

RPF Meeting 9 November 2022

Feedback – Road Maintenance Forum



excellence in bituminous products

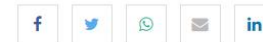
Background to RMF

Potholes, potholes, potholes

- **Imminent massive road failures**
- **Funding, capacity issues**
- **Systems issues – asset management and preventative maintenance, procurement**

Government paying millions of rands to South Africans for damage caused by potholes

Staff Writer 18 November 2020



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Transport minister Fikile Mbalula says that government has paid out money to hundreds of motorists over the last year due to damage caused by potholes on the country's roads.

Background to RMF

February 2022

Government Indaba – Road Construction and Maintenance

- To bring the roads industry and the three spheres of government together to develop a joint action and implementation plan**

Pothole crisis: Man risks life filling potholes with sand for some coins



Katlego Khoza fills pothole on the D1332 with sand in Lethabong, Rustenburg in North West, the road linking Lethabong and Rustenburg has ankle-deep potholes that led to numerous horrific accidents.

Published Aug 30, 2022

Background to RMF

Inaugural event - 7 April 2022

Aligned with International Road
Maintenance Day

A Joint initiative

Stakeholders:

7

Attendance:

331

Presentations

11



Background to RMF

- Enable a platform for the **exchange of information**
- Provide an opportunity to **share best practice**
- Find **solutions to challenges** that are common to those operating in road maintenance
- **Facilitate contact** between parties that are active in this space
- Identify possible **Research and Development needs**

2nd RMF – 5th October 2022



Systems (Krishna):

Operation Vala Zonke - National Campaign Update (Louw Kannemeyer))
Road Maintenance Reflections – Policies before Roads (Mike Pinard)
Preventative Maintenance Strategies (Hilton Scholtz)
SANRAL, IMESA & SAT

Materials (Herman):

When Is It Too Late to Patch?(Martinus Wilkens)
Fit for Purpose Approach to Maintenance (Phil Paige-Green)
CESA & SARF

Quality (Phil):

Products – Certification processes and Quality Control (Nicholas Du Preez)
Sabita – Training Materials available (Phil Hendricks)
Industry Training Representative (Rinus Van Raaij)
SAFCEC/SABITA

Laboratory (Basil):

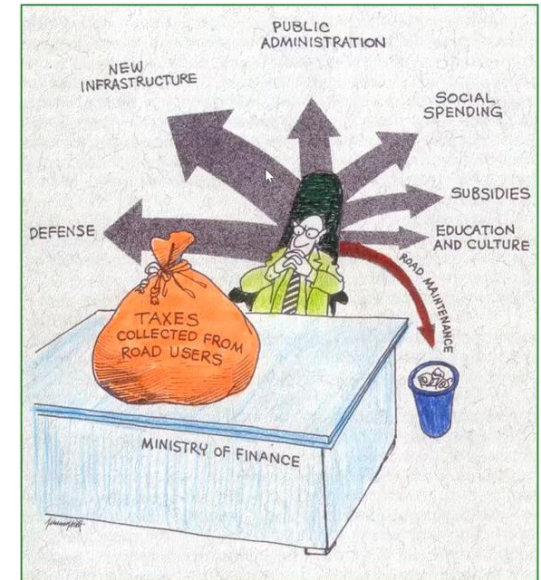
Commercial Laboratory Support to Road Maintenance Industry (Wim Hofsink to present)
incorporating views also of CSIR, SRT, STL, RoadLab)
SAT/SARF

Virtual Event – 250 plus delegates

Road Maintenance Reflections - Pinard

Why Does Road Maintenance Remain Unresolved Enigma?

Roads: Easier to Construct than to Maintain!



Beleaguered Minister of Finance



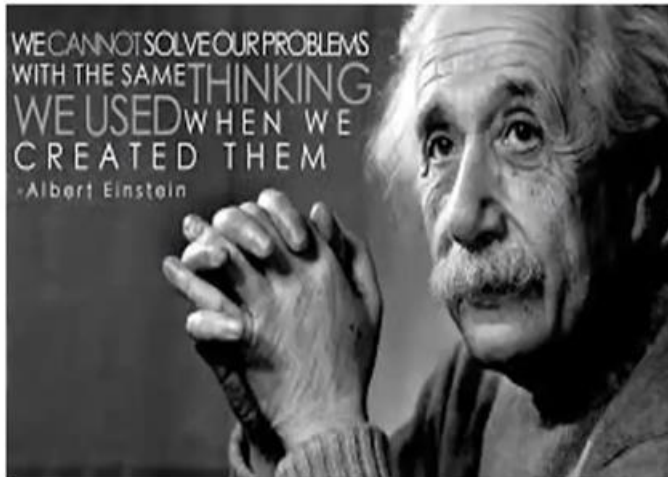
Enigma – something that is difficult to understand and solve, perplexing, conundrum, paradox

- Relying entirely on state funding of maintenance is generally NOT a viable option in the long term

Road Maintenance Reflections - Pinard

Time to Reform and for a Paradigm Shift??

