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MAY - JUNE 2018 • VOLUME 189 • Visit IRJ at www.irjournal.com

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Prabhash Subasinghe

Managing Director

Global Rubber Industries Pvt. Ltd.

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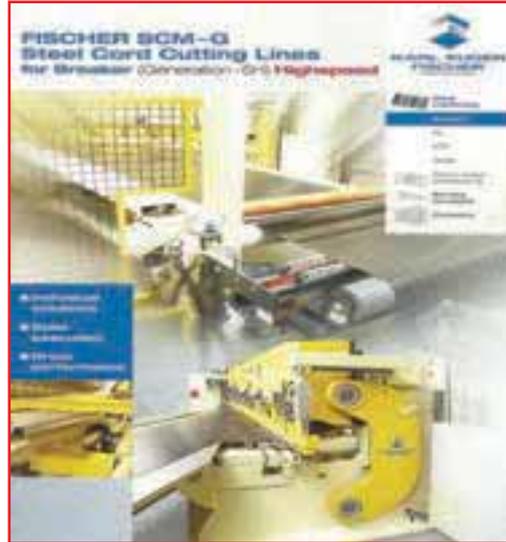
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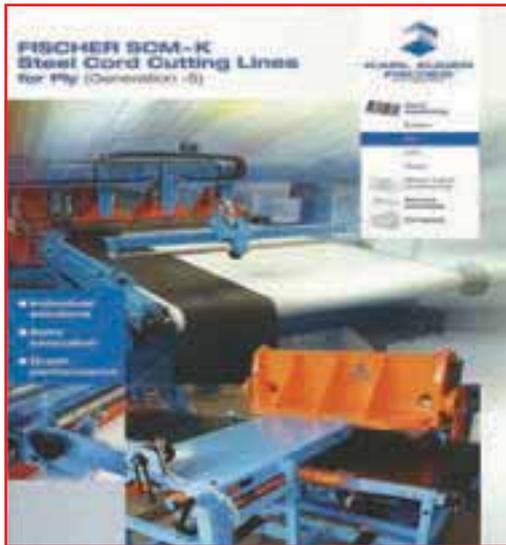
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INDIAN RUBBER JOURNAL
INTERNATIONAL RUBBER JOURNAL



FOUNDER, PUBLISHER & EDITOR M Noorani
MANAGING EDITOR Aida Noorani Malik
GENERAL MANAGER Farida Bharucha

PUBLISHERS:

Rubber Publications (Bombay) Pvt. Ltd. 53/B Mittal Tower, Nariman Point, Bombay 400 021, India

TELEPHONE: +91-22-22812858 +91-22-22885355 +91-22-22824988
Fax: +91-22-22813390

E-MAIL: irj@vsnl.com **WEBSITE:** www.irjournal.com

CIRCULATION: India, Sri Lanka, Bangladesh, Pakistan, Malaysia, Indonesia, Philippines, Thailand, Japan, China, Taiwan, Singapore, USA, UK, Canada, Latin America, Western Europe, Poland, Hungary, Czech Republic, Romania, South Korea, Russia, Australia, New Zealand, Africa, Turkey, Greece, Iran and The Middle East.

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For details please contact :

Head Office & Exports Department : Mafatlal House, H.T. Parekh Marg, Backbay Reclamation, Churchgate, Mumbai - 400 020.

Tel.: (022)66364062. Fax : (022)66364060

Factory : C-37, TTC Industrial Area, Post Turbhe, Off Thane Belapur Road, Navi Mumbai-400 705, INDIA,

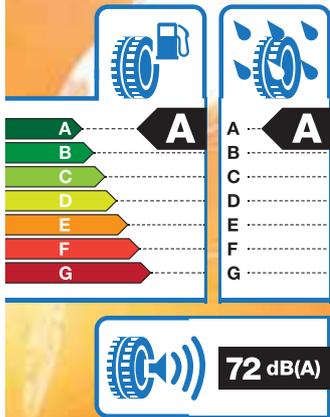
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As we go to press, summer is finally underway in the Northern Hemisphere while India -and many parts of Asia- swelter during record temperature highs. It promises to be an eventful season ahead. Following the economic bonanza for the UK arising from the remarkable wedding of Prince Harry with Meghan Markle, the world's attention has shifted back to the business of politics and we can only speculate the impact on the international tire industry.

U.S. President Donald Trump and North Korea's Supreme Leader Kim Jong Un make headlines every day with their on-off and on again plans for a June summit in Singapore. Even if it does take place, the summit will result in only one clear winner viz. North Korea, for having fulfilled Kim's dream of the first ever meeting with the leader of the U.S. without having to concede his only bargaining chip-North Korea's nuclear arsenal. Events in the Korean peninsula will have a significant effect on the global economy

Turning to India, the recent strategically important elections in the southern state of Karnataka have proved that political parties opposing the ruling BJP can collectively defeat it and try to stop BJP's efforts to control Southern States if they remain united for the all-important general national elections next May.

Rising oil prices in India are already being reflected in daily increasing petrol and diesel prices. The resulting discontent, along with the lack of adequate job creation during the first four years of the BJP Government is very likely to influence the outcome of the general elections in 2019.

Sri Lanka's GRI (Global Rubber Industries Pvt. Ltd.), the subject of our Cover Story, is a sterling example of Sri Lanka's economic turnaround. Prabhash Subasinghe, Managing Director of GRI has led this group to international success in a relatively short span of 16 years. Judging by the group's steady and rapid growth, Prabhash Subasinghe will be adding many more interesting and achievement-filled chapters to the GRI story with his vision and passion.

This issue features a report on the very well-organized IRSG World Rubber Summit held in Colombo, Sri Lanka, this May, where the IRJ was an enthusiastic participant. There was an

impressive gathering of leading figures from the rubber industry and a great variety of presentations made under the theme of "Breaking Barriers Towards Sustainable Growth".

Among the most interesting and insightful presentations at the IRSG World Rubber Summit was that of Rajiv Budhraj, General Director of ATMA (Automotive Tyre Manufacturers' Association), which we take pleasure in publishing in this issue.

Another fine presentation at the IRSG World Rubber Summit was that of World Bank's Arnab Bandyopadhyay, entitled "Sustainable Mobility for all", which we are also fortunate enough to be able to share with you.

This issue also features a report on the strong results of Indian tire majors JK Tyres and Apollo Tyres, as well as those of Michelin, Goodyear and Continental AG. Low NR prices and higher sales have contributed to these positive results.

India's BKT, the world OHT (Off Highway Tire) major, continues to grow in sales and stature. The company has signed a research deal with the American bio-tech company, Kultevat Inc., to accelerate the U.S firm's commercialization of its alternative rubber products. BKT will work with Kultevat to develop new methods of using Russian Dandelions as a renewable and sustainable alternative for natural rubber grown in Asia.

We round up the issue with timely and enlightening presentations from the Rubber Economist quarterly report by Dr. Prachaya Jumpasut, as well as by Bainite Machine's Vinod Rai on Inner Liner line: for PCR and TBR.

At the half-year mark, we wish you informative reading and hope that 2018 has been a successful year thus far.



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Prabhash Subasinghe, Managing Director – GRI in an interview with M Noorani

There is no better way to start this interview than by complimenting you on the remarkable rise of GRI (Global Rubber Industries) in a short span of 16 years.

Were you involved with the rubber industry before 2002?

No.

What motivated you into venturing into manufacturing of solid tires?

In 1999, I had already set foot into the world of commerce and had developed my first startup company which was doing tremendously well. In 2002, I decided to boldly venture into the rubber export market for I found that Sri Lanka was one of the largest industrial tire manufacturers in the world. This intrigued me for Sri Lanka is my home country. It was with this ambition that I made my mark by seeking out opportunities and brave into the rubber business. This is how GRI was commissioned.

I found pride in giving back to my country and showing the world the efficiency and value of Sri Lankan renewable raw materials. Sri Lanka is known for its production of rubber, tea and coconut. However, rubber is considered a high-value added product with increasing global demand. The decision to specialise in the production of solid tires was based on the reality that the centre of gravity of the rubber industry is shifting steadily from growing rubber to value-added product manufacturing. To back this up, the solid tire industry was doing very well in 2002. With barriers to entry relatively low, other global players were also setting up solid tire manufacturing units in the country.



Sri Lanka is now the world's leading solid rubber tires manufacturer with a market share of over 60%.

The journey of GRI began in the year 2001, with the vision "to be amongst the largest specialty tire producers in the world". Within the course of the last 15 years, we have gained entry to the world market, establishing new customers and expanding business to over 50 countries.

What was the reason behind the selection of Badalgama as the site of your first manufacturing plant?

By 2002, I had already captured the seafood industry and had set up a production facility in Badalgama. With the ambition to set up a solid tire manufacturing facility, I procured land adjacent to the seafood production unit and aimed to keep the group of companies together. Furthermore, Badalgama is also within close proximity to both — the main capital and port of Sri Lanka, hence contributing towards a healthy supply chain.

How far is Badalgama from (a) Colombo and (b) Negombo?

Badalgama is approximately 50km from Colombo and 20km from Negombo.

What was the initial production capacity of this plant and what is the present capacity?

The initial production capacity was 100 tons per month. As of now, the manufacturing facility can produce up to 1,200 tons a month.

What is the location of the 2nd manufacturing plant and its present capacity?

GRI has risen to the ranks of a world-class company by growing our company with strong business partnerships, broad global outreach and continued manufacturing innovation

The 2nd solid tire manufacturing plant is also located in Badalgama, adjoining the plant that started it all.

I believe you have laid the foundation for a new specialty tire factory last year. What is the location and capacity of this plant?

GRI's new Specialty Tire (ST) Factory is on 10 acres of prime industrial land adjacent to its current solid tire factory. The new GRI factory is one of the largest and most advanced in Sri Lanka dedicated to produce specialty tires and the first to produce radial agriculture tires. The plant is able to produce up to 9,000 tons per annum.

What was your company's turn over last year and what is the percentage of exports in your turn over?

Cannot disclose.

How are your plans of manufacturing OTR tires progressing?

Pneumatic tire manufacturing concerns both Agri Radial and Bias and Construction Radial and Bias tires, of which a majority of our production — over 65% — will comprise Agri. Our industrial tire portfolio will cover the OTR range as

well. GRI is effectively operating to industrialise tire sizes at what most would consider a rapid rate, with the aim to introduce a significant and sizable range within a short time span, thereby giving the customer a truly extensive choice benefit along with utmost convenience.

Apart from Solideal tires, is there any other major manufacturer of solid tires in Sri Lanka?

There are many international solid tire manufacturers in Sri Lanka, such as Trelleborg, Continental, Elastomerics and Marangoni.

Your fine R & D, and quality management have contributed to the excellent reputation of your tires. Could you please share with us some details about this?

The company as a whole believes that continuous research and development is the true way forward. Enhancing our product range and giving the customer the privilege to choose from a leading, innovative and exceptionally remarkable product is GRI's main desire. To support this, we have a full time R&D team that works to create high-performance and truly reliable products that allow the customer to take a breather on account of unassailability and assurance. To ensure paramount Quality Assurance, our systems are certified under ISO 9000:2015 for the past 10 years, thereby confirming that our production is designed to meet and exceed both regulatory and customer requirements. The plant is also completely self-sufficient and is certified by ISO 14001:2004. Our commitment to sustainability is evident throughout in its 1.2-

Sri Lanka is now the world's leading solid rubber tires manufacturer with a market share of over 60%

Megawatt solar panels, biomass boilers, fully recyclable waste and water management systems. This plant is a testament to the pioneering spirit and values embodied by all at GRI.

What is the level of automation in your plants?

GRI's tire plant is a first in many respects. It is equipped with state-of-the-art technology and many of the machines are the first of their kind to be commissioned in Sri Lanka. The team at GRI has utilised some of the most advanced technologies available with globally-recognised machines that allow for an increased degree of precision, lower operator dependency and much greater automation. These factors continue to drive GRI forward and will result in enhanced consistency, higher quality, greater efficiency, reduced cycle times and wastage.

In how many countries do you operate?

We operate in over 50 countries around the globe.

It will be interesting to know the latest awards which GRI has received in 2017?

GRI has taken the steps of ecologically awareness – all of which have proved to enhance the recognition and realisation towards a cleaner and brighter future; and in doing so, the company has aided in the development of the Sri Lankan economy. In recognition of this, GRI was awarded the 'Presidential Award for Sustainability amongst the Export Industry in Sri Lanka 2016'.

Do you participate in international tire expos?

Yes, we partake in a number of international industry-related exhibitions. We recently showcased our material handling tires for the 4th consecutive year at CeMAT Germany 2018, where we launched three new cutting-edge material handling tires, namely the GLOBESTAR Wide Tread (WT). A universal solid tire that consistently delivers assured performance, it is one of the widest tires in the industry. The LIFTEX pneumatic material handling tire that has been developed for heavy duty



The new GRI factory is one of the largest and most advanced in Sri Lanka

use on forklift trucks and the XPT SS is the ultimate skid-steer tire. It is a premium pneumatic skid-steer tire developed for demanding use and engineered to provide the best in performance with outstanding machine stability.

INTERMAT Paris 2018 is also the stage for setting the release of GRI's first Construction and Industrial Tires, the GRIPEX and GRIPXLR Construction tires, built to provide outstanding machine stability in demanding operations. The XPTSS and XPT Industrial Tires were also introduced to the market at INTERMAT.

GRI is also currently participating at Automechanika Dubai 2018 and will be partaking in a number of upcoming exhibitions that are to take place through the year, such as, The Tire Cologne, Latin Tire Expo, Farm Progress Show, CeMAT Asia, BAUMA 2019, LOGIMAT 2019 etc., where we will be showcasing our full range of specialty tires.

What is your revenue target for the medium term (2020) and for the year 2025 and your vision for GRI's place in the global rubber industry?

With the vision to advance the movement of material, GRI has achieved and will continue to pursue progressive and sustainable business growth, allowing the company to specialise in the specialty tire industry and be

amongst the largest specialty tire producers in the world. GRI has risen to the ranks of a world-class company by growing our company with strong business partnerships, broad global outreach, continued manufacturing innovation and by developing an extremely compelling product portfolio. A track record of quality and innovation have made the GRI brand our customer's top choice.

We plan to embark on an even more ambitious and exponential innovation programmes, with the aim of continuous product range development. In an ever-changing, complex and uncertain world, we rise to the challenge. We understand the importance and implications of major technological shifts in our industry – the prevalence of IOT [Internet of Things], the opportunity that machine learning or AI [Artificial Intelligence], Augmented Reality and Virtual Reality can provide in making better decisions. We are now well into establishing an innovation lab that will harness many of these technologies to drive our business forward. This new frontier is something that I am deeply interested and passionate about.

Revenue targets cannot be disclosed. However, GRI plans to double its sales against our last financial year.



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GRI, the Sri Lankan Lion Riding the Tide of Success: Seafood to Agricultural Tires



Prabhash Subasinghe, an ambitious and astute entrepreneur, with a charismatic, passionate and courageous personality was constantly on the lookout for new opportunities; he braved into business in 1993 and the seafood industry subsequently; the year 2002 saw him venturing boldly into the rubber export market. From this humble beginning the global group has today metamorphosed into the colossal and thriving establishment it is today, owing to Subasinghes' perseverance and steel minded

commitment. The global group consists of over 800 personnel in Sri Lanka, specialized in the export of Seafood and Rubber products to international markets, the company is further strengthened by a number of offices across Europe and USA.

GRI (Global Rubber Industries), the rubber export arm of the Group is one of the leading specialty tire producers in the world, it is an exceedingly accomplished organization that develops, manufactures and delivers products of superior

GRI

WE'LL GET YOU THERE



Prabhash Subasinghe, Managing Director, GRI



GRI is well underway to becoming a pre-eminent global tire supplier

quality, partnered with the assured confidence of an established global player. The founder of the company and the brains behind its bold actions is Prabhash Subasinghe, the dynamic Ivy League educated Sri Lankan entrepreneur. Since he started making inroads into the rubber and tire export market, GRI has developed into the present colossal and fast growing organization that thrives in today's global market. It takes unwavering focus and drive to take a company to the vaunted leagues of the world's top global specialty tire

manufacturers, in less than two decades, something which Subasinghe undoubtedly possesses.

2018 started off triumphantly for GRI, with the commencement of production at the company's state-of-the-art specialty tire facility in Badalgama, one of Sri Lanka's most modern tire plants, located next to its first solid tire factory. 2018 promises to be another successful year for this company, the output from the new plant will help boost exports and consolidate its position. GRI may not have had the most traditional of origins but is currently well

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underway to becoming a pre-eminent global tire supplier. In this cover story, we take a look at the route GRI took in getting to its admirable position, its range of products and the roadmap it has laid out for success.

HISTORY

GRI came into existence as a tire company in 2002, when the company's founder and managing director, Prabhash Subasinghe established a solid-tire manufacturing plant in Badalgama, 50km north of Colombo, Sri Lanka. This 175,000 sq foot plant laid the foundation for the company's growth. The first tires produced at the facility bore the GLOBESTAR brand - the company's universal tire brand.

His vision of GRI as a world class manufacturer and exporter, alongside his confidence in the tires being produced by GRI, led Subasinghe to open offices in the US and France the very next year.

The Ultimate XT, a Premium Plus brand and The Performer brand, a value tire, were rolled out in 2008, by which time the company had achieved a degree of mastery over the tire production process and had a keen sense of what the market needed, in terms of both a standard tire and a premium tire.

In 2011, GRI sales offices were also opened in Germany and the Netherlands as the company strengthened its footprint overseas. That same year, a new tire was launched - The Peakmaster, another premium brand. There was now the

Construction and Port; which would help GRI reach the next level. The GLOBESTAR Wide Thread tire was also rolled out in 2017.

The advanced specialty tire plant was opened this January, notably commencing production within just a year of laying the foundation – a representative of GRI's speed and efficiency.

MANAGEMENT

Prabhash Subasinghe has recruited a highly skilled and driven team at GRI, who have what it takes to keep the company on the path of excellence. They have played a key role in supporting the managing director and making the company the strong contender it is today.

As a leader who does not hesitate to make decisions and aim high, Ivy League-educated Subasinghe is relentless in his pursuit of knowledge and has attended senior management

**25% of GRI's
output of tires is
exported to over 50
countries across the
world**



requirement for extra capacity, so a new GRI plant was commissioned, which added the capacity for 400,000 tires per year. Continuing with its global expansion strategy, a sales and service office was opened in Australia in 2014.

A range of specialty tires was introduced in 2016, further expanding GRI's wide ranging product portfolio. A major breakthrough came that year with the acquisition of Leffler Industrial Tires in North America, allowing the tire manufacturer to penetrate that highly-sought after market.

In 2017, the foundation was laid for the construction of an advanced manufacturing plant for Specialty Tires, namely Agriculture,



programs at the Harvard Business School, INSEAD, The Center for Creative Leadership [CCL] at Colorado Springs, and at the Singularity University in Silicon Valley.

Far from being satisfied with the notable achievements of the GRI group, Subasinghe further diversified his business by making a foray into the Insurance industry in 2010, with an investment in Ceylinco Insurance, the largest listed Insurance Company in Sri Lanka. He then acquired a large block of shares in Sanasa Development Bank, the largest microfinance bank in Sri Lanka, in 2017 and was appointed a Director of the Bank - the first time in the bank's history that a private shareholder from the private sector has been appointed to the Board of Directors. His achievements in the rubber industry have been acknowledged when he was made the honorary new chairman of Sri Lanka Association of Manufacturers and Exporters of Rubber Products (SLAMERP).

PRODUCTS

GRI's output of Agriculture, Construction, Material Handling and Port Tires are exported to over 50 countries across the globe.

AGRICULTURAL TIRES: GRI's Radial and Bias Agriculture Tires are designed and developed to offer high load – carrying capacity at low inflation pressure, reduced soil compaction, exceptional traction, minimum vibration and superior self-cleaning properties. The GREEN EX bias tire and



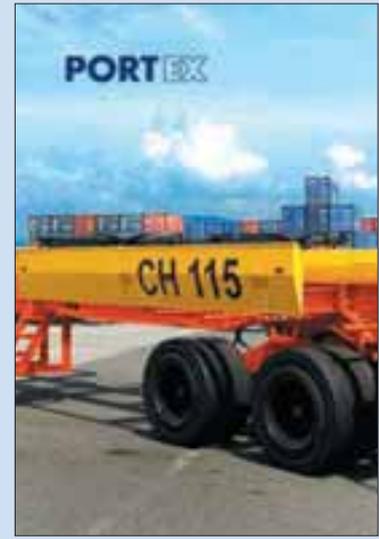
Construction Tires



Material handling pneumatic Tires



Material handling solid Tires



Port Tires

the GREEN XLR radial tires provides for the needs of tractors, pivot irrigators, implements and many more.

MATERIAL HANDLING TIRES: These solid resilient tires for forklifts are built with high-quality natural rubber that is known for its excellence in heat dissipation, high run-time and low rolling resistance properties. They are designed for

maximum stability and safety along with extensive tire life and low energy consumption. These include the Ultimate XT, the Peakmaster, the GLOBESTAR WT, The Performer, the Delta 1, the Delta 2, the Excalibur and the Liftex-Pneumatic. GRI also produces Press on Band Tires, namely the Ultimate XT POB and GLOBESTAR POB, these tires feature a steel-bead reinforced heel, ensuring that the tire



Production & Innovation



Agricultural Tires

won't slip on the rim, thereby providing excellence in stability and safety.

CONSTRUCTION TIRES: These tires are manufactured incorporating contemporary tread designs, rigorous tire construction and superior tire compound and offer extra running hours and can be operated in harsh work environments. GRI's GRIP EX bias tires and GRIP XLR radial tires provides for the needs of excavators, graders, loaders, industrial tractors and skid steers.

PORT TIRES: GRI's port tires are designed and developed with multiple layers of advanced natural rubber compounds to ensure high reliability, stable handling and a longer tire life. Their lower rolling resistance ensures reduced fuel consumption. With a special tread compound, the port trailer tires ensure optimal grip and traction over a range of speeds on diverse surface conditions. GRI port tires are ideally suited for handling heavy container loads over long distances on gathering chassis. These models include the GLOBESTAR WT and Ultimate XT.

GRI'S PLACE IN THE GLOBAL ST MARKET

With its focus on assured performance and exceptional value, GRI's entry into the global ST market will rely on its in-depth knowledge of the development, production, research, innovation and global distribution of superior quality tires produced in Sri Lanka.

R&D

It goes without saying that a fledgling company which rapidly made inroads into the high levels of the global tire market would have had the know-how to produce tires that match or exceed current market standards. GRI's Research & Development section is helping propel the company to the top with a focus on innovation and excellence. The advanced testing laboratory, highly trained technicians, regular quality enhancements and precise monitoring at all stages of production help ensure that the tires exceed the most demanding quality, performance and safety requirements. GRI produces its own natural rubber compounds with fabrication technology that is of the highest standards. The tires are relentlessly tested under dynamic as well as static conditions. The company says it aims to improve on the strict quality and safety requirements set out by OEM suppliers and consumers. This approach of exceeding client expectations has been instrumental in ensuring that GRI stays ahead of the competition.

SPECIALTY TIRE FACILITY

The cutting-edge specialty tire manufacturing facility opened by GRI this past January at a cost of \$40 million, spread over 10 acres of land, will significantly boost the company's export portfolio. 70% of the output of the plant is agricultural tires, with the remainder consisting of pneumatic construction tires and forklift tires. The plant will produce the full spectrum of tires

GRI joins the elite league of global specialty tire producers with this new plant

MILESTONES

- 2002 – Commissioned the 1st industrial tire manufacturing plant
- 2002 – Launched GLOBESTAR (standard brand)
- 2003 – Opened sales offices in the US and France
- 2008 – Launched ULTIMATE XT (premium plus brand)
- 2008 – Launched PERFORMER (value brand)
- 2011 – Opened sales offices in the Netherlands and Germany
- 2011 – Commissioned 2nd manufacturing plant (adding capacity of 400,000 tires per year)
- 2011 – Launched PEAKMASTER (premium brand)
- 2014 – Opened sales & service offices in Australia
- 2016 – Launched portfolio of specialty tires
- 2016 – Acquisition of Leffler Industrial Tires in North America
- 2017 – Laid foundation for the construction of an advanced manufacturing plant for specialty tires
- 2017 – Launched GLOBESTAR WT
- 2018 – Opened Advanced Specialty Tire factory

Mission Statement

Build High-Performance Specialty Tires with advanced compounds
 Superior properties, higher functionality and outstanding operational capability.
 Focus on Innovation, Engineering and Testing
 R&D laboratories, testing facilities and eminent researchers
 Implement Manufacturing Excellence
 High efficiency, reduced waste, consistent quality and timely delivery
 Ensure High-Quality with progressive management system
 Guarantee that tires are of supreme quality.
 Conform to European & US requirements
 ETRTO (European Tire & Rim Technical Organization), REACH, E-Marking, UNECE Regulation 106.

used in off-road applications and will be the largest in Sri Lanka dedicated to the production of specialty tires and the first to produce radial agriculture tires, thereby effectively enhancing the country's export portfolio. The plant has many other "firsts" to its credit: it is equipped with state of the art technology and many of the machines are the first of their kind to be commissioned in the country. The team at GRI has utilized some of the most advanced technologies available with globally recognized machines, allowing increased precision, lower operator dependency and much greater automation. The expectation is that the new facility will thus lead to enhanced consistency, higher quality, greater efficiency, reduced cycle times and wastage.

Having built a track record of quality and innovation in just 13 years, and with a pioneering spirit at its core, GRI joins the elite league of global specialty tire producers with this new plant.

BEING GREEN, SUSTAINABLE DEVELOPMENT & CSR

Even while growing at such a rapid pace, GRI has always maintained its focus on environmental care.

All strategic and tactical decisions made by the company are initially weighed against their impact on the environment. The company believes in simplicity, respect, trust, quality and above all else, continuous sustainability. GRI's factories are completely self-sufficient and are certified by ISO 9001:2008 and ISO 14001:2004 - an Environmental Management System (EMS) certification, stating a set of processes and practices which allow an organization to reduce its environmental impacts and increase its operating efficiency; the EMS practiced at GRI cover the manufacturing processes of industrial tires and the associated support activities carried out. The company also aims to fulfill all Central Environmental Authority (CEA) requirements. The new plant also has 1.2-megawatt solar panels.

Sustainable development is a key objective at GRI and the company is advancing towards that goal - contributing to the economy in a way is not wasteful or harmful to the environment, and looks into the well-being of society as a whole and the generations to come - by enforcing a strict green policy on raw material and waste management. GRI maintains an environmental friendly manufacturing process - its dry manufacturing process ensures that there is no trade effluent which may negatively impact local water sources. Toxic materials are not used in the manufacturing process, while noise and dust level compliance are constantly observed.

GRI has also taken a stand against fossil fuel combustion through its use of biomass boilers, where only by-products of the wood industry, such as saw dust and outer planks are used, all of which are renewable products. These boilers ensure the complete combustion of the biomass, which leads to a significant reduction in the generation of carbon gases.

It is interesting to note that GRI worked to reduce its per Kg unit consumption of electricity and carried out several best practices; online energy monitoring systems were installed in all machines in the factory; the power factor is maintained and monitored to ensure that the actual and theoretical power is in balance. In-depth evaluations and assessments took place before the machines were procured to ensure that only low-energy consumption machines were chosen.

Furthermore, GRI has conceived a tree planting project, both within and outside the factory premises and is treating its waste water and sewerage via a treatment plant for all

OEM CUSTOMERS

Like people, an organization is known by the company it keeps.



The companies listed above are a veritable "who's who" of specialty tires

Matthias L Wolfgruber voted new Chairman of Lanxess Supervisory Board

Dr. Matthias L. Wolfgruber (64) is the new Chairman of the Supervisory Board of LANXESS AG. At its constituent meeting, the Supervisory Board of the specialty chemicals company elected the doctor of chemistry and former CEO of Altana AG as the successor to Dr. Rolf Stomberg (78), who resigned from his office after the end of the Annual Stockholders' Meeting, which was held on May 15, 2018. Wolfgruber has been a member of the Supervisory Body as a stockholder representative since 2015.

"LANXESS has undergone extensive change in recent years, and is on a stable course for growth. We aim to bring the full potential of this group to fruition in the years ahead. In my new role, I am looking forward to continuing down our chosen path and breaking new ground in conjunction with the Board of Management and all employees," said Wolfgruber.

On his re-election to the Supervisory Board in 2015, Stomberg had announced that he would not be serving his full term of office. However, he will maintain links with



Dr. Matthias L. Wolfgruber



Dr. Rolf Stomberg



Pamela Knapp

the company: At its recent meeting, the newly-formed Supervisory Board appointed him as its Honorary Chairman. "Rolf Stomberg helped to write LANXESS's story chapter by chapter, and it bears his own inimitable signature. We would like to thank Dr. Stomberg for his outstanding service to the company by making him Honorary Chairman of the Supervisory Board," added Wolfgruber.

Pamela Knapp (60) has joined the LANXESS Supervisory Board as a new member. She was elected by the stockholders at the Annual Stockholders' Meeting. The economics graduate was previously CFO at the listed market-research company GfK SE in Nuremberg, Germany. Prior to that, she held managerial roles at Siemens.

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LANXESS raises its guidance for fiscal year 2018 after strong first quarter

LANXESS has followed up its successful fiscal year 2017 by posting the best quarterly result in its history, and has raised its earnings guidance for 2018.

In the opening quarter, global sales rose by almost 7% to EUR 2.565 billion, compared with EUR 2.401 billion in the previous year. EBITDA pre exceptionals improved significantly by 14 % to EUR 375 million, compared with EUR 328 million in the prior-year quarter. Key factors in this positive performance chiefly included the contributions of the Chemtura businesses acquired in 2017. In addition, the phosphorus chemicals business purchased from Solvay in February 2018 made its first contribution. Negative currency effects curbed the positive EBITDA performance. The EBITDA margin pre exceptionals was up by almost one percentage point on the previous year at 14.6 %. Net income improved significantly by 23% to EUR 96 million, compared with EUR 78 million the year before.

"LANXESS remains firmly on the track. We have made a dynamic start to the new fiscal year and improved our profitability again. This shows that our efforts to move the company forward are increasingly paying off," said Matthias Zachert, Chairman of the LANXESS Board of Management.

The Group has raised its guidance



**Matthias Zachert, Chairman,
LANXESS Board of Management**

for fiscal year 2018, and now expects EBITDA pre exceptionals to increase by between 5% and 10% for the "New LANXESS" segments (Advanced Intermediates, Specialty Additives, Performance Chemicals and Engineering Materials). In the previous year, comparable EBITDA pre exceptionals stood at around EUR 925 million. At the annual press conference in March, Zachert envisaged only a slight increase for the year as a whole. The ARLANXEO segment, a joint venture between LANXESS and Saudi Aramco for synthetic rubber, is not included in the guidance for 2018, and will be reported separately from the second quarter onwards.

Sound business development in the segments

Sales of the **Advanced Intermediates** segment came to EUR 563 million in the first quarter of 2018, 8.7% above the prior-year figure of EUR 518 million. EBITDA pre exceptionals increased by 12.1% to EUR 102 million compared with EUR 91 million a year earlier, largely as a result of adjusted selling

In the **Specialty Additives** segment, sales totaled EUR 496 million, more than double the EUR 239 million generated in the same quarter of the previous year. EBITDA pre exceptionals amounted to EUR 81 million, up 84.1 % on the prior-year level of EUR 44 million. This strong earnings performance chiefly results from the integration of the purchased Chemtura businesses.

In the **Performance Chemicals** segment, sales fell by 8.7% to EUR 336 million in the first quarter of 2018, against EUR 368 million in the previous year. EBITDA pre exceptionals amounted to EUR 52 million, down 11.9% on the prior-year level of EUR 59 million. In particular, negative currency effects and the divestment of the chlorine dioxide business reduced sales and earnings. The EBITDA margin pre exceptionals amounted to 15.5% against 16.0% in the same period of the previous year.

