

# MANAGEMENT DISCUSSION AND ANALYSIS

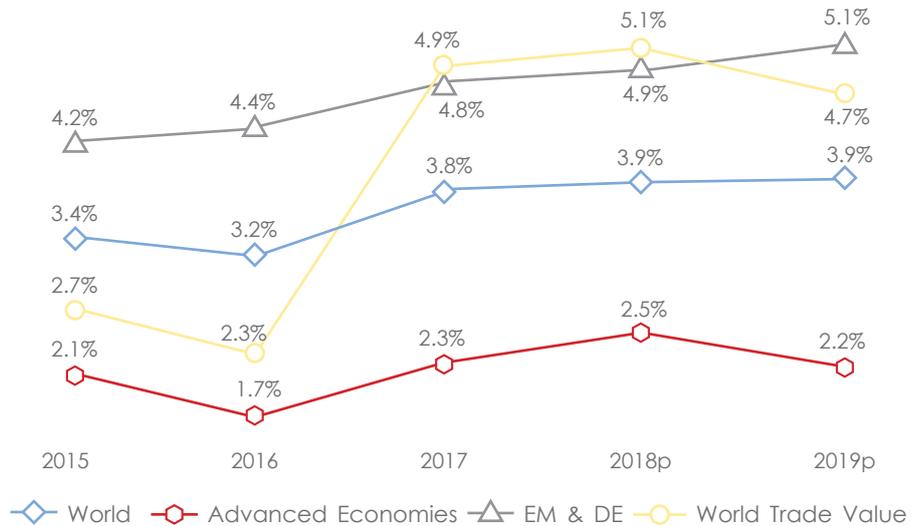
## GLOBAL ECONOMY

The Global economic recovery that started around mid-2016 gathered pace in 2017 and the world economy grew by 3.8% in 2017, fastest since 2011 as per IMF reports.

The global economic recovery was backed by continued improvement in most of the emerging markets and developing economies, with an uptick in investment activity in advanced economies backed by a sharp acceleration in global trade. Interestingly, the advanced economies grew at fastest pace in the last seven years with unemployment recording close to the lowest levels in recent times.

The improvement in the Global Economic Growth was backed by an enhanced global trade growth in 2017. The World Trade Volume (goods and services) grew by 4.9% in 2017 against 2.3% in 2016. The upsurge was more pronounced in the emerging markets and developing economies, with trade growth rising from 2.2 per cent in 2016 to 6.4 percent in 2017. The global trade is expected to grow by a stronger 5.1% in 2018.

An ever-improving global demand, growing trade, abatement in deflationary pressures and sanguine financial markets are creating a strong positive feedback loop that is furthering expectations of a more robust global demand. However, the expectations remain checked by geopolitical tensions, flaring commodity prices, tightening of monetary policies,



**Global Growth: Key Indicators**

increase in government debt, especially, in advanced economies, slowing growth and policy changes in the large economies such as China. The cyclical global recovery along with inventory build-up across the value chain will further accelerate the demand for agrochemicals.

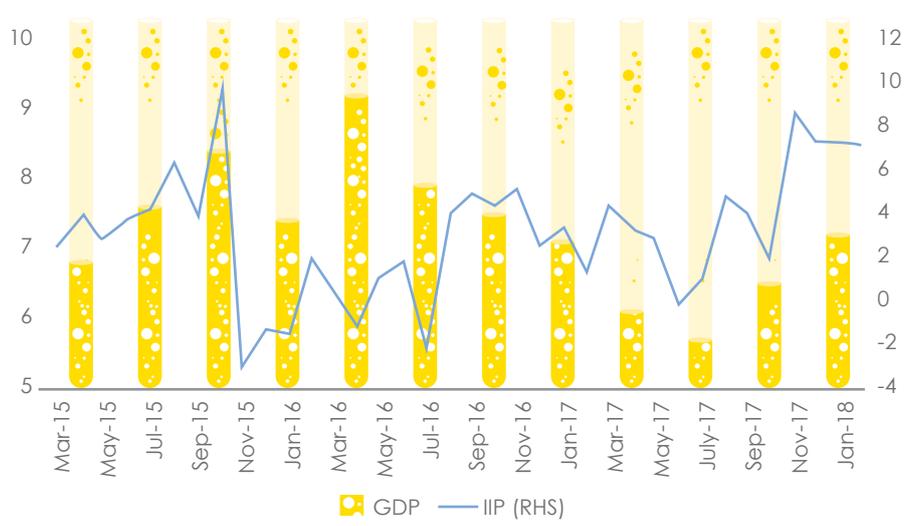
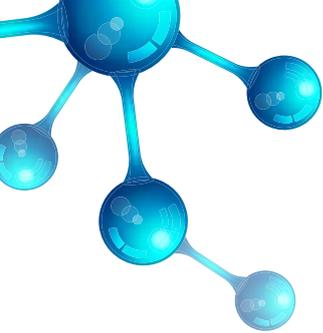
With financial conditions still supportive, IMF projects global economic recovery to tick up to a 3.9 per cent rate in both 2018 and 2019.

