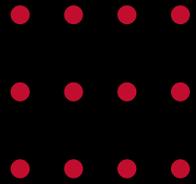




NISSAN

VEHICLE  
SAFETY



DEON STRYDOM

NISSAN SOUTH AFRICA

SENIOR MANAGER  
VEHICLE HOMOLOGATION

NISSAN

NAVARA

EXECUTIVE SUMMARY





## BACKGROUND

Purpose is to cover the following:

- Key aspects of vehicle homologation & compulsory standards to ensure safety
- Importance of harmonization of standards across Africa

## KEY POINTS

1. Understanding vehicle homologation
2. Understanding compulsory standards
3. South Africa – future safer vehicles project
4. Importance of standards harmonization across Africa

## CONCLUSION

Harmonization of vehicle standards across Africa is required to ensure Africa actively participates in last frontier of business

- Safer vehicles will be ensured
- Intra-African trade will be promoted

# EXECUTIVE SUMMARY



## WHAT IS VEHICLE HOMOLOGATION?

- Process to provide proof of vehicle regulatory compliance for specific market
- Requirements based on compulsory specifications, published by government
- Process to take place at introduction phase of new model introduction
- Homologation application submitted to govt. Incl. proof of compliance test reports



### WHY DO WE HOMOLOGATE VEHICLES

- Required standards becomes legal requirement
- Manufacturer may not offer non-compliant vehicles



### HOW TO ENFORCE HOMOLOGATION

- Utilize electronic information system, which govt. controls
  - No vehicle registration without homologation approval
- [No registration → no sales]

## UNDERSTANDING VEHICLE HOMOLOGATION

## WHAT CRITERIA ARE USED FOR VEHICLE COMPULSORY SPECIFICATIONS?

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- Global benchmark for Homol. Vehicle regulations: UN ECE regulations  
[United Nations Economic Commission for Europe]
- Each regulatory component/system - different UN ECE Reg. (e.g. R13 for brakes)
- Regulation specifies test methods & OK judgement criteria
- Reg's have different levels, e.g. R13.04/R13.08 (generally higher lvl more severe)

## REGULATION SELECTION & SUBMISSION

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- Each country govt. decides minimum Regulation
- [Comp. qty & reg. Lvl]
- Reg. testing to be done by 3<sup>rd</sup> party test house
- Manufacturer submit Homol. application to govt.
- For harmonization, similar requirements advised

UNDERSTANDING COMPULSORY

STANDARDS





# Typical Vehicle Regulatory Safety Standards To Be Met For Comps/Systems

Seat Strength  
[UN ECE R17]



Safety Belts  
[UN ECE R16]



Lighting  
[UN ECE R48]



Brake Performance  
[UN ECE R13]



Tires  
[UN ECE R30]



Glazing (Glass)  
[UN ECE R43]



Mirrors  
[UN ECE R46]



Audible Warning  
[UN ECE R28]



Exhaust Emissions  
[UN ECE R83]



Sound Levels  
[UN ECE R51]

UNDERSTANDING COMPULSORY

STANDARDS

## Example Of Testing Criteria For Seats Against UN ECE R17.02



| TEST ITEM                               | TEST CRITERIA  |
|---|--|
| Seat back strength & locking system     | Withstand 530 nm longitudinally & rearwards  |
| Seat anchor strength & locking system   | Withstand horizontal longitudinal force = 20x seat weight, through centre of gravity, once forward & rearward direction    |
| Resistance of locking system to inertia | Horizontal longitudinal acceleration of 196 m/s <sup>2</sup> (20g) in forward & rearward direction                         |
| Judgement criteria                      | No failure shall be detected in seat frame or seat anchorage, adjustment and displacement systems or their locking devices |

EXAMPLE  
OF INERTIA  
TEST



Seat (fixed to sliding structure) sliding forward/rearward into dead stop with 196 m/s<sup>2</sup> acceleration

UNDERSTANDING COMPULSORY

STANDARDS

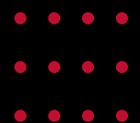


- Improvement on vehicle safety: ongoing process
- SA govt. Now proposing improved regulations from January 2026
- Government and SA stakeholders currently discussing draft standards

