

Programme



#rethinkLCA
LCANZ 10th Anniversary Summit



LCANZ are proud to celebrate our 10th year as the focal point for Life Cycle Assessment and Management in New Zealand. Over this time, we've seen increased uptake of LCA in decision-making and benchmarking. This uptake has accelerated in the past year, building momentum and raising the profile of LCA.

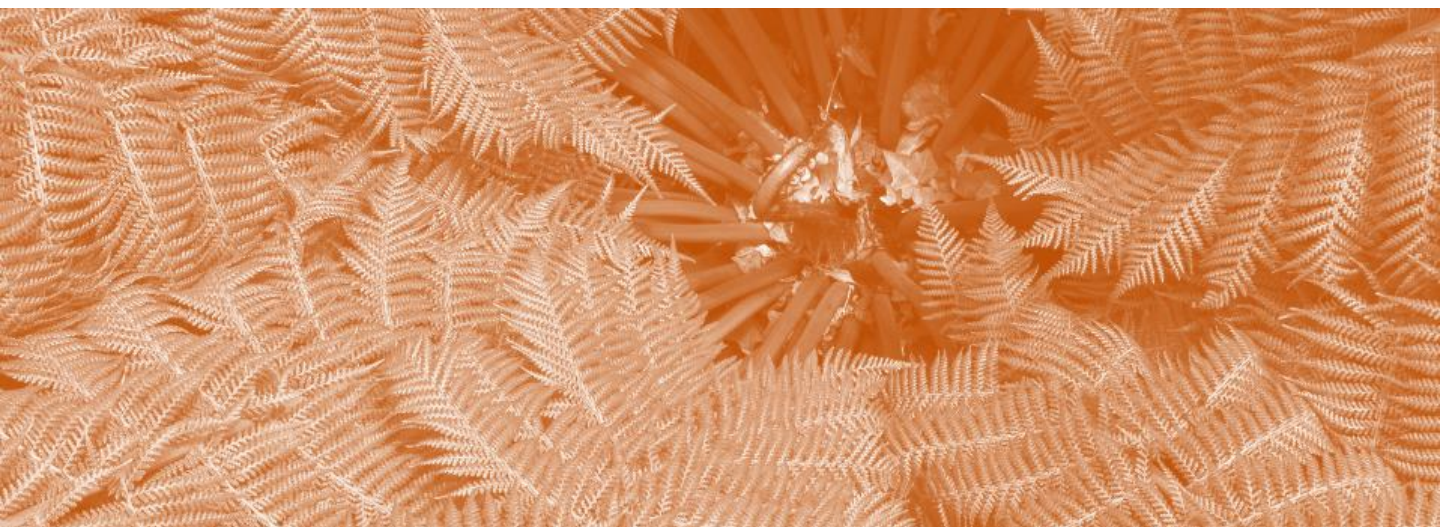
The Productivity Commission's Low-Emissions Economy report, published in August 2018, clearly references the need to consider embodied emissions in goods and services for a low carbon economy.

The 'Rethinking Plastics in Aotearoa New Zealand' project from the Office of the Prime Minister's Chief Science Advisor includes a work item on Life Cycle Assessment as part of the programme, and we look forward to hearing developments during the conference.

EPD Australasia, jointly owned by LCANZ and our Australian counterparts ALCAS, now hosts over 60 Environmental Product Declarations (EPDs) registered for the Australasian region, including 12 from New Zealand companies.

The **#rethinkLCA** Summit will be an opportunity to learn, discuss and contribute to the continuing development of LCA in New Zealand. I look forward to welcoming you.

Emily Townsend
President, Life Cycle Association of New Zealand



About LCANZ

The Life Cycle Association of New Zealand (LCANZ) was established in June 2009. Starting as an informal group of keen individuals, mainly LCA practitioners, we now have formal recognition as an independent special interest group for LCA in New Zealand. Our representative membership includes industry, practitioners and researchers.

LCANZ is supporting its members' interests through advocacy, promoting the broad scope, science-based processes of LCA, which assess the full supply chain, use phase, and disposal activities related to a product, to provide valuable information for emission reduction policy setting. We have recently made submissions to the Zero Carbon Bill and the proposed product stewardship scheme guidelines.

LCANZ supports the ALCAS Certified Practitioner scheme and have already enabled the accreditation of five LCA practitioners in New Zealand.

Our mission



LCANZ's mission is to provide a focal point for Life Cycle Assessment and Management work conducted in New Zealand. We aim to promote networking and knowledge sharing between organisations and people, and to promote and raise the awareness of Life Cycle Thinking amongst the wider public and business.

