

# **Liveable social and affordable higher density housing**

an innovative framework

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# Research Programs

[View Programs](#)

## Research Program 1 Environment

**Research Program 1: Greening the Built Environment** will deliver improved environmental performance across the built environment industry through enhanced ecological efficiencies. These include carbon emission reductions and climate change adaptation of new and existing infrastructure and buildings.

## Research Program 2 Processes

**Research Program 2: People, Processes and Procurement** will deliver improved operational and business outcomes. Social outcomes will be delivered through minimising health and safety risks; new process models will capture benefits from future technologies, off-site fabrication and mobile construction management, and business will benefit from more integrated project environments.

## Research Program 3 Productivity

**Research Program 3: Productivity Through Innovation** will deliver economic, environmental and social benefits to the built environment industry through reductions in risks and costs and improved productivity associated with complex information management and procurement processes on infrastructure and building projects.



**Prior Research Program: CRC for Construction Innovation** will deliver economic, environmental and social benefits to the built environment industry through reductions in risks and costs and improved productivity

## Core Partners



## Project Affiliates

Access Housing WA – Brisbane Housing Company Ltd - Common Ground Qld – Foundation Housing -  
Keystart Home Loans – Queenslanders with Disabilities Network - Rowlinson Architects – Urban  
Development Institute of Australia WA

## Research Team

Judy Kraatz, Griffith University - Francesco Mancini, Curtin University - John Venable, Curtin University -  
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# Social and affordable housing program of research



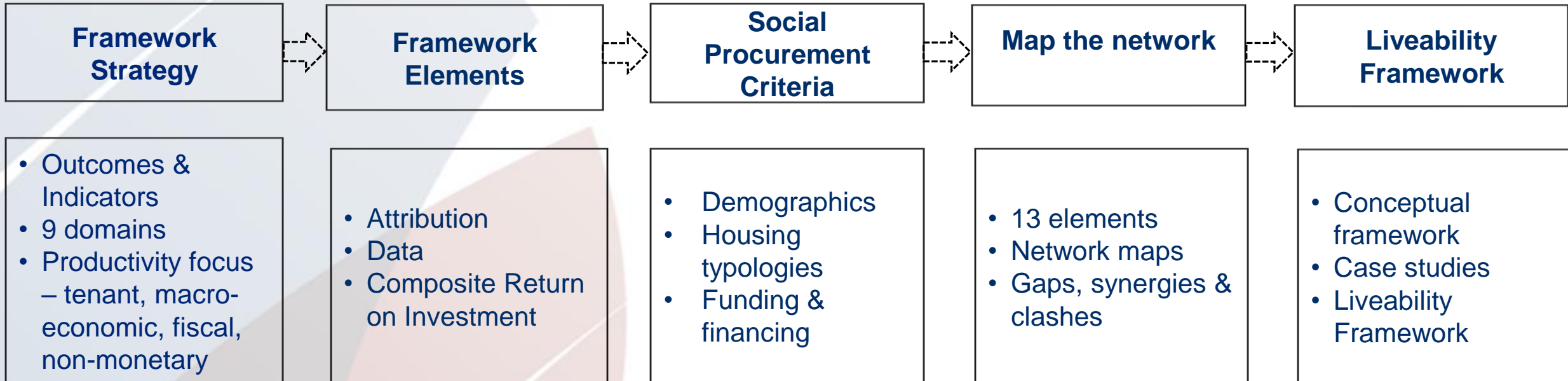
## Rethinking social housing

## Valuing social housing

## Procuring social & affordable housing

## Mapping the social & affordable housing network

## Liveable social & affordable higher density housing



# Aims and intent

**The 9 domains** identified in the Rethinking Social Housing project will continue to provide the foundation for multi-dimensional thinking around project aims and intent:



D1 Community & culture



D2 Economy



D3 Education



D4 Employment



D5 Environment



D6 Health & wellbeing



D7 Housing



D8 Social engagement



D9 Urban amenity

- community and culture,
- economy,
- education
- employment,
- environment,
- health and wellbeing,
- housing,
- social engagement, and urban amenity.

