



# 20<sup>Years</sup> NCPC

INDUSTRIAL EFFICIENCY IN SOUTH AFRICA

## National Cleaner Production Centre South Africa

*20 years of Industrial Efficiency*



the dtic

Department:  
Trade, Industry and Competition  
REPUBLIC OF SOUTH AFRICA



# CSIR

Touching lives through Innovation

[www.ncpc.co.za](http://www.ncpc.co.za)

## Who is the NCPC-SA?

The National Cleaner Production Centre, South Africa (NCPC-SA) is a national support programme that drives the transition of South African industry towards a green economy through appropriate resource efficient and cleaner production (RECP) interventions.

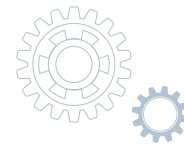
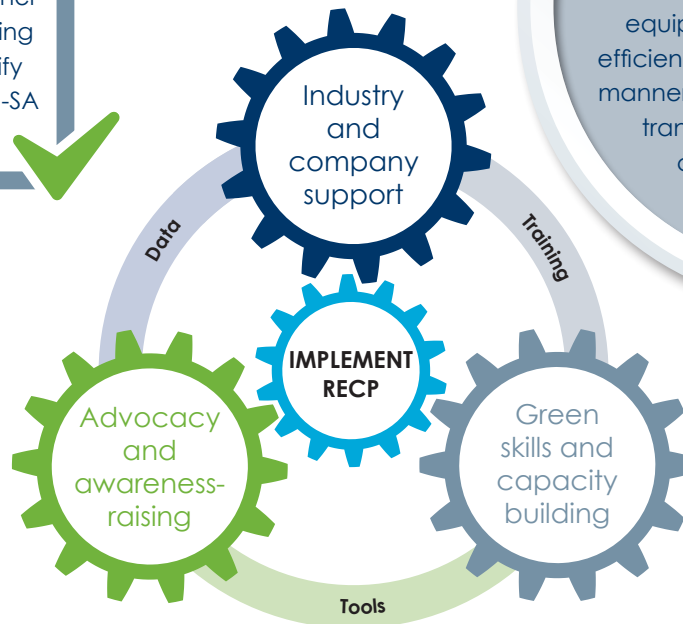
The NCPC-SA is managed by the Council for Scientific and Industrial Research (CSIR) and funded primarily by the Department of Trade, Industry and Competition (**the dtic**).



## What do we do?

The NCPC-SA's mission is to drive RECP in industrial and selected commercial and public sectors by equipping them to operate in an efficient, sustainable and competitive manner, contributing to South Africa's transition to a climate resilient, circular and low carbon green economy.

NCPC-SA services are subsidised to assist companies on their journey to efficiency and greener production. Participating companies also qualify for free seats on NCPC-SA training courses.



# SERVICES TO INDUSTRY

# Services to industry

## How do we do it?

- **In-plant assessments** to identify opportunities to save energy, water, materials etc.
- **Training of industry professionals** to implement RECP in their companies.
- **Supporting implementation of technical interventions** to realise savings.
- **Assisting in the redirection of industry waste** to be used by other companies through industrial symbiosis.
- **Advocacy and awareness** through workshops and other platforms.
- **Developing and sharing** sector and industry guides and tools.

*Companies can achieve significant resource savings with surprisingly little investment – and often quick wins can pave the way to even greater savings.*

*The NCPC-SA aims to support businesses through their RECP journey and assist South African industry with tools and technical advice.*

## RECP TOOLS



Our website provides a number of tutorial videos, and downloadable booklets and posters to assist companies of all sizes.

[www.ncpc.co.za](http://www.ncpc.co.za)

*RECP entails the continuous application of preventative environmental strategies to processes, products and services to increase efficiency and reduce risks to communities and the environment.*



# BUILDING CAPACITY

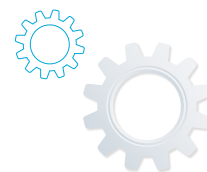
# Building capacity

## Training and skills development

Suitably skilled human resources are critical to the sustainability of RECP initiatives in industry and the successful transition to a greener economy. To address this need, the NCPC-SA has developed capacity building programmes, many of them in partnership with the **United Nations Industrial Development Organization (UNIDO)**.

Training courses are offered at introductory, end-user and expert level, and have been designed to provide a comprehensive learning pathway for those wishing to develop expertise in the fields of:

- **Resource Efficient and Cleaner Production (RECP)**
- **Energy Management Systems (EnMS)**
- **Energy Management 101**
- **Energy Performance Measurement Indicators (EnPMI)**
- **Power Quality Principles**
- **Sustainable Finance**
- **Energy Systems Optimisation (ESO):**
  - » *Biogas Systems, Compressed Air Systems, Motor Systems, Pump Systems, Steam Systems, Fans Systems, and Large scale Cooling and Industrial Refrigeration Systems.*



### Skills Development (2010 – 2022)

	Professionals trained	<b>6 330</b>
	Experts	<b>314</b>
	Local trainers	<b>199</b>
	Occupational qualifications registered on the NQF	<b>7</b>



# PROJECTS AND PROGRAMMES

# Projects and programmes

## Energy Efficiency

Since 2010, the NCPC-SA's energy services have been delivered through the international award-winning **SA Industrial Energy Efficiency Project**, in partnership with the **United Nations Industrial Development Organization (UNIDO)**.

