

Circularity

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21 NOV | 9:10 - 9:45 AM

International Implementation: Examples of Circular Economy in Practice



Scott Valentine

University of Brunei
Darussalam



Linda Godfrey

Council for Scientific and
Industrial Research (CSIR),
South Africa



Tomas Kåberger

Chalmers University of
Technology and Renewable
Energy Institute, Sweden



Anne Vasara

Ministry for Foreign Affairs,
Finland



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Holland Circular Hotspot
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International Insights

Exploring the Regenerative Side of The Circular Economy

Professor Scott Valentine

Professor of Regenerative Planning and Circular Economy, University of Brunei Darussalam

Chairperson, Asia Circular

Chair of Advisory Board, Australia Circular Economy Hub

Member of Standards Australia's CE ISO Working Group







**Essential oil
company**



Tomato farm



Mask company



**Turmeric
farm**



**Sake brewery,
bakery & cafe**



**Bamboo
plantation**



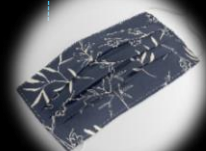
**Organic farm
cafe**



Knitted goods



**Ramen
shop**





Essential oil
company



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shop





Hume City Council: Circular Essentials

Expressions of interest open now
(limit to 40 participants)

Contact:

Luis Fernandez

Hume City Council CE Lead

luisl@hume.vic.gov.au

Cost per company

\$1000 for Hume Businesses

\$1500 for non-Hume Businesses

\$500 for additional participant
from enrolled company

Flow of Program

24 Jan 2024

26 Jan 2024

29 Jan – 4 Feb 2024

5-11 Feb 2024

12-18 Feb 2024

19-25 Feb 2024

26 Feb 2024

29 Feb 2024

1-7 March

8 March 2024

15 March 2024

Payment deadline

Welcome letters

Online module 1

Online module 2

Online module 3

Online module 4

Workshop 1 – Broadmeadows

Workshop 2 – Broadmeadows

Site visits

CE Roadmap Presentations

Circular Essential Awards

Let Us Know What
You Think



<https://forms.gle/t4N9yyvqJeSJT8As7>



scott.valentine@asiacircular.com

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Why National Systems of Innovation are critical to our transition to a Circular Economy

Prof Linda Godfrey

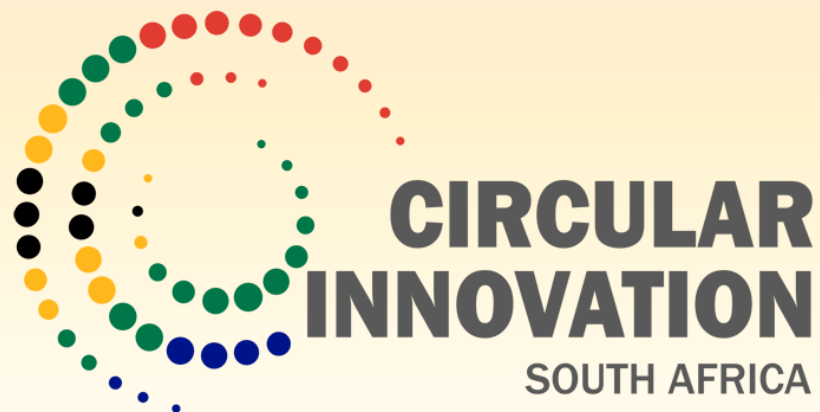
Manager: Circular Innovation South Africa, DSI/CSIR

Principal Scientist: Waste & Circular Economy, CSIR

Extraordinary Professor: Waste & Circular Economy, NWU



Introduction



www.circulareconomy.co.za

- An initiative of the South African Department of Science & Innovation (i.e., a national / federal government initiative)
- Aimed at guiding the **strategic direction** and **investment** in circular economy **science, technology and innovation** (STI) within and across universities and science councils
- To **support** South Africa's transition to a more circular economy through STI

UNLOCKING TECHNOLOGY OPPORTUNITIES (Technology development, localization and adaptation)

Our initial entry point into CE technologies (2015-2023)

- From a waste perspective –
 - 8 years of supporting R&D in **high-value product recovery** from waste streams (organics, plastic, WEEE, tyres, MSW) in order to incentivize diversion from landfill
 - Funded by national government and all **publicly available R&D**
 - A number of innovative, exciting projects have emerged & **taken to market**



