

Driving Global Sustainable Excellence

Birla Carbon Sustainability Report 2013



Welcome to Birla Carbon's First Sustainability Report



It is over two years since Birla Carbon acquired Columbian Chemicals Company to become the world's leading carbon black manufacturer. I'm proud to say that the integration has been very successful, and we have significantly benefitted from sharing best practices. As One Birla Carbon, we now have a great opportunity to grow our business and provide world-class service to our customers in all parts of the globe, leveraging our combined capability.

In line with the ethos of our parent company, the Aditya Birla Group, we deeply believe in sustainability as our guiding principle of doing business globally. Operating in a sustainable way helps to make our processes more efficient, creates value for our stakeholders – including employees, customers and the communities around our sites – and demonstrates that we are committed to responsible, long-term growth. With sustainability at the heart of our business strategy, we feel confident of achieving our vision of being the “most respected, sustainable and dynamic” global carbon black business.

Historically, sustainability has been an important part of our business. Viewing sustainability as a key to our growth strategy, however, is new to us. We are early in our systematic efforts to build sustainability into all areas of our operations, and we have a lot more to accomplish in this area going forward.

The task of putting sustainability at the heart of business is by no means easy. We face a range of sustainability challenges across the business, and it is vital that we rise to these challenges together and through purposeful action, leveraging the commitment of our employees and involvement of our stakeholders. It's extremely important, for instance, that we continue to promote responsible practices in every country – and at every level – of our business. We must also keep abreast of regulatory standards in all the markets where we operate and ensure that all our sites are up to date with the latest, most sustainable technology and processes.

With the excellent leadership team we have, and the capability and commitment of our people, I am confident we can achieve our sustainability goals. I also hope that all our external stakeholders will appreciate our efforts. I hope you enjoy reading about our progress so far.”

Dr Santrupt Misra, Chief Executive Officer, Birla Carbon and Director, Group Human Resources, Aditya Birla Management Corp. Pvt Ltd





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An Interview With Our Chief Operating Officer



Sustainable Operational Excellence is at the heart of how we operate. Put simply, it means making sure our business is as efficient as possible across every level to drive sustainable growth.”

Kevin Boyle, Chief Operating Officer

AND

A

Q HOW IMPORTANT IS SUSTAINABILITY TO BIRLA CARBON?

Sustainability is a key part of our business strategy. Manufacturing our products responsibly, providing our customers with a secure, high-quality supply of carbon black, and respecting our employees and the communities in which we operate will help us to grow as a business.

Our approach to sustainability is at the heart of how we operate – what we call Sustainable Operational Excellence. Put simply, it means making sure our business is as efficient as possible across every level to drive sustainable growth. This report is full of examples of how we are achieving this, both globally and locally.

Of course, it's now more important than ever that we have an integrated approach to sustainability. The integration of Birla Carbon and Columbian Chemicals Co. in 2011 saw the birth of a new leader in the carbon black industry. And now that we're in this position, we believe we have even more of a responsibility to put sustainability at the forefront of our operations so that our customers can rely on us to be there for them in the future.

Q WHAT HAVE BEEN THE KEY AREAS OF FOCUS IN SUSTAINABILITY FOR BIRLA CARBON IN RECENT YEARS?

At Birla Carbon, we are committed to being a responsible and proactive environmental steward, and we've been working hard to optimize the conversion of carbon to carbon black, thereby minimizing our greenhouse gas footprint through Sustainable Operational Excellence.

Since we have become one company as Birla Carbon, we've made some major strides in reducing our greenhouse gas (GHG) emission intensity – or the amount of emissions we produce per tonne of carbon black manufactured – by consolidating our knowledge and sharing best practices across our global operations. We've set the challenging target of reducing our direct CO₂ emission intensity by at least 22% before the year 2020 – against our 2005 baseline.

We've also been working to increase the amount of energy we recover from our manufacturing processes, and I'm proud to say that Birla Carbon as a whole is



now energy positive. This means that, globally, we generate surplus energy while manufacturing carbon black. In addition, we also use a significant amount of fossil feedstock and are looking at ways of using other feedstock from renewable sources in the future.

Protecting the health and safety of our employees is always a key focus for us. In recent years, we have built up one of the best safety records in the industry. This is something we're very proud of and want to continue to improve on in the future. We also strive to make a positive impact in the communities in which we work, not only as an employer, but also through a range of community-based projects and initiatives.

We believe that all these elements combine to support one of our other key sustainability aims: ensuring the continuity in supply of high-quality carbon black products to our diverse customers worldwide. Our products are in constant demand by major industries, so any delay or disruption to supply – even by a day – could impact our customers' productivity. That's why we place so much emphasis on making sure that we can deliver what our customers need and expect, without fail, every time.

Q WHAT ARE THE MAIN CHALLENGES?

As a chemical company, safety is our number one priority. While we're proud of our achievements in this area, we believe there is always room for improvement. I deeply regret that in 2012 there was one fatality involving a contractor in Egypt. Every death is one too many, and a matter of concern to Birla Carbon and to me personally. That is why we remain more focused than ever on providing a safe and healthy workplace for each and every one of our employees.

We also know that carbon black can be perceived negatively in some of the communities in which we have factories. It's important that we try and change

that view by showing that we can be a responsible member of the community, whether that's by ensuring we have modern, efficient equipment that enhances environmental performance or investing in local schools and businesses.

Q HOW DO YOU VIEW BIRLA CARBON'S FUTURE WITH REGARD TO SUSTAINABILITY?

While we have become the world's largest producer of carbon black, we are still a very regional business and our products and services are tailored specifically to individual markets. To remain sustainable, it's important that we continue to integrate our two former companies – Birla Carbon and Columbian Chemicals Co. This is particularly relevant to key areas such as health and safety and environmental performance, where we aim to set consistent, world-class standards across all our global operations.

Our goal is to maintain and grow our industry-leading position in the future by being the world's most respected, sustainable, and dynamic producer of carbon black. As mentioned previously, we believe that, for Birla Carbon, being a truly sustainable business involves 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. By aligning our sustainability approach with the strong values and history of our parent company, the Aditya Birla Group, we can continue to differentiate ourselves from our competitors.

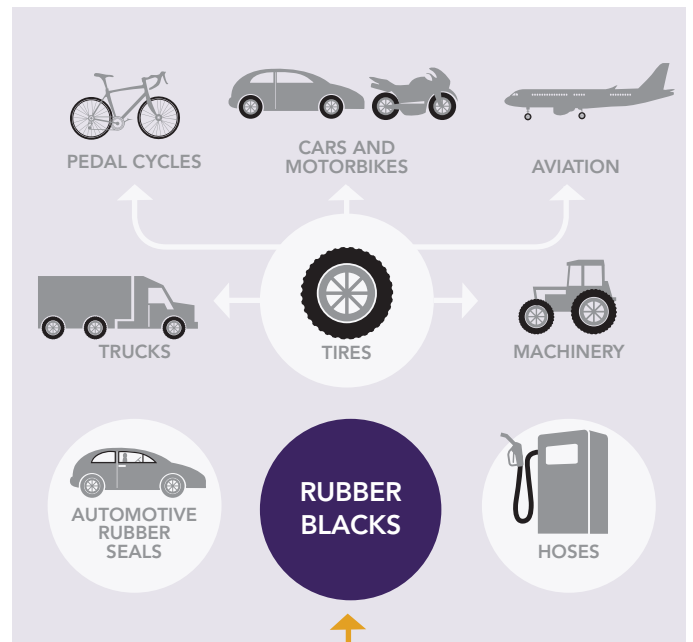
Kevin Boyle, Chief Operating Officer



What is Carbon Black?

Carbon black is part of the fabric of our everyday lives. From the tires on your car to the rubber in your shoes or the plastic casing of your mobile phone, it is an essential but often unnoticed product in use all around us and in every corner of the globe.

Figure 1 CARBON BLACK – WHERE IS IT USED?



In its raw form, carbon black is a fine, black powder that helps make many of the products we use every day stronger, brighter and longer lasting. Worldwide, around 90% of carbon black is used in rubber products, mostly as a reinforcement agent in the manufacture of automobile tires but also for industrial belts, hoses and other rubber goods. The remaining 10% is used globally as pigment, UV stabilizer and conductive or insulating agent in a variety of specialty plastic, ink and paint applications.

At Birla Carbon, we use advanced manufacturing processes to turn low-value oil residues and natural gas into valuable commercial products with a wide variety of beneficial uses and applications – helping to minimize industrial waste and drive down GHG emissions in the process.

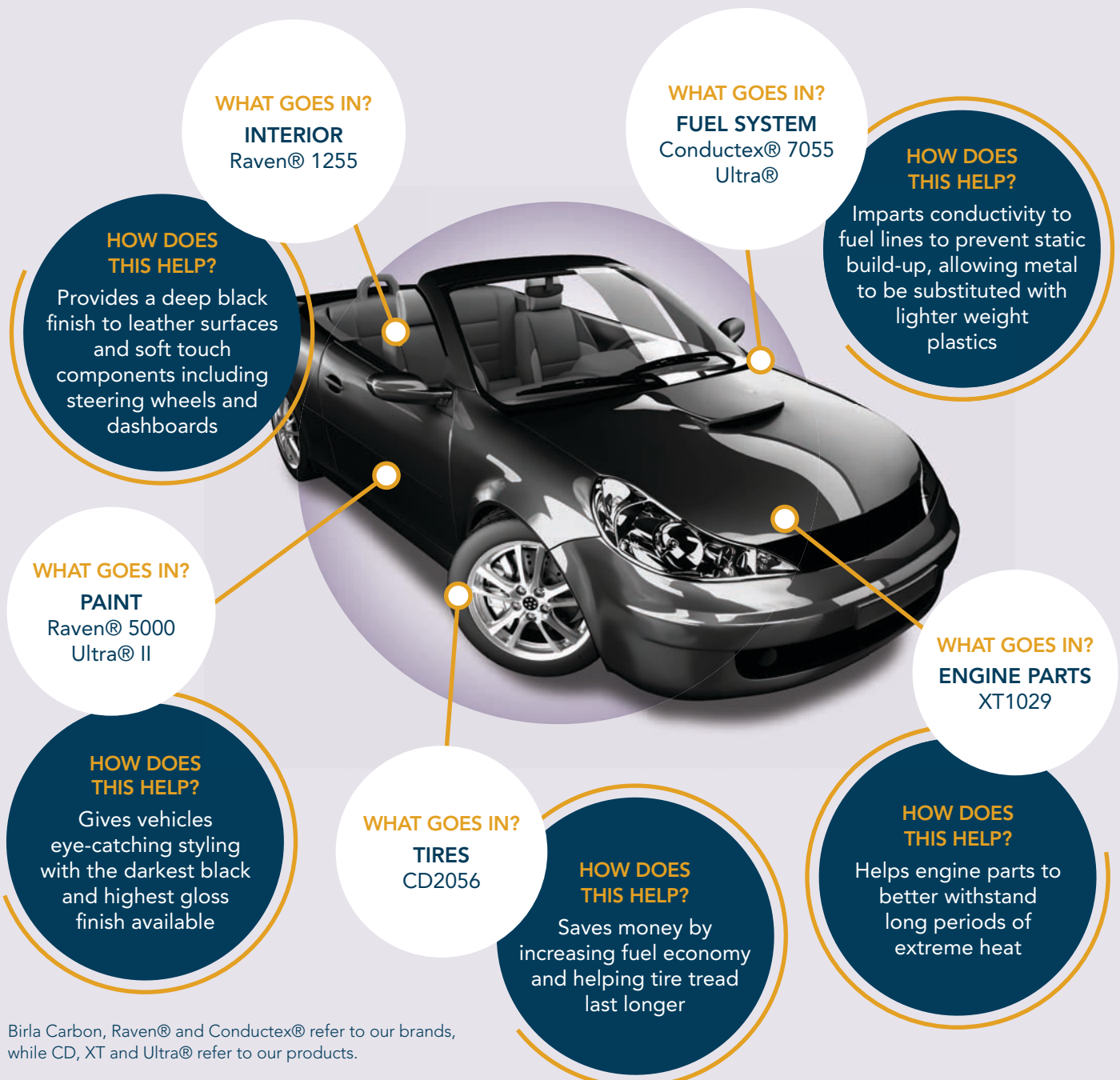


Carbon Black: One Product, Many Uses

The carbon black we produce is used in many different parts of an automobile. The diagram shows just a few of the ways that carbon black helps make automobiles safer, better looking, more efficient, and longer lasting.

DID YOU KNOW?

There is between 13 kg and 40 kg of carbon black in the average automobile



Birla Carbon, Raven® and Conductex® refer to our brands, while CD, XT and Ultra® refer to our products.

Our Business

Birla Carbon is the world's largest manufacturer and supplier of carbon black, capable of producing two million metric tonnes each year.

The acquisition of Columbian Chemicals Co. by Aditya Birla Group, and the subsequent integration, led to the formation of Birla Carbon, the global carbon black leader. The Aditya Birla Group's carbon black business was formerly comprised of Alexandria Carbon Black SAE, Thai Carbon Black Public Co Ltd and Hi-Tech Carbon Black (India). With manufacturing facilities in each of the key markets of Asia, Europe, and the Americas, Birla Carbon delivers consistent product quality and service worldwide.




ADITYA BIRLA GROUP

Our parent company, Aditya Birla Group, is a 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 \$40 billion group employs over 136,000 people across 36 countries worldwide.

We produce more than 100 types of carbon black for leading companies in the rubber, plastic, ink and paint industries. Our key carbon black brands include Birla Carbon™, Raven® and Conductex®.



Figure 2 BIRLA CARBON GLOBAL FACILITIES

-  MANUFACTURING UNIT
-  DECANTING STATION
-  TECHNOLOGY CENTER

* Please note: data used in the report do not take the decanting stations into account.



Birla Carbon in Numbers



No.1

WORLD'S LARGEST MANUFACTURER AND SUPPLIER OF CARBON BLACK

MORE THAN 2 MILLION TONNES

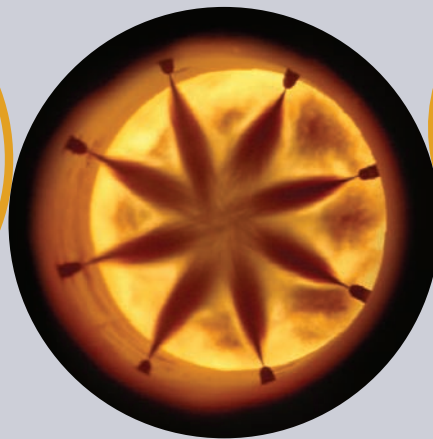
CURRENT ANNUAL CARBON BLACK PRODUCTION CAPACITY



One BIRLA CARBON

MORE THAN 2,900 EMPLOYEES

ANNUAL REVENUE AROUND \$2 BILLION



MORE THAN 100 DIFFERENT CARBON BLACK GRADES PRODUCED

IMAGE TOP: GERMANY – HANNOVER PLANT

IMAGE LEFT: 8-OIL SPRAY CARBON BLACK REACTOR

How do we Produce Carbon Black?

At Birla Carbon, we produce carbon black in a high temperature reactor through a tightly controlled flame-synthesis process that uses oil, and sometimes natural gas, as feedstock. The oil is usually a residue derived from crude oils or coal and is purchased from refineries, petrochemical plants and coal tar distillers.

