

# AFRICA

## LUBRICATION LANDSCAPE



**Dr. James Wakiru**

**2024** Africa Lubricants & Coolants Summit,  
Exhibition & Training Workshop  
Nairobi

**14 - 15  
MARCH**

**Lubezine**  
Focusing on Africa's lubrication needs



# Agenda

- Bio
- Market overview
- Unique Opportunities in Africa
- Challenges
- Outlook
- Conclusion

# Bio



- PhD (Mech Eng), Belgium.
- MSc (Industrial Engineering), MBA (Marketing), Kenya.
- BSc. (Mech Engineering), Kenya.
- Worked for a combined 20 years
  - Lubricants and Lubrication
  - Lubrication in maintenance
  - Training
  - Researcher (DeKUT)



# Africa Market - Overview

- Africa growing at a CAGR of 3.52% (2024-2026)



Africa's leading consumer of lubricants - 26% of Africa

COVID - Egypt lubricants market 4.64% drop



Fastest-growing lubricants market CAGR 4.8%

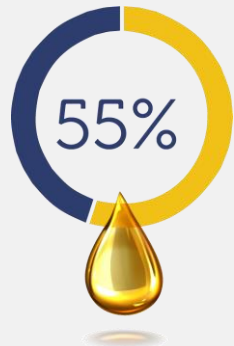


COVID - South Africa was the most affected, with an 8.9% drop

# Africa Market - Overview

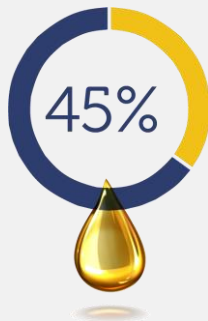


## End user Segments



Automotive

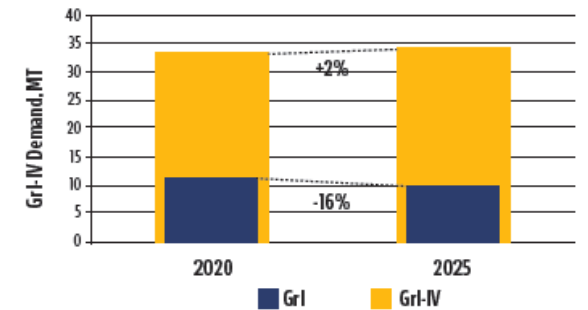
- Largest Lubricant consumption in Africa 55%



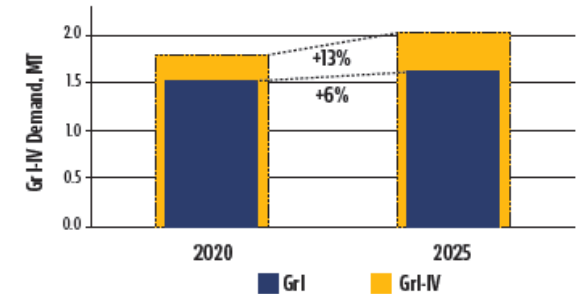
Industrial

- Lubricant consumption in Africa 45%

Global Demand (Excluding Africa)



