

The 12th Australian Conference on Life Cycle Assessment
Conference Program

Novotel Melbourne On Collins, 270 Collins St, Melbourne VIC

(Note: Presenter name not included in the program at this stage, due to a blind review of papers in progress. Presenter names will be added once reviews are completed around end September 2025)

Monday 17th November: Workshops and Side Events

A program of workshop and side-events is in development for the day prior to the conference. They will be held either at the conference venue or at other venues in Melbourne. Details to follow shortly.

8:30am– 5:30pm	Workshops and side events
5:30 – 7:00pm	Social event – Details TBA Venue TBA (close to Novotel conference venue)

Tuesday 18th November: Day One

8:30am	Arrive from 8:30am to check in, collect name tags, etc.
9:00am-11am	<u>Welcomes & Keynote Presentations</u> Australia Room 1+2 + 3 Acknowledgement of Country TBC Welcome from Conference Committee / Scientific Committee Marguerite Renouf and Olubukola Tokede Keynote Presentation: Prof. Arnold Tukker, Chair/professor of Industrial Ecology, CML, Leiden University Keynote Presentation: TBC
11am-11:30am	Morning Tea – Sponsored by start2see
11:30am-1pm	<u>Plenaries Presentations.</u> <u>Australia Room 1+ 2+3</u> Plenary Presentation - Environmental Data, Reimagined Nickolas Meyer, CEO, ecoinvent Plenary Presentation - Perspectives from Japan Masahara Motoshita, National Institute of Advanced Industrial Science and Technology, Japan Plenary Presentation - Perspectives from New Zealand Barbara Nebel, President, Life Cycle Association of New Zealand (ALCANZ) Plenary Presentation - ALCAS President address TBC
1pm-2pm	Lunch – Sponsored by start2see

Tuesday 18th November: Day One Cont.

2pm-3:30pm	<u>Methodology - Inventory</u> Chair: TBC <u>Australia Room 2 + 3</u> Recent developments in the Aus Lifecycle Inventory Database (AusLCI) Tim Grant AutoLCA: Development of an automation code for LCA unit process creation, LCIA calculation, and graphical representation Nicole Bamber What people just don't understand about LCA Nicole Sullivan	<u>Industry session I - Environmental Product Declarations (EPD)</u> Chair: TBD; Sponsor: EPD Australasia <u>Australia Room 1</u> Communicating LCA results via EPDs: What are EPD Owners telling us? Stephen Mitchell Confessions of an EPD Verifier: Part II - AI, Tools, and Evolving Product Category Rules Andrew Moore 10 years of BlueScope EPDs – learnings and next steps Phillipa Stone Domain-Specific Large Language Model for Environmental Product Declaration Report Verification Olubukola Tokede Panel Session
3:30pm-4pm	Afternoon Tea – Sponsored by start2see	
4pm-5:30pm	<u>Methodology - Impact Assessment</u> Chair: TBC <u>Australia Room 2+3</u> Midpoint characterization model for water consumption impacts on aquatic ecosystem: RESCUE model Masaharu Motoshita Sustainability of global abiotic resource production: Integrating regional water constraints into life cycle-based assessment Kamrul Islam Multicriteria analysis for evaluating trade-offs - Supporting decision-making in scaling up circular economy innovations Mayuri Wijayasundara Comparison of LCIA approaches in a farming case study Maatje Sevenster	<u>Industry Session - LCA in Practice</u> Chair: TBC; Sponsor: BlueScope Steel <u>Australia Room 1</u> Using LCAs to Support Fortescue's Sustainability Journey and LCA Capacity Building Ilka-Rose Mitchell From Transparency to Impact: Advancing Embodied Carbon Reduction in the Australian Construction Industry Evan Smith The Power of Early-Stage LCA: Driving Sustainable Design Decisions Before It's Too Late Fei Ngeow Bridging the Gaps: Aligning Industry Needs with Robust Sustainability Methods William Westaway and Patrick Jeannerat MINI POSTER Presentation TBC Unlocking Impact: The Essential Role of Communication, Stakeholder Engagement, and Marketing in Lifecycle Assessment Sanith de S. Wijeyeratne
6:30pm	Welcome drinks Venue TBC	

Wednesday 19th November: Day Two

9am-10:30am	<u>Agriculture - methodology</u> Chair: TBC <u>Australia Room 2+3</u> Updates to Australian agricultural LCI data in AusLCI Isobel Hume Developing a national standard for on-farm GHG accounting Annette Cowie Life cycle optimization of Canadian egg production for least environmental impacts and best animal welfare outcomes Ian Turner, Canada Partially dynamic life cycle assessment of Canadian egg production, differentiated by housing system and hen feather colour Ian Turner, Canada	<u>Building - Methodology</u> Chair: TBC <u>Australia Room 1</u> Tackling Uncertainty in the LCA of Relocatable Modular Buildings using Machine Learning Algorithms Olubukola Tokede Overcoming Data-Intensive Challenges in Building Life Cycle Assessment Francisco Carbajal Digital Life Cycle Assessment for Sustainable Construction: A Review Evelyn Liew Investigating the environmental impacts of Australian buildings beyond embodied emissions: a spatially explicit, cradle-to-gate multi-indicator analysis Narges Emami MINI POSTER Presentation Integrating Circularity Metrics into LCA: A Framework Based on Published EPDs in the Building Sector Shadia Moazzem and Jyothi Ajith
10:30am-11am	Morning Tea	
11am-12:30pm	<u>Agriculture - GHG emission reduction</u> Chair: TBC <u>Australia Room 2+3</u> Carbon footprint of global wheat production and opportunities for decarbonisation Nazmul Islam From Waste to Resource: Biochar as a Carbon-Reducing Strategy in Philippine Rice Farming Bernadette Tongko-Magadia LCA of water delivery infrastructure and irrigation technologies employed in cherry production in the Okanagan Valley (Canada) Nicole Bamber Pathways to Carbon Neutrality: A Comprehensive Baseline Carbon Account for the Agriculture Sector in Northern Rivers NSW Md Noor E Alam Siddique	<u>Building - Case studies</u> Chair: TBC <u>Australia Room 1</u> Unlocking Rapid Scaling Product Carbon Footprint Declarations Jee Wei Tay A dual-functional unit framework for life cycle assessment in residential buildings: a proposition towards absolute impact reductions Gerasimos Christoforato Assessing the global economic impacts of floods and their potential propagation through international trade Slim Mtibaa Tackling embodied carbon in Australia's built environment Nicole Sullivan
12:30pm-1:30pm	Lunch	
	<u>Agriculture - Horticulture</u> Chair: TBC <u>Australia Room 2+3</u> Understanding the Challenges in Agricultural LCAs: A Case Study of Australian Onions Chanjief Chandrakumar	<u>Infrastructure</u> Chair: TBC <u>Australia Room 1</u> Multi-Method for Assessing the Environmental Performance of Highways – A case study in Germany Bruna Pereira de Souza

