

AI, cities and development assessment: developing trustworthy support tools

PROJECT BACKGROUND

This **new Australian Research Council Discovery project** investigates the **legal, technical and ethical requirements for the trustworthy use of AI in urban Development Assessment**, the regulatory process required for all new property development.

The project arrives at a critical moment for the planning profession in Australia, where planning-specific AI applications are being developed, and AI trials are underway in local and state governments, including [NSW Planning's AI in planning program and initiatives](#).

During this early adoption phase there is an urgent and growing need to understand how AI use can deliver trustworthy processes and outcomes, to help achieve the efficiency potential of AI applications and support delivery of the [National Housing Accord's 1.2 million new homes target by 2029](#).

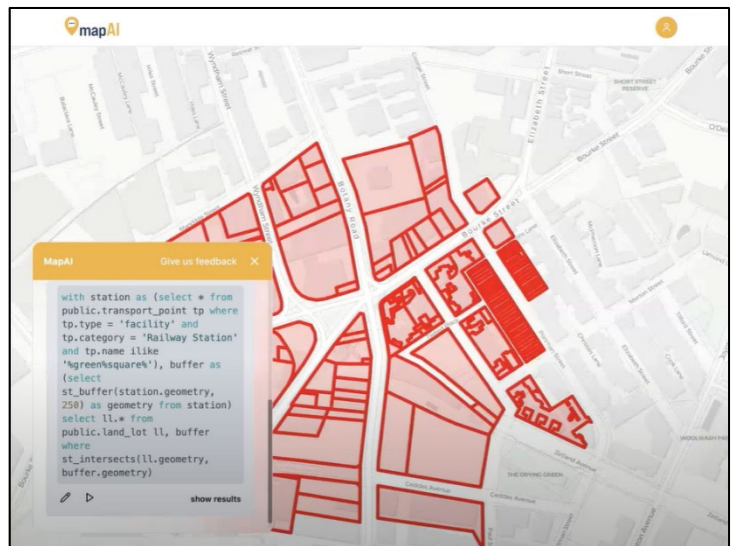


Figure 1: Planning-specific AI applications are being developed, including MapAI [UNSW & Frontier SI]

OBJECTIVES AND SCOPE

The key objective of this 3-year research project (2025-2027) is **developing a conceptual framework for trustworthy AI Development Assessment**, which can support its use in real-world planning across stages of the Development Assessment pipeline.

DA Stage/Process	Potential AI Interventions
Site suitability & master planning	Develop precinct design options, assess land value uplift, identify environmental risk
Community & Agency consultation	Identify likely agency & community concerns, produce communication material
Design & engineering analysis	Identify studies needed, summarise technical information, review architectural plans
Proposal assessment & approval	Compile application documentation, assess proposal against planning objectives
Completion & certification	Monitor & assess building compliance
Transfer, occupation & operations	Monitor & assess ongoing land-use compliance

Figure 2: Potential AI interventions that can support different DA processes.

RESEARCH DESIGN

The framework will be tested and refined through case study research in Australia across three focus areas:

- (1) Current AI implementation and use in city planning and related industries,
- (2) Past and current technology-enabled reforms to development assessment processes, and
- (3) Future scenario exploration with planning and industry stakeholders for trustworthy AI implementation.

Case study research involves interviews and workshops with key stakeholders and intermediaries, including public and private planners, policy-makers, architects, engineers, developers, lawyers, and community activists.

Framework development takes an interdisciplinary approach, utilising expertise in urban planning, urban governance, planning support science, and urban studies, and will align practice with established national and international frameworks for AI use and adoption, including the [EU's ethics guidelines for Trustworthy AI](#), the [Federal Government's 8 AI Ethics Principles](#), and the [Planning Institute of Australia's 10 PlanTech Principles](#).

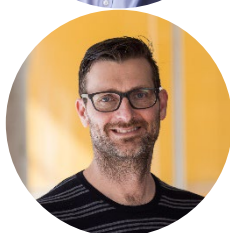
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