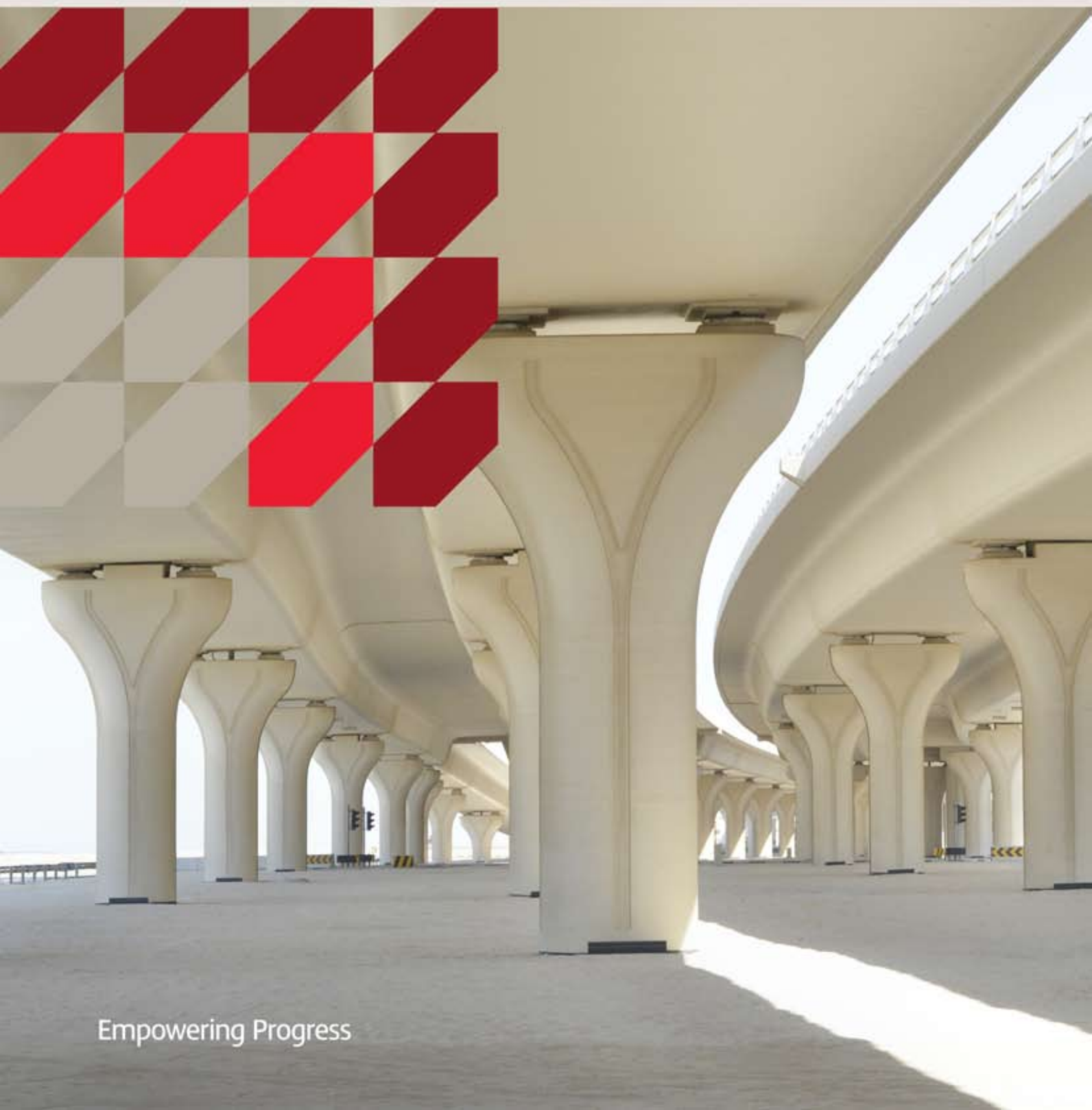


# ENERGY FROM WITHIN



Annual Review 2015



Empowering Progress



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**His Royal Highness  
Prince Khalifa bin Salman Al Khalifa  
The Prime Minister**



**His Majesty  
King Hamad bin Isa Al Khalifa  
King of the Kingdom of Bahrain**



**His Royal Highness  
Prince Salman bin Hamad Al Khalifa  
Crown Prince  
Deputy Supreme Commander  
First Deputy Prime Minister**



# Chairman's Foreword

His Royal Highness  
Prince Khalifa bin Salman Al Khalifa  
The Prime Minister

Your Royal Highness,

It is an honour to present to you and the people of Bahrain the Annual Review and record of achievements of the Bahrain Petroleum Company B.S.C. (Closed) for the year 2015.

It was a year defined by exceptional operational and commercial discipline in all company areas. Thanks to the skill of our technical teams, Refinery units ran for 155 days without an unplanned shutdown, a company reliability record, while a major planned shutdown of 15 process units between April and May was completed on schedule, minimising downtime.

High mechanical availability of units translated into crude throughput rates which hit ten-year highs. This, combined with low crude feedstock prices, contributed to refining margins which reached five-year peaks.

Operational excellence was also reflected in world-class health and safety accomplishments. By the year-end a remarkable 16.2 million injury-free hours had been completed by our employees and contractors, a company record.

It is on this sound operational and commercial footing that the Bapco Modernization Program (BMP), a reconfiguration and expansion of the Refinery, gained momentum in 2015. The UK's WorleyParsons was selected as the Project Management Contractor in December following a competitive bidding process. Meanwhile, Italy's Technip accelerated its front-end engineering and design (FEED) activities on the project, which will increase Refinery output capacity by 100,000 barrels per day (b/d). We look forward to the BMP improving Bapco's economies of scale, enhancing our export premiums, reducing our environmental footprint and sharpening our competitive edges.

Allied to the BMP, a landmark agreement was signed in September with Saudi Aramco marking the start of the engineering, procurement and construction (EPC) phase of the new A/B Pipeline Project. This modern 350,000 b/d capacity link will feed the newly-expanded Bapco Refinery and is a crucial element in our long-term goal to establish the company as a top-tier operator in its peer groups.

Reflecting our support for Bahrain's industrial development, we were honoured during the year to conclude natural gas supply agreements with Aluminium Bahrain (Alba) and Gulf Aluminium Rolling Mill Company (GARMCO) to feed their expansion schemes.

Meanwhile, on the upstream side, as the custodians of Bahrain's geological data, Bapco personnel continued to support efforts to build the Kingdom's hydrocarbons base to meet future demand, providing technical expertise to our partners, NOGA and nogaholding.