Sales in the **Engineering Materials** segment rose by a considerable 24.8% to EUR 393 million, compared with EUR 315 million in the same quarter of the previous year. EBITDA pre exceptionals increased even stronger – by more than 50% to EUR 73 million, compared with EUR 48 million. The improvement in earnings resulted from higher selling prices, the contribution from the urethanes business acquired in the previous year, and higher capacity utilization.

At EUR 577 million, sales in the **ARLANXEO** segment were 20.1% down on the very strong figure of EUR 948 million for the same quarter of the previous year. EBITDA pre exceptionals fell by 22.9% to EUR 111 million compared with EUR 144 million in the previous year, largely as a result of adverse currency effects.

Q1 2018 key financial data

(Figures in EUR million)

	Q1 2017	Q1 2018	Change in percent
Sales	2,401	2,565	6.8
EBITDA pre exceptionals	328	375	14.3
EBITDA margin pre exceptionals (in percent)	13.7	14.6	
Net income	78	96	23.1
Earnings per share in EUR	0.85	1.05	23.1



BAZOOKA

German Technology Radial Tyre



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2 WHEELER TYRES

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Indian tire major JK Tyre records 8% increase in revenue - FY18

●Indian tire industry major, JK Tyre & Industries Ltd. (JKTIL) announced its results for FY ending March 31, 2018. Q4 performance significantly improved with Operating Profit at Rs 442 crore and PBT at Rs 250 crore. The net revenue for the year at Rs 8,272 recorded an increase of 8%. Operating profit for the year was Rs 883 crore and PBT for the year was Rs 107 crore on a consolidated basis. Commenting upon the results, Dr Raghupati Singhania, Chairman and Managing Director of the Company said, "In the year 2017-18, the sales volumes at JK Tyre grew by 11%. The company registered a growth higher than the industry at large, which helped JK Tyre increase its presence



Dr Raghupati Singhania, Chairman and Managing Director, JK Tyre

across categories especially in truck, light truck, SCV, farm and OTR tires."

Indian Tire/Major JK Tyre records 8% increase in Revenue - FY18

ONSOLIDATED		
(Rs. in crores) (1Crore = 10 million)		
	Q4	FY18
Net Revenue →	2284	8272
EBITDA →	442	883
Profit Before Tax →	250	107
Profit After Tax →	159	63
Dividend - 75%		

Michelin Q1 2018 results

●Michelin net sales in Quarter 1 declined by 6.3% due to a stronger Euro to 5.2billion Euros. If the exchange rates had been constant, there would actually have been 1.4% improvement.

Original equipment passenger cars and light truck tire volumes were down 1% globally. However, there was a 5% growth in the truck tire business due to a 45% increase in the volumes in South America and 20% in North America. Overall, volumes were 2.3% lower compared to the first quarter of last year largely due to higher sales and large dealer inventory build up in the first quarter of 2017 ahead of announced price increase.

For the full-year 2018, Michelin expects the demand to increase slightly for the passenger car and light truck markets and to remain stable in the truck tire sector. Mining tire as well are expected to continue on a globus growth track.

Dr Singhania added, "That the year witnessed an unprecedented increase in oil prices which had a major impact on margins."

He emphasised, "Truck/Bus radialisation which JK Tyre had pioneered, further accelerated to 47% during the year and is expected to cross 50% in the coming year. JK Tyre maintained its leadership in this growing segment. In a short span after acquisition by JK Tyre, an expansion of its Truck/Bus radial capacity has been undertaken at Cavendish, which will further strengthen our market presence.

The capacities acquired through Cavendish has helped JK Tyre to gain market penetration apart from increasing its presence in the fast growing two/three-wheeler segment."

With the continued focus on rural economy and infrastructure, the Indian economy is surging ahead. Initial hurdles w.r.t. GST implementation have been overcome by and large. On an overall basis, the economy is slated to perform better in the forthcoming year. The auto

industry is also keeping pace with the economic growth. This augurs well for the tire industry. JK Tyre is ready to capture this higher demand in the coming year.

The imposition of much awaited anti-dumping duty on cheap Chinese truck/bus radial

tires was indeed a welcome step and has helped to enhance the volume.

Company's subsidiaries namely, JK Tornel, Mexico and Cavendish Industries Ltd. are performing well. A labour restructuring was successfully completed at JK Tornel, Mexico. This will give rich dividends in the coming period and add to overall profitability.

US Biotech firm signs deal with BKT

●St. Louis-based biotech company Kultevat recently inked a research deal with Balkrishna Industries Ltd. (BKT), an Indian tire manufacturer, which is expected to accelerate Kultevat's commercialisation of its alternative rubber products. The financial terms of the agreement were not made public.

BKT will work with Kultevat in developing new methods to use Russian dandelions as a sustainable alternative to natural rubber (NR) grown in Asia in the use of off-road tires. The Mumbai-headquartered company will use Kultevat's technology in a series of studies this year. Kultevat is expected to deliver one metric tonne of the rubber by October 2019.

The US company's CEO, Daniel Swiger, said "Kultevat's commercialisation strategy calls for the company to sell into specialty rubber markets at the outset while the company continues working with BKT to develop products for their purposes." He added that Kultevat has engaged a number of customers and are currently growing dandelions for processing and rubber for prototype as well as testing purposes. The commercial sales of rubber is

Michelin launches Tweel in India

●The first commercially available tire and tube as a single unit, the Tweel, has been launched in India by the French tire giant, Michelin. The tire is designed for small industrial vehicles and competition-spec SUVs and UTVs and fits exactly where the traditional two-piece wheel and tire combination would be. The Tweel has the unique ability to deform and reform the circular shape when the terrain gets tough, so as to increase the contact patch. There is no air loss involved over rough terrain since the tire has no air chamber to be punctured.

Michelin's SUV oriented wheel which is now also on sale in India is built to fit two PCD sizes 4x137 and 4x156 bolt arrangements, while the tire itself is a 26-inch solid rubber unit, which the company says is highly flexible and can take on kerbs, rocks, boulders and even jagged edges with zero damage. The tires are rated up to 60 kmph, which is ideal for an off-road oriented vehicle. Each tire is Rs 51,000 (\$750)- high by Indian and most international standards.



Maureen Thune, VP and chief procurement officer, Goodyear Tire & Rubber Company

expected to get underway next year.

BKT explained that dandelions offer a higher latex content compared to other sustainable alternatives like guayule, a plant native to the southwestern US and northern Mexico.

Earlier this year, NRGene signed a partnership with Bridgestone Americas to sequence and assemble genomes of guayule for rubber production.

Goodyear earnings fall as the cost of raw materials rise

●Goodyear's net income Dow 54.8% to \$75 million despite a 3.5% increase in net sales of \$3.83 billion in the first quarter, ended March 31, compared with the year-ago period.

Tire unit volume totaled 39 million, down 2.5% from 2017. OE unit volume fell 4 %, primarily driven by

declines in the smaller than 17-inch rim size segment in the Europe/Middle East/Africa (EMEA) region. Replacement tire shipments slid 2%, largely due to reduced industry demand for consumer tires in the US and Europe, Goodyear reported.

"We are pleased with our first-quarter results, given higher raw material costs and weaker demand than we expected in the quarter," said Richard J. Kramer, chairman, CEO and President. "These results were highlighted by our performance in the 17-inch-and-larger segment in consumer replacement, which delivered more than double the industry growth in the US and Europe."

Segment operating income climbed 4% to \$76 million.

Goodyear said it expects to benefit from its recently-announced plan to establish TireHub L.L.C., a national tire distribution joint venture with Bridgestone Americas Inc.

The company reaffirmed its 2018 segment operating income guidance of \$1.8 billion to \$1.9 billion, excluding the TireHub transition, and confirmed its 2020 segment operating income target of \$2 billion to \$2.4 billion.

Goodyear strengthens commitment to sustainable natural rubber

●Goodyear has announced a new NR procurement policy that reflects its strong commitment to responsible sourcing of raw materials. The company believes that implementation and adherence to this policy will help address deforestation, land grabbing, and human rights in the areas of the world where NR is produced.

"We know our actions can make a difference in protecting the rights of people throughout the supply chain, including the smallholders who grow NR on their own land," said Maureen Thune, VP and chief procurement officer. "Our new policy also helps to protect the environment by promoting environmentally and socially responsible land use. "Building upon the company's Business Conduct Manual and Supplier Code of Conduct, the policy, which can be reviewed here, introduces seven principles that will guide the development of a long-term, sustainable supply chain:

●"Human Rights – Goodyear will work to ensure its NR supply chain protects the rights of all involved, fostering a positive working environment at all levels of the supply Chain.

●"Responsible Land Acquisition and Use – Goodyear will work to promote an environmentally and socially responsible NR supply chain, free from deforestation and land grabbing.

More

●"Traceability – Goodyear will work towards and promote practices that lead to the ability to trace NR through the entire supply chain.

●"NR processing – Goodyear expects its suppliers who process NR for its usage to manufacture their product in a responsible and environmentally friendly manner.

●"NR growing and harvesting process – Goodyear encourages its suppliers to utilise best-known cultivation practices for existing planted and replanted natural rubber trees.

●"Smallholder Outreach, Engagement



Richard Kramer, Chairman, CEO, and President, Goodyear Tire & Rubber Company

and Community Development – Goodyear will work to increase yields and improve the livelihoods of existing smallholders, encouraging all its direct suppliers and relevant members of their supply chain to support their communities.

● “Policy implementation and compliance – Goodyear is committed to the corruption-free and transparent implementation of this policy and its principles.

Beyond this new policy, Goodyear is also working collaboratively to improve sustainability across the entire NR supply chain. Goodyear is a member of the Tire Industry Project (TIP), a CEO-led initiative made up of the world’s 11 major tire companies, which is actively working with key stakeholders,

including automakers, rubber producers and civil society, to develop an industry platform for NR sustainability.

“The multi-stakeholder collaboration is exciting, and we believe it is the key to the development of a unified industry platform,” said Thune. “Together, we are exploring best practices for responsible sourcing and identifying appropriate governance structures for the platform, all with the goal of making sustainable natural rubber a reality.” Goodyear’s NR procurement policy is effective immediately and covers the entire supply chain, including smallholders, industrial plantations, intermediate dealers/consolidators, processors, trading companies, and Goodyear itself. The policy may be updated or changed.

Q1 Growth for Conti

● Despite sluggish market conditions, the German tire and automotive systems major, Continental AG, posted organic sales growth of 4.3%,



Dr. Elmar Degenhart, Continental CEO

Apollo Tyres tops JD Power survey on Tire Customer Satisfaction Index (TCSI)

● The recently-released JD Power 2018 India Original Equipment Tire Customer Satisfaction Index (TCSI) Study has ranked Apollo Tyres highest in the small-car segment. As per this year’s study, the small-car segment translates to all the hatchbacks sold in India. JD Power’s TCSI Study also ranked Apollo Tyres #2 in the mid-size cars or sedan segment. The company also received 5-star Power Circle Ratings from JD Power for both small and mid-size cars.



Satish Sharma, President, Asia Pacific, Middle East & Africa (APMEA), Apollo Tyres Ltd

Commenting on the JD Power TCSI Study, Satish Sharma, President, Asia Pacific, Middle East & Africa (APMEA), Apollo Tyres Ltd said, “This ranking is a testimony of our consistent efforts towards improvement in product quality across categories. The numero uno ranking in small cars is a great achievement, considering that the hatchbacks translate into more than 50% of all the cars sold in India.”

Apollo’s Tyres, which are OE fitted in eight of the top 10 cars being sold in India, has a share of nearly 30% in the OE

segment in India for small and mid-sized cars. Apart from the OE fitment in domestic models of several cars, the company’s tires are also OE fitted for multiple export models, as Apollo Tyres has secured Global Supplier status with various car makers. “Sustained efforts in quality improvement among tire brands, is being reflected in the Voice of the Customers,” said Kaustav Roy, Regional Director at JD Power, Singapore in the report. “A positive product experience, coupled with end-

customer engagement, is likely to help drive replacement demand.”

Key findings of the JD Power TCSI Study:

Customer’s perception of brand image is strongly influenced by tire quality

● Preference of the OE tire brand during replacement has increased to 54% in 2018 from 48% in 2017.

● The replacement of tires during the first 12-24 months of ownership is declining.

● Customer’s satisfaction with tire’s is higher in the small car segment than others.

● Customers who are highly satisfied with their OE tires, are more likely to recommend their tires to others. The 2018 India Original Equipment Tire Customer Satisfaction Index (TCSI) Study is based on 3620 responses from new-vehicle owners who purchased their vehicles between May 2015 and August 2016. The study was fielded between May and August 2017. The study, now in its 18th year, measures satisfaction among original equipment tire owners across three segments – small cars, mid-size cars and utility vehicles. The study covers 12 to 24 months of ownership across four factors (listed in order of importance): appearance, durability, ride and traction/handling.



Amazer 4G Life

year-on-year, to 11 billion euro (\$13 billion) in the first three months of this year. The Hanover-based company's Automotive Group posted record orders of 11 billion euro (\$13 billion) during the period, which Continental CEO Dr. Elmar Degenhart said was an expression of its customers' appreciation of the technologies that the company Continental is developing. Sales for the Automotive Group were up by 5.5% during the quarter to 6.8 billion euro (\$8 billion euro). Referring to the difficult environment and the 1% fall globally in the production of passenger cars and light commercial vehicles, Continental CFO Wolfgang Schäfer pointed out that the company grew almost 7% points faster than the market with its automotive business.

During the January to March 2018 period, adjusted EBIT fell by 9% year-on-year to 1.1 billion euro (\$1.3 billion), corresponding to an adjusted EBIT margin of 9.7%.

Continental rubber group generated sales of 4.2 billion euro (\$4.9 billion) during the quarter, as compared to 4.3 billion euro during the same period last year. Adjusted for exchange-rate effects and changes in the scope of consolidation, the growth amounted to 2.3%.

The group's industrial specialist, ContiTech, posted growth of 5.1%, which was attributed largely to a strong showing by the conveyor belts and industrial hoses segments. Meanwhile, Continental's Tire division grew 2% points faster than the market, which fell slightly at the global level.

Degenhart was confident the company would continue its growth momentum and said it still aimed at sales of approximately 47 billion euro (\$55.7 billion) before exchange-rate effects. The adjusted EBIT margin is set to exceed 10%, he added.

By the end of the first quarter of this year, the group had 4,600 more employees than it did at the end of the 2017, two-thirds of whom were hired as part of the global R&D team of the Automotive Group. The remaining third of the additional staff were placed in the Rubber Group, to help with increased production and sales operations.

Conti's new Premium Contact 6 tire

●The German tire and automotive systems major, Continental AG, recently launched its Premium Contact 6 summer tire intended for drivers who want something between a performance tire and a comfortable tire.

The company says this tire offers excellent braking distances in both wet and dry conditions due to silica safety compounds, as well as exceptional cornering, handling, noise and wear, and offers sporty driving in every car thanks to handling-optimised pattern design.

Continental has developed this tire using a new longer-lasting synthetic silica compound in a different asymmetric design, resulting in improved mileage by 15%. Lower rolling resistance means lower noise levels, of up to 10% compared to its predecessor, and improved fuel economy. An advanced macro-block design featuring longer supporting shoulder blocks give additional grip and steering precision for sporty handling.

The PremiumContact 6 is available in seven sizes, from 16 to 22 inches and widths from 195mm to 275mm. All sizes achieve an "A" score in the EU wet grip test and speed approval levels go as high as 186mph.

P K Mohamed receives Outstanding Industrial Partner award by M G University

●P K Mohamed, chief advisor R&D of Apollo tyres, was presented with the Award of "Outstanding Industrial Partner" by the International and Interuniversity Centre for Nanoscience and Nanotechnology (IIUCNN) of Mahatma Gandhi University, Kottayam in the state of Kerala in India. The University in collaboration with Department of International exchanges and cooperation, Beijing University of Chemical Technology, China and Gdansk University of Technology, Department of Polymer Technology, Poland organised the International conference on Nanomaterials: Synthesis, characterization and

application (ICN 2018) from May 11-13, 2018 at the University centre in Kottayam.

The award was presented to P.K. Mohamed by the Vice Chancellor of MG university, Dr. Babu Sebastian in the presence of renowned scientist and Bharatratna Dr. CNR Rao, who was the chief guest of the occasion and pro vice chancellor Dr. Sabu Thomas and Dr. Nandakumar, Hon: Director, International and Inter University Centre for Nanoscience and Nanotechnology.

P. K. Mohamed is closely associated with the Nanoscience and Nanotechnology centre of MG University on several projects including one in the area of industrialisation of Nano structured and nano particle materials in tires for enhancing performance and support to sustainability efforts. The



Outstanding industrial partner award was conferred on him during ICN 2018, for his unparalleled contribution in Industry–Institute partnership work with M G University. .

Continental Auto, IIT-M ink pact for research

● Global automotive supplier Continental and IIT-Madras tied up for advanced research in machine learning.

IIT-Madras, which has built some capability in machine learning and bio-inspired neural networks, will contribute to Continental's ADAS (Advanced Driver Assistance Systems) business that provides drivers and passengers with better



Alexander Klotz (left), Head of Technical Centre India (TCI), in-house R&D centre, Continental and Ravindra Gettu, Dean (Industrial Consultancy and Sponsored Research), IIT-M, exchange an MoU in Chennai on May 4

safety and more comfort. A memorandum of understanding was signed on May 4.

Bio-inspired neural networks are becoming increasingly important for industries and businesses. They help solve problems on the basis of biological knowledge about how the human brain learns and processes information. The collaboration, code-named Project NeuroMotive, will aid Continental's long-term strategy for 'Vision Zero' – a future with zero accidents – through innovations and ongoing improvement of components and systems making a decisive contribution to greater road safety. "We believe industry-academia partnerships nurture innovation, entrepreneurship and skills development, which are value addition not just for the two partners, but for the ecosystem at large," said Prashanth Doreswamy, Market Head

Pirelli opens Tire Centre in Vadodara, India

● In April, the first Pirelli Tire Centre was inaugurated in Vadodara, in the western state of Gujarat, as part of the Italian tire manufacturers aggressive expansion in India. Spread over 3,000 sq.ft., the centre stocks PZero (New), Cinturato P7, Scorpion Verde and Scorpion ATR tires for cars, SUVs and vans. Services offered include automated tire changing, wheel balancing, 3D wheel alignment, nitrogen inflation, battery support along with other tire specific services.

Speaking at the inauguration, the GM for Pirelli Tyres in India, Sanjay Mathur, said the company's expansion in India was a testimony to its intention of strengthening its presence across the country. Vadodara was selected as the site for this outlet because of the strong demand in the city for premium and luxury tires.

Pirelli currently has two Tire Centres in Delhi, one each in Mysore, Mangalore, Gurugram and Bangalore, two branded retail stores in Gurugram and one each in Delhi and Agra.

including eight plants and a technical centre that supports global R&D.

Carbon black shortfall rocks India's tire and rubber industry

● Anti-dumping duties, combined with increased demand and capacity constraints are causing a shortage of carbon black for the domestic Indian market, according to the All India Rubber Industries Association (AIRIA).

In a recent statement, AIRIA, which consists of small to medium-sized non-tire rubber product manufacturers, said the shortage has led to nationwide shutdowns throughout its membership. AIRIA estimates that about 1,000 small manufacturers are on the verge of closure, which will lead to about 200,000 job losses.

The nation has anti-dumping measures against carbon black imports used in certain rubber applications imported from China and Russia.

"The AIRIA has appealed to the Indian government to consider, in the short run, allowing imports with nil or lesser duty and/or restricting exports at least to the extent of shortfall in supply, and over the long haul encourage domestic CB producers to increase their capacities and production to cater to the domestic demand," the association said in an email responding to questions on the matter.

of Continental India, and Managing Director, Continental Automotive India.

"Our expertise and efforts, combined with the strengths of IIT-Madras, will pave the way for technological advancements that further reduce traffic casualties, and potentially even develop vehicles incapable of getting into an accident," said Alexander Klotz, Continental's Head of Technical Centre India (TCI), Continental's in-house R&D centre.

Ravindra Gettu, Dean (Industrial Consultancy and Sponsored Research), IIT-M, pointed out that thanks to advancements in technology, IIT-M can use its knowledge in bio-inspired neural networks to improve the future of mobility.

Continental employs over 7,000 people across 15 locations in India,

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Elgi Rubber Company Limited

2000 Trichy Road • Coimbatore 641 005 • Tamil Nadu • India
+91 (422) 232 1000 • info@in.elgirubber.com • www.elgirubber.com

Philips Carbon Black to set up Rs 600-crore (\$135 million) million plant in Tamil Nadu

●RP-Sanjiv Goenka Group-owned Philips Carbon Black Ltd (PCBL) – the sixth largest global producer – will invest Rs 900 crore (\$135 million) towards capex by 2020.

According to Sanjiv Goenka, Group Chairman, around Rs 600 crore will go towards a greenfield plant in Tamil Nadu that is expected to be operational around September 2020. The Tamil Nadu plant will have an annual capacity of 150,000 tonnes.

This new plant will focus on rubber black, which is used in tires, and also on speciality black. Speciality black has been the company's focus because of better margins.

Another Rs 300 crore (\$ 45 million) will be for brownfield expansion in its Mundra and Palej plants.

The Mundra plant, likely to be operational by this year-end, will see a capacity addition of 50,000 tonnes annually. On the other hand, 30,000 tonnes will be added annually at Palej by March 2019.

"There will be a 50% capacity addition post the investments," he said recently. Currently, PCBL has an annual capacity of 470,000 tonnes in its four plants – Durgapur (West Bengal), Mundra (Gujarat), Palej (Gujarat) and Kochi (Kerala), which is expected to go up to 700,000 tonnes by December 2020.

Expansion plans will be funded through a mix of internal accruals, equity issue and debt. In fact, the company is most likely to go for an equity issue by the year-end.

"We are generating cash flows to the tune of Rs 450 crore a year. So, we do not expect much of an issue in funding the expansion plans," Goenka said.

The company, meanwhile, reported a near 165% jump in standalone net profit for the January to March quarter of this fiscal to Rs 74 crore. Profit in the corresponding quarter last fiscal (FY17) stood at Rs 28 crore.

Sales (revenue from ops) stood at



Sanjiv Goenka, Group Chairman

Rs 753 crore. PCBL said the revenues are not comparable to previous quarters since there has been a change in the accounting treatment of indirect taxes post the roll-out of GST.

"Increase in sales, focus on high margin speciality black, an increase in efficiency such as usage of fuel, and a reduction in debt has led to improved results and rise in net profit," Goenka said.

For the full fiscal, standalone net profit saw a 228% jump, year-on-year to Rs 230 crore; while revenue (from ops) stood at Rs 26,00 crore.

Report: Global medical gloves market to see 6.4% CAGR of 6.4% during 2018-2024

●Energias Market Research Private Limited recently released a publication, which states that the global medical glove market is expected to witness a CAGR of 6.4% and is projected to reach \$ 7.72 billion by 2024. The report, titled 'Global Medical Gloves Market Outlook Trend and Opportunity Analysis, Competitive Insights, Actionable Segmentation & Forecast

2024' attributes this to the growing number of hospitals and pharmaceuticals in developing countries and the increasing incidences of pandemic diseases. Additionally, advancement in glove technology and rising awareness about hygiene is further boosting the market.

Last year, North America was the largest market for medical gloves in the world, with Europe coming in second. Asia Pacific is expected to witness the highest growth rate of medical gloves in 2018, due to the increase in hospitals and expanding healthcare industries in this region.

The report segments medical gloves market on the basis of type of material, gloves type, form, application, end-use, and region.

Based on the material, the natural rubber (NR) glove segment had the lions share of the market last year, driven by growing demand in chemical and healthcare industries, since NR provides excellent resistance to many acids and alcohols. The fastest growing segment in 2017 was that of polyethylene medical gloves.

North America held the largest share of the industry and is expected to continue its dominance over the forecast period, while the Asia-Pacific region is anticipated to post the highest CAGR over the 2018-2024 period.

Some of the key companies operating in the market include Supermax Corporation Berhad;

Arlanxeo raising prices globally for its Buna® and X_Butyl® Products

●Effective May 1, 2018, Arlanxeo has raised prices for its Buna® and X_Butyl® products, explaining the price hike was necessary due to "the overall market situation." Arlanxeo is a leading synthetic high-performance rubber company which was established in April 2016 as a joint venture between the German chemicals giant Lanxess and Saudi Aramco.

Maastricht-headquartered Arlanxeo says it has already contacted its customers individually regarding the price increases. Last year, the company had sales of around 3.2 billion euro (\$3.88 billion), about 3,800 employees and a presence at 20 production sites in nine countries.

RUBBEREX; Top Glove Corporation Bhd; Semperit AG Holding; Kossan Rubber Industries Bhd; Cardinal Health; Ansell; PAUL HARTMANN AG; United Medical Industries Co. Ltd.; Dynarex Corporation, amongst others.

The report can be browsed at <https://www.energiasmktresearch.com/global-medical-gloves-market-outlook/>

The US-based global market research company, Energias Market Research Pvt. Ltd., publishes high-quality reports, in-depth market research studies, to provide investment level clarity on current business scenarios, trends and segmentation.

Strong H1 at Avon Rubber

●During the first half of its financial year, UK-based Avon Rubber has posted revenues of £77.7 million (\$105.5 million), despite currency setbacks. Avon Rubber p.l.c. specialises in the engineering and manufacturing of respiratory protection equipment for military, law enforcement and fire personnel as well as milking equipment for dairy farmers

In the six months to 31 March 2018, the company posted a 1.5% fall in revenue, compared with the same period during the previous year. This was the equivalent of a rise of 5.9% at a constant currency.

Operating profits rose to £9.9 million (\$13.4 million) from £9.6 million (\$13 million), despite the fall in revenue.

Avon Rubber operates the respiratory protection brand Avon Protection as well as the milking point solution brand Milkrite.

Kordsa at the Global Entrepreneurship Congress

Kordsa sponsored the Global Entrepreneurship Congress, among the most important summits of the global entrepreneurship ecosystem. At the "The Fourth Industrial Revolution" panel, Kordsa shared with participants its global collaborations and technologies, which are a



Kordsa's Murat Oöuz Arcan

reflection of its open innovation mindset.

●Held in Istanbul this year and co-hosted by Endeavor Association, Habitat Association, TÝM and TOBB the Global Entrepreneurship Congress was visited by nearly 10,000 international participants from 170 countries. Kordsa sponsored the three-day summit, which is considered as a major opportunity for the growth of Turkey's entrepreneurial ecosystem to strengthen the relationships with global players.

At the awards ceremony held on April 16, the participants enjoyed the composite cello performance, reinforced and lightened by Kordsa technologies. Kordsa also sponsored the "The Future of Transportation and Space" workshop.

Kordsa Business and Market Development Director and Construction Business Unit Leader Murat Oöuz Arcan spoke in the Fourth Industrial Revolution panel, moderated by the futurist and writer Alex Salkever, together with Amitabh Kant, CEO of India National Transportation Institute, Utku Barýb Pazar, Koç Holding Strategy and

Business Development Director, and Tanya Woods, an executive from GEN Canada

Kordsa has expanded its lines of business through investing in innovation and technology, Arcan continued: "As a global player of reinforcement technologies operating in a wide geography from USA to Asia Pacific, we provide high value-added reinforcement solutions at our eight facilities in four continents with a mission to reinforce life. Over the past decade, we have focused on research and development on the subjects of automation, data collection, data security and sensor technologies.

Bata is a global player with strong Indian roots, says CEO

●India has emerged as the largest market for shoemaker Bata, which operates around 1,500 stores across the country with annual revenue of nearly Rs 2,500 crore. It has its job cut out in the face of stiff competition from nimble brands that bank on e-commerce for sales. The company's global CEO Alexis Nasard spoke about how Bata plans to shake off its traditional image and strike the right chord with the youth.

Is Bata's legacy a drawback?

No, we consider Bata brand to be a competitive advantage. In 10 years, we may have lost a bit of aspiration value for the youth. But that is being recuperated very rapidly. Accordingly, we will be launching several line extensions under the Bata brand.

It seems Bata is not focusing on sportswear. Why?

Bata is the market leader in athletics

Orion to raise prices of Rubber Carbon Blacks in North America

●One of the world's leading suppliers of Carbon Black, Orion Engineered Carbons, announced recently that effective June 1, 2018, or as customer contracts allow, it would be raising prices on all Rubber Carbon Blacks sold in North America.

The Luxembourg-headquartered company said that higher operating, logistic expenses and the rise in costs required to maintain service levels has led to the price hike. Prices for Rubber Carbon Blacks will be adjusted by an average of \$121 per ton

Chris Erickson, Vice President, Rubber Carbon Black Business Line, Americas at Orion, said "These price increases continue the substantial investments in our North American Rubber Carbon Black production network essential to sustain continuity of supply."

footwear in India. The Power brand sells more shoes than the other brands — Nike, Adidas, Puma and others —combined. We have opened the first 'Power' store concept. We plan to open many more.

What is your strategy to address the Indian sportswear market as large global players have failed to do so successfully?

Bata is a global player with strong Indian roots. We keep working on our collections and price points. And the pricing of Power collection is engineered very precisely and meticulously to offer the Indian consumers a competitive value equation for their rupee. They get more shoe out of Power than from any other brand. And that is one of the secret of our success in India.

Are you happy with the company's performance in India?

I am happy with our performance in India and particularly with our



Alexis Nasard Global CEO, Bata

"WE WILL NOT GROW THE TOPLINE AT THE DETRIMENT OF THE BOTTOM-LINE. WE WILL CONTINUE TO EXPAND MARGIN IN INDIA.

SPORTSWEAR MARKET: BATA IS THE MARKET LEADER IN ATHLETICS FOOTWEAR IN INDIA. THE POWER BRAND SELLS MORE SHOES THAN THE OTHER BRANDS — NIKE, ADIDAS, PUMA AND OTHERS — COMBINED

latest performance because we are accelerating our rhythm of growth. In 2018, our turnover will grow well in double digits. We are continuing to expand our operating margins.

How is the Indian footwear market different from other markets?

In India, it is difficult to have a very premium high-street retail experience because of the ways cities are and because of the pollution. At the same time, the way you do your delivery through omni-channel in a country

so wide and diverse is more complicated than in other parts of the world. But we will adapt. The global average for shoes-in-hand is around six, while in some countries it is around 15 such as in the US or Europe. In India, it is around three and, therefore, we have a long way to go. So, it's a good thing.

Is the footwear market doing well globally?

The retail market in the world is alive and well. In the West, there are some markets with key challenges.

A new dimension of fine mesh straining in the mixing line : UTH GMBH

●New solutions for the gentle and clean processing of rubber compounds at the DKT/IRC will be held from July 2-5, 2018 in Nuremberg.

At stand no. 139, hall 12, UTH GmbH from Fulda/Germany will present its latest product range, in both the areas of roll-ex® fine mesh straining and roll-ex® gear pump technology. The outstanding focus is a highly cost-effective and innovative solution for the fine mesh straining of final compounds in the mixing line: the roll-ex® 220 TRF.

Rubber processing presents enormous challenges day in day out to rubber and tire manufacturers. The demand is for the highest level of product quality while simultaneously increasing operating efficiency. Accordingly, with the roll-ex® 220 model UTH offers an economical solution for the manufacturing of tyre, rubber and silicone products. The roll-ex® 220 TRF is designed for throughput rates of up to 2,500 kg/h and guarantees a high productivity.

It is advantageous to use roll-ex® gear extruders (even with frequent compound changes or the usage of coloured materials), since they can be cleaned quickly and thoroughly on account of their patented design. The modular roll-ex® system can be combined with a two-roll feeder (TRF), a screw feeder, or a conical twin-screw extruder. Throughput rates of up to 10,000 kg/h are possible. The roll-ex® extrusion system developed by UTH has become a benchmark for fine mesh straining of rubber compounds

worldwide.