Faster than anticipated tightening of monetary policy, expansionary fiscal policy in the United States leading to widening of global imbalances and extension of trade restrictions along with geopolitical tensions are some of the key risks to the global economic growth.

## INDIAN ECONOMY

The cyclical recovery of the Indian economy that began in 2016 was heldup by a few structural reform initiatives undertaken by the government in 2016 (demonetisation) and during Q2 and Q3 of CY2017 (Goods and services tax (GST), RERA). These initiatives had a transient effect on the organized industry and urban consumption; they had a much deeper impact on the labour-intensive unorganised sector.





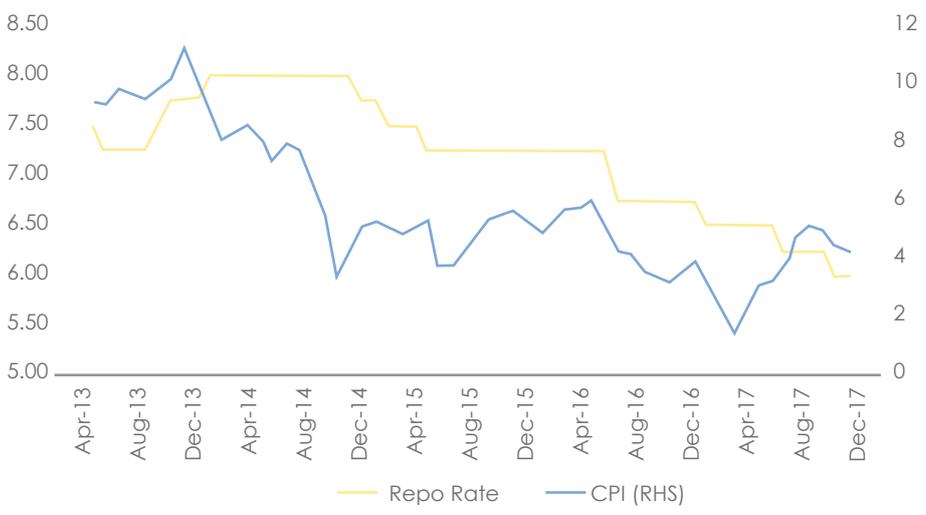
### Domestic Growth: Key Indicators

6.1% YoY in the first three-quarters of 2017. The manufacturing PMI remained in an expansionary mode for the eighth consecutive month in March, although there was some moderation in later part. Retail inflation, measured by the year-on-year change in the CPI, fell from a level of 5.1 per cent in January to 4.4 per cent in February, due to a decline in inflation in food and fuel. The last four-month average IIP growth (Nov 2017-Feb 2018) is over 7.5%YOY, despite high base effect, an indicator of improving manufacturing activity.

IMF projects the Indian economy to grow at a much faster pace of 7.4% and 7.8% in 2018 and 2019, respectively. India is expected to maintain its higher relative growth compared to other major economies over the visible future and is forecasted to be among the top three global economies in terms of Gross Domestic Product by 2030.

Going ahead, the cyclical domestic recovery should be aided by the positive impact of several large-scale structural reforms undertaken by the current government and faster global growth. The reforms undertaken are expected to have a positive impact on the fiscal and current account deficit over the medium to long-term. Additionally, they will increase the efficiency and transparency of the Indian economy. Together, these will increase the confidence of both corporates and investors in the Indian economy.

Other factors that should positively impact Indian economic growth include expansionary fiscal policies, especially, oriented towards rural economy and infrastructure, ahead of Indian general elections in 2019.



