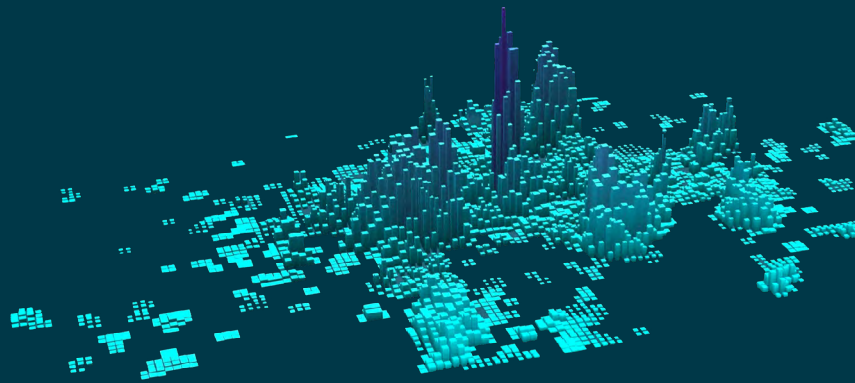


Johannesburg

Digital technology can support Johannesburg to manage rapid population growth and get the most out of its abundant resources.



The Atlas of Digitalization demonstrates how smart cities across the world are realizing their potential through digital technological innovation.

Like all cities, Johannesburg faces unique challenges that require distinct solutions, and our Digitalization Readiness and Potential scores compare how prepared each is for a connected future, and what opportunities they have to transform beyond where they are today.

2 /10

Digitalization Readiness

Improvements to the rail network and guaranteeing energy supply using a microgrid will help Johannesburg to improve on its low readiness score.

6 /10

Digitalization Potential

Johannesburg has many ways to build on its potential, from digitalization of the mining sector to improving urban mobility and energy.

Each score pools data from a range of sources, rating developments around **Sustainability, Mobility** and **Opportunity**, the key themes from Expo 2020 Dubai.

Sustainability

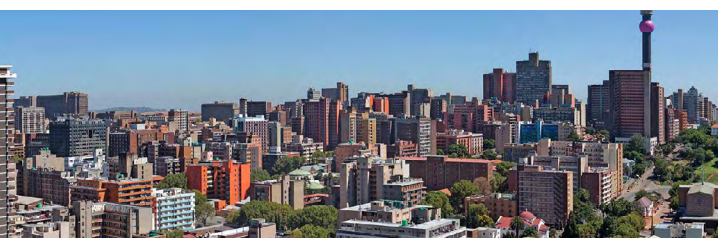
How and what energy is used in buildings, travel and public spaces.

Mobility

Where, when and how people travel and connect and the impact it has.

Opportunity

How much people enjoy city living and how businesses thrive.

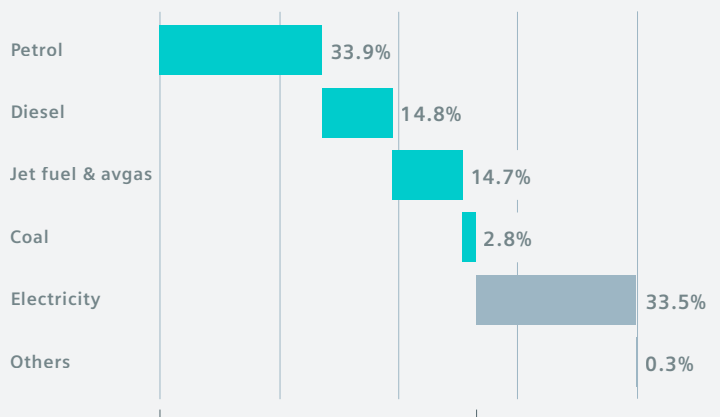


Sustainability

Solar panels help transition from coal to renewable energy.

Siemens built a flexible power solution at their Johannesburg office to manage energy consumption inside. Solar panels charge electric cars outside which has reduced energy demand from the national grid by 40%.

