

# CIRCULAR ECONOMY













# Preparing leaders for the transformation to a circular economy

17-23 June 2018 Adelaide, South Australia

Launched at the Eighth Regional 3R Forum in Asia and the Pacific, Indore, Madhya Pradash, India



The Circular Economy will yield significant benefits especially towards meeting the Sustainable Development Goals. In line with the Adelaide Declaration agreed at the Seventh Regional 3R Forum in Asia and the Pacific held in Adelaide, South Australia in 2016, this program will provide stimulating and practical benefit to participants. South Australia's experiences in this vital field of policy-making will help foster discussion and further innovation in the region.

Choudhury Rudra Charan Mohanty Environment Programme Coordinator/Expert United Nations Centre for Regional Development

#### What is a Circular Economy?

Some of the most pressing challenges facing nations today include rapid urbanisation, resource scarcity and poverty. These issues can be best addressed by a circular model for economic and social development.

A Circular Economy eliminates waste and replaces it with a circular flow of materials and energy based on waste reduction, reuse, recycling, repair, refurbishing and remanufacturing practices. This approach achieves environmental sustainability, improves businesses competitiveness, generates employment, increases green investment and establishes inclusive governance.

#### Who should attend?

This program aims to establish meaningful integration with the Regional 3R Forum in Asia and the Pacific and the United Nations Centre for Regional Development. The Global Leadership Program on the Circular Economy is ideal for experienced professionals and executives from government, industry, business and academia working across diverse areas in India and the Asia-Pacific region including Australia: business and sustainability; urban infrastructure; waste to resources; renewable energy; water resource management.

## What are the benefits of attending?

The program offers practical knowledge, exposure to Circular Economy strategies and opportunities for networking. Inspiring case studies and field visits during the program will demonstrate how to transition to a Circular Economy. Through the program's experiential learning your organisation and stakeholders will become more competitive and 'future ready'.

#### **International experts**

The program has been developed by Green Industries SA in partnership with international experts Dr Prasad Modak of Ekonnect Knowledge Foundation and Environmental Management Centre LLP and Hemant Chaudhary, Circular Economy Alliance Australia.

South Australia is well positioned for leadership training in the Circular Economy and related areas. South Australia has a global reputation for leadership across a range of environmental issues, such as its container deposit legislation, plastic bag ban, high-performing kerbside systems, collection of hazardous waste and investment in resource recovery infrastructure.

#### Vaughan Levitzke PSM, Chief Executive, Green Industries SA

This program will provide a systematic exposure on how to mainstream the circular economy. A special focus is for professionals engaged in the Indian Government's programs such as Smart Cities, Atal Mission for Rejuvenation and Urban Transformation - AMRUT program, Make in India initiative, Swatchh Bharat Abhiyan (Clean India), Namami Gange (Ganga River Action Plan), Interlinking of Rivers, Climate Resilient Agriculture.

#### Dr Prasad Modak, Director, Ekonnect Knowledge Foundation

South Australia's resource recovery industry has the advantage of being close to waste stream sources and markets for recycled materials and there are numerous examples of innovation and best practice which can inspire positive change for Indian participants.

Hemant Chaudhary, Executive Director, Circular Economy Alliance Australia South Australia is moving from an old to a new economy. Economic prosperity, furthering the State's clean and green status and creating a low-carbon economy, are all part of this transition to improve people's lives and bring about lasting change.

## South Australia's achievements

South Australia's global reputation is based on leadership across environmental issues such as its container deposit legislation, plastic bag ban, high-performing kerbside systems, collection of hazardous waste, capture and reuse of stormwater, wastewater reuse, renewable energy and investment in resource recovery infrastructure.

South Australia's Circular Economy achievements are significant: More than 80% of the waste generated in the State is diverted from landfill; 53% of South Australia's energy comes from renewable sources; 26% of wastewater generated in South Australia is recycled and nearly 6 GL of stormwater is harvested per year for reuse.

While this puts South Australia in a good position to ensure resources circulate more, there is much more that can be done. Reused or remanufactured products retain much more of the value created during manufacturing, than if these were only recycled.

