

EVIDENCE-BASED PRACTICE AND POLICY: A SYSTEMATIC REVIEW PROCESS FOR THE BUILT ENVIRONMENT



PROJECT FACTSHEET



KEY POINTS

- Our project will systematically explore the wealth of scattered and highly varied evidence that exists in relation to low carbon built environment research.
- We aim to narrow the gap between research, policy and practice by developing a bespoke approach to synthesising built environment evidence.
- We will draw upon best practice systematic review processes used by other scientific disciplines.
- Practical outputs include protocols, procedural tools and guidelines tested across two case study/demonstration projects.

THE OPPORTUNITY / CHALLENGE

In the built environment, gaps between research and practice and between research and policy hinder our transition to a low carbon future. Research is often dispersed, complex, trialled in a small number of experiments or 'living labs', and difficult to access. This makes it hard for policy- and decision-makers to know what research is available and how reliable it is.

A systematic review process is required to provide a comprehensive, objective and accurate assessment of the body of evidence on a defined issue. However, the nature of research in the built environment means that standard synthesis tools, which were primarily developed in medical and social sciences, have limited application. Thus, these tools need to be modified and adapted.

Our project will address this opportunity by developing a context specific platform for evidence synthesis in the built environment.

CRC for Low Carbon Living

The CRC for Low Carbon Living (CRCLCL) is a national research and innovation hub that seeks to enable a globally competitive low carbon built environment sector and is supported by the Commonwealth Government's Cooperative Research Centres programme.

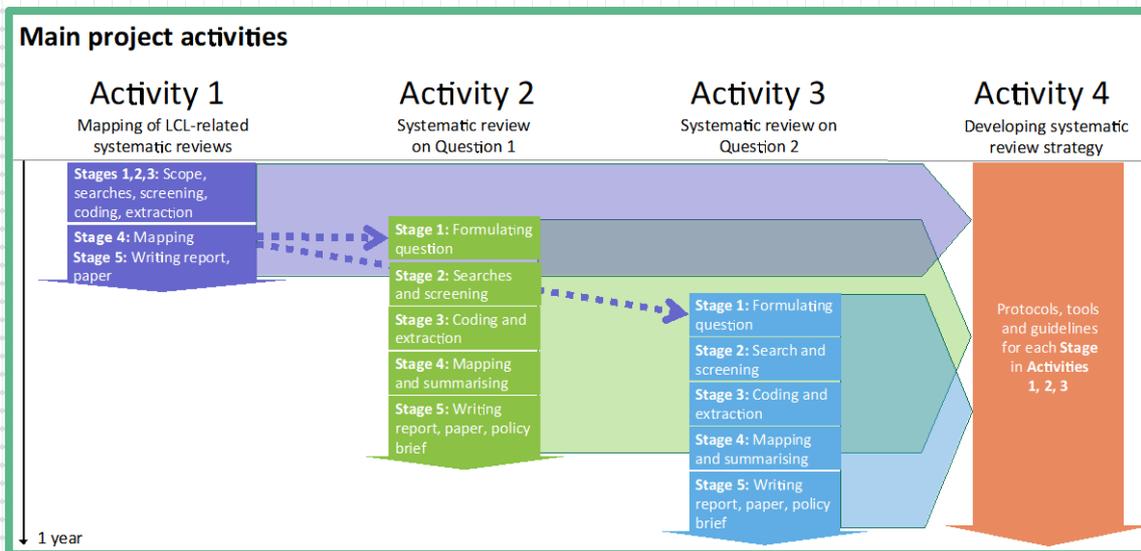
With a focus on collaborative innovation, the CRCLCL brings together property, planning, engineering and policy organisations with leading Australian researchers. It develops new social, technological and policy tools for facilitating the development of low carbon products and services to reduce greenhouse gas emissions in the built environment. For more information visit www.lowcarbonlivingcrc.com.au/

OUR RESEARCH

We will develop an evidence synthesis methodology with supporting resources, including protocols and guidelines, which have been demonstrated, trialled and tested in relation to two topic areas.

Our project, which supports and builds the CRCLCL's Knowledge Hub ([SP0008](#)), will facilitate the creation, dissemination and access to low carbon living research through a number of integrated activities (see figures on the next page):

- Mapping existing systematic evidence reviews related to low carbon in the built environment
- Developing study and review protocols
- Performing a systematic search of bibliographic databases and grey literature
- Defining transparent study selection criteria
- Classifying studies, extracting and coding data
- Visually summarising the data via systematic evidence maps
- Translating findings into policy briefs for the two topic areas
- Identifying possible future meta-analyses (quantitative evidence summaries)



OUTCOMES

Guided by an expert steering committee, the project will develop a new, systematic, robust, transparent and comprehensive approach to mapping, assessment and communication of low carbon research in the built environment sector.

We will assess the quality of existing research syntheses and present results visually to identify priority areas for synthesis. This systematic map of evidence synthesis will aid identification of suitable questions for case studies and future research. The whole process will be documented in detail and serve as the basis for creating guidelines and tools suitable for the built environment.

VALUE PROPOSITION OF OUR RESEARCH

Our research will form a solid base for establishing a practice and culture of performing rigorous research syntheses, complementing the activities of the CRCLL Knowledge Hub and extending its influence. The project also has the potential to foster future collaboration among researchers for improved evidence synthesis in the built environment.

PROJECT TEAM

A/Prof Shinichi Nakagawa, Dr Malgorzata Lagisz

The team brings expertise and experience in adapting research evidence synthesis methodologies to novel questions and research areas. A/Prof Nakagawa has developed new methods for quantitative research synthesis and is a member of the Society for the Research Synthesis Methodology (membership by invitation-only). He has led multiple systematic reviews and meta-analyses of research evidence on a broad range of topics. Dr Lagisz has extensive experience in conducting and evaluating systematic reviews and meta-analyses, as well as training students and researchers in this area.

In-depth knowledge of the built environment will be brought by the Project Supervisor, Prof Mattheos Santamouris, and the members of the Steering Committee. A full-time Postdoctoral Associate will be employed for this project.

FURTHER INFORMATION

For more information about this project, please contact:

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