صدارة
Sadara

Creating value through chemistry.

www.sadara.com

A KING'S VISION: The Move Downstream

Saudi Arabia's long-term economic prosperity depends on industrial and commercial diversification, particularly the move downstream from hydrocarbon raw materials toward intermediate and final products that can be marketed throughout the Kingdom and exported to emerging and other markets around the world.

As Saudi Petroleum Minister Ali Al-Naimi clearly stated in a speech on January 9, 2014, the economic vision of Saudi Arabia focuses on "diversifying the economic base … and engaging in subsequent operations and manufacturing at all stages, to transform the Kingdom into an industrial nation that does not depend solely on the export of raw materials, either from petroleum or petrochemicals, but also on intermediate and final products."

This is where Sadara Chemical Company (Sadara) comes into the picture.

Sadara is a joint venture developed by Saudi Arabian Oil Company (Saudi Aramco) and The Dow Chemical Company (Dow) in October 2011. With an investment of about $20 billion, Sadara is poised to change the game in the Middle East's chemical industry.

Sadara uses new feedstock, brings new technologies and other first-time processes to the region in a large, highly integrated manufacturing complex that is the largest ever built in the world in a single phase. It will produce a differentiated slate of plastics and chemical products. Leveraging on the unparalleled strengths of its two parents, Sadara has also successfully launched one of the most aggressive, technology-based on-the-job training projects by any Saudi corporation for its employees. Sadara is on track to produce first products in the second half of 2015 with the complex in full operation in 2016.

The result: Sadara is uniquely positioned to contribute to the move downstream by Saudi Arabia and its economic diversification. It will create brand-new value chains downstream and help transform the industrial landscape of the Kingdom and the wider Gulf region.

UNPRECEDENTED in Size and Scope

In Jubail Industrial City II, in the Eastern Province of Saudi Arabia, Sadara is building the world's largest chemical complex ever built in a single phase. Its 6-km^2 site features 26 integrated, world-scale manufacturing plants that will produce a total of over 3 million metric tons of high value added plastics and chemical products each year.

Sadara will be the first chemical company to crack refinery liquids – primarily naphtha – in Saudi Arabia, or for that matter anywhere in the Gulf region. By using best-in-class technologies to crack naphtha, Sadara will enable many industries such as oil & gas chemicals, water treatment chemicals, furniture, bedding, automobile parts, personal care products and detergents, to name a few, that either do not exist in the Kingdom or exist only through imports of raw materials.

As a result, Sadara will also introduce new specialty chemical plants and new downstream business opportunities in the Kingdom.

COMMITTED
to Sustainability

Sadara has committed from the very outset to be a responsible corporate citizen. Protection of its workforce and the communities in which it operates and does business are of paramount importance.

Sadara believes its financial bottom line is dependent upon pursuing sustainable solutions in the areas of environment, health and safety that are in harmony with the requirements of nature and human society. Also, many of the products made from Sadara chemicals will be energy efficient and environmentally friendly – such as energy-saving thermal insulation.

The company is actively involved in the Gulf Petrochemical and Chemical Association (GPCA) and is an active participant in GPCA's Responsible Care® Committee. Being a signatory of Responsible Care®, Sadara is committed to delivering the highest standards of operational safety and environmental sustainability in all its operations.

From design & engineering through construction of its manufacturing complex to full operations, Sadara's policies and practices pursue the most sustainable, environmentally friendly solution available – going beyond the requirement minimums set by law and regulation.

The company works to reduce its waste footprint, in part by reusing by-products and waste streams. Sadara also employs best-in-class technologies to reduce its energy use footprint.

Sadara volunteers are additionally active in addressing community needs. They have been engaged in various community programs such as Ramadan Food Baskets, Winter Clothes and School Bags for Needy Families. They also take part in cleaning up beaches in Jubail. Since 2013, Sadara employees and their families, in collaboration with the Jubail Volunteering Club, have contributed approximately 13,000 volunteer hours in various community projects.

INDUSTRY Game-Changer

Fourteen of the 26 world-scale manufacturing plants being built by Sadara in Jubail are new to Saudi Arabia. Sadara is introducing the first Polyurethane (Isocyanates and Polyols) plants to the Kingdom. Other first-time plants will produce Elastomers, Ethylene Amines, Propylene Glycol, Butyl Glycol Ether and Solution Polyethylene, among other chemicals.

Never before, anywhere in the world, has an integrated chemical complex of this size and sophistication been built in a single phase. By bringing in new, state-of-the-art technologies to produce new products, Sadara will be adding new value chains to transform the Kingdom's existing chemicals landscape.

