

econfidence<sup>®</sup>  
from DyStar<sup>®</sup> ✓

DyStar<sup>®</sup> 

*Committed to Sustainability*

SUSTAINABILITY REPORT 2012

Meeting Customer Needs  
While Protecting the Environment





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## Letter from CEO

### Dear Stakeholder,

It is my pleasure to present DyStar Group's third Annual Sustainability Report. This report gives an insight into our company's progress and initiatives towards sustainability through the year 2012.

DyStar continues to build upon decades of experience and innovation to take care of customer needs and adhere to the highest environmental, health and quality standards and laws applicable to our industry. This commitment has cemented our place as a leading manufacturer of chemicals and colours for textiles and leather products.

It is our vision to become the world's most sustainable and responsible supplier of colors, chemicals and services to the global textile industry. Our commitment to sustainability covers all three of its pillars, namely economic, environmental and social sustainability. Our sustainability strategy to minimize our negative impact on environment and society sits alongside our goal of addressing the priorities of our business and satisfying our customers.

We follow a two-pronged approach towards sustainability. First, we reduce our own impact by being responsible in the use of resources. We implement the principles of reduce, reuse and recycle throughout our production processes and promote them amongst our employees. Second, while delivering the best quality products to our customers, we also assist them in decreasing their environmental and social footprint through safe, clean and efficient products. Additionally, we offer a range of sustainable solutions for the textile supply chain that help brands, retailers and their industry partners reduce costs and wastage, shorten lead times, meet quality specifications and improve their environmental compliance. Hence, our offerings are in synchronisation with the demand for promoting sustainability in both textile and leather industry.

Our holistic approach towards sustainability and relentless efforts to achieve our goals resulted in significant improvements through the year 2012. Having undergone significant changes in the ownership of the company in the last few years, we have renewed our focus on improving our financial performance and have been expanding the reach of our products to upcoming markets. Despite the downturn in the global economy, we have managed to maintain our revenues at a level comparable to the earnings in 2011. The close and productive relationship that we build with our suppliers is a key factor that contributes to our financial well-being. Simultaneously, we have ensured percolation of the benefits of our growth

to the local economies by relying heavily on local suppliers to meet our input needs. Our company is committed to promoting sustainability as per the United Nations Global Compact principles. We assess and report our sustainability performance in accordance with the Global Reporting Initiative (GRI) framework. Additionally, continuing our efforts from the last two years, we have also published our carbon footprint report on the basis of the Greenhouse Gas (GHG) Protocol.

In 2011, DyStar Group established an internal target of 20% reduction in GHG, water use and waste generation by the company, to be achieved by 2020. I am proud to declare that we have successfully reduced our GHG emissions by approximately 13%, which is a big leap towards our target. Similarly, we also achieved 28% and 12.5% reduction in water use and waste generation, respectively. Social sustainability is another key concern that we address by committing ourselves to the highest international standards for health and safety within the chemical industry and others that are universally applicable. Some of the standards that we adhere to are Responsible Care®, SA 8000, and ISO 9001 and 14001. We are also meticulous about product safety and meet the requisite regional and national standards such as EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH®), Oeko-Tex® Standard 100, and Global Organic Textile Standards (GOTS). Besides our responsibility to our customers, we are also concerned about the society. Hence, we engage in various community development activities in order to engage with local communities and promote a cohesive society.

On the financial front, we implement carefully devised strategies which consolidate our business and build a strong hold in the markets. Our company is committed to building long term relationships with all the stakeholders and, hence, we encourage them to have open and transparent dialogues with us. As DyStar continues to make an earnest effort to reach the pinnacle of economic growth, it also focuses on striking a balance in the environmental and social aspects to ensure inclusivity of its growth. We hope to keep progressing along the path of sustainability in the future and welcome all the ideas and suggestions from our stakeholders to help us in attaining this goal.

**Harry Dobrowolski**  
Group CEO and President



## About the Report

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This is the third annual sustainability report of the DyStar Group. The report has been prepared for the year 2012 following the guidelines of Global Reporting Initiative - GRI 3.1. On the basis of the GRI Application Level Criteria, we self-declare that this is a Level B report. Our last two reports were prepared in 2010 and 2011.

This report's scope includes economic, environmental, and social performance data for all business units, facilities, and subsidiaries<sup>1</sup> that are operationally and financially controlled by DyStar Group. We have excluded third party warehouses and agents from the report. The financial figures are presented in US dollars unless otherwise stated.

To ensure accuracy, the report presents information collected from primary official documents and records.

### Reporting Process

DyStar Group's Sustainability Committee guided the process of preparation of this sustainability report. This committee includes representatives from the senior executive management. Further, this committee was assisted by a cross-functional project team with representative members from all production sites and offices. This team gathered, verified and reported the performance data. The key material issues were identified through a well-defined formal process of engagement with the representatives of various stakeholder groups. Details of this selection process and the prioritized topics are given in the "Stakeholder Engagement and Materiality" section of the report. The key aspects and indicators were chosen on the basis of the material issues to form the content of this report.

The report includes information pertaining to all such activities of DyStar group that have material impact on society and the environment. The Sustainability Committee was also responsible for assessment and determination of the sustainability context, scope, boundary, materiality, and prioritization, of the content included in this report.

**We have revised our direct energy consumption numbers for 2011. An explanation has been provided for this change in the section on 'Energy Management'.**

This report is also our formal Communication of Progress (COP) to the United Nations Global Compact (UNGC) principles.

A summarized GRI Content Index is available at the end of the report to help the readers in identifying the location of the standard disclosures.

### Audience

The intended readers of this report include individuals or groups who are capable of influencing company's operations, may have an interest in them or may be affected by them. This group comprises employees, suppliers and contractors, shareholders and investors, customers, regulatory authorities, industry associations, non-governmental organizations, academics, industrial peers, media and local communities.

### Assurance

We have not sought any external assurance for the current sustainability report. However, the data samples used in this report were tested for quality, accuracy and consistency by the consulting firm that we hired to assist in preparing this report. We also created an internal check-and-balance system to validate the data being reported.

### Availability

The report is made available in a PDF version online at [www.DyStar.com](http://www.DyStar.com). In accordance with our environmental policy to conserve resources, only a limited number of copies have been printed.

### Contacts

Any queries, comments, suggestions or feedbacks with respect to this report can be emailed to [sustainability@DyStar.com](mailto:sustainability@DyStar.com)

<sup>1</sup>Data only from subsidiaries with more than 20 employees has been included in the report.

# About DyStar

DyStar Group is a global leader for dyes, performance chemicals, and color solution services, offering a complete range of colorants, auxiliaries and services. A privately held company, DyStar was established in 1995 as a joint venture between Hoechst AG, Bayer Textile Dyes, and Mitsubishi. In 2000, DyStar established itself as a coloration specialist by integrating the textile dye businesses from BASF, including ICI/Zeneca Dyes, and Mitsui into its business. In the last decade, the company has undergone significant expansion through strategic acquisitions of Color Solutions, Yorkshire America, The Rotta Group, The Boehme Group and Texanlab, which are core solution-providers in the global textile industry.

In 2010, the company established its headquarters in Singapore following its joint acquisition by India-based Kiri Dyes and Chemicals Limited and China-based Longsheng Group. DyStar Group is now owned by DyStar Global Holdings (Singapore) Pte Ltd, a company jointly owned by its acquiring companies. We continue to have a global outlook. We have 14

production facilities located in 12 countries including Germany, USA, Mexico, Brazil, Portugal, Turkey, Japan, China, India and Indonesia. We have sales companies in all key regions. We have almost 2,500 employees worldwide. The company earned \$760 million USD as revenue in the last financial year. Asian markets contributed 44% of our earnings, while 56% of the revenue was earned in European and American markets.

## Plant Rationalisation

In 2012, we ceased operations at two of our major plants in Leverkusen, Germany and Cilegon, Indonesia. These plants had become outdated and were highly energy intensive. Production from these plants has been shifted to more modern plants, where we have invested heavily in state-of-the-art production technology. As a result, products are now manufactured in a much less emission-intensive environment. We also ceased operations at our laboratory facilities in France.

## Our Worldwide Presence





**Our Products and Solutions**

DyStar offers a wide range of products and services, which support designers, retailers, brand manufacturers and suppliers, fibre and textile manufacturers, printing mills, dye houses, and laundries. Our product innovation has resulted in about 1,500 product-related trademarks across 100 countries worldwide. Our products and services are designed to provide solutions for the entire textile value chain as depicted in the figure below.