## Aim

Investigate how to better deliver people and place-oriented liveable, social and affordable housing in medium and high-density urban precincts to benefit the community.

### Strategy

**Build on established partnerships and outcomes** from current and previous SBEnc social and affordable housing research as a platform for this investigation.

**Utilise 2 pilot project/case studies**, one based in WA and one in QLD, to provide tangible outcomes concerning:

- people and place-based responses;
- the potential for co-design between asset and service providers;
- whole of life outcomes including social and environmental outcomes; and
- adoption and dissemination of best practices and replicable solutions through innovation in regulations.





# Aims and intent of the research

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## Definitions

### **Affordable Housing**

Housing that meets the needs of people on low to moderate incomes. Housing is considered affordable when it costs no more than 30% of gross household income.

[http://www.housing.wa.gov.au/HousingDocuments/Affordable\\_Housing\\_Action\\_Plan\\_2017\\_2018\\_2019\\_2020.pdf](http://www.housing.wa.gov.au/HousingDocuments/Affordable_Housing_Action_Plan_2017_2018_2019_2020.pdf)

### **Social Housing**

Any affordable housing provided by the government and community sectors to assist people who are unable to afford a house in the private rental market. It includes public housing, state owned and managed Indigenous housing (SOMIH) and community housing.

[https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/BudgetReview201718/Social\\_housing\\_and\\_homelessness#:~:text=Social%20housing%20is%20affordable%20housing,\(SOMIH\)%20and%20community%20housing.](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview201718/Social_housing_and_homelessness#:~:text=Social%20housing%20is%20affordable%20housing,(SOMIH)%20and%20community%20housing.)

### **Liveability**

‘Liveability refers to the degree to which a place, be it a neighbourhood, town or city, supports quality of life, health and wellbeing for the people who live, work or visit’.

[https://www.infrastructure.gov.au/infrastructure/pab/soac/files/SOAC\\_Chapter\\_6.pdf](https://www.infrastructure.gov.au/infrastructure/pab/soac/files/SOAC_Chapter_6.pdf)

### **Liveable Housing**

‘A livable designed home (which) is easier to enter, move around and live in. It’s more cost-effective to adapt when life’s events requires us to change’.

[https://www.dss.gov.au/sites/default/files/documents/09\\_2012/lhd\\_guidelines\\_2012\\_secondedition1.pdf](https://www.dss.gov.au/sites/default/files/documents/09_2012/lhd_guidelines_2012_secondedition1.pdf)



## Aims and intent of the research

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To identify key liveability and accessibility opportunities for medium to high density social and affordable housing in our urban precincts including:

- **Key liveability outcomes** - accessibility in both homes and the urban precinct.
- **Adoption of liveable design outcomes** – including highlighting successful best practice examples and identifying pathways for adoption and regulatory barriers to overcome.
- **Understanding the value equation** – Capturing and demonstrating social and economic benefit to the broader community.
- **Next generation thinking** - Forward thinking in order to maximise future infrastructure benefits and minimise future risks to our community.





What are the key liveability and accessibility opportunities for medium to high density social and affordable housing in our urban precincts?

### **Sub-questions**

#### **How do we:**

- drive adoption of liveability and liveable design outcomes (e.g. economic, energy-efficient, cultural and psychological);
- build the value equation, including both tangible and intangible values, to enable the delivery of the whole of life solutions suitable to government, developers, households and tenants;
- build community acceptance of such investment, both personal and by the government?

# Project Objectives – Three Focus Areas

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SBEnc identified three key focus areas based on the afore mentioned nine domains through National Industry Workshops which have been expanded in Working Group discussions:

## **1. Built form and urban design and the creation of social and economic value:**

### ➤ **Social / Cultural value**

- maximisation of medium to high density urban precinct development in terms of liveability and liveable design outcomes;
- minimisation of risks associated with higher density mixed tenancy developments with potential vulnerable residents.