It was not just in the "big ticket" items where Bapco continued to demonstrate its leadership. Our environmental credentials were further burnished during the year, with a pilot solar power project installed in 2014 demonstrating its capacity to deliver clean energy with positive long-term implications.

Our work in the community once again made a real difference to people's lives in 2015. For example, a company stand at the Bahrain City Centre Mall attracted more than 25,000 people during the Bapco Environment, Health & Safety (EHS) week, as our employees volunteered their time to raise awareness of important EHS issues among the population. Similarly, 180 company staff have to date participated in INJAZ Bahrain, a classroom mentorship programme aimed at secondary school students.

On the other hand, in a bid to forge closer links with academic institutions, we signed an agreement with Arabian Gulf University to strengthen research

& development (R&D) collaboration in the areas of environment, health, safety, reliability and efficiency, which are focus areas of the business. In addition, Bapco continued its generous support for various worthy causes in the Kingdom, making financial contributions as well as assisting health awareness programmes and educational events. High-level sponsorship was also extended to high-profile sporting events in the country, as well as to conferences and exhibitions.

One of the underlying features of 2015 at Bapco was the tremendous pent up energy and dynamism permeating through the organisation. This Annual Review is published under the theme "Energy From Within" in recognition of this powerful internal force, which the company will seek to harness as we reach out to new horizons.

People will play the lead role in this journey, and the company's hard won achievements of 2015 were once again a direct result of the knowledge, teamwork, tenacity, diligence and dedication of our employees, who are the lifeblood of the organisation. To them we owe a debt of thanks.

Indeed, human resource development and succession planning remain strategic cornerstones for Bapco, and in this regard we were delighted during the year to support employees in attaining ILM Level 2 Programme certificates, another important step in their journey towards senior management. We also reinforced our backing for several education-related corporate social responsibility (CSR) initiatives, including the Children of Bapco Employees Programme funding higher education, our Graduate Scholarship Programme, and the Employee Scholarship Programme.

Your Royal Highness, we are constantly reminded of our role and responsibilities to our country and its people. As we move forward, it appears that uncertainty will be one of the few constants in an increasingly competitive environment for the company.

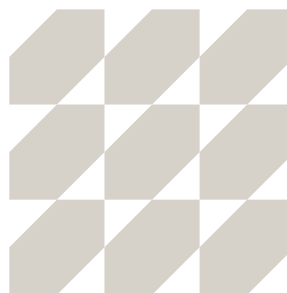
History, however, shows that Bapco has always been able to overcome the challenges of the time, and I am confident that the strategic investments we are now prioritising, along with our committed workforce, will enable us to capture opportunities and open new economic avenues for the nation. In what promises to be a golden era for the company, we look forward to creating a leaner, fitter organisation as our legacy for future generations.

On behalf of the Bapco Board of Directors, Management and employees, I extend my wholehearted gratitude to His Majesty the King, to Your Royal Highness, and to His Royal Highness the Crown Prince for their fulsome guidance as we seek to serve the Government of the Kingdom of Bahrain.

I would also like to take this opportunity to welcome the new Board members who were appointed in the middle of the year, and I wish them every success in their roles.

Sincere thanks is also extended to the previous Board who made significant contributions over the past three years, as well as the valued and ongoing guidance and support offered to the company by His Excellency Dr. Abdulhussain bin Ali Mirza, Minister of Energy and Chairman of The National Oil & Gas Authority; and to His Excellency Shaikh Ahmed bin Mohammed Al Khalifa, the Minister of Finance and former Minister in charge of Oil and Gas Affairs for their dedication and service to our organisation.

**Mohamed bin Khalifa Al Khalifa, Chairman**





# 2015 Highlights

- ▶▶ Bapco ended the year with the soft launch of a new logo, the precursor of an extensive re-branding exercise being rolled out in 2016. The refreshed logo comprises a symbol and a wordmark which project Bapco's proud Bahraini heritage in a distinctive contemporary style, serving as a visual representation of the company's modernisation drive. A new tagline, "Empowering Progress" was also launched to reflect the company's values, collective commitment and aspirations;
- ▶▶ The company's employee and contractor workforce completes 16.2 million working hours without a Lost Time Injury (LTI), a record. A new process safety record of 436 days without Tier 1 Loss of Containment is also achieved;
- ▶▶ Average crude throughput reaches a ten-year high of 265,634 barrels per day (bpd), against a budgeted crude run of 260,496 bpd;
- ▶▶ Operational availability of crude units reaches 95.17%, a three-year peak. The Refinery also operates for 155 days without any unplanned shutdowns;
- ▶▶ A major planned annual maintenance shutdown of 15 process units is successfully completed in April and May;
- ▶▶ The Refinery's Environmental Performance Index (EPI) of 8.2 in March, the highest figure in five years, reflects improvements in primary water treatment processes and air quality;
- ▶▶ The Fluid Catalytic Cracking Unit (FCCU) marks 70 years of operation in May;
- ▶▶ UK-based WorleyParsons (WP) is appointed Project Management Contractor for the Bapco Modernization Program (BMP), providing overall management and coordination through FEED completion, the EPC phase and eventual commissioning;



▶▶ A Project Development Agreement (PDA) is signed with Saudi Aramco for the EPC phase of the A/B Pipeline Project, which involves the installation of a new 350,000 bpd capacity line to supply the Bapco Refinery with Arabian Light crude oil from Aramco's Abqaiq Plant. Saudi Arabia's Al Robaya Holding Company is awarded the 43km-long onshore Saudi Arabia portion of the contract, with the UAE's National Petroleum Construction Company (NPCC) winning the 42 km offshore element;

▶▶ US oil company Chevron carries out the most comprehensive Operational Excellence audit in Bapco's history, conducting 110 interviews in total;

▶▶ Bapco is runner-up among 501 submissions from more than 247 organisations in 32 countries in the Best Practice Category at ADIPEC 2015 (Abu Dhabi International Petroleum Exhibition and Conference) for "Rapid Operational Excellence by Technology Assisted Governance";

▶▶ Natural gas supply agreements are signed with Aluminium Bahrain (Alba) and Gulf Aluminium Rolling Mill (GARMCO) to support strategic expansion projects;

▶▶ Bapco invites representatives from several interested international oil companies (IOCs) to its data rooms for an evaluation of potential in four offshore blocks to be opened to exploration bids;

▶▶ The exploration phase of the Bahrain Onshore Deep Gas Project is completed in the fourth quarter of the year;