Precise extrusion is another primary application of roll-ex® gear extruders and gear pumps, where



roll-ex® 220 TRF

high operating pressures (up to 800 bars) can be applied. UTH can offer, among other things, system solutions (including the supply of complete lines) for the manufacture of rubber-coated wire, yarn or fibre components.

UTH will be providing further information (on the basis of an exhibit) on the particular benefits and possible applications of roll-ex® technology at stand no. 139 or in the web: uth-gmbh.com.

For instance, in the US, you have a market that is overbuilt with malls. And, the overall retail industry in both online and offline is growing even in Europe in low single digits. It is growing very rapidly in Asia. Footwear market is growing around 5% globally.

Bata India have been here since 1931? Where will you be in five years?

In five years from now, we will become a company with a billion-dollar turnover.

LEHVOSS Group's very successful participation at NPE 2018

● The NPE 2018 Plastics Show certainly broke a lot of records. With more than 2,180 exhibiting companies showcasing innovations in plastics in more than 110,000 m² of exhibit space it was the largest NPE

show ever.

The LEHVOSS Group showcased its customized material solutions for high-performance compounds, 3D printing materials, additives and concentrates. The spotlight was on three new innovations:

- Product line LUVOCOM® 1114, based on PEKK, with its outstanding tribological performance
- LUVOCOM® 3F, designed for extrusion-based 3D printing processes, provides outstanding strength and easy printability for polymers
- LUVOBATCH® PA BA 1001/1002,



LEHVOSS Group booth and team

an endothermic blowing agent that makes it possible to reduce—up to 41%—the weight of reinforced polyamides (PA) and simultaneously maintains a low level loss of mechanical properties. Adding to the excitement of the booth were 3D printing demonstrations with LUVOCOM 3F that were coordinated with our business partner Roboze.



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agro.eva@gmail.com, sales@easy-flux.com | www.easy-flux.com

DIARY OF WORLD EVENTS

JUNE 2018

► Rubber & Tyre Vietnam 2018

13 - 15 June at SECC - 799, Nguyen Van Linh, District 7, HCMC, Vietnam
Contact: Ellie Duong, Marketing Executive, Company name: VEAS Co. Ltd.

Tel: + 84 28 3848 8561

Cell: +84 1694 442 497

Email: info@veas.com.vn

Web: www.veas.com.vn

► Tyrexpo India 2018

21 - 23 June, Pragati Maidan, Delhi

Contact: Rahul Bhatia

Tel.: +91 8527765556

Email: rahul.bhatia@singex.com

Web: www.tyrexpoindia.com

► RubberTech India 2018

21 - 23 June at Pragati Maidan, Delhi

Contact: CURC (China United Rubber Corporation)

Tel: +86 10 53779792

Email:

rubbtech.in@chrubber.com

Web: www.rubbtech-expo.com

JULY 2018

► German Rubber Conference - DKT 2018

02 - 05 July: Nürnberg Messe GmbH, Nürnberg, Germany

Contact: Ulrike Weber

Tel: +49 (0)69 / 7936-154

Fax: +49 69 7936 155

Email: u.weber@dkg-rubber.de

Web: www.dkg-rubber.de

SEPTEMBER 2018

► 9th International Rubber Glove Conference & Exhibition

04 - 06 September: Kuala Lumpur Convention Centre, Malaysia

Contact: Chan Wone Fu,

MARGMA

Tel: +603 7727 3197

Fax: +603 7727 3191

Email: ceo@margma.com.my

Web: www.margma.com.my

► REIFEN 2018

11 - 15 September: New Hall 12 at the Frankfurt Fair & Exhibition Centre.

Contact: Dr. Ann-Katrin Klusak
 Director Marketing Communications
 Mobility & Logistics

Messe Frankfurt Exhibition GmbH

Tel: +49-69-7575-5621

Fax: +49-69-7575-6337

Email: ann.katrin.klusak

@messefrankfurt.com

Web: https:

automechanika.messefrankfurt.com

► Rubber Tech China 2018 & Tire+ China 2018

19 - 21 September: Shanghai New International Expo Centre, Shanghai

Contact: CURC - Ella Liu / Willow Sun

Tel: +86-10-58650277

Fax: +86-10-58650288

Email: expo@chrubber.com

Web: http://en.rubbtech-expo.com/

► Carbon Black World 2018

25 - 26 September: Hilton Dusseldorf, Germany

Contact: Adriana Lobo

Tel: +44 (0) 1372 802085

Email: alobo@smithers.com

Web: www.carbonblackworld.com

► Asia Rubtech Expo 2018

27 - 29 September: Hotel Lalit Ashok, Kumara Krupa High Grounds, Bengaluru-560 001

Contact: S.Vasudeva Rao, Hon.Sec.

Indian Rubber Institute, IRI

Tel: 91-9886758930, 91-7290050669

Email: irikarnataka1@gmail.com

NOVEMBER 2018

► 2018 Rubber Recycling Symposium

07 - 08 November 2018: Sheraton on the Falls Hotel, Niagara Falls, Ontario, Canada

Contact: Michal Majernik - Tire and Rubber Association of Canada

Tel: +11 519 249 0366

Email: info@tracanada.ca

Web: www.tracanada.ca

► Africa Rubber Expo & Summit 2018

20 - 21 November 2018: Sandton Convention Center, Johannesburg,

South Africa

Contact: Peram Prasada Rao - TechnoBiz

Tel: +66 2 933 0077

Fax: +66 2 955 9971

Email: peram@technobiz-asia.com

Web: www.rubbtechnology-expo.com

► Silicone Elastomers World Summit 2018

27 - 28 November: Milan - Italy

Contact: Joana Gibson

Tel: +44 (0) 1372 802000

Email: jgibson@smithers.com

JANUARY 2019

► 10th India Rubber Expo 2019

17-19 January: NESCO Complex, Goregaon(E), Mumbai.

Contact: Sandeep Sanyal, Coordinator

Email: sales@indiarubberexpo.in

Tel : + 022-28392095 /2107

Web : www.indiarubberexpo.in

MARCH 2019

► Tire Technology Expo 2019

05-07 March

Deutsche Messe, Hannover, Germany

Contact: Colin Scott, UKIP Media & Events,

Tel: +44-1306-743744

Email: colin.scott@ukipme.com

Fax: +44-1306877411

Web: www.tiretechnology-expo.com

► Tyrexpo Asia 2019

19- 21 March at Singapore Expo Hall 1 & 2, Singapore

Contact: Darren Tay - Project Manager

Tel: +65 64032100

Email: darren.tay@singex.com

Web: www.tyrexposeries.com

OCTOBER 2019

► K- 2019

16-23 October: Duesseldorf, Germany.

Contact: Fr. Eva Rugenstein/

Desislava Angelova/Sabrina Giewald

Tel: +49-211-4560 240 /

Fax: +49-211-4560 8548

Email: AngelovaD@messe-

duesseldorf.de

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Fax : +91-2827-287578

E-mail : info@fishfarubbers.com
Web : www.fishfarubbers.com

BKT AT THE FOREFRONT FOR SUSTAINABLE TIRE MANUFACTURING

BKT is into a Research and Development Agreement with Kultevat, Inc., USA aiming at developing new compounding methods and tire-manufacturing technologies, based on TKS Rubber as substitute for natural rubber



Suresh Poddar Innovation Hub

Balkrishna Industries Limited (BKT), a leading Off-Highway tire manufacturer headquartered in India, has entered into a Joint Research Agreement with Kultevat, Inc., a leading US biotechnology company specialised in the cultivation and processing of TKS Dandelion as a renewable and sustainable alternative for natural rubber (NR). The agreement's purpose is development of new compounding methods based on TKS Rubber to be integrated in the tire manufacturing process. All studies, analyses, experimentation and testing will be carried out at BKT's recently-inaugurated, modern Research and Development Centre known as "Suresh Poddar Innovation Hub" stretching over an area of 25 acres within the company's latest and largest production site in Bhuj, India. The R&D Centre was officially inaugurated last year with the announcement of a series of ambitious projects related to sustainable materials, including research into alternatives to natural and synthetic rubber as well as the development of high-performance compounds with nano-materials and nano-composites. This major R&D project is part of the company's commitment to sustainability and innovation as well as fully in line with latest industry requirements and the European Commission's recommendations concerning critical raw materials.

Kultevat, Inc. is specialised in green technology, and in particular the extraction of high-quality dandelion rubber from *Taraxacum kok-saghyz* (Russian Dandelion), or TKS for short, by means of an environmentally-friendly process. The company has also developed methods of stabilising TKS rubber. The Agreement qualifies as a "joint research agreement" under Title 35 of the United States Codes regarding patent law. BKT, who has a certain expertise in the development of compounding methods relating to rubber, aims at coming up with further techniques involving TKS rubber to be integrated as a new, renewable and sustainable raw material into the manufacturing process for Off-Highway tires. The agreement involves a first project stage with several sample deliveries in 2018, whereas stage two provides the supply of one metric ton of stabilised TKS rubber to BKT by October 2019.

The TKS rubber will be delivered to BKT's R&D Centre at Bhuj. Following the Agreement with Kultevat, BKT will start a series of studies and experimentation with the new raw material based on both the scientific method and Material Technology. TKS rubber will gradually replace or reduce the use of NR. Having gained some general understanding of the physical and chemical behaviour of the new raw material and the development of first compounding methods, more specific analyses, testing



and experimentation will follow to learn more about specific performance criteria such as behaviour if exposed to mechanical stress; fatigue resistance; tensile strength; durability and resilience; cut, tear and heat resistance, etc. Several formulations will be tested for the development of semi-finished compounds to obtain best tire performance for the specific requirements of the most varying applications in the fields of agriculture, earthmoving, port and mining, ATV and industrial applications. According to the findings, it might be necessary to modify existing production processes and equipment. It will be a long, but challenging path of analysing, designing and conducting adequate experiments, and setting performance criteria based on conventional knowledge before the first prototype of a specific tire in a specific application will be built.

The Agreement between Kultevat and BKT assumes enormous significance if we consider that the World Natural Rubber Consumption is expected to be 17 million tons by 2025. The increasing global demand, especially in the tire industry, will soon lead to a shortage of this raw material. *Hevea brasiliensis* is a native tree from South America and presently the only commercial source for NR, which is mainly produced in Asia. The issues about *Hevea* is the long lead time, which means that crops

need at least six to eight years before they can be harvested the first time. In addition, there is land scarcity for plantation in the Equatorial Zone. To meet the aforementioned demand, 8.5 million hectares of additional plantations would be required. This cannot but lead to a dead end in a short time.

Like other tire manufacturers, BKT has been working on substitute raw material solutions, mainly Guayule and Dandelion. BKT has opted for Dandelion because of its higher latex content. This plant grows annually even in moderate climate. Its roots contain about 15 % of latex, which can be used as raw material for making rubber. Russian Dandelion was already used during another period of rubber shortage in Europe after World War II. Its use was forgotten after the invention of synthetic rubber. Thanks to advanced biotechnology and environmentally-friendly processes, Kultevat is able to supply TKS rubber in bulk.

"Kultevat's commercialisation strategy calls for the company to sell into specialty rubber markets at the outset, while the company continues working with BKT to develop products for their purposes," Daniel R Swiger, the CEO of Kultevat says. "We have engaged a number of customers and are currently growing TKS for processing and rubber for prototype and testing purposes. "We expect commercial sales of rubber beginning 2019," he adds.

"BKT has always been committed to innovation allotting requisite amounts regularly to Research and Development, since we consider these investments the key to success for competing in a complex global market with rapidly evolving needs," Dilip Vaidya, BKT President and Director of Technology, states. – "The Agreement with Kultevat for TKS rubber is a great step forward in our R&D activities, in terms of both sustainability and innovation. This project is fully in line with the goals expressed in our R&D Mission: To research and develop cutting-edge materials and technologies to support future BKT business challenges in terms of innovative product technology."

"BKT is an ideal global partner for Kultevat, because they are the leaders in Off-Highway tire research, production, and sales. This will improve on our ability to rapidly scale and commercialise," says Daniel R. Swiger CEO, Kultevat Inc.

Highlighting the importance of finding alternatives to NR and the research project with TKS rubber is the fact that in 2018, the European Commission has placed NR on their list of critical materials for the EU for the first time. Behind the backdrop that raw materials are crucial to economy and that the unhindered access to certain raw materials is a growing concern across the globe, the European Commission regularly issues and updates a list of critical raw materials. The purpose of the list is to create awareness in terms of material sustainability and potential material supply risks as well as develop research and innovation actions by implementing the "2030 Agenda on sustainable development and its sustainable development goals".

REGIONAL PREMIERE FOR BKT EARTHMAX SR 47 AT AUTOMECHANIKA DUBAI 2018 (May 1 TO 3)

BKT chose the leading automotive trade fair in the Middle East to present Earthmax SR 47 to local markets. The All Steel radial OTR tire combines extraordinary resistance and stability ensuring best performance for rigid dumpers in tough conditions on harsh terrains.

Once again the Dubai World Trade Centre was the remarkable venue for the 16th edition of Automechanika Dubai, the leading international trade show for the automotive service sector in the Middle East. Around 2,000 exhibitors and over 30,000 visitors from 136 countries participated at the event, which is an extraordinary meeting point for international manufacturers and suppliers, distributors and local agents.

Balkrishna Industries Ltd. (BKT) previewed the cutting-edge Earthmax SR 47 for the wider Middle East Region along with other patterns out of the extensive Earthmax tire line-up in addition to a selection of tires for port and industrial applications on display.

The debuting Earthmax SR 47 (E-4), displayed in Dubai in size 21.00 R 33, is an All Steel radial OTR tire specifically designed for rigid haul trucks operating in the toughest transport applications such as rock quarrying. Thanks to its All Steel casing along with the extra strong steel belts, this tire features exceptional stability and excellent resistance to snags and punctures. The E-4 tread depth and the unique

tread design ensure excellent wear resistance even on long hauls, thus reducing downtime and increasing productivity. Earthmax SR 47 is available in standard and cut-resistant compounds for extended durability.

To provide an overall picture of its extensive Earthmax series, BKT also exhibited Earthmax SR 33, size 395/85 R 20, a radial tire for multipurpose trucks that ensures outstanding grip on off road surfaces (mud + sand). Also of interest is Earthmax SR 30, exhibited in size 15.5 R 25, a dual-purposed radial tire for wheel loader, motor grader and even tele-handler providing excellent traction, stability and durability in a variety of harsh operating conditions.

In addition to the extensive Earthmax tire range, BKT took to Dubai a significant selection representing its multiple tire ranges for port, mining, industrial and construction applications: Portmax PT 93, size 280/75 R 22.5, made its debut in Dubai last year. It has been specifically engineered for terminal tractors and is perfect for operations at ports and logistics hubs. The next tire on display is MULTIMAX MP 519 in size 7.50 R 16, a particularly suitable tire for light trucks in all transport applications. TR 463 for backhoe loaders and industrial tractors is made of a superior tread compound and features a strong nylon casing providing best results in industrial and construction applications. This tire was exhibited at Automechanika in size 16.9-28. Another tire for construction applications is SKID

POWER PLUS, displayed in size 10-16.5. Specifically designed for skid steers, this tire features wider lugs along with enhanced protection providing excellent cut-and-chip & puncture resistance and outstanding durability.

To round up the BKT portfolio at the booth, there are MAGLIFT ECO in size 7.00-12, a special forklift tire providing high load capacity and outstanding comfort in addition to excellent cut and chip resistance, and AIROMAX AM 27, the ideal road-oriented tire for construction applications with cranes. This high-speed tire that offers a high level of handling qualities is on display in size 505/95 R 25.

Automechanika Dubai is a key event for BKT, and it has been a strategic choice to introduce Earthmax SR47 at this important venue for the Middle East. BKT's values are well-expressed in the 2018 advertising campaign "A long way together" dedicated to the OTR/IND-CON sector, which covers several indoor and outdoor exhibition spaces, enhancing the perception of the company as a major international player in the industry.

The BKT group offers a vast and modern range of Off-Highway tires, specially designed for vehicles operating in the farming, industrial, earth-moving, mining, port, ATV and gardening sectors. BKT's innovative solutions are designed for the needs of any type of user and comprise over 2,400 products sold in more than 140 countries around the world. Visit our site www.bkt-tires.com



Earthmax SR 47



Earthmax SR 33



Earthmax SR 30



AIROMAX AM 27

BKT TAKES TOP-OF-THE RANGE PRODUCTS TO THE TIRE COLOGNE 2018

There is great anticipation at BKT for the forthcoming appearance at The Tire Cologne, held from May 29 to June 1 at Cologne - the international platform, where the multinational group headquartered in India, a major global player in *Off-Highway* tire manufacturing, is going to display its top-of-the-range products for the different reference markets including the agricultural, agro-industrial, earthmoving, industrial, and construction sectors. For agricultural applications, Agrimax Force will be displayed in size IF 900/60 R 42 – a tire, which has been specifically designed with BKT's further developed IF technology for high-power tractors. It combines increased load capacity with lower inflation pressure compared to a standard tire of the same size. Also on display is Agrimax Teris, size 800/65 R 32, for high-power harvesters and spreaders.

For both industrial and agricultural applications, BKT will exhibit Con Star in size 400/70 – 24, a specific tire for backhoe loaders, compact loaders and telehandlers representing a winning mix of features providing lateral and vertical stability, high-load capacity along with an extended product life-cycle.

Specifically conceived for the industrial sector, Portmax PT 93 is on display in size 280/75 R 22.5 - a tire for terminal tractors employed in heavy-duty operations at ports, container terminals as well as logistics and distribution centres. Finally, there is Airomax AM 27, size 445/95 R 25, a crane tire for the construction sector that is suitable for applications both on road surfaces and the aggressive terrains at construction sites.

The BKT booth will be livened up by moments of fun and entertainment offering visitors the



Agrimax Force

opportunity to win exclusive BKT gadgets. Not to be overlooked is the outdoor communication such as the 2018 marketing campaign “A long way together” aimed at the agricultural and OTR/IND-CON sectors welcoming visitors right at the entrance and some other outdoor spaces.



Agrimax Teris



**BKT @ The Tire Cologne 2018
Cologne, May 29 – June 1
Hall 06.1 Stand C030 D039**



Airomax AM 27

India's Rubber Board cuts NR output forecast by 70,000 tonnes

●The Rubber Board of India recently downwardly revised the forecast of natural rubber (NR) production for 2018-2019, about 70,000 tonnes lower than what was originally estimated for 2017-2018.

The NR output for the current year rose by just 0.4% over the previous year. The Board has projected NR production of 730,000 tonnes for



M K Shanmuga Sundaram, Rubber Board chairman and executive director

2018-2019. The Board had predicted 800,000 tonnes of NR production for 2017-2018, but just 694,000 tonnes was produced in the previous fiscal year.

The Rubber Board chairman and executive director M K Shanmuga Sundaram said that projected NR production for the next fiscal year is considerably lower as compared to the production potential, considering the prevailing low rubber prices and extent of untapped area.

Production during the April-December 2017 period was below expected level. An increase of just 4.4% was recorded as compared with the corresponding period in the

previous year. During January-March 2018, output was 10% lower, which was blamed on intermittent rains and relatively low rubber prices. However, the consumption and import of NR touched new highs, with consumption surging 6.4% to 1,110,660 tonnes.

During the quarter under review, the import of NR grew 10.1% over the year-ago period to reach an unprecedented level of 469,433 tonnes. Around 70% of imports were through the duty paid channel. According to a release by the Board, NR import into India was unusually higher due to the favourable price situation, rising consumption and less than expected production.

Indian NR sector optimistic following EOI from Turkey

●A 14-member delegation from Turkey recently visited Kerala and signed an 'expression of interest' (EOI) in procuring more raw rubber and rubber products from the southern Indian state which produces about 90% of NR produced in the country. N M Mathew, the former director of India's RRI (Rubber Research Institute) met the Turkish team and commented on their fairly well-established rubber manufacturing industry.

He also said there was a possibility that rising crude oil prices and corresponding higher synthetic rubber prices could have an impact on NR demand. Mathew explained that the current relatively low prices for NR have led to under-production among cultivators, causing a shortfall in domestic production. A rise in prices is certain to lead to increased output.

In India, imports are more economical for the country's large rubber-consuming industries as imported rubber prices are currently 10 to 12% less than locally-produced rubber.

Siby Monippally, general secretary, Indian Rubber Growers' Association, said that the lower cost of production from countries like Thailand, Malaysia and Vietnam makes the NR from there significantly cheaper. He spoke of expectations for higher NR prices as the global economy registers significant growth and called on the Indian

government to announce a comprehensive package for the sustainable development of plantations.

NR exports rise by 50,000 tonnes in Myanmar

●As Myanmar's natural rubber (NR) output increases and it clamps down on illegal exports of the commodity, NR exports have increased by around 50,000 tonnes during the two consecutive fiscal years.

Khaing Myint, general secretary of Myanmar Rubber Planters and Producers Association, explained that in the past, the country exported 80,000-90,000 tonnes of NR, but since the 2016-17 financial year, Myanmar's NR exports have reached more than 130,000 tonnes.

According to the country's Commerce Ministry, as of March 2 of the 2017-18 financial year, Myanmar earned \$179 million from exports of 136,000 tonnes of NR.

Earnings from exports of over 75,000 tonnes of the commodity amounted to \$218 million in the 2012-13 financial year; the export of 84,000 tonnes of rubber came to \$196 million in the 2013-14 financial year; the shipment of 77,500 tonnes of rubber in the 2014-15 financial year came to \$112 million, while the export of, over 88,500 tonnes of rubber during the 2015-16 financial year amounted to \$101 million.

Falling NR prices in the global market has led to the current local rubber price declining within Myanmar. The association has suggested that planters should grow high-yield rubber strains only and produce high-quality raw materials.

The country's annual NR output amounts to around 200,000 tonnes in total, with over 90% of that output exported, while just 8% is consumed. China is the leading importer of NR from Myanmar, with the remaining rubber being sent to Malaysia, Singapore, Indonesia, South Korea, Japan, Taiwan and India.

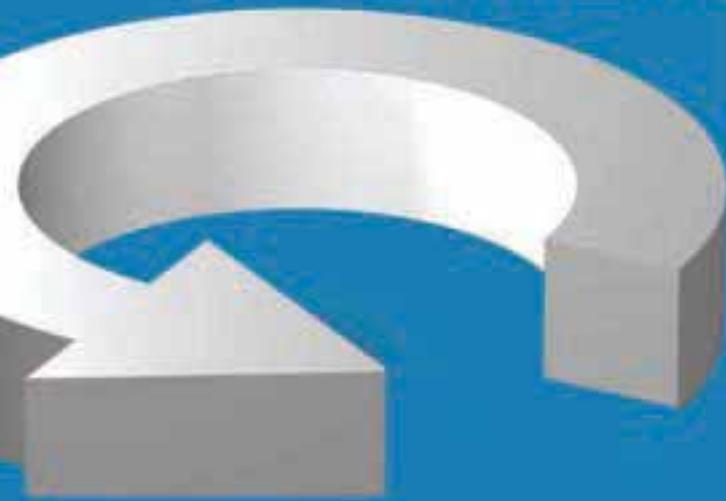
In Myanmar, NR is grown mainly in the Mon and Kayin States, Yangon, Bago and Tanintharyi Regions. There are nearly 500,000 acres of rubber plantations in Mon State and nearly 270,000 acres in Kayin State. There are around 1,600,000 acres of rubber plantations nationwide.

8% rise in NR exports from Ivory Coast in Q1

●During the first three months of this year, the Ivory Coast exported 177,407 tonnes of NR — an 8% rise as compared to the same quarter in 2017, according to provisional port data. The Ivory Coast is Africa's leading NR grower.

Exports of the commodity had increased in recent years as farmers have increasingly switched to rubber from volatile cocoa, lured by the promise of more stable incomes.

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Bidar Rubber & Reclaims (P) Ltd.,
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Eswar Rubber Products (P) Ltd.,
Namakkal, Tamilnadu, India

(P&P - 3)

30 Years
in
Rubber Reclaiming

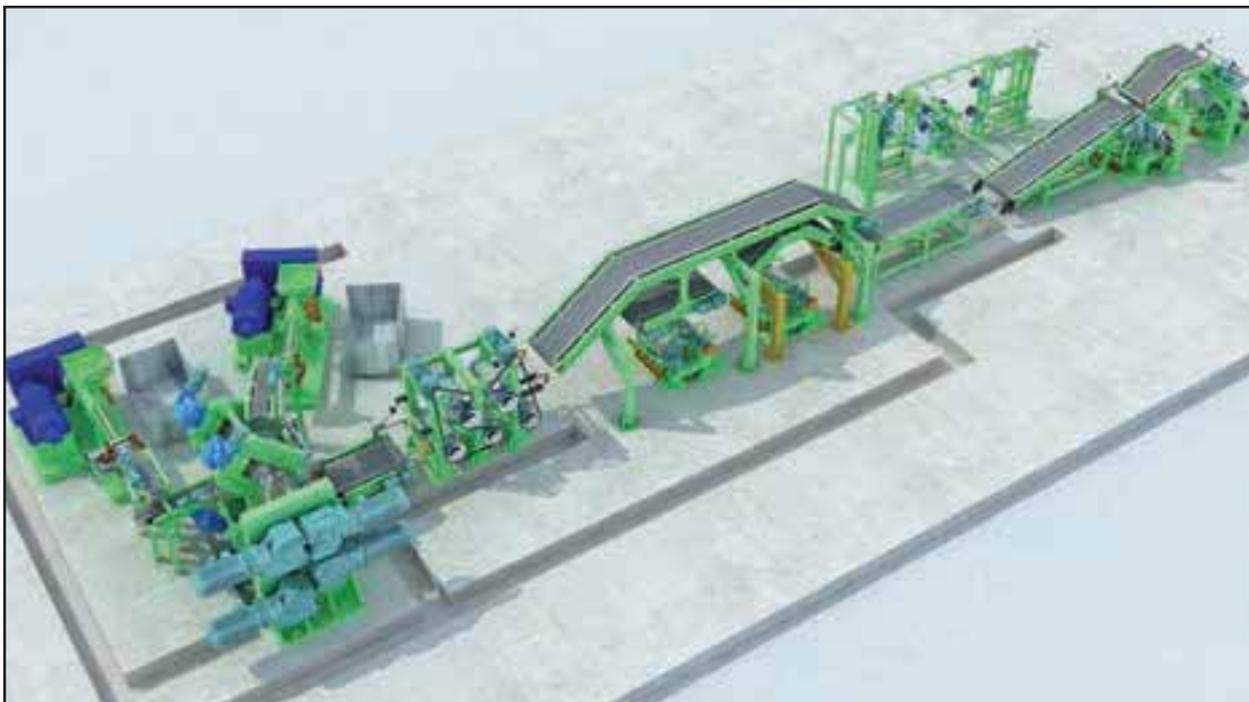


Production Capacity

55,000 M.Ton
per annum



INNER LINER LINE: FOR PCR AND TBR



PRODUCTIVITY . EFFICIENCY. SPEED . SAFETY.

Modern-day tire technology is undergoing a high degree of technology improvements due to demands from vehicle manufacturers, end users and law enforcements for higher safety standards. To match this demand for continuous improvement, today's tires are undergoing tremendous quality and technology improvements. A recent development in this regard is the Inner Liner Line. As the name indicates, it is the Innermost layer of tires.

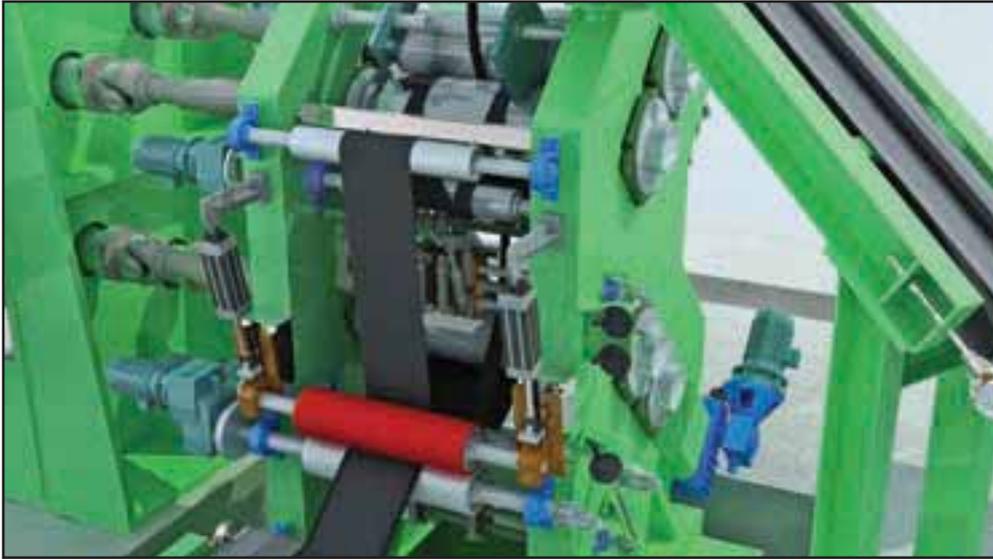
In most of the lines, two or three layers of rubber can be assembled at the same time and in hot conditions, leaving no air pockets between the layers.

Bainite had developed its first Inner Liner Line in 2014 for a reputed tire company. There are multiple assemblies which could be performed in an Inner Liner Line. 2x2 Roll Calendar with Feeding Extruders ensures quality rubber sheets.



The Calendar is equipped with modern technologies like:

- 1.Variable Frequency Drive
- 2.Nip Controls Hydraulically
- 3.Automatic Thickness Control System
- 4.Linear Variable Digital Transducer.
- 5.Roll temperature Control through individual temperature control units.
- 6.The four rolls are individually driven for variable friction ratio between Rolls, etc.



Jacketed type Spiral Cooled Cooling Drums are being provided for optimal cooling. Imported tensioning and centering systems ensure tight tolerance is achieved between the assembly of two or more rubber sheets.

This line can assemble Inner Liner with Transition Liner and also ply with two Chafer at an accuracy of +/- 1 mm without any air entrapment. The Chafer Dispenser unit (2 x Chafer applications at a time) with automated centering mechanism and high-resolution cameras ensure more accuracy and a high performance.

Functions of the Inner Liner:

1. To maintain the pressure of air inside the tire throughout.
2. To prevent leakages.
3. To protect the tire from effects of air inside.
4. To control heat build up.
5. To minimise deflection.

The Inner Liner should be of impermeable and good quality compound to achieve the above functions.

They should have:

1. Controlled gauge
2. No surface defects

Complete assembly goes to Wind Up station where sheets get wound with Liner - Let Off Tension Control and Centering System. Two winding stations are provided to ensure continuous operation. Loop Controls and Dancer Mechanism are provided for synchronisation of different layers.

The Inner Liner Line is

- a) Most modern;
- b) User-friendly;
- c) Fully automated;
- d) Synchronous system
- e) High productivity :
Without Chafer up to 35 MPM and with Chafer - 28 MPM.

