

# BIOGAS 2013

## Biogas Safety and Regulations

31 October 2013

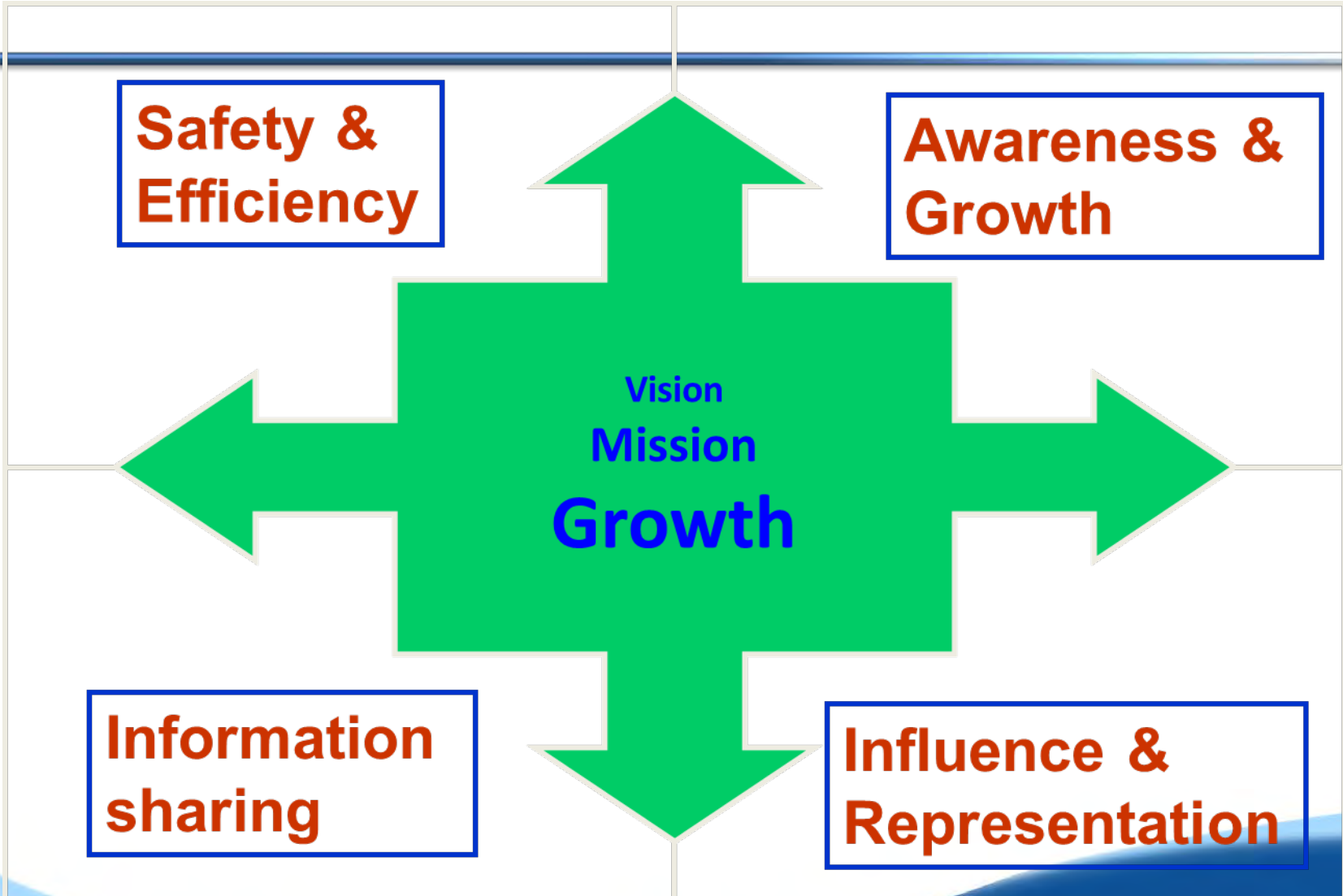
Eddie Cooke

# SABIA's Focus

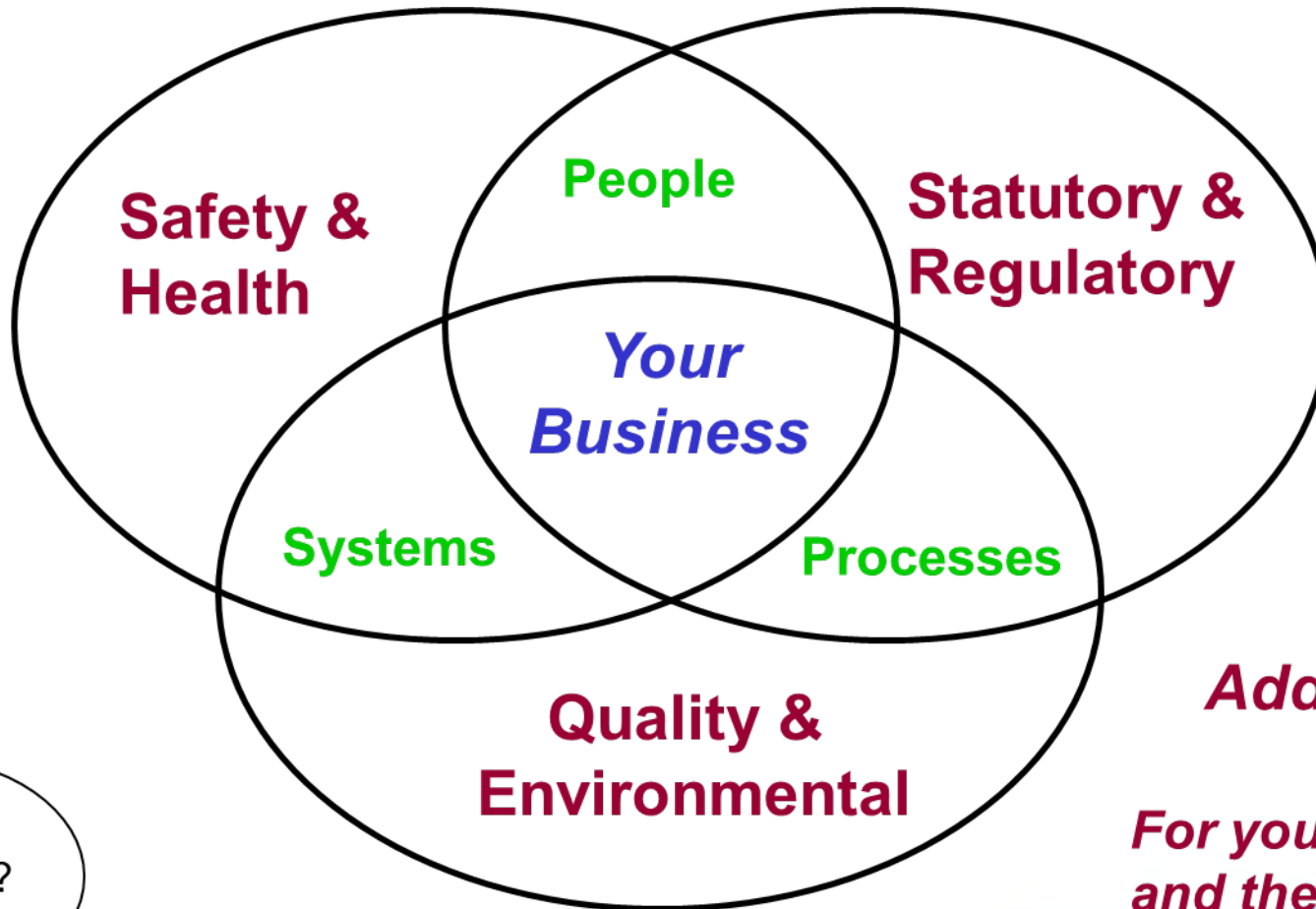
*To promote the safe and efficient use and supply of bio-methane based gas within the biogas Industry of Southern Africa*

- 💧 Safety Environment*
- 💧 Industry Focus*
- 💧 Win – Win Relationship*
- 💧 Integrity*
- 💧 Continuous Improvement*
- 💧 Develop industry Standards*

# SABIA and SAPGA



# ● Functional Interrelationships



# Biogas Regulatory Compliance

## *Guidelines*

- Sectors Domestic(<0.5GJ/h)
- Commercial and Industrial (>0.5GJ/h)
- Operating Pressure of Systems < 50 kPa (PER)
- Gas Act: (NERSA) Biogas
  - Storage License
  - Production Activity Registration
  - Trading License
- NEMA regulations:
  - Air Quality
  - Water Usage Licenses
  - Waste Management Act
  - Production Requirements and Thresholds
  - Reduce Time and process of approvals