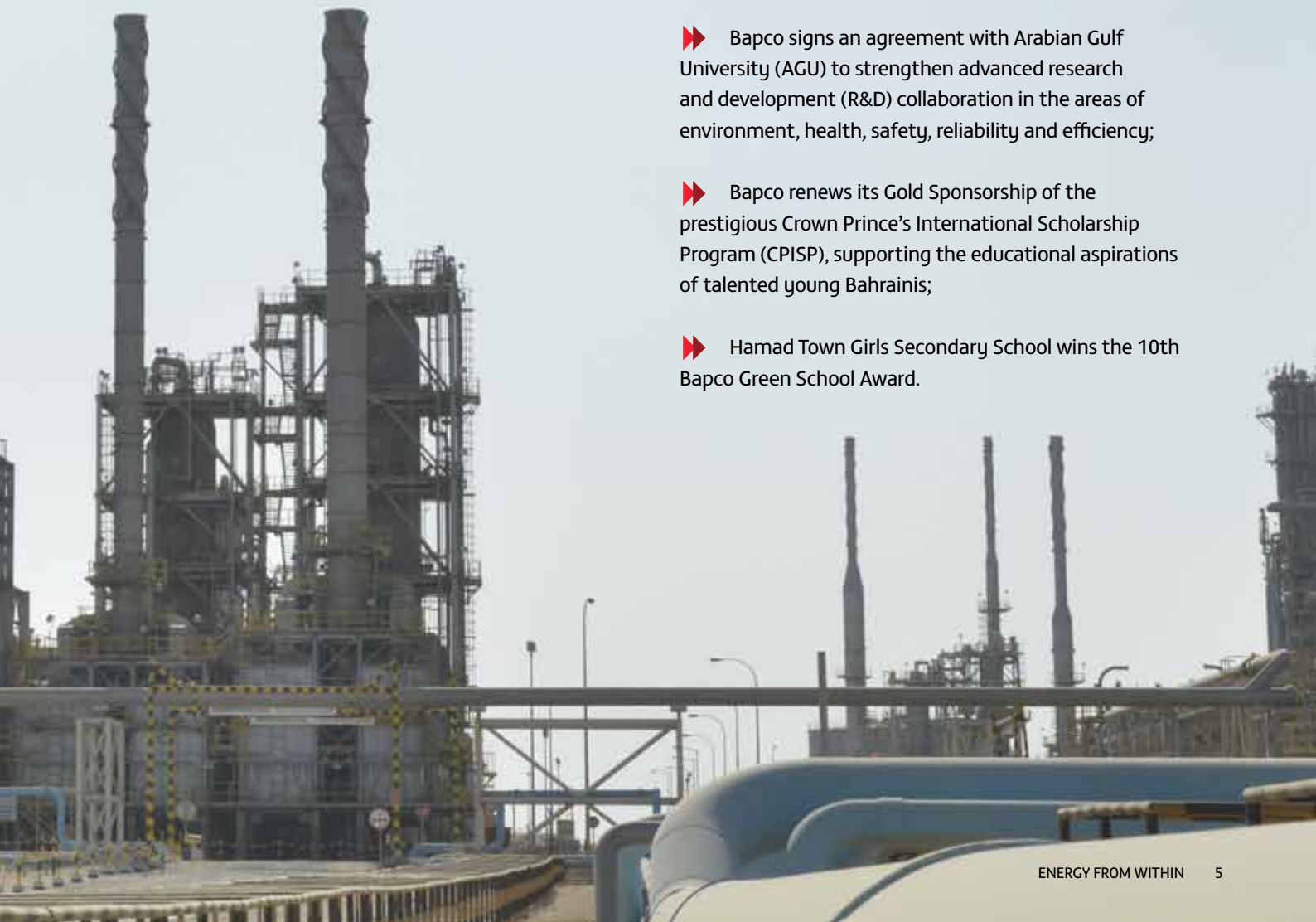
▶▶ A training programme is launched during the year, in conjunction with Italy's Technip, aimed at equipping 33 Bapco staff with the necessary technical skills for various aspects of the Bapco Modernization Program (BMP);

▶▶ Bapco EHS Week, the company's flagship awareness campaign, culminates in an EHS Family Day on 10 October, which is attended by approximately 30,000 people;

▶▶ Bapco signs an agreement with Arabian Gulf University (AGU) to strengthen advanced research and development (R&D) collaboration in the areas of environment, health, safety, reliability and efficiency;

▶▶ Bapco renews its Gold Sponsorship of the prestigious Crown Prince's International Scholarship Program (CPISP), supporting the educational aspirations of talented young Bahrainis;

▶▶ Hamad Town Girls Secondary School wins the 10th Bapco Green School Award.



A large red oil tanker ship is the central focus, docked at a port. Water is being discharged from its side, creating a large splash. In the background, another oil tanker is visible, and the port infrastructure, including cranes and piers, is partially seen under a clear sky.

# Marketing Performance

## Export Markets

The slump in key crude oil prices continued during the year; averaging around \$45 per barrel below 2014 levels amid market oversupply and fears of a Chinese economic slowdown.

Crude sales from Abu Safah, the offshore field in which Bahrain holds an equity share of 150,000 barrels per day (bpd) of output with Saudi Arabia, totalled 54.6 million barrels; all were shipped to East of Suez markets, with the Far East importing the majority.



Volumes of international refined product sales reached 85.2 million barrels, almost on parity with 2014. Middle distillates (kerosene and diesel) accounted for about 59% of the international sales, followed by naphtha (17%) sold mostly to Asian petrochemical manufacturers and fuel oil (17%) exported primarily to the Middle East bunker market. The Middle East (predominantly GCC countries) accounted for the highest stake of total refined product sales (at 64%), followed by the Far East (15%), Africa (10%) and the balance to Europe, Southeast Asia and the Indian subcontinent.

As mega refineries in the region began producing clean fuel between 2014 and 2015, Bapco reaffirmed its competitive position as it secured stable outlets for its products, especially middle distillates. Notably, during 2015 Bapco sold around 40% of its diesel as ultra-low sulphur diesel in the international market, attracting higher revenues. Significantly, Bapco also achieved record breaking bitumen sales during the year of around 3.7 million barrels, resulting in an increase of around 35% of our total bitumen profit.