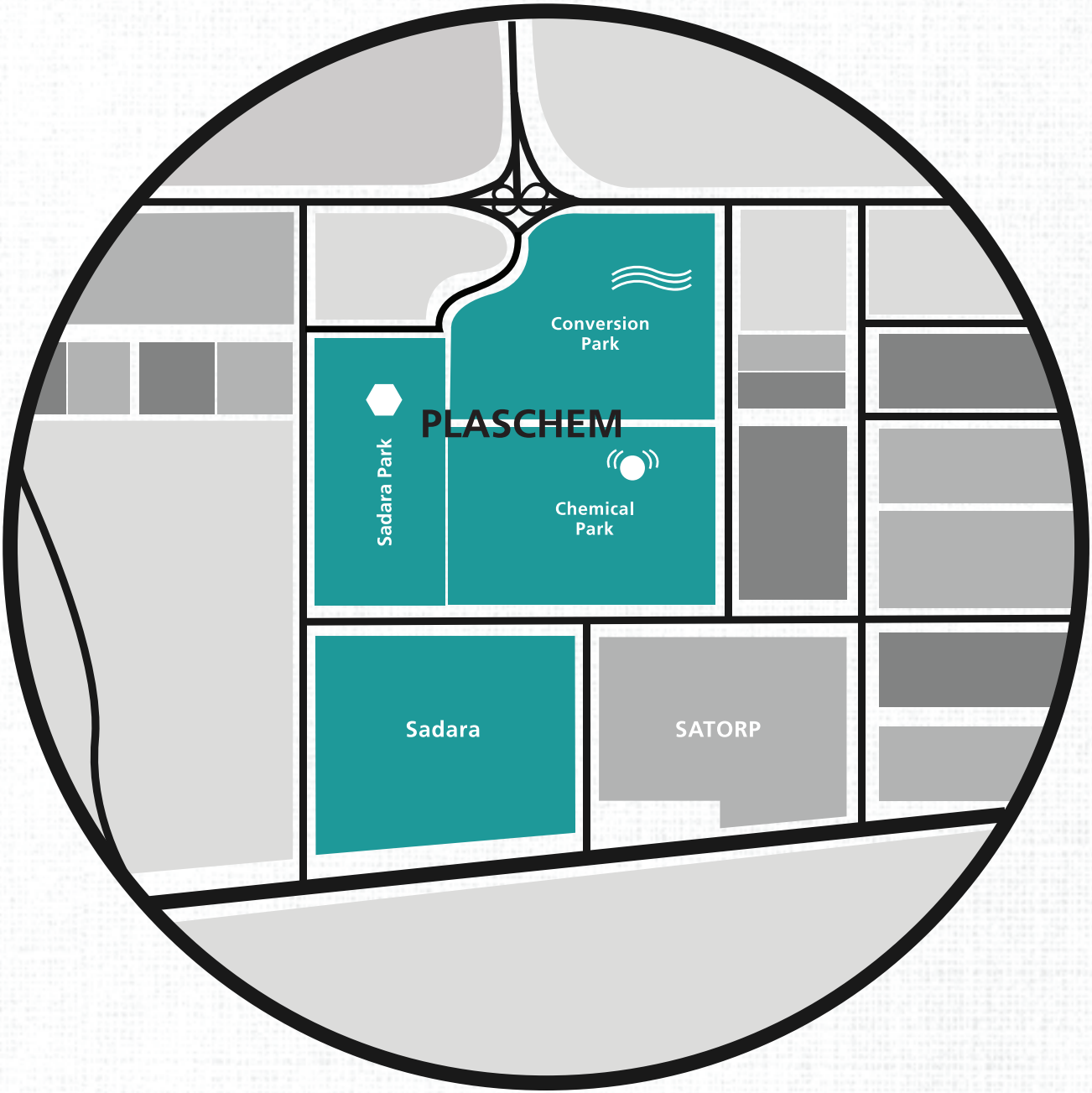
These first-time facilities include:

1. Aniline
2. BGE
3. DMC Polyols
4. DNT
5. Elastomers
6. Ethylene Amines
7. Formalin
8. HCU
9. MNB
10. PG
11. PMDI
12. Solution PE
13. TDA
14. TDI

Downstream Industries:
Formulators
Plastic Convertors

Reactive Chemical Industries

Sadara Approved Projects



PLASCHEM PARK: Driver of Downstream Economic Growth

Saudi Arabia features the largest economy in the Middle East and the 18th largest in the world. As the only Arab member of the Group of Twenty (G20), it has played an influential role in addressing many regional and global economic issues. The Kingdom also possesses one-fifth of the world's proven oil reserves and holds the world's fourth largest gas reserves. Its position as a global hydrocarbon leader creates huge opportunities for small and medium-sized enterprises to make use of technologies serving the oil and gas value chain.

Saudi Government policy is now focusing more on economic diversification, moving toward high value added manufacturing and service activities. This trend, coupled with strong capital spending on infrastructure, housing, education and sports facilities, creates demand for products produced by many construction-material businesses, among others.

A collaborative effort between Sadara and the Royal Commission for Jubail and Yanbu, PlasChem Park is a unique initiative that will accelerate the drive to create more value downstream. It will be a world class industrial park for chemical and conversion industries.

Located next to Sadara's chemical complex in Jubail, the park offers the advantages of easy access to highly differentiated chemical products and strong industrial and regulatory infrastructures. PlasChem Park investors can easily utilize Sadara's products for feedstock for further conversion to finished products. This will create unprecedented conversion industry investment, innovation, growth and development opportunities, as well as thousands of sustainable jobs, making a positive and lasting impact on the Saudi economy.