### Inflation & Key Policy Rate



As a result, while the global economic growth saw a marked improvement in 2017, a visible slowdown in the Indian economic growth was observed. The GST-related working capital disruptions impacted the supply chain, which in turn, contributed towards the surge in imports and deceleration in exports in Q4 2017.

The Indian economic growth, however, rebounded in Q4, 2017 and grew by 7.2% YoY following an average gain of



## GLOBAL AGROCHEMICAL INDUSTRY

Agrochemicals are chemicals that help boost crop productivity through prevention of destruction of crops by pests such as insects, weeds, fungus, etc.

The global economy, in general, and Indian, in particular, is facing a multitude of challenges such as to feed an ever-growing population, reducing arable land bank and dealing with adverse climatic changes.

Under such circumstances, the traditional methods of growing more crops are rendered inadequate. There is a growing acceptance to launch advanced agrochemical solutions to achieve higher field productivity.

While structurally the demand is expected to remain positive for the above-mentioned reasons, over the shorter run it does get impacted by cyclical factors. These include crop prices, the build-up in inventory across the value chain, climate vagaries, and hosts of other factors.

The agro-chemical industry was impacted by a slew of such factors and slowed down in the recent past years. Lowering of crop prices, adverse climatic conditions in Brazil and many other Asian countries, higher

channel inventories together resulted in the decline of expenditure on agrochemicals. As a result, the global agrochemical industry has remained flat or in fact has downsized a bit between CY2013 and CY2017.

Alongside these developments, the global agrochemical industry is dealing with the supply shock on back of the nationwide crackdown by the Ministry of Environmental Protection in China, one of the largest contributors to the global agrochemical Industry.

Together these factors may bring some change to the global landscape of agrochemical industry. Over the visible future, the rising R&D costs, diminishing returns, greater thrust on portfolio integration and focus on core competencies could lead to increased outsourcing of opportunities for commercialisation of molecules and manufacturing for the proven industry players.

## INDIAN AGROCHEMICAL INDUSTRY

The agriculture sector remains the backbone of the Indian economy. While it accounts for about 15% of the Gross Domestic Product, it provides employment opportunities to more than half of the Indian population. The large dependence of population on agriculture makes it politically a very

sensitive sector. Even more sensitive is the volatility in food inflation, especially, amongst the perishable product categories such as vegetable. Often, the reasons for high food inflation have been an erratic supply. Some of the pests, including insects and pathogens can result in nearly complete loss of crops in the absence of effective control measures.

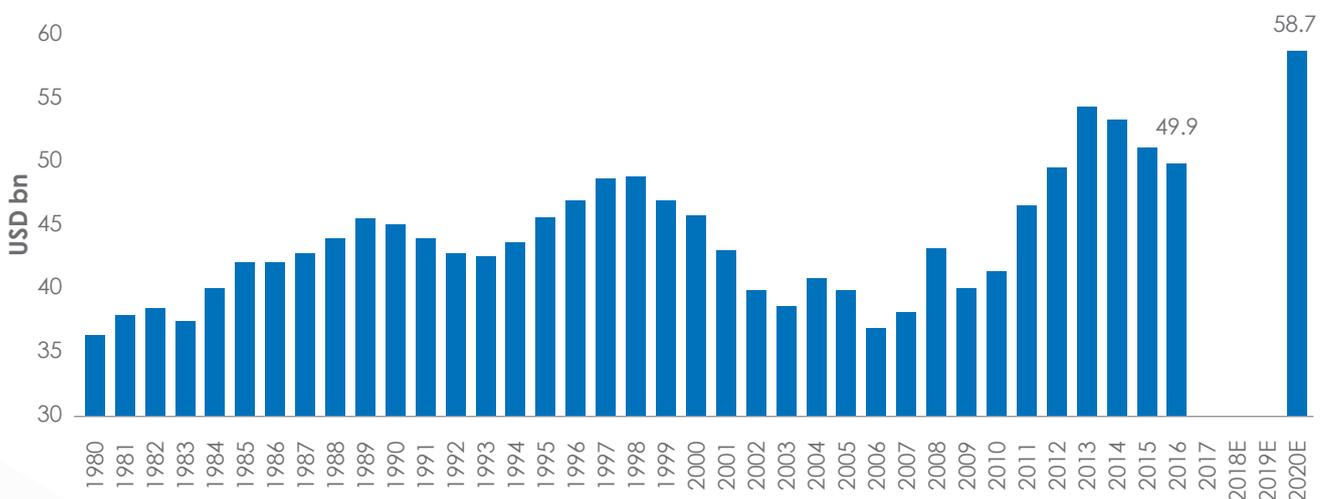
The current year's budget allocation and initiatives aspire to double the agriculture income in coming five years. The Union Budget 2018-19 has proposed to increase the MSP for Kharif crops to 1.5 times the producers' costs.