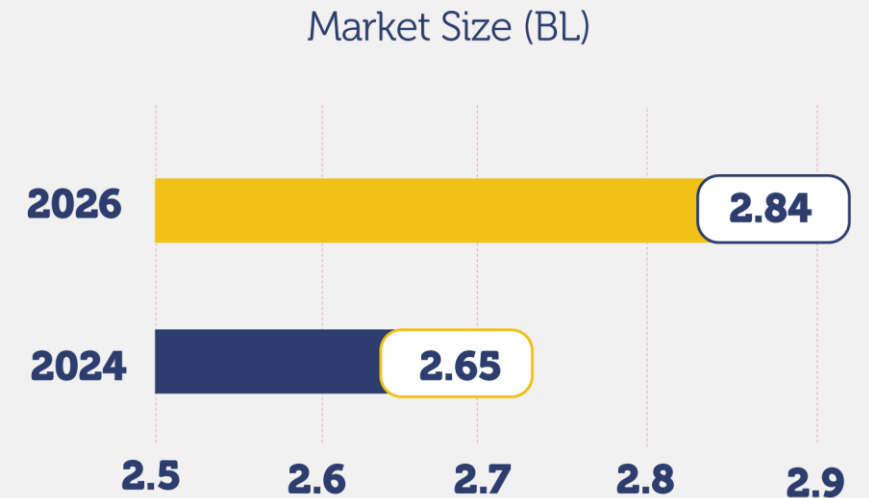
Africa Demand



# Unique Opportunities



- Wide market > 2 million tons
- Enlightened market →Quality/Performance
- Communication (Mobile industry > 75% pen', Internet>45%)
- Growth sectors (Energy, Transport, Industries)
- Base oil + Lubes regulations
- Economic Block
- Technology: EOL & maintenance



# Quality Counterfeits

## 64% Of Imported Lubricants Substandard – SON

*The Standards Organisation of Nigeria says about 64 per cent of lubricants imported into the Nigerian markets are below the approved standards.*

By The Eagle Online — On Jul 25, 2018

KAMPALA

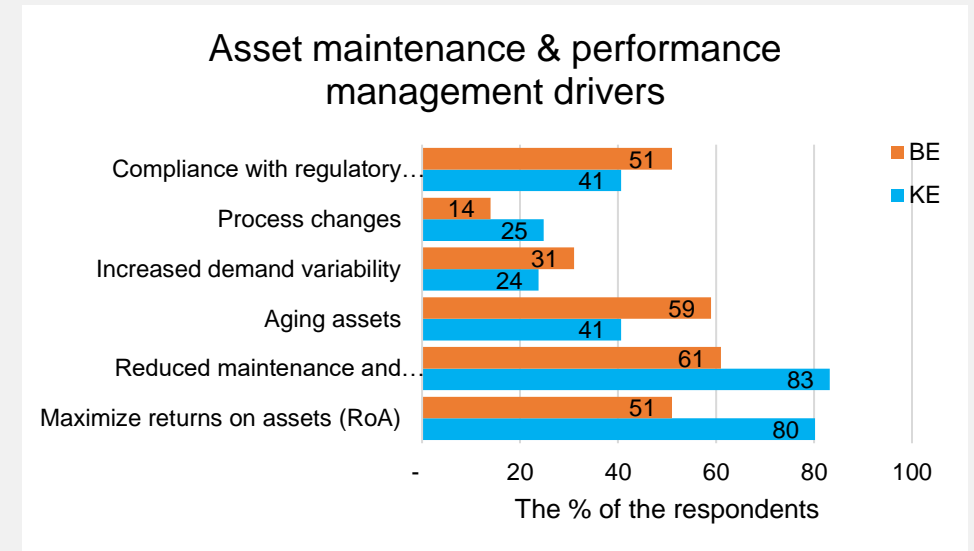
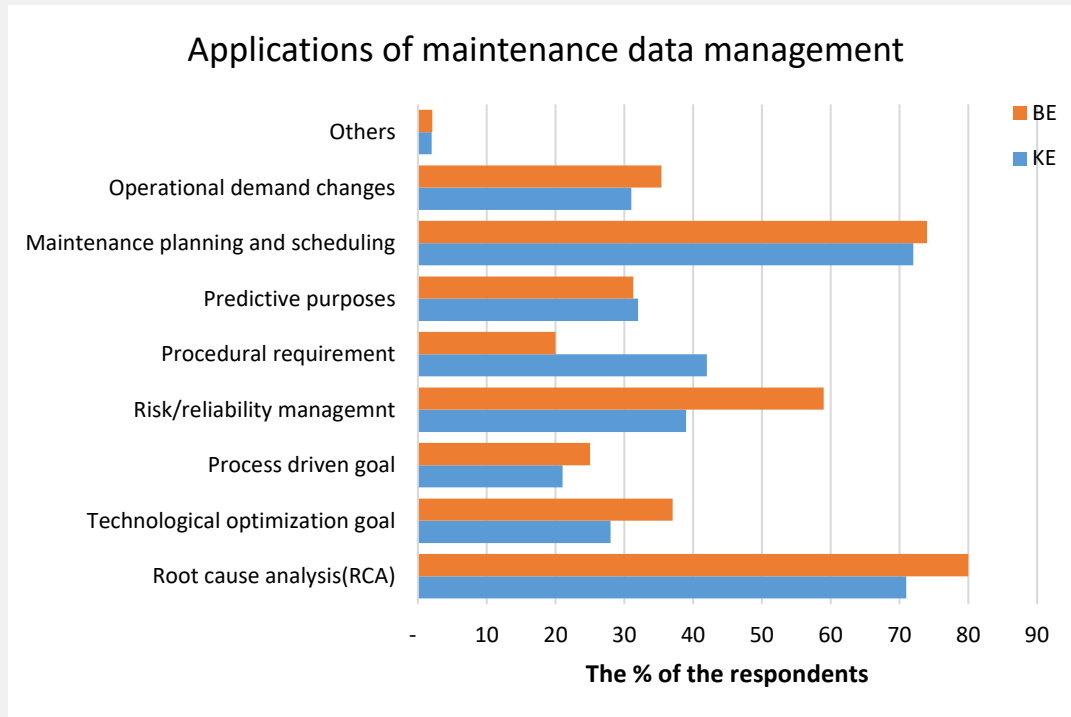
## Operation “Fagia” aids Police nab fake lubricants