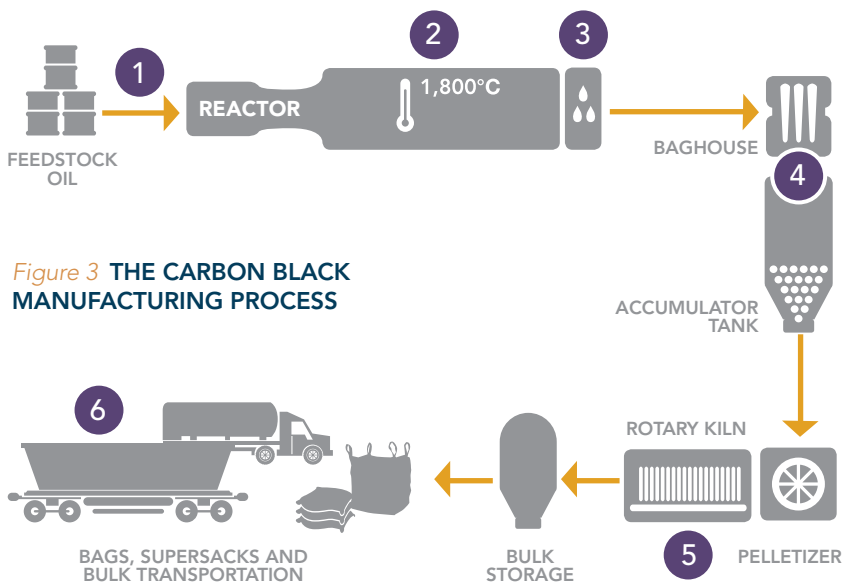


Figure 3 THE CARBON BLACK MANUFACTURING PROCESS

By making adjustments to reactor conditions – such as temperature, concentrations, reaction time and reactor shape – we are able to produce a wide variety of carbon blacks with different morphology (specific surface area and structure level) to meet the diverse needs of all our customers. Throughout the manufacturing process, we use distributive control systems to ensure our products meet the highest quality standards.

OPTIMIZING EFFICIENCY AND REDUCING IMPACT

The carbon black manufacturing process produces large quantities of reactor tail gases that can be utilized to make steam and electricity. As well as using these tail gases for our own internal energy needs, we also supply the energy they generate to businesses and homes around our sites. This greatly reduces our greenhouse gas emissions and provides a valuable resource to our neighboring communities and partners.

THE SIX STEPS BELOW OUTLINE THE MANUFACTURING PROCESS:

- 1 To begin the process, preheated air and oil (and sometimes natural gas) are fed to the reactor in tightly controlled amounts.
- 2 Inside the reactor, the air and hydrocarbons undergo a complex set of reactions – partial combustion, thermal decomposition, particle nucleation and particle growth/aggregation. These reactions occur in temperatures up to 1,800 degrees Celsius and can take less than 0.01 of a second.
- 3 Water is then injected to stop the reactions by reducing the temperature of the carbon black 'smoke' stream leaving the reactor.
- 4 This 'smoke' stream is then routed to a baghouse that separates the carbon black from the reactor tail gases using hundreds of fabric filter bags. The carbon black is a light, fluffy powder as it exits the baghouse and is transported to an accumulator tank.
- 5 The carbon black powder is mixed with a binding agent and water in a pelletizer to form pellets, which are then dried in a rotary kiln. This process increases its bulk density by up to five times, allowing for more efficient transportation to our customers.
- 6 In a final step, the carbon black pellets are packaged in a variety of containers, ranging from 10 kg paper bags to 60 tonne railroad cars for transportation to our customers.

Strategy and Governance

VISION

To be the world's most respected, sustainable, and dynamic global carbon black business.



Integrity

HONESTY IN EVERY ACTION

We act and take decisions in a manner that is fair, honest, and follows the highest standards of professionalism.



Speed

ALWAYS ONE STEP AHEAD

We seek optimum efficiency so that we can deliver on or before time, every time.



Commitment

DELIVER ON THE PROMISE

We do whatever it takes to deliver value to stakeholders.

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



Seamlessness

ACROSS BOUNDARIES

We work effectively across our different businesses, operations, geographies, and hierarchies.



Passion

ENERGIZED ACTION

We engage emotionally with our organization, so that work is rewarding and inspires each one to give his or her best.



Sustainability at Birla Carbon

To continue being successful, it's essential that sustainability is a strategic focus for Birla Carbon. That's because our industry currently faces a number of key challenges including complying with increasing regulations, ensuring supply continuity to customers, attracting and retaining talent, and expanding into emerging markets.

Operating responsibly and sustainably helps us respond to these diverse challenges. It means we can meet the needs of current – and emerging – markets, continuing to offer a secure supply of the highest-quality carbon black products across the globe. In turn, that means we'll remain the first choice for our customers.

That's why sustainability makes perfect business sense for us, because it helps to drive performance and secure our future. It's why we have developed a platform called Sustainable Operational Excellence, which guides our approach to sustainability across our global operations.

Operating sustainably is fundamental to the future success of our business. The more efficient, reliable, and environmentally sound our operations are, the more we can help support sustainable economies and value chains.

Through our approach of Sustainable Operational Excellence, we will achieve these objectives and, in doing so, maintain Birla Carbon's market leading position."

Joe Gaynor, Chief Legal, Sustainability and Risk Officer



SUSTAINABLE OPERATIONAL EXCELLENCE HELPS US TO FOCUS ON THREE KEY AREAS:

Process

We strive to be a responsible steward of the environment by optimizing the conversion of carbon to carbon black, minimizing our carbon dioxide (CO₂) 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.



OUR APPROACH: SUSTAINABLE OPERATIONAL EXCELLENCE

Sustainable Operational Excellence is Birla Carbon's business approach to everything we do. From designing and operating our plants to engaging with our employees and stakeholders, it provides the compass points for how we operate our business. Through the implementation of Sustainable Operational Excellence, we are optimizing the way we make carbon black, minimizing our environmental footprint, and making valuable contributions to the communities in which we work and society as a whole. By combining the expertise from both our former Birla Carbon and Columbian Chemicals Co. businesses, we will continue to be the world's leading producer of carbon black.

Sustainable Operational Excellence drives our business values and ethics, so that every Birla Carbon employee is fundamentally aware of the role they play in making Birla Carbon the world's most successful and responsible carbon black manufacturer. Sustainable Operational Excellence also provides the framework and systems to ensure all Birla Carbon facilities share the best practices we have implemented to achieve our business and sustainability goals.

As part of this framework, Sustainable Operational Excellence is supported by two key pillars: Enterprise Risk Management and Best Practice Management. Through Enterprise Risk Management, we identify risks and monitor our risk mitigation processes. Through our comprehensive approach to Best Practice Management, we facilitate the sharing of ideas and processes that add value to our business across our global operations.

It's a way of working that brings benefits not only for us, but also for our stakeholders. Producing carbon black with enhanced sustainability credentials, for example, is good for our customers, as it helps them improve the sustainability performance of their own products. Similarly, reducing the impacts of our manufacturing process can bring benefits to the communities around our sites.

With our recent integration, we have a unique opportunity to draw on the extensive skills and expertise of employees from our five regions. Sustainable Operational Excellence is the vehicle that helps us to do this, promoting the adoption of Best Practice Management across the business and creating a consistent business-wide approach that adds value and drives performance.

APPLYING SUSTAINABILITY TO OUR BUSINESS

In the last year, we have taken a number of steps to formalize Birla Carbon's approach to sustainability. We have engaged with a range of stakeholders, including customers, employees, communities, regulators, and suppliers, to help us identify the issues that are most important to our business. We have also created a Sustainability Steering Committee to establish and develop our approach and to monitor our progress against key targets.

DID YOU KNOW?

A rubber tire wouldn't last more than 100 km without carbon black





Stakeholder Engagement and Materiality

STAKEHOLDER ENGAGEMENT

Understanding and taking action on what is relevant to our stakeholders maximizes the effectiveness of our strategy. In order to identify our most material risks and opportunities, part of our reporting process engages with stakeholders who are most directly impacted by, and have the greatest impact on, our operations.

OUR KEY STAKEHOLDERS INCLUDE:

Customers

We want our customers to see Birla Carbon as the most reliable and sustainable supplier of carbon black.

Employees

It's important to ensure our employees work in a safe and healthy environment, and we encourage them to practice sustainability both at work and at home.

Communities

We strive to make a meaningful contribution to all of the communities in which we operate.

Suppliers

We are developing sustainability criteria to be used in our procurement process as a means to further ensure the integrity and quality of our supply chain.

Regulators

We collaborate with regulators to ensure that we comply – and go beyond – all relevant laws and regulations.



IMAGE: THAILAND – LOCAL OFFICIALS VISIT OUR PLANT



WHAT IS MATERIAL TO BIRLA CARBON?

Birla Carbon’s sustainability strategy focuses on the issues that are most important – or material – to our stakeholders, as well as areas that have a material impact on the future competitiveness of the business.

We have conducted a materiality analysis to identify economic, environmental and social issues that are of particular interest and concern to both our stakeholders and business operations. This included monitoring stakeholder expectations and concerns through direct dialogue, surveys, and other feedback. To further evaluate issues of global significance, we look to

international reporting standards and expectations such as the Global Reporting Initiative and the United Nations Global Compact.

The results of this analysis have been used by Birla Carbon senior management to build the contents of this report. The table below shows the areas that we consider to be most material for our first report, reflecting our view of what is most important to Birla Carbon and our stakeholders, particularly our customers. As we progress on our sustainability journey, we will review new and emerging issues and update our strategy to align with evolving stakeholder concerns.

Figure 4 OUR KEY MATERIAL ISSUES

MATERIAL ISSUES	MATERIALITY CATEGORIES					
	Strategy and governance	Manufacturing	Environmental impact	Our people	Customers and suppliers	Engaging with communities
Water stewardship		●	●			●
Corporate governance	●			●		
Labor relations	●			●		●
Community engagement	●			●		●
Energy		●	●			●
Diversity and inclusion	●			●		
Product stewardship		●			●	
Ethics and compliance	●		●	●	●	●
Process improvement		●	●		●	
Human rights	●			●	●	●
GHG emissions		●	●			
Customer supply continuity		●			●	
Employee health and safety	●	●		●	●	
Waste management		●	●			
Raw material		●			●	

OUR REPORT FOCUS AREAS

Based on our materiality process, we have identified four key focus areas for this report:

ENVIRONMENT



PAGE 17

PEOPLE



PAGE 26

CUSTOMERS AND SUPPLIERS



PAGE 35

COMMUNITIES



PAGE 44

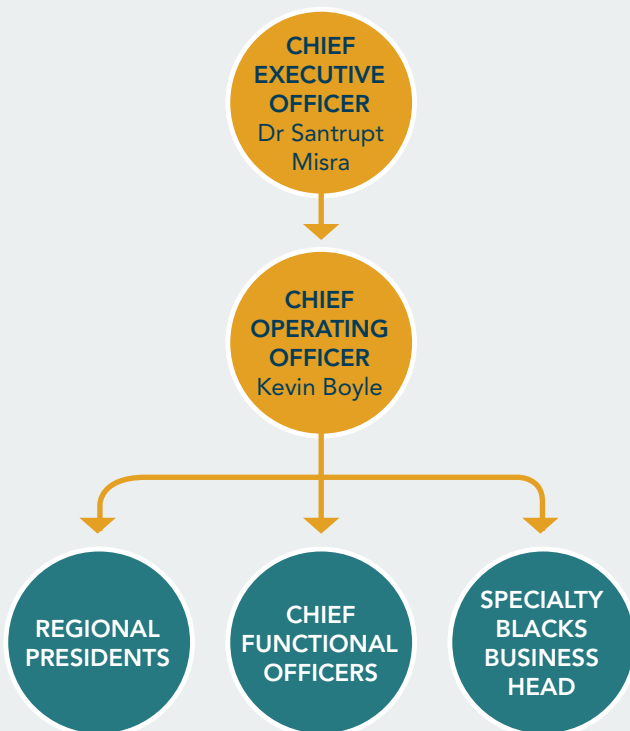


Governance and Ethics

CORPORATE 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, a Specialty Blacks Business Head, and Chief Functional Officers of the business.

Figure 5 SENIOR MANAGEMENT TEAM (SMT)



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

SUSTAINABILITY STEERING COMMITTEE

Sustainability at Birla Carbon is governed by a Sustainability Steering Committee (SSC), which was established in 2012. The committee is led by Global Director of Sustainability, Gilles Moninot, and Chief Legal, Sustainability and Risk Officer, Joe Gaynor. The committee reports to Chief Operating Officer, Kevin Boyle.

The SSC includes representatives from each of the functional or operational areas of our business including finance, human resources, supply chain, operations, research and development, environment, health and safety, marketing and sales, and corporate communications.

ENTERPRISE RISK MANAGEMENT COMMITTEE

Our global Enterprise Risk Management system is designed to help us ensure a secure, continuous supply of carbon black to our customers. The Enterprise Risk Management Committee (ERMC) includes our management team and the heads of key departments such as finance, legal, marketing, operations and sales. There is also a business risk officer in each of our five regions that coordinates risk assessment at the regional level.

The ERMC meets regularly to assess business risks and to develop mitigation plans at the corporate and regional levels in conjunction with the regional business risk officers.



BIRLA CARBON AUDIT PROGRAM

While Birla Carbon meets the ISO 14001 Certification for Environmental Management Systems, we also have our own program in place to help us achieve the highest standard of environmental, safety, and energy management across the business.

Birla Carbon has an independent Internal Audit Department, which carries out financial investigations and performs risk-based audits across the business on a quarterly basis. Regions are expected to regularly complete Key Control Tests and submit responses to the Chief Executive Officer via a quarterly questionnaire. Birla Carbon has a Business Value Standards Committee headed by the Chief Operating Officer, which upholds the Group Code of Conduct and Aditya Birla Group values, as described on page 10. The committee provides a formal complaints process at group, business, and regional levels to handle any issues raised about non-compliance. We expect our employees to voice any concerns they have about our operations, and we offer hotlines at a number of our sites to encourage them to do so.

The Birla Carbon Environmental Audit Program goes beyond the requirements of ISO 14001 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. We also conduct a best practice audit, during which an internal auditor thoroughly assesses the effectiveness of our procedures, policies, and standards. Any issues identified during the audits 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.

ETHICS

It is essential that we conduct business with integrity at all times. Internally, we promote practices which are based on our values – integrity, commitment, passion, seamlessness, and speed. To help ensure the consistency of high ethical standards across our global operations annually, each of our employees is required to sign a document confirming their compliance with our Code of Ethics.

Externally, we expect our partners to observe the same standards of ethics and integrity. The training that we provide to employees enables them to help our external partners understand our expectations and align their practices as well. We have now provided this training to 94% of employees, and our goal is to reach 100% of staff annually by 2020.

Birla Carbon is committed to complying with the antitrust laws of all the locations where we conduct business, and we intend to preserve the competitive, free-enterprise system. We also comply with the anti-corruption laws of all the locations where we conduct business, and we prohibit payments or promises to pay anything of value to officials of any government in order to obtain or retain business.

In 2011 and 2012, Birla Carbon was successful in preventing antitrust and anti-corruption issues. No incidents were identified. Internal controls, training, and risk assessment audits (internal and external) are all reasons for our success in these arenas.

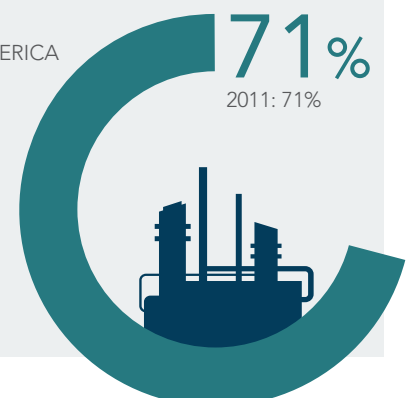
COLLECTIVE BARGAINING AGREEMENTS

Our collective bargaining agreements are contracts outlining conditions of employment, wages, working hours, benefits and conflict resolution processes. From 2011 to 2012, the number of unionized sites remained the same (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.

