## A Waste Research, Development and Innovation (RDI) Roadmap for South Africa

Developing RDI capabilities in support of Waste Sector development









## The Waste RDI Roadmap

A 10-year Roadmap to guide Government and Industries investment in waste RDI

The Goal of the Waste RDI Roadmap is -

Acknowledging the goals of the NWMS, "the South
African waste sector can achieve a 20% reduction
(by weight) in industrial waste and a 60%
reduction (by weight) in domestic waste, to landfill
by 2024"





### The Waste RDI Roadmap

The Vision of the Waste RDI Roadmap is to stimulate –

Waste
Innovation
(Technological
and Nontechnological)

Waste Research & Development (R&D) Human Capital Development (HCD)

Achieve the goals of the Waste RDI Roadmap

Enterprise development and Job creation in the waste sector

 Through the investment in science and technology and in so doing, support the development of SA's Green Economy











Green jobs

Waste skills





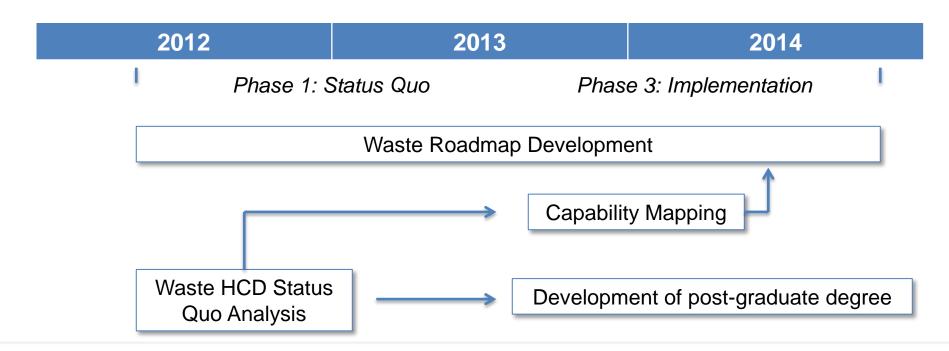






## **Skills Development: The Process**

- Human Capital Development activities
  - Focus on NQF levels 8+ (Hon, Masters, PhD)
  - Unlock downstream potential to achieve Roadmap objectives







### 'Specialist' Waste Skills Development

Strategic HCD objectives

Create
workplaceready
graduates
(post-graduate
specialisation)

Up-skill existing waste management practitioners

Develop waste educators at all levels to increase supervisory capacity

**Outcomes** 

BSc (Hons) Env Sciences: Waste Management

2015

MSc Eng (Waste Management)

2016



# Priority waste streams

Capability mapping

### 'Strategic' Waste Skills Development

Municipal waste

Plastic waste

Organic waste

Electronic waste

Waste Tyres

People in Waste RDI

**Investment** in Waste RDI (students, R&D, infrastructure)

Waste RDI Infrastructure

Waste RDI **Outputs** 

**Alignment** with Sector Needs (Market Orientation)





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Diversity →

"Industry"

'Specialist' Waste Skills

Strategic' Waste Skills

Create workplaceready graduates (post-graduate specialisation)

Up-skill existing waste management practitioners

Develop waste educators at all levels to increase supervisory capacity

Develop waste RDI capability to support the Roadmap

"NSI"

Maturity

# Conclusions

- Outcome of a 2 year process (2012 2014)
  - Strengthen: Develop specialist waste management skills that will feed the sector and academia (via two new post-graduate degrees in waste management)
  - Focus: Develop strategic, focussed capability in support of key R&D needs (via the Roadmap)
- Assist in achieving the goals of increased diversion of waste from landfill in support of a secondary resources economy
- As part of a basket of waste skills development programmes



## Contact details

Dr Henry Roman

Director: Environmental Services and Technologies

E-mail: <a href="mailto:henry.roman@dst.gov.za">henry.roman@dst.gov.za</a>

Ms Magamase Mange

Deputy Director: Environmental Technologies

E-mail: magamase.mange@dst.gov.za

Dr Linda Godfrey

Principal Scientist: Waste for Development

Email: LGodfrey@csir.co.za

http://www.wasteroadmap.co.za