A number of supply agreements have been signed thus far:

- A supply agreement for EO and another for PO to Energy Chemical Sources Company (ECSC), a JV between Halliburton and TAQA, to produce chemicals required for the oil and gas industry.
- Two supply agreements with E.A. Juffali & Brothers, the first for MDI, for polyurethane system house applications, and the second for BTG for the production of brake fluids and other specialty chemical products.

Additionally, a project with Dow has been announced to produce reverse osmosis (RO) membranes, which is already under construction and is expected to begin production soon.

EMPLOYER of Choice

Sadara is not only creating thousands of employment opportunities – both directly and indirectly – but it also brings about a positive impact on the development of local human resources. Sadara's products will foster creation of a wealth of local businesses that will generate solid career opportunities for generations to come.

By October, 2015, Sadara had already hired more than 4,200 top-notch professionals and skilled workers, the majority of them Saudi nationals.

Some 1,200 apprentices and more than 680 in-Kingdom on-the-job trainees (IK OJTs) have been undergoing training in various Saudi Aramco facilities and other locations in Saudi Arabia.

Nearly 1000 new Sadara employees have been engaged in technology-focused, out-of-Kingdom on-the-job training (OOK OJT) assignments in various Dow and Dow-joint-venture facilities in North America, Europe and Asia. The Sadara OOK OJT program is one of the largest and most sophisticated technological training programs ever undertaken by any company in Saudi Arabia.

In addition, Dow and Saudi Aramco leaders and professionals have been seconded to Sadara to help it become a profitable, world-class chemicals manufacturer and marketer through their on-hands presence in the development and start-up, and through mentoring their successors who will be future leaders in Sadara.

PREFERRED Partner

Sadara views collaboration with a wide range of partners as vital to its success. The company is partnering with numerous stakeholders, including government authorities, investors, contractors and business partners, to ensure the success of this unprecedented undertaking. Below are some of the examples of these collaborative efforts:

- **Saudi Railway Company (SAR)** – In early October 2015, SAR reached agreement with a rail construction contractor to begin building the railway network in Jubail. Mobilization on site by the rail construction contractor was to start in November 2015. Construction of the Jubail railway network, which will service Sadara and the two Jubail ports, was expected to be completed in three years.
- **Power and Water Utility Company for Jubail and Yanbu (Marafiq)** – Sadara and Marafiq signed an agreement for the supply of desalinated water for industrial use at the Sadara complex in Jubail.
- **Germany's Linde Group** – Linde has signed a long-term contract with Sadara to build and operate on-site facilities to supply carbon monoxide (CO), hydrogen (H_2) and ammonia (NH_3) at the Sadara Jubail chemical complex.
- **Saudi Kayan Petrochemical Company (Saudi Kayan) and Saudi Acrylic Acid Company (SAAC)** – formed an equal joint venture with Sadara to build the world's largest butanol plant in Jubail, which started production in October 2015.
- **Belgium's Solvay Group** – Sadara teamed up with the global chemical group Solvay to begin constructing one of the world's largest hydrogen peroxide plants at Sadara's Jubail complex.

PROJECT MORE THAN 96% Complete, Safety Best in Class

As of October 2015, the Sadara project at the Jubail site had passed 96 percent construction completion, with118 million work hours in 2015 and 411 million work hours for the project to date.

The Total Recordable Incident Rate as of October 2015, stood at 0.035 YTD (year to date) and 0.035 PTD (project to date), continuing Sadara's best in class safety performance.

Total construction manpower at the Jubail site was about 34,000 workers at the beginning of 4Q 2015. .

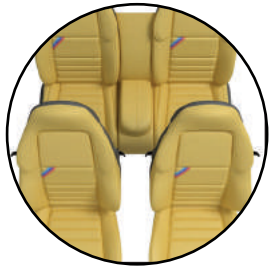
PRODUCT Slate

Amines

This is a family of chemicals with a broad range of properties which are used in various applications from wood treating and pharmaceutical processing to coatings and consumer products.

Glycol Ethers

These chemicals have a wide range of properties and are used in many applications from electronics, to coatings, to surface and industrial cleaners.



Isocyanates

These are key ingredients used in the production of polyurethane rigid foams, flexible foams, polyurethane systems formulations, and many other specialty applications.

Polyether Polyols

These chemicals are used in the production of polyurethanes to develop flexible foams, coatings, adhesives, sealants and elastomers for a variety of markets and applications.

Polyethylene

This is the most widely used of all plastics. Products made by Sadara will be aimed at high performance flexible packaging, hygiene, medical, electrical and telecommunication markets within emerging geographies.

Polyolefin Elastomers

Chemicals in this family are used for highly specified applications in the consumer goods, membranes, transportation and building & construction applications.

Propylene Glycol

This is used in industrial applications such as aircraft deicing fluids and heat transfer fluids, and in high-purity form for pharmaceutical, food, flavoring and personal care applications.

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