# Biogas Regulatory Compliance

## *Guidelines*

- Sectors where Standards in Biogas should be Developed or Influenced.
  - Equipment certification
  - Installations Practice
  - Sector classification
  - Training and Education
  - International Standards
  - Government Policy
  - Industry Strategy
- SABS and SANS Standards
  - Started with Biogas standards
  - Equipment standards outstanding

# Biogas Regulatory Compliance

## *Guidelines*

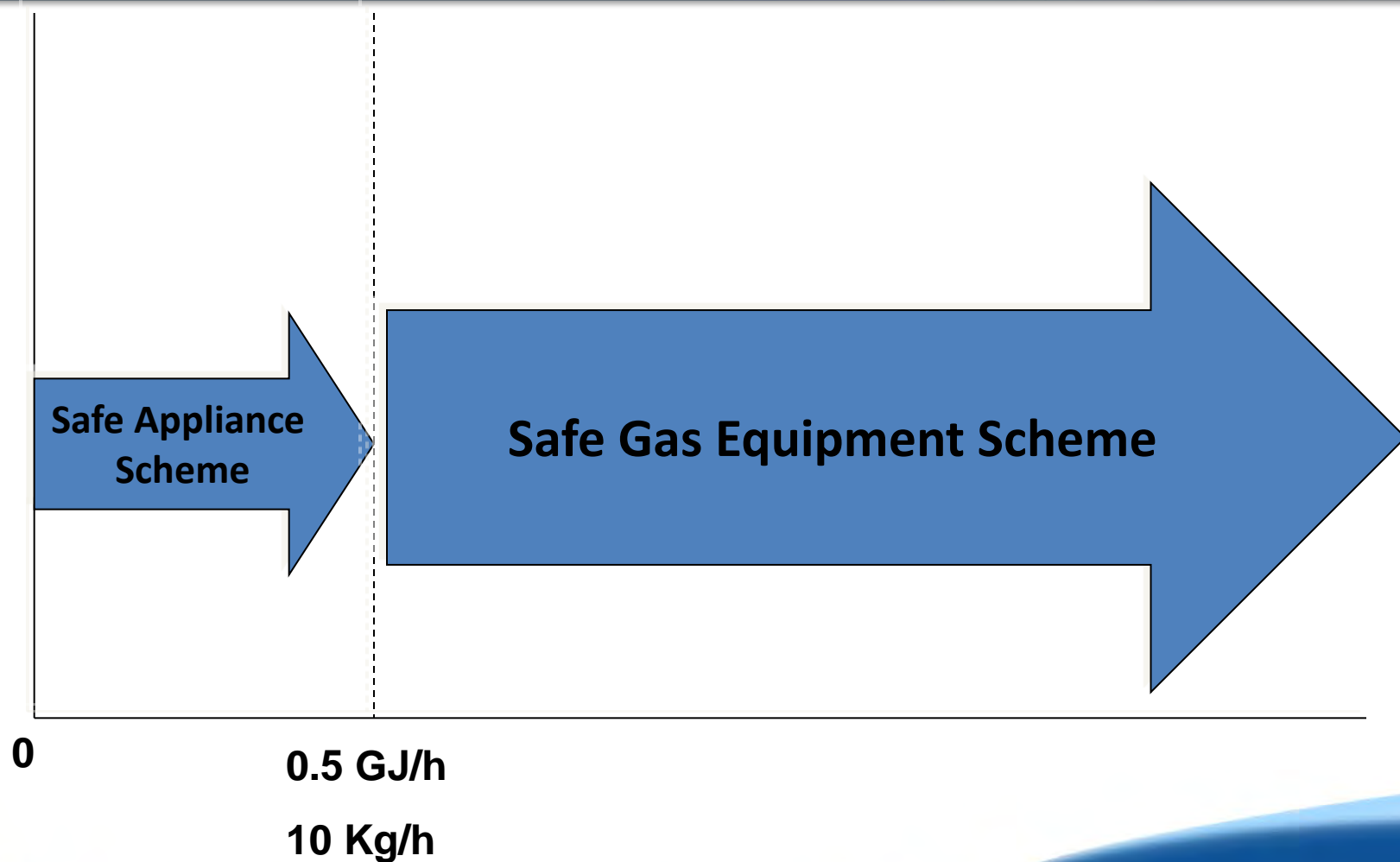
- **Domestic Regulation.**
  - Basic requirements
  - Ensure safe use and operation
  - Keep cost low for market penetration
  - Equipment safety and quality control
  - Installers to be trained and certified to issue CoC`s
  