We are committed to ensuring that our products meet global environmental and health & safety standards. We believe that we have a substantial potential to contribute towards the enhancement of sustainability in the textile industry. We have been at the forefront of promoting environmentally friendly coloration processes that use less energy and water and also comply with progressive global standards in the chemical industry. Our focus is on helping our customers lower their environmental impact, shorten lead times and reduce costs. All of our products are manufactured and sold in accordance with applicable chemical legislation such as REACH®, and offer compliance to industry eco-label standards such as Oeko-Tex® Standard 100, and individual brand and retailer Restricted Substances Lists (RSLs).

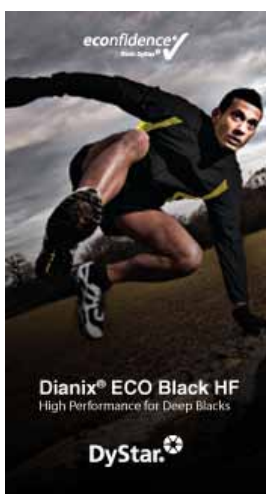
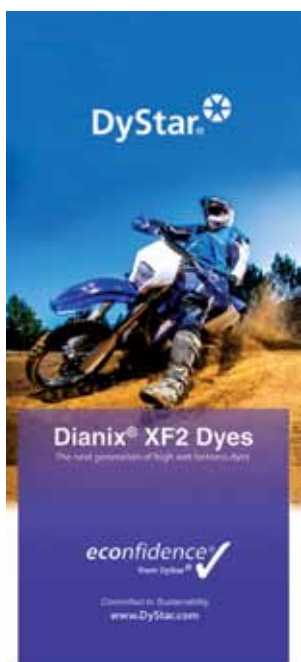
DyStar is a member of the Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD®), and we apply the highest standards of safety and ecology uniformly through all our product ranges. We are also committed to the Responsible Care® Principles, which guide our actions towards improvement of the environment, health, safety and security performance of our company.

The range of our products is given below:

**Dyes**

DyStar is a leading supplier of textile dyes with a wide range of products covering almost all fibers and quality specifications. We manufacture dyes for dyeing and printing of cellulosic, acrylic, polyamide, wool, silk and polyester. Our dyes can be classified in the following categories:





**a. Reactive Dyes**

Reactive dyes are used to color cotton and other cellulosic fibers. Our market-leading dye-brands in this category are Levafix®, Procion®, and Remazol®

Levafix® dyes are versatile, high performance dyes with excellent reproducibility and fastness properties in pale and very pale shades. Our latest additions to this range are Levafix® Amber CA-N, Red CA-N & Scarlet CA-N, which are AOX free and metal free.

Procion® dyes guarantee maximum reproducibility and level dyeing in difficult dyeing conditions.

Remazol® dyes offer an extensive range of economical dyes for cellulosic fibers. They provide high colour yield and excellent build up in deep shades. A recent addition to this range is Remazol® Scarlet RGB, which has a low neutral substantivity.

Procion® PX dyes are a full range of powder and liquid dyes for printing & continuous dyeing of cellulosic fibers meeting increasing quality and ecological demands for apparel and home textiles.

**b. Direct Dyes**

Direct dyes, also known as substantive dyes, are primarily used for cellulose materials. Our Sirius® product line comprises an extensive range of direct dyes, which are utilised for exhaust and pad application on cellulose fibers. These dyes yield vibrant and bright colors. They are easily applied and are economical in use. The Sirius® L sub range meets the high light fastness requirements for furnishing fabrics and home textiles.

**c. Vat Dyes**

We manufacture a variety of Vat dyes, which produce excellent results on cellulosic substrates and their blends with synthetic fibers. Indanthren® dyes are very high fastness dyes, which also meet the highest ecological standards.

Our Indanthren® brand hang tag promotes articles having high fastness and excellent ecological properties.





#### d. Acid Dyes

These are water soluble anionic dyes that are used for fibres such as silk, wool, and polyamide. Our acid dye range includes the Telon®, Supralan® and Isolan® ranges, which are used on wool and polyamide. They can be applied by several application techniques such as exhaust dyeing, continuous dyeing, space dyeing or printing. This product range is also ecologically beneficial due to reduced water consumption and effluent generation. For polyamide, DyStar offers a full product range and has an outstanding position in the sportswear sector and carpet industry.

#### e. Disperse Dyes

DyStar offers a large range of disperse dyes under its Dianix® and Palanil® brands. These are water insoluble dyes that are used to dye polyester and other synthetic fibers. Dianix® dyes are used for apparel, sportswear, automotive textiles, carpets and upholstery.

DyStar's Dianix® CW-SF range meets the increasing demand for better fastness and fulfils major ecological standards. Almost the entire range is AOX-free. It meets the needs of most Restricted Substances List (RSL) and each dye is bluesign® approved.

#### Auxiliaries

To meet the needs of our customers, we offer a wide range of textile auxiliaries. These are broadly classified in three categories.

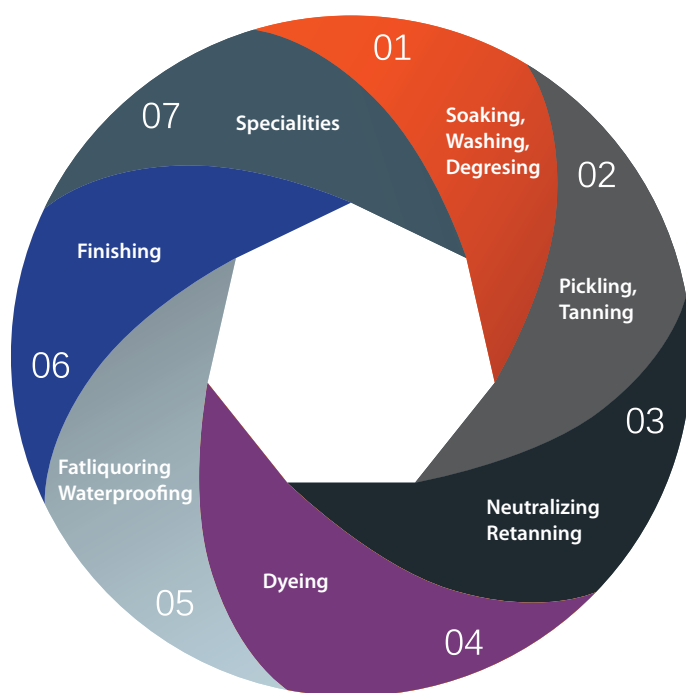
- SERA® high performance process auxiliaries used in textile preparation, pre-treatment and dyeing processes.
- EVO® range of products includes finishing and effects chemicals. These chemicals are used for functional effects, water-based coating and for sizing and yarn lubrication of all kinds of textiles.
- LAVA® is our denim laundry auxiliaries and effects producing range. It is used for washing, dyeing, spraying, curing, coating, printing and finishing purposes in denims.

#### Leather and Fur

DyStar has established itself as a reliable partner for the leather and fur industry, in addition to the textile industry. Amongst an extensive range of products, we offer superior quality leather dyes, which are made using

our expertise in leather chemistry. These dyes are available in deep blacks, browns, and many vibrant colors. Our range of products and services are available for the processes given in the figure that follows.

As a global leader amongst suppliers of processing chemicals and dyes, we have the expertise to advise our customers on optimizing the ecological profile of leather production and the use of our products. By taking advantage of our specialised services our customers are able to meet a wide range of test specifications and ecological requirements. Some examples are Oeko-Tex® Standard 100, RSLs from various brands and the SG label for leather manufactured without toxic chemicals.





At Texanlab, apart from the fact that we assist Brands & Retailers in achieving and maintaining their sustainability goals, our endeavour has always been to frugally and efficiently use all resources while meeting and exceeding demands of our customers



**Rahul Bhajekar**  
Managing Director – Texanlab Laboratories Pvt. Ltd.

## Services

### a. Ecology Solutions

Brands and retailers in the textile industry are becoming increasingly concerned about protecting their brand integrity and minimizing the impact of their supply chains on the environment. Simultaneously, their consumers are also demanding greener products. DyStar is positioned as an expert partner for collaboration with brands and retailers, for chemical and environmental management of the entire supply chain.

Our econfidence® program offers an extensive range of sustainable products and services. Our solutions package helps our industrial customers undertake responsible and sustainable production. We advise them on relevant legislations and ecological issues along with recommending products suited to meet ecological specifications, laws, labels and logos.

### b. Color Solutions

Color Solutions International (CSI) is the leading provider of color standards and color communication tools for sustainable color communication services.

As a constituent of the DyStar group, CSI supports brands and retailers by providing color tools, building color palettes, engineering colors and standards, and distribution to brands, retailers or industry partners.

The tools available from CSI facilitate making the right chemical decisions at the color design stage with consequent benefits in the supply chain including reduction in paper used, and reduction in the number of lab dips.

The commitment of DyStar and the use of CSI certified color standards give brands, retailers and their industry partners a head-start in being more sustainable and in reducing environmental impact in design, development and production stages.

