

### A FOUNDATION OF **EXCELLENCE** A **SUSTAINABLE** FUTURE

BIRLA CARBON SUSTAINABILITY REPORT 2014







### WELCOME TO THE 2014 BIRLA CARBON SUSTAINABILITY REPORT

Birla Carbon launched its first Sustainability Report in 2013. This second report provides an update on progress against our 2020 targets, our strategy of Sustainable Operational Excellence and the issues most important to our stakeholders. We have developed the report utilizing the Global Reporting Initiative (GRI) sustainability reporting standard. GRI is the most generally accepted sustainability reporting standard worldwide, and over 40% of global corporations report to this standard. The 2014 Birla Carbon sustainability report is in accordance with Global Reporting Initiative G4 guidelines at comprehensive level.

### CONTENTS

#### 2 OUR BUSINESS

- 3 Letter from our Chief Executive Officer
- 4 Our year at-a-glance
- 5 In conversation with our Chief Operating Officer
- 8 OUR APPROACH
- 8 Vision and strategy
- 10 Identifying our key issues





1



AND ETHICS

PRODUCT ENVIRONMENT RESPONSIBILITY CUSTOMERS AND SUPPLIERS



COMMUNITIES

PERFORMANCE

# OUR BUSINESS

### HOW WE OPERATE

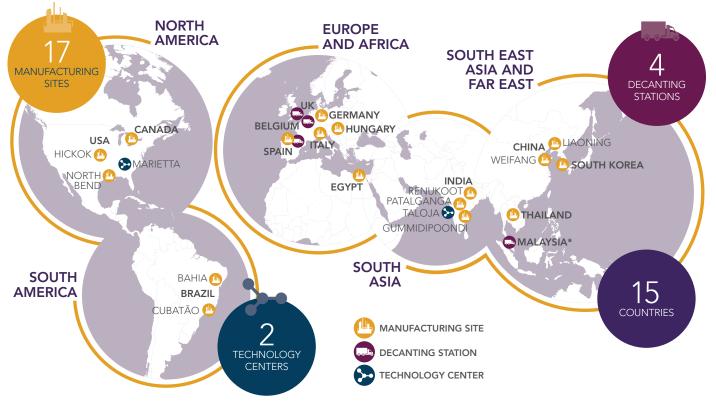
Birla Carbon is the world's largest manufacturer and supplier of carbon black. With 2,639 employees, and operations in each of the key markets of Asia, Europe, Africa and the Americas, we are able to deliver consistent, high quality products and services to customers in more than 70 countries. Our global presence ensures complete supply coverage in both established and emerging markets.

Birla Carbon has a diverse range of global customers, including leading brands in the tire, rubber, plastic, ink, and paint sectors globally, as well as other niche industries. Carbon black has many applications. It is used as reinforcing filler in tires and other rubber products, as a color pigment or UV-stabilizer for plastics, paints and inks, and as a conductive or an insulating agent in plastics or rubber. Our comprehensive portfolio of products covers standard ASTM grades of carbon black as well as others for Rubber and Specialty Blacks for a diverse range of applications. Our key brands include Birla Carbon®, Raven® and Conductex®.

### ADITYA BIRLA GROUP

Our parent company, the Aditya Birla Group, is a \$40 billion global conglomerate with a leading presence in a range of manufacturing and service sectors, including carbon black, cement, textiles, non-ferrous metals, mining, telecommunications and retail. Headquartered in Mumbai, India, the Group employs over 120,000 people across 36 countries worldwide. The Aditya Birla Group is in the league of Fortune 500, and has been ranked fourth in the global 'Top Companies for Leaders' survey, and topped the Nielsen's Corporate Image Monitor in 2012/13.

#### www.adityabirla.com



\*Employees are contractors and not Birla Carbon employees.

OUR GLOBAL FACILITIES

GOVERNANCE

AND ETHICS

PRODUCT RESPONSIBILITY ENVIRONMENT

CUSTOMERS AND SUPPLIERS

PEOPLE

COMMUNITIES

PERFORMANCE

## LETTER FROM OUR CHIEF EXECUTIVE OFFICER

At the outset, let me thank you for caring enough to read our second Sustainability Report. In 2013, we released our first report, venturing into an area that was new to us. In it, we showcased the rapid integration of two hitherto independent businesses, and thereby the formation of One Birla Carbon as the frontrunner in the industry. With the combined strength, we embarked on many things new, including an exciting vision for us to become the "most respected, sustainable and dynamic global carbon black business". Thus, we made sustainability a commitment that is at the core of our business vision and operations. Last year, despite a cautious economic environment, Sustainable Operational Excellence became a guiding principle for us in improving efficiency in all aspects of our operations.

While operations excellence and improvement has been a great way to create value for our customers, we increasingly see a different orientation from them. The customers' definition of value and their reason to associate with any brand is no longer limited to just low cost and a high quality product. Instead, it includes other larger considerations such as the contribution of the supplier's business to the environment and society overall.

Our product, carbon black, is present in one form or the other in multiple products used by us in our everyday lives. This brings an added responsibility for us to make sure that all our processes and practices converge to deliver best quality products to our customers, and also that we engage with our partners to encourage



responsible practices across the value chain. We believe our constant scrutiny of our practices and our investments has provided us with the capability to collaborate on our sustainability agenda with our stakeholders. Thus, we work with our raw material suppliers as well as our customers in making sure that our own sustainability agenda feeds into theirs and in turn, gets a boost from it.

Our excellent Research and Development infrastructure has propelled the introduction of many high performance products and spurred the development of new process technologies that support our sustainability agenda. There are many such projects at different levels of completion that inspire our confidence that we will succeed in achieving our 2020 sustainability goals and targets. We hope to extend our partnership with our customers and suppliers beyond the product centric relation to a more comprehensive one that includes active collaboration on sustainability areas.

### "While we are invested in creating a better future for all of us, we are mindful that creating excellence in our operations is an everyday responsibility."

Our commitment to the safety and wellbeing of our people, providing a fair and secure environment to our workforce, and creating a positive influence in the communities where we operate, remains our priority. As a core value of our parent company, the Aditya Birla Group, this is something that is also inherent to us.

This year's report is another milestone for us. Despite the economic challenges, we have held our course on the sustainability journey and intend to do so going forward. We seek your support in the shape of ideas and encouragement as we work towards our goals.

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DR SANTRUPT MISRA, CHIEF EXECUTIVE OFFICER, BIRLA CARBON AND DIRECTOR, HUMAN RESOURCES, ADITYA BIRLA MANAGEMENT CORP. PVT LTD.





GOVERNANCE PRODUCT AND ETHICS RESPONSIBILITY ENVIRONMENT



AND SUPPLIERS

PEOPLE

COMMUNITIES

PERFORMANCE

# OUR YEAR AT-A-GLANCE



GOVERNANCE

AND ETHICS

PRODUCT RESPONSIBILITY ENVIRONMENT

CUSTOMERS AND SUPPLIERS PEOPLE

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COMMUNITIES

PERFORMANCE

## IN CONVERSATION WITH OUR CHIEF OPERATING OFFICER

Birla Carbon's Chief Operating Officer, Kevin Boyle, discusses our sustainability performance, strategy and commitment to stakeholders.

### **Q** WHAT ARE THE EMERGING TRENDS AND CHALLENGES FACING THE BUSINESS?

The carbon black industry has changed significantly in recent years. Our customer base is evolving, with a growing number of smaller players particularly in emerging markets. Customer expectations are also expanding as they demand high quality products that are even more efficient and sustainable. Meanwhile, global businesses have a unique opportunity, and also a compelling responsibility, to contribute to social and environmental issues beyond their operations by building a responsible value chain.

As the world's population grows and economies prosper, there is an increasing strain on the availability of the natural resources our business depends on, such as oil, gas and water. At the same time, increased market volatility following the financial crisis and the introduction of stricter regulations is making the business environment even more challenging.

In this climate of shifting economic and social impacts, it is more important than ever that we leverage the growth of new technology and cultivate a skilled and motivated workforce. This will help us achieve sustainable excellence over the long-term. There are, however, challenges in this area of our business including an ageing workforce and a limited pipeline of young talent, difficulties attracting and retaining talent to our sites in remote locations, and the range of cultural differences we must overcome to align our people under one strategy and set of standards.

### INDUSTRY CHALLENGES AND OPPORTUNITIES

### LEGISLATION

Governments across the globe are introducing more stringent environmental and product-related legislation for businesses to follow. We must meet these new regulations and keep our plants up to date with the latest technology. This will enable us to manufacture safe products that support our customers in meeting new standards.

### NATURAL RESOURCES

The world is facing a growing gap between the availability and demand of natural resources such as oil and fresh water. We will continue to diversify our feedstock sources and optimize our use of natural resources. This will help us achieve maximum energy efficiency, reduce water consumption and convert more carbon from feedstock into carbon black.

### TALENT

We require a pipeline of talent to remain the global carbon black leader. But with competition from both our industry and others, it can be a challenge to attract and retain the right people. We must ensure our business is attractive to young talent, especially where we have plants in remote areas.

### PERFORMANCE AND COST

The rapid growth of consumer spending power in developing countries, coupled with strict, new product regulations, has hugely increased the focus on efficiency, sustainability and cost when it comes to products containing carbon black.

### CULTURE

As a global company, we employ people from many different countries and cultures. Our employee strategy must be comprehensive, targeted and flexible so we can build engagement and sustain high performance under one vision and set of values.

GOVERNANCE

AND ETHICS

PRODUCT RESPONSIBILITY ENVIRONMENT



AND SUPPLIERS

PEOPLE



PERFORMANCE



### Q WHAT ARE THE STRATEGIC PRIORITIES FOR THE BUSINESS?

Our vision is to be the world's most respected, sustainable and dynamic global carbon black business. To achieve this in the long-term, we must take actions that will enable us to thrive despite the potentially dramatic changes that are likely to affect the planet and society in the future.

We are committed to using resources responsibly, because efficient operations yield benefits economically, socially and environmentally. This means continuing to make products that our customers want and value, while using fewer resources and less time. Through our strategy of Sustainable Operational Excellence we will continue to drive efficiencies, increase our net energy contribution and reduce our water withdrawal intensity year on year. We have invested \$20.2 million in process improvements related to energy efficiency and reducing GHG emissions in FY2014.

We have also launched our five-year technology roadmap, which will equip us with the most sustainable processes, plants and product development programs to mitigate future risks and keep us on track to meet our 2020 objectives. This will ensure we keep ahead of the market's needs in terms of capacity, capability and quality.

These actions must continue to be based on a foundation of business integrity and strong governance. That is why, in May 2014, we underlined our commitment to the highest standards of ethics and compliance with the launch of our new Code of Global Business Ethics and Compliance Standards. Each member of the Senior Management Team, including myself, is responsible for a number of sustainability objectives and committed to driving action across the business. "Safety remains a top priority for us, but we acknowledge that our Total Recordable Incident Rate (TRIR) has started to plateau in recent years. We are determined to correct this by creating a culture of safety throughout Birla Carbon."

KEVIN BOYLE, CHIEF OPERATING OFFICER

### O HOW DID THE BUSINESS PERFORM IN FY2014?

The global economic environment has been challenging in the last year. Growth has slowed significantly, not only in Europe, but also in emerging markets such as China and India. Despite these challenges, the business has performed well. In FY2014, Birla Carbon recorded PBDIT (profit before depreciation, interest, and taxes) of \$279 million.

We are also on track to meet our 2020 targets in areas such as energy and emissions, water management, health and safety, and employee development. We saw a 4.6% reduction in direct  $CO_2$  emission intensity from 2013 to 2014, boosted by a 9.8% reduction in  $CO_2$  emission intensity in our South East Asia & Far East facilities. Birla Carbon continues to be energy positive as a whole. One additional plant became energy positive in FY2014, taking the total to 13 sites.

Safety remains a top priority for us, but we acknowledge that our Total Recordable Incident Rate (TRIR) has started to plateau in recent years. While we provide comprehensive employee training and follow stringent safety procedures at all our sites, unfortunately At Risk Behaviors (ARBs) do occasionally take place. In FY2014, for example, we had three major incidents that could have resulted in serious consequences. We are determined to correct this by creating a culture of safety throughout Birla Carbon, although we are pleased to report that there was a great improvement in the TRIR of our contractors last year.

GOVERNANCE AND ETHICS

PRODUCT RESPONSIBILITY ENVIRONMENT

CUSTOMERS AND SUPPLIERS



COMMUNITIES PERFORMANCE

### Q HOW ARE YOU RESPONDING TO ISSUES ALONG YOUR VALUE CHAIN?

We recognize that success is not just about growth; it is about contributing solutions to challenges facing society. I believe it is essential that we act as responsible stewards of the environment and, by the nature of our business, as responsible stewards of the world's carbon – not just by managing our own impacts but by understanding the environmental and carbon footprint along our value chain.

That is why we are currently preparing to launch our new Supplier Code of Conduct, a significant step towards greater accountability along our supply chain. And in the last year we have also been conducting a Life Cycle Assessment on our product from feedstock procurement until the carbon black reaches our customers' gates. We are currently analyzing the results of this assessment so we can increase strategic value by developing improved partnerships with suppliers and customers and understanding how we can reduce impacts along the value chain. Product stewardship will support this by helping us to manufacture products with improved efficiency.

We recognise that our operations touch the lives of thousands of people in local communities. The Aditya Birla Group has a strong heritage of community activity, and I am incredibly proud that Birla Carbon does so much to support this approach. The programs we are investing in aim to contribute to socio-economic development, secure local talent for the future and build strong relationships between our plants and communities.

"Our combination of global scale and local knowledge means we can help our customers, large and small, meet the needs of their own customers. Moving forward, we will align our business more closely with the operations of our customers and their sustainability agenda."

### KEVIN BOYLE, CHIEF OPERATING OFFICER

### **Q** HOW IS BIRLA CARBON RESPONDING TO STAKEHOLDER VIEWS?

The views of our stakeholders – whether they are customers, suppliers, employees or the communities around our sites – are extremely important to us. Last year we conducted a materiality analysis to help us prioritize the issues that our stakeholders care most about. Our analysis was conducted by a range of experts from across the business and based on the perceived views of our stakeholders. Some of the highest priority issues we identified were product safety, employee safety, business continuity and human rights.

But we know that, going forward, we must partner more closely with our stakeholders to guide the materiality process. We plan to increase our engagement activity in the future through direct dialogue and partnerships, more focused surveys, and other feedback initiatives. We will also build a stakeholder consultation into our materiality process to test and verify our conclusion.

### Q WHAT ARE THE KEY OPPORTUNITIES FOR BIRLA CARBON IN THE FUTURE?

Our combination of global scale and local knowledge means we can help our customers, large and small, meet the needs of their own customers. Moving forward, we will align our business more closely with the operations of our customers and their sustainability agenda. This will help us better understand their needs so we work with them to develop new and adapted products.

It is critical that we build a high performing and engaged workforce for the future. Based on our employee survey results, we will continue to address employee needs through our business and regional action plans, which include recognizing and developing strong performers, through a comprehensive Talent Management Program.

Where markets face a skills shortage, we must leverage our global reach to invest in and develop new talent. Our growing internship program will build a pipeline of future leaders to help us achieve this. We are thrilled to have taken on 45 interns in the last year and plan to increase this number in FY2015.

Despite the scale of the task, I believe we are working towards a secure, long-term future. I hope this report gives you a good sense of the progress we are making against our commitments. Please get in touch if you have comments and suggestions to support our strategy.





AND ETHICS

PRODUCT ENVIRONMENT RESPONSIBILITY CUSTOMERS

AND SUPPLIERS

PEOPLE



PERFORMANCE

# OUR APPROACH

# VISION AND STRATEGY

To achieve our vision, we must act in a responsible and sustainable way, while providing a secure supply of the highest quality carbon black across the globe.

Operating sustainably is fundamental to the success of our business. By embedding sustainable thinking in everything we do, we will meet the evolving needs of our stakeholders regardless of economic volatility, increasing environmental and social concerns, and challenges such as stricter regulatory requirements and shifting consumer expectations.

This translates into using natural resources as wisely and efficiently as we can, and minimizing any harm to the environment. It is also about keeping our employees safe, attracting the right talent to our business, and engaging with the contractors and local communities we come into contact with every day.

We must balance short- and long-term interests when making business decisions, helping us to remain the supplier of choice for our customers and to continue to retain the trust of all our stakeholders.

### **OUR VISION**

To be the most respected, sustainable and dynamic global carbon black business

### **OUR VALUES**

Our five key values, which are aligned with those of the Aditya Birla Group, drive everything we do.

### INTEGRITY

**Honesty in every action** – we act and take decisions in a manner that is fair, honest, and follows the highest standards of professionalism.

### COMMITMENT

**Deliver on the promise** – on the foundation of integrity we do whatever it takes to deliver value to stakeholders.

### PASSION

**Energized action** – we engage emotionally with our organization, so that work is rewarding and inspires each one to give his or her best.

### SEAMLESSNESS

Across boundaries – we work effectively across our different businesses, operations, geographies and hierarchies.

### SPEED

**Always one step ahead** – we seek optimum efficiency so that we can deliver on or before time, every time.













### SUSTAINABLE OPERATIONAL EXCELLENCE

Our strategy of Sustainable Operational Excellence (SOE) guides the way we do business across our global operations. Supported by Enterprise Risk Management and Best Practice Management – SOE helps us improve standards, manufacture carbon black as efficiently as possible and minimize any negative impacts on the environment and society, while continuing to deliver excellence to our customers. It influences the way we behave and the business decisions we make, from designing and operating our plants to engaging with our employees.

### AREAS

SOE HELPS US TO FOCUS ON THREE KEY

### PROCESS

We strive to be a responsible steward of the environment by optimizing the conversion of carbon to carbon black, minimizing our carbon dioxide (CO<sub>2</sub>) emissions and maximizing the recovery of the energy generated by our manufacturing process.

### PRODUCT

We work to fulfill our commitment to reduce the environmental and social impact of our product while ensuring world-class quality and supply continuity for our customers.

### PEOPLE

We encourage a culture of responsibility which promotes the health, safety and wellbeing of our employees and the communities in which we operate.

