PetroSA

PETROSA

INSPIRING NATIONAL PRIDE

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INSPIRING NATIONAL PRIDE

By embracing change and innovation, PetroSA is opening up new horizons for South Africa's energy sector

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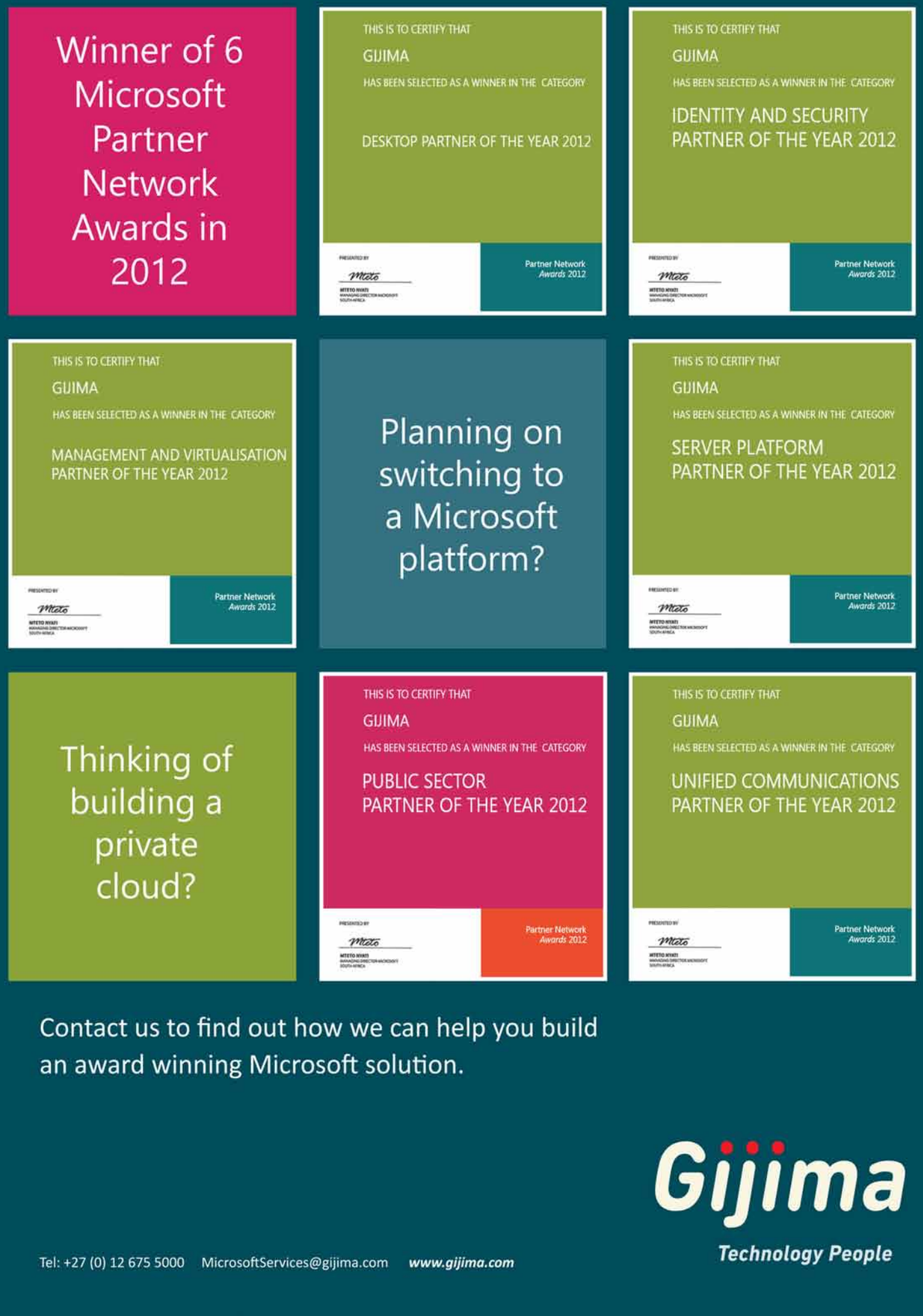
As the leading economic power in Africa, it's no surprise that South Africa is a key player in the African oil industry. Liquid fuels are an important component of its energy sector, with the 2012 BP Statistical Energy Survey revealing that, in 2011, South Africa consumed an average of 547,250 barrels of oil per day.