Bainite has designed and developed Inner Liner Lines for;

1. Passenger car tires (PCR),
2. Truck-bus radials (TBR),
3. Two-wheeler tires & tubeless tires.
4. Off-the road radial tires



DKT 2018

Deutsche Kautschuk-Tagung
2. - 5. Juli 2018 · Nürnberg
German Rubber Conference

- ▶ LECTURE PROGRAM
- ▶ TPE-FORUM

- ▶ TYRE DAY
- ▶ POSTER SESSION



- ▶ UNIVERSITY SESSION
- ▶ EDUCATIONAL SYMPOSIUM

- ▶ SOCIAL EVENTS
- ▶ TRADE EXHIBITION

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- FOUR WING UNIDRIVE & V BELT
- PLC & V.F.D.
- BACK FEED & FRONT FEED

DISPERSION KNEADER
3 LTRS TO 250 LTRS



CALANDER 3/4/5 ROLL-6
6"X18" TO 24" X 72"



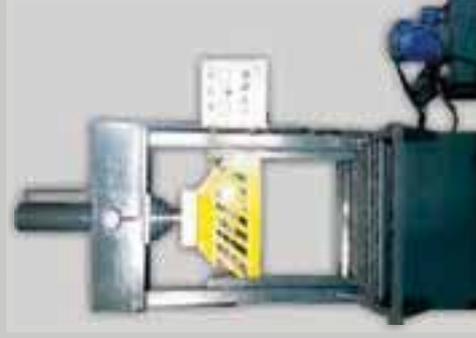
TWO ROLL RUBBER MIXING MILL -
6"X15" TO 26" X 84"



RUBBER EXTRUDER HOT & COLD FEED
40 MM TO 250 MM



TWO ROLL CRACKER/REFINER/GRINDER MILL
14"X18"X36" TO 24"X28"X48"



BALE CUTTER



FOUR WING ROTOR



CRACKER MILL



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IRSG's World Rubber Summit 2018 (7– 8 May, Colombo)

The International Rubber Study Group (IRSG) is the only inter-governmental organisation that brings together the world's rubber producing and consuming stakeholders. To date, IRSG has 36 Members Governments: Sri Lanka as the Host Government, Japan, India, Singapore, Russia, Cote d'Ivoire, Nigeria, Cameroon and the European Union.

"Breaking Barriers towards Sustainable Development" was the theme of the World Rubber Summit 2018. The event organised by IRSG and strongly supported by the Ministry of Plantation Industries, took place in Colombo, Sri Lanka from 7 – 8 May.

The need of an "open willingness" to cooperate and collaborate among the rubber value chain, through the enhancement of the dialogue between rubber players and organisations was one of the key takeaways of the Summit held in March 2017. The aim of this year's Summit was to reinforce the concept that only through a positive dialogue among the stakeholders it is possible to guarantee a sustainable growth for all the players in the world rubber market.

The World Rubber Summit gives an unique and exclusive opportunity for the global rubber industry to discuss the current challenges that the industry is facing but also the future opportunities that might arise from the disruptive trends that are transforming the automotive industry and the extensive

use of innovative solutions to improve rubber quality and productivity. IRSG, as the sole intergovernmental organisation opened to countries and companies involved in the production, usage and trade in both natural and synthetic rubber, has played and will continue to play a leading role to make sure that the new generations could look at rubber as an exciting industry to work for, both in the upstream and downstream sectors.

The two-day Summit has given timely opportunity to examine how leaders at the helm of the global tire and rubber industries, are confronting transformative political and economic challenges that shape the growth of the global rubber economy. The World Rubber Summit 2018 saw the participation of experts from all over the world who provided a unique and exclusive insight on the future opportunities that might arise from the disruptive trends that are transforming the automotive industry and the extensive use of innovative solutions to improve rubber quality and productivity. The World Rubber Summit 2018 was a fantastic opportunity for all the rubber stakeholders – producers, users, traders and financial institutions - to join more than 200 innovators and thought leaders for two days of constructive discussion and unbeatable networking opportunities. It's the only place to be to maximize your potential and thrive in today's rubber's market.

Scenes from the World Rubber Summit:



H E Aly Toure – Chairman, IRSG



Sri Lanka's Minister for Plantation Industries, Navin Dissanayake, delivering his keynote address



Salvatore Pinizzotto and Minister Navin Dissanayake – lighting the traditional lamp



Hon Minister Navin Dissanayake giving memento to Salvatore Pinizzotto - Secretary-General IRSG



IRJ's Publisher M Noorani (Left) with Minister Navin Dissanayake



Apollo's Sunam Sarkar - Meta Trends in Automotive Industry And Its Impact On The Tyre Industry



Dr. Zairossani Mohd Nor – Director General Malaysian Rubber Board



Hu Hui, Senior Manager Commodity Department 2, Shanghai Futures Exchange Heading the panel discussion on Price Volatility in Futures Market - What Added Value Exchange Can Deliver?



Datuk Dr. Abdul Aziz S A Kadir Secretary General, IRRDB (Right)



Arnab Bandyopadhyay, Lead Transport Specialist GTITR The World Bank



Rajiv Budhraja – Director General ATMA



Dr. Lekshmi Nair – HEAD Economics and Statistics IRSG



Harsh Gandhi – Executive Director GRP Ltd



Dr. Tran Thi Thuy Hoa – Head Vietnam Rubber Association



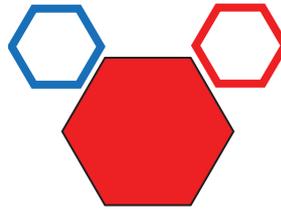
Sandana Dass CEO R1 International



Fazilet Cinaralp Secretary General ETRMA

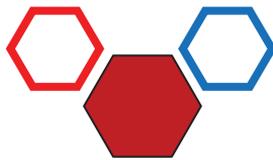


Datuk Dr. Abdul Aziz S A Kadir Secretary General, IRRDB



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- Effect of different environment on aging characteristics of cured rubber
- Benchmarking and Reverse Engineering of Rubber products
- Poly Aromatic Hydrocarbon (PAH) Analysis of Rubber Process Oil/Rubber product
- Compound Development for customized application
- Specific Aging Performance/Life Prediction
- Thermal property Characterization

Tyre Testing

- Tyre Dimension Analysis
- Plunger Energy
- Endurance Test
- High Speed Test
- Footprint Pressure Distribution
- Structural & Sectional Analysis
- Stiffness [X,Y,Z]
- Bead Unseat
- Sidewall deflection Profile
- Electrical Resistivity
- Non-Destructive Testing
- Air Retention Test
- Rolling Resistance
- High Speed Uniformity
- F&M/PRAT/CRAT/Conicity & Plysteer/SWEEP
- Tyre Noise Measurement (Anechoic Chamber)
- Tyre Noise Analysis & Modeling
- Rubber Product Noise Measurement & Analysis

(as per IS /DOT/FMVSS/ECE/GS/ISO/SAE/customer specified Standards)

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Knowledge sharing seminars on industry perspectives, trends and "best in class" practices



Tyrexpo Technical Workshop

A series of engaging demo sessions aimed at increasing industry knowledge of our visitors



Business Matching

Targeted matching sessions for our Buyers and Sellers who are attending the exhibition



International Buyers Presence

Attendance by buyers across the world



TRiLA Awards 2018

Tyre & Rubber Industry Leadership Acknowledgement Awards

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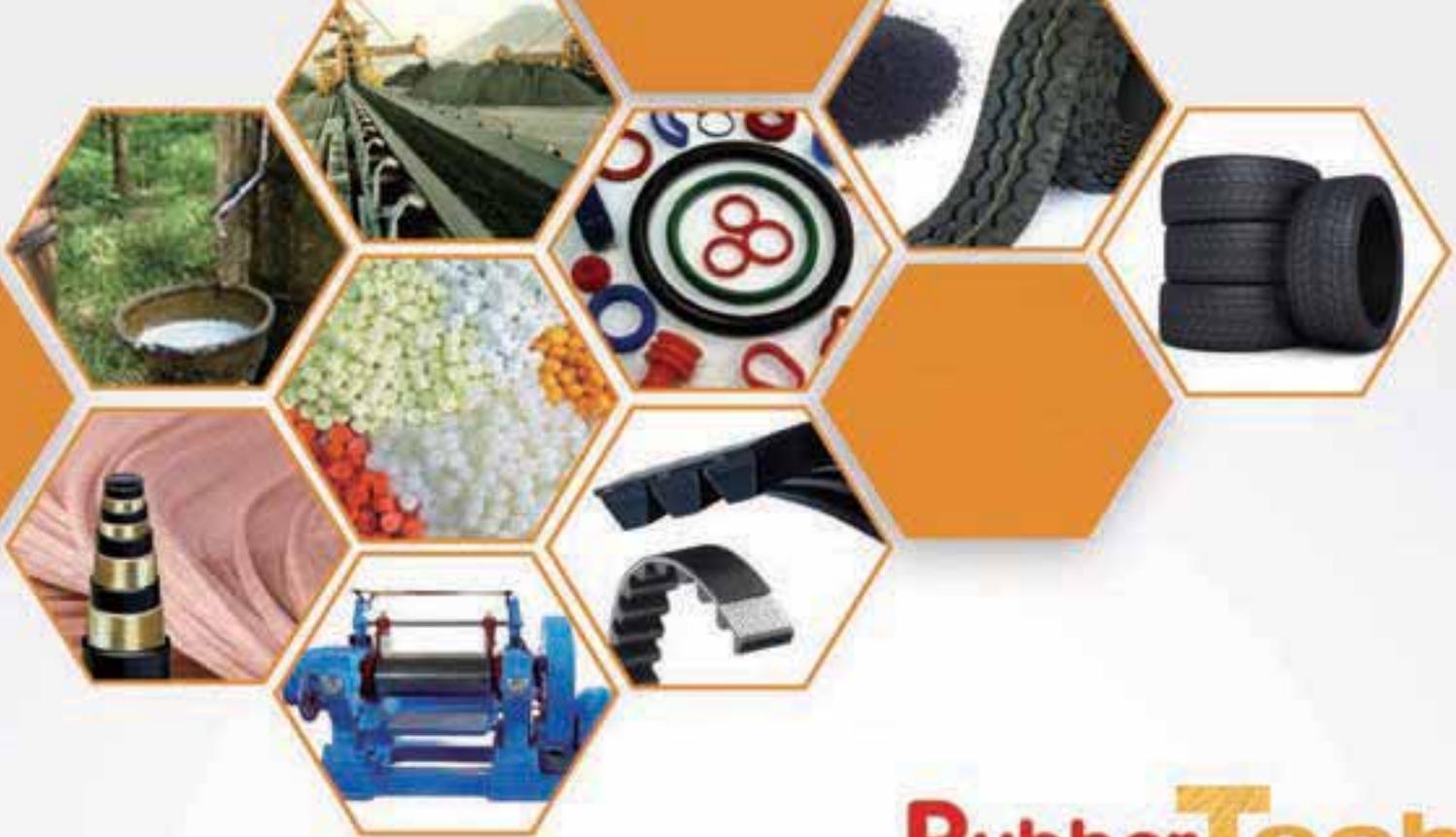


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India 2018

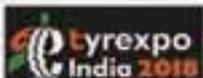
June 21 - 22 - 23

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Targeted at exploring the potentials of different trade markets, RubberTech Series shows have brought its insights to Europe, Thailand, Vietnam and South Africa successively.

As the extension of RubberTech Series, RubberTech India is aimed to bridge the communication gap between the world rubber market and the Indian rubber market. Co-located with RubberTech India 2018, Tyrexpo India is the only professional tire show in India with good reputation and great influence. The combination of RubberTech India and Tyrexpo India realises the full image of rubber industry chain from upstream to downstream and recycling.



RubberTech
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- Tires of all kinds
- Wheels
- Tire Accessories
- Garage Tools
- Rubber Machinery
- Rubber Chemicals

We are ready to surprise you on June 21-23, in New Delhi, India

RubberTech China 2018

The latest rubber technology trends and industry insights

The 18th edition of RubberTech China will be opening at Shanghai New International Expo Centre Hall N1-N4 on September 19-21, 2018. It's even better this year.

With 20 years of excellence to its credit, it is a hugely popular event that promises you the most with just a single visit. Right from being held since 1998, the show is second to none in Asia. Apart from presenting you with latest rubber technology trends and industry insights, the show offers you a chance to rub shoulders with big names in rubber industry. To top it, you get an exclusive glimpse into latest trends and demand dynamics.

Till now, 612 enterprises from more than 20 countries have booked their booths with a total exhibition area of more than 40,000 square metres. As in previous years, we are expecting more exhibitors to join the show in September this year. About 30,000 professional visitors from all over the world are expected to visit.

Apart from these exhibits such as NR, SR, rubber chemicals, framework materials, rubber machinery, tires and rubber belts, this year visitors can expect to see rubber

shoes manufacturers at the International Rubber & Shoemaking Expo 2018. If you are a regular exhibitor of RubberTech China, you must already know the International Rubber Products Expo, China International Tyre Resource Recycling Expo, but this year they have a lot more and new to explore. The China International Chemical Industry Fair (ICIF China) will be organised from September 19-

21, 2018 in Shanghai. It will be held in conjunction with the "RubberTech China 2018" and "China Adhesive 2018". The China International Chemical Industry Fair (ICIF China) is a one-of-its-kind exhibition and conference in China, which embodies and spotlights the entire chemical industry portfolio. Since 1992, ICIF China has become the indispensable chemical show in China's annual industry calendar, and the preferred platform for government agencies and key decision makers to come together for exchange and trade.

Register for free for a single pass (www.rubbertech-expo.com), visitors can explore all these shows.



Tyrexpo India 2018 & GarageXpo India 2018 – The most relevant business platform for the Indian Tire & Garage Industry

The premier trade shows serving the tyre & automotive aftermarket spheres in India, Tyrexpo India 2018 & GarageXpo India 2018 are back in New Delhi. The shows which feature Balkrishna Industries Limited (BKT) as the Diamond Sponsor of Tyrexpo India 2018 & AREMPEE Compressors Pvt. Ltd. as the Gold Sponsor of GarageXpo India 2018, is scheduled to be held at Pragati Maidan from 21 June to 23 June, 2018.

Organised by SingEx Exhibitions (India) Private Limited, the sixth edition of Tyrexpo India & 2nd edition of GarageXpo India is primed to witness an enhanced version resulting from the intensive feedback and engagement process with the leading brands and other distinguished industry players in India. The exhibition show has already cemented its place and importance to the leading tyre and automotive industry players who, are keen to discover and cater to specific demands of one of the fastest growing Automotive industry in the World.

Tyrexpo India 2018 and GarageXpo India 2018 will present their exhibitors and visitors with several exciting and advantageous business opportunities. More than 3000 industry players from verticals such as; purchase, sourcing, R&D, sales and marketing along with 100+ exhibitors from 30 countries are expected to visit Tyrexpo India 2018 and GarageXpo India 2018. These prominent individuals & organizations from India and nearby markets in the Sub-Continent will use this dedicated platform to exchange ideas, share their industry knowledge and expertise and showcase their products, services and innovations.

While exciting growth opportunities are present in India, today's tire and garage industries are

susceptible to the forces of global technological disruption. Tyrexpo India 2018 and GarageXpo India 2018 will also present participants with the rare opportunity to exchange insights and, collaborate and discover new synergies in areas such as R&D and technological innovation on the show floor.



The visitors at the event can expect several co-located events throughout its schedule. The daily seminars such as **TyreTalk** and **GarageTalk** are well-accepted and received by the industry for covering several diverse and interesting topics related to contemporary issues for tyre and workshops, general trade issues and future technologies and trends.

Honourable Minister of Commerce & Industry and Civil Aviation of India, Suresh Prabhu has been invited to grace the occasion and open the exhibition for trade visitors and industry colleagues in company with several prominent dignitaries from the Indian Tire & Automotive Industry.

The grand opening of the show will be closely followed by the TyreTalk and GarageTalk seminar which will include presentations on **Tyre Safety** by Mr. S.S. Gussain- (Sr. Dy. General Manager-Technical Service and Standards & Regulations of Bridgestone India Pvt Ltd.) among others and, a **panel discussion on Tyre Labelling moderated by TechSci Research.**

On Day 2, Amlesh Roy (Senior Vice

President - R&D & QC) Unipatch Rubber Limited will contribute with an overview of the **science behind tire repairs.**

The Tire & Rubber Industry Leadership Acknowledgement (TRiLA) Awards (India's only Award ceremony felicitating the Indian Tire, Rubber & Raw Material and Tire Service Industry) is also scheduled for the same afternoon. The TRiLA Awards recognises the accomplishments of the tire and the rubber industry professionals and provide an unbiased forum that promotes healthy competitiveness in developing the tyre and rubber industry.

On Day 3, Saturday, Mr Vikrant Mohan – National President of **All India Automobile Workshops Association (AIAWA)** will be moderating a panel discussion on Current and Future Scenario of Automobile service Industry. AIAWA in the past has helped Garage workshops and service centre owners by sharing regular technical updates, industry information and training through various knowledge workshops, seminars and panel discussions. This will be one of the highlights of GarageXpo India 2018.

Tyrexpo India 2018 & GarageXpo India 2018 is backed by some of the most influential and prominent Industry associations such as; Automotive Tyre Manufacturers' Association of India (**ATMA**), Automotive Research Association of India (**ARAI**), International Centre for Automotive Technology (**ICAT**), Chemical and Allied Export Promotion Council of India (**CAPEXIL**) and All India Automobile Workshops Association (**AIAWA**) and, a vast array of industry publications from **Automotive, Construction, Mining and Technology** universe.

Sustainable Mobility for All



Arnab Bandyopadhyay,
Lead Transport Specialist GTIR
The World Bank

The Transport We Have

2

Gender Based Violence
6 in 10 women in major Latin Americans cities subject to physical harassment using transport systems.

Many Excluded
450 M (est.) people in Africa do not have access to an all-weather road.

High Logistical Costs
20% lower GDP by being landlocked.

Road traffic fatalities
97% of total fatalities in the transport sector attributed to road transport.

Air Pollution
3 M people killed by ambient air pollution annually.

Greenhouse Gas
23% of global energy related greenhouse gas emissions attributed to the transport sector.

Off track to achieving sustainable mobility?

The Transport We Want

3

Food self-sufficient
USD 1 T (est.) regional food market potential if Africa achieves sustainable mobility.

Gender neutral
EQUAL representation for women and men in the transport sector.

Cost Savings
USD 2.6 T (est.) worth of savings if border administration, transport and communications infrastructure improved.

Urban Accessibility
7% increase in a child's future income when growing up in a highly accessible neighborhood

Zero Fatalities
15% reduction in traffic fatalities when public transport mode share increases from 10 to 20%.

Net Zero Emissions
70% (est.) potential cut in air pollution from light and heavy-duty vehicles by 2030 thanks to emission controls.

Transport to transform lives and achieve the 17 SDGs

1. Coherent in Mobility Agenda

4

GLOBAL OBJECTIVES

Ensure for all equitable access to economic and social opportunities by 2030

Increase the efficiency of the transport systems by 2030*

Improve safety of mobility across transport modes

Shift transport systems to low polluting (GHG/air/noise) and climate resilient path

* Refers to the optimization of resources (energy, technology, space, institutions and regulations) to generate an efficient transport system (at the regional, national or global level).

2. Tied into SDGs

3. Interconnected Objectives

6

Synergies and trade-offs must be factored in to achieve sustainable mobility

Delivering universal access through public transport or shared mobility can cut GHG emissions and air pollution

Shift to scale efficient rail and water freight transport modes reduces less safe truck travel

4. Mobility can Deliver More than Access

7

The sector can realize more benefits by pursuing the four objectives

EQUITY

- Equity of access across income groups, gender, age, disability and geographical location.
- Better access to jobs and productive opportunities.
- Better access to markets and basic services such as health and education.
- Reduction of transport barriers for groups such as women and girls.

EFFICIENCY

- Faster and better access to world markets.
- Efficient use of resources.*
- Decoupling of GDP growth and energy consumption.
- Increase in global trade.
- Regional integration.
- Simplified border crossings.

* Energy, technology, space, institutions, and regulations

SAFETY

- Reduction of fatalities, injuries, and crashes across all modes of transport.
- Reduced risks for vulnerable groups such as bicyclists, pedestrians and children.
- Reduction of social costs of transport related such as health and foregone productivity.

GREEN

- Curbing the increase of global temperatures due to greenhouse gas emissions.
- Better air quality and lower noise pollution
- Resilience to climate disasters.
- Preservation of ecosystems.
- Reduction of health costs associated with poor air quality and noise.

Transport Back on the Map 12

The GMR puts the transport sector squarely back on the map as a solutions sector

Communications Impact – Social Media 13

3.1+ Million!

Potential Impressions

#SuM4All

Communications Impact – Online Media 14

40+

News Outlets

10+

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<p>Organized by:</p>  <p>Malaysian Rubber Glove Manufacturers Association</p>	<p>Co-Host:</p>  <p>Malaysian Rubber Export Promotion Council</p>	<p>In collaboration with:</p>  <p>International Rubber Conference Organisation</p>  <p>Malaysian Rubber Products Manufacturers Association</p>  <p>Plastic and Rubber Institute Malaysia</p>  <p>Malaysian Institute of Chemistry</p>	<p>In association with:</p>  <p>Thai Rubber Glove Manufacturers Association</p>  <p>Indonesian Rubber Glove Manufacturers Association</p>	<p>With the support of:</p>  <p>Ministry of Plantation Industries and Commodities</p>  <p>Malaysian Rubber Board</p>	<p>With the support of:</p>  <p>Ministry of International Trade and Industry Malaysia</p>  <p>Malaysia External Trade Development Corporation</p>	<p>Supporting publications:</p>  <p>Rubber Asia THE COMPLETE MAGAZINE ON RUBBER</p>  <p>INDIAN / INTERNATIONAL RUBBER JOURNAL</p> 
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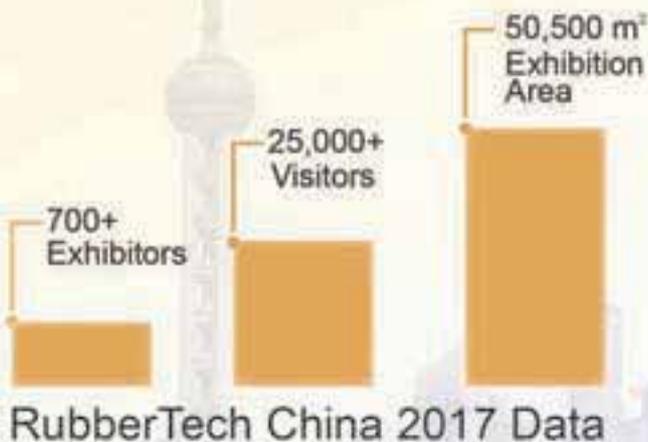
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Driving Success Through Technology

India's largest rubber stakeholder meet in KOCHI, Kerala

Theme Towards a Sustainable Rubber Value Chain




INDIA RUBBER MEET 2018

KOCHI, KERALA, INDIA. 30&31 AUGUST 2018
TOWARDS A SUSTAINABLE RUBBER VALUE CHAIN

VENUE

**Grand Hyatt
Kochi Bolgatty
Kerala, India**

DATE

**30 and 31
August 2018**



Organisers

- The Rubber Board (Ministry of Commerce & Industry, Govt. of India)
- | All India Rubber Industries Association (AIRA)
- | Association of Latex Producers of India (ALPI) | Automotive Component Manufacturers Association of India (ACMA)
- | Automotive Tyre Manufacturers Association (ATMA)
- | Block Rubber Processors Association of India (IBRPA)
- | CAPEXIL (Ministry of Commerce & Industry, Govt. of India)
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- | Indian Cycle and Rikshaw Tyre Manufacturers Association (ICRTMA)
- | Indian / International Rubber Journal
- | Indian Rubber Dealers Federation (IRDF)
- | Indian Rubber Growers Association (IRGA) | Indian Rubber Institute (IRI)
- | Indian Rubber Manufacturers Research Association (IRMRA)
- | Indian Synthetic Rubber Private Limited (ISRPL)
- | Kerala State Co-operative Rubber Marketing Federation (Rubber Mark)
- | Latex Rubber Thread Manufacturers Association (LARTMA)
- | National Federation of Rubber Producers Societies (NFRPS)
- | Reliance Industries Ltd. | Rubber Asia | Rubber Skill Development Council (RSDC)
- | The Cochin Rubber Merchants Association (CRMA)
- | United Planters Association of Southern India (UPASI) |

For correspondence

Chairman, Organising Committee
INDIA RUBBER MEET 2018
Rubber Board, Kottayam-686 002,
Kerala, India.

Phone: 91-481-2301231
Fax: 91-481-2574902

indiarubbermeet@gmail.com
www.indiarubbermeet.in

Registration fee*			
	INDIAN DELEGATES		OVERSEAS DELEGATES
	Small growers [#]	Others	
Early bird registration (until 31 st July 2018)	Rs. 3,500 + GST	Rs. 7,500 + GST	US\$ 200 + GST
Registration (after 31 st July 2018)	Rs. 3,500 + GST	Rs. 10,000 + GST	US\$ 250 + GST

(* Registration fee does not include travel and accommodation; # - To be certified by Rubber Board's Field Officer)

L'INDUSTRIA DELLA GOMMA



THE BEST ACCESS KEY TO THE ITALIAN RUBBER MARKET

L'Industria della Gomma (The Rubber Industry) was founded in 1957 and is sponsored by the Federazione Gomma Plastica/Assogomma, the industrial confederation of Italian manufacturers of rubber articles and similar products. As the only Italian magazine exclusively dedicated to the rubber industry, it has become an indispensable instrument for everyone who works in this business. It is also a very effective and prestigious advertising platform for all the international companies wishing to access the Italian market and to promote their solutions for the Italian producers.



www.industriagomma.it

India Rubber Expo 2019 (IRE 2019) - expanding possibilities

by Vishnu Bhimrajka, Chief Convenor - IRE 2019 & Director Polmann India

In the last few years, India's growth trajectory has witnessed a north-bound journey.

Recently, India leaped to the sixth largest economy in the world in terms of Gross Domestic Product (GDP). It is estimated that the Indian economy will double to \$5 trillion by 2024 and the leap will take India ahead of China by the middle of 21st century.

Backed by its growth towards becoming the world's largest economy, India is all set to invest heavily in infrastructure, transportation, and implement initiatives such as Stand Up India, Start Up India, Skill India and Make in India, Clean India, Digital India, etc.

The Indian government's leadership and focus to position India favourably in the global market — both to benefit overseas and domestic market — is at an all-time high. Bullet train from Mumbai to Ahmedabad, India's oil companies and Saudi Aramco recently signing a MoU to jointly develop and build an integrated refinery and petrochemicals complex in Maharashtra are some of the initiatives amongst a grand scheme of things that the country is implementing. Similarly, various new metro rail projects, expansions in automotive projects, investment and focus on electric vehicles, focus on defence productions and localisation, rapid progress and investment in power sector, oil & gas sector, space, construction, etc. spell good days for the rubber industry. The industry can expect immense opportunities to knock at its doors as rubber is a critical component for all these sectors.

India Rubber Expo (IRE) is an initiative by the rubber fraternity to pave the path and opportunities for people to connect, showcase, learn and engage into this high-growth, high momentum, opportune situation. The upcoming 10th



edition — IRE 2019 — is supposed to be better and bigger than earlier shows.

IRE 2019 is a confluence of the industry's best minds, a perfect forum for the exchange of ideas,

observations, regulatory reforms and emerging scientific technologies, as well as learning, networking, catching up with current customers and making new ones. An experience with IRE 2019 will open new horizon for business thinking and for the industry at large with exclusive conference, workshop and reverse buyer-seller meet as never before.

The IRE 2019 has already started receiving overwhelming response and support from stakeholder/fraternity of rubber sector from India and overseas.

Here are some highlights that will surely take IRE 2019 to new heights:

Close to 26,000 sq.mts. of exhibition space with over 300 exhibitors and over 27,000 visitors, participation by key government bodies, presence of select OEMs, more than one overseas pavilion, RB5M – first-time ever with 100 buyers from overseas, international conference with presence of approximately 500 delegates per day, and workshops with 100 people attending each day.

IRE 2019 is all set to provide the right platform for esteemed organisations to reach out to customers and help in further reinforcing their brand.

A presence at the IRE 2019 makes perfect business sense for organisations having to do anything or everything related to the rubber industry. It will open up new vistas and expand possibilities for business success.

INDIA RUBBER EXPO 2019 will be held from January 17 to 19, 2019 at Bombay Convention & Exhibition Centre, Goregaon, Mumbai, India.

"The IRE 2019 objective is to project the vibrant and growing rubber industry of India."

Vikram Makar,
Chairman -IRE
2019 & Chairman
and Managing Director, Oriental
Rubber Industries. Pvt. Ltd.



"The EXPO promises to be a great conclave to bring industry geniuses together, to empower and learn from each other, to stand and be stronger together."

Vishnu Bhimrajka, Chief Convenor – IRE 2019 & Director, Polmann India Limited



The Trend

Production of natural rubber (NR) in India rose 11.4 % on year during December 2017 to 78,000 tonne from 70,000 tonne during December 2016. The total output during the first three quarters of 2017-18 also increased by 4.4% to 524,000 tonne from the same period a year ago. The production preliminarily estimated for January 2018 is 73,000 tonne up 1.4 % from 72,000 tonne produced during the same month a year ago.

The country consumed 99,600 tonne of NR during December 2017, markedly up from the quantity of 96,500 tonnes consumed a month ago (November 2017). A total quantity of 814,060 tonne was consumed during April to December 2017, up 4.9% from the same period in the previous year. This represents 8.0% increase in the auto-tire sector and 1.5% decrease in the general rubber goods sector. Preliminary estimate suggests that the country consumed 96,000 tonne of NR during January 2018.

India imported 36,136 tonne of NR during December 2017

making the total volume landed in the country during April to December 2017 at 333,301 tonne compared to 360,924 tonne during the same period a year ago. The country exported only 20 tonne of NR during December 2017 compared to 2,232 tonne shipped during the same month a year ago. The total volume exported during April to December 2017 was 4,991 tonne compared to 3,522 tonne exported during the same period in the previous year.

A total stock of 271,000 tonne of NR was estimated to have held with growers, traders, processors and consumers in the country at end of December 2017.

As regards synthetic rubber (SR), a quantity of 33,020 tonne was produced during December 2017. A total quantity of 236,226 tonne was produced during April to December 2017 representing 41.9% rise on year. The country consumed 56,860 tonne of SR during December 2017 making the total SR consumption during April to December 2017 at 465,980 tonne, up 3.8% on year.

PRICE OF NATURAL RUBBER (Rupee per 100 Kg)

Month / Year		RSS-5	RSS-4	RSS-3 20	Latex	(60% drc)	ISNR	20	SMR
		Domestic		International	Domestic	International	Domestic	International	
January	2017	13920	14666	17654	14968	18370	13683	14843	
February	"	14929	15942	18451	16930	20372	14565	14804	
March	"	14156	15024	15889	15935	18407	13183	13025	
April	"	13939	14339	14625	15688	15885	12522	10701	
May	"	12815	13073	14165	15595	15940	11916	9859	
June	"	11971	12238	11627	15410	14623	11089	9228	
July	"	13027	13300	11315	15290	13178	12495	9706	
August	"	12571	13063	11775	13685	13747	11414	9783	
September	"	13102	13424	11977	13993	14313	11743	10269	
October	"	12767	13060	10889	13807	12772	11200	9414	
November	"	12290	12587	10298	13788	12508	10689	9184	
December	"	12794	13082	10455	15283	12633	11365	9309	
January	2018	12285	12746	10755	14787	12937	11352	9602	
February		12054	12413	10963	14385	12733	10993	9421	

Note: Domestic price refers to Kottayam market, international RSS 3 refers to Bangkok market and international price of latex and SMR 20 to Kuala Lumpur market.