For more information on Color Solutions International please visit [www.csicolors.com](http://www.csicolors.com)

### c. Testing Solutions

We deliver expert testing services through our group company Texanlab. Our testing services are accredited to ISO 17025. Texanlab is a boutique testing laboratory with experience of testing over 125,000 samples of dyes, chemicals, fabrics and apparel for ecological parameters. Texanlab has expertise in ecology testing and analysis according to the requirements of

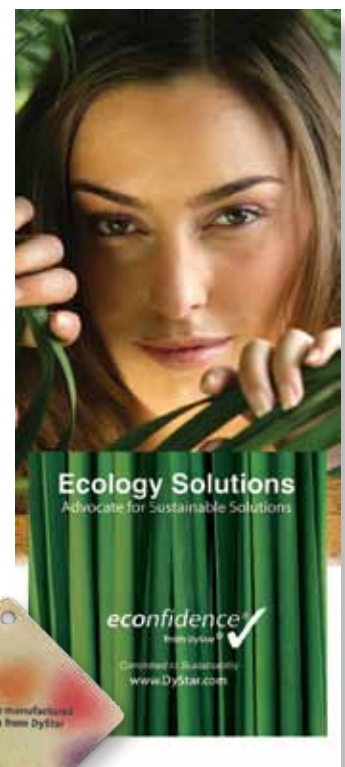
CPSIA, REACH®, EU Eco-label and brands & retailers' RSLs (Restricted Substances Lists).

### d. Sustainable Textile Solutions

Sustainable Textile Solutions (STS) is dedicated to assisting brands, retailers and industry partners implement sustainable textile production that meets their quality and eco-requirements and makes more efficient use of resources.

The STS programs focus on three main components: consultancy, auditing and capacity building. These are tailor made to meet the individual requirements of each client.

The various STS programs enable brands and retailers to monitor and improve the capability of their supply chains and achieve compliance to their environmental, health and safety standards.



# Memberships, Awards and Recognitions



DyStar believes in continuous engagement with key stakeholders to keep itself abreast of the issues facing the market and the textile industry, particularly those pertaining to sustainability, ecology and corporate responsibility. We are actively associated with organizations who are seeking to promote sustainability in the textile and apparel industry. Some of our key associations are mentioned below:

## 1. CSR, Sustainability and Ecology Organizations

- United Nations Global Compact (UNGC)
- Sustainable Apparel Coalition (SAC)
- Textile Exchange
- The Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD®)
- Bluesign®
- Global Apparel, Footwear and Textile Initiative (GAFTI)
- Singapore Compact for Corporate Social Responsibility
- National Committee of Responsible Care®, Indonesia

## 2. Industry Associations

- Textile and Fashion Federation (Taff), Singapore
- Brazilian Association of Chemistry, Brazil
- Association of International Chemical Manufacturers (AICM), China
- China Dyestuff Industry Association, China

- Ankleshwar Industries Association, India
- Anyer Merak Cilegon Chemical Manufacturer Association, Indonesia
- South African Dyers and Finishers Association, South Africa
- German Chemical Industry Association (VCI), Germany
- Society of Dyers and Colourists, UK
- American Association of Textiles Chemists and Colorists (AATCC), USA
- American Apparel and Footwear Association (AAFA), USA.
- ABIT (Associação Brasileira das Indústrias Têxteis) – Brazilian Association of Textile Industries.
- ABIQUIM (Associação Brasileira das Indústrias Químicas) – Brazilian Association of Chemical Industries.
- SINPROQUIM (Sindicato das Indústrias de Produtos Químicos) – Union of Chemical Products Industries.
- ABQCT (Associação Brasileira de Químicos e Coloristas Têxteis)- Brazilian Association of Textile Colorists and Chemists.

## 3. Awards and Recognition

DyStar's genuine concern and initiatives to promote sustainability are appreciated throughout the world. In 2012, DyStar participated in the prestigious "Parivartan Sustainable Leadership Awards" where we gained the second position in the 'Sustainability Stewardship - Innovation in Shaping Sustainability in Supply Chains' category. The aim of the Parivartan Sustainability Leadership Awards was to promote and showcase efforts that shape conservation action, innovation and corporate sustainability leadership.





# Corporate Governance

DyStar Group is a privately held company. We have a Board of Directors and a senior management team, which formulates our business strategy and management policies. The Board determines the long-term goals, vision, utilisation of financial resources, and the appointment and compensation of senior management. It is also involved in managing risks, which the company may face in the financial year, as well as ensuring legal compliance and business ethics in all its functioning, operations and activities.

We promote transparency in the policies and operations of our company. Hence, our five-member Board of Directors, including the Chairman, is vested with the responsibility to oversee and support our efforts towards good corporate governance. All board members hold an extensive knowledge of affairs pertaining to corporate governance through their industrial expertise and significant corporate experience. The Board of Directors review business plans and the strategic direction of the company on a quarterly basis.

DyStar has formed a number of committees, which help the Board in performing its tasks. The Audit Committee has been set up to conduct an independent review of the effectiveness of the financial reporting process followed by our group. It also examines our company's internal controls through regular audits. The results of the reviews are submitted to the Board and act as input for its decisions.

The Remuneration Committee is primarily concerned with reviewing and recommending a remuneration framework for the employees. It specifies remuneration packages for the Group CEO and President, and for members of the senior management level. The committee is responsible for ensuring that the remuneration and Human Resource policies of the company are aligned with its strategic objectives. It also ensures that the policies are well-suited for recruitment, motivation and retention of employees.

The Board is closely associated with the senior management team at DyStar. The Group CEO and President, in consultation with senior management, develops strategic plans and policies, which have to be approved by the Board. The other tasks attended to by the CEO include implementation and monitoring business strategies across various business verticals, financial and operational management, overseeing organisational efficiency, compliance with legal policies, internal and external communication, and promotion of a corporate culture that enables achievement of business objectives.

The Group CEO and President also periodically informs all employees about ethical business practices and expectations through company meetings and other internal communication channels.

Our Open Door Policy gives employees direct access to senior management to raise their concerns or suggest any improvements in our policies or operations. They can also bring ethical concerns to the management, either directly or through the compliance mechanism.

## Our Board of Directors

- Mr. Ruan Weixiang, Chairman
- Mr. Manish Kiri, Director
- Mr. Chang Sheng, Director
- Mr. Xu Yalin, Director
- Mr. Amit Mukherjee, Director

## Our Senior Management

- Mr. Harry Dobrowolski, Group CEO & President
- Mr. Viktor Leendertz, Group CFO
- Mr. Eric Hopmann, Sales Area Management – Europe
- Mr. Klaus Kadletz, Sales Area Management – TAME (Turkey, Africa & Middle East)
- Mr. Ron Pedemonte, Sales Area Management – Americas / DTS

The Chairman of the Board is not an executive officer in the company.

## Governance for Sustainability

DyStar is committed to adhering to the highest safety and environmental standards in its operations worldwide. We research new products and processes with the aim to reduce our environmental impact and provide the best quality products to our customers.

To achieve these goals, we have constituted a Sustainability Committee to formulate and direct DyStar's sustainability strategy. One of the key tasks of the sustainability committee is to set a broad sustainability agenda for DyStar Group and identify sustainability goals and initiatives. The committee also selects the GRI performance indicators for the company, and reviews annual sustainability data. It conducts periodic reviews of overall progress towards our sustainability targets, including the principles and performance relating to environment management systems, health and



safety, Responsible Care®, and ethical code of conduct.

This committee is headed by the Group CEO and President. It includes the Regional President Americas & Global head of DTS, Vice President of the Global Manufacturing & Supply Chain, and Global Sustainability Manager. We also have a global sustainability project team, which is closely associated with the sustainability committee. The team includes Heads of production plants and designated sustainability champions in countries where we operate. Our Global Sustainability Manager is responsible for communicating the committee's decisions with the global sustainability projects team.

