

Kelly McClean

Kelly works at international design, engineering and advisory firm Aurecon, applying circular economy and systems design approaches to a range of projects.

She is a member of Aurecon's global circular economy team and involved in a number of projects spanning government agencies, including the Ministry of Business, Innovation & Employment (MBIE) and Waka Kotahi New Zealand Transport Agency, and New Zealand industry. For example, the team is a member of a consortia of organisations working with MBIE to provide an evidence base to support the development of a circular economy and bioeconomy strategy for New Zealand as part of a wider national emissions reduction plan.

Kelly is leading advisory work on advanced manufacturing emissions and waste mapping, and researching opportunities to progress a low carbon circular economy. She is also involved in infrastructure deconstruction (end-of-life) planning, waste minimisation and behaviour change advisory work, and the investigation of circular precincts which involves the co-location of facilities across the supply chain.

Kelly brings both an academic and practical understanding of design to life cycle analysis and circular economy strategies. She has a Masters of Design from Massey University's College of Creative Arts, where she was a Callaghan Innovation Fellow, and a decade of experience in the NZ textiles, manufacturing, agriculture, FMCG and packaging sectors.

This gives her a strong interest in how life cycle assessment can be used and communicated to decision-makers at the early stages of design or to inform practice change over time.

"It's really important that a whole-of-life perspective is applied in practical ways to harness the power of design." says Kelly.

"We live on a planet with finite resources. Part of being a good citizen is making sure we design circular systems that help people and the planet. We're not there yet. There are glimmers of hope, but we've got a long way to go."



Kelly is a creative problem-solver with a background in materials, design and research. She uses a collaborative and design-led approach when tackling sustainability and innovation projects, with experience in sectors such as film, manufacturing, textiles, agriculture, FMCG and infrastructure. Kelly is part of Aurecon's Circular Economy team the co-founder of social enterprises CommonKind and Reuse Aotearoa.

BENEFITS OF LCHANZ MEMBERSHIP

Kelly has been an LCHANZ committee member since 2018 and co-chairs its Best Practice Working Group. She is dedicated to building a life cycle community and to developing government and industry knowledge to help transition New Zealand from a linear 'take-make-dispose' economy into a circular economy; to turn a vision of sustainability into a reality. Her focus has been on how LCA information can be of value to non-experts, especially at the design stage.

EARLY WORK EXPERIENCE

After graduation, Kelly's early experience in sustainability was in the wool industry and its global value chain. Working for The New Zealand Merino Company, she managed cradle-to-gate life cycle assessments of wool products and the first Environmental Product Declarations for natural fibres in New Zealand just as the Product Category Rule was in the final stages of international development.

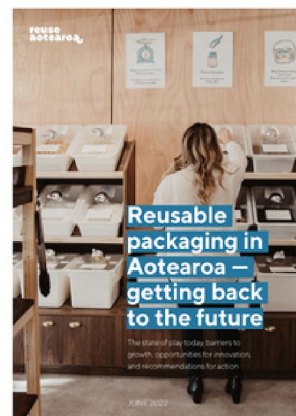
During this time she completed a professional development paper at Massey University led by Professor Sarah McLaren and Miguel Brandão and focused on life cycle assessment and footprinting methods. Her studies focused on a textile rating tool, the Higg Index 2.0.

She later joined Foodstuffs NZ to lead their packaging sustainability programme in 2018 that addressed thousands of products moving through the co-operatives value chain and into NZ households. Kelly was involved with a number of initiatives to improve NZ packaging data and development of industry best practice.

"It taught me the importance of procurement, the need for collaboration across the sector to phase out problematic plastics from the system such as oxo-degradables and other problematic single-use plastics, how packaging design impacts end-of-life re-use and disposal, and the need to understand the New Zealand recycling system."



CommonKind wool blankets



REUSE OF MATERIALS - TAKING STEPS TOWARDS BRIDGING A MAJOR GAP IN NEW ZEALAND

Kelly says there's a significant gap in knowledge about the re-use of materials in this country, and the need for safe, reliable systems that make economic sense.

To bridge that gap she helped establish Reuse Aotearoa in 2020 with co-founders Kim Renshaw and Hannah Blumhardt. This limited liability social enterprise is focused on evidence-based research to support the development and scaling of re-usable packaging systems in New Zealand. Life Cycle Assessments in this context are an important tool to frame reuse models and help understand potential trade-offs and development of best-practices.

She has also established another social enterprise CommonKind with fellow Massey design graduate Olive Riley. CommonKind aims to make wool products more accessible. It develops bright, fun woollen blankets that are sold on a 'buy one, gift one' basis, with gifted blankets distributed to children through community organisations in Aotearoa. The brand utilises factory seconds and dead stock where possible and is currently working on a project to reuse collected offcuts from their own production processes.

Kelly McClean - Individual Member
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