Figure 6 PERCENTAGE OF UNIONIZED FACILITIES, 17 MANUFACTURING SITES TOTAL

NON-UNIONIZED SITES

- HICKOK PLANT – NORTH AMERICA
- HUNGARY – EUROPE
- WEIFANG – CHINA
- LIAONING – CHINA
- PATALGANGA – INDIA





Reducing Our Environmental Impact



Because of the nature of the carbon black manufacturing process, we recognize that our activities can have a significant impact on the environment. As such, environmental management is integrated into our business management and decision-making processes and we have developed a comprehensive set of policies, procedures and best practices that we apply to all our operations. Our environmental activities include ensuring our manufacturing process is as efficient as possible, cutting our emissions, minimizing the amount of waste we produce and conserving natural resources such as water.



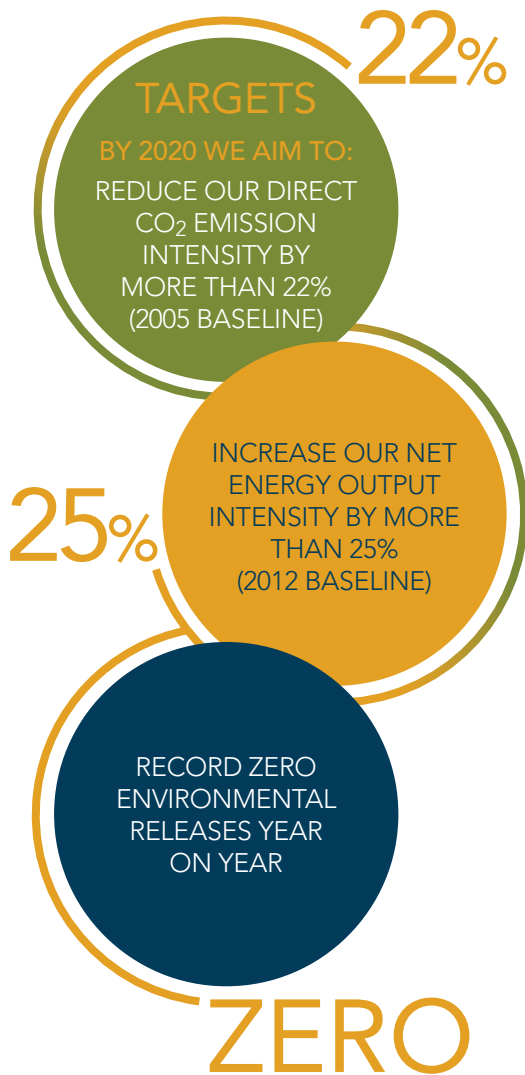
All of our processes are geared toward improving efficiency and recovering energy wherever possible. This helps us reduce our energy consumption, cut our CO₂ emissions and minimize waste across our operations."

Randy Waskul, Global Director of Health, Safety and Environment





Energy and Emissions



OUR APPROACH

The formation of the new Birla Carbon in 2011 has created exciting opportunities to improve our manufacturing efficiency through innovation and shared expertise, all the while driven by our Sustainable Operational Excellence approach. We have focused particularly closely on CO₂ emission reduction, energy efficiency and energy recovery by redirecting waste energy into valuable secondary uses. As the leader in the carbon black industry, we have a responsibility to make the most of precious natural resources, to minimize our environmental impacts, and to maximize the benefits for society.

PERFORMANCE AND PROGRESS

OPTIMIZING ENERGY AND MINIMIZING CO₂ EMISSIONS

In the last decade, our former Birla Carbon plants have been focusing on optimizing the energy balance of the carbon black manufacturing process, while our former Columbian Chemicals Co. plants have been concentrating on optimizing the conversion of oil to carbon black as efficiently as possible.

In 2012/2013, our former Birla Carbon sites created, on average, 42% more downstream energy than our Columbian Chemicals Co. sites. Meanwhile, the Columbian Chemicals Co. plants have been 9% more efficient than our other sites at capturing carbon and reducing direct CO₂ emissions. By combining these successful practices, we will achieve our aspiration of One Global Technology and rapidly improve our global GHG footprint even further.

HIGHLIGHTS

\$25.8 MILLION
 INVESTED IN PROCESS IMPROVEMENTS RELATED TO ENERGY EFFICIENCY AND GHG EMISSION REDUCTION IN 2012 AND 2013

POSITIVE
 GLOBALLY, BIRLA CARBON WAS ENERGY POSITIVE IN FY2013

5.2%
 REDUCTION IN DIRECT CO₂ EMISSION INTENSITY FROM 2011 TO 2012



Figure 7 DIRECT CO₂ EMISSION INTENSITY



Sharing best practice

Each of our plants is now required to issue a quarterly scorecard showing the various ways 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. This ensures that we are always improving operational efficiency across the business. Significant progress has already been made at many of our facilities worldwide, and examples are demonstrated in the case studies in this section.

Using state-of-the-art technology

Birla Carbon recognizes that state-of-the-art technology is necessary to maximize the efficiency of our manufacturing processes and enhance our environmental performance. In the last two years alone, we have invested \$25.8 million in process improvements related to energy efficiency and reducing GHG emissions. On the R&D side, we also use computational fluid dynamics (CFD) to simulate the interaction of liquids, gases and different surfaces found throughout our manufacturing process. This allows us to optimize the performance of our carbon black reactors so we can improve product yields, reduce energy consumption and cut emissions. Since introducing new CFD software, we have redesigned our reactors and invested significantly in energy recovery in the reactor area.

Adapting our feedstock

As part of our Best Practice Management approach, we are also looking at our feedstock to increase the efficiency of our manufacturing process and reduce our impact. We recognize that our feedstock is of fossil origin, and are looking at ways of using other feedstock from renewable sources in the future. The nature of our production process prevents us from using recycled feedstock oil due to its impact on product quality and performance. It is also important to note that – rather than being wasted – a significant amount of the carbon black material that doesn't meet our high quality standards is reused in the manufacturing process. We encourage all our sites to adopt this approach.

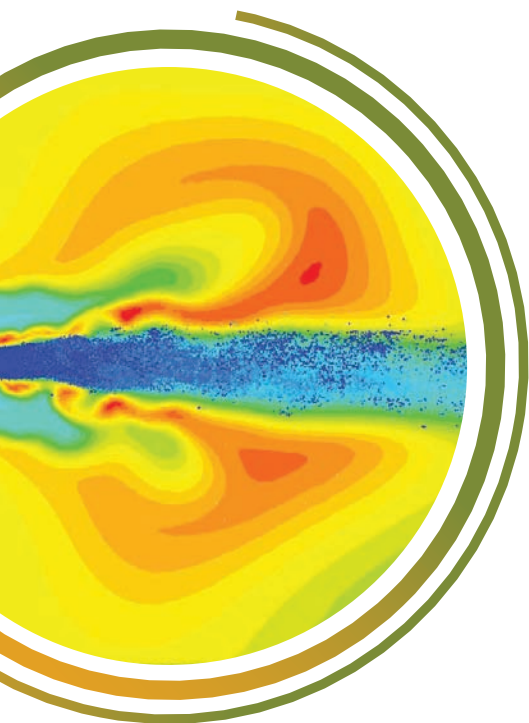


IMAGE: CFD REACTOR SIMULATION



CASE STUDY: INDIA

PATALGANGA PLANT PRODUCES ELECTRICITY FOR LOCAL GRID

When Birla Carbon built a new energy-efficient carbon black plant in the Patalganga region near Mumbai, India, it became apparent that there were no local customers who could make use of the excess tail gas generated by the plant. Birla Carbon is committed to using energy resources wisely, so several boiler/turbines were installed at the site which could burn tail gas to generate electricity for the local grid.

Since the installation, Birla Carbon has worked to optimize energy recovery from its plant to allow for more electricity to be exported to the grid. This has resulted in a 20% increase in electricity exported to the grid on a kWh/t_{carbon black} basis since the plant began operating. Birla Carbon's contribution to the grid prevents CO₂ emissions that would have otherwise been generated at the local electrical power plant.



WHAT WE HAVE ACHIEVED

Becoming energy positive

Thanks to the initiatives above, and other significant efforts across the business in recent years, Birla Carbon is now energy positive. This means that, globally, we generate surplus energy while manufacturing carbon black. For every tonne of carbon black produced at Birla Carbon, the energy recovered and distributed through the grid prevents the release of 0.32 tonnes of CO₂ that would otherwise have been emitted at local electrical power plants. As our annual carbon black production capacity exceeds 2 million tonnes, our potential contribution to indirect GHG emission avoidance is up to 630,000 tonnes of CO₂ equivalent – the same as taking around 123,000 cars off the road every year. This achievement is a major milestone in our sustainability journey, and we are confident we can contribute even further in the future.



To maintain our position as the world's leading producer of carbon black, it's important that we combine the expertise present in all our five regions."

John Loudermilk, Chief Technology Officer & President, North America Region





CASE STUDY: BRAZIL

EXCESS GAS FUELS NEIGHBORING PLANT IN BAHIA, BRAZIL

Sustainable Operational Excellence doesn't just deliver benefits for Birla Carbon – it can also help our neighbors and the environment. In Bahia, excess gas was flared when the plant was first built. However, when a neighboring plant fueled by natural gas was looking for a less expensive fuel source, a new partnership was born.

The Birla Carbon Bahia plant and the neighboring plant signed an agreement for the sale/purchase of excess tail gas from the Birla Carbon production process, with facilities installed to deliver the new fuel source. The new arrangement saves 20 million Nm³ (normal cubic meters) of natural gas every year, preventing 43,000 tonnes of CO₂ emissions. This is equivalent to more than 8,400 cars being taken off the road year after year.



ENSURING WE MAINTAIN THE HIGHEST STANDARDS

All of our manufacturing plants are now certified to the ISO 9001 quality management standard, and all but one are ISO 14001 certified, with the final plant due to receive certification in 2013. Our three Indian plants are in the process of obtaining Aditya Birla Group's Corporate World Class Manufacturing (CWCM) certification, an initiative that promotes and supports the highest standards in manufacturing and production. Several of our global facilities are also working toward the ISO 50001 standard, which stimulates organizations to establish systems and procedures necessary to improve their energy efficiency, energy use and consumption. 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.

CASE STUDY: ITALY

SAVING ELECTRICITY IN TRECATE, ITALY

We have reviewed electrical equipment at our Trecate plant and upgraded the site's large motors so that they run more efficiently. The plant already had a co-generation facility that supplied part of its electricity needs by using tail gas from the carbon black manufacturing process to power a turbine generator. The project team optimized this system and replaced a condenser system to improve electricity generation efficiency. The plant manager also encouraged all employees to join in reducing electricity use through simple steps such as turning off equipment when not in use.

In just one year the facility has reduced its electricity purchase intensity (kWh/t_{carbon black}) by 86% and increased its specific electricity production (kWh/t_{carbon black}) by 25%.





Environmental Protection

AIR EMISSIONS COMPLIANCE

We monitor our air emissions to ensure compliance with the regulatory requirements of the jurisdictions where we operate. 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 Sustainable Operational Excellence, 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.

PROTECTING OUR NATURAL ENVIRONMENT

We maintain a greenbelt of trees around many of our facilities to provide more pleasant surroundings for our employees and the communities where we work. In several locations, such as North Bend (Louisiana) and Hickok (Kansas) in the USA, there is a significant amount of fertile land, which local farmers use for crop production.

CASE STUDY: USA

RECYCLING TUMBLEWEED AT HICKOK, KANSAS

Due to its location, our plant in Hickok is often overrun with tumbleweed plants, which can be very difficult to keep off the property, and in stormy conditions the tumbleweed can create walls more than three meters tall. Rather than throwing the tumbleweed away, we decided to use a baler to compact the accumulated plants into rolls. We have now been providing local farms with this free livestock feed for over eight years.



CASE STUDY: CANADA

MONITORING AIR QUALITY IN HAMILTON, CANADA

Birla Carbon takes the issue of ensuring air quality surrounding its sites very seriously. That's why, in 2003, we were one of the founding members of the Hamilton Air Monitoring Network (HAMN), an organization responsible for ambient air quality monitoring in the City of Hamilton.

In an area which is home to a variety of residential and waterfront areas, as well as heavy industries, HAMN brings together 22 local companies to manage a network of 18 air quality monitoring stations. HAMN plays a key role in identifying air quality issues that require attention, as well as determining where progress has been made. After 10 years of Birla Carbon's proactive participation, the number of neighbor complaints regarding ambient air quality or environmental escape has significantly decreased and the relationship between the industries and the neighborhood has much improved.



Solid Waste Management

OUR APPROACH

Maximizing the efficiency of how we produce carbon black from our raw materials is a key part of our Sustainable Operational Excellence approach. In doing so, this minimizes the generation of solid wastes which include not only materials from production, but also waste streams such as office refuse and packaging materials from supplies.

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.

PERFORMANCE AND PROGRESS

WASTE MANAGEMENT

We identify and record the various waste streams generated by our activities and manage them according to detailed and approved plans for each location. By working with local recyclers, we can maximize opportunities to recycle a range of waste streams, including metal, pallets, plastic materials, paper and cardboard. We also work with organizations such as Repasak® to facilitate the recycling of our product packaging in Europe, provide our employees with training on how to reduce waste in their workplace, and encourage regional sites to work together to share best practices for recycling.

We strive to find innovative uses for residue from our waste water treatment plant by using it as fertilizer. Through our combined efforts and the sharing of best practice across our different operations, we work to manage these streams in the most economically and environmentally sound manner possible.

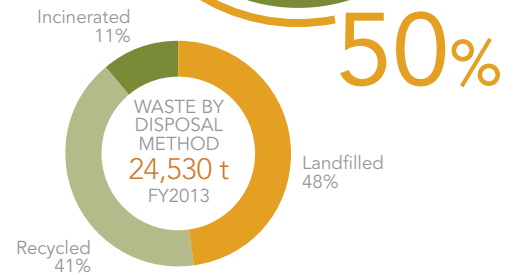
HIGHLIGHTS

ZERO

REGULATORY REPORTABLE RELEASES OVER THE LAST TWO YEARS

ALL

MANUFACTURING SITES HAVE/WILL HAVE ISO 14001 REGISTRATION BY THE END OF 2013



CASE STUDY: GLOBAL

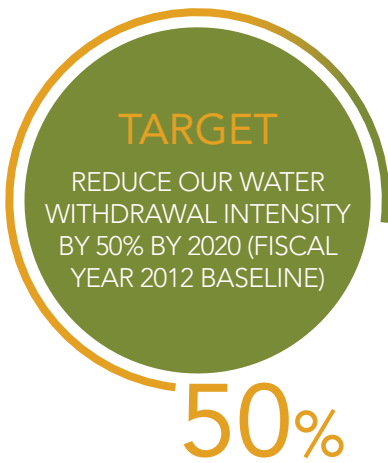
ABOVE GROUND OIL STORAGE TANK INSPECTION PROGRAM

The above ground oil storage tanks (ASTs) used at all of our facilities are constructed of metal, which over time may degrade and result in a leak. In January 2011 we introduced a policy based on petroleum industry guidelines to ensure all tanks are inspected both internally and externally after being emptied and cleaned.

