



# National Foundry Technology Network

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the dtic

Department:  
Trade, Industry and Competition  
REPUBLIC OF SOUTH AFRICA



**CSIR**  
Touching lives through innovation

The National Foundry Technology Network (NFTN) is an industrial support programme aimed at equipping the South African metal casting industry, delivered by the Council for Scientific Industrial Research (CSIR).

The NFTN is funded by the Department of Trade, Industry and Competition (**the dtic**) to achieve national objectives in this very important sub-sector.



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# Overview

- Roles
- Future
- New/smart foundries
- FTCA



# Roles of foundries

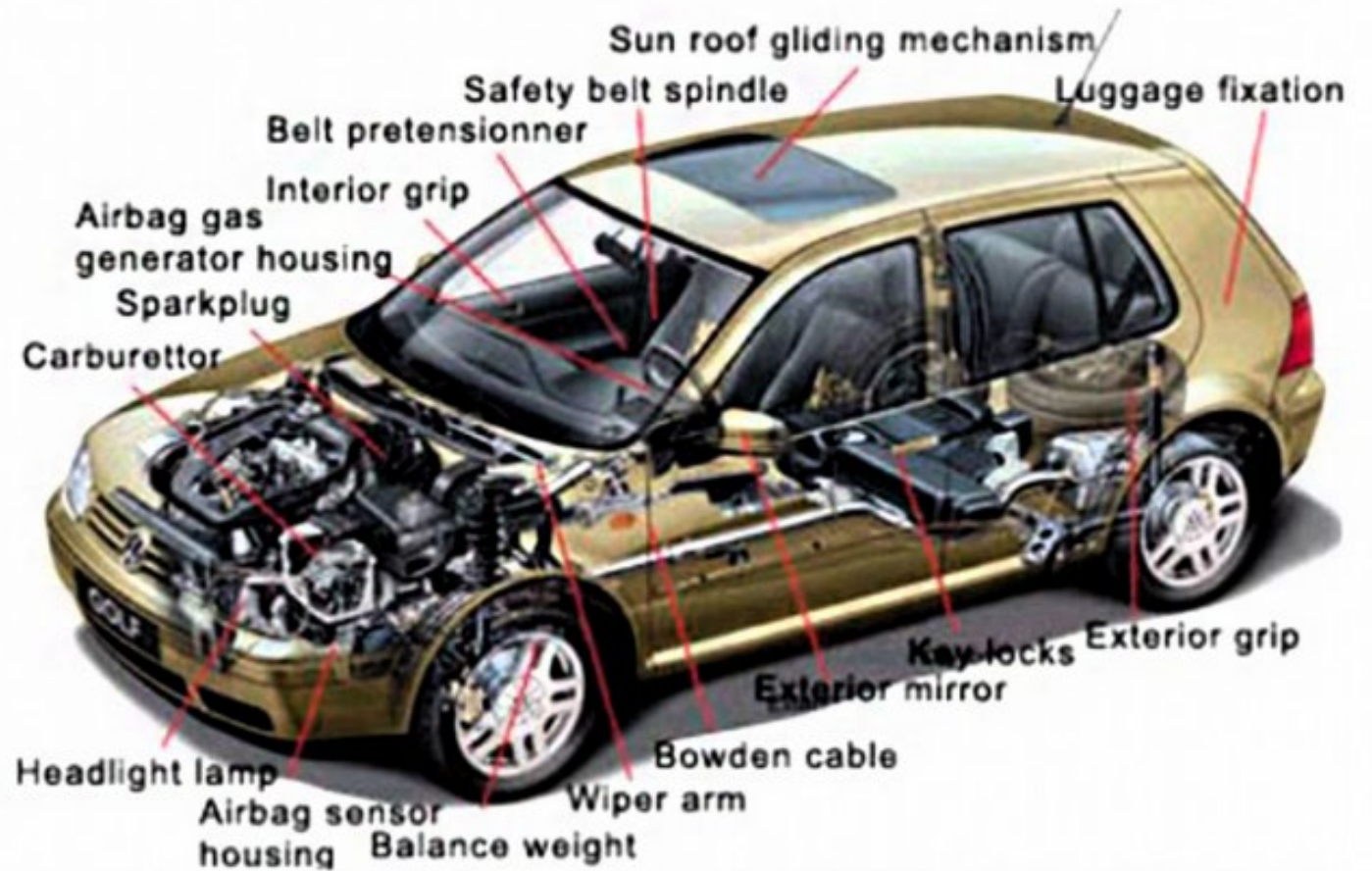
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## Manufacturing