#### Local Sales and Marketing

In the local market, the total volume of refined product sales amounted to 10.5 million barrels, up 3.0% year-on-year, led by high octane (Mumtaz) gasoline (41.3% of sales), diesel (22.9%), low octane (Jayyid) gasoline (21.8%), LPG (6.8%), kero/jet (4.6%) and asphalt (2.6%). Bapco's support for the Kingdom's industrial and economic development was reinforced as it supplied 1.5 billion standard cubic feet per day (scfd) of uninterrupted natural gas feedstock to 36 customers, on par with the 2014 supply volumes. Peak consumption reached 1.9 billion scfd during August, marginally higher than the 2014 peak. Notably, two new natural gas supply agreements were signed with major industrial consumers. Bapco will supply Aluminium Bahrain's (Alba's) Line 6 Expansion Project. Separately, Bapco extended an agreement with Gulf Aluminum Rolling Mill (GARMCO) to supply 4.5 million cubic feet per day of natural gas for GARMCO's new smelter, which is expected to be complete in the first quarter of 2017.

#### Gas Distribution Network

As part of a broader multi-million dollar project to enhance communication and control systems within the Kingdom's gas distribution network, Bapco's Gas Distribution & Sales Department moved with Tatweer Petroleum to a shared state-of-the-art Control Room which enables monitoring using SCADA communication.

#### Sitra Marketing Terminal

In August the Sitra Marketing Terminal outsourced its fuel delivery fleet operation to National Transport, who for the next seven years will be responsible for delivering gasoline, kerosene, diesel and other petroleum products to customers in the Kingdom.

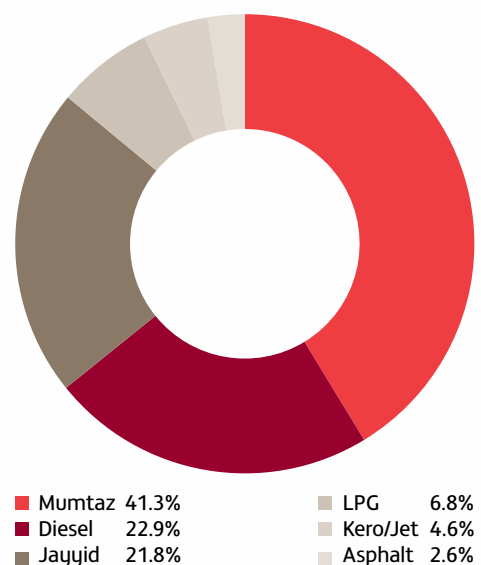
#### Bapco Lubricants

On the retail front, Nass Commercial was appointed as the local distributor for Bapco-branded finished lubricants.

#### Sadeem Fuel Card

The Card Business Unit (CBU) have issued more than 110,000 cards since the official launch in 2012. The Sadeem Card is now accepted in 28 stations around Bahrain. CBU is working on extending the service to all stations in the Kingdom.

LOCAL REFINED PRODUCT SALES



## Strategic Projects

Bapco took several steps forward on its journey into a new era of operational efficiency, profitability and environmental compliance with several vital elements of the Bapco Modernization Program (BMP), the company's largest ever strategic investment, starting to take shape.

### BMP

To ensure its status as one of the Middle East's most competitive, profitable refineries - and a key long-term national revenue driver beyond 2020, the BMP will optimise the plant configuration to upgrade the product slate, improve gross margins, expand capacity, meet more stringent environmental compliance regulatory standards and enhance cost efficiencies.



The project scope includes the installation of crude and vacuum units, a new ebullated-bed resid hydrocracker, diesel hydrotreater and several other process units with associated offsites and utilities, raising overall Refinery nameplate capacity by some 100,000 barrels per day (bpd).

As of year-end, projected timelines focus on FEED completion, engineering, procurement and construction (EPC) contractor selection, and seeking final approval to proceed with the BMP project by 2017.

#### **Front-End Engineering and Design (FEED)**

FEED contractor Technip of Italy accelerated its activities during the year, providing structured “on the job” training in Italy for 33 Bapco employees.

#### **Project Management Contract**

In December, Bapco appointed UK-based WorleyParsons (WP) as Project Management Contractor to provide the overall management and co-ordination of the BMP through FEED completion, the EPC phase, and eventual commissioning.

#### **Technology Licenses**

Bapco signed a technology license as well as engineering service agreements with WP for WP’s sulphur recovery and associated process technology for Bapco’s Number 3 sulphur plant, to be installed as part of the BMP. WP is producing the engineering design packages for the bulk acid gas removal unit, the amine regeneration unit, the sulphur recovery units, the tail gas treating units and the sour water stripper units.

#### **A/B Pipeline**

In September, Bapco signed a Project Development Agreement (PDA) with Saudi Aramco for the EPC phase of the A/B Pipeline Project, which involves the installation of a new 350,000 bpd capacity, 115km line, which will supply the expanded Bapco Refinery with Arabian Light crude oil from Aramco’s Abqaiq Plant. In September, Saudi Arabia’s Al Robaya Holding Company was awarded the 43km-long onshore Saudi Arabia portion of the contract, with a 30% design package submitted by the contractor and reviewed by year-end. Meanwhile, the UAE’s National Petroleum Construction Company (NPCC) was awarded the 42km offshore element in the same month.

Thirteen locally-qualified contractors submitted prequalification documents for the construction contract for the Bahrain onshore portion in 2015, with the Prequalification Report prepared for approval by the Bapco Management.

The new pipeline will replace an existing, ageing 235,000 bpd link from Saudi Arabia.

#### **Chlorine Dioxide Plant**

A 100 kg per hour capacity chlorine dioxide plant, part of a Sea-Water Bio-Fouling Control Project, was commissioned in April 2015.

#### **Aromatics Production Complex (APC)**

During 2015, Bapco continued to provide technical and engineering support to nogaholding for the APC, a potential grassroots joint venture between nogaholding and Kuwait’s Petrochemical Industries Company K.S.C. (PIC), which would convert naphtha feed from the Bahrain Refinery into higher value aromatic products, with the possibility of augmenting the feed with imported naphtha if the economics are favourable. During the year UOP technology was selected and the FEED was awarded to Technip, Italy.

#### **Miscellaneous**

Bapco’s Engineering Services Unit achieved a number of project landmarks in 2015. These included: the commissioning of the 3SRU Modification Project; the commissioning of a redesigned waste heat boiler; the start of work to replace 5CDU heaters with a single high efficiency heater; the start of work to install a gas supply line from Hidd Metering Station to Hidd Industrial Area Distribution Point; the start of work to arrange gas supply to new customers at South Alba Industrial Area; the commissioning of a Seawater Bio-Fouling Control Project; the final stage of construction of a new LSFO substation; the start of work to replace Joy compressors; the completion of a Ship Impact Protection System; and the commissioning of a Sanitary Sewage Treatment Plant (STP) in compliance with Bahrain Air and Water Regulations.

As in previous years Chevron’s Project Development and Execution Process (CPDEP) was adopted in the development and execution of all engineering projects undertaken in the company.