Lubezine Vol 23- June 2018

## 54% of goods on market fake – UNBS

Daily Monitor: 01,08,2018

# Data-Driven DS



(Wakiru et al. 2021)



# Lubrication - Maintenance



*In the mining sector, only 3% of the maintenance budget is spent on lubricant purchases, while more than 60-70% of all mechanical failures related to poor or improper lubrication practices.*

System costs and total lubricant consumed, considering the base case and ageing case conditions

	Base case		With ageing		
$C_m$ (K€)	512.53		550.94		
$L_v$ (KL)	30.85		36.33		
	Value	(%)	Value	(%)	
$C_{PM}$ (K€)	132.52	26%	141.77	26%	
$C_{CM}$ (K€)	127.45	25%	133.82	24%	
$C_{VCM}$ (K€)	81.33	16%	73.16	13%	
$C_{LCM}$ (K€)	51.44	10%	69.01	13%	
$C_h$ (K€)	21.46	4%	24.76	4%	
$C_{OP}$ (K€)	98.33	19%	108.42	20%	
$L_v$ (KL)	30.85		36.33		

(Wakiru et al., 2020)

# Unique Challenges



Maintenance | Lubes Silo effect

01

Regulatory Framework

02

Knowledge and Skill gap

03

Sub-standard Lube importation

04

Environmental & Safety concerns

05

Logistical Challenges

06

Quality - Counterfeits

07

Price or Cost variability

08



# **Africa Lubricants** MARKET OUTLOOK

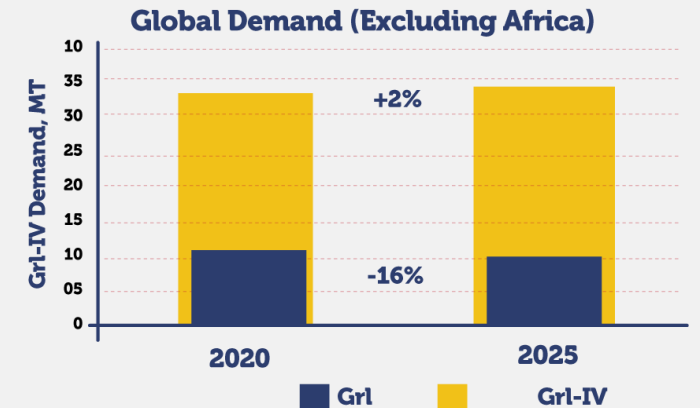
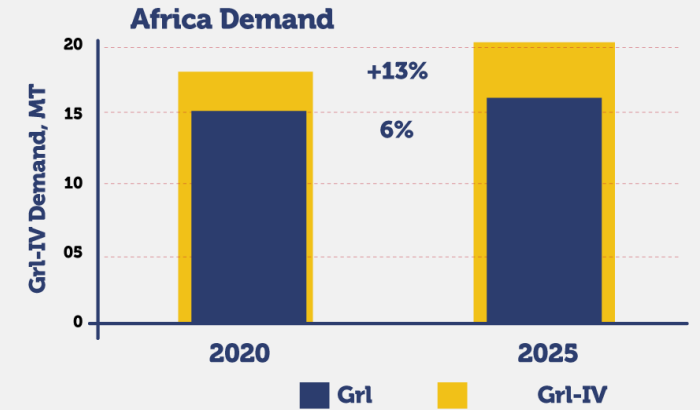
# The EV Growth