The consumption of crop protection products in India is quite low. India's agrochemical consumption at 0.5 kilograms per hectare is much lower than other similar size economies such as the UK (5-7 kgs per hectare) and China (~13 kgs per hectare).

Therefore, optimal usage of modern agrochemicals can considerably enhance farm productivity, reduce wastage and enhance income. Moreover, they will increase the farm income, in line with the government's target as stated earlier.

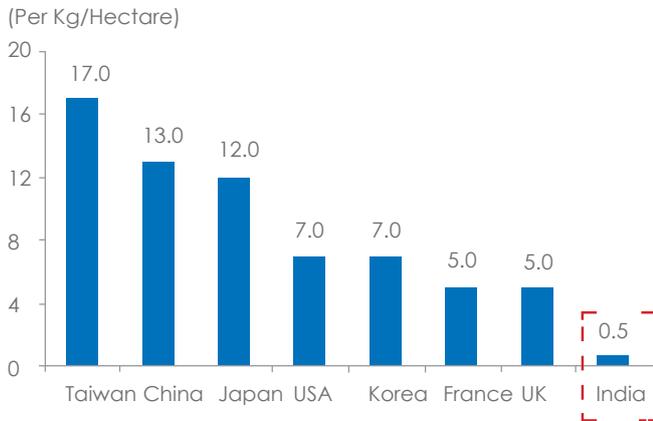
On the supply side, India, with a market share of around 10%, is globally the fourth largest producer of agrochemicals. India produced

### Global crop protection market expected to grow at a CAGR of 4% over 2016-2020



Source: Phillip McDougall

## Worldwide consumption pattern of agrochemical

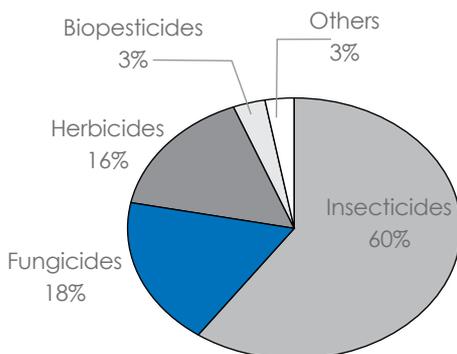


Source: Phillip McDougall

US\$4.9 bn in FY17, equally distributed between domestic markets and exports. The Indian agrochemical industry is expected to grow at 7.5% per annum to reach US\$ 7.5 bn by FY19.

Insecticides (60%) form bulk of the agrochemicals followed by fungicides (18%), herbicides (16%) and other products (6%).

## Indian Crop Protection Market Split

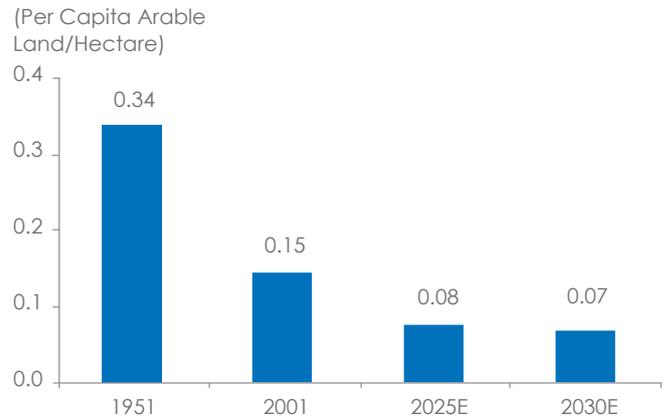


Source: FICCI

We believe that structural long-term growth drivers for India's agrochemicals industry are in place. These include rising farmer income, declining arable land, low penetration of agrochemicals, mounting labour costs and poor crop yields (vs. global average).

Based on FICCI, products worth US\$2.9bn are expected to get off-patent by 2020 globally, providing significant export opportunities for India's generic agrochemical companies.