### ➤ **Economic value**

identify how providing liveable design outcomes can add value

- to Government to test value capture strategies on itself (e.g. the state discounts the land, builder discounts the build, maintain margin on materials); and
- Balancing upfront cost of liveability features through whole-of-life benefits which justify investment for developers and the community.



# Project Objectives - Three Focus Areas

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## 2. Government's role

- shaping industry structure and driving new urban forms around liveable social and affordable housing outcomes and livability issues for higher density urban precincts, especially with regards to regulation and adoption (with an awareness of tax/funding models).

## 3. Improved adoption of liveable design

- ensure universal access need goes beyond the implementation of minimum housing standards for liveable design
- focus on the need for enhanced access in housing and urban areas across many stages of a person's life (e.g. disability, aging, child rearing).
- Key issues to be considered are:
  - beyond the minimum standard;
  - how to demonstrate value and benefits;
  - how to drive adoption;



## **Literature review:**

- review of relevant academic and industry Australian and international literature, including other SBEnrc project outcomes; co-design and technology-based enablers; current/recent leading practices/cases focusing on outcomes and critical elements with unresolved challenges/risks; value Equation inputs; and current state of regulation in relation to medium to high density environments in urban precincts.

## **Case studies:**

- Two built projects, one in WA and one in QLD, will be investigated enable the identification of (i) person and place-based liveability criteria including liveable design, thermal comfort (health-related); (ii) elements of the value equation, building on Project 1.41 and developed in consultation with partners.

## **Stakeholders interview**

- To capture information and insights about current issues preventing wider implementation of best practices for affordable and social housing.



# Project Methodology Framework:

NINE IMPACT DOMAINS



**D1** Community & culture



**D2** Economy



**D3** Education



**D4** Employment



**D5** Environment



**D6** Health & wellbeing



**D7** Housing



**D8** Social engagement



**D9** Urban amenity

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**NETWORK STAKEHOLDER GROUP (from SBEnrc 1.61<sup>1</sup>)**

|   | Person/Family | Commonwealth government | State government | Local government | Peak / Industry Assoc.                            | Advocates | CHPs  | Not for profits | Research | Industry | Philanthropic | Informal |
|---|---------------|-------------------------|------------------|------------------|---|-----------|---|-----------------|----------|----------|---------------|----------|
| <b>1.0 LIVEABILITY</b>  |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 1.1 <b>Inclusive, integrated place-based planning*</b><br>e.g. governance, partnerships, social procurement.  |               |                         |                  |                  | See CS 1 (for example only now)<br>D1, D5, D8, D9 |           |   |                 |          |          |               |          |
| 1.2 <b>Carbon neutral-positive approach*</b> e.g. passive, active and carbon neutral design and analysis.   |               |                         |                  |                  |   |           | See BP 2 (for example only now)<br>D2, D5, D7 |                 |          |          |               |          |
| 1.3 <b>Nature-loving and biodiverse spaces*</b> e.g. biophilic, water sensitive and landscape oriented design.  |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 1.4   |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| <b>2.0 ACCESSIBILITY</b>  |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 2.1 <b>Whole of life accessibility</b> e.g. domestic comfort and health; access to open space, social, physical and virtual infrastructure, communal resources. |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 2.2 <b>Visitability</b> e.g. people who use mobility aids having the same rights to visit friends and family in their homes                                     |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 2.3 <b>Precinct safety and accessibility*</b> e.g. human centred, walkable, and place and movement design.  |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 2.4 <b>Local shared mobility*</b> e.g. local mobility and feeder transport design; mobility as a service.   |               |                         |                  |                  |   |           |   |                 |          |          |               |          |
| 2.5   |               |                         |                  |                  |   |           |   |                 |          |          |               |          |