**Castrol launches CASTROL ON E-Fluids range**

**PETRONAS launches a range of EV fluids**

However, some challenges

- Reliable Power Supply
- Infrastructure investment
- Consumer knowledge
- Policies and incentives



# Knowledge Gap

RENEWABLE ENERGY

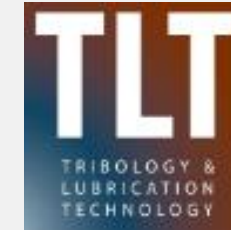
## Castrol to close critical skills gap with launch of Wind Academy

LUBEZINE MAGAZINE | September 2019



- Training
- Webinars
- Publishing

- STLE-TLT



- Insight



- Lubezine



# Lubezine Magazine



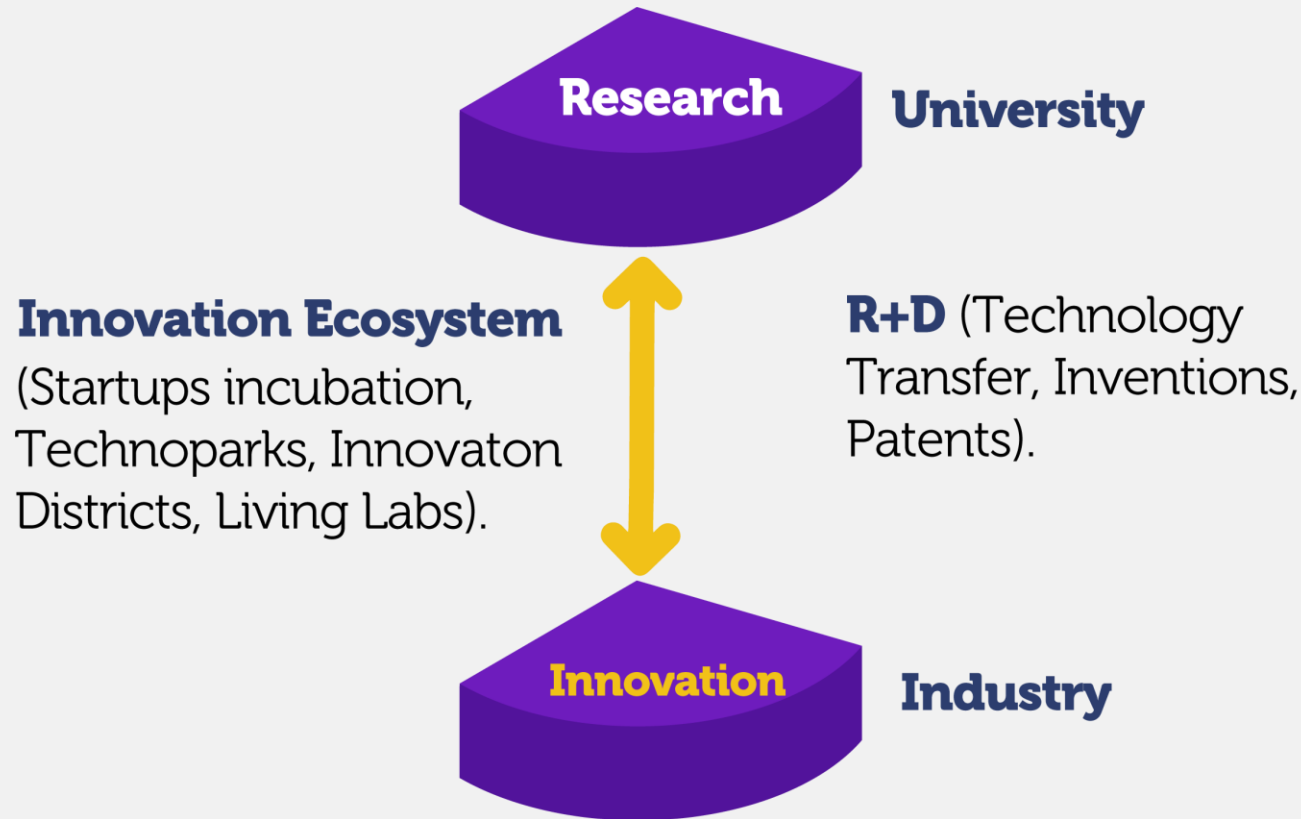
- Pan-African based
- Africa's Maintenance, Lubricants and lubrication needs
- Quarterly-based
- Print + Digital
- Target audience
  - Base oil, Additives, Lubricant's producers
  - Lubricant and lubrication end-users
  - Complementing sectors
  - Maintenance

