



OPERATION PHAKISA

CHEMICALS AND WASTE ECONOMY

Chemical and Waste Management Delivery Lab

CONTEXT AND APPROACH – JULY 2017

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www.operationphakisa.gov.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



The objective of Operation Phakisa on chemical and waste management is to increase the GDP growth and job creation of the chemical and waste economy



Context

- The 10-year Waste Research, Development and Innovation Roadmap has set the goal of **growing the current contribution of the waste sector from 0.51% to 1-1.5% of GDP**
- The waste sector is recognised by Government as one that provides **opportunities for value recovery, job creation and economic development**
- Significant opportunity exists to maximise the recycling of waste and expand the value of the chemical and waste management sector, while sustainably **minimizing the environmental and health impact** by eliminating chemical and waste as early as possible in the value chain
- **Accelerating waste recycling, waste-to-energy and scrap metal processing and beneficiation** will be key to unlocking the possible economic opportunities in the waste sector.

Our initial “Problem Statement”

How can the **chemicals and waste economy** contribute to **GDP and job creation**, while **reducing the negative environmental and health impact** of chemicals and waste?



Operation Phakisa follows the delivery lab methodology

What is the purpose of a lab?

- Labs are set up to **create transparency, debottleneck and help resolve the most critical challenges facing a sector**, and hence achieve key milestones faster than in a “*business as usual*” context

Who participates in a lab?

- The lab includes **key stakeholders (~20 people per workstream)** relevant to solve the defined problem, and are selected from the public, private and social sectors

What happens in a lab?

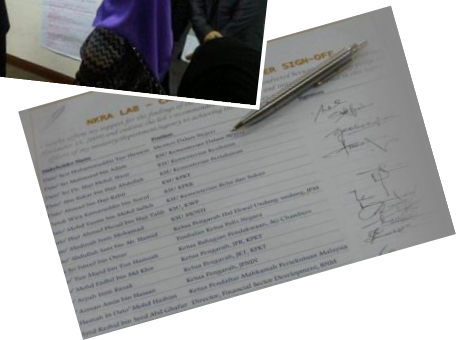
- The invited cross-organizational team works **full-time in one location**. The lab **involves intense problem solving**, supported by a facilitator team

How is commitment secured?

- **High-level syndication meeting** at the end of the week

What are the end products?

- **Initiative charters**
- Draft **budget and impact** per initiative
- Very detailed **3ft level implementation plans**



Examples of impact achieved with Labs in government transformation programmes

Sector

The Challenge

Complications

Impact achieved

Education in Asian country



- Achieve 100% literacy and numeracy for all Grade 3 children in 3 years
- Raise pre-school enrolment rate from 65% to ~90%
- Upgrade 200+ schools to top international standards

- Massive scale and bureaucracy with 10,000 public schools, 400,000 civil servants
- Poor and declining student performance – 30% do not even meet minimum benchmarks

- 10,000 schools nationwide ranked by performance in 4wks
- Large-scale literacy and numeracy remedial intervention program designed and rolled out nationwide within 4mths
- Designed new performance mgt system for principals, approved under 6 wks

Waste management in a EU-15 country



- Develop overall waste management strategy and related initiatives
- Complete detailed implementation plans for initiatives identified

- Under-performance in waste management end-to-end (e.g., ~80% municipal waste landfilling vs ~25%)
- Consistent delay in implementing new processes to improve waste management

- Identified investment needs of ~650M EUR, driving net positive returns ~30M EUR per year, through cost savings and new revenue sources
- Developed plan for citizen education, including promotional initiatives

Conservation in South Africa



- Secure the population of rhino through effective reduction in the number of rhino killed through poaching by 11.1%, resulting in increasing the population at 2% p.a. through 2020

- Dramatic increase in poaching from 13 rhinos poached in 2007 to 1,215 in 2014
- Wide range of stakeholders; NGOs, range states, demand countries (e.g. Vietnam), academia, private owners & multiple Govt. departments

- Reversed the trend and achieved a >10% decrease in rhino poaching in the first year after the Lab
- Increased arrests and sentencing by >100%
- Improved ongoing strategic dialogue between stakeholders including international partners