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|------------|---|-------------------------|------------------|------------------|------------------------|-----------|------|-----------------|----------|----------|---------------|----------|
| <b>3.0</b> | <b>VALUE EQUATION – COST BENEFIT</b>  |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 3.1        | Whole of life accessibility e.g. whole-of-life running-cost reduction features.   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 3.2        | Balancing initial costs of accessibility and liveability features with long term benefits e.g. physical, social / community and tech. features, and on-going maintenance costs. |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 3.3        | Property diversity* e.g. community engaged planning; agglomeration economy analysis; financial modelling.   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 3.4        | Property affordability* e.g. social and affordable housing analysis; life cycle assessment; operational analysis.   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 3.5        |   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| <b>4.0</b> | <b>REGULATORY AND POLICY ENVIRONMENT</b>  |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 4.1        | Regulatory issues – national  |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 4.2        | Regulatory issues – state   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 4.3        | Regulatory issues – local   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 4.4        | Jurisdictional conflicts  |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 4.5        | Livable Housing Design Guidelines   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 4.6        |   |                         |                  |                  |                        |           |      |                 |          |          |               |          |

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|-----|---|-------------------------|------------------|------------------|------------------------|-----------|------|-----------------|----------|----------|---------------|----------|
| 5.0 | <b>ADOPTION AND OVERCOMING BARRIERS</b>   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 5.1 | Barriers to uptake of liveability and accessibility features e.g. domestic and shared spaces; engagement and privacy. |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 5.2 | Pandemic response e.g. space planning performance; ability to engage.   |                         |                  |                  |                        |           |      |                 |          |          |               |          |
| 5.3 |   |                         |                  |                  |                        |           |      |                 |          |          |               |          |

<sup>i</sup> Nine impact domains from SBEnc 1.31

<sup>\*</sup> Criteria from SBEnc 1.62<sup>iii</sup>

Abbreviations - CS = Case study; BP = Best Practice

Case Study 1 – refer report name etc

Best Practice 2 – refer report name etc

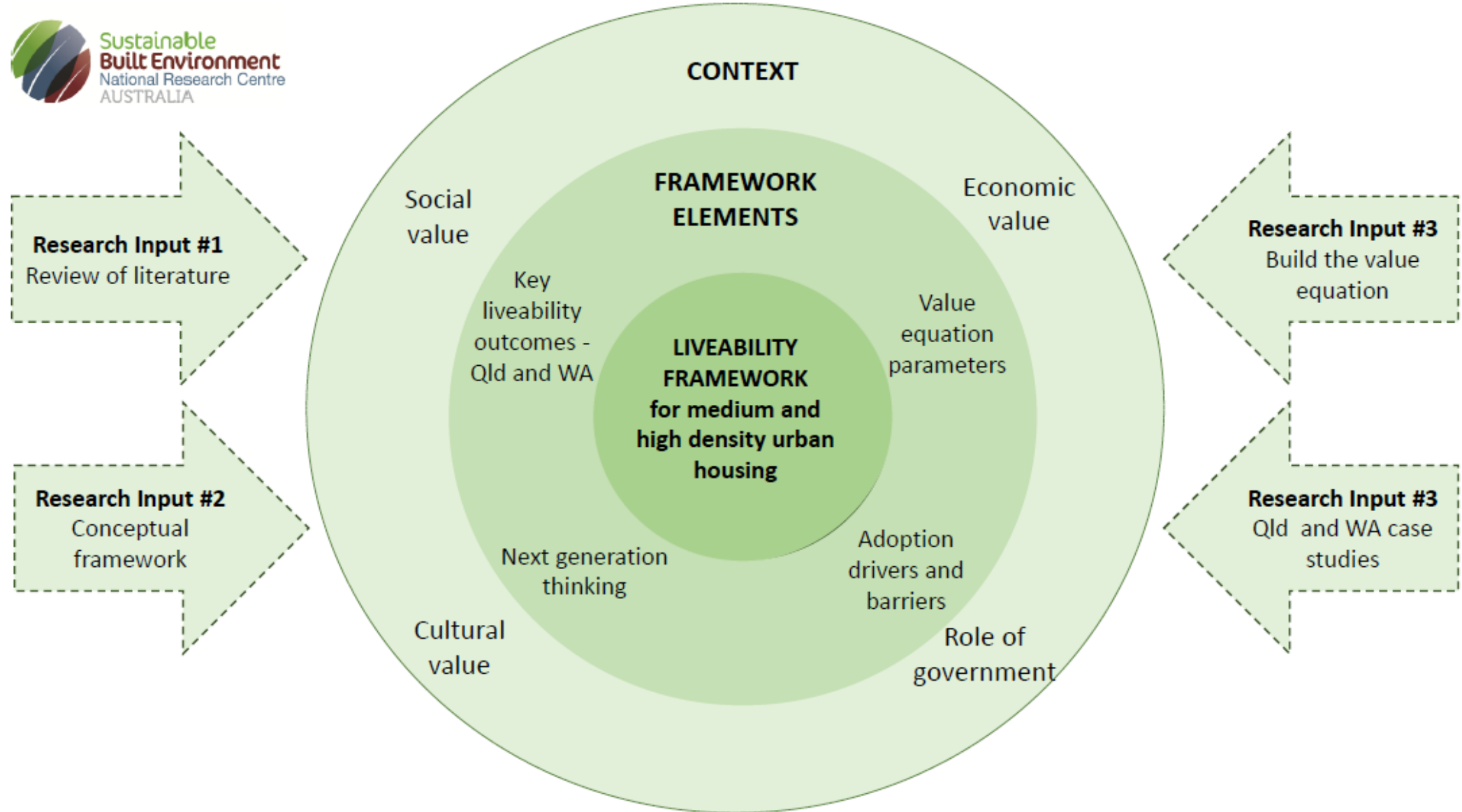
<sup>i</sup> Kraatz, J. A., et al. (2015). Rethinking Social Housing: Effective, Efficient and Equitable - Final Industry Report. Brisbane, Australia.