The main goal of the policy is to provide a consistent and thorough procedure for detecting if tanks are showing any signs of potential degradation. Since the policy has been introduced, nine tanks have been inspected internally and the majority of the remainder of our ASTs have been scheduled for internal cleanout and inspections. Our AST inspection program is another example of how we share best practice throughout the business to ensure our processes are more efficient globally.



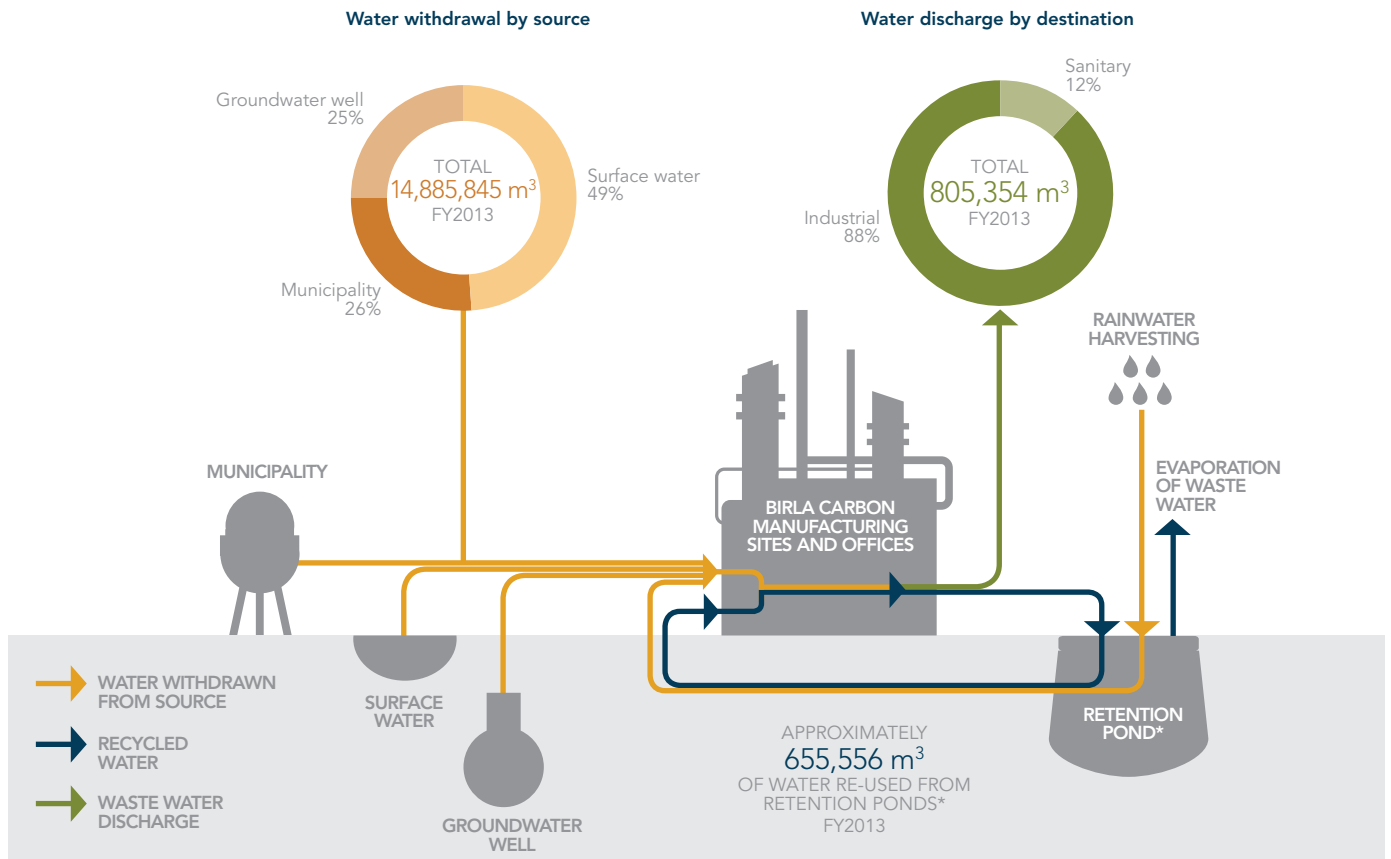
Water Quality Management



OUR APPROACH

The availability of clean, safe water is essential to all of us. We utilize water in a number of ways, whether for drinking, sanitation in our communities, or in our manufacturing process. One of our key objectives is to minimize the impact of our water use on the environment and the community around us, and we are therefore committed to using water in a responsible and sustainable way so that we can reduce our water footprint and preserve this precious natural resource for the future.

Figure 8 THE WATER CYCLE AT BIRLA CARBON SITES



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



PERFORMANCE AND PROGRESS

REDUCING WATER USE IN MANUFACTURING

Water – whether it is raw water, process water or treated water – is an essential part of Birla Carbon’s carbon black manufacturing process. As such, our sites are very focused on the sustainable use of all water resources.

We recycle water used in the manufacturing process, passing it through retention ponds so that it can then be used again in the process. Our approach includes maximizing the efficiency of our production process and introducing water conservation initiatives across the business, and we will continue to look at ways that we can reduce our water use in the future. We share our water conservation best practices across all of our locations as part of our strategy of Best Practice Management, a pillar of Sustainable Operational Excellence.

RECYCLING INITIATIVES

We have various water recycling initiatives in place across our sites, including reusing process water and harvesting rainwater to minimize the amount of water needed from the resources available to the community around our sites. We take advantage of the solid surfaces in our facilities to direct the water to retention ponds where it can be reused effectively, and at some sites the steam generated is used by the community in their central heating system.

These water recycling efforts allow less water to be used by Birla Carbon and ensure that, by reducing the intensity of our water withdrawal, our water usage does not adversely impact local communities. Many sites have a zero discharge of waste water and either reuse or evaporate the water collected in the retention ponds.

HIGHLIGHTS

16%

INCREASED RAINWATER HARVESTING AND WATER RECYCLING INTENSITY OVER THE PAST 12 MONTHS

12

OF OUR 17 MANUFACTURING LOCATIONS HAD ZERO INDUSTRIAL WASTE WATER DISCHARGE IN 2012

CASE STUDY: SPAIN

REDUCING WATER USAGE IN SANTANDER

At our Santander plant in northern Spain, we’ve been working to use valuable water resources in more efficient ways by developing a system which increases our use of recycled water, thereby reducing the amount of water supplied from the neighboring river, and minimizing discharges to the nearby bay.

Initially, points of water consumption and the quality required in each activity were analyzed in order to establish a hierarchy of needs and priorities. As a result, a system has been developed and implemented across the plant which involves the reuse of process water from carbon black production and the use of rainwater collected on site where possible. Discharges are kept to a minimum and the quality of discharged water is in accordance with relevant environmental standards. Through this proactive approach to managing water resources, the plant has reduced water consumption intensity (m³/t_{carbon black}) by nearly 10% over the last year.

CASE STUDY: GERMANY

HEATING HOMES AND BUSINESSES IN HANNOVER

In the city of Hannover in northern Germany, Birla Carbon is supplying energy to the local hot-water grid system which provides heating for businesses and residential homes surrounding the plant. By utilizing the combustion energy from the reactor tail gases instead of natural gas, nearly 22,000 tonnes of greenhouse gas emissions to the atmosphere are prevented every year. This equates to 4,200 cars being taken off the road every single year.



Putting Our People First



People are the most important part of any successful and sustainable business. We value each of our 2,930 employees and we strive to provide them with a safe and stimulating working environment, a real sense of involvement with the business, and the opportunity to fulfill their potential. To achieve these goals we focus on four key areas – health and safety, attracting and retaining talent, engaging employees, and providing opportunities for people to develop and grow.



Protecting and safeguarding the health and safety of our employees remains at the heart of our operations. In addition, recruiting and retaining high-caliber employees is fundamental to the success of our business.”

Arun Gaur, Chief People Officer





Occupational Health and Safety



TARGET

ACHIEVE ZERO RECORDABLE INJURIES YEAR ON YEAR

ZERO

IMAGE: HUNGARY – PREPARATION FOR TRUCK LOADING

OUR APPROACH

At Birla Carbon, the health and safety of our people comes first. We believe our success is dependent upon creating a safe workplace and influencing our employees' behavior in order to make safety a way of life.

Our 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. We also conduct regular safety audits at all of our sites to ensure we meet and exceed all relevant regulatory standards. 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.

PERFORMANCE AND PROGRESS

A CONSISTENT APPROACH

We are convinced that maintaining open communication among all our locations will improve our health and safety performance. 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 – part of our commitment to Sustainable Operational Excellence.

Sharing expertise

To help implement our global health and safety vision, we identified champions and encouraged them to mentor other sites. For instance, in 2012, our Safety Manager in Tiszaújváros, Hungary, spent six months helping our Egyptian site in Alexandria to align with our global health and safety practices.

We also encourage our site health and safety leaders to maintain open communication with their counterparts around the world to take advantage of each others' individual expertise. Valuable discussions and the sharing of ideas come from these communications, which also help us to identify situations in which our safety professionals might need extra help.

HIGHLIGHTS

SIX YEARS

OF PROGRESSIVE IMPROVEMENT IN TRIR* (74% IMPROVEMENT) WHILE THE COMPANY GREW AND DOUBLED IN SIZE

PROACTIVE

RECOGNITION AND CONTROL OF HAZARD CONDITIONS AND AT-RISK BEHAVIORS HAS DOUBLED OVER THE LAST 24 MONTHS

* Total Recordable Injury Rate.



Identifying and assessing problems

One of the ways we share ideas and best practices is by using a software package unique to Birla Carbon. The Safety and Health Incident Reporting Tracking System (SHIRTS) enables employees from all of our sites to record health and safety incidents, near misses, observed at-risk behaviors and examples of good practice on a centralized database. This information is shared daily with all locations and senior management, allowing us to reduce incidents by comparing performance across sites.

Once an incident is reported, we use a systematic root-cause analysis tool to help us identify why this incident has occurred and how we can prevent it from happening again in the future, in any location. During Birla Carbon's first Global Health, Safety, and Environmental Conference held in November 2012 in Thailand, we provided two days of in-depth training to all our health and safety professionals on this root-cause analysis methodology.

FATALITY IN EGYPT: LESSONS LEARNED

On June 14, 2012, a tragic incident occurred at our Alexandria, Egypt facility. A contractor fell through a skylight panel while working on a warehouse roof. Unfortunately, due to the injuries sustained from the fall, the contractor died.

In the event a serious incident occurs, Birla Carbon conducts a thorough investigation in order to identify the appropriate corrective action to prevent reoccurrence. Since the incident at our Alexandria Egypt facility, we have a new approach to contractor safety. In the contractor selection process, we evaluate all contractor safety records and training prior to finalizing the winning contractor. Prior to each project beginning at the job site, a preliminary risk assessment is conducted. This process ensures that all hazards are identified and the appropriate information is shared with the contractors. We have also implemented a procedure to ensure all contractors receive thorough orientation and safety awareness training. In addition, each of our sites was asked to introduce a formal procedure and approval process for accessing rooftops.

At Birla Carbon, we recognize the need to improve our contractor management process – a requirement to ensure the safety of our contractors. We have committed ourselves to revamping our program in order to maintain the safety and well-being of all personnel who work in our sites.

CASE STUDY: BRAZIL

IMPROVING SAFETY STANDARDS

Across our global business, Birla Carbon has worked diligently to share the lessons learned from the tragic fatality at our Egypt facility. For instance, our Cubatão, Brazil facility was one of the first sites to modify its contractor selection process by introducing a thorough safety background check on each contractor bidding for a job.

The frequency of contractor inspections in Cubatão is being increased. Supervisors and managers are ensuring every contractor understands our rules and our commitment to safety. During projects, Birla Carbon representatives work with the safety manager of each contractor to increase the safety leadership of supervisors and ensure that a safety briefing is systematically conducted every day before work starts.

Figure 9 GLOBAL EMPLOYEE AND CONTRACTOR TRIR (TOTAL RECORDABLE INCIDENT RATE)



* Back calculated estimation from the number of hours worked used to determine TRIR. Base for FY2013 is 2,930 employees.



CASE STUDY: EUROPE

AT RISK BEHAVIOR PROGRAM

Sustainable Operational Excellence takes many forms, including identifying and eliminating unsafe behaviors to help us reduce accidents and injuries. In 2012 we launched the At Risk Behavior (ARB) program across our sites in Europe. The aim is to draw attention to all ARBs with a particular focus on life-threatening examples, extend awareness of ARBs to more than just production, and increase the effectiveness of ARB audits.

Our program team identified five areas where ARBs can be life threatening – isolation of energy, working at height, working in a confined space, using mobile equipment, and gas safety. For each of the five key risks, the team produced a series of short presentations, exhibits, videos, posters, calendars, stickers, and gadgets to raise employee awareness. All our job descriptions also now include a “safety accountability” clause, in line with all relevant local legislation, that employees are required to sign. Since the launch of the program, the number of ARBs recognized through our SHIRTS system (see page 28) has significantly increased for all four European plants, while they have maintained zero recordable injuries. This highly successful program will be formalized and launched in every region during the coming months.



COMMUNICATING HEALTH AND SAFETY

We communicate health and safety performance and news to our employees regularly through four key channels – daily SHIRTS incident reports, monthly summary reports, incident bulletins, and bi-weekly newsletters. These updates are distributed locally to help promote best practice management and keep our staff up to speed with industry developments. These communications provide technical information but they also provide an opportunity for each supervisor to get in front of their colleagues and talk about safety.

It’s important to adopt a proactive approach to health and safety, so we have set up a safety committee at each site that is responsible for introducing specific measures that aim to prevent accidents from occurring in the first place. To promote employee health, we also hold in-plant clinics at many of our sites at which employees can get professional health advice and treatment when needed.

Our intention is to continue to build strong, sustainable programs that will help us change the way we conduct business, and align it with our vision of zero injuries. Our employees are our most important asset, and we aim to achieve zero injuries or illness to our employees and the contractors working at our facilities, day after day.



Attracting and Retaining Talent



TARGET

100% OF BIRLA CARBON MANAGERS TO HAVE STATED AND MEASURED LEADERSHIP DEVELOPMENT GOALS SET ANNUALLY

100%

IMAGE: CHINA – EMPLOYEE ENGAGEMENT INITIATIVE

HIGHLIGHTS

>20

DIFFERENT LANGUAGES AND NATIONALITIES ACROSS OUR GROUP – REPRESENTING OUR CULTURAL FOOTPRINT AS THE NEWLY FORMED BIRLA CARBON

5.4%

A LOW EMPLOYEE TURNOVER RATE IN 2012

OUR APPROACH

Attracting and retaining the right people is a key priority for Birla Carbon and central to the delivery of Sustainable Operational Excellence. By providing a positive work environment and giving employees the opportunity to grow throughout their careers, we will be able to develop and retain a skilled workforce, increase job satisfaction and continue to attract talent. Our Birla Carbon employee survey, which was conducted in October 2012, highlighted the importance of these issues throughout each of our regions.

PERFORMANCE AND PROGRESS

ATTRACTING TALENT

As Birla Carbon continues to enjoy a low employee turnover rate, it becomes increasingly important for our company to introduce future leaders into our organization. We have initiated a number of new programs to address this growing issue, with a particular focus on raising the profile of Birla Carbon in schools and colleges.