Our Catering choice for #rethinkLCA

The WISE Collective project is achieving transformative change in women's lives by focusing on the five 'E's: *Empowerment + Education + Employment + Enterprise + Equality*.



The WISE Project supports refugee background women to develop the necessary knowledge, skills, confidence and resources to start-up or contribute to activities for generating income for their families and is run under a unique partnership between the Auckland Resettled Community Coalition and the ARMS Trust. The WISE Collective Project has been active for five years, supporting former refugee women to utilize their skills and interests to generate income for their families. More than 800 women, coming from 18 different countries, have engaged with the WISE Collective Project since its inception.

Meet our Keynotes

The themes for the day reflect the need to #rethink how LCA is used and communicated, to support the needs of today's business and society. Our keynote speakers will reflect on the 50-year history of LCA and the 10 years of LCA NZ, informing us about the future agenda for LCA in New Zealand and around the world:

Dr James Fava, Executive Director of Anthesis Group, Chair of the Executive Committee for the Forum for Sustainability through Life Cycle Innovation (FSLCI), and known as the 'father of modern-day life cycle assessment'.



Dr Barbara Nebel, CEO of thinkstep ANZ and founding president of LCA NZ.

Professor Sarah McLaren, Professor of Life Cycle Management at Massey University and founding member of LCA NZ.



Dr Rachel Chiaroni-Clarke, Office of the Prime Minister's Chief Science Advisor, leading 'Rethinking Plastics in Aotearoa New Zealand'.

Is it time for LCA to be ‘Rebranded’?

It is undeniable that sustainability is good for business. With the founding of Five Winds International back in 1998, some thought we were crazy to establish an international consultancy that focused on helping companies make money through product sustainability. At that time, environmental compliance was the primary driver for businesses to act and moving “beyond compliance” was sometimes like pushing a rope. Obviously in the early days, there were a few leaders, but today more than ever sustainability is moving mainstream. More and more companies are realizing business value by operating sustainability through practical changes in their organization – e.g., integrating sustainability criteria into their innovation process, into their supply chain, and into how they aim to add value to their customers. It’s been an exciting journey, and one that continues!

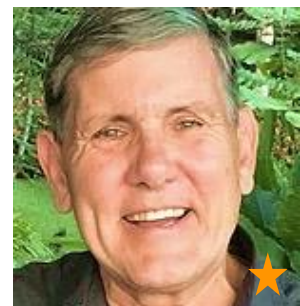
Reflecting on these changes, there are innumerable lessons we’ve learned. However, several lessons surface repeatedly when companies are asking the questions – what should my company’s strategy be with regard to sustainability, why is it important, and how do I realize value from it?

We have identified ten Golden Rules for applying life cycle information that guide businesses or governments when they are interested in furthering the application of life cycle information to inform decision and policy making. The Golden Rules are:

1. There are no green (sustainable) products/packaging – only ‘greener’ or ‘more sustainable’
2. LCA provides solid understanding of impacts over the entire life cycle
3. LCA information is essential but not sufficient
4. Use the language of your audience
5. If you don’t know your destination, any tool will get you there
6. Without a seat, three legs of a stool are useless
7. Meet them where they are
8. Focus is on positive impacts – not just study results
9. It is all about Change Management
10. There is a growing life cycle community – all around the world – they are a resource – access them

These will be described with examples and initial guidance on how they can be applied. Dr Fava will conclude his talk with a challenge to ‘rebrand LCA’.

Dr James Fava



We share

Rethinking Plastics provides an evidence-based system-wide overview of plastics in NZ, along with a series of recommendations to government on ways to mitigate the issues related to plastics, while retaining its many benefits. The outputs from the project are 1) a long, detailed report 2) a short summary report 3) a website and 4) a resource portal – available at pmcsa.ac.nz.

The four workstreams are based on 1) the cultural transformation in how we use and dispose of plastic 2) the innovations and ideas we can adopt to make plastic use more sustainable 3) the environmental impacts of plastic and 4) quantifying use and material flows of plastics in NZ.

Our overarching recommendation is to implement a national plastics action plan that outlines a clear vision and timeline of actions, and signals expectations for the transition to a circular economy for plastics. The action plan can be built on the series of detailed recommendations and further actions outlined in the report, which aim to improve plastics data collection; embed plastics in the government agenda; create and enable consistency in design, use and disposal; innovate and amplify good ideas; and mitigate environmental and health impacts of plastic.



Dr Rachel Chiaroni-Clarke



Dr Barbara Nebel

LCA has developed significantly since the first LCA study in 1969. From ad hoc studies without specific rules, to research reports with 100 pages to standardised EPDs with 10 pages, LCA has developed a lot over the last 50 years.