Vision for the end of the lab

- **True ownership** by the entire team (including SteerCo., lab participants and stakeholders) regarding targets, developed initiatives and detailed plan behind it
- **Shared understanding** across the various stakeholders, of the contexts and objectives of other stakeholders and players to catalyze collaboration across the sector
- **Ambitious targets** that are accepted by the team
- **Practical solutions co-created with participants** who are key stakeholders (e.g. informal sector, private sector) and can touch and feel the impact
- **Stakeholder sign-off** (by Minister, D.G. and lab participants)
- **Excited stakeholders saying** – “*the lab helped me to share my ideas and make them real – this is my baby*” vs. “the lab did a great job, very interesting ideas but not sure they will work here”
- **Implementation set to start** for a couple of big ideas / initiatives
- **Completed suite of end products** (e.g., business case template, lab report) and **initiatives funded**



Overview of the logistics and Lab timeline

Phakisa Chemical and Waste Management Lab timeline

	Week 0: Preparation and onboarding	Week 1: Aspirations and challenges	Week 2: Initiatives	Week 3: Milestones	Week 4: Implementa- tion plans	Week 5: Official sign off
Timing	20-22 July	23-29 July	30 July – 5 Aug	6-12 August	13-19 August	20-24 August
Venue¹	Protea Hotel Fire & Ice! Pretoria Menlyn	Legends Golf & Safari Club	Legends Golf & Safari Club	Legends Golf & Safari Club	African Pride Mount Grace Country House	African Pride Mount Grace Country House
Key meetings	<ul style="list-style-type: none"> Fact packs sent to participants (19/7) Participants onboarding (20/7) 	<ul style="list-style-type: none"> Official kick-off and participant arrival (23/7) Field trip (28/7) 	<ul style="list-style-type: none"> Field trip (2/8) Steering Committee (4/8) 	<ul style="list-style-type: none"> Investor day (8/8) 	<ul style="list-style-type: none"> Steering Committee (18/8) 	<ul style="list-style-type: none"> Official sign-off and participant departure (24/8)

Phakisa Chemical and Waste Management Lab participant information

Participants' attendance

- If participants confirm attendance, they are expected to come for the full 5 week duration of the lab (Monday-Friday)
- Official kick-off of the Lab happens on Sunday 23/7 6pm. Please arrive beforehand to register

Other important information

- 2 field trips are mandatory part of the Lab in Week 1 and Week 2. Please pack accordingly
- Participants' organizations are expected to cover costs of transport, accommodation, breakfast and dinners. DEA will cover costs of lunches, official dinners and field trips
- Participants are required to sign an NDA to attend the Lab

¹ Logistics details for both venues will be shared during Onboarding



APPENDIX



Session type

- Working on output
- Capability building
- Expert input
- Syndication with Steerco
- Networking
- Theme day

Week 0: On boarding all

	Wednesday 19/07	Thursday 20/07	Friday 21/07	Saturday 22/07	Sunday 23/07
08:00 – 09:00am				Weekend	Weekend
9:00am – 12.30pm		<ul style="list-style-type: none"> ▪ Why we are here ▪ The approach we will use ▪ Delivery lab aspiration and work streams ▪ Introducing the fact pack ▪ Gallery walk presentation of work stream highlights 			
12.30pm – 1.30pm					
1.30pm – 5.00pm		Lunch			
5.00pm – 5.30pm		<ul style="list-style-type: none"> ▪ What is expected from you ▪ What a lab feels like - role play 			
5.30pm – 6.00pm	Publish fact pack				<p>Kick off dinner:</p> <ul style="list-style-type: none"> ▪ Official opening ▪ Purpose of the labs ▪ Stakeholder commitments ▪ Dinner
6.00pm onwards					
Homework					
End-of-day deliverable	Participants with fact pack	Participants feedback	Roles for kickoff		

DG leadership present



Week 1: Aspirations & challenges

Session type

- Working on output
- Capability building
- Expert input
- Syndication with Steerco
- Networking
- Theme day

