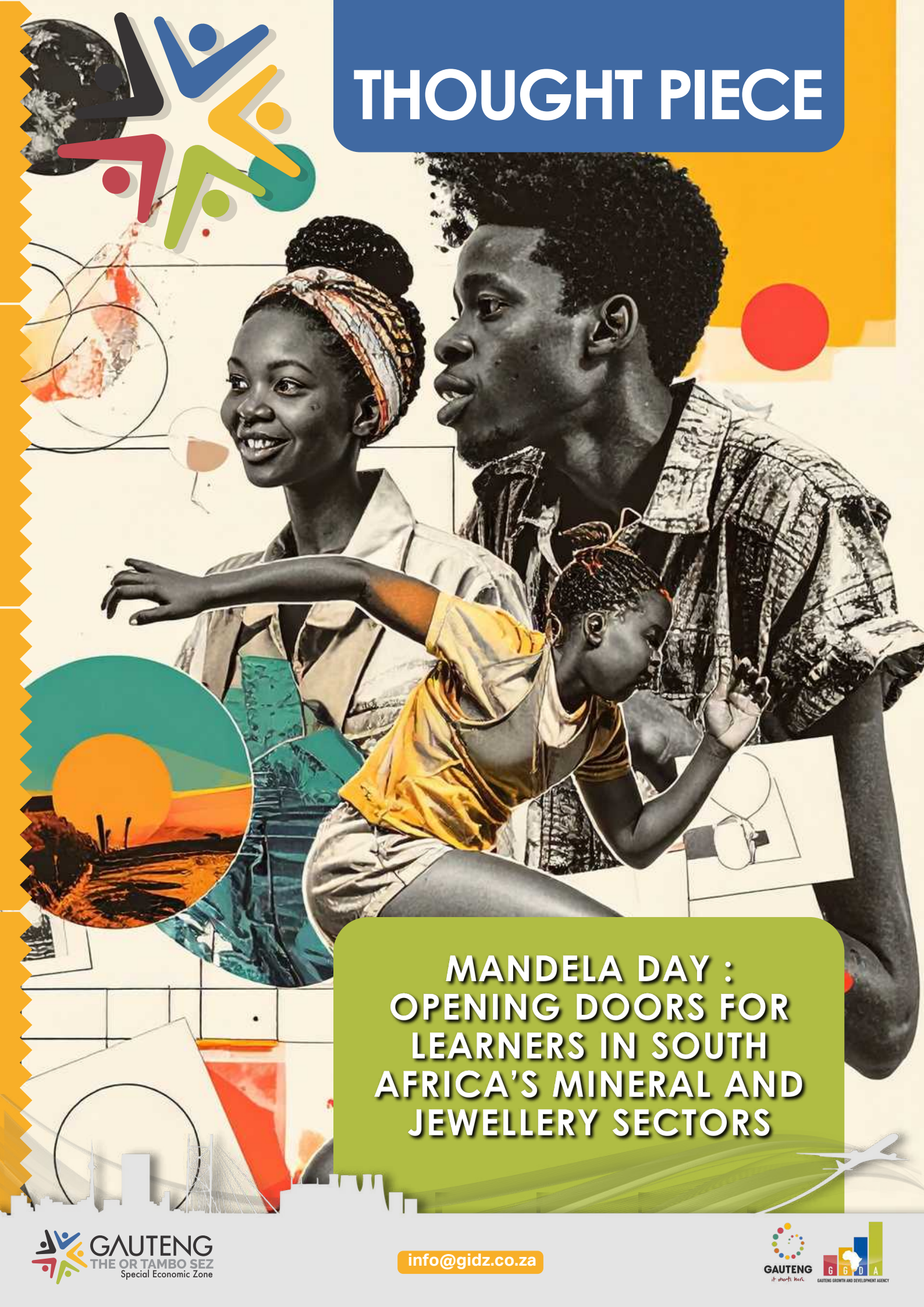




# THOUGHT PIECE

## MANDELA DAY : OPENING DOORS FOR LEARNERS IN SOUTH AFRICA'S MINERAL AND JEWELLERY SECTORS

# TODAY, THE NATION FACES A NEW CHALLENGE; INTEGRATING ITS YOUTH POPULATION INTO AN ECONOMY CHARACTERISED BY HIGH UNEMPLOYMENT AND EXCLUSION



The true spirit of **Mandela Day**:  
“**Making a meaningful and sustainable impact.**”

In celebration of Mandela Day this year, the OR Tambo Special Economic Zone (ORTIA SEZ), in collaboration with the South African Diamond and Precious Metals Regulator (SADPMR), hosted a dynamic career guidance session aimed at high school learners.

The initiative focused on exposing young people to viable and impactful career paths in sectors that are critical to South Africa's economic growth. These include mineral beneficiation such as jewellery production and advanced manufacturing as well as emerging industries like the green hydrogen economy.

These industries not only offer long-term career potential for young South Africans but also align with the country's broader goals of industrial development, value addition, and youth employment.

The session reflected the true spirit of Mandela Day: “making a meaningful and sustainable impact.” By connecting learners with real opportunities in high-potential fields, the event aimed to inspire the next generation of professionals and entrepreneurs, while also contributing to the country's transformation agenda.





South Africa remains one of the world's top producers of gold, diamonds, and Platinum Group Metals. In 2022 alone, the mining sector contributed over R888 billion through exports and local mineral sales, accounting for 4.4% of the national GDP and providing employment to nearly half a million people.