- **Commercial and Industrial Regulation**
  - Comply with industrial safe gas practice
  - CoC`s to be issued for all installations
  - Only approved equipment to be used

## Why – Legal compliance?

- ❑ Member of the South African Qualifications and Certifications Committee for Gas namely (SAQCC-Gas) - a Department of Labour appointed institution - to be jointly involved in the **registration of competent practitioners in the methane gas industry.**
- ❑ SAPGA / SABIA is therefore required under **OHS Act - PER** and related standards to ensure registered practitioners and establishment of a Safe Gas Equipment Scheme (SGES) for the methane gas industry

## LPGSA vs SAPGA

# Safe Appliance Scheme vs Safe Gas Equipment Scheme



# Safe Appliance Scheme

## *LPG safety association*

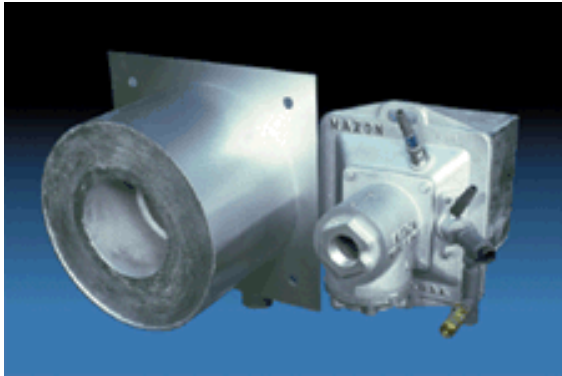
- All domestic and commercial equipment < 0.5 GJ/h
- Single permit for both LPG and Natural Gas
- On Biogas will apply to:
  - Gas stoves / hobs
  - Gas generators
  - Hot water Geysers
  - Fire places / heaters

# Safe Gas Equipment Scheme

## **SAPGA**

- All Commercial & Industrial biogas equipment > 0.5 GJ/h
- Domestic and commercial equipment using methane gas < 0.5 GJ/h
- On Biogas/Natural gas will apply to:
  - Gas ovens
  - Burners / Furnace / Boilers
  - Bio-digesters
  - Hot water Geysers
  - Heaters
  - Gas Generators / Engines

# Gas Equipment



# Biogas to Vehicles



# THANK YOU

**NOVO Energy**

[eddie.cooke@novoenergy.co.za](mailto:eddie.cooke@novoenergy.co.za)

082 322 6210

[www.novoenergy.co.za](http://www.novoenergy.co.za)