In 2017 Green Industries SA released the report Creating value, the potential benefits of a circular economy in South Australia. The report is encouraging serious thinking and action to achieve economic growth while producing no, or minimal waste and pollution

## **Program overview**

The program is being delivered through two different learning modes: a seven day face-to-face immersion program to be delivered in Adelaide, South Australia from 17-23 June, and/or a three week e-learning platform. The program includes:

- The concept of the circular economy and its relevance, especially in the context of ongoing national programs in India.
- Special considerations such as the role of informal sector and economic, environmental and social benefits to India.
- A need for change policy, programs and practical interventions.
- Improving climate resiliency by introducing Circular Economy practices.
- Specific reference to the achievements of South Australia and business-to-business introductions with representatives and experts from leading companies and organisations.

Theme	MONDAY 18 June	TUESDAY 19 June	WEDNESDAY 20 June	THURSDAY 21 June	FRIDAY 22 June	SATURDAY 23 June
Circular industrial estates	•	•	•			
Water management/climate change	•			•		
Smart circular cities		•		•	•	
Energy efficiency/renewable energy						
Sectors – construction, electronics, wine, food		•				
Circular innovation	•					•

# **Unique field visits**

#### Circular industrial estates

In Adelaide, South Australia's capital city, the resource recovery industry has the advantage of being close to waste stream sources and markets for recycled materials, and is buffered from residential areas. The industry is concentrated in Adelaide's northern suburbs near Port Adelaide where participants will spend a day at the Wingfield Waste and Recycling Centre, a circular industrial estate.

#### Circular water management and climate change

South Australians live in the driest state on the driest inhabited continent on earth. South Australians truly feel the effects of water shortages, drought, climate change and a growing population. Participants will visit visionary water recycling and reuse schemes which offer solutions for sustainable water management.

#### Smart cities and clean energy

South Australia is a world leader in the development of renewable energy, and it has set itself a target to achieve zero net greenhouse emissions by 2050. Experts will outline how the South Australian Government and the City of Adelaide are working together to make Adelaide the world's first carbon neutral city.

#### **Urban regeneration - Tonsley Innovation District**

Participants spend a day at a former automotive manufacturing factory which has been transformed to create Australia's first innovation precinct. It brings together cutting-edge institutions and companies and connects these to start-ups, key businesses in high-value industry, researchers and educational institutions.

#### Circularity and commercialisation of innovation

Participants will learn about the Innovyz Waste and Recycling Technologies commercialisation program. Developed in partnership with Green Industries SA, exciting new technologies are being commercialised which are globally significant.



Northern Adelaide Waste Management Authority – state-of-the-art sorting technology underpins South Australia's exemplary recycling rate Jeffries Group – using locally developed technology - ROSS, the Recycled Organic Screening System to separate inorganic materials from compostable material Household kerbside-collected recycling in inner Adelaide, South Australia

Recycled wood and plastic fibres recovered for reprocessing at Advanced Plastic Recyclers, Adelaide

# **Program overview**

The program is held over seven consecutive days. The intensive sessions are run by presenters who have extensive international expertise, providing an interactive and unique learning environment where international experience is presented in a local context. Participants receive a Certificate of Attendance to recognise their completion of the program.

Sunday 17 June	Sunday 17 June 2018		
4.00pm - 6.00pm	Welcome drinks and registration		
6.30pm - 8.30pm	Informal dinner		
Monday 18 June 2018			
9.00am — 9.15am	Official welcome		
9.15am — 9.45am	Participant introductions		
9.45am — 10.30am	South Australia's journey towards circular economy leadership Vaughan Levitzke PSM, Chief Executive, Green Industries SA		
10.30am — 11.00am	Tea/coffee break		
11.00am — 12 noon	Circular economy key concepts and global perspective Dr Prasad Modak, Director, Ekonnect Knowledge Centre		
12 noon – 1.00pm	Lunch		
1.00pm - 1.30pm	Overview - Global Leadership Program in the Circular Economy Hemant Chaudhary, Executive Director, Circular Economy Alliance Australia		
1.30pm - 2.00pm	Smart circular cities – strategies and case studies		
2.30pm - 3.00pm	Circular economy industrial estates		
3.00pm - 3.30pm	Tea/coffee break		
3.30pm - 4.00pm	Focus on key sectors: Construction, electronics, wine, food		
4.00pm – 5.00pm	Panel discussion – challenges, barriers and strategies to implement the circular economy Facilitators - Dr Prasad Modak and Hemant Chaudhary		
6.00pm - 8.00pm	Welcome reception hosted by Green Industries SA		

