# Business Systems and Operations PhD Research Topic

## Bridging the Gap: Integrating Project Management, Asset Management, and Sustainability in Australian Government Infrastructure Projects

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**Summary**

The proposed PhD research explores how Australian state and local governments can better integrate project benefits management, asset management, and sustainability in construction and infrastructure projects. It will analyse current practices, identify barriers, and address decision-making trade-offs. Using a multiple embedded case study approach, it will examine stakeholder interactions and propose a framework for integrated project business cases. Drawing on dynamic adaptation and stakeholder theory, the research will provide practical recommendations to align project and asset management with long-term sustainability goals, offering insights for improved decision-making in public organisations.

**Project Details**

The proposed PhD research aims to explore how Australian state and local government organisations can better integrate project benefits management, asset management, and sustainability within their construction and infrastructure projects. While existing research has outlined key objectives, roles, processes, and accountabilities in project benefits management (Zwikael & Huemann, 2023; Zwikael & Smyrk, 2019), further investigation is needed into how these areas connect with strategic and operational management, especially concerning sustainable organisational and societal impacts. This research seeks to identify gaps in current practices and to propose solutions that balance financial, strategic, environmental, and social goals. It aims to enhance the alignment of government projects with broader sustainability commitments, including those outlined in the United Nations Sustainable Development Goals (SDGs) (United Nations, 2020; World Commission on Environment and Development, 1987).

The research will analyse the current state of project and asset management in government construction projects, focusing on the connection between project performance and long-term asset management. It will explore barriers to integrating sustainability, such as managerial, financial, political, and operational challenges, as well as trade-offs in decision-making regarding materials, technologies, and processes that balance cost and sustainability (Miller, 2018; Miller et al., 2018; Nidheesh & Kumar, 2019). Additionally, the study will assess how sustainability is embedded throughout the lifecycle of government assets, with a focus on asset management strategies (Crespo Márquez et al., 2020; Crespo Márquez et al., 2020).

Drawing on case studies of successful sustainable practices, the research will propose a framework for developing integrated project business cases that incorporate sustainability and long-term asset management. This framework will provide government organisations with practical tools and recommendations to enhance their project and asset management processes, ensuring more sustainable outcomes. Theories such as dynamic adaptation and stakeholder theory may underpin the analysis, contextualised for sustainable impacts.

Key research questions include:

- To what extent do Australian government organisations need to enhance the integration of project management, asset management, and sustainability in their construction projects?
- How do government funding organisations' strategic objectives influence decision-making relate to sustainability and asset management?

The study will use a multiple embedded case study approach (Creswell & Poth, 2018), selecting cases from state and local government organisations for comparative analysis. Each case will involve multiple units of analysis, including project managers, asset managers, sustainability officers, and relevant organisational documents. This approach allows for an in-depth exploration of both overall organisational practices and specific interactions between actors and processes. By comparing cases, the study will identify common challenges and successful strategies, offering a solid foundation for developing the proposed framework.

**Further Information**

For more information about this proposed research, please contact Dr Richard Hughes via email r.hughes@ecu.edu.au

**References**


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