### MEET OUR CHIEF LEGAL, SUSTAINABILITY AND RISK OFFICER

### JOE GAYNOR

### How is Sustainable Operational Excellence integrated into the overall business strategy?

"SOE is not just our approach to sustainability, but a crucial part of our business strategy. That is because we see sustainability as a key driver of business success.

Through SOE we are adapting our business model and activities to ensure we continue to succeed in a rapidly changing environment. It is integrated into our business management and decision-making processes – from the way we operate our plants and how we develop our products, to how we manage our supply chain. It is also embedded throughout our business in a comprehensive set of policies, procedures and best practices that we apply to all our operations. These help our employees understand their role in driving business success.

I have witnessed the concept of SOE mature across our business over the past few years, but I am still thrilled by the way its application is constantly evolving. In FY2014, we launched an improved global system for gathering, tracking and evaluating our safety and environmental data; an approach identified through SOE."



GOVERNANCE

AND ETHICS

ENVIRONMENT



AND SUPPLIERS

PEOPLE

COMMUNITIES

PERFORMANCE

# IDENTIFYING OUR **KEY ISSUES**

PRODUCT

RESPONSIBILITY

Our sustainability strategy focuses on the issues that are most important to our stakeholders, as well as areas that have a material impact on the future competitiveness of our business. Although we address a wide range of issues on a day-to-day basis, we have chosen to report on those of the highest priority.

### MATERIALITY ASSESSMENT

In 2013 we reviewed the materiality analysis presented in our first sustainability report to help us refine and prioritize existing areas of focus, and to identify emerging issues. Our second report is structured around the issues deemed most important to our stakeholders.

To ensure we achieved stakeholder inclusiveness in our reporting, we began our materiality process by reviewing the relevance of a range of stakeholder groups, including those identified for our previous sustainability report. We compiled an expanded list of stakeholders, all of whom have a relationship to Birla Carbon and expectations or interests that we must consider.

We assessed Birla Carbon's significant economic, social and environmental impacts which influence the views of stakeholders and developed a list of issues to be applied to each stakeholder group. The boundary for each issue was then determined considering impacts within Birla Carbon as well as outside our organization.

During this process the Sustainability Steering Committee (SSC) utilized quantitative and qualitative analysis to determine the materiality of each issue. Quantitative analyses looked at available data such as employee surveys and Environmental, Health and Safety (EHS) metrics reports. Qualitative analyses included customer feedback during interviews and community input on the specific issues that are important to them. The SSC then assessed each issue for materiality by considering the influence of stakeholder assessments and decisions, and the significance of our economic, environmental and social impacts.

### **OUR STAKEHOLDERS**

Customers

**Suppliers** 

Aditya Birla Group (our parent company)

**Employees** 

Communities

Non-governmental Organizations (NGOs), civil society and academics

Regulators and government

International Carbon Black Association (ICBA)

Banks and lenders



Each issue was ranked using a weighted scoring system. A threshold cut-off score was determined, with those issues scoring above the threshold identified as being material. Issues falling below the threshold score were reviewed individually, and some were determined to be material given their high significance to specific key stakeholders.

To validate our materiality assessment and ensure our reporting achieved Global Reporting Initiative Principles of Completeness, we assessed the scope of our material issues, the boundaries identified for each issue and timescale considered. Through this validation process we wanted to ensure that our report provides a reasonable and balanced representation of Birla Carbon's significant impacts, and enables stakeholders to assess our performance. Our list of material issues was scrutinized by the SSC and validation of information-gathering systems were verified. The SSC also identified those material issues where additional information and datagathering systems will need to be developed. The final results of the materiality process were approved by Joe Gaynor, Chief Legal, Sustainability and Risk Officer, on behalf of Birla Carbon's Senior Management Team (SMT).

We have attributed each of our material issues to a relevant material aspect outlined in the Global Reporting Initiative G4 guidelines. On <u>pages 68–69</u> we have provided a description of where each material issue occurs inside and outside of the organization.

### **OUR MOST MATERIAL ISSUES**

We have grouped our material issues into six overall focus areas – Governance and Ethics, Product Responsibility, Environment, Customers and Suppliers, People, and Communities. These six themes, which form the basis of the 2014 Birla Carbon Sustainability Report, are crucial to both our stakeholders and to the success of our business.

GOVERNANCE AND ETHICS 
 PRODUCT RESPONSIBILITY 
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 CUSTOMERS AND SUPPLIERS 
 POPULE 
 COMMUNITIES

The diagram below shows how the risks and opportunities within these focus areas compare in terms of importance to our business.

### **Product Safety Business Continuity Product Consistency Management Team** Resource Consumption **Supply Chain** Reputation Transparency **Product Stewardship Governance Framework Employee Engagement Water** Human 俞 Waste **Employee Retention Community Engagement** Philanthropy **Employee Wellness** Air Emissions



### STRENGTHENING OUR STAKEHOLDER ENGAGEMENT

Understanding what matters to our stakeholders will help us maximize the effectiveness of our business strategy. We recognize that we do not have formal processes in place to engage with all stakeholders, and this remains an area of development for our business. We also realize that some stakeholders have a less material interest in what we do or how we impact them. Engaging thoroughly with our stakeholders, including through the publication of this report, will allow us to continue to build trust and enhance our reputation. We have selected a sub-group of stakeholders where our engagement would be most impactful and identified our current engagement process and how we plan to enhance those engagements in the future. The high level results of the consultation will be reviewed by the SMT and used to improve our strategy. We will also promote direct engagement at different levels of the business, including through the SMT.

### **EMPLOYEES**

We engage with our employees in a number of different ways, from their initial employment orientation to our bi-annual VIBES survey. The employee engagement process has provided valuable feedback and a direction for the actions we have taken in 2014.

For more information about the action plans we have introduced, see <u>page 46</u>.

### **CUSTOMERS**

In the last year we have initiated a more formal process to engage with our customers. Members of our SSC join with representatives from our sales and marketing group to meet with a select group of customers to obtain feedback on our performance and their future expectations. We also took the opportunity to gain feedback on our 2013 sustainability report. Moving forward, we plan to expand this program to a broader group of customers.

For more information about our customer engagement programs, see <u>page 39</u>.

### SUPPLIERS

We plan on increasing our engagement with a group of suppliers from our supply chain to discuss compliance with our new Supplier Code of Conduct and approaches to auditing their sustainability policies or initiatives.

For more information on our progress with supplier engagement, see <u>page 39</u>.

### ADITYA BIRLA GROUP

The Aditya Birla Group has established a Sustainability Road Map for the conglomerate, including performance expectations for each business unit. We engage with the Group on a regular basis through quarterly progress reports and monthly meetings.

### COMMUNITIES

We engage with the communities in which we operate in a number of ways. Each of our locations engages with its local stakeholders through community forums and facility visits. Local programs and projects are initiated to support local needs.

For more information about our community engagement strategy and activities, see <u>page 58</u>.





PRODUCT

RESPONSIBILITY

GOVERNANCE

AND ETHICS



CUSTOMERS

AND SUPPLIERS



PEOPLE



COMMUNITIES

PERFORMANCE

# GOVERNANCE AND ETHICS

ENVIRONMENT

**NEW** BUSINESS CONTINUITY INITIATIVE INTRODUCED, MODELED UNDER THE ISO 22301 STANDARD

**100%** OF EMPLOYEES ON TRACK TO RECEIVE **ETHICS TRAINING** BY AUGUST 2014 ZERO INCIDENTS OF ANTITRUST AND ANTI-CORRUPTION IN FY2014

> We aim to conduct our business with integrity at all times, promoting a culture of respect for our customers, employees, suppliers and the environment. Our code of conduct, global policies and governance structure ensures we remain committed to high ethical standards and compliant with laws wherever we operate.

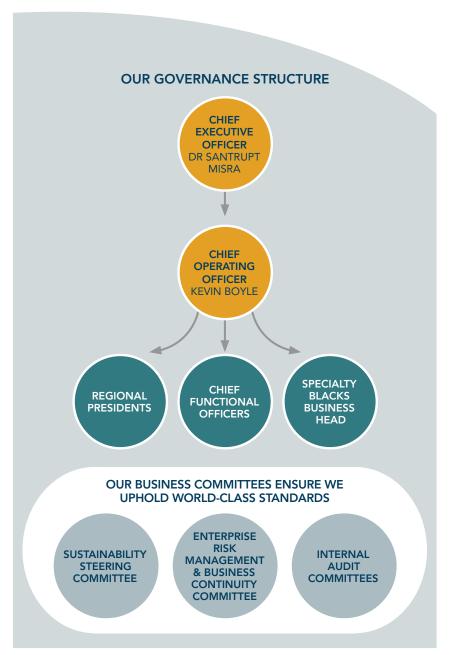
# values we value





# GOVERNANCE

Each of the various legal entities that comprise Birla Carbon is governed by a Board of Directors. The business as a whole is governed by a Senior Management Team (SMT), which is made up of Chief Executive Officer, Dr Santrupt Misra; Chief Operating Officer, Kevin Boyle; five Regional Presidents; Chief Functional Officers; and a Specialty Blacks Business Head.



To find out more about our leadership team please visit **www.birlacarbon.com/about-us-business-leadership.aspx** 

### MANAGING SUSTAINABILITY

While Birla Carbon's SMT is ultimately responsible for governing environmental, social and economic risks, authority has been delegated to the Sustainability Steering Committee (SSC), which leads our sustainability agenda. The SSC, which submits a quarterly report to the SMT updating it on key sustainability issues and progress, includes internal representatives from each area of the business, as well as external sustainability specialists. Its primary role is to define Birla Carbon's sustainability strategy and guide the company along its sustainability journey. The committee's work in the last year has included defining clear, ambitious sustainability goals and developing methods of collecting robust, accurate data that we can continue to gather in the future.

The SSC is led by Global Director of Sustainability, Dr Gilles Moninot, and Chief Legal, Sustainability and Risk Officer, Joe Gaynor, and reports to Chief Operating Officer, Kevin Boyle. As a member of both the SSC and the SMT, Joe Gaynor is responsible for updating the SMT, and all issues, stakeholder feedback or business decisions related to sustainability are escalated through him. Furthermore, the SSC ensures that Birla Carbon's sustainability strategy is aligned with the sustainability vision and approach of our parent company, the Aditya Birla Group, which endeavors to become the leading Indian conglomerate for sustainable business practices across its global operations by 2017.





GOVERNANCE AND ETHICS PRODUCT RESPONSIBILITY ENVIRONMENT



AND SUPPLIERS

PEOPLE

COMMUNITIES

PERFORMANCE

# ETHICS AND COMPLIANCE



Achieving this target early shows our commitment to ensuring that all Birla Carbon employees not only comply with, but also fully understand our high ethical standards. This was achieved despite various cultural and language barriers. We encourage our employees to act in a way that is based on our values – Integrity, Commitment, Passion, Seamlessness and Speed. Our Business Value Standards Committee, led by the Chief Operating Officer, upholds these values and provides a formal complaints process at group, business and regional levels to handle any issues raised about noncompliance.

Conducting our business with integrity at all times is fundamental for ensuring business continuity, protecting our employees and ensuring we remain a trusted and reputable company to all stakeholders.

To promote high ethical standards across our operations, each of our employees is required to go through a formal online training program and sign a document confirming their compliance with our Code of Ethics. The Code includes statements on Fair Competition, Antitrust, Freedom from Discrimination and Harassment, or Other Abusive Situations, as well as Anti-money Laundering. We have recently benchmarked our Code against other, leading examples from other companies, and identified additional policy statements and standards that will be included over the coming months. We are on track to train 100% of our employees on the Code by August 2014. We also recently published our Code on the Birla Carbon website to ensure transparency around our business.



### **HUMAN RIGHTS**

We respect human rights in all our business activities, but acknowledge that there are different risks in different regions. As well as being alert and responsive to these risks, we strive to comply with the laws, regulations and standards in place wherever we operate.

The SA8000 standard, for instance, encourages organizations to develop, maintain and apply socially acceptable practices in the workplace. It takes a management systems approach by setting out the structures and procedures that companies must adopt in order to ensure that compliance with the standard is continuously reviewed.

Our aim is to take proactive steps to prevent and address any negative impacts we may have on the rights of the people we employ, do business with, or interact with. The issue of human rights is a major element of our new Code of Global Business Ethics and Compliance Standards and our Supplier Code of Conduct, which we will launch in FY2015.

### ANTITRUST AND ANTI-CORRUPTION

Birla Carbon is committed to complying with the antitrust and anti-corruption laws of all the locations where we conduct business, and we intend to preserve the competitive, free-enterprise system while prohibiting payments or promises to pay anything of value to officials of any government in order to obtain or retain business. In FY2014, Birla Carbon was successful in preventing antitrust and anti-corruption issues. No incidents were identified.

### **GRIEVANCE MEASURES**

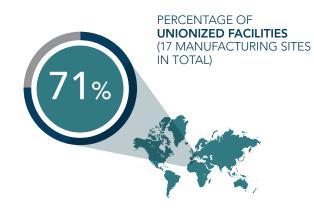
We expect our employees, contractors and suppliers to voice any concerns or grievances they have about our operations, our employees or our product, and we offer reporting channels to encourage them to do so.

We have a hotline which enables our employees to anonymously report, via phone message or email, any illegal or non-compliant behavior they observe. The hotline is run by an independent third party, 24 hours a day, 365 days a year, and escalates issues to our Internal Audit Department and Chief Legal, Sustainability and Risk Officer.

Employees have the opportunity to ask questions concerning actual or potential situations, and calls made to the hotline will be handled in full compliance with local law. Depending upon the type of issues, these are then investigated by a team of auditors or human resources professionals. Currently, the hotline program is available at 11 of our sites and the remaining sites will be covered by the end of 2014. We received and resolved 15 hotline calls in FY2014.

### COLLECTIVE BARGAINING AGREEMENTS

We are committed to absolute fairness when it comes to employee issues such as wages, working hours, benefits and conflict resolution processes. As such, we sign legally binding collective bargaining agreements to ensure we operate fairly and consistently with all our staff. In FY2014, the number of unionized Birla Carbon sites remained the same, at 71%. Overall, employee relations at each of our unionized and non-unionized sites are good. In the event, however, that conflict issues occur, we have communications and conflict resolution measures in place for our employees to make their concerns known.







AND ETHICS

PRODUCT ENVIRONMENT

RESPONSIBILITY

CUSTOMERS

AND SUPPLIERS



PEOPLE



COMMUNITIES

PERFORMANCE

# ENTERPRISE RISK MANAGEMENT AND BUSINESS CONTINUITY PLANS

Our Enterprise Risk Management (ERM) system helps us guarantee a secure, continuous supply of carbon black to our customers. In the last year we have focused on upgrading the tool to help us better anticipate – and prepare for – risks across all areas of our global business.

Birla Carbon's Regional Presidents are ultimately responsible for business continuity planning in their region, while each plant location is responsible for developing its site-specific disaster recovery and Business Continuity Plans (BCP). Each plant has assessed the risk of disruption to its supply of critical products and raw materials, and put contingency plans in place to ensure continuity of supply. Alternative solutions are identified where applicable, and documented accordingly in each plant's contingency plan.

We have recently implemented a new Birla Carbon business continuity initiative, which is modeled after the ISO 22301 Business Continuity Management standard. The standard is designed to help organizations, regardless of their size, location or activity, be better prepared to deal with disruptions of any type, from large scale natural disasters to technology-related accidents. Achieving ISO 22301 will demonstrate to our customers and suppliers our proactive approach to dealing with potential risks to the business. The program is expected to run over the next three years, by which time it is our aim to ensure that each of our manufacturing sites will have their plans upgraded to the ISO 22301 standard and will be externally certified. This will enable us to drive business continuity planning at a strategic level, while linking it to our corporate sustainability objectives. Ultimately, this will ensure that a consistent message is cascaded to all our employees.

One of the key elements of our business continuity strategy is the focus on our people and ensuring they understand and own business continuity at every level. We will do this via targeted training, effective ongoing communication and practical involvement through, for example, simulated crisis exercises.

This approach has several benefits. It encourages our regions to share best practices, thereby helping us operate more efficiently across all our sites; it also promotes communication throughout the business, enhancing our understanding of true risks; and it increases each region's accountability for sustainability and business continuity.



### AUDIT PROGRAM

Conducting regular, in-depth audits helps us to uphold good governance and ensure that all of our global operations share best practices and comply with our world-class standards. The results of these audits are communicated to the SMT and corrective action status is updated on quarterly basis.

### **INTERNAL AUDITS**

We carry out investigations and risk-based audits across the business through our independent Internal Audit Department. These audits cover financial, compliance and operational reviews at our locations. In addition, regions complete Key Control Tests and the results are submitted to the Chief Executive Officer on a quarterly basis.



#### BUSINESS AUDIT RESULTS AND ACTION, GLOBAL

Birla Carbon's Internal Audit Department has strict procedures in place to correct any issues identified during our business audit process. These are adapted to each specific issue.

For example, the department identified that, in one of our locations, the procurement teams were not conducting regular, comprehensive bidding procedures. This meant that the same suppliers were often being used without having to re-pitch for our business.

Management provided specific action items to address the highlighted areas of concern and the department followed up on the management action plan to ensure that they had been implemented.

The improved control environment resulted in increased employee awareness of the procurement process, while cost savings were achieved through the consistent competitive bidding practices.

### HEALTH, SAFETY & ENVIRONMENT AUDITS

The Birla Carbon Environmental Audit Program goes beyond the requirements of the ISO 14001 Certification for Environmental Management Systems to include third-party safety and compliance audits conducted by Health, Safety & Environment (HS&E) staff and outside auditors. Held at least once every two years, the audits include inspections, employee interviews, and detailed reviews of regulatory issues at each plant to ensure 100% compliance with national, regional and local regulations. Safety and health audits are also held every two years, and any issues identified are prioritized and tracked by the Corporate HS&E Managers on a monthly basis.

In addition to these audits, we also regularly inspect our above ground oil storage tanks for degradation and review each plant's environmental task list to ensure all tasks are being completed and submitted on time.

One of our future goals is for all Birla Carbon's sites to comply with the ISO 50001 Energy Management System. The standard, which several sites are already certified against, helps businesses identify and manage the risks surrounding their future energy supply, measure and monitor energy use, and improve overall performance.