- The maintenance challenge is a **multi-dimensional one**. It is rooted in a number of inter-related factors – legal, regulatory, institutional, financial, planning/ management, technical and operational - that **all** need to be addressed in a holistic and hierarchically prioritised manner with sound government policy and political support for maintenance being the foundation for success.



Need for a paradigm shift in thinking

Road Maintenance Reflections - Pinard

The Road Preservation Pyramid



(Source: M.I.Pinard. ***Preserve Your Country's Roads to Drive Development.*** World Road Association (PIARC) Publication Ref. 2016R07EN, 2016).

Engendering a holistic approach to the preservation of road infrastructure by addressing six building blocks (BBs) supporting the goal of sustainable road asset preservation.

Operation Vala Zonke – Kannemeyer

Overview

- Background
- Project Concept
- Progress to date
- Project Plan



OPERATION
VALA ZONKE
FIXING POTHOLES TOGETHER

*Potholes
Repair*

MINISTER OF TRANSPORT
FIKILE MBALULA

NATIONAL LAUNCH OF OPERATION VALA ZONKE

We have developed a comprehensive programme to address potholes across all spheres of government, with SANRAL taking the lead.

While national roads are in good condition, we recognize that provincial and municipal roads are not and need a decisive national strategy.

MONDAY, 08 AUGUST 2022 | 09H00 - 13H00
R57 SASOLBURG, VANDERBIJLPARK

transport
Department of
REPUBLIC OF SOUTH AFRICA

SANRAL



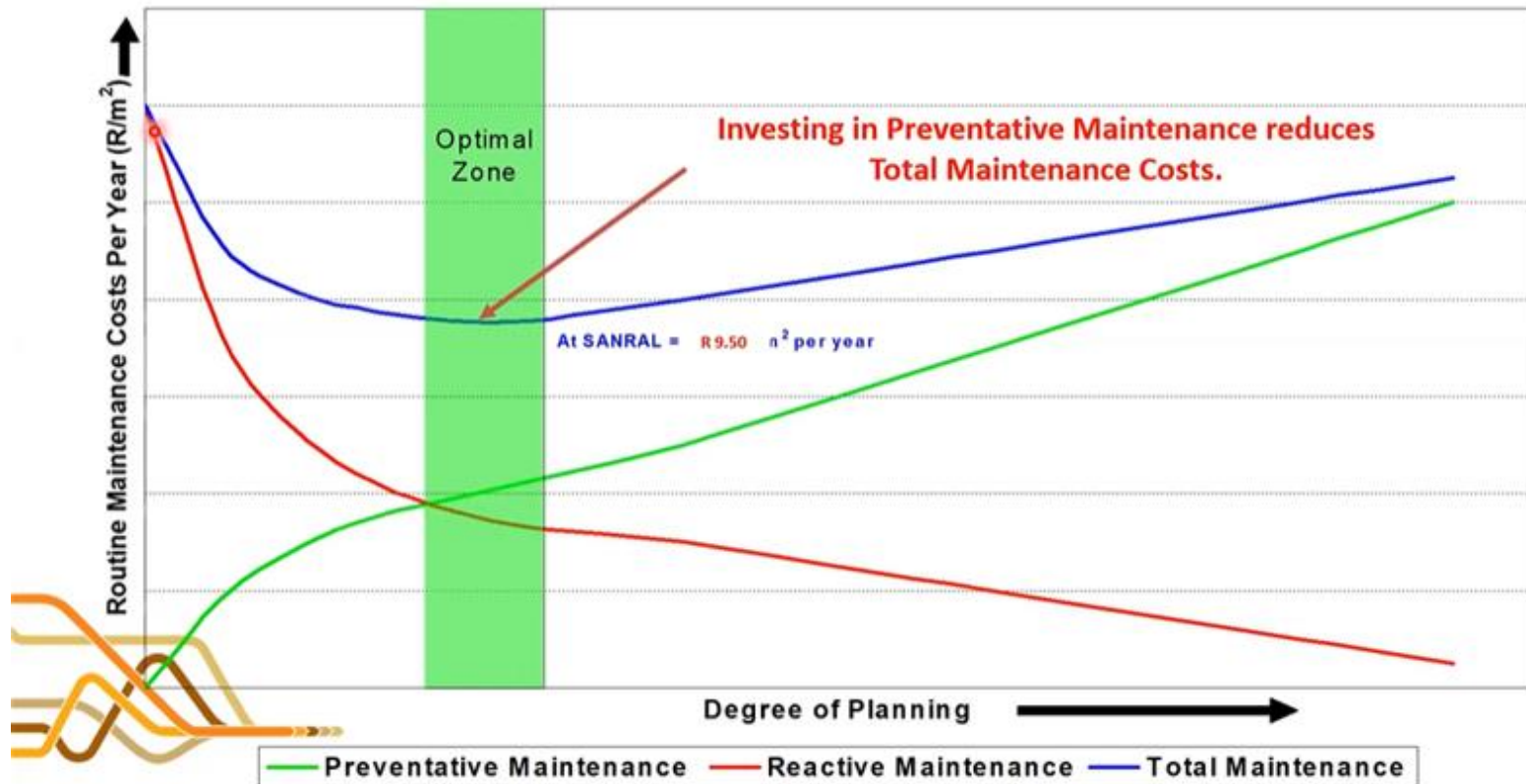
Operation Vala Zonke – Kannemeyer



- **Context – language using with politicians**
- **Strong message regarding cost of depreciating road asset**