In 2012 we visited local schools near our technology center in Marietta, Georgia, USA, to teach 13 and 14-year-old pupils about verbal skills and introduce them to the interviewing process. Similarly, we have been engaging with three US colleges to help students develop key work skills such as resume-writing, networking, and interview techniques. Whereas experience used to be the most important attribute for applicants, we are equally looking to recruit less experienced candidates who can be offered training through initiatives such as our graduate recruitment and internship programs. We also leverage the talent pool of the Aditya Birla Group Leadership Programs (ABGLP), a well recognized platform in India to hire Business Management Graduates. Birla Carbon provides internship as well as role opportunities to the participants of these programs.

Overall, our efforts are aimed at building long-term relationships with schools, colleges, and students. As a response to the feedback collected through our 2012 Vibes employee survey, we will place more emphasis on leadership and technical ability during the talent acquisition process. This includes chemical, mechanical and electrical skill sets. To help develop the Birla Carbon leaders of tomorrow, we are also recruiting candidates who we believe are able to take up leadership roles and responsibilities in the future. Our new internship programs are creating a win-win scenario for both Birla Carbon and students interested in joining Birla Carbon.



CASE STUDY: GLOBAL

SHARING BEST PRACTICE AT OUR GLOBAL HUMAN RESOURCES CONFERENCE

In March 2013, we held our first Birla Carbon Global Human Resources Conference since the integration of the two companies. The event was held in Marietta, just north of Atlanta, USA. During this conference, HR leaders from around the globe collaborated on a host of topics. These included discussions about a standardized global process for expatriation and talent management, efficient utilization of the HR management system, and our global e-learning program. The conference gave the Birla Carbon HR team the opportunity to share best practices and to align processes and strategies.

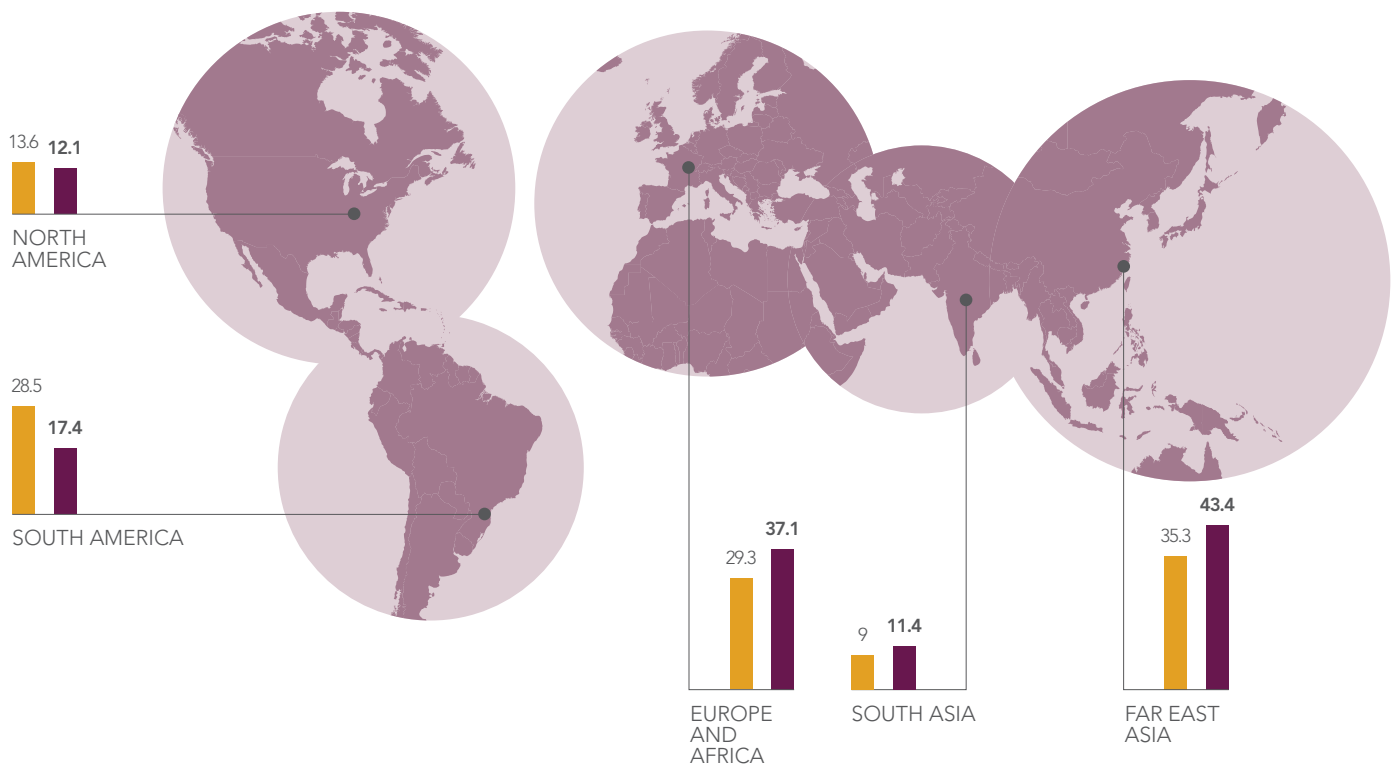
By seeing how students perform during the internship, Birla Carbon can assess performance and cultural fit first hand. Simultaneously, each intern gains valuable experience in the professional world and has an opportunity to determine if Birla Carbon is a potential employer of choice.

PROMOTING DEVELOPMENT

We offer our employees learning and development opportunities through a number of initiatives across our sites. Within Birla Carbon, we support the Employee Value Proposition (EVP) of Aditya Birla Group's Opportunities program, which promotes multiple career choices for our employees, and provides training such as outreach programs, e-learning modules, and web seminars to accelerate people development. Our technical and managerial training and development programs, meanwhile, ensure that our people are prepared to take on the appropriate level of responsibilities when required. For example, in our European sites, entry-level engineers participate in a training course to introduce them to the technical aspects of carbon black production.

Figure 10 AVERAGE HOURS OF TRAINING BY REGION

2011 (orange bar)
2012 (purple bar)





From 2011 to 2012, the average number of hours of training we provided to employees increased by 23% in Far East Asia, and by 27% both in South Asia and in Europe and Africa. In North America and South America, however, it fell by 11% and 39% respectively. This is something we are actively working to address. For example, all our supervisors in the North America region are now required to attend a six-day Supervisory Training class. These sessions began at our North Bend facility late in 2012; the Hickok facility completed their sessions in the second quarter of 2013 and the Hamilton location is also scheduled for completion in 2013.

Our thorough performance review process enables us to track and improve our employees' development. In 2012, 83% of our employees received regular performance reviews.

In the 2013 fiscal year we held several global conferences for our HS&E, HR, and engineering departments, which gave people from different areas of the business the chance to come together to share best practices and to support the alignment of our various operations as the newly integrated Birla Carbon.

External training is also important, as it gives our colleagues a different perspective on the company. As part of our career development process, we fund leadership courses for employees targeted for specific leadership roles.

REWARDING EMPLOYEES

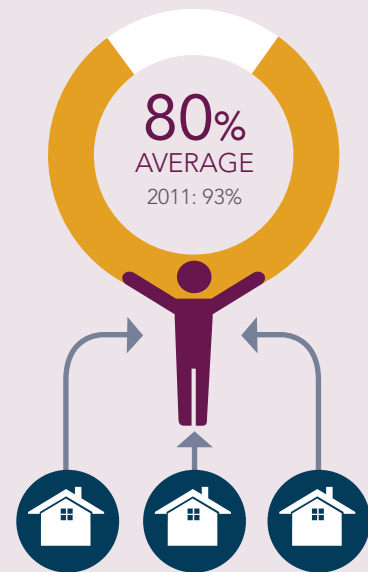
We believe that rewarding our employees will make them feel valued, increase job satisfaction, and help us attract and retain the best people. Birla Carbon formally recognizes performance through Business and Group-level awards. Our PRIDE program recognizes exceptional individual or team performance and allows employees to earn monetary bonuses for their outstanding contributions to the business. Our employees also have the opportunity to be recognized across the Group through the Aditya Birla Awards for Outstanding Achievement. Exceptional performers are nominated for individual awards. These include Young Professional, Distinguished Achiever, Exceptional Contributor, Outstanding Leader, and Value Leader. The Sun Award recognizes all around excellence in a Business/Unit where specific initiatives enhance shareholder value and business sustainability. The Planet Award targets exceptional performance in a specific area such as New Product Development, Sales & Marketing, or Technology.

In addition, we empower our different locations to implement their own employee recognition programs, which allow each site to reflect the traditions and cultural norms of their specific region.

DIVERSITY

With operations in 14 countries, Birla Carbon has a diverse workforce with diverse cultural backgrounds and skills. We are strongly committed to diversity and equality, and we believe that all employees should be able to progress based on their merits and abilities. Our aspiration is to comply with all relevant legislation in the countries where we operate and we aim to ensure that our workforce reflects the places where we have sites. In 2012, 80% of senior managers on average were hired from the local community.

Figure 11 SENIOR MANAGERS HIRED FROM THE LOCAL COMMUNITY IN 2012



SUCCESSION PLANNING

To ensure that Birla Carbon is developing and retaining talent and future leaders, management teams conduct annual succession planning exercises regionally. Not only is that information used locally, but it is also shared and used to fill positions globally. In the event that unplanned or unexpected business changes occur, we have contingency plans to fill positions across the globe.



Engaging Employees



HIGHLIGHTS – VIBES EMPLOYEE SURVEY

92%

OF RECIPIENTS IN NORTH AMERICA, EUROPE, ASIA, AND SOUTH AMERICA RESPONDED TO OUR 2012 SURVEY

94%

OF RESPONDENTS SAID THEY UNDERSTAND THE CONNECTION BETWEEN THEIR WORK AND THE BUSINESS GOALS

96%

OF BIRLA CARBON RESPONDENTS SAID THEY FEEL PROUD TO BE PART OF THE ADITYA BIRLA GROUP

OUR APPROACH

By ensuring employees are engaged, challenged and fulfilled, we promote commitment, loyalty and a sense of responsibility for the business – helping us deliver Sustainable Operational Excellence together.

As One Birla Carbon, it's important for us to engage regularly and thoroughly with our employees to make sure the integration continues smoothly. In particular, we want to understand how our employees perceive our strengths and the opportunities which resulted from the creation of our new global business.

PERFORMANCE AND PROGRESS

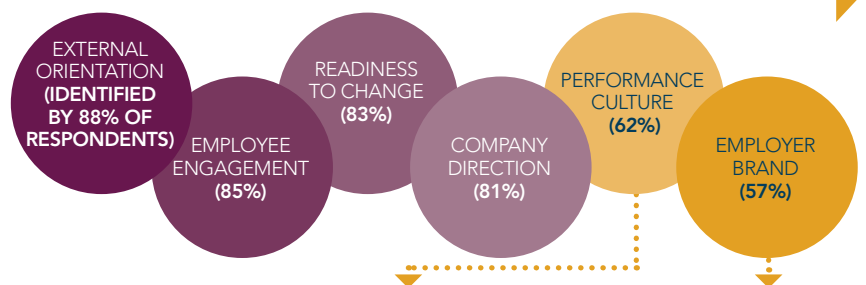
VIBES SURVEY

In 2012, we conducted a Vibes employee survey – distributed to 688 Birla Carbon employees at sites in North America, South America, Europe, and Asia. The survey measured employee feedback in eight categories: engagement, external orientation, readiness to change, direction, our values, alignment, employer brand, and performance culture.

Figure 12 VIBES SURVEY RESULTS AND RESPONSE

KEY STRENGTHS

AREAS FOR IMPROVEMENT



ACTION POINTS: PERFORMANCE CULTURE

- Enhance the Continuous Education Program (including Supervisory Training, E-learning & Leadership Classes)
- Promote from within when possible
- Enhance job responsibilities by offering cross-functional career opportunities for employees who show potential for assuming future leadership roles (regionally and globally)
- Target technical skills and leadership qualities when hiring
- Target new hires who can be promoted at least two levels during their career
- Implement internships

ACTION POINTS: EMPLOYER BRAND

- Strengthen our relationships with communities in the areas where we operate
- Enhance the Rewards and Recognition Program

LOOKING AHEAD

To monitor our progress, we will conduct Vibes surveys every two years. This will enable us to continuously assess the views of our employees and to modify action plans as needed.



ENGAGING WITH EMPLOYEES AT EVERY STAGE

Each new hire receives an orientation to ensure they are properly supported and can easily settle into their new role at Birla Carbon. During this session, employees receive an introduction to the company and its policies and procedures – a vital step in the engagement process. When completing the orientation, technical recruits receive more in-depth training. For example, managers at the Marietta site provide Carbon Black 101 and 202 training to various employees globally. This training provides detailed information regarding the manufacturing, applications, and fundamental properties of carbon black.

We also conduct exit interviews with all employees who voluntarily resign from Birla Carbon. In cases where we are not considered the employer of choice, we use the interview as an opportunity to identify any concerns that employees may have with Birla Carbon so that we can address these in the future. For example, we have used this process to assess the competitiveness of our employee benefits (such as medical insurance and retirement plans).

CASE STUDY: NORTH AMERICA, SOUTH AMERICA, EUROPE, ASIA

BRINGING VALUES TO LIFE

In 2012, more than 1,200 Birla Carbon employees, who had previously been part of Columbian Chemicals Co., took part in Values Training to facilitate their transition into the new organization. The training had four objectives: to initiate the integration process of the two companies; to provide an induction to Birla Carbon; to introduce the core business values (Integrity, Commitment, Passion, Seamlessness, Speed) and to minimize employee anxiety. The staff members, who were located across North America, South America, Europe, and Asia, provided positive feedback and commented on how pleased they were with the effectiveness and allocation of resources for the training.



EMPLOYEE WELLBEING

Our commitment to Sustainable Operational Excellence means we take our responsibility for the physical and mental wellbeing of our employees very seriously. We believe that a healthy and happy workforce is also a productive one. For that reason, we provide progressive services which support the health and wellness of our employees.

Every year, for example, our North American sites provide free, on-site health fairs. Medical and wellness professionals visit the sites to conduct various screenings, such as blood pressure, hemoglobin, bone density, cholesterol, body mass index, and allergies. We also encourage our employees to lead healthy lifestyles. Staff can voluntarily take an online annual Health Risk Assessment (HRA) – a service offered through our medical benefits plan. Representatives from the provider review each HRA and assign a health professional to each employee whose health is considered “at risk”. At that point, a medical professional confidentially consults with the employee via telephone.

DID YOU KNOW?

Many of the world's bank notes contain security ink made from Birla Carbon's Raven® specialty products





Working With Customers and Suppliers



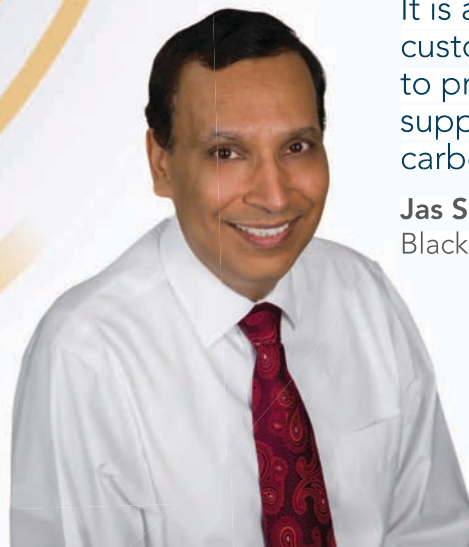
We have diverse global customers who use carbon black in hundreds of different ways. As well as facing their own sustainability challenges, our customers need to ensure their products meet a growing number of performance targets and regulatory requirements, and that they have an assured continuity of supply.