## Declining arable land



## COMPANY OVERVIEW

Your Company is one of India's leading agrochemical company providing integrated and innovative solutions to its customers. PI enjoys tremendous brand recognition, a strong global presence over the years on the foundation of Trust, Integrity and IP protection.

PI has exclusive rights from several global corporations for distribution of their products in India and is constantly evaluating prospects to further expand its product portfolio. The spectrum of services that PI provides to its customers are interwoven and spread across its value chain, ranging from research and development, product and application development, registration, manufacturing, marketing & distribution and customer connect initiatives.

Over the past several decades, PI has worked relentlessly to provide value-added solutions to millions of farmers in the country and across the globe, carving a niche for itself in the market, and leaving a lasting impact on the minds of the customers. The strategic, differentiated and partnership approach has enabled the Company to grow at a faster pace, delivering superior returns to all its stakeholders.

## Discovery, Development and Scale-up

At PI Industries, Research & Development is one of our key strengths and is imperative to our business model. The state-of-the-art R&D centre spread over the area of 1,20,000 square feet at Udaipur, Rajasthan, provides excellent infrastructure and lab facilities for our research scientists to carry out activities and specialise in the discovery





Inspired by Science

space, including library synthesis, molecule design, lead optimisation, route synthesis, biological testing and greenhouse testing.

Some of the infrastructural developments at our R&D centre include advanced research and development labs for process and analytical development, workstations with complete online utilities, in-house library with a vast array of knowledge resources, kilo and pilot plants with NABL accreditation and GLP certification, and green houses for biological testing. Our IT infrastructure at the R&D centre includes Electronic Lab Notes (ELN) and Centralised LIMS systems for data and information management providing access to diverse databases.

We have a strong team of 300+ research scientists including more than 80 Doctorates specialised in-process research and complex chemistries. Our research & product development capability forms the core of our partnership with global innovators when it comes to in-licensing arrangements for patented / proprietary products for commercialising. Our in-depth expertise in process research, process development and analytical references enable us to provide integrated solutions to our global customers. We continue our focus on new innovative chemistries and processes, cutting-edge technologies

### Product Evaluation & Registration

PI has a world-class, highly competent product evaluation team, which is equipped with the best-in-class tools for data management, product characterization and knowledge generation to help the Indian farmers reap rich harvests by the use of these new age chemical ingredients..

The Company also has a highly knowledgeable, skilled and capable team of registration professionals with deep understanding of Indian regulatory system to register products in India and also facilitate the registration services for the innovators seeking registration in India. The team specializes in planning and coordinating studies with CRO's related to bio-efficacy, residue and



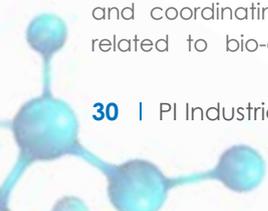
toxicological studies in compliance with the applicable regulations for the purpose of quality data submission and regulatory approvals.

### Manufacturing

Our Company has invested in state-of-the-art technology at our manufacturing facility in Gujarat that is spread over a 100-acre land, ensuring the highest level of safety, product quality, productivity and consistency in the resulting product. The manufacturing facilities include 5 multi-purpose plants at Panoli and, 3 multi-purpose plants at Jambusar and dedicated high-pressure reaction facilities equipped with futuristic automation. In addition, our 2 Formulation units at Panoli help us meet the requirements of our local as well as global clientele. The multi-purpose plants give us flexibility to produce new products in a short span of time and scale up to meet the demand of our clients. Our manufacturing facilities are ISO 9001, ISO 14001, OHSAS 18001, ISO 50001 and ISO 17025 certified that conform to very high safety and environment management standards. Our formulation facility process agrochemicals in WDG, WG, SC, E, EC, DP, GR, etc. and has a world-class warehousing facility. Our manufacturing facilities are also equipped with the amenities that help recover, recycle and preserve and reduce water

consumption, which in turn, boost our Green Initiatives.

Time and again, our manufacturing facilities have been acknowledged and felicitated. We have been honored with various awards like Energy efficiency award by BEE, Green Manufacturing Excellence Award by Frost and Sullivan, Economic Times India Manufacturing Excellence Award by Frost and Sullivan & Golden Peacock, Environment Management



Award in all the three formats of Safety, Environment and Quality, National Quality award and National Safety Council's Shreshtha Suraksha Puraskar.