Beneficiation of **forestry biomass** waste



Valorisation of **waste chicken** feathers



Conversion of **agricultural waste** residues



Recycling REE from **fluorescent lamps**



Lithium-ion battery recycling



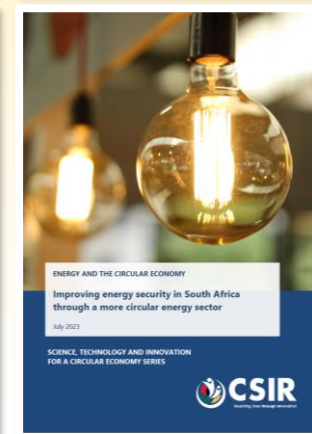
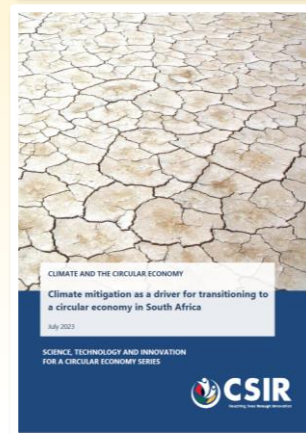
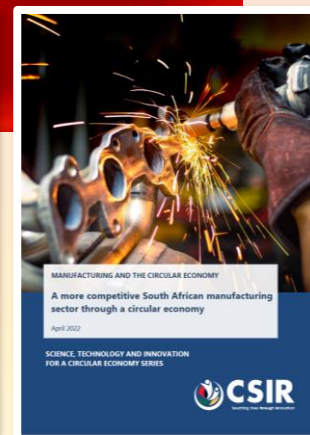
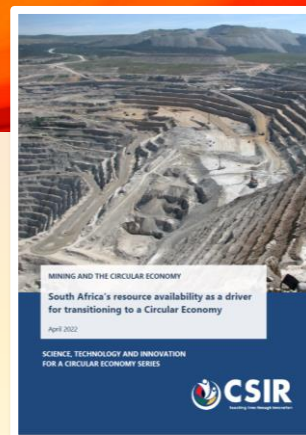
Beneficiation of **used textiles**

www.wasteroadmap.co.za

EVIDENCING DECISION-MAKING (Public & Private sector)

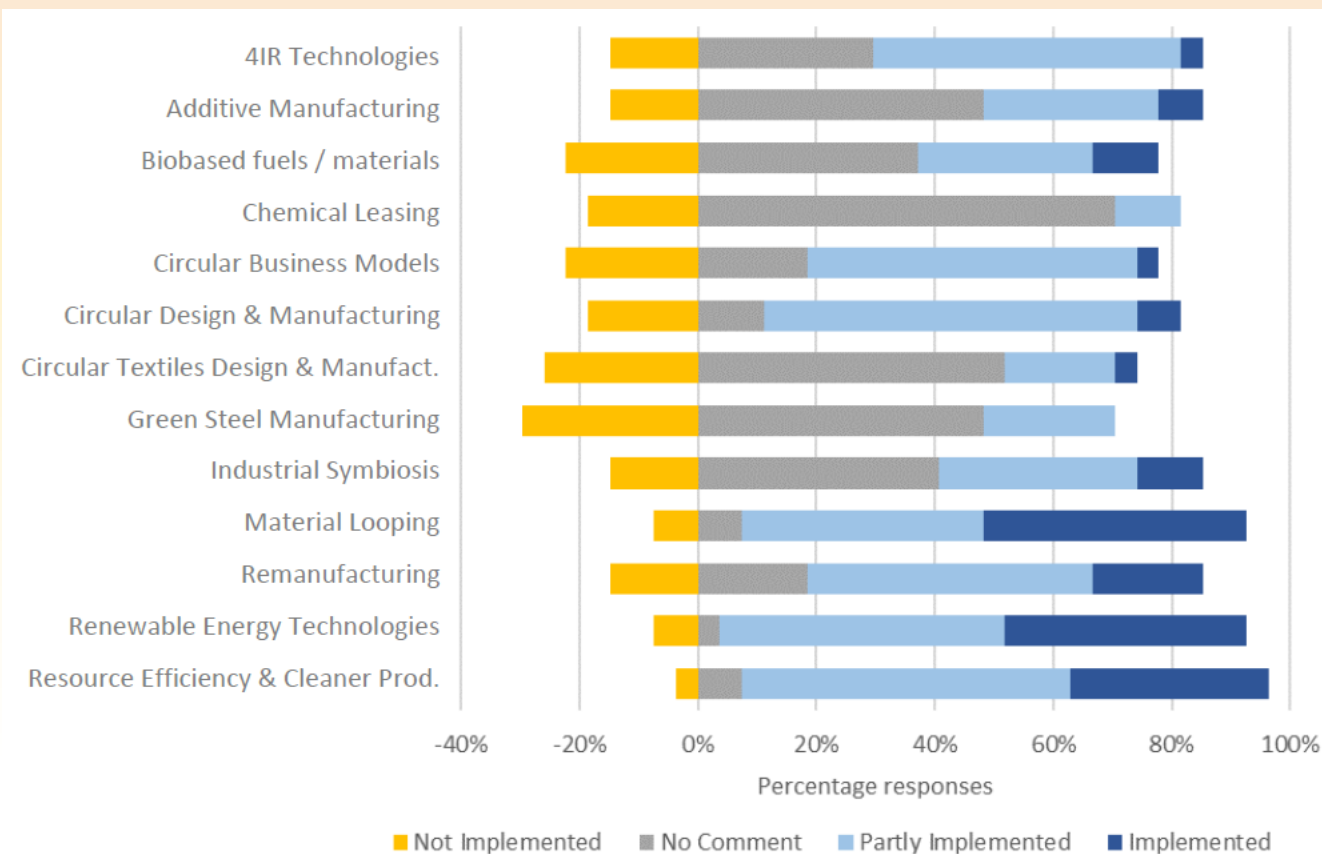
Broadening the CE STI scope (2020 –)