[www.lubezine.com](http://www.lubezine.com)

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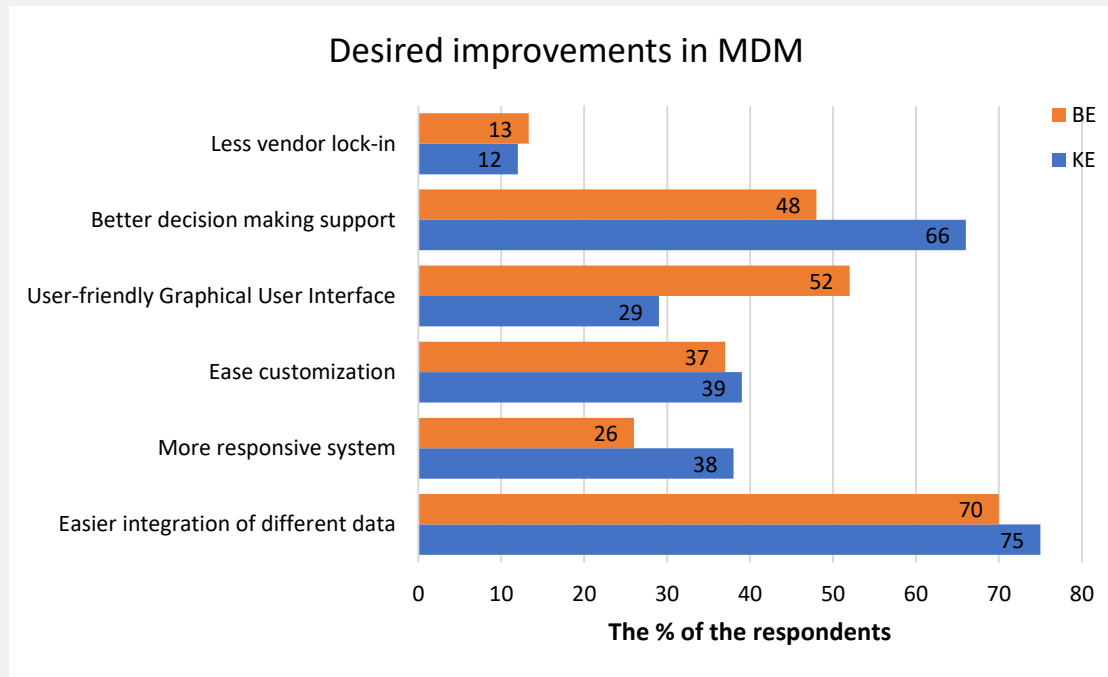


# Industry - Academia Linkage



Some areas least explored include the open gear lubricants, food-grade and biodegradable lubricants. »»

# Enhanced Maintenance



## Redefining Industry 4.0 adoption in maintenance

- Big data analytics
- IoT
- Additive Manufacturing
- Augmented Reality
- Simulation



# Lubricant Associations



Lubricant Producers  
Association of Nigeria (LUPAN) and  
Major Energies Marketers  
Association of Nigeria (MEMAN)



Petroleum Institute of  
East Africa (PIEA)