PRODUCTION & CONSUMPTION OF NR & SR

Type-wise Production & Consumption of NR & SR	(Tonnes)					Percentage increase (+)/decrease (-) of (3) & (4) (6)
	Dec 2017 (1)	Dec 2016 (2)	April 2017 to Dec 2017 (3)	April 2016 to Dec 2016 (4)	April 2016 to March 2017 (5)	
PRODUCTION						
NATURAL RUBBER (NR)						
Ribbed Smoked Sheet (RSS)	56745	47320	373730	348585	473375	
Solid Block Rubber	10820	11370	79150	72215	106560	
Latex Concentrates(DRC)	7635	8780	50780	59175	83200	
Others	2800	2530	20340	22025	27865	
Total	78000	70000	524000	502000	691000	4.4
SYNTHETIC RUBBER (SR)^P						
Styrene Butadiene (SBR)	22120	10170	149326	72129	96637	
Poly butadiene (BR)	10000	8070	81680	87127	116557	
Others	900	918	5220	7222	9550	
Total	33020	19158	236226	166478	222744	41.9
Total NR & SR	111020	89158	760226	668478	913744	13.7
CONSUMPTION*						
NATURAL RUBBER (NR)						
Ribbed Smoked Sheet (RSS)	44270	38670	377190	354480	486470	
Solid Block Rubber	46160	37575	360455	341450	451240	
Latex Concentrates(DRC)	6880	7045	57740	61700	82100	
Others	2290	1990	18675	18345	24265	
Total	99600	85280	814060	775975	1044075	4.9
Out of which Auto Tire Manufactures	69606	57102	566934	524981	707335	8.0
SYNTHETIC RUBBER (SR)^P						
Styrene Butadiene (SBR)	28445	23200	226145	208890	278800	
Poly butadiene (BR)	16695	15260	136145	140195	184720	
Others	11720	11000	103690	99745	135060	
Total	56860	49460	465980	448830	598580	3.8
Out of which Auto Tire Manufactures	39342	34027	323844	313308	417728	3.4
Total NR & SR	156460	134740	1280040	1224805	1642655	4.5
Out of which Auto Tire Manufactures	108948	91129	890778	838289	1125063	6.3

PRODUCTION & CONSUMPTION OF RR**(Metric Tonnes)**

Dec 2017 Dec2016 April 2017 April 2016 April 2016
to Dec 2017 to Dec 2016 to March 2017

	(1)	(2)	(3)	(4)	(5)
RECLAIMED RUBBER (RR)					
Production @	1 1980	10050	97 195	92950	1 22895
Consumption	1 1800	10145	96450	90780	1 20235
Out of which Auto Tire Manufactures	4542	4011	37859	37546	49635
Stock with Manufacturers	1 1545	10310			

(end of the Month/Year)

@:Indigenous purchase by Manufacturers

IMPORT OF DIFFERENT FORMS OF NR DURING DECEMBER 2017^P

(Tonnes)

TYPE	Quantity	% Share
RSS Grades	6869	19.01
Solid Block Rubber	28857	79.86
Latex Concentrates (drc)	410	1.13
Others	0	0.00
Total	36136	100

^P: provisional**TYPE-WISE EXPORT OF NR DURING DECEMBER 2017^P**

(Tonnes)

Type	Quantity	% share
RSS Grades	0	0.00
Solid Block Rubber	0	0.00
Latex Concentrates (drc)	20	100.00
Others	0	0.00
Total	20	100

^P: provisional

SIAM

India's: Production, Domestic Sales & Exports data for the month of April 2018 and Growth

Category	Production						Domestic Sales						Exports					
	2017		2018		% Change		2017		2018		% Change		2017		2018		% Change	
	April		April		April		April		April		April		April		April		April	
I Passenger Vehicles (PVs)																		
Passenger Cars	223,952	232,370	3.76				190,854	200,183	4.89				47,144	36,930	-21.67			
Utility Vehicles(UVs)	82,556	98,323	19.10				70,706	79,136	11.92				13,323	13,830	3.81			
Vans	13,221	16,326	23.49				16,123	19,185	18.99				71	161	126.76			
Total Passenger Vehicles (PVs)	319,729	347,019	8.54				277,683	298,504	7.50				60,538	50,921	-15.89			
II Commercial Vehicles (CVs)																		
M&HCVs																		
Passenger Carriers	3,476	3,729	7.28				2,408	2,768	14.95				790	410	-48.10			
Goods Carriers	9,103	31,491	245.94				8,194	25,779	214.61				1,450	2,397	65.31			
Total M&HCVs	12,579	35,220	179.99				10,602	28,547	169.26				2,240	2,807	25.31			
LCVs																		
Passenger Carriers	3,950	5,025	27.22				3,383	4,404	30.18				157	160	1.91			
Goods Carriers	30,294	50,704	67.37				27,499	40,042	45.61				1,665	3,207	92.61			
Total LCVs	34,244	55,729	62.74				30,882	44,446	43.92				1,822	3,367	84.80			
Total Commercial Vehicles	46,823	90,949	94.24				41,484	72,993	75.95				4,062	6,174	51.99			
III Three Wheelers																		
Passenger Carrier	51,137	86,183	68.53				24,527	40,063	63.34				26,252	49,530	88.67			
Goods Carrier	8,686	11,121	28.03				7,892	9,917	25.66				171	187	9.36			
Total Three Wheelers	59,823	97,304	62.65				32,419	49,980	54.17				26,423	49,717	88.16			
IV Two wheelers																		
Scooter/Scooteritee	568,943	626,183	10.06				586,886	661,007	12.63				20,169	38,193	89.36			
Motor cycles/Step- Throughs	1,198,075	1,408,279	17.55				1,029,963	1,229,526	19.38				209,747	250,903	19.62			
Mopeds	49,500	75,647	52.82				57,938	67,708	16.86				1,736	4,761	174.25			
Total Two wheelers	1,816,518	2,110,109	16.16				1,674,787	1,958,241	16.92				231,652	293,857	26.85			
Quadracycle	72	237	229.17				0	0	-				44	186	322.73			
Grand Total of All Categories	2,242,965	2,645,618	17.95				2,026,373	2,379,718	17.44				322,719	400,855	24.21			

Society of Indian Automobile Manufacturers (10/05/2018)

it's rubber time.

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Vikram Makar
Chairman - IRE 2019
Oriental Rubber Industries Pvt. Ltd.
Chairman & MD

Vishnu Bhimrajka
Chief Convener - IRE 2019
Polmann India Ltd.
Director

All India Rubber Industries Association

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TOPIC: Elastomers, Chemicals & Machinery • **DATE:** 17th to 19th Jan. 2019 • **VENUE:** NESCO Complex, Mumbai - India

IRMRA opens its South centre in Sri City, Andhra Pradesh



IRMRA, President, Rajendra V Gandhi, inaugurates the new centre

Founded in 1958, the IRMRA is celebrating its Diamond Jubilee this year. As a part of this, the new centre was inaugurated by Rajendra V Gandhi, President, IRMRA and MD, GRP, Ltd in the presence of Dr. K Rajkumar, Director, IRMRA and Council and Staff members of IRMRA. The inaugurated centre has state-of-the-art facilities for material and rubber product testing. Facilities also include customised rubber technology training modules for different segments of rubber & allied industries. The inauguration took place in presence of eminent personalities from the tire industry, automotive OEMs, MSME sectors, Academia and AIRIA.

IRMRA has acquired four acres of land in a prominent location at Sri City which is just 2.5 KM from the Highway and it is on the main road of Sri City Business Park. Sri City is a Smart Integrated Business City situated 55 km north of the metropolis of Chennai in south India in which several MNCs including Izusu, Colgate & Palmolive, Cadbury, Kobalco, Alstom and West Pharma etc, to name a few, are already operational. Sri City has also been allocated around 100 acres for rubber industry clusters and invites investors / entrepreneurs to come and set up



Dr. K Rajkumar, Director, IRMRA

their rubber industry. IRMRA would help the investors to set up by providing required technical support and services.

The facilities created for the Material Research Testing and Certification for Southern Centre include a physical laboratory consisting of Mooney Viscometer, Universal Testing machine, Rheometer, Demattia



Dr. K Rajkumar (left) Director, IRMRA addresses the gathering during the inaugural function

Flex Tester, Ozone Chamber, Digital Hardness tester etc. The laboratory is also well-equipped with sophisticated analytical instruments like FTIR, DSC, TGA, GC-MS/MS, ICPMS etc. Many more facilities including a state-of-art Research laboratory will be established in the current year in order to serve tire, non tire, automotive and other industry sectors. The centre will also undertake contract research work to develop technology for the rubber and allied industry.

GCMS is used for research purpose in IRMRA

This is used to identify the presence of rubber compounding ingredients, accelerators, antioxidants, sulphur, plasticisers), industrial applications-used in the synthesis of cellulose acetate, polyethylene, polyvinyl, and synthetic fibres in any rubber products. This is also an essential technique by which we can find out the several organic substances including ROHS / REACH etc which are being banned / restricted to use in rubber products.



ICP MS is used for research purpose in IRMRA

Inductive coupled plasma is an analytical technique used for the detection of trace metals. It is an emission spectroscopy technique that is used for the qualitative and quantitative detection of metals like aluminum, antimony, arsenic, barium, boron, cadmium, calcium, chromium, nickel and zinc, etc. The equipment is sensitive and can detect trace elements in ppb level and is ideal for research purposes.

**TGA is used for carrying out research by IRMRA**

As part of research, the chemical composition by an analysis of rubber, polymer and allied materials is studied. TGA measures the amount of weight change of a material (Inorganic materials, metals, rubbers, polymers and plastics, ceramics, glasses, and composite materials can be analysed.) This is also used for quality control techniques as and when is required. The instrument will also be used for studying the thermal stability of individual compound / ingredients, products etc. Scientists also use this equipment for predicting quantification of life of the rubber products based on the thermal degradation of kinetics software.

**FTIR is used for research in IRMRA**

It is used for the identification of rubber and rubber blends, plasticiser, inorganic fillers plastic and resin, function groups / modified chemical substances etc. The latest software can also be used for quantification of rubber chemicals. The instrument is used for carrying out research with respect to forensic analysis and investigation of rubber products.

**DSC is another high-tech research instrument useful for rubber technologists**

It helps in determination of T_g, T_m & Crystallinity, degree of cross link, cure, characteristics and heat of reaction of polymer, their chemicals and the determination of oxidation induction of time (OIT) of polymer. It can be used for identification of blends, thermal behaviour of any polymer and its chemicals etc.



As in IRMRA'S parent lab at Thane (Mumbai) the Southern branch will be elevated to the standard by obtaining the following quality credentials.

- ISO/IEC 17025 : 2017 Accreditation
- ISO 9001: 2015 Certification
- BIS Recognition
- DSIR Recognition
- CEMILAC Recognition
- NABET Accreditation

Bangkok hosts GRTE 2018, global meeting point for rubber industries successfully



TechnoBiz CURC United Co., Ltd., a joint venture of TechnoBiz Communications Co., Ltd. and China United Rubber Corporation successfully organised the 4th edition of GRTE 2018 – Global Rubber, Latex & Tyre Expo 2018 in Bangkok, Thailand at Bangkok International Trade & Exhibition Centre from March 14-16, 2018. It has brought 5,820 participants and 214 exhibitors from 47 countries together during the three-day expo. It has become a truly global meeting point for the rubber industries. This event has been supported by both local and overseas rubber associations, who have been instrumental in making this event a great success. The fundamental pillars of this expo are business, networking and knowledge. All the activities were developed with these principles. Some of the major highlights of this event are as below.

■ **Free reference book “Rubber & Tire Technology Handbook” for visitors:**

A special reference book “Rubber & Tire Technology Handbook” was published and distributed to more than 2,000 participants at the expo. At each edition, a new book is being released and distributed to the visitors with the emphasis on GRTE being a knowledge hub.

■ **Rubber technology forum**

A rubber technology forum was

organised as part of GRTE 2018 with more than 25 papers during three days. Both researchers and technologists presented latest technologies. This forum was conducted inside the exhibition hall for the benefit of exhibitors and visitors. All the papers were well-received with a packed house in most of the presentations.

■ **Specialised training course:**

Education has always been one of key components of GRTE since the beginning. Seven specialised courses focusing on molding, compounding and latex technologies were organised. Around 100 participants participated in these courses.

■ **GRTE rubber industry networking dinner:**

This was one of main highlights of GRTE 2018. The event has brought more than 300 business executives to have unconventional networking opportunities over cocktails and dinner.

■ **Launch of new books:**

TechnoBiz has published various new books in co-operation with the Rubber World Magazine and launched them at GRTE. These books, titled Thermoplastic Elastomers, USA Rubber Industry Patents, NR Mixing etc. were offered at a special discount at the show. This defines GRTE as a truly knowledge-based event

with business.

■ **“Rubber Industry Best Practice Educator” awards:**

Every industry needs competent people to sustain. Educators are needed to create competent workforce. The organiser has honoured two well-experienced specialists, Dr. Hans-Joachim Graf (Germany) and Van Walworth (USA), who have been training and preaching best practices in rubber compounding and processing and rubber molding respectively with “Best Practice Educator 2018” awards.

■ **“Thailand Rubber Technologist 2018”**

This award was presented to Dr. Chakrit Sirisingh, a dedicated rubber technologist in research, education and cooperation with the rubber industry in Thailand.

■ **Rubber Research Fair :**

More than 30 rubber industry innovations were displayed in the Rubber Research Fair as posters. Researchers from Prince of Songkhla University and Mahidol University actively participated in this fair. This research zone is accessible to all participants.

The next edition of GRTE 2020 will be held from March 11-13, 2020 in Bangkok, Thailand. More information will be available at www.rubber-expo.com or www.rubbertechnology-expo.com



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CHINA RUBBER is an authoritative, guiding, comprehensive journal of Chinese rubber industry, semimonthly, issued on 5th and 20th every month. It contains more than ten columns of Decision Reference, Policy News, S&T Information, Market Trends, Statistics Analysis, Enterprises Movement, Management Communication, etc. and supplies timely and exact information for rubber enterprises and related industry. It's sponsored by CRIA.

CHINA RUBBER INDUSTRY YEARBOOK is a large reference book for recording the status quo and development of Chinese rubber industry year by year. It mainly includes the overall situation of rubber industry, the current condition and development of each rubber profession and related business, industry organization, statistics and data, the rank of members and important industry news.

CHINA RUBBER INFORMATION NET is the portal website of China Rubber Magazine Agency. It has English and Chinese version, supplies timely information, establishes forum and free member system. It creates a good platform to communicate for the people of this field.



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E-mail: 62267464@163.com chinarubber@163.com

The Rubber Economist Quarterly Report



Dr. Prachaya Jumpsut, Managing Director of The Rubber Economist

Highlights

- ▶ In 2017, world rubber consumption grew for the eighth consecutive year. The slow growth rate is expected to continue over the next few years.
- ▶ Asia/Pacific share of global rubber consumption increased to 63% last year and the region is expected to continue to lead global growth for 2018-2020.
- ▶ In 2017, 10 out of the top 13 largest rubber consuming countries were in Asia.
- ▶ Consumption of NR has outpaced SR in recent years and may continue. The report explains that the influence of relative prices on SR/NR share has only become significant over the past 10 years.
- ▶ China, the largest rubber consuming country took almost 40% of world total consumption of NR but only 28% for SR.
- ▶ Most countries and regions showed a decline in SR share last year. SR share in the Russian Federation fell to the lowest level since the breakup of the Soviet Union.
- ▶ World NR output increased 7.5% last year, the sharpest rate since 2011.
- ▶ NR output in Cote d'Ivoire increased by almost 40%, taking Africa's share to the highest level since 1975. Global production capacity has increasingly been influenced by smaller producing countries.
- ▶ SR output has continued to show a gradual increase over the past five-six years. Asia/Pacific increased its global share to 52%.
- ▶ NR surplus has pushed global stocks to another record level in 2017. With the expected surplus over the next few years, a further increase in stocks is a possibility.
- ▶ SR deficit has continued for four consecutive years but there is a possibility for supply to improve.
- ▶ The stocks to consumption ratio for both NR and SR are expected to continue to remain relatively low by historical standards.
- ▶ NR prices rose by 20-25% last year but they have been on a declining trend since February 2017.
- ▶ While the movements in SR prices mirror NR prices, it has been traded higher than NR prices since 2014.
- ▶ The value of the global rubber industry increased by 23% as the result of an increase in rubber prices.

Box 1: Ranking of rubber consuming countries, 2017 Table 1 shows the 2017 ranking of the combined natural rubber (NR) and synthetic rubber (SR) consumption in major countries. The top 10 rubber-consuming countries remain the same, i.e. China has continued to be the largest rubber-consuming country, followed by USA, India, Japan, Thailand, Indonesia, Brazil, Malaysia, Germany and the Russian Federation. Seven out of top eight countries are in Asia, while numbers 11-13 are also Asian countries, i.e. the Republic of Korea, Vietnam and Taiwan.

The percentage year-on-year growth is shown in the right hand column of the table. Last year, China continued to show a relatively slow growth rate of 2-3%, but amongst the other top 10, there were declines for USA and the Russian Federation. As expected from the regional discussion, the better performance comes from Asia/Pacific (e.g. Australia, Vietnam, Taiwan and Thailand) and Europe (e.g. Austria, Hungary, Serbia and Sweden).

China took just over 33% of the world rubber off take last year – a marginal decline from the previous year. The relatively sharp growth in Thailand has raised its share, along with India, Indonesia, Malaysia, Germany, Vietnam, Taiwan, Turkey, Spain, Mexico, Poland, Romania, Hungary, Portugal, Serbia, Pakistan, Ukraine, Sweden, Austria, Switzerland and Israel.

The sharper growth rate of Indonesia compared to Brazil has lifted its ranking position to sixth place ahead of Brazil. Other countries that have increased their ranking in 2017 include Spain, Mexico, UK, Czech Republic, Romania, Slovakia, Hungary, Portugal, Iran, Serbia, Belarus, Australia, Austria, Switzerland, Israel, Bangladesh and Greece.

Table 1: Rubber consumption, 2017

Ranking	Country	000tonnes%	share	% growth
1 (1)	China	9432.3	33.36	2.91
2 (2)	U S A	2843.4	10.06	-0.01
3 (3)	India	1678.7	5.94	3.50
4 (4)	Japan	1555.5	5.50	0.78
5 (5)	Thailand	1275.2	4.51	10.72
6 (7)	Indonesia	971.8	3.44	5.68
7 (6)	Brazil	971.5	3.44	0.65
8 (8)	Malaysia	970.3	3.43	6.79
9 (9)	Germany	847.7	3.00	4.27
10 (10)	Russian Fed	707.9	2.50	-0.72
11 (11)	Rep of Korea	603.4	2.13	-7.33
12 (12)	Vietnam	585.2	2.07	20.49
13 (13)	Taiwan	503.4	1.78	11.99
14 (14)	Turkey	454.4	1.61	7.42
15 (16)	Spain	395.4	1.40	8.78
16 (18)	Mexico	357.4	1.26	7.75
17 (15)	France	354.7	1.25	-4.42
18 (17)	Poland	351.6	1.24	5.08
19 (19)	Italy	315.5	1.12	1.22
20 (20)	Canada	304.8	1.08	0.79
21 (22)	U K	191.4	0.68	-2.69
22 (23)	Czech Rep	190.8	0.67	-1.85
23 (24)	Romania	188.9	0.67	6.00
24 (21)	Sri Lanka	179.8	0.64	-9.10
25 (26)	Slovakia	173.5	0.61	3.00
26 (25)	Belgium/Lux	166.3	0.59	-5.35
27 (28)	Hungary	141.4	0.50	23.39
28 (27)	Netherlands	123.9	0.44	2.57
29 (30)	Portugal	109.0	0.39	6.45
30 (29)	South Africa	101.4	0.36	-9.71
31 (31)	Argentina	101.4	0.36	1.71
32 (33)	Iran	95.2	0.34	0.63
33 (34)	Serbia	85.1	0.30	11.10
34 (37)	Belarus	63.1	0.22	0.64
35 (35)	Egypt	58.4	0.21	-7.89
36 (39)	Australia	55.7	0.20	28.94
37 (36)	Slovenia	55.2	0.20	-12.10
38 (32)	Philippines	54.8	0.19	-42.56
39 (41)	Pakistan	46.7	0.17	11.46
40 (38)	Chile	45.1	0.16	-2.59
41 (40)	Ukraine	44.7	0.16	6.43
42 (42)	Colombia	39.6	0.14	-0.25
43 (43)	Sweden	38.7	0.14	12.50
44 (44)	Peru	34.3	0.12	1.18
45 (45)	Nigeria	33.8	0.12	0.60
46 (47)	Austria	29.9	0.11	28.88
47 (46)	Finland	29.2	0.10	2.46
48 (50)	Switzerland	22.8	0.08	16.92
49 (51)	Israel	21.5	0.08	12.57
50 (49)	Hong Kong	20.9	0.07	4.50
51 (48)	Singapore	14.8	0.05	-30.19
52 (53)	Bangladesh	13.3	0.05	2.31
53 (54)	Greece	11.9	0.04	-3.25
54 (52)	Venezuela	11.8	0.04	-33.71
55 (55)	Denmark	9.6	0.03	-6.80
56 (56)	Guatemala	7.6	0.03	-9.52
57 (57)	Bulgaria	7.3	0.03	1.39
58 (58)	New Zealand	7.0	0.02	1.45
59 (59)	Rep of Ireland	5.1	0.02	21.43
60 (60)	Norway	3.2	0.01	18.52
61 (61)	Cambodia	2.4	0.01	0.00
TOTAL	28272	100.00		

Notes:

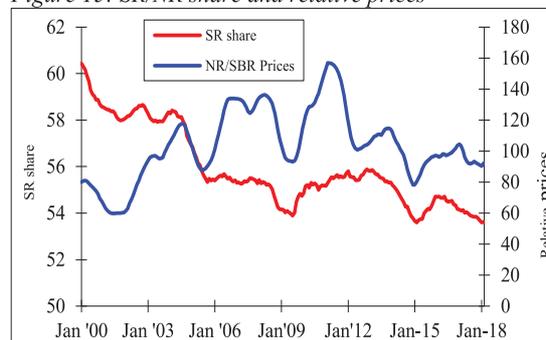
1. Figures in brackets in the ranking column correspond to 2016
2. Bold figures indicate an improvement in 2017 over 2016

Box 2: SR/NR share and their relative prices

As discussed in detail in one of our recent reports, there is a less significant influence of NR and SR prices on rubber consumption than one would have thought. The choice of using NR or SR depends not only on cost consideration but also on the properties and performance required for the end uses, as well as on other factors including processability in the manufacturer's factory and strategic reasons. Substitution because of price criteria is important for those products which are not technically determined, but even here the influence of relative prices seems to be more in evidence as recently as 10 years ago.

Figure 15: SR/NR share and relative prices

In May 2008, just prior to the financial crisis

Figure 15: SR/NR share and relative prices

NR price averaged almost US\$3/kg and NR was about 36% higher than SBR prices and the SR share of total rubber consumption was 55.2%. By the end of that year when NR price fell to US\$ 1.2/kg and NR was only about 8% higher than SR, the SR share fell by a full percentage point to 54.2%. Then NR price turned around to reach its peak of almost US\$6/kg in February 2011 and the average NR price was 57% higher than SR, the SR share rose back to 55.3%.

The decline of NR price to just over US\$ 1/kg by early 2016 resulted in NR price being about 97% of SR price and the share fell to 54.7%. Over the past year or so, when NR prices showed a little recovery, the NR price still fell to only 92% of SR as oil price has been increasing relatively sharply in to other commodities including NR. The share declined marginally to 54.2%.

Looking at this period, it seems that relative prices have some influence over NR and SR shares.

Box 3: Ranking of NR/SR consuming countries,

2017 Tables 2 and 3 show the breakdown by countries of natural rubber (NR) and synthetic rubber (SR) consumption in 2017. The top 10 largest NR and SR consuming countries are very similar to those for total rubber consumption in Table 1. For NR, the Russian Federation is not on the list but instead the Republic of Korea is, i.e., the top ten ranking are China, India, USA, Thailand, Japan, Indonesia, Malaysia, Brazil, Republic of Korea and Germany. For SR, Indonesia is left out in favour of Taiwan, i.e., China, USA, Japan, Germany, India, Russian Federation, Thailand, Brazil, Malaysia and Taiwan.

The percentage year-on-year between 2016 and 2017 for all the countries is shown in the right hand column of both tables. It becomes clear as to why world consumption of NR increased faster than SR last year. There are many more countries showing a decline in SR consumption (Table 3) than those showing a decline in NR (Table 2). All countries in the top 14 show an increase in their NR consumption while SR consumption in USA and Russia fell last year.

Those countries that moved up in the NR consumption ranking last year are Thailand, Italy, Poland, Romania, Iran, Hungary, Nigeria, Portugal, Egypt, Pakistan, Netherlands, Peru, Austria and Australia. For SR consumption, these are Germany, Thailand, Vietnam, Turkey, Mexico, Poland, Italy, Belgium/Luxemburg, Hungary, Serbia, Austria, Belarus, Ukraine, Sweden, Pakistan, Switzerland, Austria, Israel, Bulgaria and New Zealand.

We can see why China dominates the NR market, as her global share of consumption increased to almost 40% as compared to a decline to 28% for SR. Along with China, other countries which showed an increase in the share of world NR consumption are: Thailand, Indonesia, Germany, Vietnam, Spain, Turkey, Canada, Russian Federation, Taiwan, Poland, Romania, Iran, Hungary, Portugal, Serbia, Pakistan, Netherlands, Israel and Austria. Those countries showed increases in SR share are: Germany, India, Thailand, Malaysia, Taiwan, Vietnam, Indonesia, Turkey, Mexico, Poland, Spain, Slovakia, Hungary, Serbia, Australia, Belarus, Ukraine, Sweden, Pakistan, Switzerland and Austria.

NR and SR consumed by these countries are either from domestically produced output or imports. China, the top ranking rubber consumer, produced 69% of the amount of SR consumed in 2017 and imported 40% and the balance was the change in stocks. However, for NR, China relies mainly on imports. Last year, the local production was 15% of consumption but the amount of imports was greater than consumption. China's domination in international NR trading is even more apparent when considering that last year, her global import share was 43%. The global share of SR imports for China was 16% last year.

In general, most NR and SR imports are for domestic consumption but there are a few exceptions. For NR, Malaysia and Vietnam, which ranked 2nd and 5th in terms of import respectively, use the imports for re-exports. For example, last year Malaysia produced about 740,000 tonnes and consumed 490,000 tonnes but it imported 1,113,000 tonnes and exports 1,185,000 tonnes.

The same can be said for Belgium/Luxembourg in terms of re-exports of SR.

Table 2: NR consumption, 2017

Ranking	Country	000tonnes%	share	% growth
1 (1)	China	5108.0	39.02	5.03
2 (2)	India	1072.6	8.19	3.78
3 (3)	U S A	969.1	7.40	3.98
4 (5)	Thailand	701.5	5.36	7.94
5 (4)	Japan	680.5	5.20	0.52
6 (6)	Indonesia	610.5	4.66	4.66
7 (7)	Malaysia	488.6	3.73	0.49
8 (8)	Brazil	429.1	3.28	0.35
9 (9)	Rep of Korea	384.3	2.94	0.79
10 (10)	Germany	236.3	1.81	4.74
11 (11)	Vietnam	215.9	1.65	11.29
12 (12)	Spain	182.9	1.40	12.48
13 (13)	Turkey	176.0	1.34	12.17
14 (15)	Italy	130.8	1.00	1.87
15 (14)	Sri Lanka	129.0	0.99	-9.15
16 (16)	France	127.7	0.98	0.08
17 (17)	Canada	125.5	0.96	5.73
18 (18)	Russian Fed	116.9	0.89	10.70
19 (19)	Taiwan	111.2	0.85	9.66
20 (21)	Poland	104.1	0.80	9.35
21 (20)	Mexico	100.6	0.77	-0.49
22 (24)	Romania	82.1	0.63	16.95
23 (22)	Czech Rep	75.6	0.58	0.00
24 (23)	Slovakia	74.9	0.57	0.00
25 (27)	Iran	56.4	0.43	16.53
26 (26)	Belgium/Lux	48.2	0.37	-18.17
27 (28)	Hungary	47.4	0.36	16.18
28 (30)	Argentina	39.6	0.30	2.06
29 (29)	South Africa	38.1	0.29	-2.56
30 (25)	Philippines	32.2	0.25	-45.42
31 (32)	Nigeria	31.4	0.24	-99.75
32 (33)	Portugal	31.1	0.24	14.34
33 (31)	U K	28.2	0.22	-15.82
34 (34)	Serbia	28.2	0.22	22.61
35 (36)	Egypt	22.2	0.17	-1.33
36 (38)	Pakistan	21.8	0.17	6.34
37 (37)	Colombia	21.2	0.16	-2.30
38 (39)	Netherlands	19.1	0.15	11.05
39 (35)	Belarus	18.5	0.14	-18.86
40 (42)	Peru	15.0	0.11	10.29
41 (40)	Slovenia	14.5	0.11	-9.94
42 (41)	Chile	14.4	0.11	4.35
43 (43)	Finland	12.3	0.09	0.82
44 (44)	Israel	11.7	0.09	15.84
45 (46)	Austria	9.9	0.08	26.92
46 (45)	Bangladesh	8.5	0.06	3.66
47 (50)	Australia	7.1	0.05	22.41
48 (47)	Venezuela	7.0	0.05	7.69
49 (48)	Sweden	6.2	0.05	1.64
50 (49)	Guatemala	5.1	0.04	-15.00
51 (51)	Hong Kong	4.2	0.03	13.51
52 (52)	Ukraine	3.1	0.02	-13.89
53 (53)	Greece	2.4	0.02	0.00
54 (54)	Cambodia	2.4	0.02	0.00
55 (55)	Singapore	1.2	0.01	0.00
56 (56)	Bulgaria	1.2	0.01	0.00
57 (57)	Switzerland	1.2	0.01	9.09
58 (58)	New Zealand	1.0	0.01	0.00
59 (59)	Denmark	0.8	0.01	14.29
60 (60)	Rep of Ireland	0.4	0.00	33.33
61 (61)	Norway 0	.1	0.00	0.00
TOTAL	13090	100.00		

Notes:

1. Figures in brackets in the ranking column correspond to 2016
2. Bold figures indicate an improvement in 2017 over 2016

Table 3: SR consumption, 2017

Ranking	Country	000tonnes%	share	% growth
1 (1)	China	4324.3	28.48	0.50
2 (2)	U S A	1874.3	12.35	-1.96
3 (3)	Japan	875.0	5.76	0.99
4 (6)	Germany	611.4	4.03	4.09
5 (5)	India	606.1	3.99	2.99
6 (4)	Russian Fed	591.0	3.89	-2.70
7 (8)	Thailand	573.7	3.78	14.33
8 (7)	Brazil	542.4	3.57	0.89
9 (9)	Malaysia	481.7	3.17	14.04
10 (10)	Taiwan	392.2	2.58	12.67
11 (12)	Vietnam	369.3	2.43	26.60
12 (11)	Indonesia	361.3	2.38	7.43
13 (14)	Turkey	278.4	1.83	4.62
14 (17)	Mexico	256.8	1.69	11.36
15 (16)	Poland	247.5	1.63	3.38
16 (15)	France	227.0	1.50	-6.78
17 (13)	Rep of Korea	219.1	1.44	-18.79
18 (18)	Spain	212.5	1.40	5.77
19 (20)	Italy	184.7	1.22	0.76
20 (19)	Canada	179.3	1.18	-2.40
21 (21)	U K	163.2	1.07	0.00
22 (23)	Belgium/Lux	118.1	0.78	1.11
23 (22)	Czech Rep	115.2	0.76	-3.03
24 (24)	Romania	106.8	0.70	-1.11
25 (25)	Netherlands	104.8	0.69	1.16
26 (26)	Slovakia	98.6	0.65	5.40
27 (28)	Hungary	94.0	0.62	27.37
28 (27)	Portugal	77.9	0.51	3.59
29 (29)	South Africa	63.3	0.42	-13.52
30 (30)	Argentina	61.8	0.41	1.48
31 (32)	Serbia	56.9	0.37	6.16
32 (31)	Sri Lanka	50.8	0.33	-8.96
33 (38)	Australia	48.6	0.32	29.95
34 (36)	Belarus	44.6	0.29	11.78
35 (37)	Ukraine	41.6	0.27	8.33
36 (33)	Slovenia	40.7	0.27	-12.85
37 (34)	Iran	38.8	0.26	-16.02
38 (35)	Egypt	36.2	0.24	-11.49
39 (41)	Sweden	32.5	0.21	14.84
40 (40)	Chile	30.7	0.20	-5.54
41 (42)	Pakistan	24.9	0.16	16.36
42 (39)	Philippines	22.6	0.15	-37.91
43 (45)	Switzerland	21.6	0.14	17.39
44 (49)	Austria	20.0	0.13	29.87
45 (43)	Peru	19.3	0.13	-4.93
46 (46)	Colombia	18.4	0.12	2.22
47 (47)	Finland	16.9	0.11	3.68
48 (47)	Hong Kong	16.7	0.11	2.45
49 (44)	Singapore	13.6	0.09	-32.00
50 (53)	Israel	9.8	0.06	8.89
51 (51)	Greece	9.5	0.06	-4.04
52 (52)	Denmark	8.8	0.06	-8.33
53 (54)	Bulgaria	6.1	0.04	1.67
54 (55)	New Zealand	6.0	0.04	1.69
55 (50)	Venezuela	4.8	0.03	-57.52
56 (56)	Bangladesh	4.8	0.03	0.00
57 (57)	Rep of Ireland	4.7	0.03	-47.78
58 (58)	Norway	3.1	0.02	19.23
59 (59)	Guatemala	2.50	.02	4.17
60 (59)	Nigeria	2.4	0.02	0.00
61 (61)	Cambodia	0.0	0.00	0.00
TOTAL	15182	100.00		

Notes:

1. Figures in brackets in the ranking column correspond to 2016
2. Bold figures indicate an improvement in 2017 over 2016

Box 4: Ranking of NR producing countries, 2017

In 2017, all 26 natural rubber (NR) producing countries with the exception of a very small producer, Bolivia, showed an increase in output. The sharpest growth comes from Cote d'Ivoire (39%), Cambodia (33%), Guatemala (15%), India (14%), Bangladesh (12%), Philippines (11%) and Laos (11%). Even the four major producing countries, which have been discussing the idea of controlling their exports to improve rubber prices, i.e. Thailand, Indonesia, Vietnam and Malaysia all show increases of more than 5% last year.