Tuesday 19 June 2018		
8.30am - 9.00am	Pre-tour briefing	
9.00am — 10.30am	Wingfield Waste and Recycling Centre is a world-class circular industrial estate with resource recovery and waste recycling operations on a common 94ha site.  The role of the NGO: South Australia's iconic Keep South Australia Beautiful (KESAB) has provided community education in litter, waste and recycling sustainability for more than 50 years.	
10.30am — 11.00am	Tea/coffee break	
11.00am — 12.30pm	The Suez-ResourceCo joint venture operates an Alternative Fuel facility which produces fuel from construction and demolition waste used by Adelaide Brighton Cement as an alternative for fossil fuel in its cement kilns.	
12.30pm – 1.30pm	Lunch at Port Adelaide – the area is evolving from a historic shipping and industrial harbour to a contemporary mixed use urban area with a sustainable local economy.	
1.30pm — 3.00pm	Advanced Plastic Recycling (Kilburn) is a manufacturer and designer of wood plastic composite products across a wide range of industries, for local and International markets.	
3.00 pm - 3.30pm	Tea/coffee break	
3.30pm – 4.30pm	Container Deposit Scheme depot (Edwardstown): Introduced in South Australia in 1977 the scheme is now being introduced by other jurisdictions. A 10 cent refund is provided to people depositing bottles or cans for recycling.	
4.30pm - 6.00pm	Return to hotel and debrief	



Tonsley Innovation Precinct –a mixed use district supporting the transformation of South Australia's manufacturing industry

4.30pm - 6.30pm

Clean energy – South Australia's Renewable Energy Technology Fund

Bolivar-Virginia Pipeline Scheme - recycled water is used to irrigate agriculture and horticulture on the Adelaide Plains

Water sensitive urban design - Lochiel Park, Adelaide (image courtesy Renewal SA)

Wednesday 20	
8.30am — 9.00am	Pre-tour briefing
9.00am – 10.30 pm	Northern Adelaide Waste Management Authority – a state of-the-art Material Recovery Facility [MRF]
10.30am — 11.00am	Tea/coffee break
11.00am — 12 noon	Uleybury engineered landfill – an advanced baling system for domestic waste and residual industrial waste which cannot be effectively recycled, re-used or recovered. Photo-voltaics are being installed to generate electricity. Includes a presentation about the landfill gas extraction management system.
12 noon – 1.30pm	Lunch
1.30pm — 3.00pm	Jeffries Group (Buckland Park) composting facility in northern Adelaide includes the custom designed Recycled Organics Screening System to help South Australia maintain the state's nation-leading role in reducing the amount of organic material sent to landfill.
3.00pm - 3.30pm	Tea/coffee break
3.30pm – 5.00pm	Orora (Gawler) has completed a \$42 million expansion of its glass bottle manufacturing plant. The plant supplies bottles to major wine and beer groups, who between them are responsible for more than 90% of all the wine produced in Australia.
5.00pm - 6.30pm	Return to hotel and debrief
Thursday 21 June	e 2018
8.30am – 9.00am	Pre-tour briefing
9.00am — 10.30am	Parafield stormwater harvesting, storage and reuse scheme operated by the City of Salisbury is one of the world's largest urban stormwater capture, reuse and aquifer recharge schemes.
10.30am — 11.00am	Tea/coffee break
11.00am — 11.30am	Mawson Lakes development – water sensitive urban design using recycled stormwater.
11.30am – 12.45pm	Paddocks Wetlands – a visionary project integrating environmental, safety, community and economic benefits ir response to a major stormwater management issue.
12.45pm – 2.00pm	Lunch, Watershed Café, Greenfields Wetlands
2.00pm – 3.00pm	Developing river action plans for the circular economy – strategies and case studies
3.00pm – 4.30pm	SA Water's Bolivar-Virginia Pipeline Scheme will pump recycled water from the Bolivar sewage treatment works to the Adelaide Plains for use in irrigated agriculture and horticulture. This additional water will transform the Northern Adelaide Plains into Australia's leader in high-tech, high-value, intensive and export