The New Zealand story of Life Cycle Assessment is shorter, but has gone through a significant evolution as well over the past 15 years.

This presentation takes a new look not only at the evolution of LCA, but also what LCA might learn from related disciplines such as Circular Economy and Cradle to Cradle.

Ten years ago, there were no Life Cycle Assessment (LCA) courses at New Zealand universities, very few researchers in Universities or Crown Research Institutes capable of undertaking LCA studies, and most organisations would struggle to define LCA.

Today in New Zealand, we have more than 100 University graduates who have been trained in LCA, and New Zealand-based researchers have been at the forefront of internationally recognised developments in LCA methodology and its application.

How did we get from there to here? In this presentation, I will identify the key factors that have enabled this transition, and discuss how these insights can inform future initiatives. To infinity and beyond!



Professor Sarah McLaren



thinkstep-anz enables organisations to succeed sustainably.

We partner with businesses in all sectors and offer workshops, LCA studies & EPDs. Our materiality assessments and corporate strategies allow companies to communicate what really matters.

We implement Cradle-to-Cradle and circular economy strategies, translate the SDGs into something tangible, support the development of and commitment to carbon targets and ensure sustainable procurement practices.

Our LCA software tool GaBi and data are leading worldwide.

As a certified B Corp with an approved science-based target we are walking the talk.

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Start time	Session
8:30	Registration
9:00	Welcome by Emily Townsend
9:10	Keynotes
	<i>Dr Barbara Nebel</i> Good on you LCA! Reflections on the evolution of LCA and some ideas for future development.
	<i>Prof Sarah McLaren</i> From here to... Ten years of Life Cycle Management research in New Zealand
	<i>Dr Rachel Chiaroni-Clarke</i> Rethinking Plastics in Aotearoa New Zealand
	<i>Dr Jim Fava</i> Should we rebrand LCA?
10:40	Morning Tea
11:00	LCA & Communications
	<i>Matt Fordham</i> Bringing people with us: the role of empathy in communication
	<i>Mark Stevens</i> Asaleo Care; Our LCA story
	<i>Kat McDonald</i> Lion's sustainability story - and the introduction of carbon neutral beer
	<i>Jeff Parker</i> Developing an Association Environmental Product Declaration for the Wood Processing Industry
12:00	LCA & Decision Making
	<i>Adam Schofield & Kelly McClean</i> LCA and transitioning to a circular economy
	<i>Nic Bishop</i> Systems thinking for sustainability
	<i>Simon Love</i> Fonterra Brands Packaging Decision Tool
	<i>Kevin Goulding</i> Lessons learned from a decade of putting LCA into practice
	<i>Stuart Smith</i> LCA & EPDs in practice at New Zealand Steel
13:00	Lunch & Networking
14:00	Workshops (2 streams)
	<i>Jo Patterson</i> Communicating the shift towards circularity
	<i>Kelly McClean & Adam Schofield</i> LCA NZ Best Practice Working Group Workshop
15:00	Afternoon Tea
15:30	LCA & Carbon
	<i>Sam Archer</i> The role of LCA in driving down emissions in the built environment
	<i>James Obern</i> Measuring the impacts of producing valuable products from waste
	<i>Dr Marie Joo Le Guen</i> Transitioning New Zealand to a Circular Bioeconomy
	<i>Pete Lockhart & Simon Love</i> Timber building: carbon and cost comparison
16:30	Wrap Up by Emily Townsend
16:45	Networking Drinks
18:30	10th Anniversary Dinner

LCA & Communications

Outward looking, focusing on how we communicate impacts, aims and progress to the wider world.



Panel Chair Matt founded Sust with the mission to inspire and empower people to create a sustainably built environment. Sust's communication campaigns about leading-edge sustainable buildings are founded on principles of honesty, completeness and transparency – and respect for their audience.



Kat is the Sustainability Manager at Lion. She has a passion for making sustainability real in an organisation, moving it from a strategic aspiration to a practical tool that delivers value. She has over 15 years' experience working across both the public and the private sectors and believes that now, more than ever, sustainability is a fundamental requirement of organisational success.



Mark's key career experience is in sales management, running national and multinational sales teams. A significant part of his role is to manage and supervise key customer contacts, with a focus on strategic direction and customer facing.



Jeff is a technology and product development champion, patent writer and data enthusiast with broad experience in forestry. Jeff has built an impressive career at Scion, Fletcher Challenge Forests, Carter Holt Harvey, Lockwood Homes, Boral Timber (NSW), and now WPMA.