Birla Carbon's HS&E audits include inspections, employee interviews and detailed reviews of regulatory issues at each plant.



GOVERNANCE

AND ETHICS



ENVIRONMENT



CUSTOMERS

AND SUPPLIERS



PEOPLE



COMMUNITIES PERFORMANCE

# PR@DUCT RESPONSIBILITY

**3.5%** OF PROFIT **REINVESTED IN R&D** OVER THE LAST YEAR

OVERVIEW

95% of customer information requests ANSWERED WITHIN 24 HOURS IN 2013, AHEAD OF OUR FIVE-DAY TARGET **1,224 CUSTOMER INTERACTIONS** TOOK PLACE WITH OUR PRODUCT STEWARDSHIP TEAM IN FY2014

We are committed to providing our customers with high quality, thoroughly tested products that meet or exceed all regulatory requirements and support the efficiency of our consumers' products. This will enable them to provide the safest, highest performance products to their own consumers. It is also important that we communicate our developing knowledge of carbon black to all our stakeholders.

Conducting product tests in a Birla Carbon technology center.



# CARBON BLACK – THE FACTS

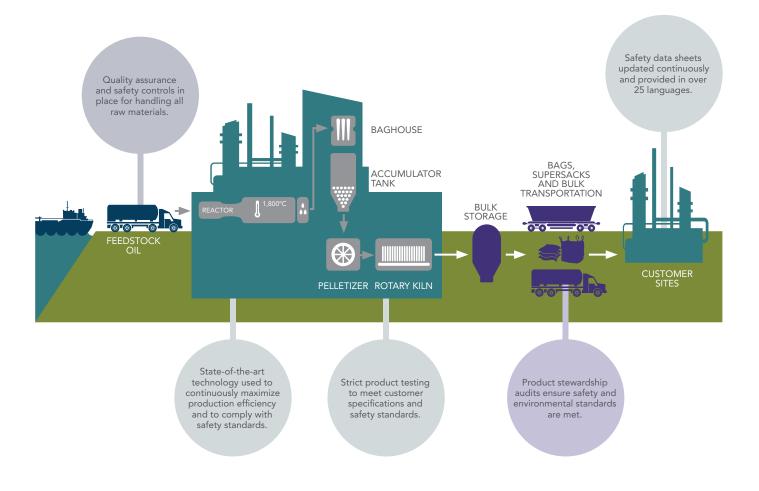
Carbon black can be a misunderstood material. Many people are confused about the difference between black carbon, soot and carbon black, and there can be mixed messages about the impact of carbon black on people's health and the environment. The reality is that carbon black is a safe, highly engineered material, produced using a precise and controlled manufacturing process and modified and designed for specific applications.

As a responsible global manufacturer of carbon black, we have a duty of care to provide high quality, thoroughly tested carbon black that meets or exceeds health, safety and environmental requirements and can be handled safely. It is also important that we communicate clearly with our stakeholders and provide them with the most current information on any potential health and environmental impacts of our products. We are proud that our customers can rely on us to be at the forefront of any developments in regulation, safety guidance and product research, and to give them the information they need to manufacture their own products in a safe and efficient way.

### WHAT IS CARBON BLACK?

Carbon black is a fine, black powder, essentially composed of carbon, which helps make many of the things we use every day stronger, brighter and longer lasting. It is produced by pyrolysis – partially burning low-value oil residues at high temperatures under controlled process conditions. Carbon black is mainly used to strengthen rubber in tires, but is also used as a pigment, UV stabilizer, conductive agent or insulating agent in a variety of specialty rubber, plastic, ink and paint applications.

PERFORMANCE





### **RESPONDING TO CONCERNS**

We know that there are some negative perceptions about carbon black, and that it can be a misunderstood material. Over the last three decades, the carbon black industry has spent significant time and effort studying and understanding the potential risks associated with carbon black, particularly in relation to its environmental and health impacts. We believe it is important to share this knowledge so we can give people a clearer picture of exactly what carbon black is and how it is used in products that touch millions of people's lives every day. The questions below provide answers to common concerns and doubts about carbon black.

### **O** CAN IT CAUSE HEALTH PROBLEMS?

Our carbon black is often confused with black carbon (soot formed through the incomplete combustion of fossil fuels, biofuels or biomass) which has been linked with cancer. However, numerous peer-reviewed scientific studies have shown that carbon black is neither a toxin nor a carcinogen, and there is no evidence of any adverse health effects on our employees or consumers. As the material is fully embedded in the polymeric matrices, people are not directly exposed to carbon black through consumer products. Carbon black is often used as a standard, benign material in studies to investigate the health effects of other chemicals or materials.

### **Q** IS IT HARMFUL TO THE ENVIRONMENT?

Due to the nature of our manufacturing processes, we recognize that our activities can potentially have an impact on the environment. We are committed to ensuring our production facilities do not release carbon black into the atmosphere, and are working to reduce greenhouse gas and other air emissions.

While consumer products may have an environmental impact at the end of their life cycle, carbon black has a minimal impact on the environment as it is typically embedded in the finished product.

### Q IS BIRLA CARBON DOING ANYTHING TO CHANGE THE WAY CARBON BLACK IS PERCEIVED?

Through our work with the International Carbon Black Association (ICBA), we engage closely with health, safety and environmental officials across the world to ensure that accurate, scientific-based information is utilized in the regulatory process.

We also help our customers conduct research into the safety and efficiency of their products, and work closely with academics to identify how we can improve our processes and therefore reduce our impact on local communities. In 2013 we arranged for the National Environmental Engineering Research Institute (NEERI) to help us understand the social and environmental impacts of our plant in Patalganga, India.









ENVIRONMENT



**CUSTOMERS** 

AND SUPPLIERS

PEOPLE



COMMUNITIES PERFORMANCE

# PRODUCT SAFETY AND STEWARDSHIP

It is critical to our business that we help our customers use carbon black effectively in their products. This will enable them to remain competitive and meet the increasingly stringent requirements of the markets in which they operate. As well as investing in world class R&D and testing facilities, we engage closely with others in the carbon black industry and foster a culture of product stewardship and safety throughout our business and the sector.

### PRODUCT SAFETY

GOVERNANCE

AND ETHICS

OVERVIEW

Product safety is of paramount importance to Birla Carbon and a priority issue for our business.

### WHY IS THIS SO IMPORTANT?

Our customers' trust is fundamental to our success and that trust begins with the safety of our products. There is increasing scrutiny over the safety of many materials, including carbon black, so we work hard to ensure our carbon black meets and exceeds all relevant regulatory standards. We also endeavor to keep abreast of the latest industry developments so we can support our customers in meeting their own regulatory obligations.

In FY2014 we reformatted our safety data sheets to meet global regulations and provide information about the safety of carbon black in 25 languages. We also began publishing Product Stewardship Updates for both internal and external customers to keep them informed about what we are doing in this area and any changing global issues or regulations that could impact carbon black.

### WHAT ARE OUR PLANS FOR THE FUTURE?

Looking ahead, the challenges we face include educating employees and customers about new regulations to ensure compliance. We plan to implement additional internal safety standards over the coming years. We must also continue to consider issues beyond our control, such as the safe transport and handling of our raw materials, how our customers use the carbon black we sell them, and ultimately the safety of end consumers.

### WHAT ARE WE DOING?

### Investing in safety

We have a new testing program in place, and in the coming years we will focus on testing to help us evaluate the safety of our carbon black products more accurately, quickly and cost effectively. In FY2014, we boosted our product testing capacity by approximately 400% by investing in personnel and equipment to ensure we are at the forefront of industry developments.

### Enhancing customer understanding

In FY2014 our sales teams received more than 1,224 queries relating to the safety of carbon black. These included questions about the suitability of some of our carbon black grades for food contact applications, compliance with regulations, and end of life responsibility. We support our sales teams to respond to specific queries, which are passed onto experts within the business. In 100% of cases we were able to send an initial response within one day and a full response within five days. We also aim to tackle these concerns by educating our distributors about carbon black.



### **PROMOTING A CULTURE OF STEWARDSHIP**

Our goal is to foster a culture of product stewardship, safety and responsibility at all our plants and at each stage of our operations – from product development to production, from raw material sourcing to the dispatch of our carbon black product to our customers. To achieve this, we have standardized our approach to product stewardship across the organization, embedding accountability into the roles of employees at plant level. We identified this as an important area to focus on as plant processes can significantly affect the safety and wider impacts of carbon black. Employees are now encouraged to 'stop, think and ask', by seeking advice and support from our Product Safety & Stewardship Manager, Megan Morgan, before and during process development and production changes.

### SETTING HIGH STANDARDS

We have also implemented a global Product Stewardship Standard to align all of our manufacturing locations with the same product stewardship vision and expectations. This will help standardize our approach to product testing, product development, and customer communication, including product labeling and safety data sheets. The Standard requires enhanced testing intervals for all products and a robust description of what actions at a manufacturing site trigger product re-testing. Through the Product Stewardship Standard, we are ensuring that product stewardship is part of each manufacturing site's culture of Sustainable Operational Excellence, and not just something that is handled at the corporate level.

### AUDITING OUR SITES

The challenges we face include consistently aligning all Birla Carbon's sites with our product stewardship vision and helping our employees understand its benefits. In FY2014, we started conducting product stewardship audits at our facilities to assess our progress in this area. We carried out audits at seven sites by the end of FY2014. We identified that employees do not always know where to find our updated product safety data sheets, and that there can be inconsistencies in how we communicate customer requests for product stewardship information. We have therefore designed a repository for safety data sheets and communicated this to all our sites.

### INTRODUCING PRODUCT STEWARDS

Moving forward, our aim is to establish Product Stewards at all our sites by the end of FY2015. They will be responsible for monitoring standards and implementing a global training program to equip our workforce with greater knowledge and expertise on product stewardship. The stewards will be part of regional Product Stewardship Committees, which report to a Global Product Stewardship Steering Committee. This network will help us share best practice and communicate why product stewardship and safety is important to Birla Carbon. This approach is another example of how we apply our strategy of Sustainable Operational Excellence across the business.



### MEET OUR PRODUCT SAFETY & STEWARDSHIP MANAGER

### MEGAN MORGAN, MPH

### What is product stewardship?

"Product stewardship is focused on minimizing the health, safety, environmental and social impacts of a product and its packaging throughout all life cycle stages, while also maximizing economic benefits. Globally, our customers face increasing regulation and tremendous pressure to balance performance and cost.

There are a growing number of policies being put in place globally regarding fuel economy standards, environmental standards, including CO<sub>2</sub> emissions, product content restrictions, and product labeling schemes, particularly for tires. With these challenges in mind, we are committed to supporting our customers by minimizing any adverse impacts of our products and identifying opportunities to develop new and improved product benefits."







CUSTOMERS

AND SUPPLIERS

PEOPLE



COMMUNITIES

PERFORMANCE

# RESEARCH AND DEVELOPMENT

Our vision is to be the undisputed leader in the carbon black industry, having the most efficient processes, plants and products and being a step ahead of the market's needs in terms of capacity, capability, quality and performance. But there are significant challenges in this area.

The rapid growth of the consumer spending power in developing countries, for example, coupled with strict, new product regulations, has hugely increased the demand for the safest, most efficient carbon black. Consumer needs can also vary. Some regions demand improved rolling resistance and better fuel economy in tires. But for others – particularly in developing countries where the roads are poor – the priorities are improved grip, strength and longevity. It is essential that, in a rapidly changing industry, we continue to meet our customers' complex and varying needs in terms of product performance, sustainability and cost.

### OUR TECHNOLOGY ROADMAP

Research and Development (R&D) provide us with the understanding we need to consistently supply our customers with high quality, high performance carbon black that meets all necessary regulatory requirements. It also enables us to continuously improve our portfolio, look at new applications for carbon black and closely assess the safety and sustainability performance of our products. Our Technology Roadmap is designed to coordinate and reinforce our approach to technology and product development by focusing on three drivers – growth, sustainability, and cost and quality. THE THREE DRIVERS OF OUR TECHNOLOGY ROADMAP

### GROWTH

Introduce a standard engineering design package to ensure we build and maintain industry-leading facilities.

Establish strong relationships with engineering and construction firms in all our locations globally.

Increase capacity for production of Specialty Black grades.

### **SUSTAINABILITY**

Utilize tail gas as a fuel commercially.

Operate high temperature and pressure co-generation units to maximize energy recovery.

Increase commercialization of low rolling resistance tread material.

Proactively exceed all environmental regulatory requirements ahead of time.

### COST AND QUALITY

Operate new reactor technology to significantly increase yield and quality.

Commercially utilize alternative feedstock routes.

Ensure all our plants meet a yield and energy recovery benchmark.

Highlight our global product capability and consistency as a competitive advantage.



### A WORLD-CLASS NETWORK

R&D starts with the best facilities and processes. We have invested in world-class R&D centers in Taloja, Maharashtra, India and Marietta, Georgia, USA, as well as two other regional satellite laboratories in Korea and Brazil. More than 50 leading scientists and researchers work at these sites. The analytical, physics and applications laboratories have state-of-the-art equipment dedicated to the ongoing development and utilization of carbon black in plastics, rubber and liquid systems, now and in the future. This enables us to test products beyond compliance and identify new uses for our carbon black, meaning we can develop international standards and maintain our leadership position in the carbon black industry. Our Product Technology group works with our technical service teams in each region of the world. These dedicated groups engage with our customers on a daily basis to ensure that all their carbon black needs are met.

### **ROLLING RESISTANCE**

Carbon black helps to reduce the rolling resistance of a tire, meaning that less energy is consumed during movement, resulting in higher fuel economy and fewer emissions. Rolling resistance is a key focus for Birla Carbon, particularly in markets where efficiency and fuel economy are priorities in automobile design.

In China, for example, a quarter of all passenger tires produced will need to be safer and more efficient "Green Tires" by 2015, and in South Korea tire labeling is now mandatory. Birla Carbon is committed to supporting tire manufacturers as they consider new developments in rolling resistance, and we are currently assessing the attributes of different types of carbon black, which will help us improve the performance of tires in the future.

# SHARING EXPERTISE AND KNOWLEDGE

Companies in the carbon black industry have a history of proactive and thorough engagement with customers, industry bodies, non-governmental organizations (NGOs), regulatory authorities and academics. We plan to continue collaborating with these groups to use carbon black as safely and efficiently as possible.

### THE INTERNATIONAL CARBON BLACK ASSOCIATION

We are an active member of the International Carbon Black Association (ICBA), an industry association. Birla Carbon professionals participate and, in some cases, chair the ICBA's Product Safety and Regulatory Committees for North America, Europe and Asia. These industry groups meet on a regular basis to address the changing regulatory landscape of their specific region. Additionally, the organization sponsors an independent Scientific Advisory Group (SAG) which conducts and participates in investigations, research and analyses. These often result in peer-reviewed publications, relating to the health, safety and environmental aspects of the production and use of carbon black.

### **CUSTOMERS**

Through our Product Stewardship newsletter, education network and regular engagement with our customers, we aim to keep them up to date with the latest industry developments. Our sales teams also receive training and a bi-monthly newsletter with the latest regulatory changes.

### ACADEMIA

We have commissioned some of the longest-running academic research in the industry, including several peer-reviewed reports to help us understand the potential risks around the use of carbon black. In addition, Birla Carbon supports exposure working groups, which assess the impact of working with carbon black on employees' long-term health.



GOVERNANCE AND ETHICS

OVERVIEW

CE PRODUCT S RESPONSIBILITY



CUSTOMERS AND SUPPLIERS





COMMUNITIES

PERFORMANCE

# **ENVIR MENT**

\$20.2M INVESTED IN PROCESS IMPROVEMENTS RELATED TO ENERGY EFFICIENCY AND REDUCING GHG EMISSIONS IN FY2014

4.6% REDUCTION IN DIRECT CO2 EMISSION INTENSITY FROM FY2013 TO FY2014

OF OUR 17 MANUFACTURING LOCATIONS HAD ZERO INDUSTRIAL WASTE WATER DISCHARGE IN FY2014

Our business depends on limited natural resources such as oil, gas and water. We recognize that we have a responsibility to grow our business in a way that uses natural resources wisely, ensuring we remain competitive while preserving the environment for future generations. Our environmental strategy focuses on four areas – energy and emissions, water, waste and responsible sourcing and consumption.

Water catchment pool at Cubatão plant Brazil, that receives water from a river and is used in our proce

26



GOVERNANCE

OVERVIEW

AND ETHICS RESPONSIBILITY

PRODUCT



CUSTOMERS AND SUPPLIERS

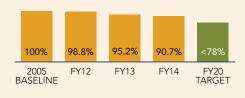
PEOPLE

COMMUNITIES

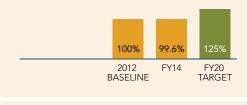
PERFORMANCE

### **PROGRESS TOWARDS** TARGETS **OUR 2020 AIMS:**

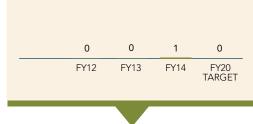
#### **REDUCE OUR DIRECT CO<sub>2</sub>** EMISSION INTENSITY BY MORE **THAN 22%**



#### **INCREASE OUR NET ENERGY OUTPUT INTENSITY BY MORE THAN 25%**



### **RECORD ZERO ENVIRONMENTAL ESCAPES YEAR ON YEAR**



# ENERGY AND EMISSIONS

### OUR APPROACH

Operating efficiently is vital to Birla Carbon's continued and sustainable success. We face a number of challenges in this area, including meeting stricter regulations, implementing the latest technology at our plants, and attracting talented people who can operate our stateof-the-art plants and technology. We are committed to tackling these challenges, and we plan to do this by improving our manufacturing efficiency through innovation and shared expertise, investing in technology to upgrade our older plants and building new, high-tech facilities. This is all part of our Sustainable Operational Excellence approach, which helps us improve standards, operate efficiently and minimize our environmental impacts.