The history of the oil industry in South Africa can be traced back to 1884, when the first oil company was established in Cape Town with the purpose of importing refined products. In the years since, the industry has evolved greatly to the point where today the country is responsible for processing approximately 20 million tonnes of crude oil per annum.

Formed in 2002, upon the merger of Soekor E and P Limited, Mossgas Limited and parts of the Strategic Fuel Fund, the Petroleum Oil and Gas Corporation of South Africa (PetroSA) is the national oil company. A subsidiary of the state-owned Central Energy Fund, the company holds various assets that span the petroleum value chain.

In addition to operating the FA-EM, South Coast gas fields, and the Oribi and Oryx oil fields, PetroSA is also responsible for the exploration and production of oil and natural gas from the ORCA oil rig and the production of synthetic fuels from offshore gas at what is one of the world's largest gas-to-liquid (GTL) refineries in Mossel Bay.

PetroSA's GTL refinery produces ultra-clean, low-sulphur, low-aromatic synthetic fuels and other high-value products that are converted from natural methane-rich gas. This gas then condensates via the use of the



GIJIMA

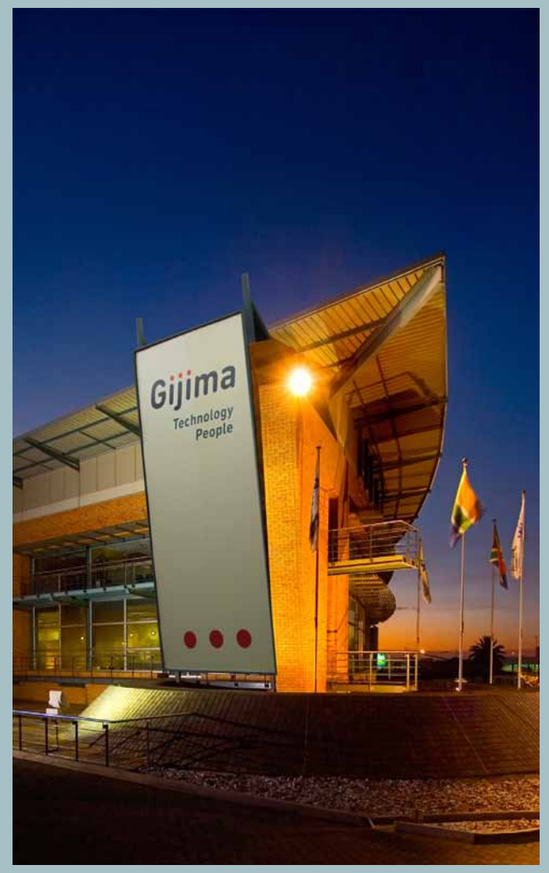
Gijima is a proudly empowered South African Information Technology (IT) company listed on the JSE. It has gained recognition as the complete IT partner to a considerable client base of large technology users in both the public and private sectors. As one of the leading IT companies in southern Africa its intellectual capacity, business model and extended geographic footprint is unparalleled in the local market and provides clients with sophisticated and diverse service delivery options in the infrastructure, solutions, system integration and networking arenas.

The ethos by which it operates is to constantly seek to set the pace when it comes to industry thought leadership. Gijima's eagerness to learn and commitment to make a difference allows its clients to unequivocally regard them as their partner of choice. Their innovative and entrepreneurial abilities enable them to consistently develop solutions to business problems – shifting boundaries that have established them as a leader in their chosen markets.

At the recent Microsoft Partner Network awards, Gijima walked away with no fewer than six top achiever awards in separate categories. These awards are a testament to the skill and vision of their people in customising various vendor technologies to the benefit of their clients.

These awards coupled with the release of mobileIT, Gijima's homegrown integrated all-in-one platform for the development, implementation and full life cycle management of mobile applications, mobile users and mobile devices, positions them as the preferred partner to their clients.

