



**PRISM**



Transforming Our Future

**AWARE 2023**

November 28-29, 2023

2<sup>nd</sup> International Conference on

# **ASSESSING WASTE AND RECYCLE**



**November  
28-29  
2023**

**Melbourne Convention and  
Exhibition Centre (MCEC)**



**South Wharf VIC 3006, Australia**

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**W**elcome to the **AWARE 2023** conference, the premier gathering of professionals and experts committed to transforming our waste management practices for a sustainable future. This conference aims to foster collaboration, innovation, and knowledge exchange among industry leaders, researchers, policymakers, and environmental enthusiasts. Join us as we explore innovative strategies, share best practices, and forge collaborations to drive positive change in waste reduction, resource recovery, and circular economy principles.

By sharing their latest discoveries and engaging in fruitful discussions, participants will have the opportunity to enhance their knowledge, establish connections, and collaborate with like-minded experts on a global scale.

By attending the conference, you will gain access to the most cutting-edge information in the field, leaving you equipped with the most up-to-date insights. In addition to the remarkable scientific contributions, we encourage you to take a moment to appreciate the breath-taking and unique beauty of Melbourne.

## Date:

The **AWARE 2023** conference will be held from **November 28-29, 2023** at the **Melbourne Convention and Exhibition Centre, Australia** bringing together a diverse audience passionate about creating a greener and more sustainable planet.



## Venue:



The Australian government has demonstrated a strong commitment to waste management and sustainability through the implementation of comprehensive policies and regulations. Melbourne, as a major city in Australia, aligns with these national objectives and can showcase the government's support for waste reduction, recycling, and circular economy initiatives. The conference can serve as a forum for policymakers to present their vision and engage with stakeholders to drive further progress in the industry. The city boasts a thriving waste management sector with numerous innovative companies, research institutions, and industry experts. With its proactive approach to waste management and recycling initiatives, the city serves as an ideal backdrop for a conference focused on addressing environmental challenges. By organizing the AWARE 2023 Conference in Melbourne, we can leverage the city's commitment to sustainability, tap into its thriving waste management sector, showcase government support, highlight innovative solutions and showcase its success stories to inspire and motivate attendees and explore potential partnerships in the region. Together, we can accelerate progress towards a sustainable future and inspire positive change in waste management practices globally.

## Join Us in Transforming Our Future:

The AWARE 2023 conference will be held from November 28-29, 2023 at the Melbourne Convention and Exhibition Centre, Australia bringing together a diverse audience passionate about creating a greener and more sustainable planet.



# AWARE 2023 Conference Highlights:

**Keynote Speeches by Visionary Leaders:** Hear from renowned visionaries and industry pioneers who have made significant contributions to waste management and recycling. Gain insights into their experiences, success stories, and future outlook.

**Interactive Panel Discussions:** Engage in lively discussions with experts from various sectors, including waste management companies, government agencies, environmental organizations, and technology innovators. Explore the challenges, opportunities, and strategies for transforming waste into valuable resources.

**Technical Workshops and Demonstrations:** Participate in hands-on workshops and demonstrations to learn about the latest technologies, techniques, and best practices in waste management and recycling. Acquire practical skills and knowledge that can be implemented in your organization or community.

**Research Presentations:** Discover the latest research findings and scientific advancements in waste management and recycling through insightful presentations by researchers and academics. Gain a deeper understanding of the current state of the field and explore avenues for future research.

**Exhibition Area:** Explore the vibrant exhibition area, where leading companies and organizations will showcase their innovative products, services, and solutions related to waste management and recycling. Interact with industry experts, network with like-minded professionals, and discover cutting-edge technologies.

**Sustainability and Circular Economy:** Delve into the concept of a circular economy and its role in waste reduction and resource optimization. Learn how to integrate sustainable practices into your business models and daily life to minimize waste generation and maximize resource efficiency.

**Policy and Regulation:** Understand the role of policy and regulation in waste management and recycling. Gain insights into the latest legislative developments, explore successful case studies, and discuss the challenges and opportunities associated with implementing effective waste management policies.

