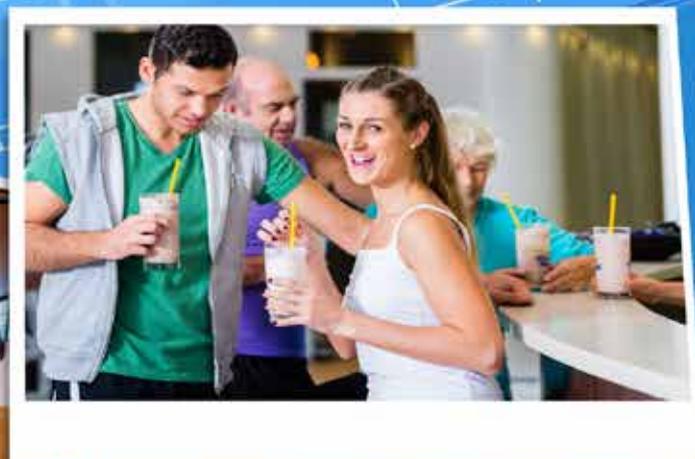


STAGE 6



IMPROVE





Building Performance

As modern building becomes more technology focused and 'intelligent', with specific requirements in design, construction, maintenance and operation, a process is required that aligns the interests of those who design and construct an asset with the interests of those who use and manage it. It aims to improve client and user experiences, with reduced re-visits, and to give a product that meets and performs to client expectations.

The Soft Landings process helps to solve the performance gap between design intentions and operational outcomes. This performance gap can emerge at any stage in a project:

- At inception and briefing, where ambitions and requirements are set but may not be informed by experience and feedback from other projects
- At design, where specific performance targets are set and regulatory compliance achieved, but those targets are neither re-visited nor reality-checked during detailed design
- During construction, where budget shortfalls may compromise the best of intentions, and variations are made to the building and its technical systems that change how the building will be used
- During handover, when commissioning and end-user training may be rushed or abandoned to meet deadlines
- During initial occupation, where not enough support is available to occupants and the managers to ensure the building is set up for the long term.

Soft Landings provides a step-by-step process for clients and their project teams to follow in order to avoid these pitfalls and deliver a better-performing product. It aims to create virtuous circles for all. Whether your project is attempting to achieve exemplary environmental standards or is a simple extension or retrofit of an existing building, the Soft Landings culture can be applied to ensure outcomes match the client's intentions.

The Soft Landings process is designed to give clients and their project teams a process to follow that will lead to a better chance of success. It is a change of culture as much as it is a change of process. Everyone involved has to share the ambition, and share roles and responsibilities, to make buildings tread more lightly on the earth and provide the right internal environments to foster occupant well-being and productivity.

Soft Landings requires clients to appoint designers and contractors who stay involved with their new buildings beyond practical completion and into the critical initial periods of occupation. This will assist building managers during the first months of operation, help to fine-tune and de-bug the systems, and ensure the occupiers understand how to control and best use what they have been given. This is followed by a longer, less intensive period of aftercare lasting for up to three years, to monitor energy use and occupant satisfaction, and to check on the operation of systems that might need seasonal fine-tuning. At the end of three years a buildings' steady performance can be fairly judged against the targets set at design, and any discrepancies accounted for with the appropriate modifications made for optimisation.

This extended duty of care requires Soft Landings to be considered at the outset and embedded in all client requirements and design decisions. It also needs to be adopted by the contractor so that good intentions are not unnecessarily sacrificed for reasons of cost or time.

The Soft Landings process includes the following key five stages:

- Inception and briefing
- Design development and review
- Pre-handover
- Commissioning
- Initial aftercare
- Years one to three extended aftercare and post-occupancy evaluation (POE).



STAGE 6: IMPROVE

Post-Occupancy Evaluation

POE involves the systematic evaluation of opinions about buildings in use from the perspectives of the people who plan, design, build, use, own, manage and operate them. A POE assesses how well buildings match users' needs, and identifies ways to improve building design, performance and fitness for purpose. POE is an essential component of a continuous improvement process. POEs can be undertaken at any time in the life of a facility. They are often undertaken within a few months of commencing operation or after one or two years of operation. A multi-disciplinary team of relevant disciplines should be used including planning, architecture and engineering.

Benefits of POE include:

- **Improving design for future buildings** – a POE contributes feedback for designing new facilities. With an understanding of how similar buildings perform in use, successful design features can be capitalised on and mistakes avoided
- **Renovation or redevelopment of existing buildings** – the POE is an important tool in planning the refurbishment of existing buildings. It helps clarify perceived strengths and weaknesses to focus resources where they are needed. It is also used to identify where building design adjustments are needed to support changing needs, practices, markets, legislation and social trends
- **Fine-tuning new buildings** – POE improves the understanding of how buildings support and/or frustrate activities, so the building can be fine-tuned and management practices adjusted. Very often, slight adjustments to buildings and the ways they are used offer significant benefits to users
- **Cost savings** – the POE identifies ways that people can use buildings and equipment more efficiently and more cost-effectively. Seldom-used or poorly performing building features can be modified, eliminated or replaced
- **Accountability** – a POE is a valuable tool for assessing building quality and performance, which is essential when organisations are required to demonstrate that building programmes are being responsibly managed
- **Staff and/or customer relations** – the POE involves building users and staff in defining how buildings work for them. Staff and user group participation can engender a greater commitment to solutions and a greater willingness to accept shortcomings.

Benchmarking

Sport NZ with its partner the NZRA has developed a national facility benchmarking tool to provide sport and recreation facility operators with high-level KPIs, ultimately aiming to ensure that their communities have access to effective and efficiently operated facilities.

The high-level benchmarking tool measures KPIs through an online data collection, which is free of charge to those who register their information.

Reporting tools will enable participating organisations and key stakeholders to analyse and compare performance, leading to better decision-making on facility development and operation. The tool aims to deliver the following benefits:

- Improved quality of planning and provision
- Improved quality of service provision
- Reduced duplication and improved service development.

Key performance and reporting points used are:

- Total usage per annum – individual usage for aquatic, fitness gym and dry facilities
- Usage per local authority population per annum – will need to add up all organisation facilities' usage to calculate
- Total net direct operating cost – total direct operating cost and revenue
- Net cost per admission – total full-time-equivalent staff per annum (total annual staff hours divided by 2,080)
- Membership retention percentage (annual).

Additional information collected includes:

- Type of facility (allows for grouping by type), eg, full-year facility, seasonal facility, wet or dry only facility
- Size of facility – total building area in m² – allows for a metric usage and cost per m² if required for additional background analysis.