## MARKETING & DISTRIBUTION

At PI, we cherish our legacy of building successful brands. We endeavour to further this and live up to our customer's expectations by leveraging our strong marketing and distribution set up that has gained a foothold across the length and breadth of the country.

The efforts under our three-pronged marketing strategy are as follows:

- Pre-launch: In this stage, efforts are directed towards mapping the target users and markets, on-field training, generating testimonials, brand awareness and teaser campaigns.
- Product launch: This stage consists of finalization of theme and venue, engaging with our stakeholders to help them understand the product benefits and interaction with press and media for product coverage.
- Post-launch: This stage consists of exhaustive branding and promotional activities, channel handholding, demand generation activities, geographical and crop label expansion, and product stewardship.

Our brands benefit from their strong association with the farmer community and a huge recall. Many of our brands, including a few of which are over decades old, are leaders in their respective product categories.

During the year, we launched five new Products, Header, Fender, Visma, Humesol and Elite. Our other key brands include Nominee Gold, Osheen, Biovita, Cuprina, Rokat, Foratox, Kitazin, Keefun, and Vibrant.

Through our hub and spoke distribution model, we reach out to more than a million farmers. It consists of over 40000 retail points, more than 10,000 channel partners, over 2000 people, more than 30 countries across 6 continents, over 30 stock points, 8 plants, and 4 global offices. All of them are well-integrated



through our centralized SAP-based ERP system, which also ensures a competent last mile connectivity.

## CUSTOMER CONNECT

At PI Industries, we understand that our success depends upon the success of our customers. Our customer pool includes domestic customers, business partners, channel partners, strategic partners, joint venture partners, global clients and much more.

A satisfied customer forms the base of our existence. For the same reasons, we have been consistently investing in developing and enhancing our customer's experience. We also maintain an extensive database of farmers for each of our focus market. We complement our extensive physical rural presence with modern technology tools such as mobile and tablets, not only to stay connected with our farmers, but also helping them understand the benefits of present-day agri products.

We hold regular strategic business partners meet to update and train our channel partners on the shifting paradigms and technological advancement in agriculture. Our trained channel partners, in turn, along with their experienced field force meet farmers on a regular basis to address their concerns and to train them on improved methods of agriculture that would help them in increasing their crop yield and productivity.



Moreover, establishing a strategic partnership with global innovators forms the backbone of our business model. We have a longstanding relationship with over eighteen global innovators and we continue to strengthen our partnership with them. In addition, we are establishing relationships with new prospects to accelerate our expansion into newer geographies and market segments.

During the fiscal, we entered into an agreement with Kumiai Chemical Industry Co. Ltd. (Kumiai) to establish a Joint Venture Company (JVC) in India. The JVC is also another step towards "Make in India" initiative and will leverage Indian operational efficiencies. We serve our global customers by leveraging upon our state-of-the-art manufacturing setup backed by technology infrastructure. Our deep understanding and experience in handling a variety of chemistries backed by our strong in-house R&D and process research capabilities enable us to understand and develop complex products



in-house in line with our client specifications.

Our quick turnaround time, optimised manufacturing processes and on-time delivery performance have enabled us to become a partner of choice for our global customers.

## FINANCIAL REVIEW

Your Company's revenue from operations for the year stood at Rs. 2308.71 crores, reflecting a decrease of 3.11 % on YOY basis. The operating profit for the year stood at Rs. 492.06 crores from Rs. 550.53 crores last year i.e. a decrease of 10.62 % YoY. The net profit for the year on stand-alone basis stood at Rs. 366.54 crores as compared to Rs. 457.36 crores in the previous year i.e. a decline of 19.86% on YOY basis which was mainly on account of higher effective tax rate of 20.9% as compared to last year because of certain withdrawal of abatement that your company availed in previous year. Our EBIDTA margin decreased 179 basis points to 21.31% in 2017-18 over 2016-17 and PAT margin stood at 332 basis points to 15.88% in 2017-18 over 2016-17.

The Earnings Per Share (EPS) for the year stood at Rs. 26.62 per share as

compared to Rs. 33.31 per share for the previous year and debt equity ratio at 0.04 as compared to 0.07 in previous year.