We share

Realising a vision of a sustainable future requires we bring people with us, and that requires we understand where those people are at in their own sustainability journey. This presentation outlines approaches founded in empathy with audiences, which Sust uses in delivering communication campaigns about leading-edge sustainable buildings.



An overview of Lion and particularly in terms of our sustainability commitments. Carbon reduction ambitions and reducing our manufacturing footprint and product footprinting. New product development and how we embed sustainability into design of new products. Effectively communicating sustainability and educating and supporting behavioural change. The ASMR experience for our carboNZero beer.



Why LCAs? We have rigorous fibre sourcing, manufacturing & SWA policies. Product and other certifications or product attribute (e.g. recycled) just show that a manufacturer has met a standard. Only an LCA can provide evidence of our impact and a measure to improve against.



When the idea of an EPD for NZ wood products was floated with WPMA, some were interested, some not. Finally a "coalition of the willing" was formed and then the real work started. The result is an EPD which showcases the environmental credentials of solid and engineered wood products, and allows designers, developers and government to reliably form opinions on the most sustainable products to use in their projects.



LCA & Decision Making

A focus on how LCA is used to improve processes and how it can drive a more Circular Economy



Panel Co-Chair Kelly is a creative problem-solver with a background in materials, design and research. She's worked in film, manufacturing, agriculture, FMCG and is currently leading Foodstuffs' sustainable packaging work programme. She has a passion for collaborative and design-led approaches to sustainability.



Panel Co-Chair Adam has been working in Quality and Environmental management for over 12 years, with a background in Chemical and Materials Engineering and Life Cycle Management. Currently, Adam is working at ecoPortal where he applies his problem solving skills to help and support a range of companies on sustainability issues.



Nic is the Head of Sustainability at Fisher & Paykel Healthcare and has worked in sustainability for the last 20 years. He's been fortunate to work for some of New Zealand's largest companies and is also a Director for the circular economy agency Circularity. Nic is passionate about helping organisations learn about and reduce their environmental and social impact.



Stuart is a Technical Specialist at NZ Steel with invaluable expertise in painted steel. He has spent almost his entire career in the Steel industry in a variety of Engineering, Operational, Project, and, more recently, Product Development roles.



Kevin is the Sustainability Manager - Winstone Wallboards Ltd, a subsidiary of Fletcher Building. He has over 40 years of building industry experience in NZ and internationally. Kevin is currently working on waste minimisation of EV batteries, and on construction waste with Housing New Zealand.



Simon has a multidisciplinary background with a strong scientific focus. He has over 10 years' experience working on environmental and social sustainability projects, across areas such as bioenergy, packaging and food products.

At The Fermentist, they are committed to making great beer and reducing their impact on the environment while they do it. Their Kiwi Pale Ale is an example of just that.



As NZ's first carbonZero certified beer, the carbon footprint generated in creating the beer and getting it to you, has been kept to a minimum.



With New Zealand's first sustainable vineyard, Babich Wines helped pioneer wines that minimise environmental impact and maximise flavour. Earning a 100% sustainability status from Sustainable Winegrowing New Zealand, Babich Wines have a real connection to nature, from grape to the glass.



EPD Australasia registers and publishes independently verified Environmental Product Declarations (EPDs) for Australian and New Zealand businesses. It does so in partnership with the International EPD System which has registered over 1100 EPDs in 45 countries.

An EPD for your product or service:

- Communicates that your company is environmentally responsible
- Provides a sound basis for marketing claims
- Provides comprehensive and credible information to your customers about environmental performance
- Satisfies requirements of Green Star and IS sustainability rating schemes.

Visit www.epd-australasia.com

We share

LCA and transitioning to a Circular Economy **Best Practices Working Group, LCA NZ**

Circular Economy (CE) is influencing policy and strategic direction in Aotearoa – driving infrastructure investment, new business models and product redesign. CE has ‘cut through’ and is accessible to non-experts. The life cycle community now needs to get on board and promote the importance of Life Cycle Management in the decision making and system design of a circular economy, so that reduced impacts across the economy and society can be achieved.

Fisher & Paykel Healthcare use systems thinking to enhance their approach to sustainability. The presentation will show how the ecodesign Guidance Programme supports the Sustainability Strategy, incorporating key initiatives such as circular economy, collaboration, and systems modelling. The use of LCA to support ecodesign decisions will be demonstrated through examples.