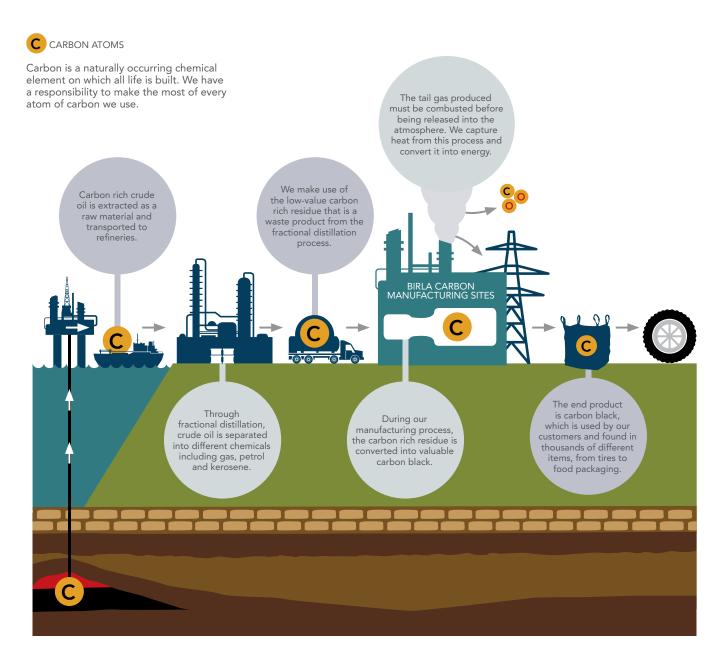
INVESTED IN OPTIMIZING ENERGY AND REDUCING **GHG EMISSIONS IN FY2014** 

Although we continue to purchase significantly less energy, our total energy export intensity has plateaued due to a change in our feedstock mix. We will continue working to improve our energy recovery process. We recorded one oil spillage incident in FY2014 and the area has now been fully restored. We reduced our direct CO<sub>2</sub> emission intensity and are on track to meet our 2020 goal.



Our energy and emissions strategy is based on two pillars: converting more carbon from the oil and gas we use as feedstock into carbon black, and viewing energy – whether electricity, steam or tail gas – as a valuable product that we use to reduce manufacturing cost and sell to increase revenues which enables us to invest in new and improved technologies.

### OUR APPROACH TO CARBON STEWARDSHIP





AND ETHICS

PRODUCT

RESPONSIBILITY



CUSTOMERS

AND SUPPLIERS

PEOPLE

COMMUNITIES

PERFORMANCE

### **OUR PERFORMANCE**

### ESTABLISHING OUR NEXT GENERATION OF WORLD-CLASS MANUFACTURING FACILITIES

We are constantly looking for the latest and most efficient technology for our plants. Our focus is on upgrading and enhancing our old plants, while developing a new generation of facilities. In FY2014, we invested \$20.2 million in state-of-the-art technology to help us maximize the efficiency of our manufacturing processes and enhance our environmental performance. This included high temperature and heat recovery technology, which reduces fuel consumption and increases yield. In FY2014, this type of equipment contributed to a reduction of approximately 2% in our CO<sub>2</sub> emissions, but this higher temperature technology is more complex to operate and requires specific skills. We have therefore provided further training to our operators and developed additional control systems to ensure reliable operation.



#### BATTERY-OPERATED FORKLIFT TRUCKS, INDIA

The diesel vehicles we have used at Gummidipoondi for a number of years consume around 300 liters of fuel every day. In March 2014, we decided to replace our diesel-powered forklift trucks with battery-operated vehicles to help reduce fuel consumption at the site. This followed a sixmonth trial during which we tested the safety and performance of the new forklift trucks.

The new vehicles have helped us minimize emissions and reduce our fuel consumption by 150 liters per day, resulting in significant cost savings for the business. In addition, we are now spending fewer hours on the refuelling of our forklifts, while significantly reducing the risk of diesel spillage and resulting land contamination.

### CONTINUING TO REDUCE OUR DIRECT CO<sub>2</sub> EMISSION INTENSITY

The technology we have invested in has helped us reduce our carbon footprint even further. In FY2014 our sites reduced direct  $CO_2$  emission intensity by 4.6% – the largest reduction we have ever achieved. This has helped us get closer to the overall benchmark yield we want to achieve as a business. Thanks to these practices, we are currently on track to achieve our target direct  $CO_2$  emission intensity reduction of 22% by 2020.

Around 70% of our costs are raw materials used for feedstock, such as natural gas and oil. So using these resources efficiently is crucial to the long-term viability of our business, as well as helping to reduce our environmental impact. Traditionally, a large percentage of our carbon black feedstock oil has come from the US Gulf Coast in the form of Fluid Cat Cracker (FCC) oil. While this oil is an efficient feedstock due to its high carbon content, it is relatively expensive to transport and generates significant sulphur emissions. We have therefore identified alternative local feedstock oils for use at our plants, especially in Asia and India.

When appropriate, we have started to use natural gas rather than feedstock oil. This reduces our GHG emission intensity, as natural gas contains less carbon per unit of energy than feedstock oil. We have also identified new oil sources from coal tar distillers that have an even higher carbon content and a lower sulphur content than typical FCC oil. This enables us to further reduce our direct greenhouse gas emissions and SO<sub>x</sub> emissions. It is also important to note that – rather than being wasted – a significant amount of the carbon black material that does not meet our high quality standards is reused in the manufacturing process. We encourage all our sites to adopt this approach.



4.6% REDUCTION IN DIRECT CO<sub>2</sub> EMISSION INTENSITY FROM FY2013 TO FY2014, BOOSTED BY A **9.8% REDUCTION IN OUR SOUTH EAST ASIA & FAR EAST FACILITIES** 



### **REMAINING ENERGY POSITIVE**

Last year we reported that, thanks to significant efforts across the business, Birla Carbon had become energy positive. This means that, globally, we generate surplus energy while manufacturing carbon black. In FY2014, we continued to recover energy from our manufacturing processes, generating 7.82 gigajoules of surplus energy for every tonne of carbon black we produced. Considering our global carbon black production figures for FY2014, this is the equivalent to providing enough energy to power 280,000 average US households for one year.\* Meanwhile, our average monthly energy purchase fell by 17.6%. But while we are energy positive across our business, with one further site becoming energy positive in 2014, four of our plants continue to be energy negative. Our goal is to help these plants become energy positive in the future, thereby increasing our overall energy contribution.

Moving forward, we must identify and recruit people that have the appropriate skills to use and implement new technologies, and where markets face a skills shortage, we must use our global scale to develop our own talent.

**13** OF 17 PLANTS ARE ENERGY POSITIVE ONE FURTHER PLANT BECAME ENERGY POSITIVE IN FY2014, TAKING THE TOTAL TO 13 SITES

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\* Based on average energy consumption figures from the US Energy Information Administration, 2012.



#### BECOMING ENERGY POSITIVE AT ALEXANDRIA, EGYPT

Over the last year, our plant in Alexandria has gone from being net energy negative to net energy positive. In FY2013 we had to source 1.25 gigajoule to produce every tonne of carbon black, while in FY2014 we recorded a positive net contribution of 1.12 gigajoule.

We have achieved this improvement through two main strategies:

- To improve the efficiency of the co-generation cycle, we reduced the amount of energy lost through the pressure reduction stations. We focused on maximizing the extraction of energy from the steam turbines, therefore reducing the steam flow to the pressure reduction stations, where it would otherwise be lost.
- 2. We also focused on creating awareness among employees to minimize or avoid using supplementary natural gas consumption in boilers.





GOVERNANCE

AND ETHICS

PRODUCT RESPONSIBILITY



CUSTOMERS AND SUPPLIERS

PEOPLE

COMMUNITIES

PERFORMANCE



### **MEET** OUR VICE PRESIDENT OF POWER AND UTILITIES

### DHIRAJ MARAKANA

### How has Birla Carbon's approach to energy management changed over recent years?

"How we purchase and use energy has major impact on our overall performance. By operating efficiently at the sites where we buy energy, and successfully selling the surplus energy we generate at other plants, we will reduce our carbon footprint.

Over the past two years we have revolutionized the way we operate by embedding energy performance into our business model. Part of my role has been to develop a standard way to measure energy across the business and map the energy performance at all our plants. This has enabled us to easily compare performance, report against progress and therefore identify where best practice can be shared across Birla Carbon.

It has also led to a key step-change around the allocation of capital expenditure. We are now much more focused on long-term solutions rather than short-term gains, which has meant an increasing and significant expenditure on energy-saving and emission reduction measures."

### INTRODUCING REGIONAL ENERGY MANAGERS

We have successfully introduced Regional Energy Managers (REMs) at our sites in Asia, Europe and Africa. Their role is to assess the energy efficiency of each of our plants and provide expertise and support to the sites as they implement improvement processes. The REMs then share this knowledge across the business, encouraging all our plants to adopt similar initiatives if they are able to.

In FY2014, we also set our first regional targets for our plants in Europe and Africa, which the REMs are responsible for driving. So far Europe has seen an impressive 53% improvement in net energy output intensity versus FY2013. Due to the success of this program, we plan to have REMs in place at all our regions within the next two years, and we are currently training the existing Regional Technical Managers (RTMs) at these sites to perform the new role.



OUR EUROPE AND AFRICA REGION INCREASED NET ENERGY OUTPUT **INTENSITY BY 53% FROM** FY2013 TO FY2014



### ASSESSING OUR TOTAL CARBON FOOTPRINT

In FY2014 we conducted a Life Cycle Assessment (LCA) to measure the impacts of our feedstock and carbon black. LCA is a technique used to understand the environmental impacts of all stages of a product life cycle from extraction of raw materials to processing, manufacture, distribution, use, maintenance and disposal or recycling. In this case we looked at "cradle to gate", from raw material extraction to the delivery of carbon black to our customers' gates. The objective of the assessment was to better understand our impact with regard to CO<sub>2</sub> emissions and identify opportunities to reduce our overall carbon footprint. We looked at the last three years of feedstock delivery, production and product distribution data to establish a baseline and to better understand where we can reduce carbon emissions most effectively.

We undertook this assessment for several reasons. We wanted to better understand our upstream carbon impact, which includes the extraction, refinement and transport of the carbon-based feedstock for our production facilities. This enables us to make sourcing decisions that consider both potential environmental impacts and feedstock price. We also wanted to understand where we could leverage our supply chain to ensure we minimized feedstock availability risks. Finally, we wanted to understand the CO<sub>2</sub> impacts of how we get our products to our customers and where there are opportunities to reduce these impacts through better logistics decisions.



#### INSTALLING VARIABLE FREQUENCY DRIVERS, GLOBAL

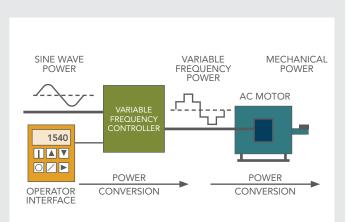
Pumps, blowers and fans account for more than 80% of the electrical power consumed during the carbon black manufacturing process.

An efficient way to save energy is by running pumps, blowers and fans at lower speeds when there is a smaller flow requirement – something that can be achieved by installing Variable Frequency Drivers (VFD). These devices can cut power consumption by 27%, while the pump speed is only reduced by about 10%.

We have started installing more and more VFDs at our plants, resulting in considerable energy savings. The power we save is exported to the national grid, helping to improve our net energy contribution and our global carbon footprint. The results of the LCA have told us several important things about our business. We now understand that from raw materials acquisition (feedstock), through to carbon black production and delivery to our customers, our biggest opportunities for  $CO_2$  reduction remain at the production stage. We also have a much more granular understanding of the relative contribution of  $CO_2$  from our feedstock choices and sources, and are actively looking at ways to work with our suppliers to minimize unnecessary transport. We now have significantly more detail and vetting of our  $CO_2$  impacts information for our future sustainability reports. Lastly, while our product delivery to our customers has a relatively minor  $CO_2$  impact, we believe this data will help our customers better understand their own carbon footprint.

The carbon impact identified in this study is expressed in  $CO_2$ -equivalent emissions ( $CO_2$ -eq), a relative measurement of how much heat greenhouse gas traps in the atmosphere. Equivalent  $CO_2$  is the concentration of  $CO_2$  that would cause the same level of radiative forcing as a given type and concentration of greenhouse gas. Examples of such greenhouse gases are methane, perfluorocarbons and nitrous oxide.  $CO_2$ -eq is expressed as parts per million by volume, ppmv.

In the future we may expand this study to include other environmental indicators such as ozone depletion potential, human health impacts from air pollutants, carcinogens and non-carcinogens, and fossil fuel depletion. We plan on sharing the results from our LCA with both key customers and key suppliers so that we can engage with them to further reduce our global carbon footprint.





### **ISO COMPLIANCE AUDITS AND SHARING BEST PRACTICE**

Complying with international laws, standards, codes of conduct and our own business principles is hugely important to Birla Carbon as it helps us to operate responsibly, mitigate risk and build trust with stakeholders.

### ENERGY

In FY2014, three of our plants (Gummidipoondi, Hannover and Tiszaújváros) became accredited to the ISO 50001 standard, which stimulates organizations to establish systems and procedures necessary to improve their energy efficiency, energy use and consumption. Our three Indian plants have obtained the Aditya Birla Group's Corporate World Class Manufacturing (CWCM) certification, an initiative that promotes and supports the highest standards in manufacturing and production. Meeting all relevant standards will help us strengthen our industry-leading position, and our goal is for all sites to achieve CWCM and ISO 50001 in the future.

### **AIR EMISSIONS**

We monitor our air emissions, which include  $NO_x$  and SO<sub>x</sub> resulting from the oxidation of tail gas, to ensure compliance with the regulatory requirements. We have policies and procedures in place so that, in the case of incidents of non-compliance, we can notify the local authorities and take action as soon as possible. Our approach, driven by SOE, goes well beyond compliance through the rigorous implementation of best practices. Our operational activities also generate non-GHG emissions. To meet and exceed evolving regulatory standards, Birla Carbon has worked on technology improvements such as state-of-the-art filter materials, which ensure maximum recovery of carbon black particles. In addition, we continually evaluate innovative global technologies relating to air emissions for applicability to all our operations.

### CONDUCTING COMPREHENSIVE AUDITS

We regularly audit our codes, policies, systems and practices. This helps us identify areas for improvement and functions that require additional training. The comprehensive energy audits, which take place every two years, are performed by the Aditya Birla Group Central Technical and Energy Service or an independent audit company, depending on the location of the site. Where necessary, we introduce detailed action plans that are thoroughly and systematically monitored. In FY2014, we conducted comprehensive energy audits of our plants in Cubatão and Bahia, Brazil, and Gummidipoondi, India.

### EMPOWERING OUR PEOPLE AND SHARING BEST PRACTICES

In FY2014, we continued to focus our efforts on sharing best practices across our facilities. Our plants issue a quarterly scorecard detailing how they have implemented best practices over the previous three months. These scores are used to create a site league table, with the top performers passing on successful processes and techniques to other sites. Through this process we encourage each of our employees to help identify and make small changes which contribute to site efficiency.

In the last year we have been highlighting the importance of sustainability to employees across the business, particularly our engineers. We hold a sustainability review every quarter, and there is a focus on energy and emission control in our internal communications. We have also circulated training modules on boiler and turbine operation and arranged three knowledge improvement seminars at manufacturing sites.



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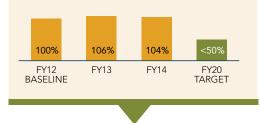
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PROGRESS TOWARDS TARGETS OUR 2020 AIMS:

#### REDUCE OUR WATER WITHDRAWAL INTENSITY BY 50% BY 2020

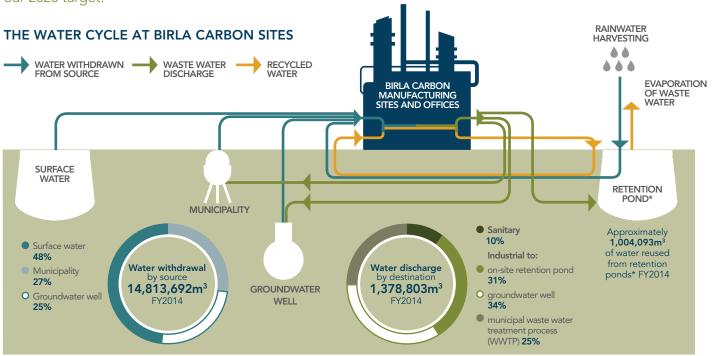


Our improved understanding of the water cycle at each of our plants has helped us reduce the figure slightly for FY2014. We are confident that, through additional training on water management and an increase in water recycling capacity, we will be able to improve on this in the future and reach our 2020 target.

# WATER

### OUR APPROACH

The world is facing a growing gap between the availability and demand of safe, fresh water. If nothing changes, by 2030 the global population will outstrip the earth's capacity to provide us with water by 40%. At Birla Carbon, we use water in a number of ways, including for drinking, sanitation and in our manufacturing process, so effective water stewardship is absolutely essential for the health of the planet and the long-term success of our company. This is particularly true in water-stressed areas where we have operations, such as India, Kansas, USA or Egypt, where we are committed to respecting people's right to water. Our water strategy centers on minimizing the amount of water we use during the carbon black manufacturing process and recycling as much water as possible at all of our sites. Clearly understanding how we use water will help us reduce our water footprint and preserve this precious natural resource for the future.



\* Recycled process water and rainwater is collected in retention ponds and pumped back into the process.





GOVERNANCE AND ETHICS







AND SUPPLIERS

PEOPLE



COMMUNITIES

PERFORMANCE



#### GE WATER AWARD FOR HAMILTON, CANADA

In December 2013, Birla Carbon received General Electric (GE) Water's Return on Environment and Proof Not Promises awards. The awards, which acknowledge projects that have significant financial, health, safety and environmental impacts, recognized a number of projects that we have worked on over the last five years. Most recently, the team at Hamilton worked with representatives from GE Water to improve the performance of boiler superheater tubes in the site's water management system. Over the last five years, our various projects have resulted in water savings of 12 million gallons per year, financial savings of \$700,000 and a reduction in potential production losses of 840 metric tonnes.

Hamilton's Chief Operating Engineer, Javed Mian, collected the GE award on behalf of the plant.