- Backbone of metal manufacturing industry
- Plays a critical role in the strategic sectors;
  - Automotive
  - Railways
  - Mining
  - General Engineering

Aluminium die casting parts

# Automobile Castings



# Railway castings

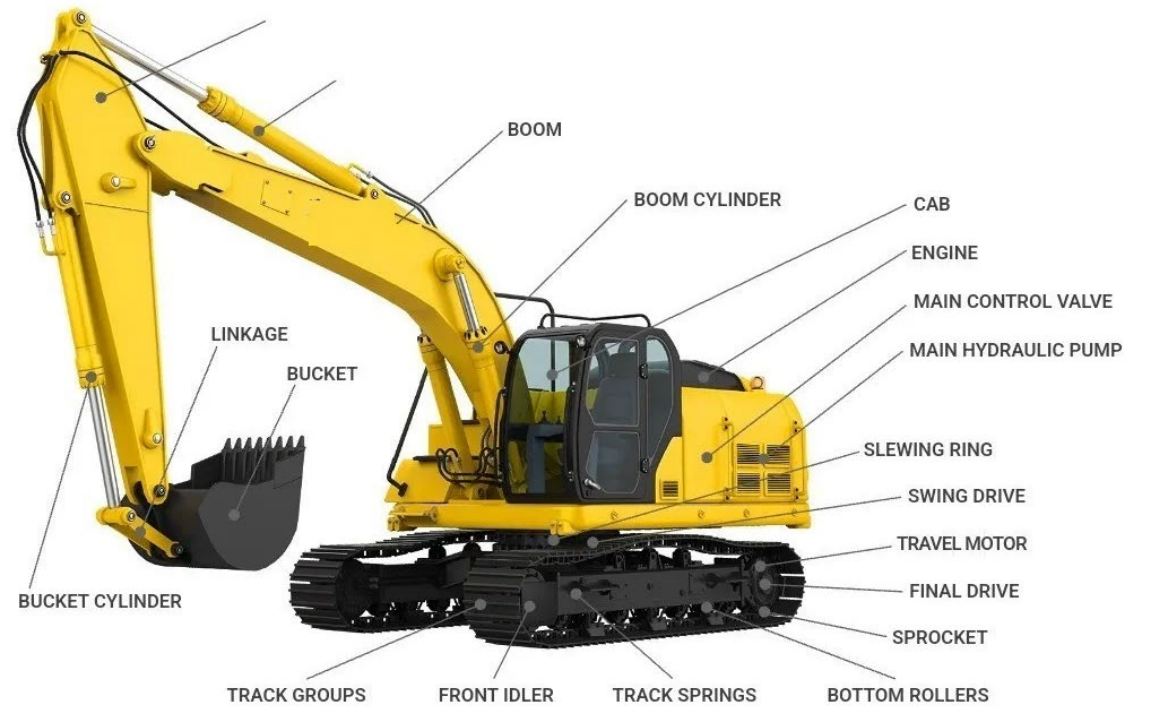


# Mining

## Underground Miner

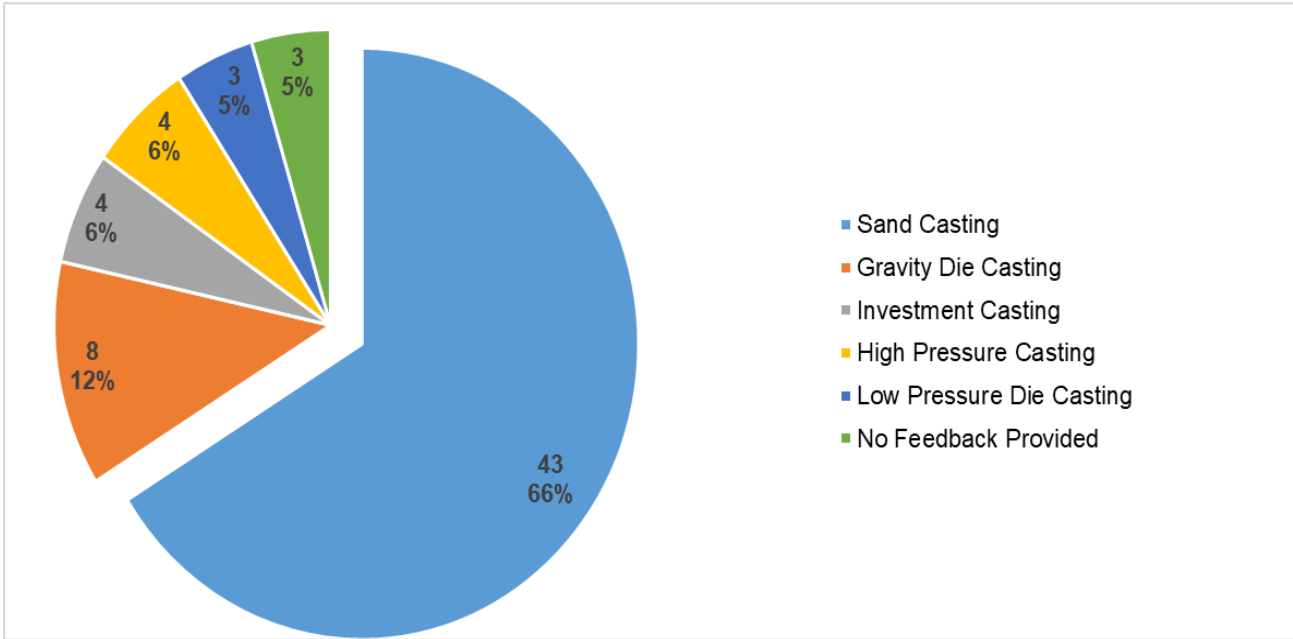


## Excavator

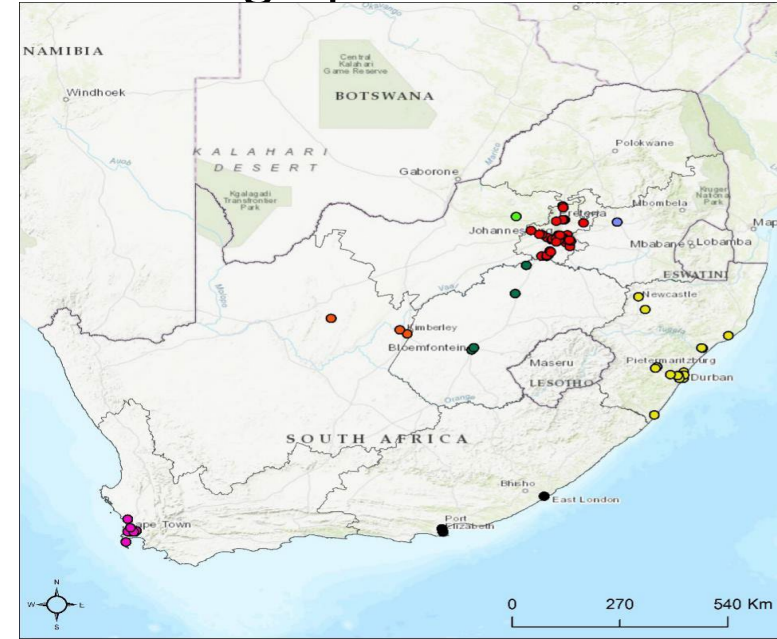


# Future

## Current *Status quo*



## Geographical location



- Legend**
- Foundries per province**
- Gauteng (84 foundries)
  - KwaZulu-Natal (16 foundries)
  - Western Cape (10 foundries)
  - Freestate (4 foundries)
  - Eastern Cape (4 foundries)
  - Mpumalanga (1 foundry)
  - North West (1 foundry)
  - Northern Cape (3 foundries)



- *Most foundries are Jobbing*
- *Production foundries minority*

# Smart foundries

- Development and implementation of 4.0 industry technologies (Metallurgical software, digitalization & traceability, predictive control systems) orientated towards reduction of rejection rates and production improvements.
- Development of predictive control models in real time based on AI for the foundry process
- Development of final products in compliance with OEMs requirement

- Technical facility established to augment the interventions of the NFTN
- Rapid respond through research and development
- Bridge the RDI divide in the foundry industry
- Support foundries in accessing the market through RDI
- Accessible to the industry at a competitive rate



**Thank you**

**[www.nftn.co.za](http://www.nftn.co.za)**