Gijima strives to be a magnet for talent, enthusiastic, loyal and energised staff; always developing, always growing, reaping the rewards



of the company they helped create. Gijima strives to deliver a blend of sophistication, passion and a graciousness of spirit for one another, and for PetroSA in support of their vision to become a fully integrated, commercially competitive national oil company, supplying at least 25 percent of South Africa's liquid fuel needs by 2020 - a legacy that they can both be proud of.

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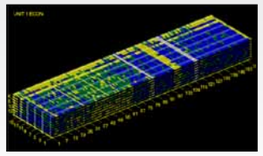
steeltest
INSPECTION SPECIALISTS

Steeltest was formed in 1989 and is involved exclusively in hi tech non-destructive testing. The company is based in South Africa, but operates throughout Africa, The Middle East and South-East Asia.With the introduction of innovative technology and the continuous improvement of service delivery and our policy on training our aim is to become the premier supplier of specialised non- destructive testing globally.

TUBE INSPECTION of Ferrous and Non-Ferrous tubing in heat exchangers using the following methods: Eddy Current, Remote Field, IRIS, Laser Internal inspection & Visual.

EMAT FOR PIPELINES A very reliable method for: 100% rapid scanning of pipelines (up to 1km / day). Highly sensitive system particularly suited for evaluating corrosion under supports. Scans in both longitudinal & circumferential directions.

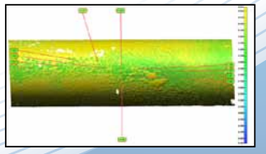
SPECIALIZED REQUIERMENTS FOR ECONOMIZERS & BOILERS using IRIS to produce visual computerized 3D models of your unit, for more informative representation of inspection data. Can be cross cut in all axes, printed & with data filters customizable to clients requierments.



GUIDED WAVE PIPE SCREENING also known as Long Range Ultrasonic Testing. The Guided Wave technology screens 100% of the volume of the piping inspected for metal loss features such as corrosion and erosion at distances up to 100m in either direction from a single location. In the case of insulated lines only 300mm of insulation needs to be removed to inspect long lengths of pipe. Can be used on pipe racks, insulated pipe, road crossings, submerged pipes, buried pipes & restricted access pipelines.

TUBE MICRO BLASTING This is a particularly effective means of cleaning tubes and is used especially in the case of IRIS and laser inspections where the tubes need to be cleaned down to bare metal.

HANDY SCAN By combining state of the art laser scanner technology with existing NDT techniques it is now possible to provide accurate and detailed 3D images of equipment using advanced 3D modelling software. Features such as pitting and corrosion can be accurately mapped, analysed and saved for comparison during follow-up inspections. Applications include wear of moving components, tip errosion of turbine blades, external corrosion on pipelines etc.



EMAT (Electomagnetic Acoustic Testing) For Boiler Walls provides rapid screening of ferrous tubing (up to 1km / 12 hour shift.) The **temate® TG-IS(B)** is designed for detecting wall loss, hydrogen damage and caustic gauging in boiler tubes. Ultrasonic EMAT technique provides accurate thickness readings with minimum preparation of tube surface.

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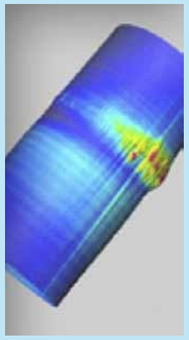
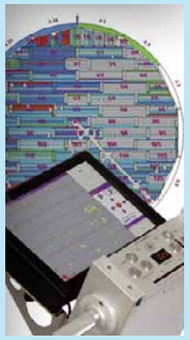
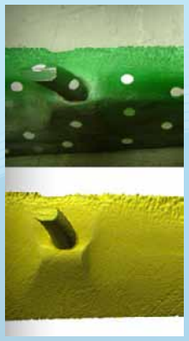