OF REVERSE OSMOSIS REJECT **WASTEWATER RECYCLED** VIA THE SLURRY SYSTEM AT OUR HAMILTON PLANT IN FY2014

### **OUR PERFORMANCE**

### REDUCING WATER USE IN MANUFACTURING

Water is an essential part of Birla Carbon's carbon black manufacturing process. By using all types of water as efficiently as possible – whether it is raw water, process water or treated water – we will achieve significant reductions across the business. We reuse water wherever we can. For example, once water has been used in the manufacturing process it is then directed into retention pools so it can be used in the process again. We share our water conservation best practices across all of our locations as part of our strategy of Best Practice Management, a pillar of SOE. One of our goals is to have each site accurately measuring/estimating the volume of water that is recycled in our facilities.

### **RECYCLING INITIATIVES**

By reducing the intensity of our water withdrawal we will minimize our impact on local communities. In FY2014, we continued to minimize our water use through a number of water recycling initiatives across our sites. These include reusing process water and harvesting rainwater to minimize the amount of water from nearby resources. The water we collect is directed to retention ponds where it can be stored, and at some sites the steam generated is used by the community in their central heating system. Many sites have a zero discharge of industrial waste water and either reuse or evaporate the water collected in the retention ponds. Going forward, we plan to evaluate our rainwater harvesting efforts more clearly, and collect and reuse the storm water that falls around our sites to minimize the impact on local water sources that the communities around us rely on.



REDUCTION IN **AVERAGE** WATER CONSUMPTION AT OUR GUMMIDIPOONDI PLANT IN INDIA FROM FY2011 TO FY2014

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AND ETHICS

OVERVIEW

GOVERNANCE

PRODUCT

RESPONSIBILITY



CUSTOMERS

AND SUPPLIERS

PEOPLE

COMMUNITIES

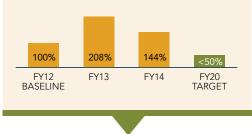
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# PROGRESS TOWARDS

OUR 2020 AIMS:

#### REDUCE SOLID WASTE GENERATION INTENSITY BY 50% BY 2020



Our FY2014 figure is a significant improvement on the previous year. This is mainly due to an increased awareness of the issue of solid waste at plant level.



#### LIME SLUDGE DISPOSAL AT GUMMIDIPOONDI, INDIA

By using hydrated lime and dolomite lime in our water treatment process, we generate around 35 tonnes of lime sludge each month at our Gummidipoondi plant. In FY2014 we launched an initiative to divert our lime sludge away from landfill sites, ensuring we dispose of this waste in a sustainable and environmentally friendly way. Lime sludge can be used in various products, including fly ash bricks. We arranged to distribute the excess lime sludge we generate to fly ash brick manufacturers located close to our site. This offers a more sustainable alternative to traditional clay brick makers and aligns with our company-wide commitment to support the environment.

# WASTE

# OUR APPROACH

As with areas such as water and emissions, regulations around waste are becoming far more stringent, particularly in developing countries. At the same time our customers are introducing stricter internal waste policies. We must therefore implement a robust and thorough waste strategy to ensure that our process, and the carbon black we supply, complies with these standards.

Most of the waste we generate is in the form of materials from our manufacturing process, but we must also manage waste streams such as office refuse and packaging materials from supplies. We are constantly looking at new ways of maximizing process efficiency at our plants, as this will help us reduce waste even further. Our activity focuses on minimizing the amount of waste we produce and reusing the waste we generate.

# OUR PERFORMANCE

# WASTE MANAGEMENT

Our strategy involves either eliminating waste altogether or reusing materials for the same purpose or for a separate, secondary use. We also work with organizations such as Repasak® to facilitate the recycling of our product packaging in Europe and provide our employees with training on how to reduce waste in the workplace. Each of our sites has developed a site-specific plan for identifying and managing the different types of waste generated by our activities, including metal, pallets, plastic materials, paper and cardboard.



Specific waste reduction initiatives include using new, recyclable 25 kg carbon black containers and using the residue from our waste water treatment plant as fertilizer. By utilizing recyclable containers, we are able to reduce the number of new packages that are needed to meet customer needs. This also reduces the waste generated by our customers once they have consumed the carbon black in their process. We encourage our sites to combine their efforts around waste reduction and share best practice, which will help us manage these streams in the most effective way possible.

In the future we plan to adopt a zero waste approach across our business. This would involve redesigning our processes so that all materials could be reused, either by Birla Carbon or by others, rather than being sent to landfill.

#### COMPLIANCE

Our sites comply with all applicable health, safety and environmental requirements to ensure that any materials which must be sent for disposal are done so in the most environmentally sound manner. In FY2014, 16 of our 17 manufacturing sites met the ISO 14001 standard. This internationally recognized standard covers the design and implementation of an environmental management system designed to measure and improve the way natural resources are used and disposed of by an organization. Similar to other key focus areas, we have an established audit program, utilizing third party experts, to regularly review the compliance at each location.

16 OF 17 MANUFACTURING SITES NOW MEET THE ISO 14001 ENVIRONMENTAL STANDARD

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#### ENVIRONMENTAL REMEDIATION AT THE FORMER SEVALCO SITE, UK

We respect all the communities around our offices and factories, and do all we can to ensure that our former sites are safe and environmentally compliant when we move on. In 2008, we announced the closure of our Sevalco plant in the UK. The 80,000 m<sup>2</sup> facility, which had been in operation since 1951, produced around 120,000 tonnes of carbon black each year. We retained a small team at the site to manage the program of decommissioning, demolition and remediation work. They oversaw a range of activities including environmental monitoring, groundwater management and decontamination. The full remediation process was completed to the approval of the UK Regulatory Authorities, and in March 2014 we returned the area to the Bristol Port Authority in a condition that is suitable for continued use as an industrial facility. It will now be regenerated to become a new waste-to-energy plant.





Before.

After.

- 33,286 m<sup>3</sup> of soil excavated and processed.
- 27,000 m<sup>3</sup> of soil validated and reused on site.
- 9.8 million liters of water treated.
- Zero reportable health and safety incidents.



# SOURCING AND CONSUMPTION OF FEEDSTOCK

# OUR APPROACH

Due to the nature of our business, we purchase a significant amount of feedstock, including gas and oil. When we purchase, transport and consume materials such as these, we must make decisions that consider our environmental and social impacts and are aligned with our commitments and policies. This will help us mitigate risk. But it is also about ensuring that our suppliers understand and are aligned with these requirements and are able to maintain a viable and sustainable business. We expect our feedstock suppliers to meet our ethical, health and safety, social and environmental standards, and will work with them to achieve this. This will enable them to thrive in the future while guaranteeing us security of supply.

# **OUR PERFORMANCE**

# WORKING WITH GLOBAL AND LOCAL SUPPLIERS

Given our global presence and the nature of our products, feedstock is the most critical component of our business. Hydrocarbons and natural gas, our two most significant sources of feedstock, are sourced from locations around the globe based on availability and price. Recently, we have conducted a review of where our feedstocks originate from to better understand how we can transport them to our manufacturing facilities around the globe as efficiently as possible. This process also showed us different ways that we can reduce our carbon footprint. Our general practice is to source other key materials from suppliers local to our facilities. This ensures we are efficient and that we support other local businesses.

While Birla Carbon's plants in North America, South America and, more recently, Europe, purchase their carbon black feedstock from the country in which they are located, our manufacturing facilities in Egypt, India and Asia have traditionally imported feedstock from overseas locations such as the US Gulf Coast.

In the last three to four years, however, we have diversified our feedstock oil procurement in these markets. By using regional suppliers we are able to purchase better value feedstock, reduce transport costs, minimize our environmental impact and increase responsiveness. But moving to regional suppliers does not mean compromising on standards. We will only source feedstock oil and gas from reputable businesses that meet relevant industry standards.

#### USING LOCAL SUPPLIERS, THAILAND

In FY2014 our plant in Angthong, Thailand diversified its feedstock sourcing strategy to reduce its dependence on the US Gulf Coast.

Following a review of its sourcing strategy, the facility now purchases around 15% of its feedstock from China. The challenges of such a major change included finding a supplier that could cope with the high volumes of feedstock required and identifying a suitable shipping company to use.

After three months of hard work, a global team comprising functional experts achieved its goal. The new regional system controls the risk of disproportionate price increases, ensures a regular supply of appropriate feedstock, and reduces the overall carbon footprint caused by the transportation of oil across the globe.

The team was presented with the internal Business PRIDE award for their work.



GOVERNANCE

AND ETHICS

OVERVIEW



ENVIRONMENT

PRODUCT

RESPONSIBILITY





PEOPLE

COMMUNITIES

PERFORMANCE

# CUST©MERS

2015 COMMITTED TO LAUNCH SUPPLIER CODE OF CONDUCT IN 2015

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PRACTI

100% OF FEEDSTOCK SUPPLIERS REVIEWED FOR SUSTAINABILITY ACTIVITY **FIRST** GLOBAL CUSTOMER SATISFACTION SURVEY CONDUCTED IN FY2014

> To remain as the global carbon black leader we must engage closely with our customers to fully understand their needs, further strengthen our rigorous product quality program, and work with suppliers to ensure they are always able to meet our high standards.

> > Showcasing our application and product solutions through rade shows across the world.



# QUALITY AND CUSTOMER ENGAGEMENT

# **OUR APPROACH**

By fostering our existing customer relationships and developing new ones, we will encourage growth and security – and therefore business continuity – in the future. To achieve this, we must manufacture products that meet or exceed all relevant regulatory standards and comply with our customers' needs, delivering these products securely, on time and on budget. We must also engage closely with customers to help us meet expectations and understand changes in consumer behavior, enabling us to introduce practices and manufacture products that are aligned with their developing needs. Furthermore, we aim to support our customers' sustainability objectives by minimizing our environmental impact and engaging with the communities where we operate.

# **OUR PERFORMANCE**

# ENGAGING WITH OUR CUSTOMERS

We are committed to offering our customers the highest levels of service and satisfaction every time they deal with us. Customer engagement has been a major focus for us in the last year, and we will continue to increase our activity in this area in the future to help us guarantee business continuity.

Launched in 2012, our Client Relationship Management (CRM) program, Salesforce.com, facilitates coordination between our global sales, quality and customer service teams, helping us greatly enhance customer interactions.

This CRM program provides a platform for collaboration among a global team and for global customers it provides instant access to the latest and most relevant activities within Birla Carbon. Information can be found at a common site and users are alerted to relevant communications in real time. It also allows access to new sales opportunities, customer complaints, contact information and financial information. To improve the service, recently established guidelines have ensured more consistent, accurate and beneficial data for its users.

We also share product reports to educate our customers about carbon black and inform them of the latest industry developments. Birla Carbon's first sustainability report, which helps to increase transparency, was well received by our customers.





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PRODUCT RESPONSIBILITY ENVIRONMENT



PEOPLE

COMMUNITIES

PERFORMANCE



#### **MEET** OUR CHIEF MARKETING OFFICER

# **RAHUL KOHLI**

# How do you ensure a secure supply of carbon black to customers?

"We are committed to offering our customers a secure supply of carbon black at all times, regardless of location, and irrespective of natural or political events that may be taking place across the world.

We have 17 manufacturing plants and four decanting centers globally, which together enable us to produce and distribute more than two million tonnes of carbon black each year.

This global reach, combined with our supply chain knowledge and longstanding relationships with logistics experts, gives us the flexibility to supply each and every one of our customers with the level, and type, of carbon black they require. In FY2014, we lined up a number of additional feedstock suppliers to ensure we will always be able to meet our customers' carbon black needs in each of our markets."

80% CUSTOMER SATISFACTION SURVEY COMPLETED BY MORE THAN 220 CUSTOMERS GLOBALLY, THAT MAKE UP OVER 80% OF BIRLA CARBON'S TOTAL SALES VOLUME

## ACCOUNT MANAGEMENT PROGRAM

Our intention is to strengthen customer relationships so that customers view us as a partner in their growth and continued success.

Over the last year, we have implemented an Account Management program that will help us develop a multilevel, multi-functional engagement approach for dealing with our customers. Designed to set us apart from our competitors, the engagement model will help us to improve our relationship points within the customers' organization. This involves increasing the skill set within our business and promoting in-depth engagement with our customers at all levels of the business – from the CEO and the Board to sales teams, R&D departments and technical teams. This will help Birla Carbon to deepen our relationship with customers and anticipate their needs by developing products and services that are in line with consumer requirements.

We believe that innovative new products will be the result of joint development programs between Birla Carbon and our customers. Several of our major customers, for example, have committed to significantly reduce the weight of tires, while maintaining strength, by 2020. We will need to engage and share knowledge to help them meet this long-term sustainable mobility target.

#### LAUNCHING OUR CUSTOMER SATISFACTION SURVEY

In FY2014 Birla Carbon launched its first global Customer Satisfaction Survey, designed to give us feedback on what matters most to our customers.

The survey was targeted exclusively at the rubber market, which consumes the most carbon black globally. It was divided into two elements – a brief questionnaire aimed at Managing Directors and CEOs, and a detailed questionnaire to be completed by heads of procurement. The first featured questions about the performance of our business on a broad level, including the success of the integration of Birla Carbon and Columbian Chemicals Co. The second covered topics such as ordering and delivery, quality performance, commercial and complaint management.

In both surveys, participants were asked to rate Birla Carbon's performance in a range of areas. The average score out of five for overall satisfaction was 3.4, with Complaint Management receiving a rating of 3.5 and Quality 3.4. The scores varied between regions and customer types, and while Birla Carbon enjoyed a very good satisfaction score among regional customers, we still feel there is considerable scope for improvement with our global clients. OVERVIEW GOVERNANCE PRODUCT ENVIRONMENT AND ETHICS RESPONSIBILITY



PEOPLE

COMMUNITIES

PERFORMANCE

We contacted customers that had given Birla Carbon a lower than average score to speak to them about any issues they may have had. We also shared the findings of the exercise across the business and with the Senior Management Team. We will use the results of the survey and feedback to inform our business decisions and help develop an improved strategy. We are currently awaiting the results of the most recent survey, which was conducted in May 2014.

## HOLDING CUSTOMER AUDITS

Our customers are increasingly interested in our supply chain, so we are committed to becoming more equipped to respond to their questions and to guarantee the sustainability of our own suppliers. Each year, some of our customers conduct an audit of our business, during which they visit Birla Carbon plants and audit several of our processes such as safety, environmental, quality and procurement.

## ACTING ON FEEDBACK

As well as having thorough quality procedures in place, we have also implemented detailed processes that enable us to respond quickly and effectively to customer feedback. We carry out a thorough investigation for each complaint we receive, and if the issue is product-related, representatives from our technology centers assess the technical problem before issuing a report that we share with the customer.

# PRODUCT QUALITY

The quality of carbon black we provide, and the expertise we offer to go with it, has a direct impact on the performance and safety of many of the products our customers manufacture. A tire, for example, is one of the most important safety aspects of a vehicle. If the carbon black we produce is not supplied in the right quality or used correctly, this could have a significant impact on the safety and performance of tires.

As the only global business focused solely on carbon black production, we are in a strong position to supply our customers with groundbreaking products of the very highest quality. Our goal is to ensure that every batch of carbon black we produce complies with our clients' stringent specifications relating to cleanliness, morphology, and bead properties.



#### LISTENING TO OUR CUSTOMERS, CHINA

In FY2014, our plant in Weifang was audited by four major tire manufacturers. While we achieved a minimum compliance rating of 85%, the auditing customers identified several areas for improvement. In light of the findings, we have designed and implemented a number of corrective actions.

The audits helped us improve our incoming quality control process for some of our raw materials. Thanks to the input from the auditors, the warehouse, logistics and inventory management at Weifang are now significantly improved. In addition, a more robust recording process ensures we have complete traceability of corrective actions at the plant, meaning we can resolve complaints more quickly. Our customers have also suggested that we introduce plant housekeeping training for employees, and believe it is important to seek the Aditya Birla Group's Corporate World Class Manufacturing (CWCM) certification. We will continue to review and respond to this feedback over the coming years.

Dialog such as this builds trust with our customers, helping us develop and maintain mutually beneficial, long-term relationships. Ensuring we share our customers' sustainability objectives is a key element of our Business Continuity Plan.





#### QUALITY INITIATIVES IN EUROPE AND AFRICA

Our Europe and Africa region has challenged itself to become the leader in carbon black quality and service by improving processes in six key ways shown below:



These methods have already helped to improve product quality in Europe and Africa, and going forward we will determine whether to implement them across all areas of the business.

## QUALITY ASSURANCE

Each of our plants is ISO 9001 accredited, meaning that we have established and documented methods for all our processes. All our production facilities have a Quality Assurance (QA) laboratory, which uses state-ofthe-art testing equipment to check our products against stringent shipping specifications. These QA laboratories ensure that the material sent to our customers complies exactly with their specific requirements.

#### WORKING WITH THE ASTM

On top of being regularly audited by members of our material analysis group, each laboratory is assessed twice a year through participation in an international proficiency testing program. This program is organized by the American Society for Testing and Materials International (ASTM International), and involves more than 100 laboratories worldwide. If any anomalies or deviations are found, we will carry out an investigation – with support from our two central laboratories in the USA and India – to resolve the problem. This commitment to sharing best practice ensures that our laboratories meet the very highest standards in each of our global markets.

Birla Carbon actively participates in the ASTM D24 technical committee, which develops internationally recognized test standards for the carbon black industry. The ASTM standards play a key role for our products in areas such as composition, properties, classification, nomenclature, analysis and quality assurance.

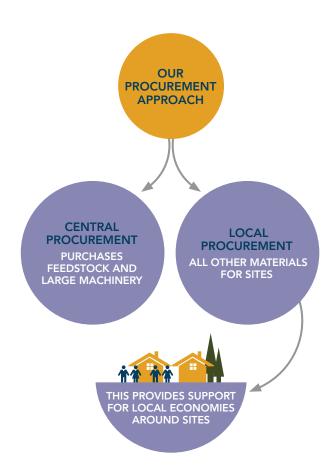


# SUPPLIER MANAGEMENT

# **OUR APPROACH**

Birla Carbon's supplier base includes suppliers and other partners from countries throughout the world, which are crucial to our business. Our relationships with, and trust in, local, regional and global suppliers is a key element of our business success and ensures we get products and services to our clients quickly and securely. We know that the behavior and business practices of our suppliers reflect on us, and we understand our responsibility to work with them to make our business as sustainable as possible.