## Refining Performance

Capitalising on its operational excellence and cost competitiveness in a challenging market, Bapco's Refinery notched some significant operational and financial milestones during the year.

Crude throughput was at a ten-year high of 265,634 barrels per day (bpd) on average, compared with a budgeted crude run of 260,496 bpd.

Over the year this amounted to 1.88 million barrels of crude processed above budget. This was due primarily to both high operational availability of the crude units of 95% (the highest in the previous three years),

Crude throughput was  
at a ten-year high of  
**265,634**  
barrels per day



and steady reliability performance with the Refinery operating for 155 days without any unplanned shutdowns.

The Refinery also processed an all-time high of 50,600 bpd of Bahrain crude, maximising revenue for the Kingdom.

In light of the market challenges, the Refinery's latest cost containment and rationalisation programmes, in tandem with high process unit reliability and safety, helped narrow the gap between gross and net margin. Furthermore, the high operational availability of the process units ensured that lost profit opportunities were the lowest in the Refinery's recent history.

Among other refining highlights were:

- ▶▶ An optimal middle distillate yield of 58.0 vol%, exceeding the annual target of 56.5 vol% due to well-executed hydrocracker operations. Overall liquid recovery was also the highest ever recorded in the history of the Refinery;
- ▶▶ The yield of low value products (heavy ends) of 19.0 vol% was lower than the annual target of 19.4 vol%. This was primarily due to higher-than-expected asphalt sales;
- ▶▶ Asphalt production averaged 4.0 vol%, the highest annual average ever recorded, equating to monthly production of 53,780 tonnes, as the company prioritised more profitable asphalt sales over fuel oil;
- ▶▶ A total of 3,860 million standard cubic feet of Refinery Off Gas (ROG) was sent to Banagas, with a total recovery of 1,135,580 barrels of propane, butane and naphtha. The recovery in terms of barrels was the highest ever achieved, even with the planned shutdown at Banagas during the year.

### Shutdowns

To maintain critical asset integrity and ensure units perform reliably with high availability, Bapco successfully completed various shutdowns of 15 process units during routine annual maintenance in April and May.

Twelve unit shutdowns, which included the LSFO (Low Sulphur Fuel Oil) Complex, Visbreaker Unit (VBU), Fluid Catalytic Cracker Unit (FCCU), #5 Crude Distillation Units (5CDU) and RGDP units, were completed ahead of schedule. Emergent works, which slightly extended the duration of the remaining three shutdowns, were safely and successfully executed.

There was a notable milestone at the Refinery in May as the FCCU, a major profit centre for the company, marked 70 years of operation.

### Refinery Reliability Clock (RRC)

A total of 155 days lapsed before the RRC, a Key Performance Indicator used to track unplanned shutdowns lasting more than 24 hours, was reset in May. There were only three resets during the year, the best performance in the Refinery's history which continued a multi-year trend towards more reliable and stable operations.

The low number of resets reflects very good process safety performance, with only one Tier-1 and three Tier-2 events recorded (two of which were small but contained oil spills).

### Refinery Laboratory Award

The Bapco Refinery Laboratory had the distinction of being the only laboratory out of 64 globally to receive a Certificate of Merit from Chevron Global Lubricants during a proficiency testing programme which compared test results conducted by each laboratory on a common oil product sample. The Refinery Laboratory achieved the top ranking in six out of nine tests which were conducted.





**UNEARTHING  
TOMORROW'S  
PROSPECTS**







## Upstream Performance

As a fully integrated oil and gas company, Bapco has a strategic obligation and objective to support the exploration, development and management of Bahrain's hydrocarbon reserves base. Steady progress was made during the year in this respect, the company's exploration and petroleum engineering capabilities complementing the work of NOGA, nogaholding and their partners on a range of onshore and offshore upstream initiatives in the Kingdom.

### Onshore Exploration Drilling and Testing

Drilling exploration wells to help define and assess available hydrocarbon resources is an integral dimension of the business. Following an onshore drilling campaign launched in 2014 and based on well log evaluation, a testing campaign to test potential zones was initiated in 2015 on three wells.

### New Offshore Exploration Bid Round

Preparatory work continued ahead of a potential new offshore exploration bid round for four exploration blocks, relinquished by Occidental Petroleum and PTTEP of Thailand in 2012, which have been re-defined based on new distribution of identified prospects/leads. Bapco approached several legal and promotional consultancies during 2015 with the aim of establishing an Exploration and Production Sharing Agreement (EPSA) for the blocks, as well as promotional strategies.

As part of this process Bapco hosted representatives from several interested international oil companies (IOCs), hosting data rooms for their technical experts to evaluate potential.

### Unconventional Exploration

Bapco engaged during the year several expert consultancies with a view to conducting a detailed study and analysis of unconventional hydrocarbon resource potential in the Kingdom.

Results of the study were promising, and a wider scope of technical and operational planning was subsequently initiated to fully assess available unconventional resources, particularly in the Hanifa and Tuwaiq Mountain Jurassic formations.

### Bahrain Onshore Deep Gas Project

The exploration phase of the Bahrain Onshore Deep Gas Project, initiated by NOGA and Occidental Petroleum of the US in 2011 to explore for additional resources to meet increasing domestic gas demand, was completed in the fourth quarter of 2015.

The early part of the year saw the completion of drilling an exploratory well Bahrain Deep -1 (BD-1), which had been spudded in July 2014.

Having evaluated drilling and logging results, hydraulic fracturing operations started in January 2015 and were completed in April. This resulted in the identification of gas resources in deep zones.

Bapco subsequently submitted plans for further appraisal work to quantify the full resource potential.

### Bahrain Field DPSA

Bapco continued to represent nogaholding in the governance committees responsible for the Kingdom's interest in the Development and Production Sharing Agreement (DPSA) of the onshore Bahrain Field.

Among Bapco's contributions during the year were suggestions to optimise oil and gas production; associated gas management to reduce gas flaring and support for a gas plant study; organising a consultant study on in-field exploration to discover new reserves in the contract area; reviewing Tatweer's 2016 Annual and Five Year Plans to optimise projects and expenditure; and maintaining the Non-Associated Gas (NAG) model for system deliverability estimations. The company also verified Tatweer's quarterly NAG claims and closely monitored gas quality.



# Environmental Performance

In keeping with its strong corporate EHS policy and to comply with national regulations, Bapco's environmental performance is subject to close and continued scrutiny. In 2015, this was articulated in a number of ways which lay the platform for long-term sustainable growth of the business and guarantee a reduced impact of the company's operations on the land, sea and air.