- **Evidencing** South Africa's transition to a more sustainable, efficient, and sufficient circular economy
- Why should South Africa, as a **developing country**, transition to a circular economy?
 - Understanding our **drivers** behind a CE transition – resource scarcity, climate, jobs
 - The opportunities in various **resource-intensive sectors** of the economy



www.circulareconomy.co.za/csir/

- **Raising awareness** on circular interventions within resource-intensive sectors of the economy



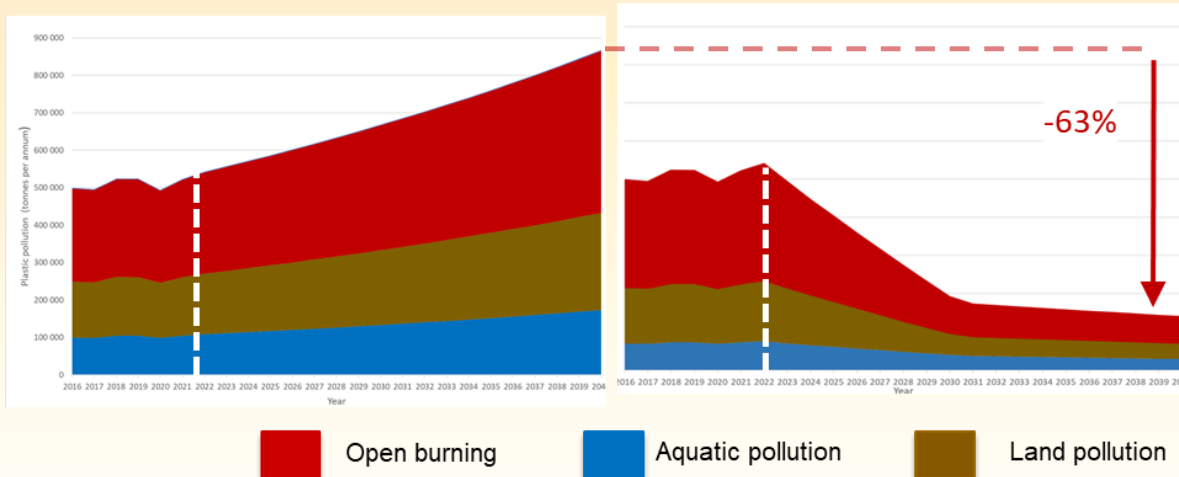
- Mapping the level of implementation of circular economy interventions in manufacturing

EVIDENCING POLICY DEVELOPMENT AND IMPLEMENTATION (Pre-empting policy needs)