2015 COMMITMENT TO LAUNCH SUPPLIER CODE OF CONDUCT



# OUR PERFORMANCE LAUNCHING OUR SUPPLIER CODE OF CONDUCT

We have a responsibility to ensure we have a compliant and ethical supply chain. Compliance is a non-negotiable minimum requirement in everything we do, but Birla Carbon aims to go beyond compliance by setting internal standards and principles that provide guidance to our employees, customers and suppliers.

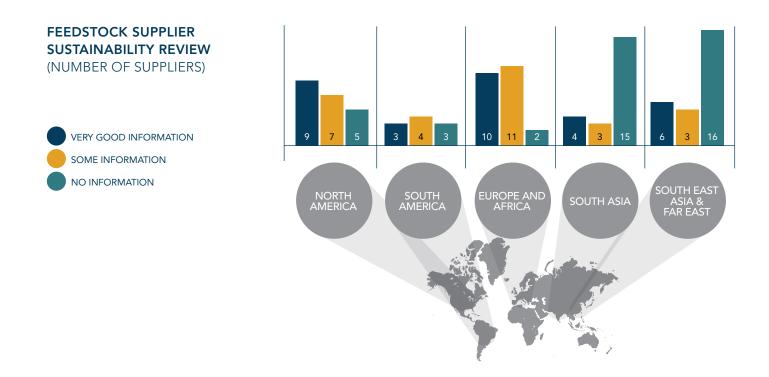
Using our own Code of Conduct as a basis, we are extending our values and ethics to our key suppliers through our Supplier Code of Conduct. In FY2015, we intend to provide a guidance document to our key suppliers, requesting that they comply with each of its core components. These include business ethics, labor practices, child labor, human rights, corporate governance, environmental protection, and worker health and safety. We will also send these suppliers a Supplier Assessment Checklist, allowing them to demonstrate how they are complying with our Supplier Code of Conduct. We understand this is a significant exercise, and that it will take our suppliers time to align performance with our expectations. We see this as a collaborative process and believe we will learn from each other along the way.

It is vital that all the members of our supply chain can demonstrate responsibility and transparency. And going forward we will screen and choose carriers, service providers and suppliers not only on the basis of reliability, quality, service and price, but also environmental and social performance.



# FEEDSTOCK SUPPLIER SUSTAINABILITY ASSESSMENT

During FY2014 we have been conducting research on our global feedstock suppliers to get a better understanding of their commitment to sustainability and ethical business practices. The evaluation was based on publicly available information from our suppliers' websites, and other sources. In many instances the identified feedstock suppliers were subsidiaries of larger companies, and these companies were also evaluated. Suppliers were rated based on the amount and comprehensiveness of the available information. This assessment told us that we need to continue our engagement with these stakeholders to further communicate our expectations, as well as identifying opportunities where there can be mutual support.



# **RESPONSE PLANNING AND PREPAREDNESS**

The oil we use as feedstock can be stored for significant periods of time – up to a year in some cases. In the past we kept our tanks and silos stocked up with oil, only using it as and when we needed to. But as the global economic landscape changes, and pricing becomes more volatile, we must adapt our feedstock inventory strategy if we are to remain efficient and dynamic.

In FY2014 we implemented a Just in Time strategy, which keeps our feedstock inventory as low as possible, making our business lean, improving cash flow, lowering capital costs and enabling us to respond more quickly to market changes. The ongoing implementation of our new software will help us keep on top of our inventory levels and analyze performance globally. We have formal Contract Supplier Agreements in place that enable us to source strategic raw materials from our suppliers with minimal risk. We source our raw material from multiple locations, ensuring we always have a consistent, secure supply. In addition, our suppliers - and each of our own plants - are required to maintain their own 30-day inventory of raw materials and finished goods. We have a list of approved and certified alternative suppliers that we can contact if either of these inventories are depleted. Quality is determined using a third party contractor or inspector at the point of delivery at each of our plants. Birla Carbon also has a comprehensive set of Crisis Management Response Guidelines in place. These include guidance about communicating to our customers and dispatching appropriate resources to mitigate any potential disruptions.



GOVERNANCE

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PRODUCT

RESPONSIBILITY

ENVIRONMENT



CUSTOMERS

AND SUPPLIERS



COMMUNITIES

PERFORMANCE

# **OUR PE®PLE**

47% **REDUCTION IN** CONTRACTOR TOTAL **RECORDABLE INCIDENT** RATE FROM FY2013 TO FY2014

OVERVIEW

FY2014 85% LAUNCH OF **EXPAT** SUPPORT PROGRAM IN FY2014

OF MANAGERS HIRED FROM THE LOCAL COMMUNITY IN FY2014

> At Birla Carbon, we engage our employees and offer opportunities to help build successful careers. That is one of the reasons why many of our people stay with us for a long time. Attracting, developing and retaining talented college graduates is a key priority and in many of our regions we are now hiring more graduates with an emphasis on technical and leadership skills.

A representation of our global network of employees being trained to drive a key business project in FY2014

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GOVERNANCE PRODUCT RESPONSIBILITY ENVIRONMENT



CUSTOMERS AND SUPPLIERS



COMMUNITIES

PERFORMANCE

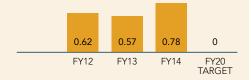


AND ETHICS

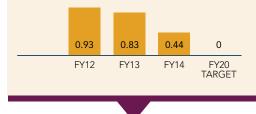
## **PROGRESS TOWARDS** TARGETS

**OUR 2020 AIMS:** 

ACHIEVE ZERO RECORDABLE **INJURIES YEAR ON YEAR** (EMPLOYEE TOTAL **RECORDABLE INCIDENT RATE)** 



ACHIEVE ZERO RECORDABLE **INJURIES YEAR ON YEAR** (CONTRACTOR TOTAL **RECORDABLE INCIDENT RATE)** 



While our employee TRIR is strong for our industry, the rate has plateaued in recent years. Our target remains zero injuries, year on year, and we will continue to work toward this goal by focusing on an improved culture of safety within Birla Carbon. Our increased focus on contractor management has led to a significant reduction in contractor TRIR, but our ultimate goal is zero injuries.



# SAFETY AND HFAITH

# **OUR APPROACH**

Nothing is more important to us than the health and safety of our people. We will continue to focus on creating a culture and mindset of safety excellence so that we can link programs, policies, training and accountability throughout all levels of our organization. This must start with our leadership setting clear expectations for working safely, providing the necessary resources, incentivizing the right behaviors and holding people accountable for their actions.

The challenges we face include raising the profile of health and safety in the cultures where it may not be viewed as a priority, ensuring that all contractors comply fully with all our policies and procedures, and communicating safety messages in an appropriate, relevant way in different markets. Our strategy focuses on introducing and revising global standards, developing tools to help our sites implement these standards, and using audits to identify programs and cultural gaps and apply systemic corrective actions.

# **OUR PERFORMANCE**

# **PROGRAMS AND POLICIES**

Our aim is to mitigate risk across the business by implementing clear standards and principles, and by introducing sustainable programs that will help us achieve our vision of zero injuries. The Birla Carbon health and safety policy is communicated to all employees at induction and through regular training, and helps establish the framework for all risk management activities. Furthermore, as part of our capital expenditure process, we assess each new piece of equipment we purchase to ensure it meets our standards and the relevant legal health and safety requirements.



## A NEW APPROACH TO SAFETY MANAGEMENT

In FY2014, we reviewed our approach to safety across the business, identifying causes for near-misses or incidents, and areas for improvement. We developed a range of global standards in response to these issues and shared them with our workforce. Each plant must implement and monitor progress against these standards on a monthly basis. This progress is reviewed by our senior management team monthly.

We are also reviewing and revising our internal standards, developing training programs and self-assessment tools for our sites, and auditing sites based on internal standards and local regulatory requirements. For FY2015, we will be implementing a safety leadership training process that focuses primarily on the roles and responsibilities of leaders in maintaining a culture of safety excellence. A key aspect of this training is engaging employees at all levels in our safety and health processes in order for safety to be more employee-led rather than management driven. We have also developed "Safety 24/7", a new initiative to drive safety as a mind-set and help us break through our current safety plateau, and a five-step approach to safety management that all plants must adopt.

# **110F17** LOCATIONS WITH NO RECORDABLE INCIDENTS

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#### OUR FIVE-STEP APPROACH TO SAFETY MANAGEMENT



#### WORKING WITH CONTRACTORS

One of our primary objectives is to work more closely with our contractors to ensure they follow our safety and health policies and systems. In FY2014, we introduced a Contractor Assessment Policy to improve our management of third parties working at our sites. The policy states that:

- a Birla Carbon manager must always be responsible for any contractors that are on site;
- contractors will be removed from the site if they breach our safety policies;
- fines will be imposed if contractors break procedures; and
- safety performance must always be part of the contractor selection process.

#### CONTRACTOR SAFETY STEERING COMMITTEE, GLOBAL

Last year, we made a commitment to revamp our contractor management program in order to maintain the safety and wellbeing of all personnel who work at our sites. To better understand and manage contractor safety globally, we organized a contractor steering committee comprised of representatives from operations around the globe. The purpose of this committee is to develop a process for qualifying contractors and effectively managing their activities while present at our sites. Ensuring the safety of contractor employees is as important as managing the safety of our own employees.



# AUDITS AND INSPECTIONS

It is important to assess our safety performance and ensure we are compliant with international standards. We conduct regular safety audits at each of our sites to ensure we meet and exceed all relevant regulatory requirements, and the results are reported to our Senior Management Team.

In FY2014, we modified our safety audits to address critical health and safety systems. The program now involves a third party safety specialist and has helped increase communication and the accountability of our leadership. The goal of the audit process is to ensure that the site has an action plan to address audit findings and implement permanent solutions.

#### IMPLEMENTING PERFORMANCE MANAGEMENT SOFTWARE

In FY2014, we began the configuration and implementation of the Enablon suite of Quality, Environment, and Health and Safety performance management software for Birla Carbon. The implementation and rollout will be completed by the end of the year. Enablon will help us report and manage our health and safety performance, manage risk, reduce costs and improve business processes.

# COMMUNICATION

We firmly believe that leaders are responsible for the safety culture at our sites and have the biggest influence in changing this. Leaders must develop and communicate a clear vision for safety that goes beyond avoiding injuries. Working safely is about every employee managing the risks they face and the choices that they make every day.

Maintaining open communication among all our locations will improve our health and safety performance. Our health and safety communications – including daily incident reports, monthly summary reports and incident bulletins – are focused on building leadership among employees, improving their knowledge of safety and encouraging best practice by sharing successes and failures. We have also set up a safety committee at most of our sites that is responsible for introducing specific measures to try and prevent accidents from occurring in the first place.



#### STOP WORK AUTHORITY PROGRAM IN ACTION AT NORTH BEND, USA

Our Stop Work Authority (SWA) program gives Birla Carbon employees and contractors the authority to stop specific operations if they are concerned about health and safety. In FY2014, employees at our plant in North Bend used the SWA program to reduce the risks of a product packaging process – all the while continuing to meet our customers' needs.

The 441 lb bags used to package our specialty grade Raven 1035 powder at North Bend can become unstable when stacked, causing them to fall over. SWA was used to halt the job, and a group of warehouse employees worked with our plant management team to reorganize the work steps and minimize potential safety risks.

#### VEHICLE MARSHAL SYSTEM, RENUKOOT, INDIA

In recent years the number of vehicle movements at our plant in Renukoot, India, has grown significantly as production volumes have increased. This, combined with the hilly terrain of the area, means that the site has potential safety risks. We have introduced a vehicle marshal system to increase safety at Renukoot. As part of the system, all vehicles are closely monitored by a Vehicle Marshal from the moment they enter the main gate of the site until they leave. The Marshal's responsibilities include ensuring that vehicles adhere to the speed limit of 10 km per hour, providing guidance on the correct use of the stopper during parking and guiding the vehicle while it is reversing. The Marshal then holds onto the keys until it is safe for the vehicle to move again. The scheme has already seen a significant improvement in safety and traffic flow at Renukoot.



#### SETTING EXPECTATIONS FOR SAFE BEHAVIORS

In our plants in Europe we identified a number of nearmisses caused by 'At Risk' Behaviors. As a result, we have developed an At Risk Behavior process, which aims to set and monitor our expectations for safety behaviors. These same processes are being rolled out to our other sites.

Our Senior Management Team is ultimately responsible for safety performance across the business, and its members are assessed on this through their annual performance review. We have started implementing a safety leadership training process for managers and supervisors in Thailand. The training, which we plan to roll out in other countries in the future, focuses on establishing a sustainable safety culture in which all employees are engaged and accountable for their behaviors.

## ENGAGEMENT

Different cultures can have very different views on health and safety. One of our biggest challenges is ensuring that all our employees, wherever they are in the world, understand the importance of health and safety – and that they put this knowledge into practice every single day.

As part of our commitment to Sustainable Operational Excellence, our global safety procedures are continuously reviewed and implemented at all of our sites in order to ensure best practice is applied throughout Birla Carbon. In FY2014, we reviewed our safety and health training and adapted it to help us communicate more effectively with employees from different countries and cultures and track our progress.

We have a safety and health representative at each of our sites worldwide to distribute safety rules and guidance in the appropriate language. In the future, we will also hold in-depth health and safety training for the leadership teams at all our facilities.

## EMPLOYEE WELLBEING

A healthy, happy and engaged workforce is essential for organizational success. We work in close partnership with our people to understand their health and wellbeing needs and we offer a range of progressive services designed to improve their quality of life. We encourage them to lead healthy lifestyles and we actively look for new ways to help them address their health proactively.

Our wellness initiatives vary in each region depending on the requirements of the region. Offerings include medical and health insurance benefits, balanced and flexible working arrangements, access to fitness facilities and coaching to lead healthy lifestyles.

#### EMPLOYEE WELLBEING, NORTH AMERICA

Annually, our North American sites provide free, onsite health fairs, which include visits by medical and health professionals to conduct health screenings, such as blood pressure, hemoglobin, bone density, cholesterol, body mass index and allergies.

In addition to health and wellness checkups, leading companies in medical insurance, dental benefits, nutrition and fitness provide on-site consultation for our employees and their spouses. The health fairs have been a huge success and, due to their popularity, these events have taken place for a number of consecutive years.





COMMUNITIES

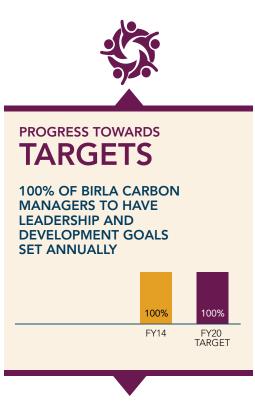
PERFORMANCE

# ATTRACTING AND RETAINING TALENT

# OUR APPROACH

OVERVIEW

Developing and promoting internal talent is a key part of our people strategy to achieve sustainable operational excellence. In addition to hiring higher skill levels, we also assess internal candidates for their potential to take on enhanced responsibilities and leadership roles when possible. This strategy ensures that we continue to have a good pool of talent across all levels. Birla Carbon supports "A World of Opportunities", the Aditya Birla Group's Employee Value Proposition. Through this promise, we seek to provide our people with exciting opportunities for their career development, recognition and overall wellbeing.



Sustained personal development is the key to retaining talent. Our progress in this area demonstrates our commitment to ensuring our managers have the appropriate skills to lead the business in the future and adapt to changing markets and increased competition.



#### MEET OUR DEPUTY CHIEF PEOPLE OFFICER

# TIMOTHY FEDRIGON

# What is Birla Carbon's approach to developing talent?

"Birla Carbon's internal talent management process is aligned with the Aditya Birla Group's process. By actively reviewing our employees' performance annually, key talent is identified across all levels.

Stemming from the annual Talent Management Reviews, key employees are selected and prepared for targeted positions in the future. Birla Carbon's Senior Management Team (SMT) members prioritize and dedicate a considerable amount of time to the talent review process. Not only is that information used regionally, but it is also shared and used to fill positions globally. It means that in the case of unplanned or unexpected business changes, we have contingency plans to fill positions across the world." OVERVIEW



PRODUCT ENVIRONMENT RESPONSIBILITY CUSTOMERS AND SUPPLIERS

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COMMUNITIES PERFORMANCE

# OUR PERFORMANCE

# GROWTH THROUGH INTERNAL MOVEMENT

AND ETHICS

In FY2015, a career path framework will be developed for Technology, Engineering and Operations divisions of the business. Historically, we have presented the career opportunities for new and existing employees via discussion; however, in FY2015, a streamlined framework will be made available.

As part of talent development and growth, we encourage global movements of qualified employees as well as transfers from other businesses within the Aditya Birla Group. To support employees who are moving to a new region, we launched an expat support initiative in FY2014, which includes proactive engagement with both the employee and their spouse prior to a potential relocation, to ensure they are both comfortable with the move, the role and the terms of employment being offered. We offer comprehensive support to relocating employees and their families, including assistance with school admissions and employment assistance for spouses.



#### ATTRACTING TALENTED RECRUITS IN EGYPT

Our plant in Alexandria participated in the ALEXA Employment Fair – the largest such annual event in Alexandria – which was held over two days in February 2014 and was attended by over 12,000 job seekers and representatives from 44 different companies. The plant's senior management took part and interacted with prospective candidates. As a sponsor of the event, the plant also provided giveaways and industry information, and responded to enquiries.



#### SUCCESSION PLANNING, NORTH AMERICA

We believe it is important, wherever possible, to promote our people internally to key roles within the business. Through our succession planning program, we identify and develop people who we believe have the attributes to become our leaders of tomorrow. For example, the General Manager at one of our manufacturing sites had announced his retirement within the year. In preparation for naming his successor, an internal manager was identified as the likely successor. Birla Carbon created a sixmonth assignment at another facility to provide onthe-job training. Through this process, the manager had daily accountability for plant operations at a major facility. After completing the assignment, the manager in training replaced the incumbent after his retirement. Having a robust succession planning process ensured a seamless transition in leadership and minimized the impact to the plant operations.