- φ Lobby
- φ Research
- φ Vices among producers
- φ Customer protection

# Circularity!

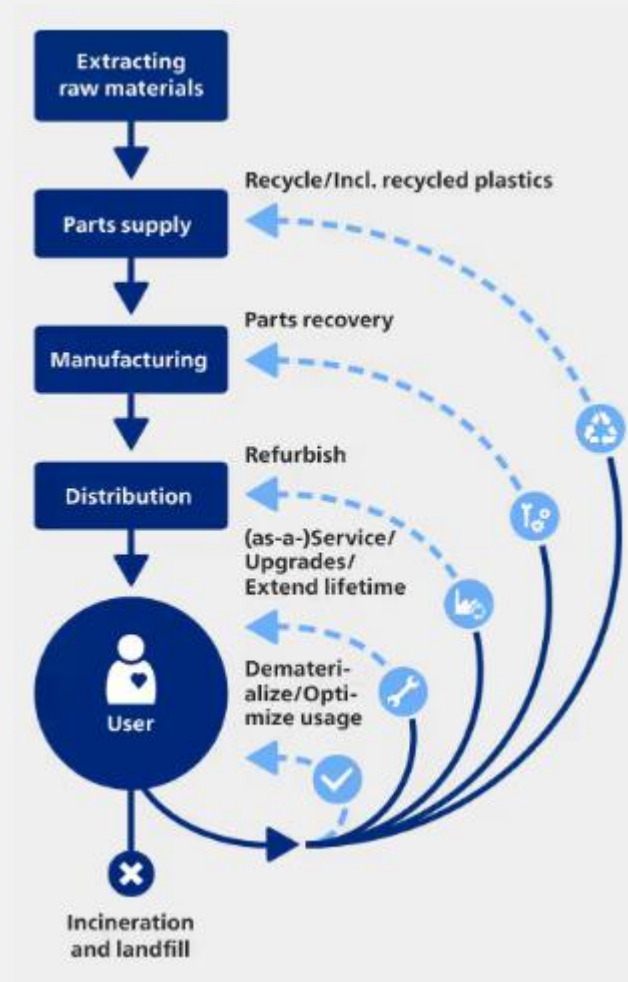


**Vivo Energy Kenya partners with industry on safe disposal of waste oil**  
LUBEZINE MAGAZINE | December 2019

**SKF to offer oil recovery system for lubes regeneration as service to customers**  
LUBEZINE MAGAZINE | June 2021

**Kenya now joins South Africa in coming up with a program that collects waste oil for destruction in an environmentally friendly manner.**  
LUBEZINE MAGAZINE | December 2019