The top 10 NR producing countries remain the same, i.e. Thailand, Indonesia, Vietnam, China, Malaysia, India, Cote d'Ivoire, Myanmar, Brazil and Cambodia. The only country to have increased in the ranking was Cameroon, moving to 16th ahead of Nigeria.

The top four, Thailand, Indonesia, Vietnam and China, showed a slower growth rate than the world average, their world market shares have declined. The following countries have showed an increase in the share: Malaysia, India, Cote d'Ivoire, Myanmar, Cambodia, Philippines, Guatemala, Laos and Bangladesh.

What is showing the strength of NR supply is that global NR exports rose by 16% – a lot sharper than the increase in output. This shows there are stocks of rubber currently availability on top of the increase in output. All the exporting countries except Sri Lanka have showed a rise in exports last year. The sharp increases were seen in the following countries: India, Philippines, Cote d'Ivoire and Cambodia. In fact all the top 10 exporters showed double digit growth in their exports.

Table 5: NR production, 2017

Ranking	Country	000tonnes%	share	% growth
1 (1)	Thailand	4755.0	35.5	45.22
2 (2)	Indonesia	3409.0	25.48	6.26
3 (3)	Vietnam	1086.0	8.12	5.22
4 (4)	China	78.8	5.82	0.62
5 (5)	Malaysia	738.8	5.52	9.70
6 (6)	India	13.9	5.341	4.41
7 (7)	Cote d' Ivoire	545.0	4.073	9.03
8 (8)	Myanmar	249.1	1.86	8.35
9 (9)	Brazil	218.5	1.63	6.07
10 (10)	Cambodia	193.6	1.453	3.33
11 (11)	Philippines	100.7	0.751	1.15
12 (12)	Guatemala	100.2	0.751	4.65
13 (13)	Sri Lanka	82.0	0.61	3.80
14 (14)	Laos	78.3	0.591	0.91
15 (15)	Liberia	63.0	0.47	4.13
16 (17)	Cameroon	53.0	0.40	6.00
17 (16)	Nigeria	53.0	0.40	1.92
18 (18)	Ghana	37.0	0.28	4.23
19 (19)	Gabon	21.2	0.16	3.41
20 (20)	Bangladesh	21.0	0.16	11.70
21 (21)	Guinea	17.0	0.13	3.03
22 (22)	Mexico	15.3	0.11	1.32
23 (23)	D R of Congo	14.1	0.11	2.92
24 (24)	Colombia	12.0	0.0	91.69
25 (25)	Bolivia	5.70.04-10.94		
26 (26)	PNG	5.70.045.56		
TOTAL	13380	100.00		

Notes:1.

Figures in brackets in the ranking column correspond to 2016

2. Bold figures indicate an improvement in 2017 over 2016

Box 5: Ranking of SR producing countries, 2017

The top 10 largest synthetic rubber (SR) producing countries in 2017 remained unchanged from 2016, i.e. China, USA, Japan, Republic of Korea, Russian Federation, Germany, Taiwan, France, Brazil and Singapore (Table 7).

China showed a marginal increase in output and there were declines for USA, Germany and Brazil but increases for the rest of countries in the top ten. There were sharper increases in some Asian producers, including India, Singapore, Indonesia and Malaysia. Increases also occurred in Romania, Austria, UK and Canada. Sharp declines were recorded for some European countries including Belgium and Netherlands.

Despite a double digit growth in Thailand, the sharper increases in India raised her ranking to 11th and Thailand down to 12th place. UK, Malaysia, Canada and Indonesia also saw their ranking increase last year.

The following countries saw their world SR production share increase: Japan, the Republic of Korea, Taiwan, France, Singapore, India, Thailand, Italy, Mexico, UK, Malaysia, Canada, Indonesia, Iran and Austria.

The Republic of Korea has remained the top SR exporter, taking about 16% of the world total. Singapore has continued to increase exports and moved up to number 7th whilst China, Thailand and Malaysia also rose in the SR export ranking.

Table 7: SR production, 2017

Ranking	Country	000tonnes%	share %	growth
1 (1)	China	2993.6	19.88	0.40
2 (2)	USA	2319.3	15.40	-2.05
3 (3)	Japan	1622.6	10.78	3.63
4 (4)	Rep of Korea	1581.6	10.50	2.34
5 (5)	Russian Fed	1536.4	10.20	1.26
6 (6)	Germany	876.5	5.82	-0.54
7 (7)	Taiwan	741.6	4.92	4.89
8 (8)	France	531.2	3.53	7.47
9 (9)	Brazil	374.7	2.49	-0.79
10 (10)	Singapore	301.7	2.00	17.53
11 (12)	India	290.7	1.93	34.33
12 (11)	Thailand	256.0	1.70	12.48
13 (13)	Italy	222.4	1.48	3.88
14 (14)	Poland	181.6	1.21	1.45
15 (15)	Mexico	164.5	1.09	7.24
16 (17)	Czech Rep	159.4	1.06	-0.25
17 (19)	UK	146.2	0.97	13.25
18 (20)	Malaysia	141.8	0.94	15.85
19 (21)	Canada	16.2	0.77	11.73
20 (18)	Belgium	103.7	0.69	-31.28
21 (16)	Netherlands	98.8	0.66	-36.50
22 (22)	Spain	79.8	0.53	-22.30
23 (23)	South Africa	50.4	0.33	-26.32
24 (25)	Indonesia	49.0	0.33	13.43
25 (24)	Iran	48.1	0.32	4.34
26 (26)	Argentina	33.3	0.22	2.15
27 (27)	Serbia	23.7	0.16	-6.32
28 (28)	Austria	11.0	0.07	120.00
29 (29)	Romania	1.8	0.01	80.00
	TOTAL	15058	100.00	

Notes: 1. Figures in brackets in the ranking column correspond to 2016

2. Bold figures indicate an improvement in 2017 over 2016

Box 6: The aggregate rubber economy in 2017

The Gross National Income (GNI) of the rubber industry takes into account all rubber industry stakeholders including tire or general rubber product manufacturers as well as raw material suppliers and also captures the valued add, e.g. other materials, labour, capital, etc. The GNI of the rubber industry can be calculated using the total value of rubber end uses less the cost of imported rubber plus any natural rubber (NR) and/or synthetic rubber (SR) exports that are produced domestically.

Table 9 shows the calculation of the value of the rubber industry in 2017 for all rubber consuming and producing countries in millions of US\$ assuming the average annual price of NR to be 1,844 US\$/tonne and for SR 2,415 US\$/tonne. These prices were the annual average prices of NR and SR in 2017 respectively.

As can be seen from the table, the increase of NR and SR prices last year has resulted in a higher GNI for all 70 countries with the exception of Philippines and Venezuela, which showed a sharp decline in rubber consumption. In fact almost all countries showed a high double digit growth rate. As the result, the value of the global rubber industry increased to US\$420 billion as compared to US\$342 billion in 2016. The increase of the GNI by 23% was the result of a rise in rubber price by around 20% last year.

The top 10 largest GNI in 2017 are China, USA, Thailand, Japan, India, Indonesia, Brazil, Malaysia, Russian Federation and Germany. Thailand and Malaysia have moved up in the ranking along with Turkey, Mexico, Romania, Slovakia, Hungary, Serbia, Cote d'Ivoire, Belarus, Singapore, Australia, Ukraine, Sweden, Austria, Myanmar, Guatemala, Laos, Cameroon and Ireland.

With slower increase than the world average, the share of the global GNI for China declined marginally to less than 30%. Last year, the following countries saw increases in their share: Thailand, India, Malaysia, Germany, Vietnam, Taiwan, Turkey, Hungary, Portugal, Serbia, Cote d'Ivoire, Australia, Pakistan, Sweden, Austria, Cambodia, Guatemala and Ireland.

Table 9: The rubber industry, 2017

Ranking	Country	000tonnes%	share	% growth
1 (1)	China	125682	29.92	20.89
2 (2)	U S A	43476	10.35	18.91
3 (4)	Thailand	26130	6.22	33.74
4 (3)	Japan	24072	5.73	20.42
5 (5)	India	22560	5.37	25.39
6 (6)	Indonesia	19191	4.57	32.80
7 (7)	Brazil1	3910	3.31	20.54
8 (11)	Malaysia	13762	3.28	28.62
9 (8)	Russian Fed1	3568	3.23	18.82
10 (9)	Germany	13452	3.20	24.15
11 (10)	Rep of Korea1	1266	2.68	13.68
12 (12)	Vietnam	9667	2.30	40.70
13 (13)	Taiwan	8698	2.07	32.03
14 (15)	Turkey	5888	1.40	27.61
15 (14)	France	5359	1.28	14.94
16 (18)	Mexico	5256	1.25	29.47
17 (17)	Spain	5232	1.25	26.52
18 (16)	Poland	5151	1.23	24.42
19 (19)	Italy	4290	1.02	18.59
20 (20)	Canada	4263	1.02	20.80
21 (21)	U K	2927	0.70	16.79
22 (22)	Czech Rep	2887	0.69	17.44
23 (25)	Romania	2452	0.58	25.22
24 (23)	Sri Lanka	2430	0.5	89.19
25 (24)	Belgium-Lux	2306	0.5	54.13
26 (27)	Slovakia	2232	0.53	23.58
27 (26)	Netherlands	2071	0.49	13.87
28 (31)	Hungary	1712	0.41	52.55
29 (28)	South Africa	1460	0.3	55.26
30 (30)	Portugal	1455	0.35	26.25
31 (29)	Argentina	1414	0.34	21.66
32 (32)	Iran	1303	0.31	16.88
33 (34)	Serbia	1194	0.28	30.62
34 (39)	Cote d Ivoire	1023	0.24	68.23
35 (33)	Philippines	864	0.21	-20.63
36 (37)	Belarus	851	0.20	22.86
37 (38)	Singapore	834	0.20	22.27
38 (42)	Australia	778	0.19	53.79

Ranking	Country	000tonnes%	share	% growth
39 (35)	Egypt	770	0.18	9.45
40 (36)	Slovenia	737	0.18	4.94
41 (41)	Pakistan	688	0.16	34.55
42 (43)	Ukraine	634	0.15	26.84
43 (40)	Chile	603	0.14	16.02
44 (44)	Colombia	521	0.12	20.16
45 (46)	Sweden	511	0.12	35.40
46 (45)	Nigeria	478	0.11	21.25
47 (47)	Peru	449	0.11	19.85
48 (50)	Austria	384	0.09	54.98
49 (49)	Cambodia	379	0.09	52.75
50 (48)	Finland	355	0.08	17.32
51 (51)	Switzerland	312	0.07	40.38
52 (52)	Israel	271	0.06	34.25
53 (55)	Myanmar	227	0.05	35.23
54 (54)	Hong Kong	223	0.05	26.43
55 (57)	Guatemala	175	0.04	40.38
56 (56)	Greece	163	0.04	15.41
57 (53)	Venezuela	147	0.03	-25.39
58 (59)	Laos	144	0.03	33.41
59 (58)	Denmark	132	0.0	39.83
60 (60)	Liberia	116	0.03	25.26
61 (61)	New Zealand	98	0.02	21.07
62 (63)	Cameroon	98	0.02	27.50
63 (62)	Bulgaria	85	0.02	9.34
64 (65)	Ireland	72	0.02	46.33
65 (64)	Ghana	68	0.02	25.37
66 (66)	Gabon	39	0.01	24.39
67 (67)	Guinea	31	0.01	23.93
68 (68)	D R of Congo	26	0.01	23.85
69 (69)	Bangladesh	24	0.01	43.46
70 (70)	PNG	12	0.00	20.29
	WORLD	420038	100.00	

Notes:

1. NR prices are assumed to be 1,844 \$/tonne and SR 2,415 \$/tonne.
2. Assuming the final value of the rubber goods, including all the value added is seven times the cost of rubber used.

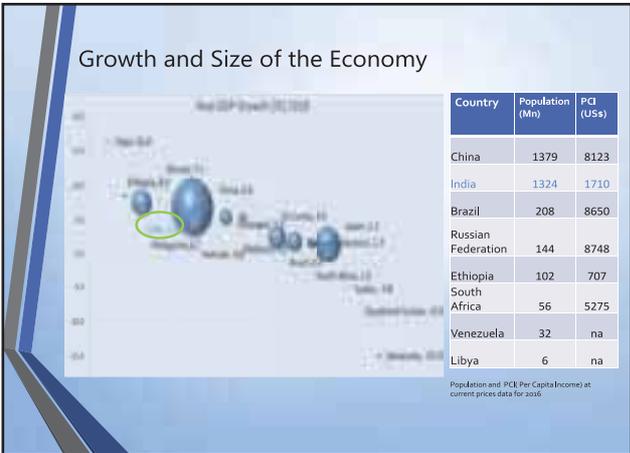
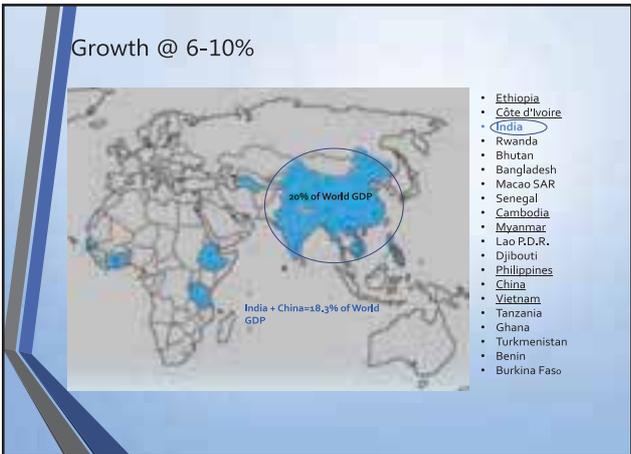
Transition in the Indian Rubber Industry : Opportunities and Challenges in the Way Forward



Rajiv Budhbraja
Director General, ATMA

1. Economic Overview : India (and Comparisons)
2. Riding High: Automobile Sector in India
3. Indian Tyre Industry: A Snapshot
4. Rubber Sectors: Concerns of Consuming Interests, Challenges & Opportunities

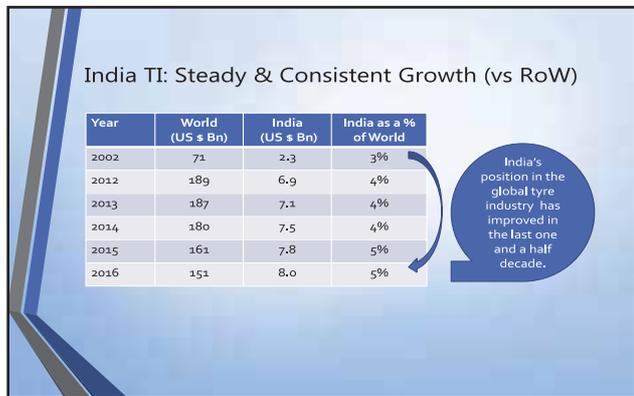
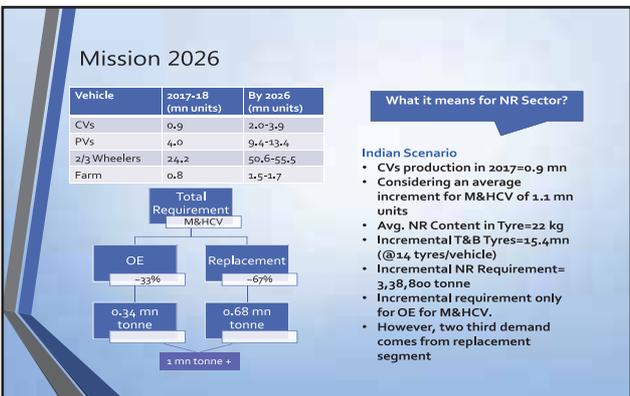
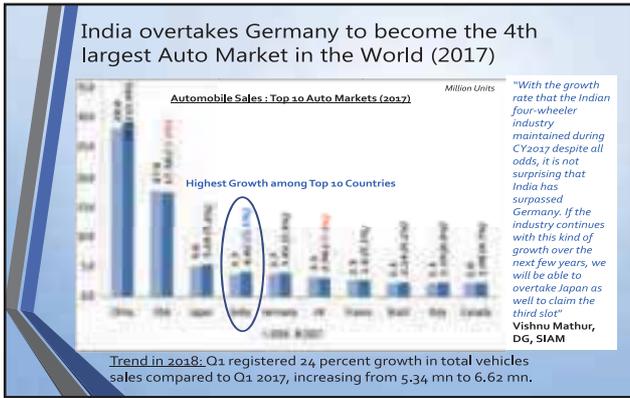
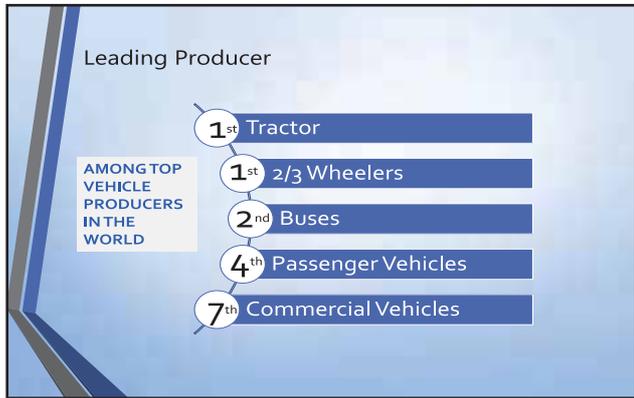
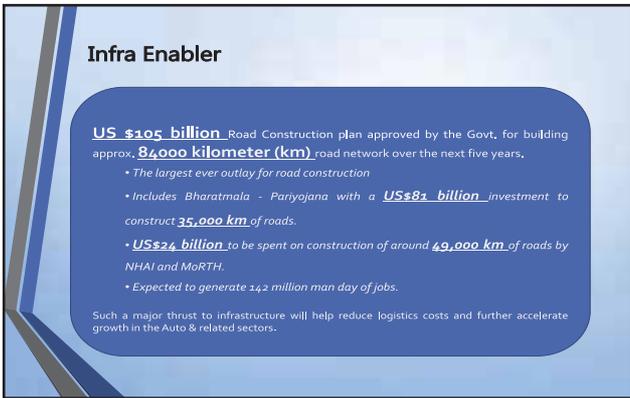
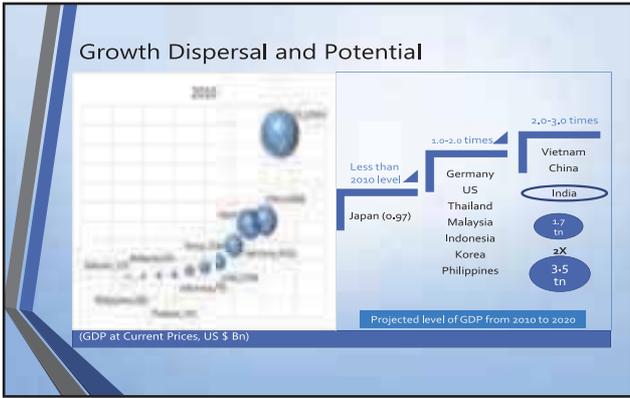
Economic Overview : India (and Comparisons)



Positional Changes

Country/Region	2000	2005	2010	2017	2023
Brazil	4	6	3	8	4
Russian Federation	1	3	5	6	8
India	7	2	2	2	1
China	2	1	1	1	2
South Africa	5	4	6	7	5
ASEAN-5*	3	5	4	3	3
EU	8	8	7	4	6
Advanced Economies	6	7	8	5	7

*Indonesia, Malaysia, Philippines, Thailand, Vietnam



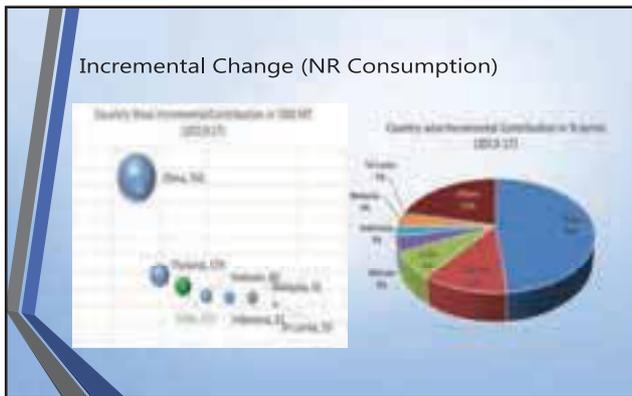
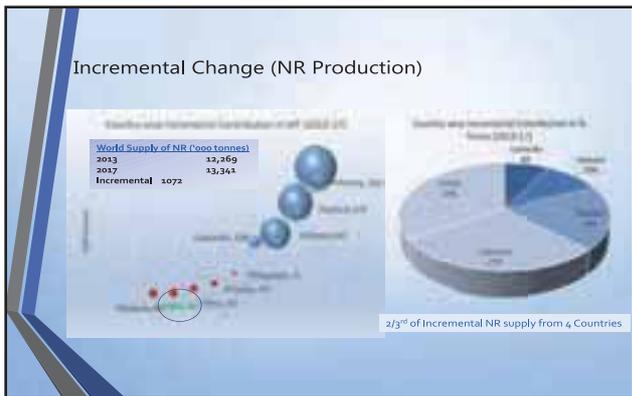
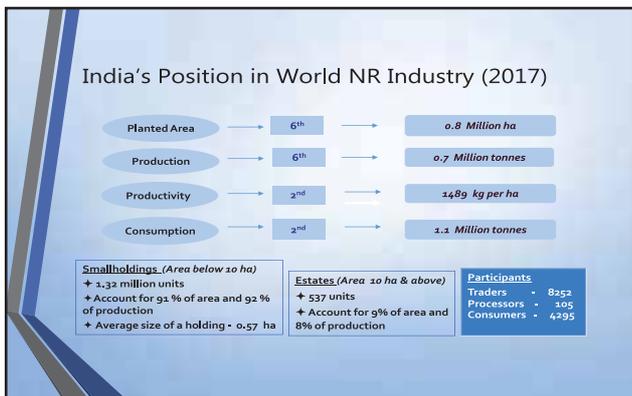


New Capex Investment in Tyre Sector

Project(s)	TBR (Units)	PCR + LT (Units)	2W/3W (Units)	Specialty & OTR (MT)	Others (MT)
Recently Commissioned	478,500	2,118,000	1,579,200	17,400	4,167
Greenfield	293,333	2,080,000	2,256,667	13,200	-
Brownfield	469,000	1,302,000	800,000	6,310	66,750
Total	1,240,833	5,500,000	4,635,867	36,910	70,917
Total (in Million)	(1.24)	(5.5)	(4.6)	(0.37)	(0.7)

Projects	Total investment in Rs. Crore (US \$Bn)
Recently completed	14,734 (0.3)
Greenfield	20,630 (3.2)
Brownfield	15,743 (2.5)
Total	51,107 (8.0)

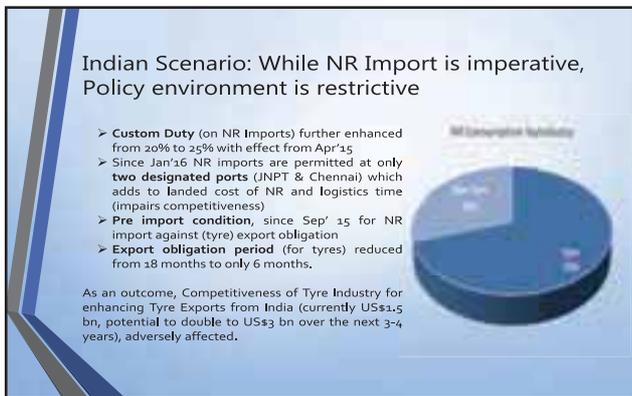
Note: TBR: Truck & Bus Radial; PCR-LT: Passenger Car Radial-Light Truck; OTR: Off the Road; 2W: Two Wheelers; 3W: Three Wheelers



India's NR Scenario

NR	2011-12	2015-16	2016-17	2017-18 (E)	2018-19 (P)
Production	904	562	691	694	730
Consumption	964	994	1044	1110	1200
Gap	60	432	353	416	470
Gap as a % of Consumption	6.2	43.5	33.8	37.4	39.2

From an excess of Production (vs Consumption) by ~32kMT in the year 2006-07, the estimated deficit in the current fiscal (FY18-19) is likely to be ~ 40%.



Profile of Rubber Product Import

2016-17	2016-17 Rs Crore (US \$mn)	2010-11 Rs Crore (US \$mn)	Share (%) 2016-17 (2010/11)	CAGR*
Tyres (TTF)	3400 (507)	2370 (475)	39 (43)	6.6
Other Articles of Rubber	5240 (782)	2900 (638)	61 (57)	8.8
Total	8640 (1290)	5070 (1113)	100	

* Based on Rs value

Culmination of RTAs



Fragmentation : India NR Production

Year	NR Production	Small Holdings	Nos
2006-07	852895	Less than 20 Ha	1.07 Million
2007-08	825345	Less than 20 Ha	1.09 Million
2012-13	913700	Less than 10 Ha	1.25 Million
2015-16	562300	Less than 10 Ha	1.31 Million
2016-17	691000	Less than 10 Ha	1.32 Million Units

> Small Holdings account for 91% of Area and 92% of Production while the remaining is contributed by Estate holdings (537 units) where average size is 10 ha+.

Paradox of Scale vs Fragmentation: India

Company/Parameter	Unit	2010-11	2016-17	Growth %
Maruti Suzuki (Leading PV Manufacturer)	Installed Capacity (mn units)	1.0	1.55	55
Hero Motocorp (Leading 2W Manufacturer)	Installed Capacity (mn units)	6.1	9.28	52
Tyre Industry Production*	Tonnage/month (KT)	130	205	57
NR Production	Thousand Tonnes	862	691	-20
Total Area	Thousand Hect	712	827	16
Tapped Area	Thousand Hect	477	436	-9
Productivity	Kg/Hect	1783	1402	-21

* Calculations Based on Avg Monthly Production

Structural Differences

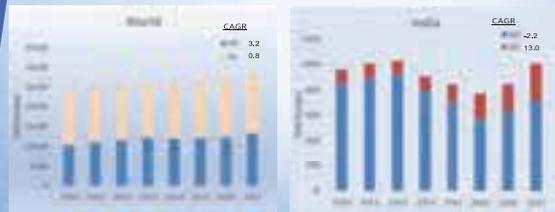
Indonesia	Thailand	India
<ul style="list-style-type: none"> 3.6 mn production 150 processors (RSS+Block+Latex) Mainly Block Rubber 	<ul style="list-style-type: none"> 4.4 mn production 150 processors (RSS+Block+Latex) Shift from limited Sheet to mainly Block 	<ul style="list-style-type: none"> 0.7 mn production 1.32 million units/ Growers? Mainly Sheet

Block Rubber Industry: 67 Units
Est. Production: 0.12 mn
Low Capacity Utilization (42%)

Sheet vs Block: India



Natural & Synthetic Rubber Production



Natural & Synthetic Rubber Consumption



Shift towards SR

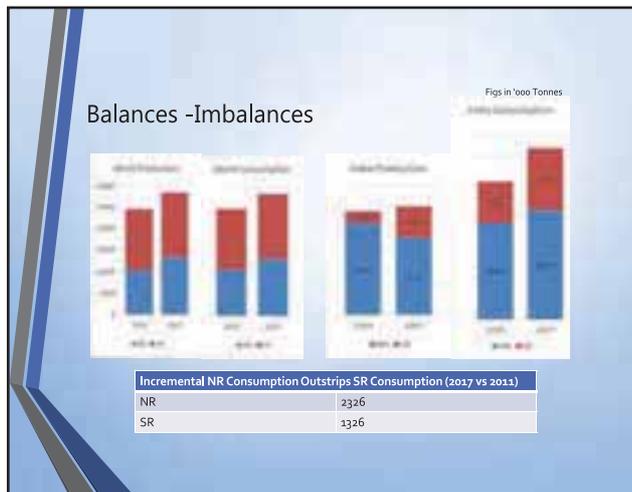
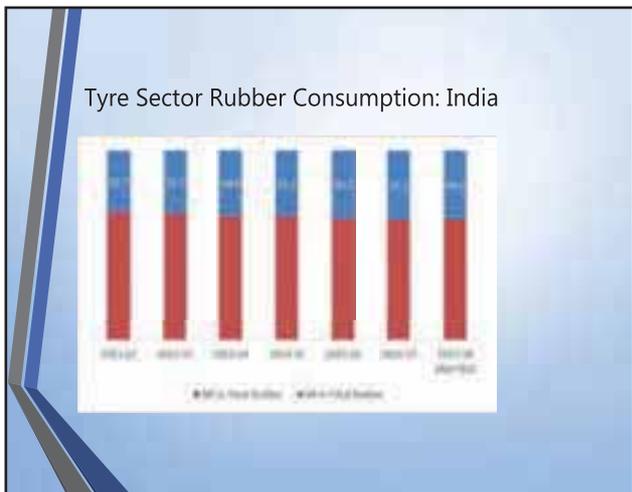
SR Consumption (%)

Year	World	China	India
2011	56	51	31
2013	55	50	33
2015	55	47	36
2017	54	47	36

> NR's prevailing Scenario led to Substitution Effect
> Product profile in India allowed such compositional changes

Tyre Production (Est)

Year	Passenger Car (MT)	Total Tyre Tonnage (MT)	Share
2016-17	4,35,697	24,65,003	18
2010-11	2,70,085	18,76,834	14



Way Forward

Opportunities

- To attract more investments in the country in view of the sustained growth of overall economy and automobile industry.
- To identify the area in the country where rubber production can be increased.
- Take advantage of the lower international prices of rubber by making trade policies favourable to the consuming industry.

Challenges

- To enhance the domestic rubber production and productivity given the pace of rising consumption demand.
- Ensure the availability of raw material at reasonable prices else the rising cost of material may lead to rise in prices of finished goods and overall inflation
- Respond effectively to the changing dynamics of the automobile industry at domestic and global front

Summing Up

ECONOMY

- Indian economy has **outperformed other emerging and developed countries** (GDP Growth) .
- The **worldview** on India, despite recent slowdown, is **still upbeat and positive**.

AUTO SECTOR

- The **axis of production** (commodities, manufacturing) is **shifting to Asia**, starting with NR plantation, major commodities and more recently, the automobiles.
- Within Asia, the **major rubber producing countries** (G6 for reference) have **outperformed** RoAsia / RoW
- India is **well poised** and moving up in global rankings as a **major auto manufacturing country** across all segments, CVs, PVs, 2&3W, Farm etc.
- Low vehicle penetration** makes India an attractive market for global and Indian automobile manufacturers.
- Government has identified **Automobile Industry as an engine of growth** and a 10 year Automotive Mission Plan (AMP) 2016-2026 has been put in place.

