

VALUE ADDED BY METALS AND MINERALS

The benefit of metals to modern life is indisputable. The metals and minerals that ARM operations produce are essential to support many aspects of modern society. They also have important roles to play in contributing to the developmental aspirations set in the United Nations Sustainable Development Goals (SDGs).



Iron ore, manganese and nickel are used to make steel, which is a key component in the infrastructure that is needed to sustain and support development in cities and communities. This includes hospitals and schools improving health and education outcomes. Steel is not only essential as a manufacturing input, but also for the machinery and equipment used in industry, which drives job creation and economic growth. It also plays a critical part in water and energy distribution systems, agricultural irrigation, transport infrastructure, alternative energy systems and information and communication technology. As stainless steel, it has many industrial and medical applications.

Platinum group metals (PGMs) in catalytic converters contribute to improving air quality by reducing harmful emissions from motor vehicles. Hydrogen fuel cells are a promising source of clean energy that use platinum to generate energy from hydrogen and oxygen, with water being the only emission.

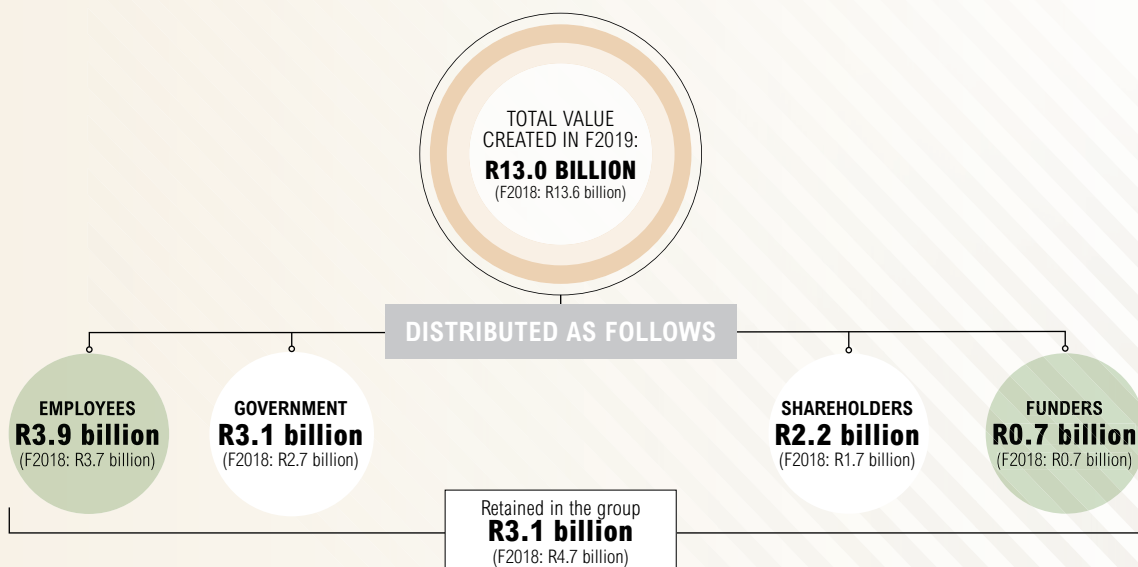
Nickel and manganese are used in certain types of lithium-ion energy storage technologies, which play a role in the growth in renewable energy and electromobility. Nickel is also used in corrosion-resistant alloys used in desalination plants to convert sea water into potable water.

Metals can be recycled almost indefinitely without losing their essential properties and performance, and support the growth of the circular economy. Recycled metal can be produced more efficiently, saving water and energy, and produces less waste and fewer greenhouse gas emissions than metal from newly mined ore.

China's focus on addressing its pollution challenges through improved efficiencies in heavy industries has increased demand for higher quality ore, which produces fewer emissions when processed. The iron and manganese ore from ARM Ferrous's mines offer customers the ability to optimise production and reduce emissions by offering greater blending options. For example, use of lumpy iron ore in the steel making process reduces Scope 1 emissions associated with the sintering process.

Our social impacts

ARM's activities create value for our stakeholders in a variety of ways. In F2019, ARM's activities created R13.0 billion in financial value (F2018: R13.6 billion). The diagram below summarises how the value we created was distributed to our stakeholders.



Over the last five years, ARM has created total value of **R48.7 billion** and distributed **R9.6 billion** of this to the government in the form of taxes and royalties.

ARM operations are located in some of the poorest and most remote parts of the country and provide employment opportunities, skills development and educational support in these areas. Infrastructure investments and support for social projects in local communities support socio-economic development and improve community resilience and sustainability.

ARM's preferential procurement and enterprise development programmes support entrepreneurship and economic growth among historically disadvantaged South Africans (HDSAs) and in local communities, create jobs, improve market access for South African capital goods and services, and increase economic activity in the areas around our operations.

Contributions from ARM operations over the last five years (on a 100% basis) included:

R9.6 billion paid as taxes and royalties.

R757 million invested in community development.

Providing employment for **21 417** employees and contractors (as at 30 June 2019).

Improved HDSA representation in management from **51%** in F2015 to **62%** in F2019.

R54 billion paid in procurement. In the year to December 2018, 84% of services, 79% of capital equipment and 86% of consumables procured were allocated to HDSA suppliers.

Paid **R18.4 billion** to employees as salaries, wages and benefits.

Invested **R1.07 billion** in training initiatives to improve the skills of employees.

Provided **1 198** bursaries.

Provided adult education and training (AET) to **745** employees and **1 833** community members at ARM facilities since F2015, increasing their confidence and employability.

* On a 100% basis.
Reported for F2019 (as at 30 June 2019).