- Slowing resource loop
- Closing resource loop



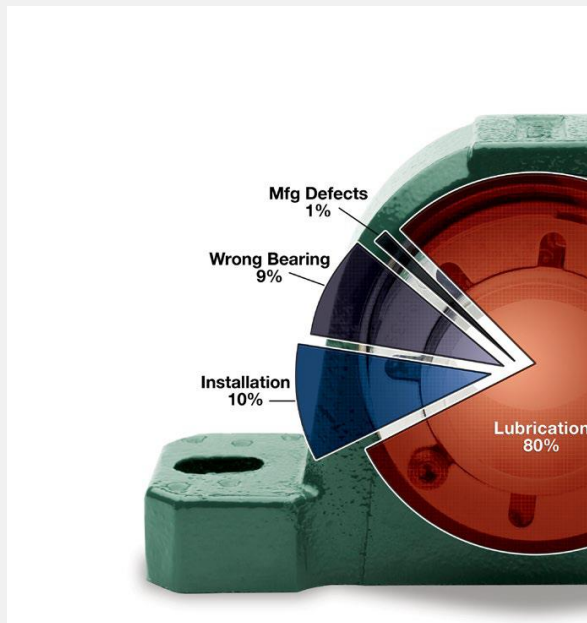
# LCM Drive

## Lubrication in maintenance optimization

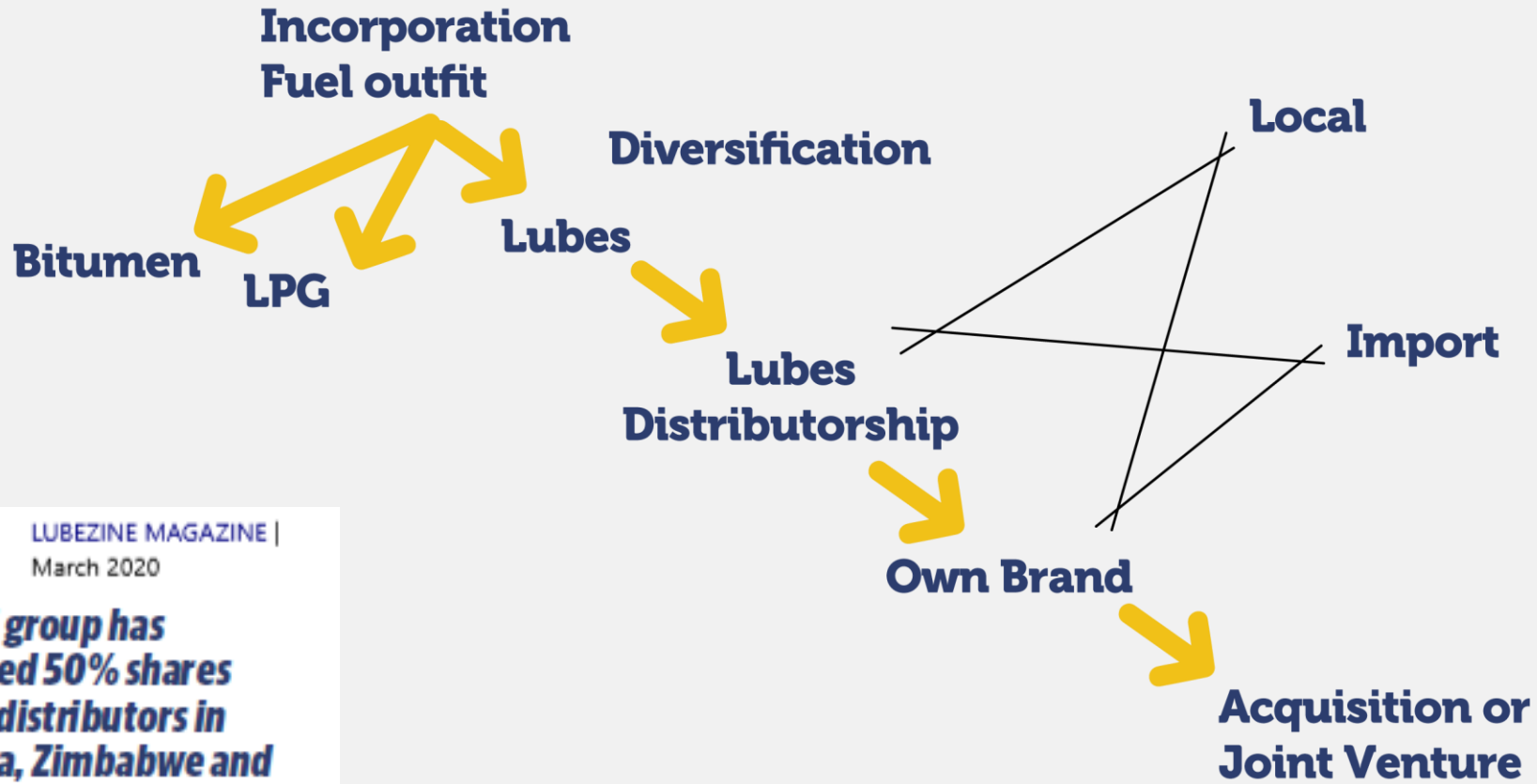
CM should be a pillar on which maintenance Optimization programs are built.

We are mechanical pathologists, and it is our responsibility to diagnose oil analysis results, **forecast** probable outcomes, and provide tangible recommendations based on the most likely scenario.

*Steven Lumley-Technical Manager, WearCheck Africa.*



# Market Trends



 LUBEZINE MAGAZINE |  
March 2020

**FUCHS group has acquired 50% shares of the distributors in Zambia, Zimbabwe and Mozambique**

|||||

# Conclusion

- Reachable market
- Africa - next frontier
- Challenges being addressed
- Significant opportunities
- General eco-political goodwill
- Partnership option → penetration and growth
- Wide operational landscape
- Resilience for future

THANK  
YOU  
FOR  
LISTENING

**Lubezine**   
Focusing on Africa's lubrication needs



+254 722 803504 / +254 737 737023



[james.wakiru@lubesafrica.com](mailto:james.wakiru@lubesafrica.com)



[www.lubezine.com](http://www.lubezine.com)