TUBE INSPECTION

PIPELINE INSPECTION



TANK INSPECTION



3D CORROSION

TUBE CLEANING

POSITIVE MATERIAL IDENTIFICATION

Based in South Africa but operating throughout Africa, the Middle East and South-East Asia, Steel Test provides its customers with global expertise combined with localised personal service.
Steel Test has a dedicated professional staff of 74 people committed to satisfying the demanding requirements of its diverse client base. Our clients are largely in oil, gas and power generation but we also carry out inspections in the sugar, pulp and paper, chemical and mining industries. With an initial emphasis on tube inspection, more recently we have extended our services to both tanks and pipelines.
Using a combination of cutting edge technology, Steel Test offers a number of inspection techniques, including pipe, tube and tank inspections, shut down based inspections, in-service evaluation, acid management and condition assessment.
Steel Test prides itself on its technical capabilities, and aspires to become the preferred specialised global non-destructive testing company.
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refinery's unique GTL Fischer Tröpsch technology.

PetroSA is recognised in the industry as a pioneer when it comes to petrochemical research and development. With the support of external partners from around the world, its specialists have built a reputation based on their innovative thinking, technical expertise and proven ability to execute development projects. Upon its opening in 1992, the Mossel Bay refinery was the first in the world to use GTL technology on a commercial scale and since then, only seven other GTL refineries have been commissioned in the world.

547,250 BARRELS

Oil consumed by South Africa per day in 2011

The company continues to invest heavily in new processes and technologies, signing a sponsorship agreement in 2010 with the University of the Western Cape (UWC). This agreement led to the establishment of the PetroSA Synthetic Fuels Research Centre at the UWC. It also resulted in the company relocating its conversion of olefins to distillates (COD) pilot plant from Mossel Bay to the university where it stands today in a custom-built laboratory.

COD technology is beginning to attract significant attention within the industry for its ability to produce some of the cleanest fuels available, using an environmentally friendly

process. As the profile of this technology rises, so too does that of PetroSA by being the operator of the only COD plant in the world.

The actual COD process involves synthesising petrol and diesel by adding short-chain, unsaturated carbons in order to form longer chain hydrocarbons in the petrol and diesel boiling range. This is carried out at relatively high temperatures and pressures over a catalyst.

Today, COD is recognised as being a rapidly emerging fuel technology of the future. This comes at a time during which rising oil prices are intensifying the demand for cheaper raw materials and more efficient, cost-effective processes. At the same time, global trends show an accelerating demand for high quality diesel and diesel produced using COD technology is regarded as being of exceptional quality.

Among its many important strengths, COD produces relatively pure fuels that are low in sulphur and aromatics, while at the same time meeting the most stringent of international specifications. These fuels possess much better exhaust emission properties than conventionally produced equivalents and this makes them particularly suitable as blend materials for conventional and bio-derived fuels. Furthermore, COD fuels have excellent cold flow properties, making them highly effective when used in countries that experience cold winters.

With the future in mind, PetroSA has reached an agreement with the UWC that will allow it to achieve two key objectives. The first is to further develop COD and its associated technologies, while the second is to help develop South Africa's human capital.

Among the core strategic functions of the company are to make it possible for the government of South Africa to improve the supply of fuel, oil and gas to the country, mitigate the impact of oil price variations, drive transformation initiatives, manage the country's contingency crude reserves and strategic petroleum assets, and access upstream petroleum assets.

> "PETROSA'S GTL REFINERY PRODUCES ULTRA-CLEAN, HIGH-VALUE PRODUCTS THAT ARE CONVERTED FROM NATURAL METHANE-RICH GAS"

2002

PetroSA established

In addition to these functions, the company also boasts a strategic objective it calls Our Vision 2020. The ultimate aim of this is to become a fully integrated, commercially competitive national oil company, supplying at least 25 percent of South Africa's liquid fuel needs by 2020.

There are several ways that PetroSA plans to achieve this. These include sustaining the Mossel Bay GTL refinery as a profitable operation and using it as a platform to sustain the company. In addition, the company will continue to ensure all of its operations and activities are carried out in line with the highest health, safety, quality and environmental standards as it grows its business into a significant industry player that can guarantee the security of South Africa's energy supply.

For more information about PetroSA visit:
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