# BEING AN ATTRACTIVE EMPLOYER

While we are well known in certain regions, we are less known in our first-time markets, so our goal is to become a global employer of choice in order to help drive our business growth and geographical reach. Thus building a strong and well recognized employer brand is a crucial part of our people strategy. Our global employer brand strategy focuses on employee attraction, internal talent development, targeted movement and continuous engagement. At the same time, to address our local needs, labor markets and business environments, we will continue to deploy local recruitment strategies including recruiting skilled, locally based employees in order to help increase employee retention rates at our remote sites. We have also launched community outreach programs at a number of our locations to help us integrate with the community more closely and identify and attract skilled people.



# ENGAGING WITH THE NEXT GENERATION

Engaging and attracting the next generation of engineers and scientists remains crucial for our business and it is a fundamental part of our people strategy. We have launched several initiatives to address this growing need. To attract this talent, our various locations are building relationships with the local colleges and universities within their regions. Our internship objective is two-fold: first, to provide a realistic work experience for interns to determine if Birla Carbon offers their desired field of work; and second, to provide Birla Carbon with an opportunity to assess an intern's long-term performance and potential during the assignment. As of 2013, around 30 technical interns were taking part in programs across the business. We also provide internship opportunities to participants who qualify for the Aditya Birla Group Leadership programs. Members of this program are generally Business Management graduates from leading schools and universities in India and Asia. In FY2014, over 15 participants completed three-month internships within Finance, Plant Operations, Technology, Marketing and Human Resources.

Recruitment at local colleges increased in FY2014 and will continue to increase in FY2015.



#### INVESTING IN THE NEXT GENERATION OF SCIENTISTS, NORTH AMERICA

In April 2014, Birla Carbon pledged \$250,000 to support research opportunities for students attending Kennesaw State University College of Science and Mathematics in Georgia, USA. "The Birla Carbon Scholar's Program", through a commitment of \$50,000 per annum for five years, will create summer research opportunities for 10 undergraduate students each year. The students that are selected will receive \$4,000 to work on a research project that they will present at an end-of-term symposium. Scientists from Birla Carbon will judge the ten final projects, and the top student will receive \$2,000 towards travel expenses to present his or her research at a national scientific conference.



"Birla Carbon is a valued company in our community and throughout the world," said Mark Anderson, Dean of the College of Science and Mathematics. "We are very excited about this partnership. Their scientific talent provides a unique opportunity for students to expand their research skills."



# **REWARDING OUR PEOPLE**

We want our people to be recognized and appropriately rewarded for their contribution to the success of the business. This will make our people feel valued, increase job satisfaction, and help us attract and retain the best people. While Birla Carbon formally recognizes performance through business and group-level awards, our recognition and reward programs are tailored to individual regions.

#### PRIDE PROGRAM

Our PRIDE program recognizes exceptional individual or team performance and allows employees to earn monetary recognition for their outstanding contributions to the business. We also empower our various locations to implement their own employee recognition programs which allow each site to reflect the traditions and cultural norms of their specific region.

For example, in March 2013, our Alexandria plant gave the PRIDE award to the team from its Mechanical Department for maintaining high levels of production, minimizing the cost of corroded screw conveyors and focusing on safety. In September 2013, PRIDE was awarded to a crossfunctional team from Production, Quality, Warehouse and Mechanical and Instrumentation for its product quality enhancement, which improved the customers' unloading equipment in their operations process.

#### **GROUP RECOGNITION**

Our employees also have an opportunity to be recognized across the Group through the Aditya Birla Group Awards for Outstanding Achievement. Exceptional performers are nominated for individual awards. These include Young Professional, Distinguished Achiever, Exceptional Contributor, Outstanding Leader and Value Leader. In addition, the Sun Award recognizes all round excellence in a business or unit where specific initiatives enhance shareholder value and business sustainability, while the Planet Award targets exceptional performance in a specific area such as New Product Development, Sales and Marketing or Technology.

In FY2014, six employees in Birla Carbon received the Aditya Birla Awards for Outstanding Achievement within various categories.



#### **POKA YOKE,** EGYPT

In FY2014, we introduced the Aditya Birla Group's Poka Yoke Challenge in our Europe & Africa region. The Challenge ultimately aims to make the units mistake-proof. There were 23 nominations from employees, of which five were shortlisted by the regional judging panel to participate in the Group's end-of-year Challenge. One of the teams in Alexandria received third place in the Group Competition by finding a simple solution to help operators monitor the condition of the electrical grids during import.







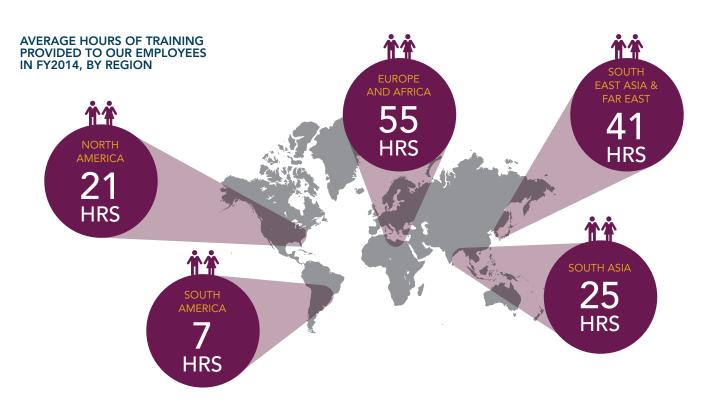
# ENGAGING EMPLOYEES OUR APPROACH

Ultimately, our people deliver value to our stakeholders and maintain a successful and sustainable business. Engaging our employees in Birla Carbon's vision and objectives is therefore essential for our business to continue to thrive. As a global company, we employ people from many different countries and cultures. With this in mind, our employee engagement strategy must be targeted and flexible.

# **OUR PERFORMANCE**

# ENCOURAGING CONTINUOUS LEARNING

At the global level, continuous learning is strongly encouraged through the various management development programs supported by the Aditya Birla Group. This includes strategic leadership planning, developing business managers, and an exclusive program focused on developing P&L leaders. We recognize that our extensive global presence creates different training and development needs geographically. As a result, we encourage leaders to implement both regional and local strategies to continuously improve their management skills and competencies. The Human Resources function within each region is responsible for assessing the development requirements at each of the locations. Based on their assessments, they work with their Regional Presidents and Unit Heads to source the appropriate training and development programs. Ultimately, our goal is to enable our employees to meet their career aspirations, to assume multiple roles within the company and to perform successfully. We also offer over 200 Technical and Managerial Skills e-learning courses. These courses are offered free to all our employees.





## CONTRIBUTING TO THE FUTURE

The Aditya Birla Group sponsors "Pratibha" – a meritbased scholarship program for children of employees to pursue graduate, post graduate and professional degrees. Children are selected based on merit and their tuition is covered through the term of their education. This program is open to all employees of the Aditya Birla Group who have spent the required number of years with the Group.

#### MANAGEMENT DEVELOPMENT PROGRAM

In FY2014, Birla Carbon launched the Management Development Program – a process designed for development of technical and behavioral competencies for its salaried employees. The online system captures development needs for every employee within the business, then with assistance and support from their supervisors, it helps employees define their personalized development plan in a structured way. Employees are empowered to propose their own development plan through various learning platforms, which are available in the form of over 200 e-learning programs, on-the-job learning, external classes, conferences and short-term assignments. Only one year after the program was launched, 100% of all salaried staff are now taking part in a Management Development Plan.

## RESPONDING TO EMPLOYEE FEEDBACK

In 2012, we launched the Vibes survey within Birla Carbon – an employee feedback tool targeting eight areas: Engagement, External Orientation, Readiness to Change, Business Direction, Our Values, Alignment, Employer Brand and Performance Culture. Overall, the responses were good, however we identified some areas for improvement, which were: Attracting the best talent, Retaining talented employees, Understanding the promotion criteria, Promoting the best talent, Training and development opportunities, and Engaging in community initiatives. We have action plans in place, based on the responses to the survey, both at the business and regional level.

#### ADULT LITERACY PROJECT, EGYPT

The estimated literacy rate in Egypt is 73.9%, and the country is ranked 169 out of 194 globally. In May 2013, our plant in Alexandria embarked on a major journey to help address the issue through an adult literacy project.

Although learning to read and write as an adult is a huge commitment, the plant employees were ready for the challenge. Some 52 employees joined the program, conducted and prepared by Birla Carbon and administered by "Life Makers Foundation". To minimize work disruptions, the classes are offered at different times and last three to six months.

The first class included 39 participants and was completed within the first month of the program. Twenty-two of the employees successfully completed the coursework, passed the exam and received a government certificate.

The second class began in November 2013 with twelve participants attending. The participation and graduation rates strongly support the overall success of the program. To recognize those student employees who received their certificate, the plant hosted graduation ceremonies attended by senior management.





OVERVIEW GOVERNANCE AND ETHICS PRODUCT RESPONSIBILITY ENVIRONMENT



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#### VIBES SURVEY ACTION PLAN HIGHLIGHTS

#### BUSINESS

ACTION	RESULTS	ACTION	RESULTS	
A comprehensive talent management review with strong involvement from leadership team members.	Completed in FY2014.	Communicate all job openings to provide more employee opportunities.	Each location posts each of its job openings.	
		Review Management	Each manager reviews and	
Extend the training and development platform for the business.	elopment platform for Development Plan in	Development Plans and organize the necessary development activities.	assists their direct reports with development plans.	
		Ensure job rotations for	Each region has examples of job rotations and enhancements for pre- determined periods.	
Maintain a robust performance management process.	Achieved 100% goal-setting and year-end reviews.	skill development.		
and recognition program. in the and m recog	PRIDE was implemented in the remaining regions and more localized recognition programs have been implemented.	Place a higher emphasis on technical talent hiring.	The number of technical hires within Birla Carbon increased from 2013 to 2014.	
		Organize more events and partnerships to engage local communities.	First-time events and partnerships have been formed globally.	



#### VALUING DIVERSITY, EUROPE AND AFRICA

The Europe and Africa region launched a Women's Network to raise the profile of women employees, support the development of their leadership skills and promote their credentials for future job opportunities.

The initiative was launched and coordinated by Nicole Kiehne (Supply Chain Director for Europe & Africa) who is based in Hannover. She began by recruiting network coordinators from each country in the Europe and Africa region, who are responsible for planning the activities and sharing information within their sites.

Nicole stated, "It is all about sharing what we are learning, reaching out to each other as thought partners, and having more access to best practices within Birla Carbon. We have some interesting plans in the pipeline that will help this region's female employees advance their careers and, ultimately, benefit the organization." Members of the Women's Network enjoy a plant tour at Trecate, Italy.





GOVERNANCE

AND ETHICS

OVERVIEW



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AND SUPPLIERS



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PERFORMANCE

# **C**MMUNITIES

ENVIRONMENT

# **OVER** \$700,000 INVESTED THROUGH OUR COMMUNITY PROGRAMS IN FY2014

### \$70,742 FOUR RAISED FOR CHARITABLE ORGANIZATION **UNITED WAY** AND ITS SOCIAL PROGRAMS

COMMUNITY DEVELOPMENT ASSOCIATIONS SET UP IN FOUR VILLAGES IN EGYPT DURING FY2014

Birla Carbon engages closely with communities to understand and address the priorities of the region. Our social investment programs, developed in partnership with local community groups, are designed to support the requirements of the local people and deliver long-term socio-economic benefits to the region.

An engagement initiative with the local community in Brazil.





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ENVIRONMENT RESPONSIBILITY

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CUSTOMERS AND SUPPLIERS



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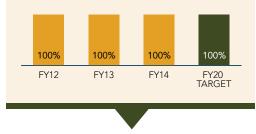
PERFORMANCE



## **PROGRESS AGAINST** TARGETS

OUR 2020 AIMS:

**ENSURE 100% OF OUR** FACILITIES PARTICIPATE IN COMMUNITY ENGAGEMENT **BY 2020** 



Achieving this target early shows how committed we are to driving community activity at all our locations. We will continue to maintain this at existing plants and if new facilities are developed.

# ENGAGING WITH COMMUNITIES

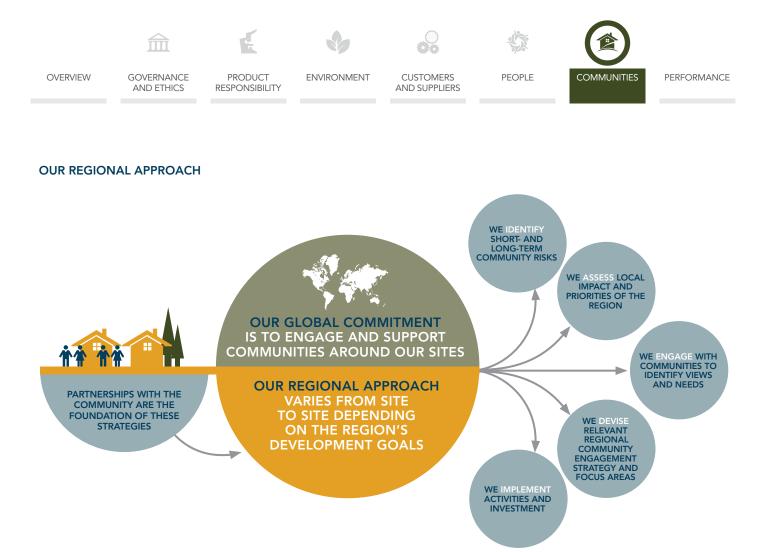
# OUR APPROACH

By maintaining strong relationships with the people around our plants and offices we are able to contribute to the continual development of the communities.

Our approach varies from site to site depending on the development priorities of the region and the short- and longterm risks facing each community - from public health issues to education. A region's engagement approach includes community needs assessments, regular communication and interaction, and a collaborative development attitude towards the social programs. Our community strategy is driven by community officers in each plant across the business and is governed by plant managers.

Birla Carbon's community investment strategy looks beyond philanthropic spending to focus on delivering long-term socio-economic benefits for communities. Our focus areas are health, education, social investment and charitable giving. We support the development of sustainable local economies through skills and capability building, providing communities with reliable infrastructure, and helping establish effective governance mechanisms.

IN MEDICAL EQUIPMENT DONATED TO HEALTH CENTRES, BENEFITING AROUND 20,000 PEOPLE IN GUMMIDIPOONDI, INDIA



# **OUR PERFORMANCE**

# UNDERSTANDING COMMUNITY NEEDS

We believe that the needs of every community are different and we therefore conduct studies to identify the issues that are of most importance to the people of the region. These studies include focus on areas such as education, infrastructure and the environmental impact of our operations. This engagement enables us to align our investments to the region's development priorities and programs.

Our approach to understanding community needs varies depending on the location. For example, our facility in Alexandria, Egypt, undertook a comprehensive Needs Assessment Study, through a specialist third party organization, to identify issues that are most relevant to the communities around the site. The findings were shared and discussed with the region's local Community Development Associations (CDAs) in order to prioritize and develop response plans jointly based on feasibility. Our Community Manager in Alexandria is in regular contact with the CDAs to identify new needs and challenges, and to evaluate solutions.

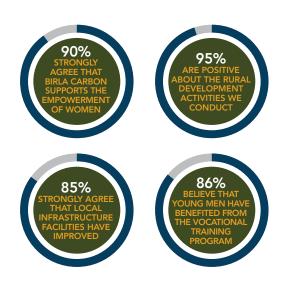
At our Patalganga plant in India, our community team meets twice a week with representatives from the three villages around the site to understand ongoing issues. Community needs are also identified through feedback collected at the end of training sessions or engagement activity, by analyzing the community demographic, conducting satisfaction surveys, and holding annual open days inviting local community members to visit our manufacturing facilities. This helps us implement programs and initiatives that will make the biggest difference to these groups over the long-term. For example, in FY2014 80% of the women from the local community around our site in Patalganga, India, attended our open day, demonstrating the impact and reach of our engagement work.

The annual Society Satisfaction and Need surveys in Gummidipoondi, India, show us how local people view our community initiatives based on their prioritized needs. These surveys reach 33,000 people and are conducted through external agencies. The plant also receives a list of prioritized needs from various stakeholders in the community, such as Panchayat Leaders, People Level Federation Leaders, Youth Association Leaders, School Heads, Block Development Officers and other elected representatives. For FY2014, the critical issues the region identified were infrastructure and transport, health and hygiene, and vocational skills for women and young adults.



#### A POSITIVE RESPONSE

Satisfaction Surveys are an effective way to understand and respond to the views of the local community. The results of the 2013 survey in Gummidipoondi showed that:



# ADDRESSING OUR LOCAL IMPACT AND BUILDING RELATIONSHIPS

One of our key priorities is to understand and assess the impact of our operations on the local community. We do have systems in place that enable us to report and respond to any issues effectively. For example, in Thailand we liaise with the local community every day. Our Angthong plant is surrounded by five main villages – some of which are within 1 km of the facility – so our community officers conduct regular visits to these settlements. If there are any issues we aim to take corrective action within 24 hours.



#### BUILDING RELATIONSHIPS WITH THE LOCAL COMMUNITY, EUROPE

During September and October 2013, our plants in Germany, Spain, Italy and Hungary held open days, during which we invited the local community to visit the plant so they could learn more about our business and carbon black. We welcomed a wide range of visitors, including local residents, mayors of the respective towns, representatives from regional government, universities, enterprise associations and the media.

At each plant, the General Manager began the day by talking the guests through the history of the plant and the carbon black manufacturing process. In total, our teams gave tours to over 300 people across the plants. At our plant in Trecate, Italy we held a ribbon-cutting ceremony to open the new arboretum – an area at the site where a number of trees have been planted.

Later all the employees brought their families with them to their workplace, where they enjoyed an evening of dinner and entertainment. These activities help us to create open dialogue and foster closer relationships with the community.





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AND SUPPLIERS

PEOPLE



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# IMPLEMENTING EFFECTIVE PROGRAMS

GOVERNANCE

AND ETHICS

In FY2014 we developed community programs with a primary focus on four broad areas; health, education, social investment and charitable giving.

## HEALTH

OVERVIEW

Health is the number one issue in many local communities, and we are determined to play our part in helping improve the health and wellbeing of the people living around our sites.

During the initial phase in Alexandria, Egypt, quarterly medical camps were organized in local villages in coordination with the Ministry of Health. This activity benefited over 3,500 villagers. Subsequently, a first aid point was set up in each of the villages and a group of members of the community were provided with certified first aid training.