### Main Proposed Improvement Items From Jan '26

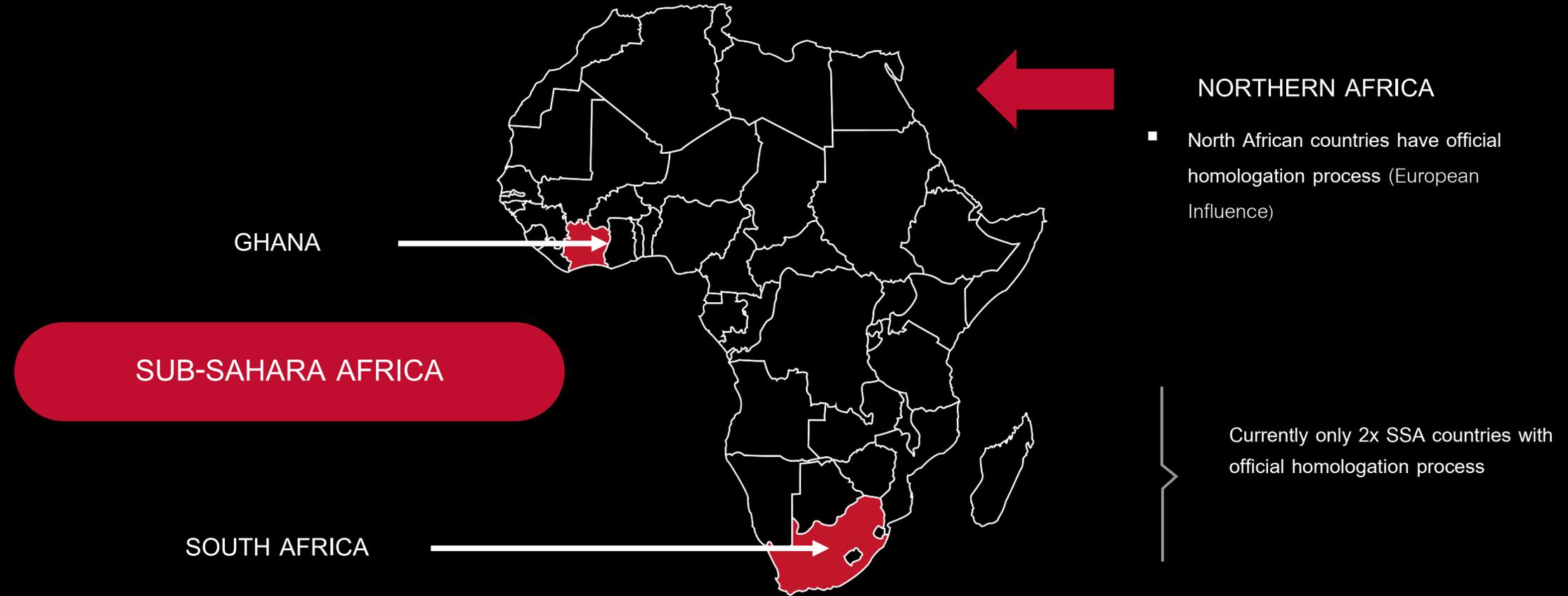
| ITEM (SAFETY/EMISSION)                   | CURRENT CONDITION | PROPOSED (DRAFT) CONDITION |
|--|-------------------|----------------------------|
| ABS (anti-lock brake system)             | Not compulsory    | Compulsory                 |
| ESC (electronic stability control)       | Not compulsory    | Compulsory                 |
| Frontal airbags (driver/front passenger) | Not compulsory    | Compulsory                 |
| ISOFIX anchorages (child restraints)     | Not compulsory    | Compulsory                 |
| Frontal/side/rear impact testing         | Not compulsory    | Compulsory                 |
| Higher emission levels                   | EURO 2            | EURO 5                     |

SOUTH AFRICA



FUTURE SAFER VEHICLES PROJECT

# Countries Currently In Africa With Official Homologation Process For Regulatory Conformance (Equivalent To UN ECE Regulations)



IMPORTANCE OF HARMONIZATION

ACROSS AFRICA

## CURRENT AFRICAN CONDITION ON VEHICLE REGULATORY STANDARDS

- A. Only few countries with vehicle compulsory specifications
- B. Even countries with specifications - requirement differs by country

## NEGATIVE EFFECT OF NON-HARMONIZATION ACROSS AFRICA

- Intra-Africa Vehicle trade potential jeopardized due to:
  - A. Sub-standard/grey import new/2<sup>nd</sup> hand vehicles entering Africa
  - B. Africa country "X" vehicle not meeting African country "Y" vehicle requirement

## HOW TO FURTHER PROMOTE AFRICAN VEHICLE REGULATION HARMONIZATION?

- Currently various organizations working inside Africa to promote harmonization
- One such organization: Arso (African organization for standardization)
  - Currently 40 member countries - head quarters: Nairobi, Kenya
  - Vision: promoting trade & industry; mission: facilitating harmonized standards implementation
- Reuben Gisore (case study speaker) is from Arso (Tech. Dir.)

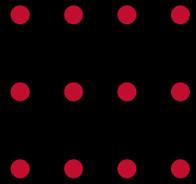
## NON-HARMONIZATION

## IMPORTANCE OF HARMONIZATION ACROSS AFRICA



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THANK YOU



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