	Monday 24/07	Tuesday 25/07	Wednesday 26/07	Thursday 27/07	Friday 28/07
08:00 – 09:00am					
9:00am – 12.30pm	Plenary introduction <ul style="list-style-type: none"> Setting lab context What excites you about the lab Team norms P 	Aspirations and Lab charter <ul style="list-style-type: none"> Build Lab charter P 	Sharing findings from pre-lab phase <ul style="list-style-type: none"> Presenting methodology and rationale behind focus areas to the WS 	Refined issue tree <ul style="list-style-type: none"> Split WS along branches Define analyses and experts required 	Field visits and best practices <ul style="list-style-type: none"> Round table reflection at the site Key learnings?
	In-lab training <ul style="list-style-type: none"> Problem Solving Lab output P 	WS charter <ul style="list-style-type: none"> What is our aspiration for our workstream? 	Narrowing deep dive <ul style="list-style-type: none"> Feedback incorporation 	Initial initiative list <ul style="list-style-type: none"> Hypothesized initiatives 	
12.30pm – 1.30pm	Lunch				
1.30pm – 5.00pm	Scoping WS <ul style="list-style-type: none"> Recap of Scoping WS Refine WS problem statement 	WS aspiration presentation P Challenge session <ul style="list-style-type: none"> Who is missing in the stakeholders P 	Our issue tree: <ul style="list-style-type: none"> Refine issue tree Prioritize issues Hypothesis of root causes and opportunities 	Environmental Sustainability Day <ul style="list-style-type: none"> Expert presentations Round table discussion Discuss implications for challenges 	Field visit debrief <ul style="list-style-type: none"> Key observations Implications for issues
	WS Team learning <ul style="list-style-type: none"> Working together 				Lab check out P
	Visioning <ul style="list-style-type: none"> Chemical & waste visioning exercise P 	In-lab training <ul style="list-style-type: none"> Giving and receiving feedback P 	WS present priority areas and root causes P		Feedback & Reflection with core team <ul style="list-style-type: none"> One-on-one coaching Individual Learning Log
5.00pm – 5.30pm	Lab check out P	Lab check out P	Lab check out P	Lab check out P	Vision, Lab charter, Key Issues, first draft initiatives, Week 1 Word Exec Summary
5.30pm – 6.00pm					
6.00pm onwards	Dinner	Connectivity dinner	Dinner		
Homework		Aspiration analyses	Root causes analyses	Issue analyses	
End-of-day deliverable	Vision statement	Lab charter with WS charters	Issue tree with root causes	First draft Initiative list	

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P Plenary



Week 2: Initiatives

Session type

- Working on output
- Capability building
- Expert input
- Syndication with Steerco
- Networking
- Theme day

	Monday 31/07	Tuesday 01/08	Wednesday 02/08	Thursday 03/08	Friday 04/08
08:00 – 09:00am					
9:00am – 12.30pm	<p>Introduce goals for the week P</p> <p>In-lab training</p> <ul style="list-style-type: none"> ▪ Prioritization matrix P <p>Develop initiatives for each area (10,000ft)</p> <ul style="list-style-type: none"> ▪ Refine 5-15 initiatives ▪ Quantify prelim. impact 	<p>Job creation day</p> <ul style="list-style-type: none"> ▪ By work stream <ul style="list-style-type: none"> – Presentations – Round table discussions on opportunities – Discuss implications for initiatives 	<p>Fleshing out initiatives (2/4)</p> <ul style="list-style-type: none"> ▪ Impact ▪ Owner ▪ Key stakeholders ▪ Implementation time frame 	<p>Fleshing out initiatives (3/4)</p> <p style="text-align: center; background-color: #27ae60; color: white; padding: 5px; margin-top: 10px;">Experts in Work Stream</p>	<p>Storylining (LF+WSL¹)</p> <ul style="list-style-type: none"> ▪ Develop Steerco storyline <p>Plenary training</p> <ul style="list-style-type: none"> ▪ Costing initiatives <p>Budget + Legislation (1/4)</p> <ul style="list-style-type: none"> ▪ Define budget and legislative need by initiative
12.30pm – 1.30pm	Lunch				
1.30pm – 5.00pm	<p>Challenge session</p> <ul style="list-style-type: none"> ▪ Test feasibility of initiatives with expert (minimum 1 expert per WS) <p>Prioritization</p> <ul style="list-style-type: none"> ▪ Prioritize initiatives based on feasibility and impact to <10 initiatives 	<p>Fleshing out initiatives (1/4)</p> <ul style="list-style-type: none"> ▪ Impact ▪ Owner ▪ Key stakeholders ▪ Implementation time frame 	<p>Field visits and best practices</p> <ul style="list-style-type: none"> ▪ Round table reflection at the site ▪ Key learnings? <p>Presentation to plenary:</p> <ul style="list-style-type: none"> ▪ Key learnings P 	<p>Fleshing out initiatives (4/4)</p> <p>Simulation “real-play” - Dry run for SteerCo</p>	<p>Storylining (LF+WSL¹)</p> <p>Budget + Legislation (2/4)</p> <ul style="list-style-type: none"> ▪ Define budget and legislative need by initiative <p>Lab check out</p> <p>Feedback & Reflection</p> <ul style="list-style-type: none"> ▪ One-on-one feedback ▪ Individual Learning Log
5.00pm – 5.30pm	Lab check out	Lab check out	Lab check out P	Lab check out P	<p>Initiative charters & week 2 storyline, Week 2 Word Exec Summary</p>
5.30pm – 6.00pm					
6.00pm onwards	Dinner	Connectivity dinner	Dinner		
Homework	Initiative impact analyses		Initiative impact analyses	Finalize SteerCo presentation	
End-of-day deliverable	Prioritized initiatives	Land initiatives	Initiative charters	SteerCo presentation	