## ACCOLADES

During the year, your Company won several accolades. Amongst others, PI Industries was awarded the prestigious "Global Sourcing - Outstanding Performance Award" at the Baybuy Annual Suppliers' Awards 2017, organized by Bayer India at their Thane office in Mumbai, held on 15, December 2017. PI was declared a winner in the category for an outstanding performance during 2017. It was awarded for its collective effort in supplying several strategic products, proactive planning, and timely delivery of quality products against all odds and uncertainties of raw material sourcing in China.

In yet another achievement, PI also topped the TFS audit conducted by BCS for its leading suppliers by securing a score of 99 out of 100. TFS audit program basically assesses suppliers on various sustainability criteria, e.g., management, environment, health & safety, labour & human rights, and governance issues.

The Company was once again recognised for outstanding exports performance as it bagged 'Trishul award from Chemexcil' for outstanding exports performance during the year 2017. And not the least, the Company was also recognised for its CSR initiatives and was honoured with 'Social Change Award' 2017' for its CSR initiatives.

PI was also featured by ECOVADIS in the 'GOLD' category for a perfect integration of CSR principles into its business (Environment Management, Labor/Social welfare, Fair business practices), and sustainable supply Chain. Your Company with a score of 62 points out of total 100. We are among the top 12 supplier companies in the world from a group of 150 registered suppliers in the agrochemical sector. In the third party audit under TFS, company secured a phenomenal 100% score (200/200). These reporting initiatives indicate our continued progress in sustainability reporting.

## CORPORATE SOCIAL RESPONSIBILITY

As a business enterprise that has steadily evolved over the last seven decades, at PI Industries, we remain committed to pursuing our business in a sustainable manner. Pursuing sustainable value creation, we balance our business interest with that of environment and well-being of society. Our CSR efforts during FY 17-18 have largely been focused on the areas around our plant location in Bharuch, Gujarat and agriculturally backward regions of the country.

Here, we have undertaken high-impact programmes in Education, Healthcare, Skill Development and Women Empowerment. In addition, under agriculture, we have focused on intervention around the theme of environmental sustainability, increase in farm yield and farm mechanization.

In line with our CSR philosophy, PI Foundation,, a CSR arm of PI Industries Limited, undertook several community development initiatives

for the socio-economic development of underprivileged and marginalized communities, a glimpse of which is presented ahead in a separate section of annual report.

## RISK MANAGEMENT

Your Company's risk framework encompasses practices relating to the identification, analysis, evaluation, treatment, mitigation and monitoring of the strategic, operational, and legal and compliance risks to achieve its key business objectives. Risk Management at PI seeks to minimize the adverse impact of these risks, thus, enabling the Company to leverage market opportunities effectively and enhance its long-term competitive advantage. The focus of risk management is to assess risks and deploy mitigation measures. This is done through periodic review meetings of the management.

## HUMAN RESOURCE AND INDUSTRIAL RELATIONS

We are pleased to report that in the area of Human Capital, considerable progress has been achieved in the initiatives that began last year. Our campus relationship building exercise, which commenced last year, has paid rich dividends. We participated in the placement processes of premier campuses and made offers to nine candidates, all of whom have since joined us. A Talent Review process was put in place as a pilot in one part of our business and will be replicated throughout the Company in the coming year. The objective of the process is to segment our talent according to performance and potential and to develop customized training, careers and retention plans for them. Recognising that the provision of basic services matters the most to the vast majority of any workforce and is a key driver of employee satisfaction, we rolled-out an Employee Bill of Rights, which documents and communicates service levels that our employees can hold us to account against. This is supported by an HR Service Management tool to enable us to track our performance against the promised service levels.

A healthy workforce is a productive and engaged workforce. During the last quarter of the year, we launched a Wellness Program, a multi-dimensional initiative aimed at increasing employees' awareness of the need for a healthy lifestyle and preventive healthcare. The program's focus includes diet, exercise, stress management and disease prevention.

Our technology focus continued unabated as we implemented the Recruitment, Onboarding and Off-boarding modules of Success Factors and upgraded our time and attendance management system for enhanced linkage with SAP as well as data access and reporting". The total workforce of your Company stood at 2070 as on March 31, 2018.

## INTERNAL CONTROL SYSTEMS

Your Company is committed to ensuring an effective internal control environment that provides reasonable assurance regarding the effectiveness and efficiency of operations, adequacy of safeguards for assets, reliability of financial controls and compliance with applicable laws and regulations. For this, the Company has laid down standard operating procedures and policies to guide the operations of the business.

