

# SA FUEL CELLS INDUSTRY DEVELOPMENT ROADMAP



**the dti**

Department:  
Trade and Industry  
**REPUBLIC OF SOUTH AFRICA**

towards full-scale industrialisation  
and inclusive growth



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# 1. INTRODUCTION

- South Africa has more than 80% of the world's platinum reserves
- Largest platinum mining companies in SA
- The platinum mines provide direct employment to 136 000 people and further support 325 000 indirect jobs in SA
- There is a strong interest to support the long term sustainability and growth of the industry



# 1. INTRODUCTION

- Demand for Pt
  - 39% from the autocatalytic convertor industry
  - 29% from jewellery manufacturing
  - 10% from investment
- New applications and markets for platinum: Pt based fuel cells and energy storage
- The demand for platinum is under threat - improvements in catalytic converter technology and adoption of alternative competing battery technologies
- Develop and give existing markets reassurance regarding sustainability of supply

## 2. IPAP: FUEL CELLS

- Beneficiation of PGM's
- **the dti** has prioritized Fuel Cells for pro-active development based on impact to SA economic growth
- Objective: To create a sustainable local manufacturing sector for Pt based fuel cells and its sub-components by beneficiating SA PGM minerals through appropriate mechanisms that support a local and global market
- Fuel Cell opportunity for SA
  - increased PGM demand, mining growth
  - mineral beneficiation
  - clean energy



## 2. SA FUEL CELLS OPPORTUNITY

- Develop local manufacturing that can contribute to:
  - Job creation
  - Investment
  - Manufacture and export of value added platinum based fuel cells, components and technologies
  - skills development
  - diversification of the current energy mix (cleaner energy solutions)
  - potential for social upliftment



### 3. POLICY LEVERS

Supportive policy and regulatory framework to develop a globally competitive fuel cell manufacturing industry

OBJECTIVES	POLICY/PROGRAMME LEVERS
Security of supply and access to minerals and metals	MPRDA (Department of Mineral Resources) Loan/Lease arrangements with the mines
Localisation, supplier and market development	Mining Charter (Department of Mineral Resources) Industrial Policy Action Plans, B-BBEE codes ( <b>the dti</b> )
Research, development, innovation including skills	Hydrogen South Africa (HySA) – Department of Science and Technology - SPII, THRIP ( <b>the dti</b> )
Support for and investment in beneficiation	IDC, SEFA funding (Economic Development Department) Black Industrialists programme dti incentives (12i, Critical Infrastructure Programme) Special Economic Zones to attract local and foreign investment into the zones

## 4. DTI INCENTIVES

INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERRING
<p>12 I Tax Incentive</p>	<p>To promote industrial upgrading and the use of new technology in manufacturing</p> <p>The investment must be:</p> <ul style="list-style-type: none"> <li>▪ New projects - A minimum investment in Qualifying Assets of R50 million is required</li> <li>▪ Expansions or upgrades - A minimum <b>additional</b> investment in Qualifying Assets of R30 million is required; and</li> <li>▪ Provide skills development in South Africa.</li> </ul>	<p>The project should:</p> <ul style="list-style-type: none"> <li>▪ Upgrade an industry within South Africa (via an innovative process, cleaner production technology or improved energy efficiency);</li> <li>▪ Provide general business linkages within South Africa;</li> <li>▪ Acquire goods and services from small, medium and micro-sized enterprises (SMMEs);</li> <li>▪ Tax allowances up to 55 % of the Investment Cost and Training Allowance</li> <li>▪ Additional benefit for locating in an SEZ</li> </ul>	<ul style="list-style-type: none"> <li>• Tax allowances up to 55 % of the Investment Cost and Training Allowance</li> <li>• Additional benefit for locating in an SEZ</li> </ul>

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<p><b>Capital Projects Feasibility Programme (CPFP)</b></p>	<ul style="list-style-type: none"> <li>The primary objective of the programme is to facilitate feasibility studies that are likely to lead to high-impact projects which will stimulate value-adding economic activity in South Africa.</li> <li>Supports <b>new</b> projects, <b>expansion</b> or <b>rehabilitation</b> of existing project in the manufacturing sector or capital goods sectors;</li> </ul>	<p>SA registered legal entity in good tax standing</p> <p>Meet the minimum South African local content and must in this regard achieve 50% for total goods and 70% for total professional services of which 10% should be subcontracted to South Africa <b>black-owned professionals/ firms</b></p>	<p>The programme makes a reimbursable contribution to a maximum of <b>R8 million</b> as follows:</p> <ul style="list-style-type: none"> <li>50% of the total feasibility study costs for manufacturing projects with total assets above <b>R30 million</b> and <b>70%</b> of the total feasibility study costs for manufacturing projects with total assets below R30 million in South Africa.</li> </ul>