¹ Lead facilitator + Work Stream Leader only

Icon legend

P Plenary



Week 3: Milestones

Session type

- Working on output
- Capability building
- Expert input
- Syndication with Steerco
- Networking
- Theme day

	Monday 07/08	Tuesday 08/08	Wednesday 09/08	Thursday 10/08	
08:00 – 09:00am					Women's Day (Move from Wednesday to be confirmed based on participants feedback)
9:00am – 12.30pm	SteerCo sign off <ul style="list-style-type: none"> ▪ Aspirations ▪ Challenges ▪ Initiatives 	WS presentation on budget & legislative <div style="text-align: right; font-size: 12px;">P</div>	Plenary training <ul style="list-style-type: none"> ▪ Implementation planning <div style="text-align: right; font-size: 12px;">P</div>	Investor Day <ul style="list-style-type: none"> ▪ Plenary presentation ▪ Q&A ▪ By work stream discussions on how to make initiatives financially viable 	
12.30pm – 1.30pm	Lunch				
1.30pm – 5.00pm	Post SteerCo syndication debrief & finalize initiatives <ul style="list-style-type: none"> ▪ Discuss and incorporate feedback 	Incorporate feedback	Experts in Work Stream	Investor Day debrief: <ul style="list-style-type: none"> ▪ Key take aways ▪ Implications for initiatives 	
	Budget + Legislation (3/4)	Storylining (LF+WLSL¹) <ul style="list-style-type: none"> ▪ Develop Investors storyline 	Budget + Legislation (4/3)	From 10,000 to 100 feet (2/3)	
			Simulation "real-play": Preparation for Investors	Lab check out <div style="text-align: right; font-size: 12px;">P</div>	
				Feedback & Reflection <ul style="list-style-type: none"> ▪ One-on-one feedback ▪ Individual Learning Log 	
5.00pm – 5.30pm	Lab check out <div style="text-align: right; font-size: 12px;">P</div>	Lab check out	Lab check out <div style="text-align: right; font-size: 12px;">P</div>		
5.30pm – 6.00pm	Dinner				
6.00pm onwards	Dinner				
Homework	Costing analyses	Milestone analyses	Milestone analyses		
End-of-day deliverable	Initial initiative costing	Budgets by initiative	Budgets and legislative changes per initiative	Milestones & initiative costing & legislative changes, Week 3 Word Exec Summary	

¹ Lead Facilitator + Work stream Leader only

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P Plenary



Week 4: Implementation plans

Session type

- Working on output
- Capability building
- Expert input
- Syndication with Steerco
- Networking
- Theme day

	Monday 14/08	Tuesday 15/08	Wednesday 16/08	Thursday 17/08	Friday 18/08
08:00 – 09:00am					
9:00am – 12.30pm	Introduce goals for the week P Implementation KPIs <ul style="list-style-type: none"> ▪ Set KPIs for each milestone ▪ Must be measurable 	From 100ft to 3ft, create 3ft plan (1/3) <ul style="list-style-type: none"> ▪ Develop activities per milestone ▪ Include Owners, Start and end dates and KPIs 	Create 3 ft plan (3/3) <ul style="list-style-type: none"> ▪ Refine actions, responsables, start and end date per milestone 	SteerCo Sign off <ul style="list-style-type: none"> ▪ Initiatives ▪ Milestones ▪ Budgets ▪ Legislative changes ▪ KPIs 	Plenary training <ul style="list-style-type: none"> ▪ Change management
12.30pm – 1.30pm	Lunch				
1.30pm – 5.00pm	From 10,000 to 100 feet (3/3) <ul style="list-style-type: none"> ▪ Develop milestones per initiative ▪ Include KPIs 	Create 3 ft plan (2/3)	Storylining (LF+WSL¹) <ul style="list-style-type: none"> ▪ Develop Steerco storyline 	Complete 3ft plans <ul style="list-style-type: none"> ▪ Ensure quality 	Simulation “real-play” <ul style="list-style-type: none"> ▪ Dry run for SteerCo
5.00pm – 5.30pm	Lab check out P	Lab check out	Lab check out	Lab check out	Lab check out
5.30pm – 6.00pm	Dinner				
6.00pm onwards	Connectivity dinner				
Homework	Milestone analyses	3 feet plan analyses	Finalize SteerCo presentation	3 feet plans	
End-of-day deliverable	Milestones by initiatives	3 feet plans	3 feet plans, SteerCo doc	3 feet plans	Final 3 feet plans + final budget + week 4 storyline, Week 5 Word Exec Summary