## Environmental Performance Index (EPI)

To this end, a detailed review of the company's EPI was routinely carried out during the year, monitoring improvements in primary water treatment processes and air quality at the Refinery. The EPI in the first quarter of the year saw extremely good compliance in all aspects of the Index, and the Refinery achieved an EPI of 8.2 in March, the highest figure in five years.

## Marine Environment Survey

In line with its commitment to preserving the environment through a comprehensive environmental management programme, as well as its keen interest in fostering Corporate Social Responsibility (CSR) endeavours, Bapco has been conducting regular marine environment assessments over a thirty-year period with the help of Swedish marine ecology scientists led by Professor Olof Linden, who has participated in all eight marine assessment surveys conducted for Bapco. The marine experts were in Bahrain once again during October, making key observations, sharing their expertise on trends in the local marine ecosystem and documenting their undersea findings. This is a unique survey considering the consistency in survey partners and fw1, as well as to provide baseline data following commissioning of the Waste Water Treatment Plant (WWTP) and Sewage Treatment Plant (STP) projects in 2013 and 2014 respectively.

## ISO 14001 Re-certification

Bapco's sound environmental management policies were reconfirmed when the company received

ISO 14001 re-certification, the internationally-recognised environmental management standard. The recertification, which followed an audit conducted by Bureau Veritas which found no non-conformances, is valid for another three years.

## Bahrain Solar Energy Pilot Project

Following successful commissioning in 2014, the Bahrain Solar Energy Pilot Project performed to expectations during 2015, with the solar installations at Awali, the University of Bahrain and the Refinery generating power output and underscoring Bapco's credentials as a solar energy innovator and its initiative to participate in considering alternative energy supply and savings strategies to build resilience in its business.

Petra Solar, the US company which installed the panels in 2014, was awarded a three-year Operational and Maintenance (O&M) contract for the facility, which received the "National Winner" award in the MEED Quality Awards for Projects under the category of 'Power & Water Project of the Year'.

## Bapco Green School Award

For the tenth consecutive year, Bapco recognised and rewarded the creativity of Bahrain secondary school students in developing projects which raise environmental awareness in the community. Fifteen government secondary schools participated in the 2015 Bapco Green School Award, with Hamad Town Girls Secondary School securing first place, and Al Istiqlal Girls Secondary School and Sheikh Isa bin Ali Boys Secondary School in second and third position respectively.





Bapco's credentials as a solar energy innovator and its initiative to participate in considering alternative energy supply were underscored





# Health and Safety Performance

Bapco's Operational Excellence Management System (OEMS) provides a framework through which the company seeks world-class performance in process safety and personal health and safety, unit reliability and efficiency.

In 2015, the effects of the OEMS were felt throughout the organisation, with record performance and significant improvements in leading indicators reflecting the strict application of Bapco's 'zero-incident' EHS policies and its holistic safety and reliability culture, as well as the effectiveness of tools such as OSOOL Bapco and 4 Keys to Safety in identifying and controlling risks.

## Safety Performance

By year-end the company's employee and contractor workforce had completed 16.2 million working hours without a Lost Time Injury (LTI), a new record in the company's history. A new process safety record of 436 days without Tier-1 Loss of Containment was also achieved.

These records were achieved following a comprehensive refocus of the organisation on the importance of using OSOOL Bapco and the 4 Keys to Safety in daily operations to improve safety performance.



**The company's workforce completed 16.2 million employee hours without an LTI, a new record**



## **BOOST**

The company's BOOST (Behaviour Observation Obtains Safe Trends) programme, part of the Health & Safety Performance Audit (HASP), saw year-on-year improvements in 2015 in the quality of observations. A total of 10,028 observations were conducted during the year by 732 Bapco-trained BOOST observers, with 12,310 workers observed to date.

## **CERP (Crisis & Emergency Response Plan)**

In 2015 the CERP, steadily enhanced during the past three years, was fully activated marking a major upgrade of Bapco's capability to manage major emergencies, crises and incidents by centralising crisis control, offering logistical support for affected parties, and providing an internationally-recognised standard organisational structure to sustain business after an event. Various training exercises were conducted during the year, primarily at Level 1 response, as well as table top exercises and workshops for incident management and crisis management teams.

## **New Permit to Work (PTW) System**

A new PTW system, featuring Job Safety Analysis (JSA), a qualitative risk assessment tool, was rolled out in all operational areas within Refining, Wharf, Local Marketing and the Gas Distribution Network. More than 2,000 employees and contractors received training on the new system, including classroom theory and competency assessment, and more than 750 were trained in the new JSA process.

## **OHSAS 18001:2007 Recertification**

Bapco was recertified to OHSAS 18001:2007, a standard designed to enable organisations to control Occupational Health & Safety (OH&S) risks, following an audit by DNV. The key objective of the audit was to reconfirm the company's OH&S management system's compliance to applicable statutory, regulatory and contractual requirements. During the audit, several Positive Indications were recorded, with an action plan agreed to address the various recommendations.

## **EHS Week**

Bapco's EHS Committee undertook a number of activities and initiatives aimed at assessing the work environment of company facilities and ensuring fulfilment of all safety requirements in all Bapco offices. The Committee also aims to implement best practices in handling safety issues and encouraging employees to comply with them in the workplace and at home, to promote the health and well-being of Bapco employees and contractors, and the general public.

A very successful EHS Week was organised, culminating in an EHS Family Day on 10 October at the Bahrain International Circuit (BIC), which was attended by approximately 30,000 people. The Family Day featured stalls with valuable information, a special games corner for children, and various forms of entertainment for all visitors. All activities and shows had an underlying EHS theme.

This event reaffirms Bapco's strong commitment towards Corporate Social Responsibility (CSR) by raising EHS awareness among staff, contractors and their families, and the community at large.

Many other associated activities during the EHS Week were successfully conducted like the Bapco exhibition stand in Bahrain City Centre which attracted over 25,000 people, the Fun Walk for Bapco and Contractor families, Kids and Adults' quizzes, and various other competitions. This premier event for Bapco is managed by a group of volunteers who spent many hundreds of hours, making the various events a huge success.

## **Wellbeing Project 2020**

This project was launched to support a healthy working environment for employees, contractors and their families, with company volunteers acting as ambassadors to make a positive difference to the quality of life at Bapco.

## **Ear Show 2015**

Ear Show 2015 was held to raise awareness of the importance of using ear protection, and included a roadshow around various control rooms and workstations, using sophisticated tools to demonstrate to staff the correct way of using ear protection.

## **Awali Hospital**

Awali Hospital implemented several new structural changes and introduced new specialities during 2015 to improve the provision of services to Bapco employees and the local community. This was reflected in rising numbers of outpatient and inpatient visits and operating procedures.