1:30pm-3pm	Life Cycle Environmental Impacts of Melons Production in Australia Haoran (Harry) Lei PEF Benchmarking of Apple Production in the Okanagan Valley, Considering the Use of Bark Mulch to Meet Benchmark Requirements Jareb Brown	Life cycle assessment of an Australian higher education institution – the case study of the QUT Leonie Barber Operationalising LCA in Facility Management: Capturing Infrastructure Dynamics to Support AASB S1 and S2-Aligned Sustainability Reporting Chalaka Fernando Assessment of the Baseline Carbon Footprint of the University of the Philippines Los Baños Rex Demafelis
3pm-3.30pm	Afternoon Tea	
	<u>Food</u> <u>Chair: TBC</u> <u>Australia Room 2+3</u> Nutritional life cycle assessment (LCA) of shifting to pulses from animal sourced foods: an Australian case study of hummus versus ham sandwich Adeline Lanham A review of recycling allocation methods in life cycle assessments of food waste reduction strategies within a circular economy framework Nisansala Ranundeniya Reducing Emissions in Cold Chain Grocery Transport: A Life Cycle Assessment of Passive Cooling with PCMs Xiaolin Wang	<u>Circular Economy</u> <u>Chair: TBC</u> <u>Australia Room 1</u> Life Cycle Assessment of Different Pathways for End-of-Life Management of LDPE Packaging Waste Sohelia Ghafoor Enabling Circularity in 3D Printing: LCSA of Recycled PLA Gear Components Mohammad Raquibul Hasan The Effect of Upcycling and Downcycling on Emission Factors: A Qualitative Framework for Circular Economy in Industrial Waste Treatment Sepideh Moshrefi The Cookware Company- Using Life Cycle Assessment to guide industry giant to reduce cookware carbon footprint Kasia Pitman
6pm	Conference Dinner Venue TBC	

Thursday 20th November: Day Three

8:00-9:00am	ALCAS meeting (for ALCAS members) Elizabeth Room	
9am-10:30am	<u>Transport</u> Chair: TBC <u>Australia 2+3</u> Future-oriented LCA of emerging SBC technology within transportation Natalia Sieti Comparative LCA of OTR tyre repair programme Pasindu Samarakkody Integrating Life Cycle Thinking Principles in Transport Infrastructure Design and Maintenance Ronald Meyer Life cycle assessment of waste tyre treatment technologies in Australia Dileep Kumar	<u>Bio-based products</u> Chair: TBC <u>Australia 1</u> A cradle-to-gin-gate GHG assessment of global cotton lint production and mitigation scenarios Marie-Chantal Pelletier Evaluating the Environmental Impact of Australian Hempcrete Using a Life Cycle Assessment Approach Nazmul Islam MINI POSTER Presentation GHG Emission Assessment of Industrial Hemp Cropping Across Australia Regions Dhenber Lusanara MINI POSTER Presentation TBC Evaluating Ethanol's Role in Transport Sector Decarbonization: Ex-Ante Cases for Indonesia and Vietnam Anna Elaine Matanguihan
10:30am-11am	Morning Tea	
11am-12:30pm	<u>Energy</u> Chair: TBC <u>Australia 2+3</u> Hydrogen's Hidden Footprint: A Comparative LCA of Hydrogen Production Technologies Umar Maqbool LCA of the use of renewable sourced hydrogen for fuel cell electricity generation Mutah Musa Decarbonising Electricity for Recycling: Impacts on Municipal Waste Glass Recovery in Victoria TBC Jingzuan Zhang MINI POSTER Presentation Environmental impacts and trade-offs for New Zealand's Energy System: A LCA perspective for the present and future Francisco Javier Astorga Mendoza	Health Care Chair: TBC Australia 1 Incorporating LCA into healthcare decision making Scott McAlister Life cycle assessment of emerging PFAS removal technologies in drinking water treatment in Sweden Sabrina Altmeyer Mendes Does reusable mean less environmental impact? A systematic review of the environmental impacts of medical plastics, challenges, and gaps Girum Gebremeskel Kanno
12:30-1:30pm	Lunch	
1:30-3:00pm	<u>Closing Plenaries</u> <u>Australia 1+2+3</u> LCA Panel Best Student Presentation Award People's Choice Award Conference close - ALCAS Executive	
3:00-4:00pm	Afternoon Tea	