It's therefore vital that we continue to improve the performance and sustainability of our carbon black range while providing a secure, high-quality supply of the product to our customers. We expect our suppliers to share our own high standards so that we can achieve these objectives.



It is absolutely critical to our customers that we are able to provide them with a secure supply of high-quality carbon black."

Jas Sandhu, Head, Specialty Blacks Business





Product Innovation, Product Safety, and Stewardship

OUR APPROACH

Birla Carbon is committed to investing in research and development so we can improve the technical and environmental performance of our products. This will help our customers meet their own high production standards and the regulatory requirements of the markets in which they operate. Our approach, which is based on a foundation of world-class facilities and engagement with industry peers, focuses on process innovation, product development, and product safety and stewardship.

HIGHLIGHTS

2.3%
OF PROFIT
REINVESTED IN
R&D OVER THE
LAST TWO YEARS

PERFORMANCE AND PROGRESS

PRODUCT INNOVATION

World-class facilities

Birla Carbon has world-class technology centers in Taloja, 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, which feature analytical, physics and applications laboratories with 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.



IMAGE: TALOJA, INDIA – ADITYA BIRLA SCIENCE AND TECHNOLOGY CENTER



Research and development

We want all our carbon black products to offer the highest levels of quality and performance, whether they are used in tires, plastics, inks, or coatings. Our Product Technology group works with our technical service teams in each region of the world to help us consistently supply carbon black to our customers with the highest levels of quality and performance to meet all necessary customer and regulatory requirements. These dedicated groups engage with our customers on a daily basis to ensure that all their carbon black needs are met.

Rubber blacks

Around 70% of the carbon black we produce is used in rubber tires to increase their strength, abrasion resistance and UV protection so that they last longer. Carbon black also contributes to reducing the rolling resistance of a tire, meaning that less energy is consumed during movement, resulting in higher fuel economy and fewer emissions. We recognize that there are still ways that carbon black can be engineered to make this "tire equation" as efficient as possible, and Birla Carbon is committed to supporting tire manufacturers as they consider new developments.

We are currently assessing the attributes of different types of carbon black, which will help us improve the performance of tires in the future. In the European Union, for example, a new tire labeling regulation is designed to help consumers make informed choices by giving them clear information on the fuel efficiency, wet grip and external rolling noise of all tires. In China, by 2015 a quarter of all passenger tires produced will need to be safer and more efficient "Green Tires", and in South Korea tire labeling is now mandatory.

These factors will have a significant impact on consumer choice, so we have a responsibility to ensure that the carbon black we supply to our customers is of the highest possible standard.

Specialty blacks

We have research and development programs in place for our extensive range of specialty blacks, which are used as pigment, UV stabilizer, and conductive or insulating agents in consumer products – ranging from clothing and furniture to electrical items, water pipes, printing inks, and car coatings.

Our scientists deliver continuous developments in specialty blacks that help our customers manufacture finished articles that are stronger, "jetter" (blacker), longer lasting, with fewer surface defects, and greater UV protection. We also aim to cut costs for our customers by making the incorporation and dispersion of our carbon black into their products easier and faster, reducing the time and energy required in their manufacturing processes.

CASE STUDY: GLOBAL PARTNERING WITH LANXESS

We are currently working closely with Lanxess, a leading manufacturer of synthetic rubber, to optimize tire performance. By improving compatibility between carbon black and elastomers, we can reduce rolling resistance and tread wear, and improve wet traction. We also hope that our innovations as part of this project will minimize the amount of energy that our customers need during the tire manufacturing process.



"I'm confident that, by working with Birla Carbon, we can continue to drive sustained innovation in the tire industry."

Thomas Gross, PhD,
Head of Technical
Marketing, Lanxess

LANXESS
Energizing Chemistry



CASE STUDY: **ASIA**

INCREASING SPECIALTY BLACK PRODUCTION IN ASIA

Over the last few years we have significantly upgraded the production capabilities of our plant in Korea to take advantage of the recent growth in the Asian specialty black market. Thanks to this significant investment, the plant – which had previously been dedicated to supplying local tire manufacturers – can now create the specific conditions required to produce a variety of specialty carbon black grades for use in various technical plastic and ink applications.

The scientists located at this plant provide technical expertise and equipment to a wide range of specialty black customers located in countries across Asia and Australasia, including Korea, China, Japan, Indonesia, and Australia. This successful program has enabled us to reduce the number of specialty black shipments from our USA and European plants to Asia, resulting in a significant reduction in our GHG footprint.

PRODUCT SAFETY AND STEWARDSHIP

Birla Carbon is also committed to reducing the environmental and social impacts of its products and to being at the forefront of any developments in regulation and standardization associated with carbon black and its applications.

Meeting safety standards

We continuously work to ensure the carbon black we produce meets and exceeds all relevant regulatory standards. Our analytical chemists and product safety professionals thoroughly assess our carbon black grades against a series of purity requirements before certifying them to our customers as suitable for use in various regulated applications, such as toys or plastic materials that may come into contact with foodstuffs. We also endeavor to keep abreast of the latest market initiatives and regulatory developments so we can support our customers in meeting their own regulatory obligations.

Engaging with the industry

Birla Carbon is an active member of the International Carbon Black Association (ICBA), a scientific association that sponsors, conducts, and participates in investigations, research and analyses relating to the health, safety, and environmental aspects of the production and use of carbon black. Through the ICBA we are able to engage openly with industry regulators about the latest developments around our products.

CASE STUDY: **GLOBAL**

GREENHOUSE GAS MONITORING AND REPORTING PROGRAM

Following the publication of 'Mandatory Reporting of Greenhouse Gases' by the USA Environmental Protection Agency (USA EPA) in 2009, we quickly recognized the need for applicable test standards for the carbon black industry, and began working to introduce new standard test methods.

The leader of our Materials Analysis group, alongside our Global Environmental Manager, worked with the ASTM D24 technical committee to introduce these new standards. D7633 was developed to analyze the carbon content in carbon black, while D7662 was developed for the analysis of carbon content in feedstock oil. Carbon black manufacturers worldwide now have globally accepted standards to reliably measure their CO₂ emission intensity, helping them report their environmental impact.

DID YOU KNOW?

Carbon black is one of the best UV absorbing materials known to man





Carbon Black: One Product, Many Uses

The carbon black we produce is found in many of the products that we use every day. The diagram shows just a few of the ways that carbon black helps make daily life easier and more comfortable.





Product Quality

OUR APPROACH

We are committed to supplying our customers with carbon black of the very highest quality. This involves making sure that every shipment of the many different grades of carbon black we produce complies with our clients' stringent specifications. Our carbon black grades are engineered to have the morphology, cleanliness level and bead properties that our customers require and expect for their own technical applications. As well as having thorough quality procedures in place, we also have detailed processes that enable us to respond quickly and effectively to customer feedback.

PERFORMANCE AND PROGRESS

SHARING BEST PRACTICE

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-of-the-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. 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.

Developing industry standards

Birla Carbon chairs and 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.

RESPONDING TO OUR CUSTOMERS

When customers express a dissatisfaction, it's essential that we resolve the problem as soon as possible and make sure the same thing doesn't happen again. We carry out a thorough investigation for each complaint we receive. 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. All other issues are dealt with by our sales and supply chain teams.

In 2012, we also introduced software across Birla Carbon to help us serve our clients' needs even more effectively. The client relationship management program, which is supplied by Salesforce.com, facilitates coordination between our global sales, quality, and customer service teams, helping us to greatly enhance our client interactions. Our investment in this technology demonstrates our commitment to product quality and positive, long-lasting client relationships.



Customer Service and Satisfaction

OUR APPROACH

We are committed to offering our customers the highest levels of service and satisfaction every time they deal with us. This will help us deliver a better experience for our customers and enable them to get the greatest possible benefits from our products, meaning that they will always turn to Birla Carbon for their carbon black requirements.

PERFORMANCE AND PROGRESS

MEETING OUR CUSTOMERS' STANDARDS

Sustainability is increasingly important not just for us, but for our customers too. By integrating sustainable practices into every area of the business, and adhering to our customers' supply chain guidelines, we can help our customers meet their own sustainability goals.

We have a range of measures in place to ensure that we meet the standards of all our customers. These include:

- Adhering to customers' supplier codes of conduct and other guidelines, including their expectations on sustainable development.
- Assessing and benchmarking our environmental footprint at all of our manufacturing locations.
- Demonstrating supply chain sustainability when delivering products to our customers.
- Providing a variety of carbon black grades which help our customer products perform at the highest level possible.
- Collaborating with customers in the development of sustainable, high-performing products.

HIGHLIGHTS

90 YEARS

SERVING MAJOR TIRE MANUFACTURERS WORLDWIDE

SECURITY OF SUPPLY

It is imperative that we can maintain a secure supply of high quality carbon black so that we are always able to meet our customers' needs – wherever they are in the world. If, for example, there is a natural disaster that forces one of our plants to close momentarily, we still want to be able to supply our customers in that country with the level, and type, of carbon black they require.

We now have 17 manufacturing plants and three decanting centers worldwide, allowing us to produce and distribute more than 2 million tonnes of hard and soft grades of carbon black each year.

This global reach, combined with our supply chain knowledge and long-standing relationships with logistics experts, means we can ensure that our production capacity will not be impacted. As a result, we will be able to provide our customers with the exact type and quantity of carbon black they need, whenever they need it.



CASE STUDY: THAILAND

SECURING OUR CUSTOMERS' SUPPLY

In 2011 our plant in Angthong Province, Thailand, was affected by one of the worst floods in the country's history. Despite being significantly impacted, the factory continued to supply our customers with carbon black – while also helping local people overcome the disaster.

During the flood in October 2011, our facility was surrounded by water from the Chao Phraya River. The plant's employees set up a flood committee to prevent disruption to our customers. Survey teams worked with government officers to review the condition of the roads and agree on necessary diversions, while high-chassis trucks were brought in to move goods through flooded areas. Staff also

worked around the clock with their logistics teams to ensure that we did not miss a single product dispatch. Local people were severely affected by the flood, and we worked with the government and the local community to provide food, drinking water, medicine, mobile toilets, sand bags, tents, and boats to the nearby towns and villages.

Since the flood, we have worked with our customers to help them prepare for similar incidents. Goodyear Thailand, for example, was forced to idle its factory for almost seven months. The company visited our plant in Angthong Province to learn more about our flood protection system. We have also reviewed and upgraded our emergency flood control plan. For instance, we now regularly check the river's water levels using the internet and the local government office.

REDUCING TRANSPORT

The feedstock used in our manufacturing process, whether natural gas or oil, is often transported long distances so it can be used in our plants. Once the carbon black has been produced it can be transported back in the opposite direction, which also results in emissions. This is a situation we want to improve, and we are currently looking at ways to minimize unnecessary

transportation in order to reduce our carbon footprint. Our new global reach has given us greater leverage and reduced the need for us to transport carbon black long distances. This means we can be more efficient and offer improved levels of service to our customers, and in the future we plan to make similar improvements to our feedstock transportation.



Supplier Management

OUR APPROACH

We have a large supply chain system stretching across the globe, and we rely on these suppliers to help us manufacture and deliver high-quality carbon black to our customers. As such, we expect our suppliers to conduct themselves in a manner consistent with our sustainability requirements and we are committed to working with suppliers to help them achieve this. By embedding sustainability into our global supply chain we can address our labor, health, safety, and environmental challenges together.

While our different sites each have their own supplier management policies and principles, we are yet to embed a consistent approach across all Birla Carbon sites globally. We are currently drafting these policies, which will be driven by our sustainability program and reporting.

PERFORMANCE AND PROGRESS

SUPPLY CHAIN POLICIES AND PRACTICES

Our supplier base includes suppliers and other business partners from countries throughout the world. Our sites have their own policies in place to ensure that suppliers conduct their activities with responsibility, openness, decency, and integrity.

ASSESSING AND DEVELOPING SUPPLIERS

In the future, potential suppliers will be required to provide us with detailed information about their approach to topics including human rights, health and safety, and the environment.

MAXIMIZING SOURCING EFFICIENCY

The feedstock oil used in our manufacturing process is often transported long distances to our plants. This can generate significant logistics emissions, and we are currently working closely with a number of suppliers to minimize unnecessary transportation and reduce our carbon footprint.

DID YOU KNOW?

Carbon black makes up around a quarter of the weight of a car tire



IMAGE: CARBON BLACK READY FOR SHIPMENT



Engaging With Communities



Inspired by our parent company, Aditya Birla Group, we are committed to making a positive contribution to the communities impacted by our operations through meaningful, long-term partnerships with local people. Our activities can be economic, whether creating new jobs or engaging with local suppliers, or societal, such as developing new infrastructure and community facilities, or encouraging our employees to volunteer.



To actively contribute to the social and economic development of the communities in which we operate. In so doing build a better, sustainable way of life for the weaker sections of society and raise the human development index of our country."

Mrs Rajashree Birla, The Aditya Birla Center for Community Initiatives and Rural Development





Community Investment and Volunteering



TARGET

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



100%

OUR APPROACH

We work in a diverse range of countries, so our approach to community investment and volunteering is determined by the location and specific needs of individual communities. But whether we are involved in fundraising, sponsorship, health programs or social investment, our aim is always to encourage our employees to help make a difference in the lives of local people.

Our work spans health, education, social investment and charitable giving, and includes one-off campaigns and ongoing investments and relationships. In India, for example, we support more than 7 million people across 3,000 villages as part of our involvement with the Aditya Birla Group.

IMAGES: SUPPORTING HEALTH AND EDUCATION INITIATIVES FOR CHILDREN

HIGHLIGHTS

APPROXIMATELY
\$338,000
INVESTED THROUGH OUR COMMUNITY PROGRAMS IN 2011 AND 2012

MORE THAN
7 MILLION
PEOPLE IN 3,000 INDIAN VILLAGES SUPPORTED THROUGH OUR COMMUNITY INVESTMENT PROGRAMS

\$26,500
DONATED TO SUPPORT HEALTH CARAVANS IN EGYPT



Health

We believe we have a responsibility to support the health and safety of all the people living around our sites, not least because this will help sustain a healthy, productive workforce. Our work includes setting up dedicated health centers and mobile dispensaries, organizing health awareness camps, and administering immunizations.



EYE CARE MEDICAL CAMPS IN EGYPT

In 2012, we organised medical caravans at four village schools in Egypt, covering more than 1,000 students.



MOBILE HEALTH CHECKS

In India and Egypt we support mobile dispensaries that travel to villages and provide easy access to reliable healthcare.

BLOOD DONATION DRIVE

We work with organizations in Spain, Thailand and Canada to encourage our employees to give blood.



Charitable Giving

We think it's important to support charities that are able to demonstrate transparency and sustainability. Our employees are encouraged to volunteer and participate in activities that support their local communities, and their efforts are frequently recognized, both inside and outside the company.



HELPING THOSE WHO NEED IT MOST

In 2012, we provided charitable funding to a range of USA organizations, including: Toys for Tots, United Way, ChrisKids, Salvation Army Angel Tree, SafePath. In Germany, we also make an annual donation to the local voluntary fire brigade.



Education

There are few areas more important than promoting the skills and abilities of young people. We sponsor a range of educational programs designed to support learning in the communities around our sites and to develop the next generation of talent for the future.



PROMOTING ENGINEERING IN SPAIN

In October 2012, we arranged for students from Cantabria University to visit our Spanish plant in Santander, which included a tour of the lab and the control room.



