd and Broadspectrum Ltd (formerly Transfield Services Ltd) and is currently Chairman of AGL Energy and Bis Industries Ltd.



Sarah Ryan

Sarah is a respected non-executive director of ASX20-ASX50 companies, with more than 30 years of domestic and international executive experience. She spent 15 years with Schlumberger, the leading oilfield technology company. Sarah currently serves on the boards of ASX-listed Woodside Petroleum, Aurizon Holdings and Viva Energy. She is also a Non-Executive Director on Oslo-listed Akastor ASA, an oilfield services and technology company.



Bruce Godfrey

Bruce is an experienced, commercial executive with a proven ability dealing with commercialising new technology. He serves as Director for Wyld Group Pty Ltd and Director and Vice-President of the Australian Academy of Technology and Engineering and Director of Science in Australia Gender Equity Limited. He concurrently serves as the Chair of the Advisory Board for the Australian National University's Battery Storage and Grid Integration Program and as a Member of the Australian Renewable Energy Agency's Advisory Panel.