## **Security**

Bapco's security apparatus was enhanced in 2015, including the introduction of a company-wide biometric access control system, new CCTV facilities at Bapco service stations, new inspection systems and training schemes for security personnel, along with a range of other measures which ensure more secure operations across the organisation.

## Information Technology







Infrastructure overhaul was a key theme on the Information Technology (IT) side of the business in 2015 as the company looked to reinforce its technology platforms and architecture. As a result operations were streamlined, procedures simplified and costs reduced in a number of IT-related areas.

#### **Next-Generation Data Protection**

Bapco successfully deployed industry-leading next generation data protection architecture from EMC Corporation of the US. The new Data Domain architecture, implemented to drive down costs and reduce the complexity of managing traditional tape-based architecture, is designed to support future business growth by creating enterprise-ready, agile and highly scalable data protection architecture and improve the organisation's ability to restore critical data and applications.

#### **Exploration Digital Data Room (DDR)**

The Exploration DDR system, a secure, web-based electronic version of a traditional physical exploration data room which is used to facilitate information exchange and review for exploration bid round sessions, became fully operational during the year. The Schlumberger-designed DDR and studio will fully support a 2016 initiative by the Exploration Department to launch the strategic offshore bid round promotion for the Bahrain offshore blocks.

#### **SQL Server Consolidation**

A total of 113 SQL Servers, a Microsoft database software, were successfully consolidated in December, generating a more than 50% saving in Microsoft license costs. In addition to reduced license fees, the project reduced server maintenance during the move from a physical to virtual environment, as well as improving efficiency and resource utilisation.

#### **e-Forms**

The introduction of automated electronic forms and workflow-based actions helped speed up workforce efficiency and productivity, with many processes now able to be completed ten times more quickly and efficiently than previously. Furthermore, document loss, unnecessary delays and non-procedural work has been minimised by the e-forms.

#### **IT Service Management Upgrade**



The IT Service Management System was upgraded, with various IT services consolidated into a single system. In addition to improving communication with users, the upgrade also featured a feedback facility for end-users to help improve the quality of services.

#### **Electronic Funds Transfer (ETF)**

The company implemented a new electronic payment system enabling direct bank transfer of payments to vendors and employees both in Bahrain and overseas, speeding up funds transfer times and reducing vendor queries.

#### **Expense Statements**

Processing of staff expense approvals and payments was streamlined during the year with the launch of a new electronic system.

  
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# Professional Development

The identification and development of, and ongoing care for, human resources is a core theme at Bapco as one of the Kingdom's leading employers and knowledge drivers. In 2015, employees and stakeholders benefitted from a range of targeted training initiatives, partnerships and scholarships designed to equip individuals with both the theoretical knowledge and practical skills which will help Bapco achieve its long-term strategic goals.

## BMP Training

To meet the myriad complex technical demands of the Bapco Modernization Program (BMP), the company embarked on a pioneering training project during the year designed in collaboration with different technology licensors and contractors involved in the BMP. The aim of this training initiative is to equip Bahraini employees with the requisite professional knowledge and international knowhow to run the diverse array of plants and units which will eventually make up the BMP. The first programme was initiated with Italy's Technip for three months, and a total of 33 trainee employees were selected after rigorous assessment by Technip specialists.

## R&D Collaboration

As part of efforts to forge closer links with leading academic institutions in Bahrain, Bapco signed in January an agreement with Arabian Gulf University (AGU) to strengthen advanced research and development (R&D) collaboration in the areas of environment, health, safety, reliability and efficiency, which are key focus areas for the company. By promoting open exchange between AGU researchers and Bapco engineers, both the company and the Kingdom stand to benefit from a better understanding of these key focus areas.

## ILM Certification

Meanwhile, Bapco's ongoing commitment to succession planning and team leadership development continued during the year as 32 employees were presented with certificates signifying their successful completion of the Level 2 Programme of the Institute of Leadership & Management (ILM), a UK provider of leadership, coaching and management qualifications and training.

## Scholarships

Employees at all levels of the organisation, as well as graduates, benefitted from company-sponsored scholarships in 2015. These disbursements aim to meet the need for a sustained supply of skilled, motivated and productive talent to support the Kingdom's strategic business direction. To this end in 2015 Bapco granted 10 scholarships under the Graduate Scholarship Programme, which is open to the general public, and one Employee Scholarship, which encourages individuals to pursue higher education in their work-related fields at undergraduate and postgraduate level, both in Bahrain and overseas. Furthermore, the company signalled during 2015 its intention to award some 80 grants under the Children of Bapco Employee Scholarship Programme, which funds higher studies.

## BASEL

The Bapco Scholars Enhanced Learning Programme (BASEL) completed its sixth year, providing training to school students to help match required workplace skills to academic programmes.

As in previous years, Bapco reaffirmed its commitment to the development of young people by participating as a Gold Sponsor in Careers Week at the Bahrain Training Institute (BTI) in April.

The company's outstanding commitment to employee development and training was also honoured at a major ceremony in the Kingdom during the year.