Summing Up

TYRES

- Auto sector will drive **growth in the component value chain**, especially tyre industry.
- Indian Tyre Industry comprises of **top global MNCs** having manufacturing presence in India as well as **large domestic Indian players**
- In recognition of the medium/long term opportunities, Tyre Industry has made **significant capex**, to the tune of US\$ 8bn in recent years
- Doubling tyre exports from India** (currently approx. US\$ 1.4bn) over the next 4-5 years has been identified as a **key priority** as all enablers are in place
- Tyres, being RM intensive product, has dependence across a diverse range from plantation crop (NR) to crude oil and steel based RMs;

RAW MATERIALS

- Domestic demand : supply imbalances are a matter of serious and ongoing concern for the Tyre Industry;
- The future of mobility envisions changes which challenge the limits of innovation, imagination and technology
- Tyre Industry is ready to partner and align with Auto Sector plans.
- RM Partners are expected to play an equally challenging and collaborative role.





INDIAN RUBBER INSTITUTE

(Registered under West Bengal Societies
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C/o RAEI Polymers & Chemicals Co.
7, Waterloo Street, Suit No. 5, 1st Floor, Kolkata - 700 069
Telephone: 033-2248 4413/ 2243 0218/ 6534 3103
Email: achi0218@bsnl.in/ akhourl@vsnl.com/ rm@hasetri.com

APPEAL

DR. D. BANERJEE CENTRE OF EXCELLENCE FOR RUBBER TECHNOLOGY EDUCATION, TRAINING, RESEARCH, TESTING AND SKILL DEVELOPMENT AT JSS SCIENCE & TECHNOLOGY UNIVERSITY, MYSORE

Indian Rubber Institute (IRI) is a non-profit organization involved into education of Rubber Industry Operatives and Professionals for several decades. The experience and knowledgeable faculty of Rubber Industry, Polymer & Rubber Institutes have come forward voluntarily to participate and impart knowledge to the professionals.

IRI also conducts regular courses and have instituted Diploma (DIRI) and Post Graduate Diploma (PGD-IRI) courses for upgrading knowledge of people associated with Rubber & Allied industry while working. The examinations are conducted at eight branches all over India. The Controller of Examination is Rubber Technology Centre, IIT Kharagpur. So far more than 3000 qualified rubber technologists were provided to Indian Tyre and Rubber Industries since its inception.

In order to substantially enhance this activity and to impart knowledge as well as to support rubber industry, small and medium scale in particular, IRI has undertaken setting up this "Centre of Excellence" which will house all types of facility for training, education, hands on experience besides undertaking development and testing for various industrial rubber products and tyres. This centre will be one of the approved training providers in India for Skill Development for the rubber sector under RSDC/NSDC, Govt. of India and an NABL accredited Rubber Product and Tyre Testing Centre.

This centre is being set up at the premises of JSS Science and Technology University, Mysore who were kind enough to provide IRI 10000 sq.ft area on long lease (62 years).

The construction of 32000 sq.ft building is under progress. It will have an auditorium with a seating capacity of 250, training halls (three Nos.), full-fledged Library cum Documentation centre, different laboratories for On the job training & testing like Rubber Processing Lab (Intermixer, 2 Roll Mill, Extruder, Baby Calender, Moulding, Auto clave etc.), Physical Testing Laboratory, Chemical testing Laboratory, Analytical & Characterization Laboratory, Rubber Product Failure Analysis Lab, Rheology Lab, Reverse Engineering facility, Tyre Testing Lab, Pilot Plant for new product development etc. The estimated cost of establishing the centre is Rs. 500 million (Rs. 100 million for Building, Furniture/fixtures, utilities etc. and Rs. 400 million for equipment & machinery).

The construction, commissioning and smooth running of this institute will be possible only with whole-hearted support from well-wishers from the global rubber fraternity. We are appealing individuals/organisations/society/ Universities/ Institutes/raw material suppliers/ equipment suppliers to whole heartedly support this noble cause by way of donation or adopting a Laboratory/Lecture Hall/Library cum Documentation Centre etc.

Your contributions in the form of cheque/DD in favour of "INDIAN RUBBER INSTITUTE", payable at Kolkata may please be sent to above address or may please transfer to account through NEFT/RTGS.

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Your contributions will be acknowledged.

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India pips Germany to become World's No. 4 car market

●Top-gear growth in sales of cars and SUVs has led to India becoming the fourth-largest passenger vehicle (PV) market globally for the first time ever, unseating Germany, in January and February 2018. With sales of 5,60,806 units in the first two months of the calendar year 2018, the country overtook Germany's tally of 5,31,100 units. As a result, it is now behind China, US and Japan in the global pecking order with Germany in the fifth position, followed by Brazil and France.

According to a study by the Society of Indian Automobile Manufacturers (SIAM), while China continued to dominate with sales of nearly 4 million units in January and February 2018, US at number two with 8,18,882 units and Japan at number 3 with 7,41,385 units saw significant contraction.

Germany's slip was predicted by its automotive industry body, VDA, earlier this year. According to VDA, the country is predicted to see a 2% contraction in its 3.4-million unit sales in 2018, while India is expected to see a 10% increase in the same period.

Accordingly, India should hit around 3.6 million units in 2018 sales, exceeding Germany's tally for the full calendar as well. India is also the only market in the top four that is on the growth track and is predicted to see a sharp increase in sales. Others like the



US and Japan are likely to be flat or negative, and even China was flat in the first two months of 2018. The VDA prediction puts China's 2018 tally at 25 million units, followed by the US at around 17 million and Japan at 4.3 million. The EU's cumulative numbers are expected to be 15.6 million units.

Domestic auto experts concur with that view. "The PV market is expected to witness 8-10% growth in FY18, helped by new model launches and favourable macro-economic environment, with the GDP growth rate expected to improve in the second half of FY18, and recovery in rural income," said EY partner and automotive sector leader Rakesh Batra. Latest global data show that India has overtaken Germany to become the fourth largest automobile market in the world. Automobile sales, including passenger and commercial vehicles, in Asia's third largest economy grew by 9.5%, the fastest among major global markets, last year to more than 4million units, outpacing Germany's 3.8-million vehicle sales, which rose by a modest 2.8% in the same period

A year of records for automobiles in India

●The Indian automobile industry registered record sales last financial year across passenger and commercial vehicles and two-wheeler segments with good monsoon and improved macro-economic conditions, buoying consumer sentiments. The trend is

expected to continue this fiscal.

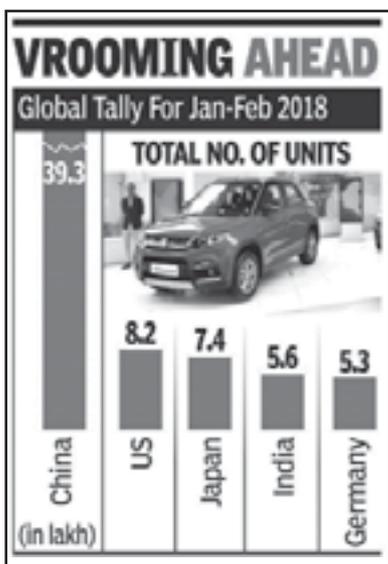
Sales of passenger vehicles grew 7.89% to 3,287,965 units last fiscal and demand from smaller towns and strong consumer preference for utility vehicles drove up numbers. While passenger car sales went up 3.33% to 2,173,950 units, utility vehicles jumped 20.97% to 921,780 units. Sales of utility vehicles accounted for 28% of total passenger vehicles sold in India last fiscal, up from 25% recorded in the previous year.

"Despite having a difficult year, the auto industry showed resilience.... Vehicle sales across categories have increased, except in passenger buses," said Vishnu Mathur, Director General, SIAM.

Auto sales were temporarily affected in the aftermath of the government's demonetisation exercise, migration to BS IV emission standards and on account of glitches stemming from nationwide implementation of the Goods & Services Tax (GST) last fiscal.

Given forecasts of a normal monsoon and improving sentiment in rural markets, SIAM expects passenger vehicle sales to grow in high single-digit in the current year. Commercial vehicle sales, too, are expected to continue to grow in strong double digits this fiscal with increased spends on infrastructure and mining projects driving up sales numbers. Commercial vehicle sales last fiscal stood at 856,453 units, which is an increase of 19.94% over 7,14,082 units sold in the year-ago period. Production of passenger vehicle crossed the four-million mark and utility vehicles breached the one-million mark for the first time in FY18. The year also saw the highest sales and production in passenger car and utility vehicles were down 1.51% to 747,287 units in 2017-18 against 7,58,727 units in 2016-17.

Mathur elaborated that while sales growth in the past few years slowed down in the top 20 cities, which contribute nearly 50% to the annual volume, demand has gained traction in smaller towns. "What we are seeing now is that there is more demand coming from smaller towns and semi-urban areas. Several major automobile companies are trying to



Indian auto industry impacted by falling Rupee

●With rising crude oil prices already having taken their toll, India's auto industry is being impacted by the depreciation of the rupee.

"Rupee depreciation is impacting the auto industry to an extent of erosion of profitability," said Shekar Viswanathan, vice chairman and whole-time director of Toyota Kirloskar Motor. The company is a joint venture between Japanese auto major Toyota and India's Kirloskar group. With the launch of the Yaris model, it has entered the highly competitive mid-sized sedan segment in India, with prices starting at Rs 875,000 (\$12,800).

In mid-May, the rupee was around the Rs 67/\$1, while crude oil prices were at \$80 a barrel.

go to these markets," Mathur added.

The upswing in demand also reflected in the two-wheeler segment where sales grew by 14.805 to a record 20,192,672 units. While sales of scooters rose 19.90% to 6,719,911 units, motorcycles increased by 13.69% to 12,613,241 units. Production peaked to 23 million units in the year under review.

Vehicle sales across categories registered a growth of 14.22% at 24,972,788 units in 2017-18.

"Presumably the best performance in the last six years by the sector...the year-end inventory push also has been effective. While the passenger car segment has been propped up by sale of utility vehicles, the performance of light commercial vehicles (LCVs) is significant and indicates all-round growth in the economy. Despite hurdles in the form of GST and tax rate revisions and customs imposition on import, the growth is encouraging. A performance the sector would like to keep up with next year," said Sridhar V, Partner, Grant Thornton India.

On the back of strong numbers, SIAM's Mathur said the Indian automobile industry could provide the answer to the challenge of employment generation, provided the growth environment is conducive.

Bajaj Auto profit beats estimates on commercial vehicle sales, exports

●India's second-largest two-wheeler manufacturer, Bajaj Auto, recently

posted a higher-than-expected net profit for the January to March 2018 quarter, due to steady sales of high-margin commercial vehicles, as well as rising exports.

For the period in question, profit stood at Rs 10.8 billion (\$159 million), compared with Rs 8.02 billion during the same quarter of last year, while total revenue soared by 30% to Rs 67.7 billion (\$994 million). Sales volume for the quarter was up 33% to 1.05 million units. Sales of commercial vehicles more than doubled, while motorcycle sales rose 22%, helped by the weaker base in the previous-year quarter, when demand was dampened by the cash shortage caused by the government move to pull back high-value currency notes.

The company said that higher sales in the commercial vehicle business were driven partly by a government measure to allow fresh permits to three-wheelers in the western Indian state of Maharashtra. More Indian state are expected to follow suit.

Ola to add 10,000 EVs, eyes a million by 2021

●On April 17, Softbank-backed cab aggregator Ola said it plans to add 10,000 electric vehicles, a majority being e-rickshaws, to its platform over the next 12 months as part of its 'Mission Electric' programme.

The Bengaluru-based company is aiming to get one million electric vehicles (EVs) on its platform by 2021 to boost the EV ecosystem in the country.

"Three-wheelers are a vital means of transportation and a source of livelihood for millions of people every day. It also represents an

immediate opportunity to improve the outcome for all stakeholders while reducing pollution across town and cities," Ola co-founder and CEO Bhavish Aggarwal said.

In May last year, Ola had launched its first EV project in Nagpur, which included electric cabs, auto rickshaws, buses, rooftop solar installations charging stations, and battery swapping experiments.

After more than four million 'electric' kilometers travelled and many lessons learned, we are significantly expanding our commitment to electricity mobility in India," Aggarwal said.

Ford to stop making all passenger cars except the Mustang

●Plummeting demand and falling profits from its passenger car segment has prompted US auto giant, the Ford Motor Co. to decide on end production



Jim Hackett, Ford CEO

of almost all its passenger cars, freeing up resources to produce more pickups, SUVs and crossover-utility vehicles, which are enjoying strong sales. Ford CEO Jim Hackett said the company planned to "feed the healthy parts of our business and deal decisively with the areas that destroy value."

By 2022, Ford will eliminate such familiar brands as the full-size Taurus, mid-size Fusion and sub-compact Fiesta. However the Detroit-based company says it will continue manufacturing its iconic and popular Mustang sports coupe.

In the US, the China-made Ford Focus will be offered as a crossover, allowing the company's plant in Wayne, Michigan to start manufacturing two new light truck models: the Ranger

pickup and the Bronco SUV. Ford plans to add five new SUVs over the next two years, as well as the midsize Ranger pickup.

Newer crossover-utility vehicles like the Ford Escape now account for half of the overall new vehicle market in the US. When pickups, vans and other light trucks are added, the total is 65% of the market. It is evident that there has been a significant slump in demand for sedans and coupes.

The growing popularity of pickups and SUVs has impacted major foreign auto manufacturers, especially Japanese makers who have long dominated in sedan and coupe sales.

Some auto makers in the US say they're hedging bets in case the demand for coupes and sedans surges again, especially if energy prices soar. That being said, light trucks are now more fuel efficient than ever, and there are many new hybrids and all-electric SUVs being produced.

Top 10 Bestsellers in India: Maruti and Hyundai

●Maruti and Hyundai continued to consolidate their leadership position in the Indian PV market. Between them, they account for the top 10 slots based on sales last fiscal. Both automakers have a lion's share in the compact car space, owing to a number of successful launches such



ZOOMING AHEAD

Category (% change)	2017-18
Passenger Vehicles	3,287,965 (7.89)
Commercial Vehicles	856,453 (19.94)
Three-Wheelers	635,698 (24.19)
Two-Wheelers	20,192,672 (14.80)
ALL	24,972,788 (14.22)

Domestic sales only; Source: Society of Indian Automobile Manufacturers (SIAM).

as Dzire, Baleno, Swift NSE -3.83 %, Grand i10 and Elite i20. Maruti Alto continued to top the sales charts, reporting sales of over 258,500 units last fiscal, followed by Dzire, Baleno, Swift and WagonR, in that order. Hyundai took the remaining three positions with the Grand i10, Elite i20 and Creta.

M&M- Pininfarina to drive in electric hyper car in 2020

●The late Italian designer Battista Pininfarina's dream to make a luxury car with his badge will come true under its new Indian owner - Mahindra & Mahindra. Announcing an electric hyper car in 2020, with a lofty aim to rival the Bugatti Chiron and Lamborghini, in the electric segment, the car under development will be sold "just under €2million" in limited numbers. The 88-year-old Italian engineering and design house, Pininfarina, is a subsidiary of the Mahindra Group. The \$19-billion Indian business house holds a



Anand Mahindra

significant majority stake jointly with its tech subsidiary Tech Mahindra in the Italian design house.

The new company Automobili Pininfarina, will, however, be a wholly-owned subsidiary of Mahindra & Mahindra. Paolo Pininfarina, chairman of Pininfarina, recently announced the venture, with Anand Mahindra and Pawan Goenka, Chairman and Managing Director, respectively of M & M, by his side.

Battista, Paolo's grandfather, had designed during his lifetime, several iconic car models for Ferrari and Lamborghini. One of the storied car design studios, credited to have had a hand in designing Ferrari P4/5, Sergio, F-12, 458, it will build a high-performance, luxury electric hyper car using race technology with support from Mahindra entities. It claimed to give the Bugattis and Lamborghinis of the world a run for its money.

"Branding is about storied history. Pininfarina is a hell of a story and it is a story of Batista and his dream," Anand Mahindra said in the interaction. "You (Paolo) and your team will complete that story," he added.

Mahindra spoke about the challenges that automobile companies face and cited examples of people predicting the industry's demise. Just as someone in the past made the famous remark, "the King is dead, long

live the King..." I say, the automobile industry is dead, long live the automobile industry," Mahindra said, indicating the transformational changes that the industry is undergoing to keep in step with customer and regulatory needs.

Mahindra did not give details of the investment for building an electric hyper car equivalent of Bugatti Chiron. But indications are that the investment will be about \$ 100 million, by the time they roll out four new models from the Automobili Pininfarina.

"We are a serious startup and writing a new chapter in the luxury brand world," Michael Perschke, CEO, of the new company said. In his previous assignment in India at Audi, Perschke is credited to have overtaken traditional rivals Mercedes and BMW. He will operate from Germany, with a small team and the car will be built in Pininfarina's facility in Italy.

In the last two years, two carmakers — Bugatti and McLaren — have ventured into the luxury hyper car space. Pininfarina will be the third. It is evident that luxury brands will have a bright future as customers will want performance with sustainability. So, Pininfarina's products will have zero emission from its tailpipes, Perschke said.

Tata Motors achieves 1 million sales milestone

●Tata Motors, which acquired Jaguar Land Rover (JLR) a decade ago, achieved sales of more than 1 million light vehicles for the first time in the year ended March 2018. India's largest automobile company by revenue registered a growth of 13% in FY18, the fastest in the past five years.

While JLR continues to build its reputation in evolved markets overseas and competes against the German trio of Mercedes, BMW and Audi, Tata Motors made a strong comeback in the domestic market, with over 20% growth last year. The company overtook Honda Cars India in the No. 4 slot and is now targeting the No. 3 position. JLR contributed the largest share with sales of 633,000 units, including those from its Chinese joint venture. A bounce back in the Indian market for both

Mercedes launching Maybach SUV

●At the recent Beijing Auto Show, held in Beijing, China, from April 25 to May 4, the German luxury car giant, Mercedes-Benz, said it was launching the Vision Mercedes-Maybach Ultimate Luxury concept. This ultraluxury SUV would be targeted at wealthy buyers who now prefer high-riding crossovers to sedans and will be a potential competitor for the Bentley Bentayga and upcoming Rolls-Royce Cullinan

The concept vehicle, which Mercedes says was inspired by Chinese influences, is expected to be based on the Mercedes GLS SUV and be sold as the Mercedes-Maybach GLS class. It will likely have a distinct grille and front fascia, like the Maybach S-class sedan. With the chauffeur-driven Asian market in mind, the reworked rear passenger compartment will give the rear-seat passengers more legroom and power-reclining seats. If this concept vehicle goes into production, it will be the second SUV from Maybach, which launched a small range of G 650 Landulet SUVs last year.

passenger vehicles and small commercial vehicles including pickup trucks, helped the group's global sales.

Tata Motors is only the second Indian car maker, after Maruti Suzuki, to cross the 1 million unit sales milestone. Maruti Suzuki is the Indian subsidiary of Japanese car maker Suzuki. "Crossing 1million is an important achievement as it highlights our ability to serve the needs of more than a million customers in various parts of the world," a Tata Motors Group spokesperson said in an email. JLR has managed to grab 10% of the global premium vehicle market and is on its own headed to the 1million unit sales landmark in the next three to four years.

The Tata Motors stock has risen over 300% following the acquisition of JLR in 2008, helping to add Rs 80,000 crore to shareholder wealth. According to Gaurav Vangaal, a senior analyst at IHS Markit, crossing the 1 million mark is the first major step towards becoming a truly global player. "With future regulatory requirements getting stringent and disruption by electrification and autonomous driving, it will require disproportionate amount of investment for Tata to keep growing its share and challenging the top three to five players," Vangaal said.

IHS Markit forecasts Tata Motors to cross about 1.5 million units light vehicles sales globally by 2022. The group global sales is likely to grow at 10% CAGR over the next 3 years.

Tata Motors and JLR have the advantage of joint development and sourcing and may even use each other's manufacturing facilities in

the future.

Consolidation seen in China's auto industry

●China, the world's largest auto market, which posted sales of 28.88 million units in 2017, may be looking at a period of consolidation. Industry experts and analysts believe that in the long run, the country's auto market cannot support more than 10 major automakers. China has a total of about 184 auto manufacturers — a number which includes all the country's foreign joint ventures, state-owned groups and private companies.

A round of consolidation is clearly expected among China's estimated automakers and will come at a time when the industry is being shaken by trends such as ride-sharing platforms and the growing popularity of new-energy vehicles.

The Chinese government has been offering huge subsidies since 2010 to speed up the development of the new-energy vehicle industry, making China the world's largest market for electric cars. These subsidies will be phased out by 2020 and the government plans to introduce a quota system next year that will mandate production of some new-energy vehicles. Automakers which adapt to this new system will thrive, while others will be pushed out of the market, according to Li Shufu, the CEO of China's largest private automaker, Geely Holding Group Co. Ltd.

In April, the Chinese government announced it would abolish the current 50% foreign ownership limit on electric vehicle-making joint ventures by the end of 2018 and will remove the ceilings on all commercial and passenger vehicles in 2020 and

2022 respectively. The end of these restrictions will negatively impact the country's large state-owned automakers, who have long relied on their joint ventures with foreign automakers.

Dong Yang of the China Association of Automobile Manufacturers said the country's automakers would need to embrace the age of the internet if they wanted to satisfy the demands of younger consumers. The other major trend, of ride-hailing platforms, means the concept of personal transportation could shift from owning a car to sharing a car. Dong predicted that about 10 automakers will come to dominate the domestic auto industry.

Mahindra & Mahindra steps closer to driverless tractors

● Taking a lead on technology, Mahindra & Mahindra, the world's largest tractor maker by volumes, has moved a step closer towards bringing the first driverless tractor in the country. The company recently rolled out a high-tech semi-autonomous tractor out of its manufacturing line in Nagpur. The soft launch of the same will be done in a month's time with select farmers.

To be sure, a semi-autonomous version has been rolled out as the regulation for driverless tractor still does not exist in the country.

These tractors offer a range of solutions that allows a farmer to deliver precision farming and is managed by a driver remotely. The company calls it a Pack 1 version. The development work on fully autonomous tractor called Pack 2 is also under works.

Speaking on the sidelines of the launch of the new Nuvo 65 horsepower tractor, Rahesh Jejurkar, president for the Farm Equipment Sector said the autonomous tractor pack 1, which will be seeded, is more of an advanced driver assist system. "Pack 1 is not driverless, we call it an intelligent tractor and there is a role of human. Think of a farmer having a remote in his hand and he is navigating sitting in the tractor. It is not just a feel-good technology; it brings in a lot of predictability into

performance and a lot of performance, which directly improves productivity," explained Jejurkar.

Mahindra & Mahindra is currently doing validation of Pack 2 version, which is driverless, and maybe introduced in the overseas market.

The autonomous tractor, boasts of features like Autosteer, a GPS-based technology that enables a tractor to travel along a straight line, auto-headland turn enables the tractor to orient itself along adjacent rows for continuous operation without any steering input from the farmer and an auto-implement lift. It is safer as well with technologies like geo fencing, which prevents the tractor going beyond a certain perimeter. It is remote controlled through tablet including start-stop in case of an emergency. With the deployment of this technology on Mahindra tractors, farmers can work on their fields for long hours without exposing themselves to harsh weather or difficult-operating conditions, feels the company.

Pak auto manufacturers see a rise in car sales

● A press report released by the Pakistan Automotive Manufacturers Association (PAMA) says the country's auto industry is experiencing continuous growth. Sales of locally assembled automobiles, including jeeps and light commercial vehicles were up 9% in March to 22,380 units, compared with 20,505 units in the same month of 2017.

During March 2018, a nominal decline of 1% was recorded when compared with February, indicating a slowdown in demand growth. The first quarter of the calendar year is generally a robust period for auto sales in Pakistan.

According to a production versus sales data compiled by PAMA, local assemblers sold 23,700 units of SUV's, Sedans and CUV's in January 2018- up 13% as compared to the same month of the previous year. This growth was attributed to the effect of taxation policies, buying power and increasing demand from ride-hailing services such as Uber and Careem, which have had a major

impact on the Pakistani auto industry in the past two years. Suzuki had to halt production of the Wagon R in light of a backlog of orders and there has been a 30% increase in 1000cc and below cars. Cumulatively, industry sales during the seven months of the fiscal year 2018 were up 29% to 147,838 units.

Daimler India sales zoom in Q1

● Daimler India sold about 6,200 BharatBenz trucks in the domestic market in the January-March quarter, registering an increase of 66% over the year-ago period.

Daimler India Commercial Vehicle (DICV), the Indian arm of German automotive major Daimler AG, has begun 2018 with a bang.

It has seen a significant increase in sales and market share in the medium and heavy commercial vehicle market (M&HCV-trucks) during the January-March quarter.

DICV, which follows the calendar year for its accounts, has sold about 6,200 BharatBenz trucks in the domestic market during Q1, registering an increase of 66% over the year-ago period, according to the details provided by Daimler AG in Germany.

The company has also increased its market share during the quarter to 8.7% (7.2% in the heavy-duty truck and upper-medium truck market). DICV's bus sales grew 83% to 340 units during the quarter.

SAIC's new \$790mn plant in Southern China

● In a move intended to develop a presence in the fast-growing regional market and possibly function as a base for exports to Southeast Asia, China's SAIC Motor is setting up an assembly plant in Ningde, in the country's southeastern Fujian province

SAIC Motor, China's largest carmaker by capacity, has started construction of the 5 billion yuan (\$790 million) plant, which will have an annual capacity of 240,000 passenger cars. The plant will make SAIC's MG and Roewe brand vehicles and will start production late next year. The Fujian facility will be the Shanghai-based carmaker's fourth plant for the two

Pak auto industry protests dissolution of Engineering Development Board

●Following the decision by Pakistan's government in April to disband the Engineering Development Board (EDB), there was an outcry from the country's auto assemblers and their vendors. Meanwhile, another auto group hailed the decision. Earlier, the country's Economic Survey 2017-18 had highlighted six initiatives of the board for the engineering sector.

The Chairman of the Pakistan Association of Automotive Parts and Accessories Manufacturers (Paapam), Iftikhar Ahmed, sent a letter to Prime Minister Shahid Khaqan Abbasi saying the hasty dissolution of the EDB had shocked parts manufacturers in the country. Paapam has a membership base of over 400 tier-1 units and over 3,000 small and medium enterprises throughout the country.

The EDB was established under the banner of the country's Planning Commission, with the aim of

boosting Pakistan's industrial sector. Ahmed maintained that in the initial phase, the board's performance was excellent as it functioned as a pivot of industrial growth in the country and one window facilitation centre for the industry. The EDB played the role of a bridge between the industry, the Ministry of Commerce (MoC), the Ministry of Industries and Production (MoIP) and the Ministry of Finance. It regulated the issuance of input-output ratio certificate for the smooth running of automotive/engineering industry and the formulation of policies in consultation with major stakeholders.

Ahmed further said the disbanding of the EDB may tantamount to depriving Pakistan's automotive/engineering industry of the one window facility and that the appointment of a competitive CEO could get this ailing institute, which still possesses the capacity to augment the country's engineering base, back on track.

brands in China, following plants in Shanghai, Nanjing in Jiangsu province and Zhengzhou in Henan province.

According to Cui Dongshu, secretary general of the China Passenger Car Association, the new base can help the company be more agile in responding to fast-growing demand in southern China, including the big-selling Guangdong province.

The Roewe brand was created in 2006 based on Rover technology that SAIC bought from failed British carmaker MG Rover. It has also owned the MG brand since 2007, after acquiring the brand's previous owner, Nanjing Automobile. In China, SAIC also makes Buick and Cadillac cars with US auto giant General Motors, and assembles the Passat and Tiguan models in China with Volkswagen.

SAIC Motor is aiming for overseas sales to top million unit mark by 2025. Last year, sales were up by 6.8% to 6.93 million units, exceeding average growth of the Chinese car industry by more than double. This growth was attributed to strong sales of MG and Roewe models.

Auto prices soar in Iran

●Iran's auto industry is under scrutiny, as automobile prices rise, having gone up by 10% in just a few weeks to mid-June. There has been public outrage over the hike. Rising auto prices have been blamed on rampant inflation, the adverse effect of the currency rate, as well as the stockpiling of vehicles by some of the country's major automakers.

In response, the Iranian Parliament summoned the CEO's of Iran's two major auto makers, Iran Khodro and SAIPA, as well as Industries Minister Mohammad Shariatmadari, to present their arguments. Certain lawmakers allege that the two companies have stockpiled vehicles, leading to price increases, further detailing that Iran Khodro has stockpiled 30,000 vehicles while SAIPA has done the same with 60,000 units. The automakers have produced those vehicles receiving subsidized currency from the government at the rate of 32,000 rials/\$1. With the dollar-rial exchange rate unified at 42,000/\$1, the carmakers are now hoping to sell the cars at excessively higher prices.

The foreign exchange market in Iran has been in a state of upheaval since December 2017.

As NAFTA is renegotiated, Japan auto body hopes for low tariffs

●As the U.S. pushes for new terms for the NAFTA (North American Free Trade Agreement), including increasing the requirements for locally produced content of cars made in the three signatory nations (the U.S., Mexico and Canada) where Japanese automakers have factories, Japan's automakers are hoping the U.S. will keep tariffs on vehicles and components low and maintain free trade relationships.

In an attempt to protect American

automakers, the U.S. government is also said to be considering tougher environmental rules for imports.

Seiichi Nagatsuka, an executive member of the Japan Automobile Manufacturers Association, explained that the global auto industry has a complex supply chain, so Japanese auto makers hope to see regulations that will allow for free trade, as well as low tariffs and trade transparency maintained through rules.

The incoming chairman of the Japan Automobile Manufacturers Association, Akio Toyoda, also serves as president of Toyota Motor Corp.

The U.S. accounts for one-third of global vehicle sales at Japan's top three automakers - Toyota, Nissan and Honda, but increased tariffs and vehicle and component imports could make their vehicles more expensive in the country. Most of Japan's major automakers operate plants in the U.S. and its leading three locally manufacture the majority of vehicles they sell in that country. The top three Japanese automakers also produce vehicles in Mexico, while Toyota and Honda also operate plants in Canada, so they all could suffer if a revised NAFTA raises tariffs on vehicles and parts made in those two nations.

In retaliation for U.S. tariffs on steel and aluminum imports imposed in March, Japan is considering tariffs on U.S. exports worth \$409 million. Japan is the only major U.S. ally which has not received exemptions from the duties.

India to grow 7.2% remain fastest in FY 19: Deloitte

● With the disruptive impact of demonetisation and GST waning, the Indian economy is expected to grow 7.2% in 2018-19 on the back of an uptick in investment activity, a new Deloitte report said.

The report, titled India Economic Outlook Report 2018, highlighted that the Indian economy has once again regained the tag of the “fastest-growing economy”.

The economy crossing the 8% rubicon now largely depends on how effectively the various policies, especially those related structural and infrastructure reforms, are implemented, the report that was released on April 26 said.

“The main message from our report is that the disruptive impact of demonetisation and GST seems to be over and we can expect much higher GDP growth this fiscal than 2017-18,” Richa Gupta, senior Economist and Senior Director Deloitte India, said.

Walmart acquires 77% stake in India's e-commerce major Flipkart for \$21 billion

● Ending nearly two years of negotiations, US-based Walmart Inc has signed a definitive agreement to invest approximately \$16 billion for an initial stake of about 77% in Indian e-commerce giant Flipkart to become the largest shareholder in the Flipkart group.

With this acquisition, Flipkart's total valuation stands at a little over \$21 billion, turning its two co-founders, Sachin and Binny Bansal (unrelated to each other), into billionaires. However, Walmart's shares dropped nearly 5% before the opening bell in the US, wiping out over \$10 billion in market cap.