**Community Engagement and Education:** Explore strategies for engaging communities and raising awareness about waste management and recycling. Discover successful community-based initiatives and educational programs that promote behavioral change and foster a culture of sustainability.

**Networking Opportunities:** Connect with a diverse community of waste management professionals, environmentalists, policymakers, researchers, and entrepreneurs. Build new relationships, exchange ideas, and explore collaboration opportunities that can drive positive change in waste management practices.



# Key Topics of AWARE 2023

**National Waste Policy Action Plan:** Driving Sustainable Waste Management

**Circular Economy:** Closing the Resource Loop for Sustainable Growth

**Reduce, Reuse, Recycle:** The Three Pillars of Sustainable Waste Management

**Commercial and Industrial Waste Management:** Optimizing Practices

**Accessible Data for Informed Decisions:** Enhancing Consumer, Investment, and Policy Choices

**Revolutionizing Waste Education and Community Engagement through Innovations**

**Waste-to-Energy:** Transforming Waste into Renewable Energy

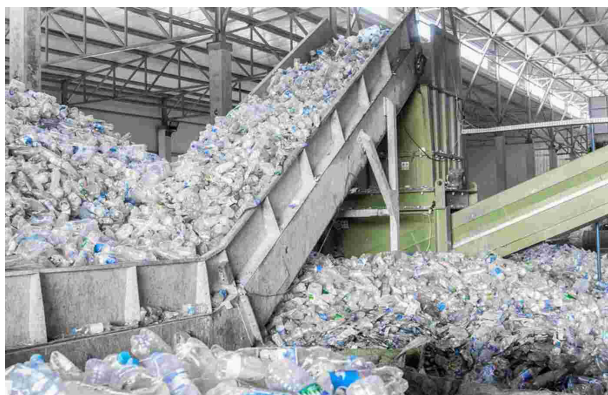
**Tackling Organic Waste to Prevent Climate Change**

**Phasing Out Problematic and Unnecessary Plastics**

**Global Perspectives on Waste Infrastructure:** Critical Volume and Decision Making

**Digital Transformation in the Waste Industry:** Streamlining Operations and Enhancing Efficiency

**Financing Waste and Recycling:** Strategies and Solutions



## Who Should Attend AWARE 2023

**The AWARE 2023 conference welcomes professionals, researchers, policymakers, and enthusiasts from various sectors, including:**

- Waste management companies and professionals
- Environmental consultants and experts
- Recycling and resource recovery organizations
- Government agencies and policymakers
- Research institutions and academia
- Technology providers and innovators
- Non-governmental organizations (NGOs) and environmental advocates
- Sustainability managers and professionals
- Students and aspiring professionals interested in waste management and recycling



# Waste and Recycling in Australia



Australia's waste and recycling market has witnessed significant developments in recent years, driven by growing environmental consciousness, evolving regulations, and a rising demand for sustainable waste management practices. As the country strives to build a circular economy and reduce its ecological footprint, the waste and recycling industry presents vast opportunities for innovation, investment, and positive environmental impact.

## Current Landscape:

The waste and recycling market in Australia has gained considerable momentum in response to the increasing need for efficient waste management and resource recovery. Key factors shaping the current landscape include:

**Government Initiatives:** The Australian government has implemented policies and regulations to promote sustainable waste management practices. These include waste reduction targets, landfill levies, extended producer responsibility schemes, and the development of circular economy strategies.

**Technological Advancements:** The adoption of innovative technologies in waste management processes has significantly improved resource recovery rates and waste diversion from landfills. Advanced sorting systems, waste-to-energy technologies, and smart waste management solutions are transforming the industry.

**Increasing Public Awareness:** Growing environmental awareness among the Australian population has resulted in a greater emphasis on responsible waste disposal and recycling. Consumers are increasingly demanding eco-friendly products and supporting businesses with strong sustainability practices.