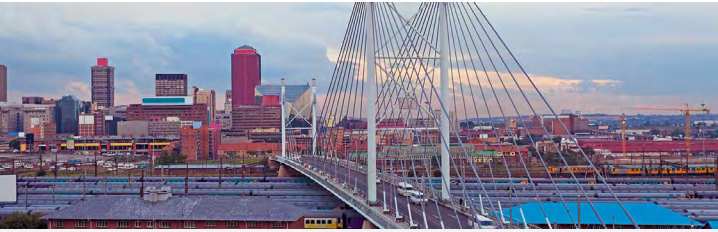
Sources of fuel, Johannesburg 2011



Petrol, diesel, jet fuel and coal

account for 66.2% of fuels

Source: South African Cities Network

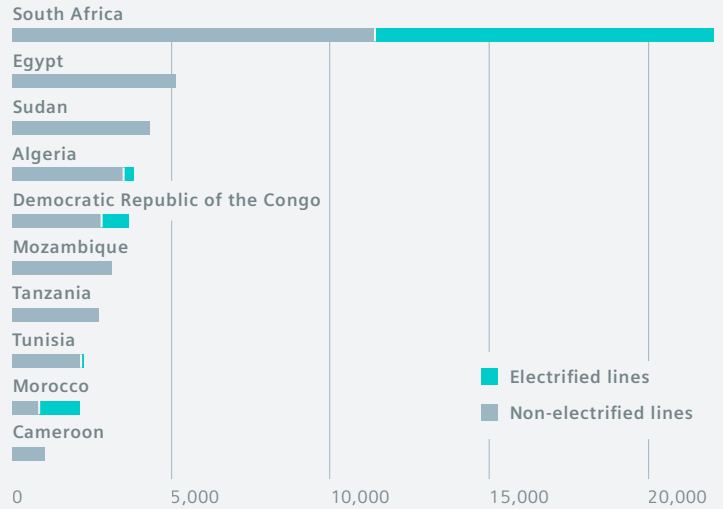


Mobility

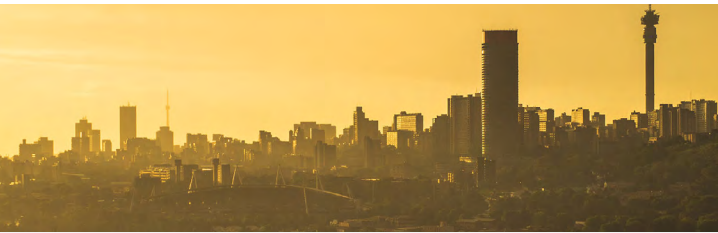
Modern railway infrastructure responds quicker to failures.

New signaling technology by Siemens will allow greater trip frequency from 15 to 2.5 minutes and support new electric high-speed trains. The new Gauteng Nerve Centre monitors 600+ trains to be more proactive.

Km of railway infrastructure across African countries, 2017



Source: International Union of Railways

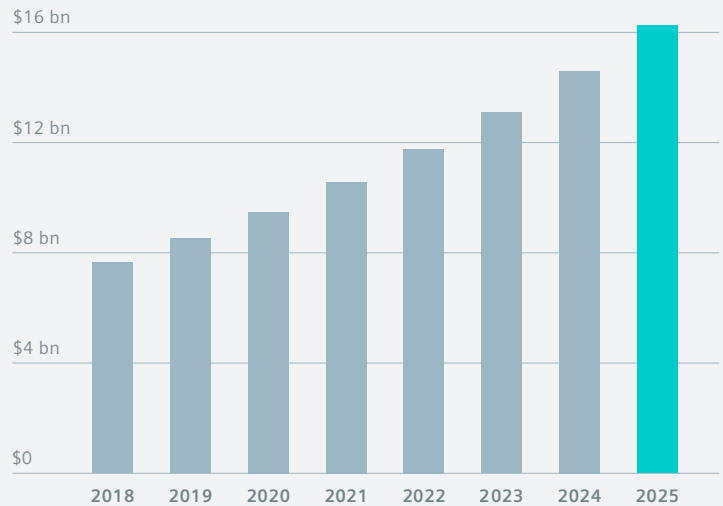


Opportunity

Smart Mining technologies can increase skills and yield automation.

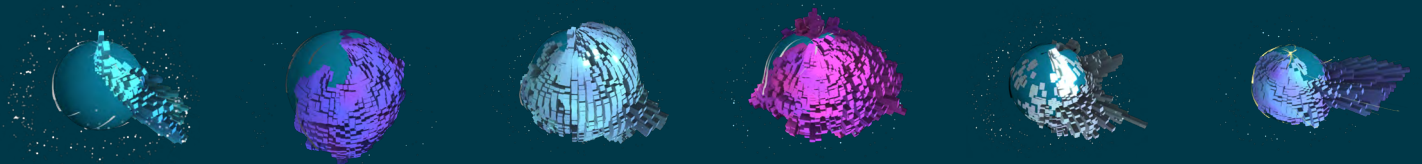
Digitalization has the potential to also increase driverless transport, wireless underground communication networks and remote-controlled machinery. Siemens launched the Digital Mining Incubator to educate the next generation.

Projected smart mining market value worldwide, USD



Source: Statista

For more information on Johannesburg, explore the Atlas of Digitalization



DUBAI

LOS ANGELES

BUENOS AIRES

LONDON

> JOHANNESBURG

TAIPEI