### Ethics and Compliance

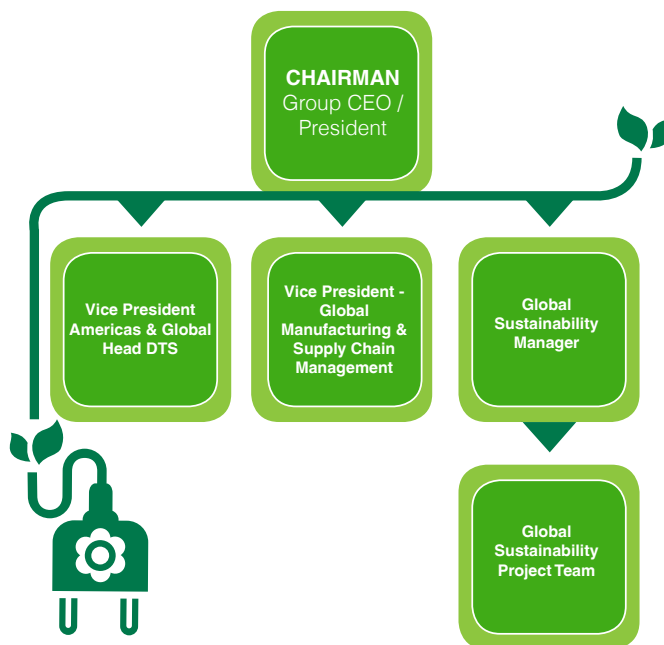
#### Code of Conduct

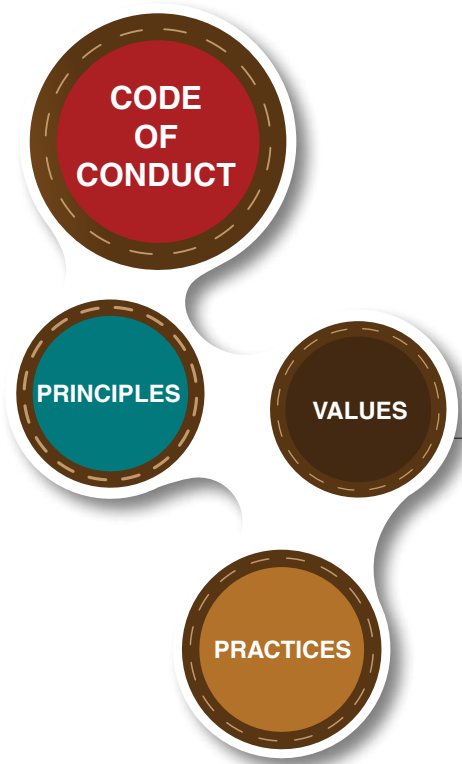
As a company with global operations, DyStar must function in many different legal and cultural environments. We are committed to conducting our business activities with the highest levels of integrity and ethical standards, and aim to always act within the limits of the legal systems. We have generated a Code of Conduct for the company, which reflects the core values of the company and provides guidance to our employees. It includes the legal and ethical principles that are the ideal for our group. This code is binding for all our employees and the companies who are a part of the DyStar Group.

The matters included in our Code of Conduct are:

1. Compliance with laws and regulations: We are committed to complying with national laws, international public laws and international trade laws. We do not undertake any activities in contradiction to export control laws.
2. Intellectual property rights: Our company ensures safe handling of confidential data and provides right to access the information on need-to-know basis. We have our rules to protect intellectual property of the company and our customers.
3. Fair competition: We ensure compliance with antitrust legislation and do not engage in anticompetitive behaviour. We also comply with merger control laws.
4. Separation of private and company affairs: We clearly demarcate business and personal affairs and do not entertain influence of personal interests on our business decisions. We do not offer any personal benefits to suppliers, officials, government representatives or customers.
5. Safety, health and environmental protection: We are committed to complying with environmental standards that are applicable to us. We check

### DyStar Sustainability Committee Structure





DyStar is certified according to ISO 9001 and ISO 14001. Quality and environmental management play an important role in our global business and is taken very serious. Sustainability is given by our globally defined processes. The characteristics of our products are monitored and measured.



**Magdalena Kochanek**  
Global Director Quality Management

our products for any potential hazards. We are obliged to protect our employees as well as contractors by providing safe work place and regular trainings. We encourage open and transparent dialogue on safety, health and environmental matters.

- 6. Product and service quality: We aim to maintain high and globally uniform standards of processes, products, applications and production environments. Technology leadership is the key to our success.
- 7. Relationships with employees: DyStar prohibits any form of harassment, and child or forced labour. We respect the rights of the employees and aim to maintain congenial relationship with them.
- 8. Cooperation with authorities: It is our duty to safeguard the rights of the Company and its employees. We cooperate fully with all competent legal authorities and agree to provide complete information required by them through our legal department.

For a detailed version of our code of conduct please visit our website [www.DyStar.com](http://www.DyStar.com)

### Compliance Management at DyStar

Compliance is an integral part of our business and management practices through which we aim to reduce our risks and increase operational efficiency. While each DyStar employee is responsible to ensure compliance with the Code of Conduct, we have established a Compliance Management Structure to support and coordinate their activities in this direction.

Compliance management includes all measures to support the adherence of processes, rules of actions, laws and standards, social accountability guidelines, code of conduct, company guidelines and management directives by DyStar staff.

The company has established the Global Compliance function to attain following four key objectives:

- a. Foster a culture of honesty and high ethical standards
- b. Evaluate and mitigate risks for the Company
- c. Raise awareness among employees on the need for adherence to laws and regulations
- d. Improve public image of the Company

In order to support the actions towards compliance, we have a Global Compliance Officer who is accessible to all the employees of DyStar Group for reporting their concerns. The officer can directly approach the CEO to

discuss and address employees' concerns. We also have designated persons responsible for local compliance. They spread awareness about Compliance Management and the applicable laws/regulations/codes at site level. They are also responsible for coordination with the operative responsible person and Global Compliance Management through the General Management.

The compliance structure also includes the Group Legal Counsel who advises employees on laws and regulations, and legal considerations in case of deviation and non-compliance. The Counsel is responsible for interacting with governmental authorities in cases of deviation. All compliance related issues are treated as high priority concerns and any corrective measures in this regard are implemented with utmost urgency. All the employees of the Group are provided contact details of those in Compliance Management through the company's intranet.

DyStar complies with international standards for environmental and social responsibility. We are ISO 9001: 2008 and ISO 14001:2004 certified and have implemented and maintained Quality and Environmental Management Systems throughout the development, production, marketing, sales and distribution of textile dyestuff and auxiliaries. We also conducted an audit, which verified that the management system fulfils the requirement of the standard.

We ensure fulfilment of our social responsibilities by complying with the requirements of SA 8000. This international standard guides our approach towards critical social issues such as child and forced labour, health and safety, freedom of association, right to collective bargaining, discrimination, disciplinary practices, working hours, remuneration, and management systems. Further details on the company's practices can be found as

# Sustainability and the Apparel Industry



The last three decades have seen a significant rise in the production of textiles and clothing, and an associated increase in local chemical and dyestuff manufacturing facilities to support these industries. In order to support this growth, dyestuff manufacturing has shifted out of Europe and North America to parts of Asia and Africa. While this shift has generated significant employment and greater revenues for the textile producers in the Asian and African countries, it has also increased their environmental impact, as the textile industry is an intensive user of water, energy and chemicals.

Chemicals and dyes help garment manufacturers achieve bright shades that appeal to consumers whilst at the same time offering high levels of performance in use, such as fastness to washing, water-repellency and easy-care properties. Several of these dyes and chemicals are classified as hazardous substances that can have a negative impact on the environment and human health if they are not stored, handled, used and disposed of correctly.

Water is a critical resource in textile production processes. Most of the water is consumed and discharged during 'wet processing', which involves preparation, dyeing, finishing and printing of the fabric. Dyeing and finishing processes have the highest usage, and can use up to 200 tonnes of water for production of each tonne of textile produced. The resultant wastewater contains a variety of pollutants including residues from the dyes and chemicals used during wet processing. Unless such pollutants are removed by treating the wastewater in Effluent Treatment Plants (ETP), there is a risk of water pollution on a large scale.

It has therefore become imperative for the textile industry to promote sustainability at the global level and to regulate supply chain practices to minimize pollution.





# DyStar & Sustainability

The DyStar Group acknowledges that the production and usage of our products has an environmental impact arising from GHG emissions, resource use, water and energy consumption, waste generation, and potential water pollution. We are keenly aware of our responsibility towards the environment and the health and safety of our customers, employees and local communities. We work hard to design and implement strategies and programs to reduce the impact of our operations in these areas. We are also fully committed to help our customers in the textile and leather industry reduce their environmental footprint through a range of ecological solutions for their operations.

Key environmental concerns for our organization include:

- Emissions to air
- Releases to water
- Land contamination
- Energy and resource consumption
- Noise and vibration
- Dust and odor
- Waste disposal

We work continuously to reduce our impact across all of these areas.

## A Word from our Global Sustainability Manager

At DyStar, we are driven by the need to be in lock-step with the needs of our customers. We are proud to call some of the largest textile brands and retailers our long-term customers. In our interactions with them, we have seen sustainability emerge as an irreversible trend. Brands and retailers are looking for sustainable innovation and they want their suppliers to manufacture products using raw materials that have the lowest possible impact on the environment, across the life-cycle of the product. We are also bearing witness to the strengthening of global regulations concerned with the health and environmental impacts of chemical production, usage, and disposal.