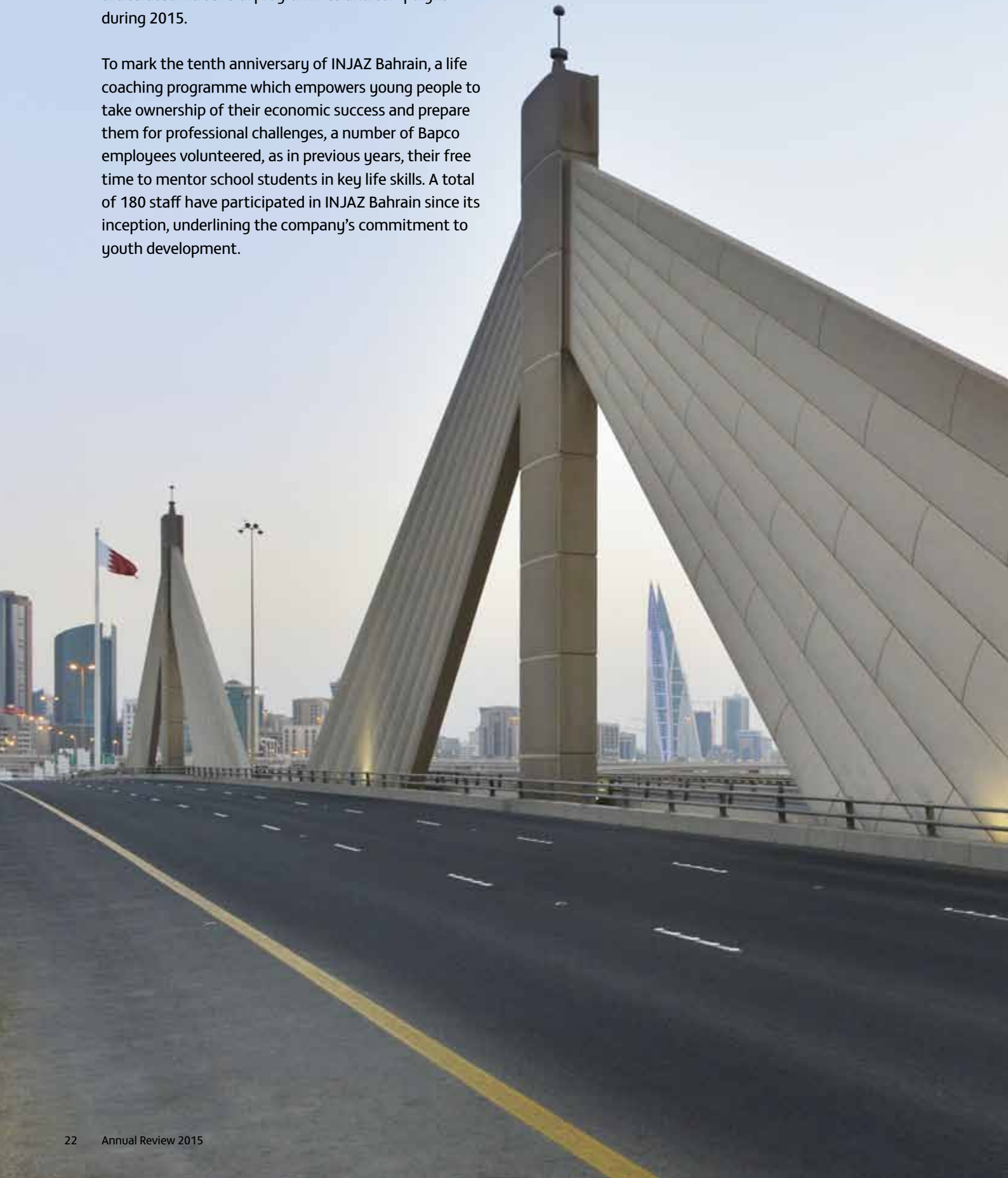




# Community Outreach

As a committed supporter of local community endeavours, social projects and businesses, Bapco's proactive approach to community outreach was articulated via several programmes and campaigns during 2015.

To mark the tenth anniversary of INJAZ Bahrain, a life coaching programme which empowers young people to take ownership of their economic success and prepare them for professional challenges, a number of Bapco employees volunteered, as in previous years, their free time to mentor school students in key life skills. A total of 180 staff have participated in INJAZ Bahrain since its inception, underlining the company's commitment to youth development.





Similarly, Bapco reiterated its high level support for the Crown Prince's International Scholarship Program (CPISP), which offers gifted young Bahrainis the opportunity to study at world-class international universities, by renewing its Gold Sponsorship.

Education sector support was also offered in the form of hosting students from schools, universities and institutes in the Kingdom to company sites such as Princess Sabeeka Park and Dar Al Naft. Such visits are aimed at enhancing students' educational experiences by exposing them to top industry innovations and practices, as well as offering them a more rounded view of the company's diverse operations.

To open new channels of communication with academia, the company welcomed a group of fourth-year electrical engineering students from the University of Bahrain (UoB), one of the Kingdom's leading academic institutions, on a visit to the company's distributed Solar Energy Pilot Facilities in March. The visit served to deepen the students' understanding of renewable energy concepts and the importance of diversifying the country's energy sources to meet future demand.

As in previous years, sponsorship took many forms for Bapco in 2015, from community-themed events and sports tournaments to academic programmes, educational exhibitions and trade shows. This included the Future Experts Project of the Al Hekma Society for Retired, programmes at Bahrain Polytechnic, summer camps for children, the Bahrain Super Cup football tournament, Bahraini Women's Day 2015, the Formula One Bahrain Grand Prix and the Bahrain International Circuit (BIC), the "Increase in Me Knowledge....I Build a Nation" educational exhibition in April, the Football King's Cup and Super Cup which the Bahrain Football Association called "Bapco Super Cup" for the second year, the Crown Prince Volleyball Cup for 2014-2015 and Gulf Industry Fair 2015.

The company's tireless efforts to reach out to society were reflected when it was the proud recipient of the Gold Trophy & Certificate at the Arab World CSR (Corporate Social Responsibility) Regional Conference in Jordan in October.



**Bapco continued  
its committed  
support of the  
community in 2015**



# مجلس الإدارة

## Board of Directors



الشيخ محمد بن خليفة آل خليفة - الرئيس  
Shaikh Mohamed bin Khalifa Al Khalifa - Chairman



عادل المؤيد - عضواً  
Adel Al Moayyed - Member



محمد الجامع - عضواً  
Mohamed Al Jamea - Member



الدكتور داوود نصيف - عضواً  
Dr. Dawood Nasif - Member



عبد المجيد القصاب - عضواً  
A. Majeed Al Gassab - Member



فيصل المحروس - عضواً  
Faisal Al Mahroos - Member



عبد المجيد العوضي - عضواً  
A. Majeed Al Awadhi - Member



# الإدارة التنفيذية

## Executive Management



د بيتر بارتلت - الرئيس التنفيذي

Dr. Peter Bartlett - Chief Executive



إبراهيم طالب - نائب الرئيس التنفيذي للتكرير والتسويق

Ebrahim Talib - Deputy CE Refining & Marketing



غسان علي المهنا - مدير عام الاستكشاف وهندسة البترول

Ghassan Ali Al Muhanna - GM Exploration & Petroleum Engineering



خالد إبراهيم الصباغ - مدير عام الموارد البشرية والشئون الإدارية

Khalid E. Sabbagh - GM Human Resources & Administration



عبد الجبار عبد الكريم - مدير عام المشاريع الهندسية الكبرى

A. Jabbar A. Karim - GM Major Engineering Projects



حافظ القصاب - مدير عام التكرير

Hafedh Al Qassab - GM Refining



محمد جواد الستراوي - مدير عام المالية وتقنية المعلومات

Mohamed Jawad Sitrawi - GM Finance & IT



خالد إبراهيم بوهزاع - مدير عام التسويق

Khalid Ebrahim Buhazza - GM Marketing



محمود ميرزا - مدير عام الصيانة

Mahmood Mirza - GM Maintenance