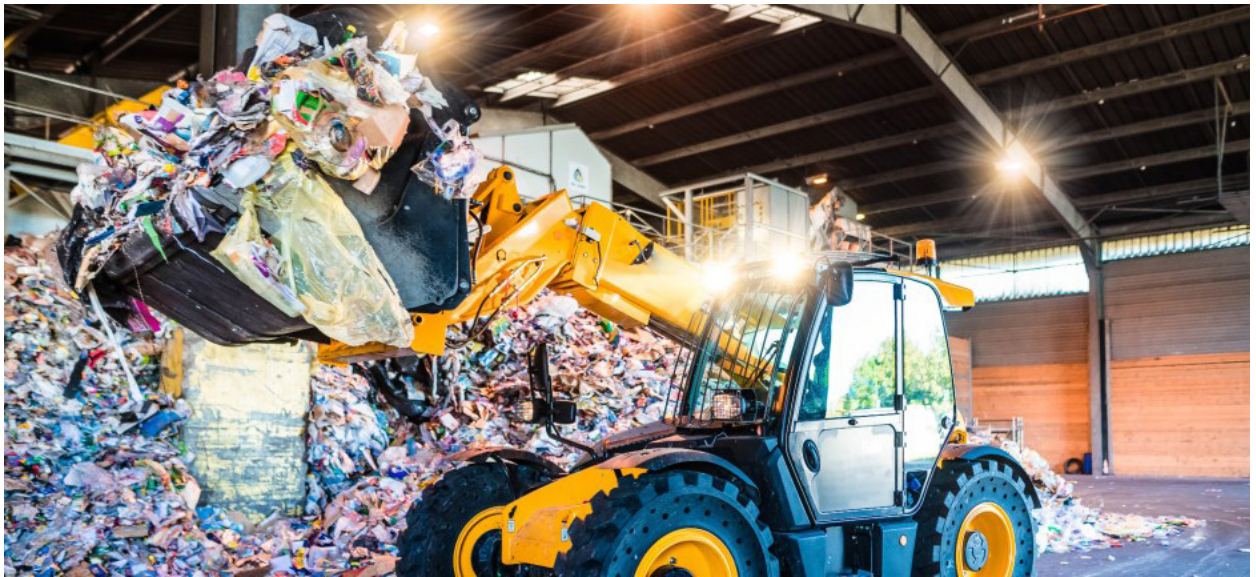
**Industry Collaboration:** Stakeholders across the waste and recycling sector, including waste management companies, local councils, and industry associations, are collaborating to develop comprehensive waste management systems, share best practices, and drive sustainable outcomes.

## Emerging Trends:

Several key trends are shaping the future of the waste and recycling market in Australia:

**Circular Economy Focus:** There is a growing shift toward a circular economy model, which aims to minimize waste generation, maximize resource recovery, and promote the reuse and recycling of materials. This trend is driving innovative business models and encouraging collaboration between industries.

**Technology-driven Solutions:** Advancements in waste management technologies, such as artificial intelligence, robotics, and data analytics, are revolutionizing waste sorting, recycling, and



resource recovery processes. These technologies enhance efficiency, accuracy, and cost-effectiveness in waste management operations.

**Organic Waste Management:** With increasing recognition of the environmental impact of organic waste, there is a greater emphasis on composting, anaerobic digestion, and other organic waste management practices. These initiatives aim to reduce greenhouse gas emissions and produce valuable compost and biogas.

**Plastic Waste Reduction:** The rising concern about plastic pollution has spurred efforts to reduce single-use plastics and promote recycling. Initiatives such as plastic bag bans, plastic packaging redesign, and investment in plastic recycling infrastructure are gaining momentum.

### **Opportunities for Sustainability and Growth:**

The waste and recycling market in Australia offers numerous opportunities for sustainable growth and investment:

**Infrastructure Development:** There is a need for increased investment in waste management infrastructure, including recycling facilities, material recovery centers, composting facilities, and waste-to-energy plants. Opportunities exist for public-private partnerships and government funding to support infrastructure development.