TRAINING TEACHERS IN THAILAND

We have delivered "Train the English Teacher" sessions to 30 teachers in Thailand, to help develop their English teaching skills.



DONATING TO LOCAL SCHOOLS IN ITALY

Through our manufacturing plant in Trecate, Italy, we have donated a total of €5,400 – approximately \$7,000 – to help build a library for the local elementary school and support Project Trecate 2.0 at the local secondary school.





SCHOOL SUPPORT PROGRAM

Our school support program benefits more than 1,000 children in Egypt, Thailand, and India. Through the scheme, we have provided blackboards, furniture, and sports equipment, and trained local women to conduct classes for pre-primary schoolchildren.



ENCOURAGING LEARNING IN THAILAND

Our scholarship program has been running in Thailand for a number of years. In 2012, 99 children benefitted from the scheme.



FOSTERING TALENT IN INDIA

In India, we sponsor annual scholarships for students from the local community.





Social Investment

We want to improve the quality of life of the people living around our sites by supporting local organizations, clubs and charities, investing in infrastructure, and offering our help in the wake of natural disasters.



DEVELOPING SKILLS IN INDIA

In India, we support programs that develop women's vocational skills to help them find work more easily.



PROMOTING NEW APPROACHES IN INDIA

Through the Nabard farmers club in India, we have shown farmers in 40 local villages improved agricultural technologies that enhance yields and incomes without damaging the ecosystem.

ENCOURAGING INTEGRATION IN BRAZIL

In Brazil, we support workshops and classes that promote integration among children in the local community and educate them about culture and music.



OFFERING SUPPORT IN SOUTH KOREA

For a number of years, our plant in South Korea has provided food, supplies, and repair work to Namsan Sanatorium in Yeosu.





ENCOURAGING HEALTHY EATING IN THAILAND

In 2012 we organized a number of "Healthy Lunches" for school children in Thailand to promote healthy eating.



RAISING AWARENESS IN THAILAND

Birla Carbon supported a football tournament in Angthong Province, Thailand, which aimed to raise awareness about the dangers of drug use.

PROMOTING GOOD SANITATION IN INDIA

Through the Jan Kalyan Trust, we have helped local people construct toilet blocks and individual toilets to promote good sanitation in a number of Indian villages.



SUPPORTING HEALTHCARE IN INDIA

In our adopted locations in India, we have trained local women to be Village Health Functionaries (VHFs). This means they can dispense primary and preventive healthcare, make referrals, educate villagers about hygiene and sanitation, and liaise with national healthcare representatives to improve the overall state of health in their village.





Performance

Our goal is to maintain and grow our industry leading position in the future by being the world’s most respected, sustainable and dynamic producer of carbon black. We gather data across all our sustainability focus areas – environmental management, people, customers and suppliers and communities. Our progress against our targets in each of these areas is set out in this section.



As the leader in the carbon black industry, we have a responsibility to reduce waste and make the most of precious natural resources while minimizing our environmental impacts and leaving a positive legacy for future generations.”




Gilles Moninot, PhD, Global Director of Sustainability













Our Targets and Progress

The table shows our performance, progress and targets in three key areas – Profit, Planet, and People.

-  Improving or on track to meet target
-  Unchanging
-  Behind schedule

		Performance			Progress	Targets
		FY12	FY13	FY14 ¹		FY20
Profit						
Leadership	Maintain our leadership position in terms of carbon black production capacity	No. 1	No. 1	No. 1		No. 1
Sustainable Growth	Approximately double our annual capital spending versus FY2012 baseline to reach \$100m	\$51.8M	\$66.5M	\$72.7M		> \$100M
Planet						
GHG Emissions	Reduce our direct emission intensity (tCO ₂ /t _{carbon black}) by over 22% versus 2005 baseline	98.8% ²	93.6%	90%		< 78%
Energy	Increase our net energy output intensity (tCO ₂ eq/t _{carbon black}) by over 25% versus FY2013 baseline	n/a	100% ³	> 100%		> 125%
Water	Reduce by 50% our water withdrawal intensity (m ³ /t _{carbon black}) versus FY2012 baseline	100% ³	106%	< 100%		< 50%
Solid Waste Management	Reduce by 50% our waste generation intensity (t/t _{carbon black}) versus FY2012 baseline	100% ³	208%	< 100%		< 50%
Environmental Releases	Zero environmental releases	0	0	0		0
People						
Health and Safety	Zero recordable injuries (report on TRIR progress)	0.62	0.57	0		0
Corporate Governance	100% of employees to receive Combined Code of Ethics training	94%	94%	100%		100%
Corporate Social Responsibility	100% of our facilities to participate in community engagement	100%	100%	100%		100%
Employees	100% of Birla Carbon managers to have stated and measured leadership development goals set annually	n/a	n/a	100%		100%

Footnotes

1. Provisional 2. Relative baseline versus 2005 3. Relative baseline



GRI Index

The Global Reporting Initiative (GRI) is a non-profit organization that promotes economic, environmental and social sustainability. GRI's Sustainability Reporting Framework enables all companies and organizations to measure and report their sustainability performance.

GRI hereby states that Birla Carbon has presented its report "Sustainability Report 2013" to GRI's Report Services, which have concluded that the report fulfills the requirements of Application Level B.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines.

Global Reporting Initiative™

**Statement
GRI Application Level Check**

GRI hereby states that **Birla Carbon** has presented its report "Driving Global Sustainable Excellence: Birla Carbon Sustainability Report 2013" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 21 June 2103

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 17 June 2013. GRI explicitly excludes the statement being applied to any later changes to such material.



● Fully reported ○ Partially reported

Indicator	Reporting level	Location and notes
1.1	●	Pg 1 CEO statement
1.2	●	Pg 3-4 Interview with COO, pg 13-14 Stakeholder Engagement and Materiality, pg 9 How do we Produce Carbon Black
2.1	●	Cover
2.2	●	Pg 7 Our Business
2.3	●	Pg 7 Our Business
2.4	●	Pg 7 Our Business
2.5	●	Pg 7 Our Business
2.6	●	Pg 7 Our Business
2.7	●	Pg 7 Our Business
2.8	○	Pg 7 Our Business, pg 58 About Our Report, pg 26 Putting Our People First. Birla Carbon is not publicly listed and has no obligation to publicly report on its financial results. Birla Carbon view this as confidential information for the time being.
2.9	●	Pg 3-4 Interview With COO, pg 58 About Our Report
2.10	●	Back cover
3.1	●	Pg 58 About Our Report
3.2	●	Pg 1 CEO statement, pg 58 About Our Report
3.3	●	Pg 58 About Our Report. This is Birla Carbon's first report. We intend to report on an annual cycle going forward.
3.4	●	Pg 58 About Our Report, back cover
3.5	●	Pg 14 Materiality, pg 58 About Our Report
3.6	●	Pg 58 About Our Report
3.7	●	Pg 58 About Our Report. This report covers all operations and there are no limitations unless specified in the footnotes of the data tables. Specified in the footnotes, it is noted that decanting stations are not included in the scope of the data because of their legal entity status.
3.8	●	Unless otherwise stated in notes to charts, tables and statistics data covers all parts of the Group, including joint ventures and subsidiaries. Specified in the footnotes, it is noted that decanting stations are not included in the scope of the data because of their legal entity status.
3.9	●	Pg 58 About Our Report
3.10	●	As this is Birla Carbon's first report, there are no re-statements of information.
3.11	●	As this is Birla Carbon's first report, there are no changes.
3.12	●	Pg 53 GRI Index
3.13	●	Where available we use recognized methodologies for measuring and presenting our performance data, and have stated where this is not the case. This includes adhering to the Global Reporting Initiative's guidelines where appropriate. While Birla Carbon has not had the sustainability report independently verified this year, our approach to assurance is reviewed annually.
4.1	●	www.birlacarbon.com/about-us-business-leadership
4.2	●	www.birlacarbon.com/about-us-business-leadership
4.3	●	Not applicable since we do not currently have a unitary board structure. Birla Carbon's Senior Management Team (SMT) currently consist of 15 males and one female; all of whom hold executive positions at Birla Carbon.
4.4	●	Pg 15 Governance and Ethics, pg 16 Birla Carbon Audit Program
4.5	●	All compensation actions for employees in Job Band 5 and above are subject to the approval of the Chairman of the Aditya Birla Group and the Group Human Resources provides assistance to him aided by the office of the Chief People Officer (CPO). These annual compensation matters are linked to the annual incentive plan (AIP) and long-term incentive plans (LTIP) which the Chairman approves. These are tied directly to the business's approved annual operating plan and budget that establishes the relevant performance metrics executives will be measured against annually, the performance of the business during the year gone by and the Executive's personal performance measured by a rigorous process of performance management. The CPO's office puts together the Compensation proposal for all employees in Job Band 5 and above that includes all the members of the Senior Management Team and presents it to the Chief Operating Officer (COO). The COO then forwards the proposals to the Chief Executive Officer (CEO) for his approval, which then is forwarded to the Group Human Resources department. Compensation in this context includes, but is not limited to, cash or deferred payments, incentive and equity compensation, benefits, perquisites, employment, retention and/or termination/severance agreements and any other programs which would be considered compensation by regulatory authorities.

Indicator	Reporting level	Location and notes
4.6	●	All employees, including those in the highest governing body, are required to sign a Code of Conduct which includes the following language: "Each Employee must avoid at all times any interest that might conflict or appear to conflict with the interests of the Company, or that might deprive the Company of the undivided loyalty of the Employee in business dealings. To this end, an Employee should not become involved in any situation that may create a personal interest in the situation, or place the Employee under an obligation that may interfere with his or her primary duty to serve the Company at all times to the best of his or her ability."
4.7	●	The process for selecting the officers of the Senior Management Team involves working with top search firms to select the most qualified candidates based upon their experience and qualifications. Gender and diversity are important considerations.
4.8	●	Pg 10 Strategy and Governance (Vision and Values)
4.9	●	Pg 15 Governance and Ethics, pg 12 Sustainable Operational Excellence, pg12 Applying Sustainability to Our Business
4.10	●	Each year the sole shareholder of each of the Birla Carbon entities appoints/reappoints the members of that company's Board of Directors by either an Annual Shareholders Meeting or a Written Consent in lieu of an Annual Shareholders meeting (as required by the respective country's corporate laws).
4.11	●	The precautionary approach is addressed by the organization through the use of its internal audit programs, which are fully aligned with the Company's Enterprise Risk Management and Assessment. The Enterprise Risk Management Committee in collaboration with the Regional Risk Management Committees continually monitors and assesses risks and the proposed mitigation approaches. All site locations are also audited for financial, environmental, and safety and health compliance and systems at least every 2 years. Another critical way in which the precautionary approach is applied is through ISO certification. There is ISO 14001 certification for environmental management for all of our facilities.
4.12	●	Pg 15 Governance and Ethics, pg 16 Birla Carbon Audit Program, pg 58 About Our Report, pg 41 Customer Service and Satisfaction Meeting our customers standards
4.13	●	Pg 36-38 Product Innovation, Product Safety, and Stewardship, pg 38 Engaging with the industry
4.14	●	Pg 13-14 Stakeholder Engagement and Materiality
4.15	●	Pg 13-14 Stakeholder engagement and materiality. Stakeholders are identified as any party who have a vested interest in the success and viability of Birla Carbon's business. Birla Carbon selected its stakeholders based on their interest, engagement, credibility and quality of their products and services.
4.16	●	Pg 13-14 Stakeholder engagement and materiality, pg 33 Engaging our employees, Looking ahead, pg 37 Partnering with Lanxess, pg 38 Engaging our industry, pg 40 Meeting our customers' standards, developing industry standards, pg 41 Performance and progress, pg 43 Assessing and developing our suppliers, pg 44-50 Engaging with our communities. As this is Birla Carbon's first report and is in the early stage of their sustainability journey, no formal engagement process has been established. This will be reviewed on an annual basis and will predominantly focus on the employee and customer stakeholder groups.
4.17	●	Pg 1 CEO statement, pg 3-4 Interview with COO, pg 11-12 Sustainability at Birla Carbon, pg 14-15 stakeholder engagement and materiality, pg 33 Engaging our employees, pg 38 Engaging our industry, pg 40 Meeting our customers' standards.



Indicator	Reporting level	Location and notes
Disclosure on Management Approach EC		
Economic performance	●	Pg 7–8 Our Business, Birla Carbon in numbers
Market presence	●	Pg 7–8 Our Business, Birla Carbon in numbers
Indirect economic impacts	●	Pg 44–48 Engaging With Our Communities
EC1	○	Pg 7–8 Our Business, Birla Carbon in Numbers, pg 44 Community Investment and Volunteering, pg 49 Targets and Progress.
EC5	○	In 2011, Birla Carbon's entry level wage was 100% higher than the minimum wage. The following summarizes the ratio by region for 2011 (Region/Percentage Above Min Wage) South America 127%; South Asia 142%; Far East Asia 50%; Europe and Africa 62%; North America 144%. Footnotes: 1. Minimum wage not specified for chemical industry in Germany. Therefore, average of minimum wages for specified industries (e.g. construction, mining, health care) was used for comparison. 2. Minimum salary per union agreement used for comparison in plants in Spain and Brazil. In 2012, Birla Carbon's entry level wage was 115% higher than the minimum wage. The following summarizes the ratio by region for 2012: (Region/Percentage Above Min Wage) South America 127%; South Asia 189%; Far East Asia 60%; Europe and Africa 68%; North America 156%. Footnotes: 3. Minimum wage not specified for chemical industry in Germany. Therefore, average of minimum wages for specified industries (e.g. construction, mining, health care) was used for comparison. 4. Minimum salary per union agreement used for comparison in plants in Spain and Brazil.
EC7	●	Pg 30 Attracting and Retaining Talent, Diversity. Currently, there is no global policy for hiring management from the local community. However, it is common practice for plants to hire locally where resources are available, which includes an expatriation process. Before hiring externally, Birla Carbon looks at their internal talent first. On average, 93% of senior managers were hired from the local community in 2011 and 80% in 2012. Senior managers are defined in a plant setting as plant managers and their direct reports. Senior managers are defined in a corporate setting as chief-level employees and their direct reports. Local hiring is defined as "within the same country".
EC8	●	Pg 44 Community Investment and Volunteering, Education, Health, Social Investment. In 2011 and 2012, approximately \$392,000 USD was invested in services and infrastructure investments for public benefit.
Disclosure on Management Approach EN		
Materials	●	Pg 9 How do we Produce Carbon Black
Energy	●	Pg 18 Energy and Emissions
Water	●	Pg 24–25 Water Quality Management
Biodiversity	●	Pg 22 Environmental Protection
Emissions, effluents and waste	●	Pg 19 Energy and Emissions, pg 23 Solid Waste Management
Products and services	●	Pg 37–39 Product Innovation, Product Safety, and Stewardship
Compliance	●	Pg 16 Birla Carbon Audit Programme
Transport	●	Pg 23 Reducing Travel and Transport
Overall	●	Pg 17 Reducing Our Environmental Impact, pg 11–12 Sustainability at Birla Carbon
EN1	●	In FY2012 Birla Carbon consumed 2,909,846 tonnes of oil and 212,363 kNm ³ of natural gas for feedstock. In FY2013 Birla Carbon consumed 2,460,489 tonnes of oil and 175,444 kNm ³ of natural gas for feedstock.
EN2	●	Effectively this is nil. By the nature of our production process, we are unable to use recycled feedstock oil due to its impact on product quality. However, a large part of off-spec carbon black material that is generated from the process is reused. Percentage are not available as comprehensive data is not available.
EN3	○	Pg 19 Energy and Emissions. Direct energy sources (i.e., oil and natural gas) are primarily consumed as feedstock and are therefore considered process materials as reported in EN1. Quantities of oil and natural gas required for facility operation are considered negligible compared to the quantity of oil and natural gas used as feedstock. Data for direct energy is not available as this is not collected. Any natural gas used is provided in the data provided under EN1.