The internal audit processes, both at the business and corporate levels provide reasonable assurance on the adequacy and effectiveness of such internal controls and compliances, through the reviews of the functions and processes, as per the annual audit plan agreed with the Audit Committee. A risk control mapping is in place for each audit unit. To maintain independence, the internal audit function reports to the Chairperson of the Audit Committee of the Board.

## INFORMATION TECHNOLOGY

At PI Industries, we believe that a well-developed holistic and technologically advanced infrastructure is the key to success. We leverage technology to spur innovation, remain agile, stay well-connected, steer efficiencies and

primarily to align with both the present and the future customer's needs.

We continue to optimally leverage the benefits of SMAC (Social, Mobile, Analytics & Cloud) to bridge the digital divide with our stakeholders, gain market leadership, engage with our customers, consumers, retailers and distributors. Our modern technology infrastructure enables us to provide them with a unique, nuanced and individualistic experience while interacting with us.

At PI Industries, it is our constant endeavour to provide the best possible customer-company interactions. To further this goal, we have launched the 'Customer Connect' application that allows us to record the detailed interactions with farmers, retailers and distributors. The application allows efficient monitoring of our field force with clearly defined tasks and metrics, enabling us to review their performance in real time with respect to actions undertaken for our customers.

In line with our cloud strategy, we have co-located our IT Infrastructure (servers, storage etc) to a Tier 3 certified data centre. In addition to providing best-in-class Infrastructure and a risk-free data centre class environment, this arrangement provides scalability from servers, storage and networking perspective to meet the need of our business growth on a real time basis. Additional benefits include improved compliances, cyber security and on demand scalability.

Several additions and enhancements to the existing Electronic Lab Notes (ELN), a scientific collaboration platform used by our scientists, have been undertaken and implemented directly that has helped improve their efficiency and productivity.

At PI Industries, we strongly believe that the success of an organization rests in the hands of its people. Going in sync with the same philosophy and prioritising the delivery of a seamless and effective on-boarding digital experience to our potential and new employees, we launched,

'Successfactors', a world-class human capital management tool that digitalizes Recruitment, Onboarding, Performance Management, Off boarding etc.

Our networking infrastructure like Data, Video and Internet has been adequately upgraded to ensure an effective digital collaboration both internally and with our partners.

## OUTLOOK OF THE BUSINESS FOR NEXT YEAR INCLUDING PRODUCT LAUNCHES, IF ANY

Under-remunerative crop prices and stockpile of large inventories did fuel a prolonged demand slowdown for agrochemicals in key export markets. Initial indications of the slowdown cycle bottoming out are apparent, with strengthening of global commodity prices, drop in agrochemical exports from China, correction in exchange rate of Indian Rupee. Several agrochemical molecules, worth billions of dollars, are scheduled to go off-patent over the next couple of years, opening new opportunities for contract manufacturing and exports for the Indian companies.

In domestic market, second consecutive year of good monsoon shall boost agrochemical demand. Government's efforts to double farmers income by 2022 shall also emphasize upon containing crop losses by use of adequate and apt agrochemicals. Increasing awareness among farmers about the benefit of agrochemicals and their right usage too shall push consumption.

Our focus in FY2019 will be on scaling up sales of new products launched during FY2018. We shall back it up with more



product launches. With considerable part of the target geographies yet to be tapped, our established products such as 'Nominee Gold' shall continue to drive growth. Scaling up of newly commercialized molecules, capacity expansion at Jambusar, acceleration in pickup of export shipments and Company's continued investment in R&D shall all help it deliver sustainable growth in coming years. Company's efforts to transcend beyond agrochemical domain, upon fruition, shall open a new chapter of sustained accelerated growth.

We will launch new products as well through our tie-up with global innovators on exclusive or near exclusive basis for marketing and distribution rights, which will also contribute towards incremental sales.

Overall, we remain optimistic on both domestic and global growth potential.

## CAUTIONARY STATEMENT

*Statements in the Management Discussion and Analysis report may be 'forward looking statements' within the meaning of the applicable laws and regulations. Actual results may differ materially from those expressed or implied. Important factors that could make a difference to the Company's operations include among other, climatic conditions, economic conditions affecting demand, supply and price conditions in the domestic and overseas markets in which the Company operates, changes in the Government regulations, tax laws and other statutes and incidental factors.*