“India is one of the most attractive retail markets in the world given its size and growth rate, and our investment is an opportunity to partner with the company that is leading transformation of e-commerce in the market,” said Doug McMillon, Walmart's President and Chief Executive Officer.

Walmart Inc, headquartered in Bentonville, Arkansas, was founded by Sam Walton and is controlled by the Walton family.

Walmart's investment includes \$2 billion of new equity funding. This funding will be used to help Flipkart accelerate growth in the future. While the immediate focus will be on serving customers and expanding the business, Walmart said it supports Flipkart's ambition to transition into a publicly-listed, majority-owned subsidiary in the future.

Remittances to India up by 10% at \$69 billion in 2017

● Remittances to India from abroad rose in 2017 after declining for two consecutive years and touched \$69 billion, still a little short of the \$70.4 billion reached in 2014. Outflows of remittances from India, too, continued to rise reaching \$5.7 billion, according to a World Bank report.

The 9.9% increase in remittance inflows in 2017 was enough to ensure that India retained its long-held position as the largest destination of remittances from international migrants, according to the report titled Migration and Remittance Outlook. Of the \$5.7 billion sent home by foreigners working in India, Bangladesh accounted for over \$4 billion or about 71%.

The data also shows that Indians constitute the largest diaspora population, making it the largest source of labour for the world market. In 2017, 16.4 million Indians were living abroad. Mexico and Russia had 11.9 million and 11 million people respectively working in foreign countries. China has the fourth-largest overseas population at slightly over 10 million.

Although Bangladesh and Pakistan have significant migrant populations, this is not reflected in their remittance receipts. Legal international migration is often seen as a rather costly economic investment. Hence only relatively well-off sections are able to afford it. The increase in income levels in China and India and the ever-increasing presence of expat community in Western world helps augment migration from these countries to the West.

Of the 131 countries from where India received remittances, UAE contributed the highest, \$13.8 billion or about 20%, followed by the US, Saudi Arabia, Qatar and UK. There were 12 countries from which India received excess of \$1 billion each with West Asia region accounting for 55.6% of its remittance receipts. Nepal and Sri Lanka received 17.9% and 9.1% of remittances flowing out from India. The three neighbours got about 98% of remittances from India.

Indians sent record amount of money (\$1.2 billion) abroad in January 2018

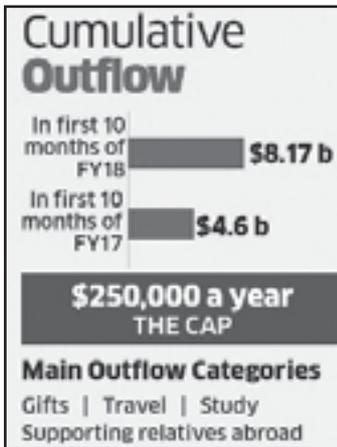
● Indians sent record remittances overseas in January, more than doubling from a year earlier, as more people funded children's education in foreign universities, spent on tourism and sent money and gifts to their relatives abroad, data from the central bank showed.

Outbound remittances by individual residents touched a new high of \$1.2 billion in January, according to Reserve Bank of India's data. Cumulative outflows in the first 10 months of this financial year were \$8.17 billion, compared with \$4.6 billion in the same period a year ago.

Resident Indians can send up to \$250,000 per year to their relatives abroad for certain expenses, including select investments. Some are helping to create long-term income avenues for their overseas beneficiaries. Four categories — gifts, maintenance of relatives abroad, travel and study — accounted for more than 90% of the total flows.

“It is clear Indians are travelling abroad more and also high net worth individuals are encouraging their offsprings to study abroad and sponsor their education,” said Moin Ladha, a partner at law firm Khaitan & Co.





The RBI allowed Indians to send money abroad under various accounts after the country's foreign exchange reserves crossed \$100 billion in 2003.

The outflows were initially capped at \$50,000 a year and progressively increased to \$250,000 a year per person.

"The overall amount is still insignificant to create any systemic risk," said Ladha. An outflow of \$8 billion from foreign exchange reserves of over \$426 billion is not a reason to worry for economists. Furthermore, expat Indians sent \$67 billion to India in 2017.

Foodgrain output at record 279.5 mt in 2017-18

●A good monsoon in the previous year — the second one in row — will help the country to a record foodgrain harvest of over 279.5 million tonnes (mt) in 2017-18, which was nearly 5 mt or 1.6% more than the previous year, according to the third advance estimates of food and commercial crops released by the Agriculture Ministry on Wednesday. In comparison, the total foodgrain output in 2016-17 was at 275.11 mt.

While the total output of both rice and wheat climbed new heights of 111.52 mt (109.7 mt) and 98.61 mt (98.51 mt) respectively, the bigger surprise was on the pulses front whose production crossed 24.5 mt — up 1.4 mt from 23.13 mt in 2016-17.

Exports dip in March, but end FY2018 with 9.8% with rise

●India's exports dipped after a gap of four months in March but finished 2017-18 with a healthy rise of 9.78%

India billionaire count to rise 3 times by 2027

●India has the third largest number of billionaires in the world, and in the next decade, as many as 238 additional ultra high net worth individuals will join this elite club, says a report. According to AfrAsia Bank Global Wealth Migration Review, India currently has 119 billionaires, and this number is expected to swell to 357 by 2027.

Over the next 10 years, while India is expected to create 238 additional billionaires, its neighbour China is likely to add as 448 such individuals. By 2027, the United States is likely to have the maximum number of billionaires at 884, followed by China (697), and India (357) in the second and third positions, respectively.

Billionaires refer to individuals with net assets of USD 1 billion or more. Other countries that are expected to create significant number of billionaires over the next decade include Russian Federation (142), United Kingdom (113), Germany (90) and Hong Kong (78). Globally, there are 2,252 billionaires at present, and this number is expected to increase to 3,444 by 2027.

In terms of "total wealth" — the private wealth held by all the individuals living in each country — India is the sixth wealthiest country in the world with a total wealth of USD 8,230 billion. The US is the wealthiest country in the world with a total wealth of USD 62,584 billion, followed by China (USD 24,803 billion) and Japan (USD 19,522 billion). Factors that will help in wealth creation in India include, large number of entrepreneurs, good educational system

to \$302.84 billion. The 0.7% decline during March was mainly on account of contraction in shipments of key sectors such as petroleum and gems and jewellery. The last time exports fell was in October 2017, when they had declined by 1.1%

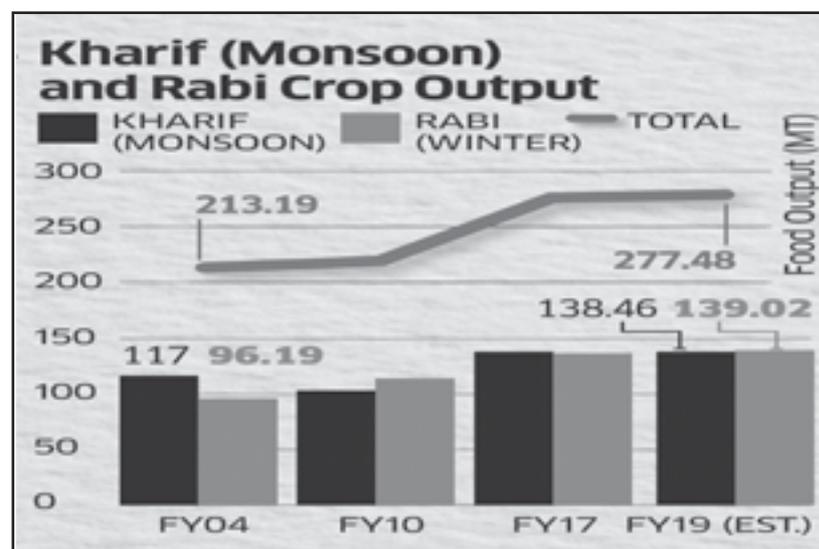
Imports during the month under review rose by 7.2% to \$42.8 billion, leaving a trade deficit of \$13.7 billion, according to data released by the Commerce Ministry. During 2017-18, imports increased by 19.6% and the trade deficit widened to \$156.8 billion

during the fiscal as compared to \$108.5 billion in 2016-17.

The country's merchandise exports crossed the \$300 billion mark in 2017-18 after a gap of two financial years. The figure stood at \$310.30 in 2014-15.

The trade deficit — the difference between exports and imports — of \$156.83 billion during the fiscal is the highest since 2012-13, when it was at \$190.30 billion.

Expressing concern, the Federation of Indian Export



Organisations (FIEO) said it is worried about the export growth in labour-intensive sectors such as gems and jewellery, textiles, jute and agri products.

These sectors are facing the problem of liquidity as banks and lending agencies are tightening their norms, which does not augur well for exports for the new fiscal, it said in a statement.

“Though the global scenario reflecting forecast for global trade by WTO in 2018 at 4.4% and may moderate to 4% during 2019 shows encouraging scenario for global exports, however trade tensions may pose challenges for exports,” it added.

Oil import bill to jump by 25%

India’s oil import bill is likely to jump by a quarter to \$87.7 billion in the current fiscal year which ends soon as international oil prices have surged.

India had imported 213.93 million tonnes (MT) of crude oil 2016-17 for \$ 70.196 billion. For 2017-18, the imports are pegged at 219.15 MT for \$ 87.725 billion.

The weather office forecasts a normal monsoon this year, with rainfall likely to be 97% of the long-term average, auguring well for agriculture and overall economic revival. A healthy rainfall is also crucial politically as this is the last monsoon before the 2019 general elections. The India Meteorological Department (IMD), which has a strong track record of making accurate forecasts, said the probability of normal rain in the June-September season.

The entire deal is considered to be the largest e-commerce deal in the world and will be financed through a mix of debt and cash on hand. Walmart is also willing to let other potential investors pick up stakes in Flipkart during subsequent rounds, which will see its stake go down, while retaining majority control.

The remainder of the 23% stake will be held by some of Flipkart’s existing shareholders, including co-founder Binny Bansal, who will be the group CEO, Tencent Holdings Ltd, Tiger Global Management LLC and Microsoft Corp. SoftBank, Accel Partners, Naspers, and IDG have exited the company with this deal.

RATES OF INDIAN RUPEE

Currency	28.05.18	27.03.18	31.01.18
1 US \$	0.01483	0.01539	0.01572
1 Euro	0.01275	0.01241	0.01264
1 Pound	0.01114	0.01091	0.01107

THE BIG DEAL

Walmart to invest \$16 billion into Flipkart group to buy 77% stake. This includes \$2 billion as equity. The entire funding will be through debt and cash on hand



This investment will help fuel our ambition to deepen our connection with buyers and sellers and to create the next wave of retail in India

BINNY BANSAL, Co-founder and group CEO, Flipkart



India is one of the most attractive retail markets in the world, given its size and growth rate, and our investment is an opportunity to partner with the company that is leading transformation of e-commerce in the market

DOUG McMILLON, President and CEO, Walmart



FLIPKART GRABS THE BIG BUCKS

	Walmart	Flipkart	Amazon	eBay	Alibaba
Market Cap (ind bn)	253	21*	773	38	503
Revenue in FY18 (ind bn)	500.3	4.6	103	9.9	37.8
Market cap to sales multiple	0.5	4.6	4.0	3.8	13.3

* Based on Walmart-Flipkart deal ** For Amazon, eBay and Alibaba, the revenues are for the last reported twelve months. Source: Bloomberg

FLIPKART STORY



Sachin Bansal

Sept 15, 2007: Two ex-employees of Amazon, Sachin and Binny Bansal, who were classmates at IIT-Delhi, launch an online bookstore, Flipkart. Their office: a 2-bedroom house

March 3, 2010: Pioneers Cash-on-Delivery payment mode. Launches logistics arm Ekart. Introduces 30-day return policy. Makes its first acquisition. Buys social book recommendation portal WeRead. Expands categories to include Music, Movies, Games, Electronics and Mobiles

March 6, 2012: Launches mobile shopping app. Acquires electronic e-tailer, Letsbuy

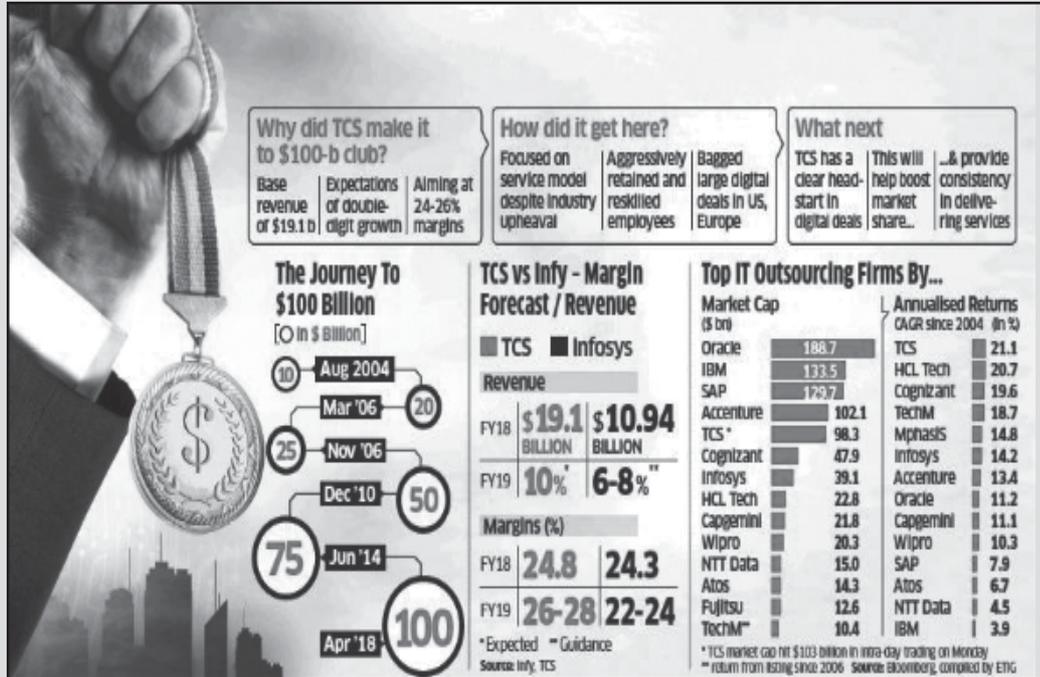
Oct 6, 2014: Becomes the first Indian internet retailer to register \$1.9 billion gross merchandise value (GMV). Acquires fashion e-tailer Myntra. Begins exclusive associations, starting with Moto and Xiaomi. Kicks off India’s largest online sale — Big Billion Day — in October. Introduces Same Day Delivery Guarantee

Sept 12, 2016: Binny Bansal takes over as CEO. Sachin Bansal becomes executive chairman. Launches no cost EMI. Acquires UPI-based payments’ start up, PhonePe. Acquires Jabong. Valuation grows to \$15.2 billion

March 14, 2017: Kalyan Krishnamurthy named new Flipkart CEO. Binny Bansal takes on reins of Flipkart Group as Group CEO. eBay India becomes part of the Flipkart Group. Raises \$1.4 billion from Tencent, eBay & Microsoft with valuation at \$11.6 billion

TCS wears \$100-billion cap

● On April 23, Tata Consultancy Services became the second Indian firm after RIL in 2007 to cross \$100 bn (around Rs 60,000 cr) in market capitalisation, in the process accounting for 4.5% of India's total m-cap of \$2.2tn. TCS' m-cap hit \$103 bn.



Nearly 1 million new tax filers added in 2017-18

● More Indians are now filing tax returns with nearly 1 crore new filers joining the system in 2017-18 as the revenue department reported robust increase in direct tax receipts.

The tax department said during 2017-18, 6.8 crore income tax returns were filed - up 26% from previous year's Rs 5.4 crore returns. There has been a significant increase in the number of I-T returns filed in the last four years on the back of a sustained drive undertaken by the government to expand the tax base and its campaign against black money.

The rollout of goods and services tax (GST) is expected to help boost revenues on the indirect taxes front. Healthy increase in direct tax receipts helped the revenue department cross the Budget estimates for 2017-18. Direct tax receipts totalled Rs 9.9 lakh crore, up 17.1% than the net collections of 2016-17. The net direct tax receipts represent 101.5% of the Budget estimates of Rs 9.8 lakh crore and 99% of the revised estimates of Rs 10 lakh crore in 2017-18.

"I hope this Rs 9.9 lakh crore will reach up to more than Rs 10 lakh crore. At least in the next three to four days, we will get adjustment of Rs 5,000 crore. It will be a landmark if we achieve Rs 10-lakh-crore figure in current year," said finance secretary Hasmukh Adhia, who is also the revenue secretary.

CBDT chairman Sushil Chandra said more collections are likely to come and help raise the figures. He attributed the robust receipts to the government's efforts to use data and information to rope in new taxpayers.

"This was because of continuous follow-up by our

Many more Indians are paying income tax...

6.8cr the number of tax returns filed in 2017-18, **26% higher** than previous year's 5.4 crore

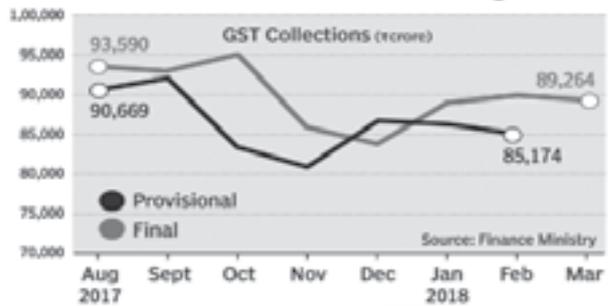
1cr people filed tax returns for the first time in 2017-18 — **16.3% higher** than last year's figure of 85.5 lakh

...which led to higher than estimated direct tax collections

% GROWTH IN COLLECTIONS IN 2017-18 OVER 2016-17



...and GST revenues are recovering too



department. We have issued a large number of SMSs, emails on the basis of data with us. Because of which, new returns have been filed and around Rs 13,000 crore of self-assessment tax has come in the last two months due to continuous follow-up by the department," he said.

"In a non-intrusive manner, we have intimated the assesseees about their assets, properties and that's why they have filed returns," Chandra said.

U.S. Q1 growth slows to 2.3% from 2.9%

●As consumers reduced their spending, US economic growth slowed during the January to March 2018 quarter to 2.3%, following a growth rate of 2.9% in the last quarter of 2017, and gains of over 3% in the previous two quarters.

Still, the growth was better than expected, since many economists had forecast that US growth would fall below 2% in the first quarter, reflecting a slowing consumer spending after heavy spending in the October to December 2017 period. Analysts expect growth of over 3% in the April to June 2018 quarter, as the low unemployment rate and the initial impact of the \$1.5 trillion in tax cuts is felt.

There was a fall in US consumer spending — which accounts for 70% of economic activity — from a 4% growth rate in the fourth quarter to a 1.1% rate in the first quarter. That was balanced out to some extent by gains in inventory building by businesses and a lower trade deficit.

US April jobless rate falls to 3.9%

●The US Bureau of Labour statistics reports that the country created jobs at a moderate pace in April. Non-farm employment increased by 164,000 jobs, up from 135,000 in March, but below the predictions of various economists of 192,000. The country's unemployment rate fell to 3.9%, from 4.1% in March, the lowest level since December 2000.

US wants China to cut trade deficit by \$200bn

●During recent high-level trade talks, the Trump administration has asked China to reduce its trade deficit with the US by \$200 billion by the end of 2020. The trade deficit between the world's two largest economies was at a record \$375.2 billion in 2017, in China's favour. The talks were aimed at defusing tensions between two countries, who are on the brink of a trade war.

The US also demanded that China immediately stop providing subsidies

to industries listed in a key industrial plan, and that it ends some of its policies related to technology transfers.

Saudi, Softbank JV for biggest solar park

●Saudi Arabia and Softbank Group Corp signed a Memorandum of Understanding (MoU) to build a \$200 billion solar power development that's exponentially larger than any other project.

Softbank founder Masayoshi Son, known for backing ambitious endeavors with flair, unveiled the project recently in New York at a ceremony with Saudi Crown Prince Mohammed Bin Salman. The powerful heir to the throne of the world's largest-crude exporter is seeking to diversify the economy and wean off a dependence on oil.

The deal is the latest in a number of eye-popping announcements from Saudi Arabia promising to scale up its access to renewables. While the kingdom has for years sought to get a foothold in clean energy, it was only in 2017 that ministers moved forward with the first projects, collecting bids for a 300-megawatt plant in October.

At 200 gigawatts, the Softbank project planned for the Saudi desert would be about 100 times larger than the next biggest proposed development and more than double

what the global photovoltaic industry supplied last year, according to data compiled by Bloomberg New Energy Finance.

"It's a huge step in human history," Prince Mohammed said. "It's bold, risky and we hope we succeed doing that."

If built, the development would almost triple Saudi Arabia's electricity generation capacity, which stood at 77 gigawatts in 2016, according to BNEF data. About two thirds of that is generated by natural gas, with the rest coming from oil. Only small-scale solar projects are working there right now.

Son said he envisions the project, which runs the gamut from power generation to panel and equipment manufacturing, will create as many as 100,000 jobs and shave \$40 billion off power costs. The development will reach its maximum capacity by 2030 and may cost close to \$1 billion a gigawatt, he said. "The kingdom has great sunshine, great size of available land and great engineers, great labour, but most importantly, the best and greatest vision," Son said.

Where the ultra-wealthy live

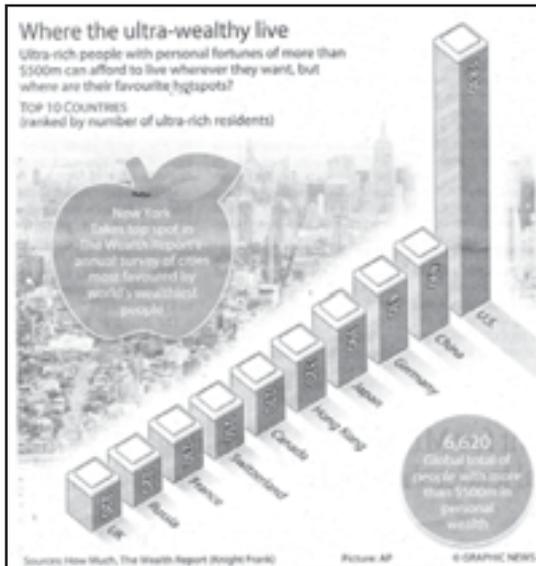
●Ultra-rich people with personal fortunes of more than \$500m can afford to live wherever they want, but where are their favourite hotspots?



Shaikh Mohammed Bin Salman with Masayoshi Son (Softbank)

Top 10 Countries

(Ranked by numbers of ultra-rich residents)



Raghuram Rajan among contenders for top at BoE: report

●Former RBI Governor Raghuram Rajan has been named as one of the possible contenders for the top job at the Bank of England (BoE), accordingly to a report by the UK-based Financial Times.

“Attracting Raghuram Rajan, the highly-respected Chicago-based economist and former Reserve Bank of India Governor, would be a coup, as would securing Agustin Carsten, Mexico’s central bank chief and the new general manager of Bank of International Settlements,” said the article.

UK Chancellor of the Ex-chequer Philip Hammond is starting the process to select the next BoE Governor to replace Mark Carney in 2019.

Hammond, accordingly to the article, said he had already begun looking for candidates in forums such as the IMF spring meetings in Washington.

Brexit-ready

The article said that Hammond’s comments showed his willingness to look abroad for Carney’s successor and that he was seeking a figure who can make an impact on the global stage as the UK prepares for Brexit.

Rajan, who is currently a Professor of Finance with the University of Chicago at the Booth School of Business, was RBI Governor between September 2013 and September 2016. He was the first non-westerner and the youngest Chief Economist and Director of Research at the IMF. He also served as the Vice Chairman at the Bank for International Settlements.

Another person that should be a candidate for the post is Indian-origin Baroness Shriti Vadera. “If Hammond follows his predecessor’s instincts and wants a lively hard hitter at the BoE, Shriti Vadera, the chairperson of Santander UK and a former business minister under Gordon Brown, fits the bill,” the FT report said.

According to the article, others in

Halden; Director of the London School of Economics, Minouche Shafik; and Chief Executive of Britain’s communications regulator Of com, Sharon White.

Apple wins \$539 mn suit against Samsung

●Apple Inc won \$539 million from Samsung Electronics Co in the final throes of the companies’ US court struggle over smartphone technology, seven years after the start of a global patent battle.

Apple sought about \$1 billion in a retrial of a case that originally produced a verdict of that amount in 2012, while Samsung argued it should pay only \$28 million this time.

Jurors in federal court in San Jose, California, decided only on damages. It was already established that the South Korean company infringed three of Apple’s design patents covering the rounded corners of its phones, the rim that surround the front face and the grid of icons that users view and two utility patents, which protect the way something works and is used.

5G TO OFFER \$27 BILLION BUSINESS OPPORTUNITY

Digitalisation will enable over \$27 billion revenue opportunity for the ICT (information and communications technology) industry in India by 2026, according to 5G Business Potential study by Swedish gear maker Ericsson

\$13 bn
Of \$27 bn is the addressable revenue opportunity for mobile operators in the country

Industry segments that will see the biggest opportunity (in terms of revenue)

\$2.4 bn Manufacturing	\$2.1 bn Energy and utilities
\$1.6 bn Public safety	\$1.6 bn Healthcare

Over 10 mn - 5G subscriptions India will have by 2023
Around 22 Mbps - Average top speed telecom operators are recording on their 4G networks
Over 1000 Mbps or 1 Gbps - Speed 5G services tests have recorded

the running are the Chief Executive of the UK’s Financial Conduct Authority Andrew Bailey; Deputy Governor for Monetary Policy at the BoE, Ben Broadbent; BoE Chief Economist Andy

US DOLLAR RATES			
Currency	28.05.2018	27.03.2018	31.01.2018
1 INR	0.01485	0.01539	0.01573
1 Euro	0.01275	0.01241	0.01263
1 UK £	0.01114	0.01091	0.01106
1 Yen	0.00915	0.61452	0.582425

NATURAL RUBBER (INDIA)

(Rs./Quintal, Ex-Kottayam)

Grade	May 2018	March 2018	January 2018	December 2017
RSS 4	12850	12200	12311	13100
RSS 5	12650	11850	11750	12850
ISNR 20	11795	11100	10850	11450
Latex (60% drc)	8694	8085	8610	9090

(Source: Rubber Board)

NOCIL Limited

(BASIC SELLING PRICE w.e.f. 01-01-2015)
Basic price excluding excise duty/cess, sales tax
and any other charges.

Product	Price (Rs./Kg)
Accelerators	
Pilcure MBT	290.00
Pilcure MBTS	310.00
Pilcure F	330.00
Pilcure CBS	360.00
Pilcure NS	410.00
Pilcure DCBS	480.00
Pilcure MOR	425.00
Pilcure ZDC	200.00
Pilcure TMT	190.00
Pilcure ZMBT	300.00
Pilcure ZDBC	275.00
Pilcure ZBzDC	405.00
Antioxidants/Antidegradants	
Pilflex 13	350.00
Pilnox TDQ	235.00
Pilnox SP**	219.10

Prevulcanisation Inhibitor

Pilgard PVI	415.00
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NOTE:

- 1) All prices except Pilnox SP are basic prices, exclusive of excise duty, education cess.
- 2) Price of Pilnox SP is inclusive of excise duty and education cess.
- 3) Sales tax and other levies will be extra as applicable.

Rubo Chem Industries Pvt. Ltd.

(Price of Rubber Chemicals as on 15-03-2017)

Material	RATE(Rs./KG)
ACCELERATOR TMTD	200.00
ACCELERATOR ZDC	224.00
ACCELERATOR CBS	360.00
ACCELERATOR MBT	250.00
ACCELERATOR MBTS	285.00
ACCELERATOR ZDBC	297.00
ACCELERATOR ZMBT	305.00
ANTIOXIDANT SP	219.00
ANTIOXIDANT TDQ	225.00
ALUMINIUM SILICATE	13.00
BITUMIN	41.00
BONDING AGENTS	ON REQUEST
CALCIUM SILICATE	13.50
CHINA CLAY	6.50
CALCIUM CARBONATE PRECIPITATED	15.00
CALCIUM CARBONATE ACTIVATED	17.00
CRUMB RUBBER-TRC 40	23.00
CARBON BLACK-ORDINARY	40.00
CARBON BLACK-(HAF/GPF/FEF/SRF/ISAF)	ON REQUEST
D.O.P./D.B.P.	ON REQUEST
EBONITE DUST-(BROWN)	55.00 95.00
EBONITE DUST-(BLACK)	32.00
FACTICE - BROWN	99.00
FACTICE - WHITE	90.00
GRAPHITE POWDER	50.00
LIGHT MAGNESIUM CARBONATE	ON REQUEST
LIGHT MAGNESIUM OXIDE	ON REQUEST
PINE TAR - Synthetic	68.00
PARAFFIN WAX	ON REQUEST
PROCESS OIL	ON REQUEST
PETROLEUM JELLY (WHITE)	100.00
PETROLEUM RESIN	86.00
PRECIPITATED SILICA	52.00
RECLAIM RUBBER-BLACK	35.00
SULPHUR	24.00
SYNTHETIC RUBBERS	ON REQUEST
SYN.RED OXIDE	50.00
SOLVENTS-MEK, TOLUENE ETC.	ON REQUEST
STEARIC ACID(GODREJ)	78.00
SILICONE EMULSION	70.00
TALCUM POWDER	10.00
TITANIUM DIOXIDE	ON REQUEST
WHITING POWDER(P&W)	6.50
WOOD ROSIN	108.00/115.00
ZINC HYDROXIDE	20.00
ZINC STEARATE	65.00
ZINC OXIDE-(RUBBER GRADE)	125.00
ZINC OXIDE (WHITE SEAL)	199.00

**Please note it is difficult to stick to prices especially minerals and petroleum products as they fluctuate widely on weekly basis.

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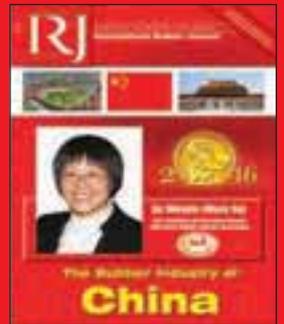
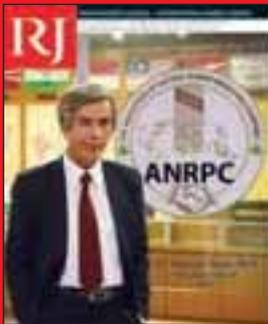
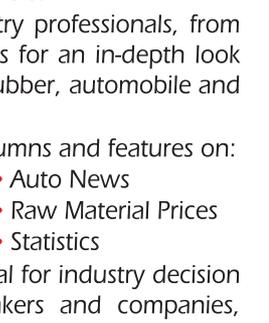
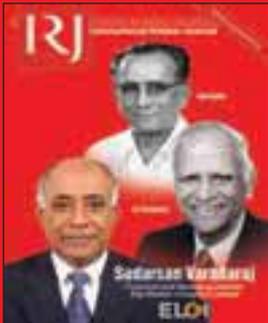
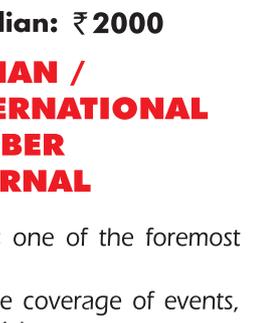
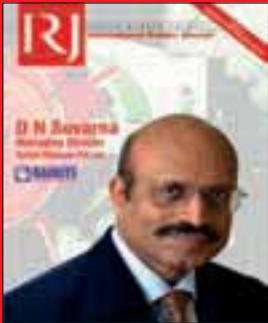
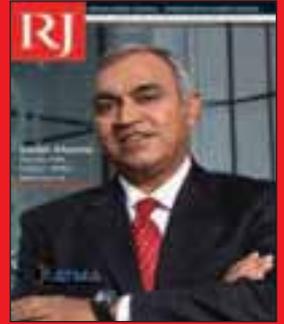
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