Indicator	Reporting level	Location and notes
EN4	●	Pg 18 Energy and Emissions. Statements of how much indirect energy is imported and exported by source as a global value. <ul style="list-style-type: none"> Power imported in FY2013 = 227.21 GWh/818 terajoules (TJ) Power exported in FY2013 = 437.61 GWh/1575 TJ Power consumed in FY2013 = 679.32 GWh/ 2446 TJ Steam imported in FY2013 = 170,415 tonnes/340 TJ Steam exported in FY2013 = 1,619,059 tonnes/3234 TJ Steam consumed in FY2013 = 2,707,799 tonnes/5408 TJ Tail gas exported in FY2013 = 1,118,970 kNm³/2864 TJ Tail gas consumed in FY2013 = 9,196,545 kNm³/33108 TJ
EN5	●	Pg 18 Energy and Emissions. Pg 21 Case study: Italy. Energy efficiency is a key focus for Birla Carbon as a whole. Overall, during the 2013 fiscal year, Birla Carbon has been a net exporter of energy on a tonne of CO ₂ equivalent per tonne of carbon black production basis. For all facilities, the company exported 0.317 tCO ₂ equivalent of energy per tonne of carbon black produced. In other words, for every tonne of carbon black produced at Birla Carbon, the excess energy distributed through the grid avoided 0.317 tonnes of indirect CO ₂ to be emitted at local electrical power plants. The following hypotheses have been taken in our energy calculations: <ul style="list-style-type: none"> Conversion factor for steam: 0.2244 tCO₂/MWh (standard steam conditions for Import/Export were 10 bar gauge saturated steam. Only the Enthalpy change from vapor to liquid was used) Conversion factor for electrical power: 0.3848 tCO₂/MWh Tail gas combustion efficiency to steam: 30% (based on North Bend, 65 Btu/scf)
EN6	●	Pg 18 Energy and Emissions. Pg 19–21 Case studies: Brazil, India
EN8	●	Data FY2012 – data supplied by source, volume used (m ³) Surface water: 8,073,662 Municipality: 4,075,089 Ground water well: 4,240,894 of which recycled: 656,757 Data FY2013 – data supplied by source, volume used (m ³) Surface water: 7,318,627 Municipality: 3,869,884 Ground water well: 3,697,334 of which recycled: 655,556 <ul style="list-style-type: none"> Our sustainability goal is to reduce our global water withdrawal intensity (m³/t_{carbon black}) by 50% by 2020 as compared to FY2012 results Our water withdrawal intensity went up by 5.5% in FY2013 as compared to FY2012.
EN9	●	Water is withdrawn from the following surface water bodies: <ul style="list-style-type: none"> Louisiana Intercoastal Waterway Lost River, Brazil Patalganga River, India River Renuka, India Chao Phraya, Thailand Hamilton Harbor, Canada Rio Miera, Spain These water sources are not expected to be significantly affected by Birla Carbon's withdrawal based on their size and base flow.
EN10	●	Most Birla Carbon plants recycle process water by collecting it in on-site retention ponds and then pumping water from the pond back into the process. However, the volume of process water discharged to the pond is not measured at most locations. The volume of water pumped from the retention ponds is measured in some locations. It is estimated that approximately 656,757 m ³ (4%) process water/rainwater mixture was reused in FY2012 and approximately 655,556 m ³ (4%) was reused in FY2013.
EN11	●	<ul style="list-style-type: none"> North Bend plant in Centerville, Louisiana, USA is located within a black bear habitat. CCC plant in Hamilton, Canada is located adjacent to the Windermere Basin (wetlands) and within a Peregrine Falcon protection zone. Cubatão Plant in Brazil is located adjacent to the Serra do Mar forest, which is part of Serra do Mar State Park. This area is protected due to high biodiversity. Trecate Plant in Italy is located adjacent to the Ticino River Natural Park. Patalganga Plant in India is located adjacent to the Maharashtra Forest.
EN12	●	Pg 22 Environmental Protection, Protecting Our Natural Environment. Birla Carbon is not aware of any significant impacts of activities, products, and services on biodiversity in protected areas. Birla Carbon has taken measures to limit the use of pesticides at some of these facilities and control storm water runoff.



Indicator	Reporting level	Location and notes
EN16	●	<p>Pg 18 Energy and Emissions, Air emissions</p> <p>Birla Carbon has data for direct GHG emissions from 2005 to 2012, but only has data for indirect GHG emissions for FY2013. As such, these will be reported separately.</p> <p>INDIRECT GHG EMISSIONS: FY2013 is taken as the baseline for indirect GHG emissions because comprehensive and reliable data is not available for previous years. Total indirect GHG Emissions for FY2013 = 132,944 tCO₂equivalent</p> <p>Conversion factor for steam: 0.2244 tCO₂/MWh (standard steam conditions for Import/Export were 10 bar gauge saturated steam. Only the Enthalpy change from vapor to liquid was used).</p> <p>Conversion factor electrical power 0.3848 tCO₂/MWh</p> <p>DIRECT GHG EMISSIONS: Total carbon emissions in 2011 were 4,112,877 tonnes and in 2012 were 3,340,211 tonnes.</p> <p>Our sustainability goal is to reduce our global direct GHG emissions intensity by 22% (reduction in direct GHG emissions from 2005 to 2020).</p>
EN18	●	<p>Pg 18 Energy and Emissions, pg 19–21 Case studies: Brazil, Italy, India. Pg 24 Water Quality Management, pg 25 Case study: Germany. Birla Carbon invested \$12.94M in FY2012 and \$12.83M in FY2013 on process improvements related to energy efficiency and reducing GHG emissions.</p>
EN21	●	<p>Data FY2012 – data supplied by type, volume discharged (m³)</p> <p>Sanitary water: 96,312</p> <p>Industrial water: 674,721</p> <p>Data FY2013 – data supplied by type, volume discharged (m³)</p> <p>Sanitary water: 93,190</p> <p>Industrial water: 712,164</p>
EN22	●	<p>Data FY2012 – data supplied by type, volume (t)</p> <p>General trash/refuse: 958</p> <p>Non-hazardous industrial waste: 8,808</p> <p>Hazardous industrial waste: 405</p> <p>Disposal method – data supplied by method volume (t)</p> <p>Landfilled: 7,882/Recycled: 2,122/Incinerated: 166/TOTAL WASTE GENERATION = 10,170 t</p> <p>FOOTNOTES TO THE DATA: the volume of hazardous waste co-processed and non-hazardous waste undergoing biological treatment at Cubatão is included in the total volume for “recycled” waste. Where plants indicated disposal method is “waste contractor”, ultimate disposal method is assumed to be “landfilled”.</p> <p>Data FY2013 – data supplied by type, volume (t)</p> <p>General trash/refuse: 2,035</p> <p>Non-hazardous industrial waste: 19,332</p> <p>Hazardous industrial waste: 3,163</p> <p>Disposal method – data supplied by method volume (t)</p> <p>Landfilled: 11,554/Recycled: 10,172/Incinerated: 2,804/TOTAL WASTE GENERATION = 24,530 t</p> <p>FOOTNOTES TO THE DATA: the volume of hazardous waste co-processed and non-hazardous waste undergoing biological treatment at Cubatão is included in the total volume for “recycled” waste. Where plants indicated disposal method is “waste contractor”, ultimate disposal method is assumed to be “landfilled”.</p> <p>Our sustainability goal is to reduce our global waste generation intensity (t/tcarbon black) by 50% by 2020 as compared to FY2012 results.</p> <ul style="list-style-type: none"> • Our waste generation intensity went up by 208% in FY2013 as compared to FY2012. • The increase in total waste generated from FY2012 to FY2013 can be attributed essentially to one-off events: <ol style="list-style-type: none"> 1) Backflow issue at our Hungarian facility which accounts for half of the intensity increase. Without this incident, the intensity would have gone up by 53% instead of the recorded 108%. 2) Major housekeeping initiatives at multiple plants which consisted of disposing of accumulated waste. 3) Major maintenance activities occurring at multiple plants in FY2013 such as cleanout of tanks, slurry basins, ditches, etc.
EN23	●	<p>Significant spills are defined as those that are required to be reported to a regulatory agency. In FY2012 and FY2013, Birla Carbon has not identified any significant spills.</p>
EN28	●	<ul style="list-style-type: none"> • Alexandria received notice of violations in FY2012 related to environmental air regulations. Reconciliation of the violations was completed in June 2012. A total of \$121,700 was paid. • Patalganga provided bank guarantee of INR 500,000 (\$9,245) to Maharashtra Pollution Control Board. • Our Liaoning plant in China reported the following: <ul style="list-style-type: none"> – Mar 2012, RMB 80,000, the environment protect facilities of the project should be checked and accepted by government – from Environmental Protection Bureau of Liaoning province. – Apr 2012, RMB 50,000, bag broken and carbon leaked – from Environmental Protection Bureau of Yingkou City.
EN30	●	<p>Birla Carbon invested \$12.94M in FY2012 and \$12.83M in FY2013 on process improvements related to energy efficiency and reducing GHG emissions.</p>

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LA3	●	<p>Benefits are provided to full-time, part-time, and temporary employees in accordance with local laws and regulations. Birla Carbon endeavors to provide full and part-time employees with the same level of benefits where appropriate. PRIDE, an employee rewards program, will be implemented globally within the next year.</p>																																																																																																																																																								
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LA11	●	Pg 30 Attracting and Retaining Talent, pg 31 Case study: Global. Pg 31 Promoting Development. Pg 32 Succession Planning.																																																								
		Global conferences conducted over the last 6 months for HS&E, HR, and Engineering. These are opportunities for professionals from different plants to convene and share Best Management Practices. Tuition reimbursement program for North America facilities. Implementing internship programs in North America. Efforts on promotions from within.																																																								
LA12	●	Pg 30 Attracting and Retaining Talent. Pg 31 Promoting Development.																																																								
		In 2011, an average of 80% of Birla Carbon employees received regular performance reviews, and in 2012, it was an average of 83%. In general, it appears that at sites where percentage is <100%, non-exempt employees are not receiving performance reviews, and only exempt employees are. Sustainability goal by 2020: 100% of Birla Carbon managers to have stated and measured leadership development goal set annually (no historical data is available as this is a new initiative).																																																								
LA14	○	In 2011, on average the ratio of women's compensation to men's compensation (women: men) was 1:1.29. In 2012, it was 1:1.16. Data is not available by employee category or by region.																																																								

Indicator	Reporting level	Location and notes
Disclosure on Management Approach HR		
Investment and procurement practices	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Non-discrimination	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Freedom of association and collective bargaining	●	Pg 16 Collective Bargaining Agreements
Child labor	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Prevention of forced and compulsory labor	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Security practices	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Indigenous rights	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Assessment	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
Remediation	●	Pg 15-16 Governance and Ethics, Group Code of Conduct
HR4	●	One incident of misunderstanding occurred in 2011 at Alexandria, Egypt. Management reviewed the incident, corrective action was implemented, and incident has been resolved.
HR5	○	Pg 15-16 Governance and Ethics, Collective Bargaining Agreements
HR6	●	No operations are considered as having significant risk for incidents of child labor. Birla Carbon's Code of Ethics policy prohibits the hiring of minors.
HR9	●	Birla Carbon has not identified any incidents of violations involving rights of indigenous people.
HR11	●	Birla Carbon has not identified any grievances filed related to human rights.
Disclosure on Management Approach SO		
Local communities	●	Pg 44-45 Engaging With Our Communities
Corruption	●	Pg 16 Ethics
Public policy	●	Pg 15-16 Governance and Ethics
Anti-competitive behavior	●	Pg 16 Ethics
Compliance	●	Pg 16 Birla Carbon Audit Programme
SO2	●	100% of Birla Carbon's plants are analyzed for risk at least every 2 years. The internal audit department conducts assessments every 2 years for sites. If compliance issues are discovered, sites may be audited more frequently until findings are corrected.
SO3	●	<ul style="list-style-type: none"> In 2011 and 2012, an average of 94% of employees were trained in organization's anti-corruption policies and procedures. It should be noted however, that erstwhile Birla Carbon and erstwhile Columbian Chemicals Co. employees were trained under two different systems. As one company, anti-corruption will be covered under Code of Ethics training annually.
SO7	●	Birla Carbon has not identified any legal actions for anti-competitive behavior, anti-trust, or monopoly practices in 2011 or 2012.
SO8	●	Birla Carbon has not identified any non-compliance with laws or regulations in 2011 or 2012.
Disclosure on Management Approach PR		
Customer health and safety	●	Pg 36 Product Innovation, Product Safety, and Stewardship
Product and service labelling	●	Pg 39 Carbon Black, One Product, Many Uses
Compliance	●	Pg 16 Birla Carbon Audit Programme
PR5	●	Pg 41-42 Customer Service and Satisfaction, Meeting our Customers standards, Case study: Thailand
PR8	●	FY2012: 218 (excluding one region which does not have data available) and FY2013: 258. Complaints are ranked and considered in an inconsistent manner across the regions so Birla Carbon is unable to determine of all the negative customer feedback, which ones are considered to be substantive.



About Our Report

Our first report draws on performance highlights from April 1 2012 to March 31 2013 (Fiscal Year 2013) 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.

In this report we explain how sustainability at Birla Carbon has evolved, and describe the journey we have taken. As it is Birla Carbon's first report, it also provides a narrative on our journey to date and an insight into future accomplishments where the groundwork to achieve such recognition was carried out in Fiscal Year 2012.

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 produce an annual sustainability report to document our progress and challenges in this area.

MATERIALITY

Key issues were identified in consultation with a range of internal and external stakeholder groups in 2011 and formalized during a materiality workshop conducted in 2012. We are continually working to develop this process by re-evaluating our key issue prioritization and identifying emerging issues.

GLOBAL REPORTING INITIATIVE

This report adheres to the international standards of the Global Reporting Initiative (GRI) G3.1 Sustainability Reporting Guidelines at a GRI-checked Level B. An abbreviated GRI content index can be found on page 54.

BOUNDARIES

This report covers all Birla Carbon activities across our 17 factories and two technology centers across the world.

DATA

We have included data from our 17 factories and two technology centers, 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.



FEEDBACK

Feedback on our report is an essential component of our commitment to our Sustainable Operational Excellence strategy. 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:
Dr Gilles Moninot
Global Sustainability Director
Birla Carbon
birlacarbon.sustainability@adityabirla.com

KEY AWARDS AND RECOGNITION

In 2012 our CFO Surendra Goyal received the Best CFO Award from 2012 CNBC TV18.

In 2011 Birla Carbon's \$900 million acquisition of Columbian Chemicals Company was named 'Loan of the Year' at the IFR Asia Awards.

HAMILTON, CANADA

GE Technologies Return on Investment Partnership Award (2012)

City of Hamilton Business Appreciation Award (2013)

PATALGANGA, INDIA

Greentech Foundation Environment Silver Award (2011)

Certificate of Appreciation from the Government of India and Tribal Cooperative Marketing Development Federation of India, for work done for the livelihood of tribes (2012)

YEOSU, SOUTH KOREA

Korean Occupational Safety and Health Agency's Zero Injury Certification (2012)

TRECATE, ITALY

Pirelli Italy Best Supplier Award (2011)