Supporting evidence-based policy for a CE

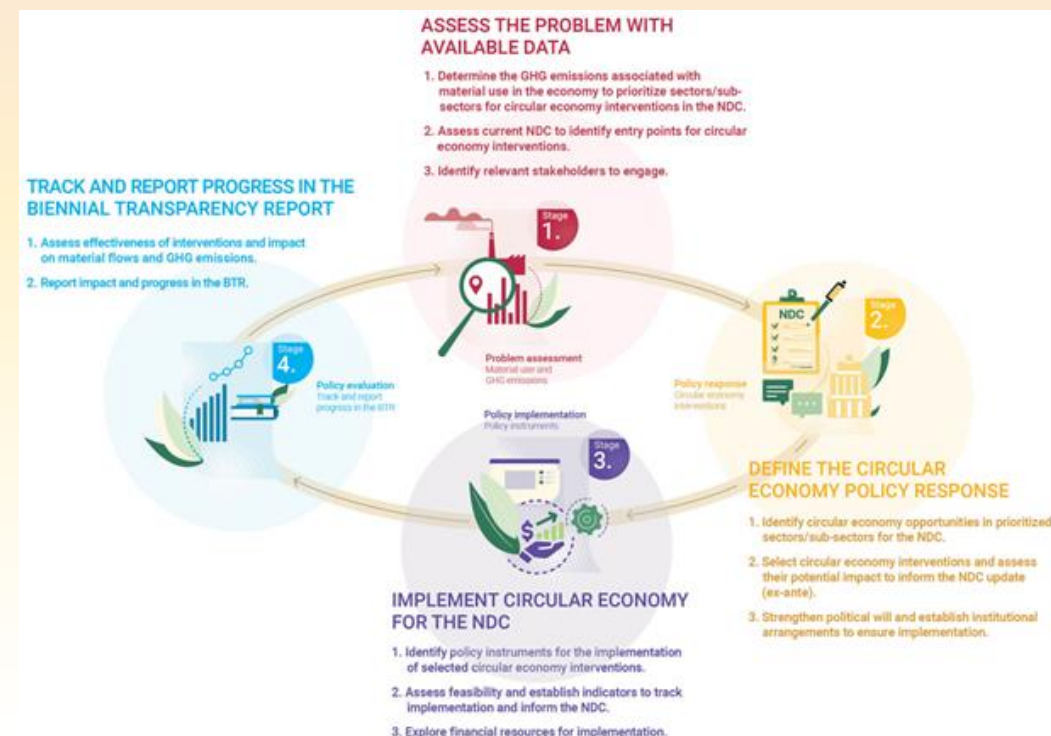
BAU Scenario

System Change Scenario



1. Informing national response to **waste plastics** management

(piloting the Oxford / Pew Pathways model for SA)



2. Building **Circularity** into **NDCs** (piloting the UN Toolbox)

SUPPORTING BUSINESS TO DE-RISK AND SCALE INTERVENTIONS

(Bringing academia closer to business, especially SMEs)

Supporting small business – CE Accelerator programmes

BIOREFINERY
Technologies Demonstration Programme
EXPRESSION OF INTEREST CALL

.....

The Department of Science and Innovation (DSI), in collaboration with the Biorefinery Industry Development Facility (BIDF) at the CSIR, invite interested South African SME's to submit expressions of interest to the open call: ACCELERATED IMPLEMENTATION OF BIOREFINERY TECHNOLOGIES. The objective of the programme is to demonstrate waste beneficiation biorefinery technologies to bridge the gap between pre-commercialisation instruments for technology development and full entry into commercial scale.

Closing date for submissions: **Monday 3 August, 16:30**

1. Accelerated implementation of biorefinery technologies

 **CIRCULAR INNOVATION**
SOUTH AFRICA

**CIRCULAR ECONOMY
DEMONSTRATION
FUND
SOUTH AFRICA**

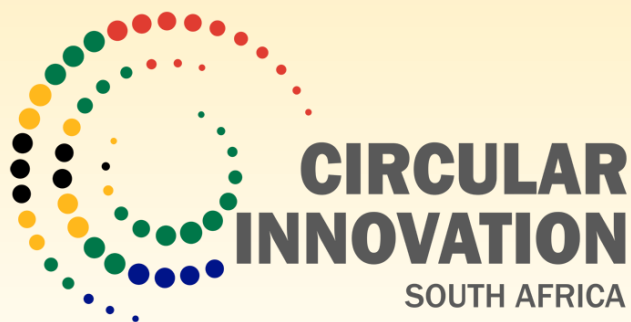
Call for Proposals: 5 June 2023

 **science & innovation**
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

 **CSIR**
Touching lives through innovation

2. Scaling and de-risking circular interventions

Concluding thoughts



www.circulareconomy.co.za

- The circular economy calls for **disruption, innovation and system change**, with a strong role for our NSI
- Our universities and science councils are crucial to **evidencing** our transition; **de-risking** CE solutions; and developing **new innovative CE solutions**
- **Strategic guidance** and **directed funding** from the public and private sectors can ensure that STI remains **relevant** to support our transition to a circular, low-carbon economy

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Thank you

Prof Linda Godfrey

Manager | Circular Innovation South Africa | DSI
Principal Scientist | Waste & Circular Economy | CSIR
Extraordinary Professor | North-West University

Email: LGodfrey@csir.co.za

Web: www.circulareconomy.co.za/csir

www.wasteroadmap.co.za



prof-linda-godfrey-4656616



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