For several years, DyStar has been fine-tuning its sustainability and business strategy to align with market needs. We have adopted a dual approach to sustainability – decrease the environmental impact of our operations and decrease the health and environmental impacts of our products.

Having adopted a focussed sustainability strategy in 2011, we have streamlined our efforts towards attaining our sustainability goals. We continuously monitor our performance in these key areas, and develop appropriate strategies to address relevant issues. We engage with our employees across regions and verticals to ensure implementation of such policies. DyStar's "CEO Caring for The Future Awards" were instituted to encourage them through due recognition and rewards to take initiatives for sustainability.

Our R&D team continues to find new ways to develop products that require less energy and water to use and those that result in lower quantities of harmful waste.

Sustainability reporting will continue to be a significant part of our sustainability strategy. It has helped disclose our plans and achievements to our employees as well as our customers. We will continue to engage with all of our stakeholders in order to excel and maintain our leadership in this area of work. I look forward to receiving your feedback about our sustainability efforts.



**Dr. Charu Jain**  
Global Sustainability Manager  
DyStar Group



# Stakeholder Engagement & Materiality

DyStar's leading market position evolved from its ecology, economy driven sustainability vision and its employees. Together with our business partners we strive to protect air and water, wilderness and wildlife which are in fact plans to protect man.



**Klaus Kadletz**  
Sales Area Manager – Middle East and Turkey

Our sustainability journey is closely aligned to the expectations our stakeholders have of us. It has been our endeavor to systematically expand our sustainability agenda among our stakeholders. Each year we ask our management team to re-evaluate how the influence of our stakeholder groups on the company has changed over the course of the year and how they foresee the influence changing in the near future. Based on this exercise, we develop a list of stakeholders who are most influential for our organization.

Our key stakeholders for 2012, as determined by our management team are:

- Employees
- Shareholders
- Customers
- Suppliers

We have well-documented and comprehensive systems to engage with these stakeholders and we have been working with them to improve our performance in line with their expectations. Our sustainability-oriented engagement has expanded from gathering feedback not only from our employees but also from our key external stakeholders.

The table below provides a comprehensive view of our engagement activities:



Stakeholders	Stakeholder Expectations	DyStar's Responsibility	Modes of Engagement
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Safe workplace;</li> <li>• Opportunities for growth;</li> <li>• Fair treatment;</li> <li>• Reward for performance;</li> </ul>	Encourage an open-door policy to provide employees at all levels access to management for sharing views and offering feedback. Keep the emphasis on workplace health and safety at our production plants. Ensure ethical and fair employment practices. Reward and recognize performance.	Continuously Review HR policies for fairness and relevance. Management Interact with employees in a number of ways on daily basis. Arranged team building and sustainability themed outings for employees to keep the motivation levels high. Green award is awarded to the best location for Sustainability driven initiatives.
<b>Shareholders</b>	<ul style="list-style-type: none"> <li>• Reasonable return on investment;</li> <li>• Sustained and long-term growth of business.</li> </ul>	Create well informed business strategies; Implement strategies effectively; Build long lasting brand equity.	Periodic meetings with key shareholders to update them on company performance and sustainability initiatives.



**Abraham Frem**  
Managing Director DyStar Mexico

Through sustainability is how we become a company capable of offering innovative and quality products and services at the same time, we take care of the environment, the future of our planet and the new generations.



Stakeholders	Stakeholder Expectations	DyStar's Responsibility	Modes of Engagement
<b>Customers</b>	<ul style="list-style-type: none"> <li>Minimal environmental impact of DyStar products and materials</li> <li>Appropriate labeling of DyStar products</li> <li>Health &amp; safety impacts of products on customers</li> <li>Customer privacy</li> <li>Quality of products</li> </ul>	Continuously improve quality of products and services. Invest in research and development facilities to develop more ecological products and services. Promptly supply information on products' compliance with various standards and regulations.	Organize seminars for customers on ecology and sustainability. Hold regular meetings with customers to exchange information. Attend industry forums and conferences. Provide information through various channels such as our website, product brochures, social media and updates.
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Establish long-term relationships.</li> <li>Collaborate on supply quality products and services.</li> <li>Fair selection, and respect for contractual obligations.</li> </ul>	Develop a network of reliable suppliers and work closely with them to source high quality products and services. Influence them to continuously improve their social and environmental performance.	Ongoing dialogue with our key suppliers to better understand and explain issues relating to quality, social, and environmental performance.

This year we conducted a formal survey among representative members of our key stakeholder groups. The survey sought to understand the key sustainability issues that matter to our stakeholders. Stakeholders were divided into 4 groups: Internal stakeholders, top management, external stakeholders, and peer group companies. We assessed the key issues raised by this sample set and finally decided upon the most material sustainability issues for the organization.

The key issues are highlighted below:

01	02	03	04
<p><b>Material Issues - Internal Stakeholders</b></p> <ul style="list-style-type: none"> <li>Health &amp; safety impacts of DyStar products on customers</li> <li>Economic performance of DyStar</li> <li>Disposal of solid waste from DyStar operations</li> <li>Compliance to national environmental laws</li> <li>Appropriate labelling of DyStar's products &amp; services</li> </ul>	<p><b>Material Issues - Top management</b></p> <ul style="list-style-type: none"> <li>Health &amp; safety impacts of DyStar products on customers</li> <li>Economic performance of DyStar</li> <li>Environmental impact of materials used by DyStar</li> <li>Disposal of solid waste from DyStar operations</li> <li>Compliance to national environmental laws</li> </ul>	<p><b>Material Issues - External Stakeholders</b></p> <ul style="list-style-type: none"> <li>Appropriate labelling of DyStar's products and services</li> <li>Environmental impact of materials used by DyStar</li> <li>Environmental impact of DyStar's products</li> <li>Health &amp; safety impacts of DyStar's products on customers</li> <li>Management systems to ensure privacy of DyStar's customers</li> </ul>	<p><b>Material Issues - Final</b></p> <ul style="list-style-type: none"> <li>Health &amp; safety impacts of DyStar's products on customers</li> <li>Appropriate labelling of DyStar's products &amp; services</li> <li>Environmental impact of DyStar's products &amp; services</li> <li>Environmental impact of materials used by DyStar</li> <li>Compliance to national environmental laws</li> </ul>



Li De Zhong  
Production Head China

Enhancing sustainability performance is an inevitable requirement for improving the core competitiveness of enterprises. In the face of a severe macroeconomic situation and intense competition in the dyestuff industry, in 2012 DyStar China's sites (Nanjing, Wuxi) carried through a comprehensive plan to implement energy efficiency projects. Significant progress has been made by taking a systematic approach to the issue of energy usage across the sites. Thanks to the efforts of all staff, this work has laid a solid foundation on which DyStar China's sites will be able to further improve production and reduce site costs, so as to benefit the company, reward employees and contribute to society as a whole.



### ENGAGING WITH OUR EMPLOYEES: CEO "CARING FOR THE FUTURE" AWARDS

Sustainability at DyStar is driven by the integration of sustainable practices into its daily operations and value chain. An annual award scheme linked to its Company-wide Sustainability Program, "Caring for the Future", was introduced in 2011 to motivate all production site and offices to uphold this core brand value. Several factors are considered when determining the best performing Production Site and Office for the "CEO Caring for the future" Award: Leadership and team effort qualities; Thought process and knowledge flow; and Motivation and integration of sustainable production practices into daily operations. The Award recipients are judged based on the implementation of specific initiatives in four critical areas for DyStar namely water, energy, waste and CO2 emissions, and their achievement in reduction targets that should be aligned with DyStar's overall 20% reduction target by 2020.

DyStar Sustainability Committee has decided to award the winners with a Citation and a one day Social Visit to all employees of the site/offices with one time meal at company expense. The aim is to use this visit for community services/ sports activities/ team building activities which may further benefit the employees in attaining team spirit, happiness, relaxation from work and fulfill social commitment through community help.

In 2012, DyStar China was the recipients for the award. The Award recipients implemented specific initiatives in the four material areas (water, energy, waste and gaseous emissions) and achieved reduction targets which are aligned with our overall 20% reduction target by 2020 for the same four areas. This award policy would be reconsidered and updated on every two year basis depending upon the progress of our sustainability program.

### DyStar's response to sustainability trends and stakeholder expectations

Given the DyStar Group's worldwide operations and clientele, we ensure environmental sustainability in our processes through a stringent environmental management system (EMS) implemented at each of our plants. It provides a broad framework to ensure alignment between our operations and environmental goals of our group. This system requires identifying, evaluating, prioritizing and managing environmental aspects in the following areas:

- Design and development
- Manufacturing
- Storage, packaging and transportation
- Environmental performance, practices of contractors and suppliers
- Waste management
- Use and distribution of raw materials and natural resources
- Distribution, use, and end-of-life of products
- Biodiversity

Our EMS defines a systematic approach for environmental impact management. The steps of the procedure followed by the plants are given below.