¹ Lead Facilitator + Work stream Leader only

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P Plenary

DG leadership present for in-lab engagement



Week 5: Official Sign off

Session type

- Working on output
- Capability building
- Expert input
- Syndication with Steerco
- Networking
- Theme day

	Monday 21/08	Tuesday 22/08	Wednesday 23/08	Thursday 24/08	Friday 25/08	
08:00 – 09:00am						
9:00am – 12.30pm	“Say it with charts” training by work stream Prepare Final stakeholder presentation (1/4) ▪ Charts Write Lab Exec Summary	Prepare Final stakeholder presentation (3/4) ▪ Presentation Write Lab Exec Summary	Write Lab Exec Summary	“Presenting with impact” training by work stream Simulation “real-play” ▪ Dry run for Final stakeholders sign off P	Final stakeholders sign off ▪ Final product presentation ▪ Lab closing ceremony	iTrack on boarding Post-Lab – Facilitators + Lab leaders only (2/3) ▪ Quality assurance of 3 feet plans ▪ Standardization of final report ▪ Finalize Exec Summary
12.30pm – 1.30pm	Lunch					
1.30pm – 5.00pm	Prepare Final stakeholder presentation (2/4) ▪ Charts Write Lab Exec Summary	Prepare Final stakeholder presentation (4/4) ▪ Presentation WS presentation of their initiative charts to plenary Write Lab Exec Summary	Write Lab Exec Summary Lab check out P	Final stakeholder presentation ▪ Gallery walk ▪ Stakeholder sign off chart P Lab check out P Feedback & Reflection ▪ One-on-one feedback ▪ Individual Learning Log	Post-Lab – Facilitators + Lab leaders only (1/3) ▪ Quality Assurance of 3feet plans ▪ Standardization of final report ▪ Finalize Exec Summary	Post-Lab – Facilitators + Lab leaders only (3/3) ▪ Quality assurance of 3feet plans ▪ Codifying Lab work ▪ Standardization of final report ▪ Finalize Exec Summary
5.00pm – 5.30pm	Lab check out	Lab check out P				
5.30pm – 6.00pm						
6.00pm onwards	Dinner		Celebration dinner	Dinner		
Homework	Finalise output	Finalise output	Post Lab governance structure		Final Lab report (Initiatives storyline, budgets, Milestones, 3-FeeT plans), Post lab governance structure, ~30 Page Word Executive Summary	
End-of-day deliverable	Initiative charts and presenter notes	SteerCo presentation	Stakeholders sign off	SteerCo sign off		

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P Plenary

DG leadership present for in-lab engagement



OPERATION PHAKISA
CHEMICALS AND WASTE ECONOMY

On boarding session (20th July, Protea Fire and Ice! Pretoria Menlyn)

Time	Activity	Lead
09:00 – 09:10	Official opening overview	▪ Mr. Mark Gordon, DDG, DEA
09:10 – 09:20	Why we are here	▪ DPME
09:20 – 10:50	The Approach we will use The Power of Labs iTrack	▪ Wambui Waiganjo, McKinsey ▪ Ms. Wadzi Madivenyi, Biodiversity ▪ Mr. Simon Malete, Biodiversity
10:50 – 11:00	Delivery lab aspirations and work streams	▪ Ms. Mamogala Musekene, Project Manager, DEA
11:00 – 11:20	Tea Break	
11:20 – 11:50	Introducing the Fact Pack	▪ Tebogo Skwambane, McKinsey
11:50 – 13:00	Gallery Walk	▪ Work stream leads, DEA & McKinsey
13:00 – 14:00	Lunch Break	
14:00 – 14:30	Plenary questions	▪ Mr. Obed Baloyi, Project Manager, DEA
14:30 – 15:40	What a lab feels like – role play	▪ Facilitators
15:40 – 15:55	What is expected from you	▪ Ms. Mamogala Musekene, Project Manager, DEA
15:55 – 16:10	Vote of thanks and closure	▪ Mr. Mark Gordon, DDG, DEA
16:10 – onwards	Tea and Departure	