**Technological Innovations:** Investment in innovative waste management technologies and solutions can drive operational efficiencies, improve recycling rates, and enhance resource recovery. Opportunities lie in areas such as waste sorting

systems, smart bins, advanced recycling processes, and waste-to-energy technologies.

**Circular Economy Business Models:** Businesses that embrace circular economy principles and develop sustainable product life cycles can gain a competitive edge. Opportunities exist for businesses involved in recycling, resource recovery, upcycling, remanufacturing, and sustainable packaging solutions.

**Eco-friendly Products and Services:** The demand for eco-friendly products and services is on the rise. Businesses can capitalize on this trend by offering sustainable alternatives, promoting responsible consumption, and developing innovative recycling and waste reduction programs.

**Community Engagement and Education:** There is a need for community engagement and education initiatives to promote responsible waste management practices. Opportunities exist for organizations to develop awareness campaigns, educational programs, and community-driven recycling and waste reduction projects.

The waste and recycling market in Australia presents immense potential for sustainable growth, environmental stewardship, and economic development. By embracing innovative technologies, circular economy principles, and collaborative approaches, Australia can position itself as a global leader in waste management and resource recovery. The future of the waste and recycling industry lies in sustainable practices, efficient resource utilization, and collective efforts to build a greener and more resilient Australia.

08:30-09:00 Opening Ceremony

### **09:00-10:00 National Waste Policy Action Plan: Driving Sustainable Waste Management**

According to the Federal government's 2019 National Waste Policy Action Plan, one of the set targets is to achieve an 80 percent average resource recovery rate from all waste streams by 2030. This means that the government aims to recover 80 percent of all waste generated in Australia and recycle it for further use. This will help to reduce the amount of waste that ends up in landfills, and promote a circular economy where valuable materials are reused and recycled. To achieve this target, the government plans to significantly increase the use of recycled content. Government aims to reduce the total waste generated in Australia by 10 percent per person by 2030.

### **10:00-11:00 Reduce, Reuse, Recycle: The Three Pillars of Sustainable Waste Management**

Reducing, reusing, and recycling are the three fundamental pillars of sustainable waste management. In a world facing increasing environmental challenges, adopting these practices is crucial for preserving our planet and creating a more sustainable future. By embracing the three pillars of reduce, reuse, and recycle, we can contribute to a more sustainable waste management system. Together, we have the power to make a positive impact on our environment, conserve resources, and pave the way for a greener and healthier planet for future generations.

11:00-11:30 Coffee Break

### **11:30-13:00 Circular Economy: Closing the Resource Loop for Sustainable Growth**

Emerging market trends in operational waste management and circular economy are gaining attention globally. With growing economic prosperity, waste volumes in emerging countries are rapidly increasing, which has led to a greater focus on waste reduction and resource conservation. The circular economy is becoming an essential part of waste management, as it offers a sustainable solution to the growing problem of waste generation. The adoption of circular economy principles can help to reduce waste, increase resource efficiency, and create new economic opportunities. Operational

waste management is also becoming more important, as organizations seek to reduce waste and improve sustainability in their operations. The adoption of circular economy principles in operational waste management can help to reduce waste, promote sustainability, and create value from waste. Governments and businesses alike are recognizing the importance of operational waste management and circular economy principles, and are taking steps to promote sustainable practices and reduce waste generation.

13:00-14:00 Lunch Break

### **14:00-15:00 Commercial and Industrial Waste Management: Optimizing Practices**

Commercial and industrial (C&I) waste management involves the collection, transportation, and disposal of waste generated by businesses, factories, and other commercial entities. Effective C&I waste management is essential for reducing the environmental impact of waste, promoting sustainability, and complying with regulations. Effective C&I waste management requires collaboration between businesses, government, and waste management companies. This can include partnerships to develop sustainable waste management practices, and the implementation of regulations to ensure that waste is handled properly and safely.