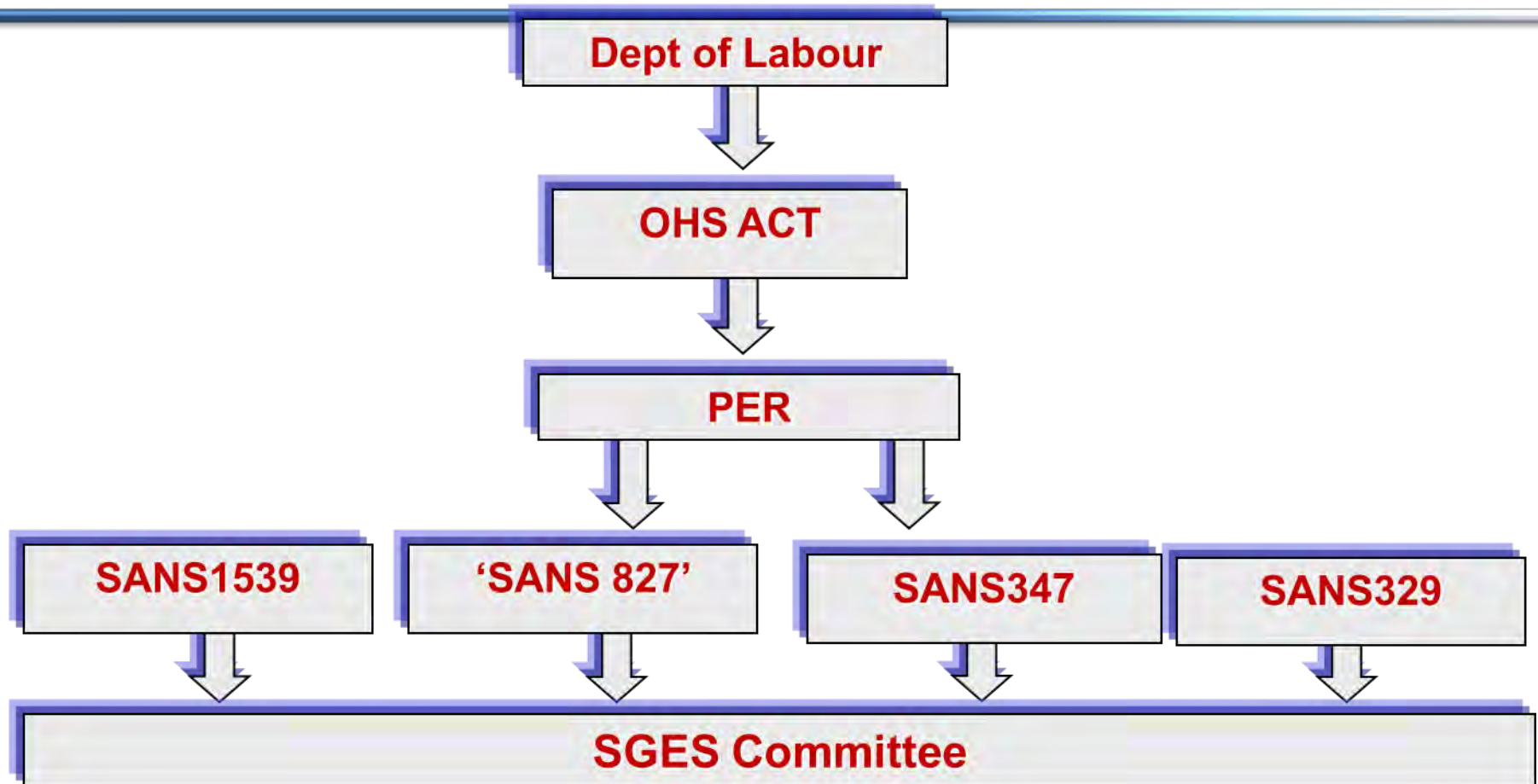
For more information on biogas and natural gas vehicles ;-

[www.iangv.org](http://www.iangv.org)

[www.ngva.europe.eu](http://www.ngva.europe.eu)

[www.ngvamerica.org](http://www.ngvamerica.org)

# Mandate /Authority of the SGES



# Legislation

## Occupational Safety and Hazards Act, 1993 – Act No. 85 of 1993“ *Pressure Equipment Regulations 2009 - Regulation 17*

*No person shall –*

- (1) handle, store or distribute any **gas** in any manner, including the filling of a container, other than in accordance with a health and safety standard incorporated into these regulations under section 44 of the Act,
- (2) install **or remove** an appliance, **pressure** equipment or system for gas in any manner other than in accordance with a safety standard incorporated into these regulations under section 44 of the Act,
- (3) **install or remove a gas appliance, or a gas system or a gas reticulation system, unless such a person is an authorised person**
- (4) **After installation or re-installation, before commissioning the user shall ensure an external inspection and leak testing is performed**
- (5) **An authorised person shall issue a certificate of conformance**



labour

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REPUBLIC OF SOUTH AFRICA



# SAPGA's Future

1. Currently finalizing NQF levels 2 & 3 training material
2. Training on SANS 329 (Thermo Processing) – industrial level (220)
3. NG course: domestic level – SANS 1539 and SANS 827 (Training Provider)
4. **Safe Gas Equipment Scheme (SGES) & Safe Appliance Scheme (SAS)**
  - SAPGA for industrial equipment*
  - LPGSASA for domestic/commercial appliances*
  - Mandate from Dept of Labour*