Taking the work of the IEE Project forward, the NCPC-SA continues to support the adoption of Energy Management Systems aligned to ISO 50001 and the Energy Systems Optimisation approach in industry – beyond the donor funded life of the IEE Project.

Through implementation support and internationally recognised training in the IEE Project, the NCPC-SA assisted **more than 450 companies** to realise **energy, GHG and financial savings** through in-plant energy management.

*The IEE Project is one of only two Nationally Appropriate Mitigation Action (NAMA) projects registered with the UNFCCC in Africa. NAMA refers to a set of policies and actions undertaken by countries as part of a commitment to reduce greenhouse gas emissions.*

### Cumulative savings (2011 – 2022)



Energy saved **6.5 TWh**



CO<sub>2</sub>e mitigated **6.4 million t**



Financial savings **R 5.3 b**



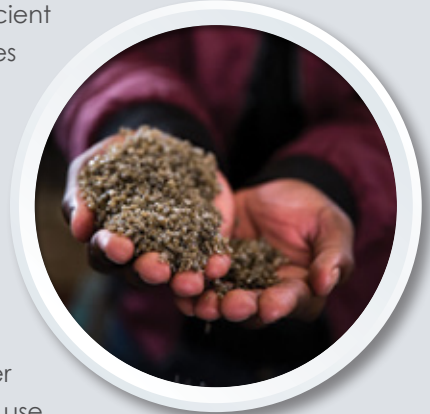
# Projects and

## Industrial Symbiosis



**Industrial Symbiosis (IS)** is a resource efficient approach where unused or residual resources (material, energy, water, waste, assets etc) of one company are used by another.

National Cleaner Production Centre South Africa Industrial Symbiosis, The NCPC-SA IS Programme, provides a free facilitation service which seeks out matches between companies that **HAVE** under- or unutilised resources with other member companies who **WANT** and can use them to create new business opportunities.



## Industrial Water Efficiency

The **Industrial Water Efficiency (IWE)** Project promotes the transformation of industrial water use practices in South Africa to reduce water consumption and improve industrial water effluent quality.

Through the development of tools, guides and training courses, the NCPC-SA aims to build capacity in industry to improve its water efficiency, whilst water assessments and implementation support are available to companies at a plant level.

The project forms part of the **South African / Danish Strategic Water Sector Cooperation** Partnership.



### Company water savings (2017 – 2022)



**2 005 300** kilolitres



**R 36.78** million



# programmes

It currently operates in Gauteng, KwaZulu-Natal, Mpumalanga, Limpopo, Western Cape provinces and recently Free State province.



## ISP impact (2015 - 2022)



Completed synergies

> 230



Waste diverted from landfill

518 000 tonnes



Virgin resources saved

431 000 tonnes



GHG emissions savings (CO<sub>2</sub>e)

1.7 million tonnes



Costs avoided

R 129.5 million

## Eco-Industrial Parks Programme

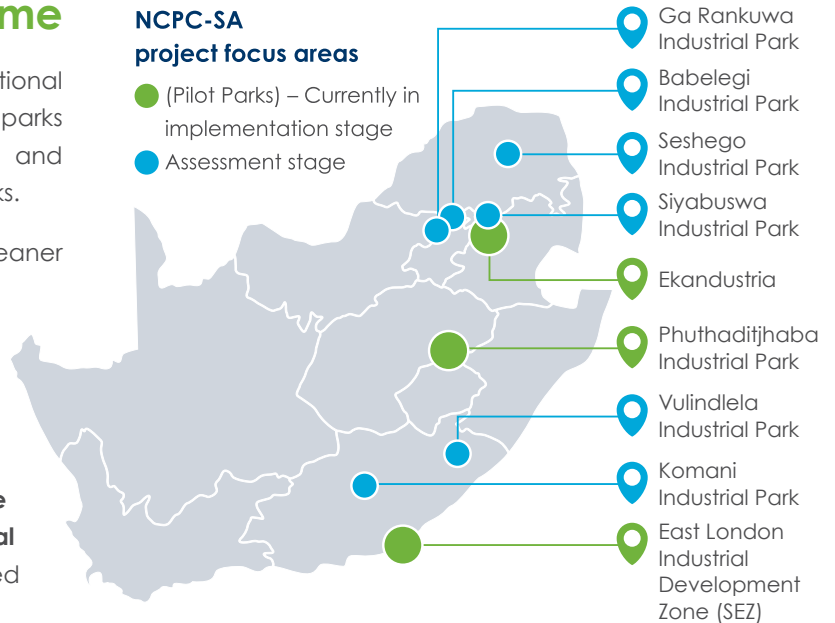
The **Eco-Industrial Park Programme** is a national focus area that seeks to revitalise industrial parks while demonstrating the social, economic and environmental benefits of greening industrial parks.

The EIP programme cements the National Cleaner Production Centre South Africa (NCPC-SA) role to drive industry transition towards a green economy through capacitation workshops, training and assessments.

The NCPC-SA is a national vehicle through which the **Global Eco-Industrial Park Programme (GEIPP)** facilitated by the **United Nations Industrial Development Organization (UNIDO)** and funded by the Swiss.

### NCPC-SA project focus areas

- (Pilot Parks) – Currently in implementation stage
- Assessment stage





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For more information or enquiries about the NCPC-SA,  
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