### **15:00-16:00 Accessible Data for Informed Decisions: Enhancing Consumer, Investment, and Policy Choices**

Access to comprehensive, economy-wide, and timely data is crucial to supporting better consumer, investment, and policy decisions. The Australian Bureau of Statistics (ABS) plays a key role in collecting and disseminating such data in Australia. By making comprehensive, economy-wide, and timely data publicly available, decision-makers can make more informed decisions that drive positive economic, social, and environmental outcomes.

16:00-16:30 Coffee Break

### **16:30-18:00 Revolutionizing Waste Education and Community Engagement through Innovations**

Innovations in waste education and community engagement have been crucial in achieving successful waste reduction programs. Albury City Council, for instance, has implemented a series



of integrated initiatives that have helped them dramatically reduce landfill. The Waste Education and Community Engagement Plan, which is being implemented by various organizations, is a significant step toward achieving community education and communication programs that are required to conserve the health of our environment. Many organizations are committed to supporting initiatives that mobilize community partners to conserve and protect the environment. Through waste education and community engagement initiatives, individuals and communities can be educated on the importance of waste reduction and conservation of the environment, which will help to promote environmental sustainability.

## Day - 2 [November 29, 2023]

### 09:00-10:00 Waste-to-Energy: Transforming Waste into Renewable Energy

Waste-to-Energy technology is revolutionizing the way we manage waste by transforming it into a valuable resource: renewable energy. This innovative approach harnesses the energy potential of various waste streams, such as municipal solid waste, biomass, and even non-recyclable plastics. Through advanced processes like incineration, gasification, or anaerobic digestion, waste is converted into heat, electricity, or biofuels. Waste-to-Energy not only reduces the volume of waste destined for landfills but also generates clean and sustainable energy. By tapping into this renewable energy source, we can simultaneously address waste management challenges and contribute to the transition towards a greener, more sustainable future.

### 10:00-11:00 Phasing Out Problematic and Unnecessary Plastics

The Federal government's 2019 National Waste Policy Action Plan includes a target to phase out problematic and unnecessary plastics by 2025. This target is aimed at reducing plastic waste and promoting a circular economy where plastics are reused and recycled. To achieve this target, the government plans to work with industry to develop standards for compostable plastics and to promote the use of alternative materials to replace problematic and unnecessary plastics. Additionally, the government has introduced new legislation to ban the export of unsorted mixed plastics from July 1, 2021, and unprocessed single polymer or resin plastics from July 1, 2022, to encourage local recycling and reuse. By phasing out problematic

and unnecessary plastics, Australia can reduce the amount of plastic waste generated and promote a more sustainable future.

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### 11:00-11:30 Coffee Break

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### 11:30-13:00 Tackling Organic Waste to Prevent Climate Change

According to the Federal government's 2019 National Waste Policy Action Plan, one of the targets set is to halve the amount of organic waste sent to landfill by 2030. This target is crucial as organic waste, such as food and garden waste, generates methane as it decomposes in landfills, which is a potent greenhouse gas. To achieve this target, the government plans to introduce a National Food Waste Strategy to reduce food waste and increase food recovery. The government also aims to increase the use of organic waste for energy and other value-added products. Additionally, the government plans to work with industry to develop standards for compost and soil conditioners to improve the quality of recycled organic waste products. By halving the amount of organic waste sent to landfill, Australia can significantly reduce greenhouse gas emissions and support a more sustainable waste management system.

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### 13:00-14:00 Lunch Break

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### 14:00-15:00 Global Perspectives on Waste Infrastructure: Critical Volume and Decision Making

Global perspectives on waste infrastructure emphasize the critical role of managing waste volumes and making informed decisions. With the increasing population and urbanization, waste generation has become a pressing issue worldwide. Effective waste infrastructure is essential for efficient waste management, including collection, treatment, and disposal systems. Decision-makers face the challenge of determining the optimal balance between various waste management options, considering factors such as environmental impact, cost-effectiveness, and social acceptance. It requires a comprehensive approach that integrates waste reduction strategies, recycling initiatives, and appropriate disposal methods. By adopting sustainable waste infrastructure and making informed decisions, countries can minimize environmental pollution, preserve natural resources, and create healthier and more livable communities for future generations.