1. Identify and assess environmental impacts and risks
2. Establish objectives and, wherever possible, quantitative targets also for continual improvement in environmental performance.
3. Provide necessary training to employees
4. Review the objectives and the progress periodically
5. Comply with all applicable regulatory requirements and, wherever possible, go beyond these requirements
6. Co-operate and communicate with our neighbours, the public, government, regulatory authorities and other stakeholders towards the shared goal of improving the environment
7. Conduct regular monitoring and auditing programs to ensure compliance with continual environmental improvement
8. Communicate environmental performance to employees and stakeholders



Eco-compliance is not an alternative for us, it's a must especially if you work with European retailers acting globally, like Inditex, H&M, Next and others.. It has to be not only part of our business processes and policies but also part of our attitude towards our customers to offer quality product



**Eric Hopmann**  
Sales Area Manager Europe

Based on our assessment of our company's environmental impact, we have set specific goals to lower our environmental impact:

**Table 1: Our Sustainability Performance**

Target area	Target (Baseline 2010)	Target Year	2012 Progress
Greenhouse Gas Emissions	20% reduction in absolute emissions	2020	13% reduction achieved since 2010
Energy Consumption	20% reduction in absolute energy consumption	2020	23% reduction achieved since 2010
Water use	20% reduction in absolute water consumption	2020	26% reduction achieved since 2010
Waste generation	20% reduction in absolute waste generation	2020	4% reduction achieved since 2010

## Management Approach to Environmental Sustainability

### Sustainability Vision

Our vision is to become the world's most sustainable supplier of colors and chemicals to the global textile industry. We aim to be our customer's prime source for information and guidance on best sustainability practices in the global textile supply chain. We are proud to certify our products to be ecologically sustainable through our econfidence® program, which ensures that our customers are able to reduce their environmental impact. DyStar believes in reliable quality and high ecological standards and produces ecologically responsible products. Our production processes, products and the application procedures of our products follow internationally high standards and endeavor to minimize risks to customers, end-users or the environment. To attain our environmental goals, we have formulated a Global Sustainability Policy. We aim to establish sustainability as a brand value at all levels of our business.

### Target Setting

Similar to the target-setting exercise in the economic sphere of our operations, we have also defined specific reduction targets for carbon emissions, water usage, energy consumption and waste generation. These targets have been selected on the basis of our emissions in 2010. We are aiming for a minimum annual reduction of 2% in electricity, water, waste and carbon emissions and overall 20% reduction by the year of 2020.

### Sustainable Research & Development

Research and development is an integral activity for the company. DyStar maintains its leadership in the textile dyes and auxiliaries industry through the support of our R&D department, which is engaged in the development

## DyStar's Process Model

Our process-based approach plays an important role in helping the company maintain quality, production targets and plan quarterly growth. We adhere to the process model prescribed by the international standard ISO 9001. This model has four key modules, namely Management Responsibility, Resource Management, Process Management, and module for Measurement, Analysis and Improvement. These aspects essentially involve planning, execution, review and checking. As we undertake work to meet our sustainability targets across the organization, our process-model driven approach has allowed us to systematically address resource-use inefficiencies.

of new products and processes for synthesis and application. The R&D teams use technical know-how emerging from multiple disciplines. We protect our innovations through patents and trademarks registered throughout the world.

### Sustainability Solutions & Services / Raising Awareness about Sustainability

DyStar seeks to spread awareness amongst brands, retailers and our industry partners about textile dye and chemical ecology through a range of products and services. We offer services to our industrial partners for process guidance and optimization for reduction in resource consumption, testing their products to meet environmental standards, and build supply chain partnerships with them for sustainable textile production.

### International Environmental Standards & Regulations

We adhere to international standards for environmental management such as ISO 14001: 2004. Our facilities in Nanjing and Wuxi (China) and in Pietermaritzburg (South Africa) have been certified to this standard since 2008. We also comply with EU REACH® regulation, and give product selection guidance to our customers for various Restricted Substances Lists of Brands and Retailers, Oeko-Tex® Standard 100, Global Organic Textile Standards (GOTS) and many other standards. Such guidance improves the credibility of our company's efforts towards environmental sustainability.

Overall, our strategy is to integrate environmental sustainability into all our operations by setting internal targets and providing products and services which help to 'green' the textile supply chain.



# Lowering our Operational Environmental Impact



## A Word from our VP – Global Manufacturing & Supply Chain

The thrust of our business model is to ensure that the needs of our customers are fully met. We maintain a close scrutiny over our production processes to ensure that the quality, safety, reliability and delivery standards set by our customers are duly met. Simultaneously, we also aim to ensure that our employees get a safe work environment, and attempt to reduce the impact of our operations on the environment. The surrounding communities also fall within the purview of our sustainability efforts such that our manufacturing processes do not harm them in any manner possible.

We have a wide base of manufacturing units, which are located in 12 countries across Asia, Europe and The Americas. Our product range includes various chemicals and colours that have clientele in the textile and leather industry. These production operations are the most resource intensive segment of our company. The energy and water consumed, waste and wastewater generated through these units constitutes more than 90% of the overall consumption. Hence, the environmental impact of the production units is also the highest within DyStar.

We constantly work towards reducing our resource consumption. Many initiatives were undertaken in 2012 to attain this goal. These measures have twofold benefits for the company. It limits our impact on the environment and also decreases our cost of production. Hence, it makes our company more competitive throughout the world.

Additionally, we are particularly careful about storage and transportation of the stock of raw material and finished products since a large number of them can be potentially hazardous to the environment, and health and safety. We follow strict procedures with respect to these goods to avoid any spills and accidents. The employees undergo rigorous training to ensure proper use of equipment and adherence to the safety norms established by us.

This report presents a detailed analysis of the efforts made at DyStar to promote its business and in conjunction the contribution made towards environmental protection and development of the society.

**Gerald Talhoff**



When thinking about developing sustainability-oriented projects, anything that is done in favor of the environment, however small it may seem, will have positive impact and gives us the opportunity to have a better future



**Jorge Romero**  
Production Head Mexico

## Managing our Environmental Impacts during Product Manufacturing

### How We Manage Our Materials

#### Raw Materials

We are committed to manufacture our products as far as possible without the use of chemicals with unacceptable hazardous effects on either human health or the environment. Our products are thoroughly evaluated to identify any potential hazards and comprehensive advice is given to our customers on the appropriate risk prevention measures.

#### econfidence® from DyStar

Increased awareness of consumers about sustainability and the requirements of environmental and chemical legislation across the world have prompted an increasing number of textiles brands and retailers to seek to encourage environmentally safe textile production practices within their supply chains. With the proliferation of various eco labels, laws and standards, textile manufacturers are looking for raw materials, which are less hazardous, have reduced environmental impact and are safe for human health. DyStar, as a leading product and service provider has always taken the safety and environmental impact of its products seriously and we have encompassed this activity in our econfidence® program.

DyStar's econfidence® program is our commitment towards the ecological quality of our products. It has been developed to ensure to our customers that all our products are in full compliance with chemical legislation worldwide. It is backed by the most extensive testing program of any dye and chemical supplier to the textile industry. We ensure that all our products are free from azo dyes that can break down to release carcinogenic amines, and that they do not contain any dyestuffs that are classified in the EU as carcinogenic, mutagenic, or reprotoxic. Our products also do not contain any allergenic disperse dyes as specified in the Oeko-Tex® Standard.

All our products are free of alkylphenol ethoxylates (APEOs); i.e.; chemicals such as nonylphenol ethoxylates (NPEO) and octylphenol ethoxylates (OPEO) are not used as intentional ingredients in their formulation. Our products comply with the European Union's programme for the cessation or phasing out of the use of APEOs.

#### Our products do not contain:

1. Asbestos
2. Chlorinated benzenes/toulenes
3. SCCP/MCCP
4. Octyl- or nonyl-phenol or their ethoxylates
5. PCBs PCP/TeCP/TriCP
6. Phthalates
7. Organotin Compounds
8. o-phenylphenol
9. Pesticides
10. Flame retardants
11. PVC
12. Ozone depleting chemicals
13. Polyhalogenated Dioxins/furans

Additionally, we also comply with the European Chemicals Agency (ECHA) "Candidate List of Substances of Very High Concern for Authorisation" under REACH®. None of our sales products intentionally contain any of the chemical substances that are included in the Candidate list, as per the latest revision. Our dyes and pigment preparations do not contain Phthalates as intentional components.