- **Proper budgeting for maintenance**
- **Legislation for whole life approaches**

Operation Vala Zonke – Kannemeyer

Preventative Maintenance Benefits



8

Operation Vala Zonke – Kannemeyer

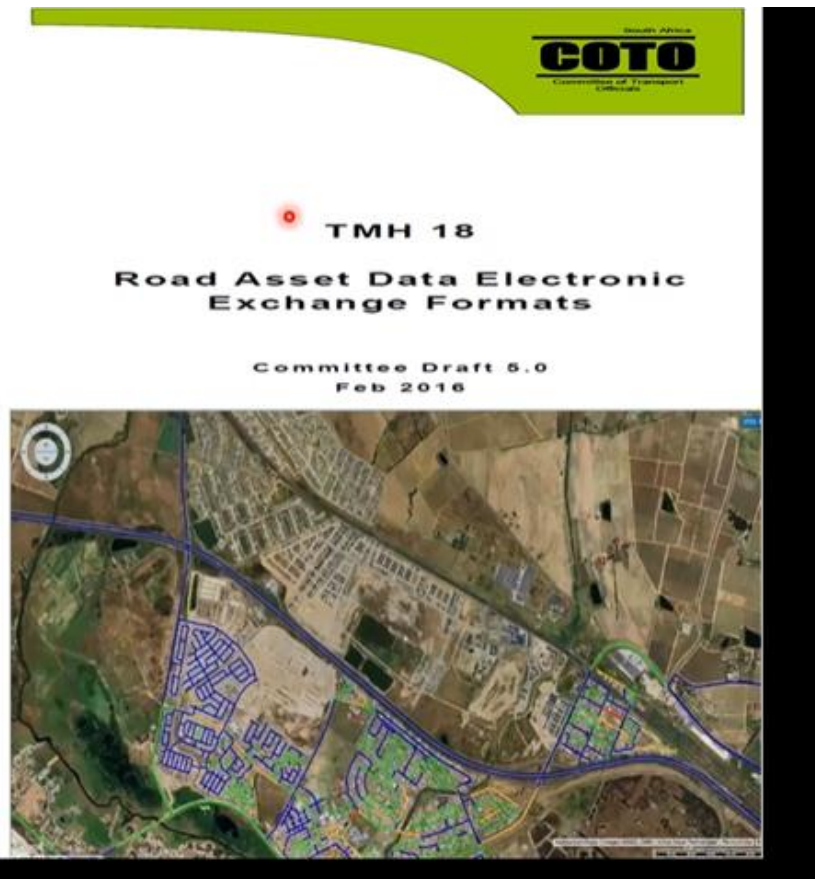
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Potholes – Immediate Solution

Step 1: Road Network Verification

Guided by TMH 18:

1. Network Verification
 - a) Step 1 – Obtain 2.2 Network Definition File
 - b) Step 2 – Obtain 2.3 Geometry File
 - c) Step 3 - Build Spatial Network
 - d) Step 4 – Compare to public data sets – Openstreet / Arial Images
2. Network Classification
 - a) Step 1 - Use Verified Spatial Network from above
 - b) Step 2 - Obtain 3.1 Road Classification File
 - c) Step 3 - Link to Roads Classification to Spatial
 - d) Step 4 – Validate combined networks classification of logic
3. Outcome - Know which road belong to which Authority ?
4. Process already started by SANRAL



Operation Vala Zonke – Kannemeyer

Road Maintenance – Medium Term Solution

Private Sector Involvement

1. Corporate Social Responsibility (CSR)

- a) To enable various private companies to make donations towards the maintenance and upkeep of roads through their Corporate Social Responsibility and claim that for BEE Scorecards and obtain Tax deduction for such donation.
- b) It is recommend that formal Section 18A applications be made to SARS Commissioner for approval under section 18A to issue section 18A receipts obtained from SARS.
- c) Where Authority has obtained section 18A approval, donations can then specifically used to augment the available budgets for the maintenance and repair of their roads, including potholes.