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## UNLOCKING VALUE FROM SOUTH AFRICA'S MINERAL WEALTH

Yet despite this strong base, the country continues to export a significant portion of its raw mineral resources without unlocking their full value through local processing and manufacturing. Expanding beneficiation efforts—such as jewellery design, metal refining, and advanced materials production—presents a major opportunity to create jobs, boost exports, and drive industrial growth.





During the Mandela Day career guidance session, learners were introduced to a wide range of career options that support the mineral beneficiation value chain. These include:

**Jewellery and precious metals-related roles:**

- Diamond cutting and polishing
- Jewellery design and manufacturing
- Precious metal refining
- Gemstone grading and evaluation
- Jewellery CAD and digital design
- Retail and sales within the luxury goods sector
- Quality assurance and manufacturing operations

These professions offer both creative and technical career pathways and are directly tied to export potential, entrepreneurship, and small business development. Jewellery manufacturing sales in South Africa reached R16.1 billion in 2022 and are projected to grow significantly with increased support for local beneficiation.



## CAREER OPPORTUNITIES IN MINERAL BENEFICIATION AND MANUFACTURING



## GREEN HYDROGEN: A NEW FRONTIER FOR YOUTH EMPLOYMENT

South Africa's commitment to the green hydrogen economy—underpinned by its rich endowment of Platinum Group Metals—is opening new avenues for high-tech and clean energy careers. As global demand for hydrogen and clean energy solutions increases, this sector is positioned to become a major driver of employment and innovation.

According to South Africa's **Hydrogen Society Roadmap**, up to 70,000 jobs could be created in the country's hydrogen economy by 2040, making it one of the most promising sectors for future employment.

Emerging career opportunities in this space include:

- Fuel cell technicians
- Chemical and process engineers
- Mechanical engineers for hydrogen infrastructure
- Hydrogen system installers and maintenance technicians
- Safety and environmental compliance officers
- Project managers and logistics specialists in renewable energy





Career opportunities in mineral beneficiation and green hydrogen not only offer long-term career potential but are closely aligned with South Africa's national priorities of industrial development, youth employment, value addition, and a just energy transition.

## BUILDING SKILLS FOR THE FUTURE: TRAINING PATHWAYS INTO HIGH-GROWTH INDUSTRIES

To support this vision, a number of South African institutions and training bodies are already equipping learners and young professionals with the qualifications and technical skills required to thrive in both the mineral beneficiation and green hydrogen sectors.





## THE FOLLOWING ARE SOME OF THE PROGRAMMES AND INSTITUTIONS CURRENTLY AVAILABLE:



### JEWELLERY AND BENEFICIATION- FOCUSED PROGRAMMES

#### **Shimansky Diamond Academy**

Offers training in diamond grading, jewellery design, manufacturing, and retail sales, providing learners with hands-on experience in one of South Africa's leading luxury jewellery brands.

#### **Jewellery Council of South Africa (JCSA)**

Supports national skills development programmes, administers trade tests, and facilitates the Jewellery Manufacturing Trade Certificate through its partnership with the Jewellery Manufacturing Association of South Africa (JMASA).

#### **MetCon Jewellery Excellence MasterClass (JEM)**

In partnership with the Gauteng Industrial Development Zone (GIDZ), this programme offers masterclasses, access to workshops and facilities, and real-world manufacturing opportunities to emerging designers and artisans.

#### **PlatAfrica Jewellery Design & Manufacturing Competition**

Hosted annually by Anglo American Platinum and partners, PlatAfrica provides a platform for emerging local talent to showcase their skills and gain exposure to both industry and international markets.





## THE FOLLOWING ARE SOME OF THE PROGRAMMES AND INSTITUTIONS CURRENTLY AVAILABLE:



### TECHNICAL MINERAL BENEFICIATION AND GREEN ECONOMY- FOCUSED TRAINING

#### **Tshwane University of Technology (TUT)**

Offers diplomas and degrees in mineral processing, jewellery manufacturing and engineering

#### **University of Pretoria and Stellenbosch University**

Offers technical courses in engineering and hydrogen-related innovation

#### **University of the Western Cape (UWC)**

Offers hydrogen technology short courses and research opportunities

#### **Green Hydrogen Skills Centre, HySA PADEP, and the South African Hydrogen Association (SAHA)**

These national platforms support industry-aligned training

#### **TVET Colleges**

Offer Artisan-level training in mechanical, electrical, and jewellery manufacturing disciplines

#### **merSETA**

Support apprenticeships, bursaries, and workplace skills programmes in manufacturing and engineering sectors



# THE BIGGER PICTURE:

## SKILLS INDUSTRIALISATION AND ECONOMIC GROWTH



By investing in skills linked to sectors such as mineral beneficiation and the green energy transition, South Africa has the opportunity to move beyond traditional resource extraction toward a diversified economy driven by value addition, innovation, and export competitiveness.

This strategy is also a direct response to the country's youth unemployment crisis. According to Statistics South Africa, more than 45% of young people aged 15–34 are currently unemployed. Redirecting focus and investment toward growing, future-facing industries offers a tangible pathway to inclusive and sustainable economic development.

The OR Tambo Special Economic Zone remains committed to creating platforms where government, industry, and education intersect—building the foundations for real opportunity and transformation. In this context, the Mandela Day Career Guidance Session is more than a symbolic occasion. It is a call to action: to build, invest, and innovate in ways that create lasting change.

By equipping the next generation with relevant, high-impact skills, the OR Tambo SEZ seeks to contribute meaningfully to a more industrialised, self-reliant South Africa—one that can compete globally while uplifting communities and strengthening the economy from the ground up.

**For more information on the OR Tambo SEZ and its efforts to foster economic growth and youth opportunities, please visit [www.ortambosez.co.za](http://www.ortambosez.co.za)**

