

The Risks and Rewards of University Building Adaptation

Claire Moritz , Stewart Mann
Sinclair Knight Merz

***Claire Moritz** is an experienced Economist with a background in efficient and effective infrastructure development. Claire has undertaken a range of projects that assess the economic and policy impacts of asset strategy and provided guidance on how to focus asset management philosophies to attain optimal portfolio outcomes through capital and maintenance design. Claire currently leads SKM's education business in South East Australia with oversight across the planning, development and management of a wide range of projects for the higher education sector. Claire has worked on a number of significant strategic projects for Universities including Deakin, Southern Cross and Swinburne. B.Comm (Hons- Eco), MCommLaw*

***Stewart Mann** is a Senior Building Services Engineer with a focus on adaptive re-use and sustainability outcomes in a campus environment. Stewart currently leads the SKM Building Services team in Melbourne and has worked extensively in the higher education sector in both the UK and Australia with Design Management (Building Services) roles on projects for University of Manchester, University College Dublin, Deakin, Monash and Swinburne Universities. Stewart prior to taking up his position at SKM worked for one of the UK's leading Research groups in Sustainable development, Institute of Energy and Sustainable Development (IESD) at DeMontfort University, where he undertook research in sustainable building design and also helped bring the groups research to market in his role as Business Development Manager. B.Eng (Hons- Building Services), MSc Energy and Sustainable Building Design, CEng MEI, CIBSE Low Carbon Consultant.*

Universities are facing increasing pressure from their large ageing asset portfolios and a backdrop of tightening competition for external funding. Many are looking at ways to adapt and repurpose their existing building stock and reconsider how their buildings operate. This combined with increased pressure to both attract the best academics and students and grow student numbers at a rapid pace, has forced many institutions to consider both how the portfolio can quickly and cost effectively be adapted to meet the needs of a modern teaching and research institution.

Building adaptation presents significant risk and reward opportunities to a university in how assets and the portfolio are structured. This case study driven presentation will look at the risks and rewards from adaptation and how great design, the latest pedagogy, sustainability improvements, educational and asset management (capital and operational) desires can be met in both the short and long term.

These risk and reward opportunities will be demonstrated through case studies from both Australia and the UK of new investment, capital refurbishment and whole of life assessment and how these have contributed to strong outcomes for the universities involved.

The presentation will cover the key pressures of flexibility, in both space and services planning, and sustainability required in new builds. It will review how educational service delivery may change over the medium and longer term and how by using space flexibly it will also ensure both sustainable design and operational sustainability, and more importantly how such flexibility can be achieved cost effectively. When tied to the increased role of research in Higher Education (for attracting and retaining best talent academics and students), and with particular reference to the space and equipment researchers require to undertake their work, the differing needs of infrastructure that supports both long term and short term goals in research and teaching can be compared and contrasted.

Beyond new investment some of the greatest opportunities for universities in the next few years will be re-use and adaption of existing buildings, with core consideration being the updating of existing services, structure and architecture to enable the re-use and re-purposing as educational and research demands change. Central to this will be ensuring the adapted buildings are sustainable (both environmentally and economically) and also address future flexibility such that as estates mature they can be continually re-adapted beyond current life expectancies. Fundamental to this need are the decisions made in regards to building services and mapping building adaptation to asset management plans.

We will demonstrate that there is a need for adaption and space flexibility to become a core element of university planning. As buildings have been adapted their systems and functional changes are fully understood, universities will be able to move from capital investment to operational and maintenance investment in the longer term.

In the long term, this will ensure that both capital projects and building adaptations will operate with a focus on flexibility and sustainability. Over the medium and long term this will reduce both operational and capital expenditure and deliver campuses which can cost effectively shift and morph to meet the needs of cutting edge institutions.