Operation Vala Zonke – Kannemeyer



Private Sector Involvement

3. Performance Based Maintenance Model

- a) To accelerate the implementation of much needed road maintenance and improvement projects in **the short term (3 years) through effective gearing of government funding over 10 to 15 year period**. This will result in the benefits of well maintained infrastructure been realised within 3 years, instead of 10 to 15 years it would have taken under normal government funding.



Preventative Maintenance Strategies in the CoCT - Scholtz

1. Understanding your road network



a. What do I have –

- i. A good foundation for a road network
- ii. A long culture of good maintenance practice
- iii. An administration that want to deliver the best service
- iv. Committed and professional staff, at all levels
- v. A good understanding as to where the construction industry is heading

b. What is its function of my Road Network?

- i. The corridors of mobility
- ii. Foundation for access to lifeline services, EWWS.
- iii. Corridors of economic development,
- iv. Visible service delivery to communities and the general public,

Preventative Maintenance Strategies in the CoCT - Scholtz

3. Strategic Approach:

- a. Maintain roads at a network level,
- b. Develop a professional engineering team to will implement your strategy,
 - i. From design to implementation – we are all in this together
 - ii. Develop a culture of quality – inspect what you expect.
- c. Engage and enrol your stakeholders,
- d. Develop a plan and stick to it,
 - i. Develop a RRR approach, reseal, resurface and rehabilitate
 - 1. This is not a sprint, take it over a period, usually Medium term revenue and expenditure periods.
 - 2. Draft your plans (list based on treatments) and have an approval system
 - 3. Adapt to the specific circumstances, as every year we have increased traffic volumes, rain periods, etc.
 - 4. Match your pothole complaints to your planned interventions, especially if the road is the pothole
 - ii. Always innovate, and learn from your mistakes. Metros are amalgamations of earlier small municipalities with poor road building standards
 - 1. Build a professional team that you can trust that is led by knowledge and experience,
 - 2. Always explore your network integrity, you do not know every square metre of road,
 - iii. Rebuild if you have to



Wilkens and Paige-Green



Materials (Herman):

When Is It Too Late to Patch? (Martinus Wilkens)
Fit for Purpose Approach to Maintenance (Phil Paige-Green)

- Identify the cause of the pothole and classify repair type
- Address the cause first – solve the problem
- Repair the pothole using the most appropriate and effective method and materials
- Material is out there – need to get it distributed



Du Preez, Hendricks, van Raaij and Hofsink



Quality (Phil):

*Products – Certification processes and Quality Control (Nicholas Du Preez)
Sabita – Training Materials available (Phil Hendricks)
Industry Training Representative (Rinus Van Raaij)*

Laboratory (Basil):

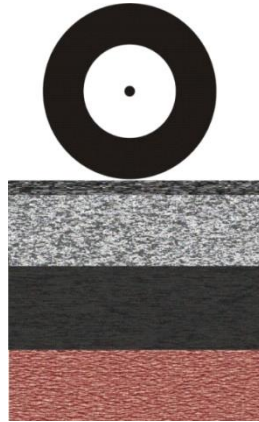
*Commercial Laboratory Support to Road Maintenance Industry (Wim Hofsink to present
incorporating views also of CSIR, SRT, STL, RoadLab)*

- Certification processes from Agreement to SATAS
 - Certification of CMA – Sabita – well underway – to be shared at next RMF
- Training material – LB manuals and videos from Sabita
- Training - unit standards, seems to be in flux and call for assistance

Reflections of 2nd RMF

1. Did we pitch event at right levels?
 1. Initial thinking – gap created for more practical platform – sharing of experiences and best practice
 2. A complex issue with all levels needed to be looked at as per Pinard presentation

1. Some sobering and pertinent comments from Dr Mitchell
 1. Have all the technical solutions, tools
 2. No political will to fix this
 3. Institutional issue – like Eskom, need to get back technical capability into the institutions



But there are still many gaps within Road Preservation Pyramid and need to deal with issues at all levels – institutional capacity, training, systems etc.

Key Issues

- Road Authorities to be requested and reminded to **assist with the collection of the required network data** for the Vala Zonke Campaign.
- Road Authorities should be encouraged to **adopt a strategic, holistic approach towards road maintenance**, using the Road Preservation Pyramid as a tool.
- **RMF to put together a WG to discuss the skills development issue and look at programmes for Road maintenance** – short courses, skills etc
- **RMF to consider how to consolidate, share and disseminate the plethora of technical information and experience in the industry** on road maintenance methods – so that it does not become too late to patch and a fit for purpose approach is taken for road maintenance

Presentations, manuals, technical guidelines

Nov 8, 2022 info@sabita.co.za The Southern African Bitumen Association Login

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