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<p><b>Strategic Partnerships Programme (SPP)</b></p>	<p>To develop and support programmes/interventions aimed at enhancing the manufacturing and services <b>supply capacity</b> of suppliers with linkages to strategic partner's supply chains, industries or sectors</p>	<p>South African registered legal entity with a minimum turnover of <b>R100 million</b> per annum for at least 2 consecutive years</p> <p>Legally registered industry associations</p> <p>60% of the total SME's supported by the strategic-partner programme should at least be 51% owned <b>by Black South African citizens</b></p> <p>SMEs supported must be Involved in manufacturing, agro-processing, mineral beneficiation and manufacturing related services</p>	<p>A <b>maximum of R15 million</b> per financial year on a 50:50 basis towards:</p> <ul style="list-style-type: none"> <li>▪Machinery, equipment and tools</li> <li>▪Infrastructure linked to the strategic partner's supplier development initiative</li> <li>▪Product or service development</li> <li>▪Information and Communication Technology (ICT)</li> <li>▪Operational costs</li> <li>▪Business development services</li> <li>▪Investment project preparation costs (feasibility studies)</li> </ul>

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INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERRING
<p><b>Cluster Development Programme (CDP)</b></p>	<p>To enhance competitiveness of enterprises within a cluster. This is to be implemented through defined <b>collaborative projects</b> that address production, productivity and marketing.</p>	<p>The applying cluster must be a registered Non-profit Company (NPC) in South Africa in terms of the Companies Act, No. 71 of 2008, incorporated solely for the purpose of existing activities that support the cluster members.</p> <ul style="list-style-type: none"> <li>▪ An eligible cluster should have <b>five or more members</b> who are registered tax paying entities or non-profit organisations.</li> <li>▪ At least 20% of the membership of the cluster should be made up of 51% <b>black-owned entities</b>.</li> <li>▪ All member companies must have decision making powers either by virtue of being Directors and/or voting members of the Non-Profit Company (NPC).</li> <li>▪ All member companies must contribute financially towards the activities of the cluster, at least 20% financial contribution towards the project(s).</li> </ul>	<p>cost-sharing grant of up to 80% for the costs of the cluster activities, to be payable at acquisition of assets or the completion of the activities or milestones up to a <b>maximum grant of R10 million</b> for the three components of the programme combined:</p> <ul style="list-style-type: none"> <li>▪ Shared Infrastructure Grant</li> <li>▪ Business Development Services</li> <li>▪ Cluster Management Organisation (CMO)</li> </ul>

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INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERRING
<p><b>Technology and Human Resources for Industry Programme (THRIP)</b></p>	<ul style="list-style-type: none"> <li>• Is intended to leverage <b>collaborative partnerships</b> between government and industry (working with academia)</li> <li>• for research and development in <b>science, engineering</b> and <b>technology</b></li> <li>• on a cost-sharing basis, to produce highly skilled human resources and <b>technology solutions</b>, for improved industry competitiveness.</li> </ul>	<p>South African registered legal entities.</p> <ul style="list-style-type: none"> <li>▪Registered higher education or further education institution in partnership with private sector.</li> <li>▪Licensed and/or registered science councils in partnership with private sector</li> </ul>	<ul style="list-style-type: none"> <li>• A 50% to 90% cost-sharing grant to <b>maximum R8m</b>per annum for a period 3 years</li> <li>• for approved project engaged in <b>applied research and development</b> in science, engineering and technology</li> </ul>