NZ Steel operates a fully integrated steelworks with an output of around 650,000 tonnes per year and creates employment for around 2,500 people. Producing an EPD was a key step on NZ Steel’s Sustainability journey, but by no means the end of the road. Stuart will explain the background to the EPD and how it supports customers to make better decisions, as well as how NZ Steel are using the underlying LCA to drive strategy and improvement in house.

Lessons learned from 10 years of LCA at WWB and practical examples of how LCA has been used for decision making for large capital projects.

Choosing packaging for a consumer product is a complex task. How do you balance environmental impacts with consumer perception, practicality and cost? Fonterra and thinkstep ANZ have developed a decision tool that assesses alternative packaging types products in a comparable way. Hear how this tool was developed and how it could be applied to other consumer products in the future.





Kelly McClean & Adam Schofield

LCANZ Best Practice Working Group workshop

BPWG aims to provide robust NZ specific LCA and EPD development recommendations both for LCA practitioners and business users. In the past the BPWG has produced excellent guidance on NZ LCI datasets, relevant impact categories, and LCA practitioner best practice, but what next?

The BPWG is now looking at emerging areas such as EPDs and communication, circular economy, carbon reduction and sustainability change management, but requires your help to formulate a strategy and determine priorities for 2020 and beyond.

This workshop session will be an opportunity for all interested members to provide input and focus our 2020 strategy, looking at:

- Circular economy and LCA discussion
- NZ Life Cycle Inventory data needs
- LCA research gaps and LCANZ support



Jo Patterson

Communicating the Shift Towards Circularity workshop

One of the challenges as we move towards circularity, is educating customers and consumers, bringing them with us on this journey.

There are wonderful opportunities to work together to create the behaviour change we all need; the progress made by one company helps others following behind.

This interactive hands-on workshop provides a communications framework for brands to create a powerful story around their life cycle approach to innovation.

Participants will get the chance to explore the specific communications challenges within their business or industry and share ideas with others in small groups.

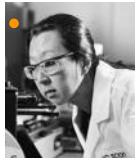


LCA & Carbon

Reveals the importance of supply chains in understanding the full carbon footprint of a project or business, and the reductions necessary to meet our climate goals.



Panel Chair Sam is a Sustainability Consultant with over 18 years' experience in the Construction Industry. As Director of Market Transformation at the New Zealand Green Building Council, he runs the sustainability and energy assessment tools - Green Star, Homestar and NABERSNZ.



Dr Le Guen is a Research Leader in Additive Manufacturing at Crown Research Institute Scion. Marie-Joo has 12 years' experience in fundamental and applied R&D of biomaterials. Her background is in processing and characterisation with a focus on additive manufacturing technologies.



James is Commercial VP and co-Founder at Avertana. He has an academic background in Environmental Management and an outstanding track record in corporate finance, business development and management consulting. James has previously worked at LanzaTech and has advised corporates on biofuels, renewable energy and energy efficiency, and waste management.



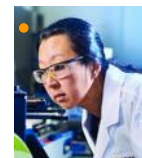
Pete's story is truly one of a rising star. Working as a cadet in 1990 for Naylor Love, he progressed steadily through the company achieving outstanding roles as Regional Operations Manager, Regional Manager and General Manager by 2014. Pete's passion for ensuring outstanding outcomes for Naylor Love's customers led to a desire to better inform customers of the embodied emissions in their projects.

We share

How LCA is being used in Green Star and his views on the longer term role for LCA in regulating emissions from the built environment.



As environmental needs are pressuring the current global practises to shift, transitioning New Zealand to a circular bioeconomy is a necessity. The talk will cover some opportunities around biomaterials and the need of considering the environmental impact upfront, in the design phase of a product, to be able to make informed choices.



Avertana is working with thinkstep ANZ on an updated product LCA for its process, looking at China and New Zealand deployment cases. While the process is still being scaled up, LCA is a tool used to assess the footprint of the products produced and guide further process development and optimisation, while providing valuable insights into how Avertana's process is positioned relative to incumbent technologies.



Naylor Love Construction recognise that carbon reduction in the way it carries out its business is vital and has a big impact. To better understand these impacts, Naylor Love have recently developed a carbon calculator to quantify the benefits of using engineered wood in building projects. Pete will share the motivation behind the work, and how carbon benefits fit into the decision-making process alongside cost and other factors.



**** Simon Love of thinkstep ANZ will explain how the carbon calculator was created and how EPDs were used to ensure accurate data and a fair comparison.*

THANK YOU!





#rethinkLCA includes speakers from the LCA community as well as industry insights from our members in a year that also marks 50 years of LCA practice. The themes for the day reflect the need to **#rethink** how LCA is used and communicated to support the needs of today's business and society.