<sup>ii</sup> Kraatz, J. and N. Jayawardena (2020). Mapping the Australian social and affordable housing network. Brisbane, Australia.

<sup>iii</sup> Caldera et. al., 2019



# Anticipated Project Outcomes



## Industry Outcomes:

- Provide liveability criteria targeted for the delivery of social and affordable higher density urban housing and precincts by focusing on liveable design outcomes responsive to both person and place
- Balance upfront cost of specified liveability features against whole-of-life benefits to justify investment.
- Achieve design features at no or minimum construction cost to increase plus mid and long-term benefits

## Community Outcome:

- capacity to provide accommodation for population at all ages and stage of life enabling ageing in place.

## Regulatory Outcome

- Advocate for integration with Australian Building Code Board activity to maximise the impact of research findings
- Enable Government to identify and test new value capture strategies



# Anticipated Project outcomes and benefits

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## Benefits:

- **Explain the value equation for both government and industry** so that (i) Departments can apply the social housing decision support tool (e.g. Design WA 7.0) to quantify intangible values and (ii) upfront costs versus long term benefits can be identified for industry and consumers.
- **Develop a framework to enable partners to** inform, adopt, track and evaluate intent and outcomes against liveability and value criteria related to medium and high density liveable urban infrastructure.

## Benefits measurement:

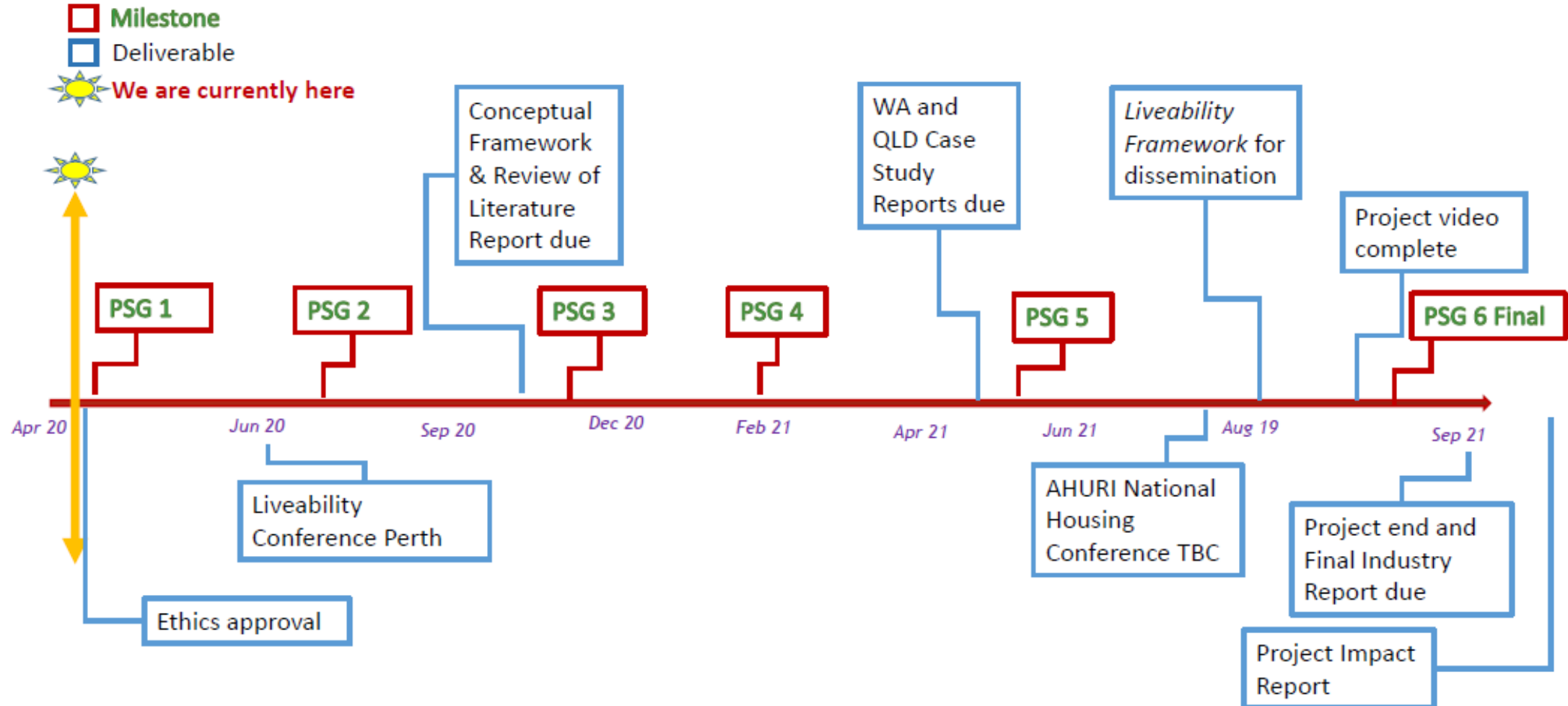
- **Evaluation** of a range of liveability outcomes incl. liveable design elements
- **Quantification** of whole of life benefits of liveable design
- **Uptake of research** for policy and delivery by: (i) core partners; (ii) Project Partners and Affiliates: and (iii) other industry stakeholders.



# Anticipated Project Outcomes

P1.71 Liveable Social and Affordable Higher Density Housing

At: 1 April 2020



Liveable social and affordable higher density housing:

<https://sbenrc.com.au/research-programs/1-71/>

Mapping the social and affordable housing network:

<http://sbenrc.com.au/research-programs/1-61/>

Procuring Social and Affordable Housing:

<http://sbenrc.com.au/research-programs/1-54/>

Valuing Social Housing:

<https://sbenrc.com.au/research-programs/1-41/>

Rethinking Social Housing:

<http://sbenrc.com.au/research-programs/1-31/>

**THANK YOU**