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INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERRING
<b>Support Programme For Industrial Innovation (SPII)</b>	Promotes technology development in South Africa through the provision of financial assistance for the development of <b>innovative, competitive products</b>	<p>South African registered legal entities.</p> <p>Registered <b>higher education</b> or further education institution in partnership with private sector.</p> <p>Licensed and/or registered <b>science councils</b> in partnership with private sector</p>	<p>Matching scheme that provides financial assistance in the form of a non-taxable grant for qualifying costs incurred in <b>development activity</b> associated with a specific project to a <b>maximum of R5 million:</b></p> <ul style="list-style-type: none"><li>• 50% for large enterprises</li><li>• 50% and 75% depending on the black economic empowerment status (BEE and shareholding of women and people with disabilities at the time of application</li></ul>

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INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERRING
<p><b>Black Industrialist Scheme (BIS)</b></p>	<p>Accelerate the quantitative and qualitative increase and <b>participation</b> of black industrialists in the national economy, selected manufacturing sectors and value chains; and</p> <ul style="list-style-type: none"> <li>▪ Create multiple and diverse <b>pathways</b> and instruments for black industrialists to enter strategic and targeted manufacturing sectors and value chains.</li> <li>▪ Utilise Black Industrialists for economic growth, economic transformation, employment creation and sustainability.</li> </ul>	<p>Characteristics of a black industrialist:</p> <ul style="list-style-type: none"> <li>▪ High levels of ownership (&gt;50%);</li> <li>▪ Dominant black ownership and management control - Provision of strategic and operational leadership</li> <li>▪ Does business in the manufacturing sector with particular reference to IPAP focus areas</li> <li>▪ Makes a long-term commitment to the business and is a medium-to long-term investor</li> <li>▪ Provision of strategic and operational leadership;</li> <li>▪ Have a project with a minimum investment of R30m</li> </ul>	<p>A 30% to 50% cost sharing grant of up to <b>R50 million</b>. Offers support on a cost-sharing basis towards:</p> <ul style="list-style-type: none"> <li>▪ <b>Capital investment</b> costs;</li> <li>▪ <b>Feasibility studies</b> towards a bankable business plan (to the maximum of 3% of projected investment project cost);</li> <li>▪ <b>Post-investment support</b> (to the maximum of R500 000); and</li> <li>▪ <b>Business development services</b> (to the maximum of R2 million).</li> </ul>

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INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERING
<p><b>Critical Infrastructure Programme (CIP)</b></p>	<p>Co-sponsor investment in common infrastructure that is essential for competitiveness, thus lowering the cost of doing business</p>	<p>Types of supported projects:</p> <ul style="list-style-type: none"> <li>•Infrastructure, including testing machinery and equipment that enables the investor to undertake new investment OR expansion, sustenance, refurbishment of existing fixed investment.</li> <li>•Infrastructure that enables the establishment of new or upgrading(revamping/resuscitating) and fencing of state-owned industrial parks</li> <li>•Infrastructure for renewable energy projects that are not under the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP).</li> <li>•Infrastructure that alleviates water and/or electricity dependency on the national grids.</li> <li>•Infrastructure development costs to distressed municipalities, state-owned Aerospace and Defence National Strategic Testing Facilities and state-owned industrial parks</li> </ul>	<p>A grant of between <b>10%</b> and <b>30%</b> of the development costs for qualifying infrastructure. development costs up to a maximum of <b>R50 mil</b></p>

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INCENTIVES	PURPOSE	TARGET/ ELIGIBILITY CRITERIA	OFFERRING
<b>Special Economic Zone Fund (SEZ)</b>	<p>The Fund supports investment in</p> <ul style="list-style-type: none"> <li>• <b>infrastructure</b> and</li> <li>• <b>business development activities</b> that will contribute towards the accelerated growth of manufacturing and internationally traded services</li> <li>• within the special economic</li> </ul>	<p>An IDZ Operator in terms of the Manufacturing Development Act 187 of 1993.</p> <ul style="list-style-type: none"> <li>• A licensee in terms of Chapter 5 of the SEZ Act.</li> <li>• An SEZ Operator in terms of Chapter 6 of the SEZ Act.</li> </ul>	<p><b>Preferential taxes</b> (including 12i Tax Allowance)</p> <p><b>Bulk infrastructure</b>(Electrical substations, Water and sewerage storage, treatment and pumping, etc.)</p> <p><b>Top structures</b></p> <p><b>Business development</b> (Pre-feasibility studies and feasibility studies, technology testing and training, EIA and general research linked to planned investment and clusters)</p>