To have a sustainable and permanent medical facility, the first aid points were converted into Primary Health Centers equipped with the necessary infrastructure and amenities. Birla Carbon also organized for a doctor to visit the Health Centers, thereby providing healthcare to the villages on a regular basis. Routine medicines are provided free of cost.





#### PROVIDING HEALTHCARE SUPPORT, INDIA

From April to December 2013, we organized 203 mobile medical camps in our adopted villages in Renukoot. More than 4,500 locals benefited from advice on a range of general health issues. The Hi Tech Jan Kalyan Trust also runs two Health Centers in these adopted villages.

As part of our antenatal and postnatal care efforts, we provided general immunization to 355 mothers and their children. In addition, 135 pregnant women were supported for institutional delivery and 19 more were supported for family planning.

In Gummidipoondi, we arranged for a doctor and a nurse to be available for three days every week. We also supported a blood donation camp, a Pulse polio immunization campaign, an early childhood care and development programme for pregnant women, a cataract surgery camp, a general health camp for schoolchildren, a mega heart screening camp and an HIV awareness program.





PRODUCT

RESPONSIBILITY





AND SUPPLIERS

PEOPLE



PERFORMANCE

## **EDUCATION AND SKILLS**

GOVERNANCE

AND ETHICS

OVERVIEW

Through our education programs, our goal is to give communities the skills and knowledge they need to support themselves in the long-term.



#### DEVELOPING LANGUAGE SKILLS, THAILAND

In FY2013 to FY2014, we introduced an English language training program for local school teachers in Angthong, Thailand, which we conducted in partnership with the regional university. The program aims to improve the English language skills of children by engaging with their teachers. Classes are held over a 15-day period, totaling around 120 hours, and the teachers are thoroughly tested to assess their progress. Training was provided to 27 in 2013, enabling 2,500 children to benefit from the program. We also invested \$22,187 in a major renovation project at a school near our Angthong plant.



#### RAISING AWARENESS OF SAFETY AND THE ENVIRONMENT, SOUTH AMERICA

Around 120 local children were invited to visit two of our plants in South America as part of Safety and the Environment Week. With employees acting as volunteer guides, the children were given a tour of the plant and visited the Quality Control Department. The children were also treated to a theatrical performance that taught them the importance of nature preservation and respect for wildlife. Other activities included recycling and safety guidance workshops.



#### PROMOTING PRIMARY EDUCATION, INDIA

At our site in Renukoot, India, our Jan Kalyan Trust runs the Aditya Bal Vidya Mandir, which provides education to around 250 tribal students. It also supports two Kasturba Gandhi Balika Vidhayala schools in the villages of Muirpur and Duddhi. This includes organizing a monthly medical camp that supports 200 female students, and holding parades to encourage and promote primary education in the surrounding villages. In July 2013, Aditya Bal Vidya Mandir school was recognized by the State Government as a centre for primary education.



OVERVIEW

GOVERNANCE

AND ETHICS

PRODUCT RESPONSIBILITY ENVIRONMENT

CUSTOMERS AND SUPPLIERS

PEOPLE



PERFORMANCE



## **MEET** OUR DEPUTY MANAGER, CSR, EGYPT

# **RIHAM FEKRY**

# How has the unit been helping local communities in Egypt?

"Based on a comprehensive Needs Assessment Study carried out in four villages near our plant in Egypt in 2012, several major new initiatives were designed and implemented in FY2014. For example, we assisted these communities in setting up Community Development Associations (CDAs). The members of the associations are from the villages and therefore take on the ownership and implementation of the programs. Realizing that to be effective, CDAs need to have necessary expertise in this field, we conduct regular training for the members, covering topics from CDA legislation to project and financial management.

It gave us immense satisfaction to resolve one of the most pressing needs of the local community by setting up four Primary Health Centres, with periodic doctor visits and free medicines, thus providing quality healthcare services. We are delighted with the energy and participation of the school children in the various activities conducted by Birla Carbon, such as football coaching camps, training in art and glass painting, and remedial classes."



Mr Ashraf Abd El Ghany, Principal at Donshway School in Abo Simbel Village, Egypt, said: "The school's administration, board of trustees and staff were very thankful to Birla Carbon for its contribution to enhancing the level of education, sports and arts activities at the school."

## SOCIAL INVESTMENT

We believe it is important to give people the skills they need to support themselves sustainably. This will increase the chances of people obtaining – and retaining – secure jobs and fair compensation. Through our social investment activity we aim to build local infrastructure to increase opportunities, and enable local people to be involved in the decisions that will enhance their lives.

In FY2014, we provided vocational training for a number of local women in Patalganga, India, giving them the skills to produce school uniforms and earn a reliable income. The 35 women currently taking part in the scheme have manufactured more than 400 uniforms for five schools. We plan to expand the initiative so that, in the future, they can supply clothing to markets in the nearby city of Mumbai.



#### SUPPORTING WOMEN AND LOCAL FARMERS, INDIA

In Renukoot, India, the Jan Kalyan Trust partnered with the National Bank for Agriculture and Rural Development (NABARD) to create farmers' clubs in 54 surrounding villages, benefiting 650 registered farmers. The clubs run a number of activities, including training sessions on best practices in farming and how to develop demonstration plots, visits from agricultural scientists, and knowledge dissemination.

The Trust also supports female empowerment in the area. The self-help groups launched by the Trust teach women about the importance of saving, provide funding for agricultural and non-agricultural activities, support micro-entrepreneurial ventures, and run a forum for women to discuss and resolve issues. The scheme is proving popular, and 89 women have already enrolled at the Birla Carbon Vocational Training centre for the site.





GOVERNANCE

AND ETHICS

PRODUCT

RESPONSIBILITY

ENVIRONMENT AND SUPPLIERS

CUSTOMERS

PEOPLE



PERFORMANCE

# CHARITABLE GIVING IN 2013

Birla Carbon's charitable giving program promotes employee volunteering and supports non-profit organizations that serve the communities in which we have a business presence.

150 CHILDREN SUPPORTED THROUGH THE ANGEL TREE PROGRAM IN NORTH AMERICA

The Angel Tree program gives companies the opportunity to provide underprivileged children and seniors with personalized gifts and necessities during the holiday season. Birla Carbon has supported the initiative for more than eight years, with employees providing gifts for around 50 children each Christmas. Last year Aditya Birla Group also contributed to the Angel Tree program, enabling us to sponsor a further 100 children.

# \$70,472 RAISED FOR UNITED WAY IN ATLANTA

The money was collected through employee contributions at our Marietta office and a dollar-to-dollar match by Birla Carbon. A committee of employees, led by human resources, carry out campaigning and run the initiative. Employees can choose which aspect of the United Way charity they want to support – education, income, health or homelessness.

# EMPLOYEES SUPPORTED BREAST CANCER AWARENESS MONTH IN BRAZIL

Our employees and their families from our South American plant supported Breast Cancer Awareness Month. Staff took part in a community walk wearing t-shirts promoting the United Against Breast Cancer campaign, which helps raise awareness of breast cancer prevention.



## 150+ HOMELESS PEOPLE SUPPORTED BY OUR SITE IN HANNOVER, GERMANY

Our site in Germany supported "Asphalt" – a non-profit publishing company that produces a magazine sold by more than 150 homeless people, giving them an income and a way out of poverty.

# für Hannover und Niedersachsen Hofgebäude

Straßer

Die soziale

· 비컬즈코리아(주) · 교육관 에너디지하여시성 · 장소 : 〒 여수ΥΜCA 가사리상태3 · 카사리상태교육관 에너지역방서당

> (2014, 1, 15) 물렴비안케미컬즈코리아(주)

만원 기증

## \$18,000+ OF COMMUNITY DONATIONS MADE IN SOUTH KOREA IN FY2014

This included providing hot meals to people living in poverty in Yeosu City. Our funding also helped the local YMCA center to develop an energy efficiency education program and facility, which teaches young people about energy saving measures.

## 2,500 CHILDREN PROVIDED WITH SAFE DRINKING WATER IN INDIA

The installation of water purifiers in nine schools in Gummidipoondi provided thousands of children with clean, safe drinking water.



# PERFORMANCE

In FY2014, Birla Carbon enjoyed another year of strong growth and impressive sustainability performance. We have seen positive results in some areas, including a significant reduction in waste generation intensity compared to the previous year due to better awareness at each site.

We have learned key lessons while working towards our targets. Our methodology to calculate our direct net energy output intensity has been refined making our figures more accurate, although it does not fundamentally change the overall results. Our methodology to calculate our direct CO<sub>2</sub> emission intensity has also been refined. The absolute intensity values in CO<sub>2</sub>-equivalent terms are significantly different from previous results and there is a slight decrease in our net energy output intensity in FY2014. We will, however, continue to work towards our goal to increase our net energy output by over 25% by 2020.

As we have met and exceeded some of our targets we will be looking to set further goals in the coming year to drive our business further. It is only by continuing to invest in people, process, R&D and cleaner, more efficient technology that we will be able to sustain this in the years to come.

Improving					
<ul> <li>On track to meet target</li> <li>Behind schedule</li> </ul>	PERFORMANCE			PROGRESS	TARGETS
	FY2012	FY2013	FY2014		FY2020
BUSINESS MANAGEMENT					
Maintain our leadership position in terms of carbon black production capacity	No. 1	No. 1	No. 1	<b>→</b>	No. 1
Approximately double our annual capital spending versus FY2012 baseline to reach \$100M	\$51.8M	\$66.5M	\$64.1M	<b>→</b>	> \$100M
GOVERNANCE AND ETHICS					
100% of employees to receive Combined Code of Ethics training	94%	94%	100% <sup>1</sup>	7	100%
ENVIRONMENT					
Reduce our direct emission intensity (t <sub>CO2</sub> /t <sub>carbon black</sub> ) by over 22% versus 2005 baseline	98.8%	95.2% <sup>2</sup>	90.7%	7	< 78%
Increase our net energy output intensity (t <sub>CO2</sub> -eq/t <sub>carbon</sub> <sub>black</sub> ) by over 25% versus FY2013 baseline	n/a	100%	99.6%	<b>&gt;</b>	> 125%
Reduce by 50% our water withdrawal intensity (m <sup>3</sup> /t <sub>carbon black</sub> ) versus FY2012 baseline	100%	106%	104%	<b>→</b>	< 50%
Reduce by 50% our waste generation intensity (t/t <sub>carbon black</sub> ) versus FY2012 baseline	100%	208%	144%	<b>→</b>	< 50%
Zero environmental releases	0	0	1	2	0
PEOPLE					
Zero recordable injuries (report on TRIR progress)	0.62	0.57	0.78	2	0
100% of Birla Carbon managers to have stated and measured leadership development goals set annually	n/a	n/a	100%	<b>→</b>	100%
COMMUNITIES					
100% of our facilities to participate in community engagement	100%	100%	100%	<b>→</b>	100%

<sup>1</sup>We are on target to achieve this by August 2014

<sup>2</sup> Revised value based on improved calculation methodology

OVERVIEW



AND ETHICS

PRODUCT RESPONSIBILITY ENVIRONMENT

CUSTOMERS AND SUPPLIERS



PERFORMANCE

# ABOUT THIS REPORT

Our second report draws on performance highlights from April 1 2013 to March 31 2014 (Fiscal Year 2014) and covers the full scope of our global operations. It contains a detailed analysis of our sustainability performance over the past year and highlights specific targets for the future. For several of our performance indicators we have utilized data from Fiscal Year 2012 as a baseline for comparison. Where other data is available we have established baselines to previous years, which are noted in each section of the report.

We openly acknowledge that we are undergoing a learning process and we look to all our stakeholders, including customers, employees and suppliers, to challenge us at every step. We know that we need to fully embed sustainability into the core of our business and we will only get there by setting performance targets to keep sustainability at the top of our agenda. Sustainable Operational Excellence will drive our continued progress across all the dimensions of sustainability and corporate responsibility programs.

We aim to continue producing an annual sustainability report to document our progress and challenges in this area. This report was approved by Birla Carbon's Senior Management Team.

# MATERIALITY

We identified the issues that are key to the business by carrying out a detailed materiality process in 2013. As part of our assessment, we analyzed indicators from the Global Reporting Initiative (GRI). We are continually working to develop this process by re-evaluating our key issue prioritization and identifying emerging issues. We recognize that increased stakeholder engagement will improve the accuracy of our materiality assessment and we will develop improved engagement approaches over the coming year.

# BOUNDARY

We have attributed each of our material issues to a relevant material aspect outlined in the Global Reporting Initiative (GRI) G4 guidelines. Below we have outlined the boundary for each of our aspects. Where the issue has been identified as relevant within the organization it applies across all entities of the Birla Carbon business.

BOUNDARY				
OUR MATERIAL ISSUES	MATERIAL WITHIN THE ORGANIZATION	MATERIAL OUTSIDE THE ORGANIZATION	RELEVANCE OUTSIDE THE ORGANIZATION	
Human rights performance	YES	YES	Human rights issues can occur along the supply chain, especially in countries identified as high risk.	
Ethics	YES	YES	Ethical issues can occur along the supply chain and in the communities around our operations.	
Management team	YES	NO	Not applicable.	
Governance framework	YES	NO	Not applicable.	
Business continuity	YES	YES	Business continuity is important to our customers as they require a secure supply of carbon black. Our suppliers and the communities around our sites also have a vested interest in our business.	
Reputation	YES	YES	The reputation of Birla Carbon has an impact on the reputation of both the Aditya Birla Group and our customers.	

CONTINUED...



BOUNDARY			
OUR MATERIAL ISSUES	MATERIAL WITHIN THE ORGANIZATION	MATERIAL OUTSIDE THE ORGANIZATION	RELEVANCE OUTSIDE THE ORGANIZATION
Transparency	YES	YES	The transparency of our business is important to our customers and regulators, who put their trust in our business and play a role in monitoring our performance.
Product safety	YES	YES	Product safety controls are critical to the health and safety of our customers and end consumers.
Product stewardship	YES	YES	Product stewardship ensures we provide customers with products that are safer, more efficient and specific to their needs. This also has an impact on end consumers who look for greater value from products.
Energy	YES	YES	We strive to develop more efficient grades of carbon black to support customer sustainability objectives. Our strategy to remain energy positive means we also provide low carbon energy for local energy grids.
GHG emissions and air emissions	YES	YES	GHG and other air emissions can be produced during extraction and transport of raw materials from our suppliers and during distribution to customers.
Water discharge	YES	YES	Water use and discharge has the potential to impact on communities around our operations. This is particularly material in countries where water scarcity is a potential risk.
Waste management	YES	YES	Waste from our operations has the potential to impact on the communities and environment around our operations if it is not managed appropriately.
Resource consumption	YES	YES	We use feedstock from fossil origin, which has potential environmental impacts if it is not managed safely. These impacts can occur along the supply chain from extraction to refinery and delivery to our production facilities.
Supply chain development	YES	YES	It is important to engage with each of our suppliers to ensure they meet our environmental and ethical standards. This applies to global and regional suppliers.
Product standards and consistency	YES	YES	Our customers require consistent quality from our products, as this has an impact on their own operations and end products.
Safety performance	YES	YES	The safety of all people visiting our sites is a high priority for our business. This includes guests such as customers, contractors and third party partners.
Employee retention	YES	NO	Not applicable.
Employee wellbeing	YES	NO	Not applicable.
Employee engagement	YES	NO	Not applicable.
Community engagement		YES	Building and maintaining strong relationships with the communities around our sites is very important to our business and to local people. Our engagement covers local community and charitable organizations, residents, education systems and local governments.
Philanthropy		YES	Providing philanthropic support is critical to the development of local community organizations around our sites including schools and health facilities. This can positively impact local people.



# **GLOBAL REPORTING INITIATIVE**

This report is in accordance with the international standards of the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines at comprehensive level. A GRI content index can be found at www.birlacarbon.com/Webpages/sustainable-development.aspx.

# DATA

We have included data from our 17 manufacturing sites, two technology centers and four decanting stations, which we believe fairly represents our global environmental, health and safety, and sustainability performance efforts. Birla Carbon engaged Environmental Resources Management Inc. (ERM) to partner with us to collect and analyze relevant reporting data. ERM consolidated and quantified performance data and independently checked environmental, health and safety, human resources and community engagement data provided by Birla Carbon. Emissions calculations and environmental intensity calculations were based on generally accepted reporting principles and with assumptions noted in each relevant section of this report. ERM's support in the development of this report does not constitute a third party assurance verification of its contents.

# 2013 SUSTAINABILITY REPORT

Visit www.birlacarbon.com to view Birla Carbon's first Sustainability Report, which was published in July 2013.





## AWARDS AND RECOGNITION

RETURN ON ENVIRONMENT PARTNERSHIP AWARD FROM GE WATER (2013) Hamilton, Canada

CITY OF HAMILTON BUSINESS APPRECIATION AWARD (2013)

Hamilton, Canada

BEST CARBON BLACK SUPPLIER/TOP RUBBER AWARD FROM BORRACHA ATUAL MAGAZINE (2013)

Bahia, Brazil

INTERNATIONAL SAFETY AWARD FROM BRITISH SAFETY COUNCIL FOR TWELVE SUCCESSIVE YEARS (2009)

Alexandria, Egypt

GREENTECH SAFETY GOLD AWARD (2013)/GREENTECH ENVIRONMENT GOLD AWARD (2012)

Patalganga, India

BEST SUPPLIER AWARD FROM FENNER (2012) Gummidipoondi, India

SIX TIME WINNER OF FORBES AWARD OF ASIA PACIFIC'S BEST 200 SMALL COMPANIES UNDER A BILLION (2008)

Angthong, Thailand

NATIONAL QUALITY AND PRODUCTIVITY IMPROVEMENT PROMOTION AWARD FROM THE MINISTER OF INDUSTRY (2013)

Angthong, Thailand

OUTSTANDING COOPERATION AWARD FROM KUMHO TIRE (2013) Yeosu, South Korea

## FEEDBACK

Feedback on our second report is an essential component of our commitment to Sustainable Operational Excellence. Comments are reviewed by our management and will, in many cases, be incorporated into future reports.

For more information please visit **www.birlacarbon.com** 

Please send your feedback to:

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