## 15:00-16:00 Financing Waste and Recycling: Strategies and Solutions

The Recycling Modernization Fund (RMF) is a national initiative that is expanding Australia's capacity to sort, process and remanufacture glass, plastic, tires, paper and cardboard. The additional recycling capacity funded by the RMF supports Australia to regulate the export of waste glass, plastic, tires, paper and cardboard. Increased recycling capacity supports the circular economy, by allowing more products to be reused, recycled or remanufactured when they are no longer useful or required for their initial purpose. The Australian Government is investing \$250 million into new and upgraded recycling infrastructure through the RMF. The Fund will see over \$1 billion of investment in recycling infrastructure, with contributions from the states and territories and industry. RMF projects already announced will add over one million tons of processing capacity every year.

16:00-16:30 Coffee Break

## 16:30-18:00 Digital Transformation in the Waste Industry: Streamlining Operations and Enhancing Efficiency

Digital transformation has become a game-changer in the waste industry, revolutionizing operations and enhancing efficiency. Through the integration of technology and data-driven solutions, waste management companies are streamlining their processes, optimizing resource allocation, and improving overall operational effectiveness. Advanced waste management software, Internet of Things (IoT) devices, and real-time data analytics enable better route planning, bin monitoring, and asset management. This digitalization allows for proactive maintenance, improved collection scheduling, and optimized waste disposal practices. Additionally, digital platforms facilitate better communication and collaboration between stakeholders, enabling streamlined workflows and enhanced transparency. By embracing digital transformation, the waste industry is paving the way for smarter, more sustainable waste management practices that maximize resource recovery, minimize environmental impact, and ensure a cleaner future.

## Reflecting on the AWARE 2022 conference: An Insightful Recap

AWARE 2022 brought together experts, industry leaders, and passionate individuals dedicated to addressing the global challenge of waste management and recycling. The Waste and Recycling Conference provided a platform for knowledge sharing, innovative solutions, and collaborative discussions aimed at creating a sustainable and circular economy. The conference served as a melting pot of ideas, with participants from various sectors sharing insights on the latest trends and innovations in waste management and recycling. Presentations and panel discussions covered a wide range of topics, including waste reduction strategies, recycling technologies, circular economy models, policy developments, and community engagement initiatives.

One of the notable themes explored was the emergence of advanced recycling technologies, such as chemical recycling and mechanical-biological treatment. Experts shared their research and experiences, shedding light on the potential of these technologies to divert waste from landfills and create valuable resources. The conference





provided a valuable platform for networking and collaboration among industry professionals and researchers interested in exploring these cutting-edge solutions further.

AWARE 2022 also delved into the challenges and opportunities associated with waste management and recycling. Discussions centered around issues such as plastic pollution, e-waste management, organic waste recycling, and the need for stronger policy frameworks to support a circular economy.

A key aspect of the conference was its focus on community engagement and empowering individuals to take action. Several sessions and workshops were dedicated to exploring effective strategies for education and behavior change. Speakers shared inspiring stories of community-led initiatives, highlighting the positive impact that grassroots movements can have in waste reduction and recycling.

Moreover, the conference provided a platform for showcasing sustainable products and services. The conference sponsors demonstrated innovative solutions that are reshaping the waste management landscape, including eco-friendly packaging, waste-to-energy technologies, and sustainable product design.

AWARE 2022 proved to be a significant milestone in the global effort to address the challenges of waste management and recycling. By bringing together experts, industry leaders, and passionate individuals, the conference fostered valuable knowledge sharing, inspired collaboration, and sparked meaningful discussions. As we reflect on the insights gained and connections made at the AWARE 2022 conference, we would like to extend an invitation to the AWARE 2023 conference. This upcoming conference aims to build on the success of the previous event, offering a platform for further exploration of innovative solutions, policy developments, and community engagement strategies.

*Together, we can continue to drive change, accelerate the transition to a sustainable and circular economy, and create a better future for generations to come!*



## **VENUE:**

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