



CASE STUDY

Wyndham City Council: optimizing facilities investment with multiple performance criteria

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CHALLENGE

With various uses, numerous stakeholders and multiple performance criteria, facilities represent a high value, high criticality and complex asset class for infrastructure owners. **Being one of the fastest growing municipalities in Australia, Wyndham City Council recognized that better understanding the performance of facility assets, both now and into the future, was critical to providing appropriate services to the community.** Wyndham's traditional investment and works planning approach was segmented across Council departments, with asset management and facilities maintenance teams leading the condition-based renewals programming, and upgrade and redevelopment planning managed by the respective service managers. With a portfolio that varied significantly in age and condition state and was, on average, growing by six buildings per year, Wyndham desired a more coordinated and sustainable practice.

Life cycle modeling and evidence-based investment forecasting was already well-established for the condition-based renewals programs. Expanding the modeling to incorporate non-condition based service criteria such as capacity, functionality, accessibility and sustainability was Wyndham's key objective. Accessible, interactive and understandable results would be crucial to improving stakeholder engagement and decision-making capabilities. Furthermore, the results needed to be agile enough to support both the development of the organization's long-term financial plan and shorter term works programs of cost-effective projects.

SOLUTION

Wyndham partnered with the Strategic Asset Management team at Siemens to develop the holistic life cycle analysis model, utilizing their Predictor software to incorporate the performance criteria of condition, capacity, functionality, accessibility and sustainability.

To inform the modeling, Wyndham undertook detailed service manager surveys to collect capacity, functionality and accessibility performance data. This also served as an



Customer: Wyndham City Council

Location: Wyndham City Council, Victoria, Australia

Results: Wyndham partnered with Siemens to develop a holistic life cycle analysis model, incorporating multiple performance criteria of condition, capacity, functionality, accessibility and sustainability. The project has:

- Improved accuracy of long-term financial forecasting and short term works programming.
- Provided a single source of truth for all facility performance information via an interactive online environment.
- Strengthened the relationship between asset, facility and service managers and started to break down the traditional siloed approach to asset planning.

important first step to engage with stakeholders early in the process and promote the benefits of a centralized facility performance information system.

Wyndham's facilities included Aquatic Centers, Arts Buildings, Childcare Centers, Civic Centers, Community Centers, Libraries, Depot and Operational Facilities, Stadiums and Pavilions. This wide range of use types, combined with varying facility complexity and age, resulted

in significant variation in the observed performance data. Furthermore, the projected high population growth was expected to impact capacity ratings in different ways depending on location and existing facility features. To model this variation and the anticipated pattern of asset performance over time, individual customized performance profiles were derived from the observed data, allowing the life cycle model behavior to accurately reflect service manager knowledge of each facility.

Through a series of detailed workshops, the Wyndham and Siemens teams developed a model treatment logic that was criticality-based, considered localized lifecycle parameters and aligned with desired levels of service for renewal, upgrade and expansion works.

The outcome was a 25-year holistic life cycle model capable of predicting future asset performance, whole of life cost forecasts for operational, maintenance, renewal, upgrade and expansion activities, and a program of works candidates reflecting the service level requirements of the facilities portfolio. Model results were made available to all stakeholders in an interactive online environment that included a range of performance and investment reports with powerful visualizations, allowing users to access any level of asset granularity.

RESULTS

The holistic life cycle model consolidates all known performance information and forecasts into one source of truth for any stakeholder within the organization to access. Information that was previously documented and stored by individual departments is now available to all. Furthermore, through the service manager survey, previously undocumented knowledge held by service managers and other staff familiar with the facilities now resides within the Predictor Platform. This accessibility of information ensures that staff at all levels are empowered to make the most informed decisions. The accessibility has started to break down the silos that had traditionally hindered good integrated asset planning, and the very nature of a lifecycle model underpinned by both condition and non-condition performance criteria means that those engaging with it are participating in service led planning.

Although it is in the early stages of adoption, Wyndham has seen more accurate long-term investment forecasts that have been integral to informing the Council's Asset Plan and Long-Term Financial Plan. Moreover, short term works planning has seen a significant improvement in the

brief time frame since adoption. The Predictor Platform's presentation of portfolio wide works program candidates has supported the easy identification of project packaging and sequencing, leading to project cost efficiencies, minimized service disruptions and reduced risk of scheduling conflicts.

Service and facility managers that participated in the early survey stages of the project are now seeing their knowledge and inputs being reflected in the results. This has further strengthened the relationship between asset, facility and service managers and the online results platform has allowed a better appreciation of the interaction between service levels, investment, asset performance, workbank backlog and works programming. In some departments, stakeholder engagement and uptake has been beyond expectations and it is now these stakeholders that are leading the next generation of life cycle modelling.

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About the Author

Rory Gibbons is a Senior Strategic Asset Management Consultant at Siemens, where he leads lifecycle analysis projects for Australian clients. As a chartered asset management & engineering professional with over 10 years in the industry, Rory has extensive experience working with infrastructure, throughout all lifecycle stages and across a broad range of sectors, including local government, energy, transport and water. Rory is dedicated to helping clients and stakeholders achieve sustainable infrastructure outcomes through strategic asset management initiatives.



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