#### Packaging Materials

We have also undertaken steps to reduce, reuse, and recycle packaging material used at various manufacturing sites. We have taken initiatives to reclaim packaging material from our customers and reuse them in the next product cycle. Some of these measures implemented at various sites are:

1. Packaging and selling products in IBC containers of 1000 kg capacity instead of 50 or 200 kg drum.
2. Cleaning and reusing IBC and PE drums, which contained raw materials for finished products.
3. Plastic IBCs and drums are emptied by customers and returned to our supplier for cleaning and reuse.
4. All products, where applicable, are put into the recycling program for plastic containers.
5. We buy recycled PLCD200, 200 liter drums for packaging our products at the site in Naucalpan, Mexico.



Public and customer expectations of sustainability performance are increasing all the time and through its Sustainability program DyStar is positioning itself as a safe and trusted partner.

**Sunarto Djuardi**  
Sales Area Manager – South East Asia



We also try to reduce the packaging material needs of our suppliers. At our manufacturing site in Nanjing, China, the plastic bags of indigo powder are sent back to the supplier for recycling and reuse. While we did not estimate the overall reduction in the need for fresh packaging material during the current reporting period, the above measures have positively impacted our usage of packaging materials.

**Table 2: Material Consumption at DyStar**

Material Consumption Data	
	2012
Raw Materials (MT)	103,188
Packaging Materials (MT)	3,599
Associate Materials (MT)	1,002

### Energy Management

Energy is a significant input for DyStar’s operations. Improving energy efficiency of our processes has benefits in terms of cost saving as well as Greenhouse Gas (GHG) emissions reduction. Since the majority of our energy requirements are met by energy generated through non-renewable resources, an increase in our energy efficiency can make significant contribution to our environmental goals. Utilisation of less energy per unit of production increases the economic and environmental sustainability of our business. As part of our commitment to environmental protection, we continuously review our production processes and improve them where it is possible to reduce raw material usage and energy consumption.

### Energy Use at our Operations

Our production units, with their processing equipment such as mixers, reactors, pumps, dispersers, spray dryers, milling lines, blenders, boilers, incinerators, and wastewater treatment plants account for majority of our energy consumption. Our energy consumption is also heavily influenced by our product mix. Manufacture of customised products that help our clients in the textile and leather industries keep up with the latest fashion trends can significantly affect our overall energy utilisation.

Our laboratories, corporate offices and headquarters, along with our production facilities, use energy for lighting and air-conditioning. Our transport facilities

for our employees and for delivery of goods to our customers add to our energy consumption.

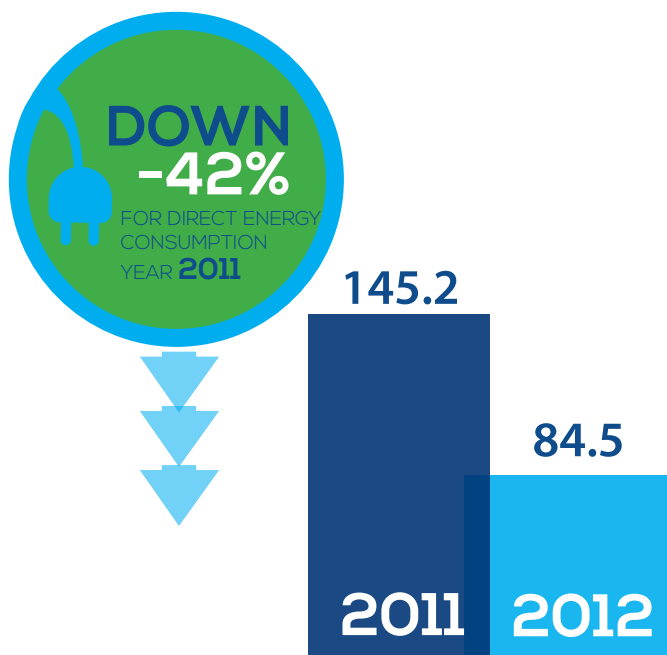
We use both direct and indirect energy procured from primary sources. Direct energy is generated mainly through diesel, ethanol, fuel oil, gasoline, natural gas and liquefied natural gas (LNG), and liquefied petroleum gas (LPG). For indirect energy, we source our energy needs through purchase of electricity and steam.

Our direct energy consumption decreased by 42% between 2011 and 2012, primarily due to the closure of our Cilegon and Leverkusen plants.

**Table 3: DyStar Direct Energy Consumption**

	Unit	2011	2012	Percentage Change
Total Direct Energy	KwH	145,286,560 <sup>2</sup>	84,511,631	<b>-42%</b>
	GJ	523,032	304,242	

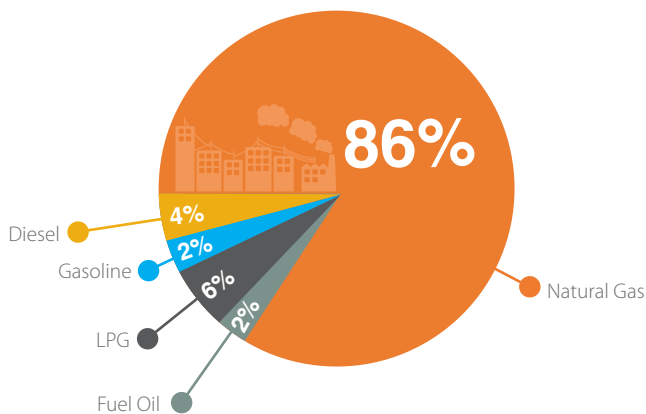
**Figure 2: Direct Energy Consumption (kWh)**



<sup>2</sup>This number was incorrectly reported as 14.6 million kWh in our 2011 Sustainability Report. The error was due to a misalignment of unit conversion factors.



Figure 3: Sources of direct energy 2012

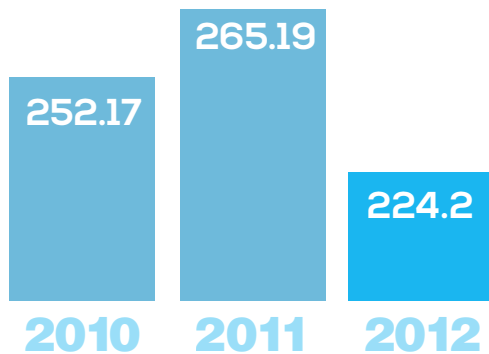


Our indirect energy consumption fell by 15.4% between 2011 and 2012. Our overall energy consumption decreased by 24.8% in the same time period.

Table 4: Indirect Energy Consumption, 2010-2012

Source (Indirect Energy)	Unit	2010	2011	2012
Grid Electricity Purchased	kWh	81,265,234	88,421,119	69,383,175
	GJ	292,554.84	318,316.03	249,779.43
Purchased Steam	kWh	170,905,257	176,776,084	154,820,431
	GJ	615,258.93	636,393.90	557,353.55
Total Indirect Energy	kWh	252,170,491	265,197,203	224,203,606
	GJ	907,813.77	954,709.93	807,132.98

Figure 4: Indirect Energy Consumption 2010-2012 (kWh)



<sup>2</sup>This number was incorrectly reported as 14.6 million kWh in our 2011 Sustainability Report. The error was due to a misalignment of unit conversion factors.

We see a significant potential for reducing our customers' energy consumption per unit through our products. We are engaged in continuous research and development of such innovative products, which require less energy during their use by our textile customers.

**Our Lava® auxiliary and effects range for the denim industry, improves sustainability in the dyeing process by enabling reduced consumption of energy. Such products create a win-win situation for our customers, the industry and the environment.**

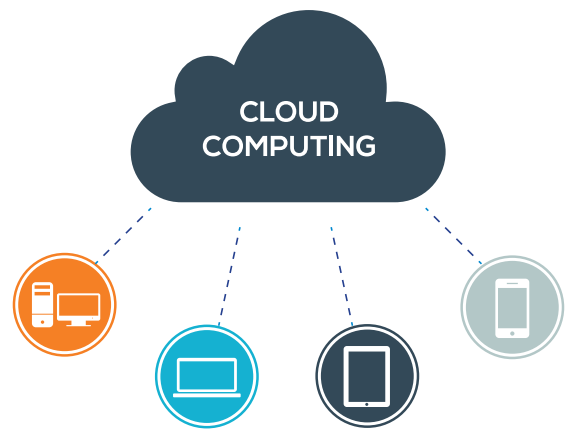
### Energy Efficiency & Energy Conservation

In the reporting period, we implemented several initiatives to enhance the energy efficiency of our own operations. Some examples of steps taken in our production units are listed below:

1. Installation of variable frequency drives in our production unit in India to control the speed of our process water pumps depending on the line pressure, has reduced electricity consumption by 39,000 kWh.
2. The manufacturing unit in Thailand re-arranged its production planning to save energy and fuel. The re-arrangement grouped products that needed to heat or pre-melt in the same period, thereby benefiting from economies of scale for energy use. It also increased mixing quantities of some products. In case of small quantity and slow moving batches, the mixing was done directly in the IBC 1,000 liter containers/drums.
3. Renewal of the brine chiller at our Omuta plant in Japan led to savings of approximately 5,000 kWh of energy.
4. Replacement of 12 steam traps in our unit in USA resulted in energy savings of 2.4 million kWh.
5. The Africa unit reduced cycle times for production. This resulted in lowering our electricity consumption for agitation and our fuel consumption for heating. The combined savings amounted to 76,286 kWh.