Return to hotel, discussion on climate change and circular

economy initiatives, debrief

Friday 22 June 2018		
8.30am — 9.00am	Pre-tour briefing	
9.00am - 9.30am	Development of the Tonsley Innovation District	
9.30am — 10:30am	The South Australian Government's energy plan recognises that clean energy is the key to leading South Australia's transformation to the next generation of renewable storage technologies and to create an international reputation for high-tech emerging industries.  Renewable Technology Fund  Hydrogen Roadmap  Battery storage – Tesla's world's largest lithium-ion storage battery  World's largest virtual power plant involving 50,000 households  Bio-energy	
10.30am - 11.00am	Tea/coffee break	
11.00am - 12 noon	Innovyz's Waste and Recycling Technologies Commercialisation Program developed in partnership with Green Industries SA is delivering to the world fundamental new approaches towards solving long standing and globally relevant problems.	
12 noon – 1.00pm	Lunch	
1.00pm - 2.30pm	Carbon Neutral Adelaide – demonstrating how the South Australian community is adapting to a low carbon economy.	
2.30pm - 3.00pm	Tea/coffee break	
3.00pm - 4.45pm	Presentations and feedback from participants	
4.45pm - 5.00pm	Closing remarks and return to hotel	
6.30pm – 9.00pm	Drinks, networking and farewell dinner including presentation of certificates.	
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#### Saturday 23 June 2018

See how South Australian businesses are embracing the circular economy, sample some of McLaren Vales renowned wines and enjoy a gourmet lunch. Departing at 9.00am, the day will include:

#### Willunga Basin Water

It operates a large reclaimed water scheme in South Australia that is privately funded. The scheme irrigates nearly 4000 hectares of prime vineyards generating an estimated \$100 million p.a. in base wine value.

#### Peats Soils & Garden Supplies

An organics recycling facility that transforms organic waste from industry and kerbside collection into high value products for Adelaide's food and wine industry through composting and anaerobic digestion. BiobiN® is an onsite, capture and containment system used for organic material processing. Customers include shopping centres, supermarkets, primary industry, catering facilities, food processors, hotels, hospitals, restaurants, clubs and many others, producing an organic waste stream.

#### McLaren Vale wineries

Guided tastings of award winning wines and insights into circular approaches to managing water, waste and energy to drive productivity and quality in operations – and how biodiversity is being regenerated.



#### **Green Industries SA**

Green Industries SA helps to develop the green economy and promote the more efficient use of resources, and the conservation and recovery of resources. Its activities are guided by the primary objectives of the Green Industries SA Act 2004:

- To promote waste management practices that, as far as possible, eliminate waste or its consignment to landfill; and
- To promote innovation and business activity in the waste management, resource recovery and green industry sectors, recognising that these areas present a valuable opportunity to contribute to the State's economic growth.

www.greenindustries.sa.gov.au

#### **Ekonnect Knowledge Foundation**

A not for profit Section 8 company set up with an aim to impart awareness, education and associated learning services, to increase understanding of challenges and solutions in environmental management and sustainability. Ekonnect engages in practice research, operates knowledge and innovation networks and facilitates ecoentrepreneurship. Ekonnect is an initiative of D Prasad Modak who is Founder and Director of the company.

#### Circular Economy Alliance Australia

Circular Economy Alliance Australia (CEAA) is an Australian incorporated company that focusses on bringing together experts and leaders from government, industry, university, consulting and training organisations. CEAA harnesses and synergizes the expertise available to deliver collaborative solutions, niche consulting, training and capacity building programs in the area of environmental management and sustainability.

www.ceaa360.com

#### **Contact for more information**

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# Register now – limited places

## Register your interest

For more information and to register your interest please visit

www.greenindustries.sa.gov.au/leadership-training

#### **Accommodation**

Participants will stay at the Pullman Adelaide, 1a Hindmarsh Square, Adelaide. Located at the heart of the Adelaide Central Business District, Pullman Adelaide is a luxury hotel located close to the city's main shopping precinct, Rundle Mall.

# Visa – act now and ensure you have a letter of invitation

Participants are responsible for ensuring their passport is up to date and that their application for a Visa is submitted for processing without delay.

Green Industries SA will provide a letter of invitation as soon as registration is confirmed. Act now in case approval of your Visa application is delayed.

#### Airport transfers - Adelaide

The program organisers will arrange in-bound and outbound transfers for participants between Adelaide Airport and the Pullman Hotel where possible.

#### **Cancellation policy**

All cancellations and transfers must be advised in writing. Cancellation and transfers are permitted with no charge until 30 May 2018.

#### After 1 June 2018

Cancellations - no refund to cover our fixed cost commitments and administration costs.

The details set out in this program are correct at the time of writing however are subject to change at the discretion of the program organisers.