We also encourage our employees in production units, offices and laboratories to practice energy conservation. There have been permanent campaigns in order to raise staff awareness about saving energy. We try to use sunlight for some areas in our offices and decrease the use of artificial lighting. The employees are constantly reminded to turn off the lights, air conditioners, computers and other electronic devices when not in use. Such practices have resulted in substantial energy savings.





### Information Technology Strategy: Using Cloud-based systems to decrease energy consumption

Our IT department uses the latest technology to support DyStar Group's business across all our locations. Most of these initiatives entail dual benefits by improving our business processes, and reducing the environmental impact of our operations. Our global operations result in large repositories of data, with several layers of redundancy. This redundancy increases our data storage requirements, thereby increasing our server capacities and energy requirements. Over the last two years, our IT team has migrated our essential application needs to cloud-based systems such as Office 365 and CSRWare. These shared services have allowed us to reduce our data redundancy, resulting in better communication platforms and service levels. We have made substantial progress in this project in the last two years and expect to complete it soon. We also plan to reduce the number of physical servers in the company, leading to lesser energy consumption. Starting in 2014, we expect to bring down the number of servers by 30, and eventually another 50, and move to SAP Private Cloud technology through this project.

### GHG Emissions

For last three years, DyStar has published its Annual Carbon Footprint report. Our company is amongst a few in the industry who have taken this initiative. Measuring our carbon footprint and reducing our impact is an important part of our company's agenda for environmental protection. We collect and assess data on greenhouse gas emissions from all our production units and offices throughout the world. Our organisation is committed to making our carbon footprint available to our stakeholders.

This section presents our GHG emission inventory for the year starting on 1st of January 2012 and ending on 31st of December 2012. The assessment was carried out in accordance with the principles and requirements of ISO 14064: 2006 - Part 1 standard and the GHG Protocol by the World Resource Institute and the World Business Council for Sustainable Development. In our first two reports, published in 2010 and 2011, we focused on quantifying the most material sources of Scope 1 and Scope 2 GHG emission sources. Scope 1 includes refers to emissions and Scope 2 refers to indirect emissions. In previous years, since we were new to the reporting procedure, we excluded those sources of emissions that contributed less

than 5% of our overall emissions, i.e. fugitive emissions from refrigeration and air-conditioning as well as emissions from chemical reactions. However, in the current reporting period we have broadened the scope of our carbon calculations by including emissions from both these sources. We have not yet included Scope 3 emission sources, i.e. emission sources in our upstream and downstream supply chain, in any of the carbon footprint reports.

We have voluntarily committed to an organizational-level target of reducing DyStar's GHG emissions by 20% on an intensity basis (emissions per tonne of production) by 2020. DyStar's GHG emissions in the reporting period were calculated to be 144,699 tonnes of CO<sub>2</sub>e. A comparison with the emissions equivalent to 166,509 tonnes CO<sub>2</sub>e in the base year, 2010, we have reduced our emissions by 13%.

### Making our offices sustainable

While the majority of our resource consumption is attributable to our production units, we also promote sustainability in our offices and labs. DyStar China has assembled a sustainability team, which oversees and implements such to reduce resource use and limit the environmental impact of its operations.

DyStar Shanghai Trading, a unit of DyStar China, estimates to have successfully reduced its electricity consumption by 13.5% in year 2012, as compared to 2011. It reduced office space from two floors to one floor to further reduce electricity consumption.

In a similar measure by DyStar China's Hong Kong office, the office area was reduced by 70% in September, which is expected to reduce electricity consumption by 30%.

Our offices in India and Pakistan encourage environmentally friendly practices such as reducing use of paper, and avoiding unnecessary printing of documents. These offices are constructed in a manner that they can use natural light for illumination of the workspace. Employees are asked to turn off the computers and electrical appliances when not in use. We also make efforts to green our office and surrounding areas. For this, we organise greening drives where our employees and the visitors plants trees. Such practices are encouraged across all our offices, wherever it is possible.



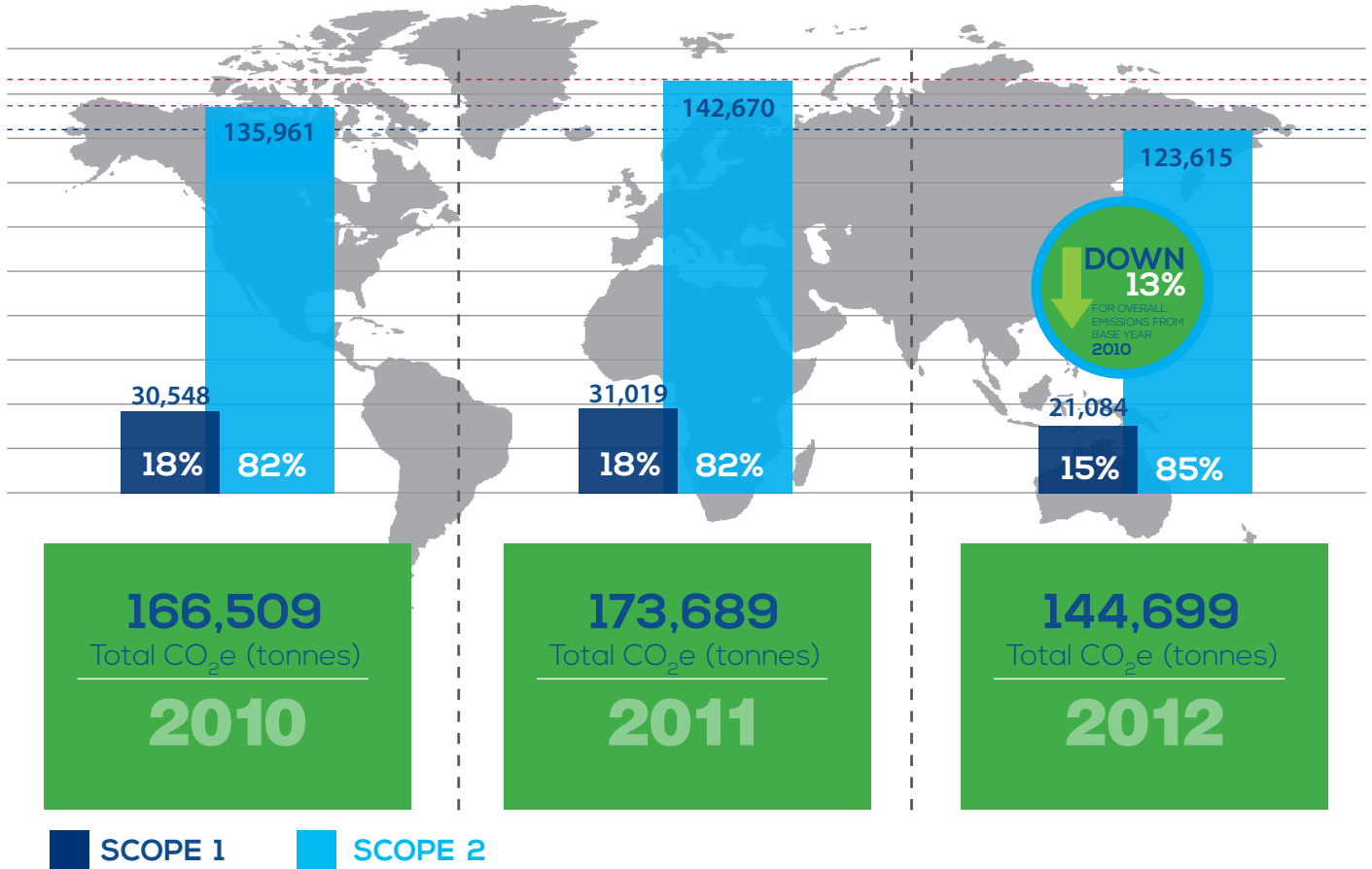
We believe that our sustainability program plays an important role in enabling us to grow and develop our business in the future

**Dimas Teixeira**  
Production Head - Apuina Brazil

**Table 5: Summary of GHG emissions**

EMISSIONS SOURCE	EMISSIONS (TONNES CO <sub>2</sub> e)					
	2010	%	2011	%	2012	%
SCOPE 1	30,548	18%	31,019	18%	21,084	15%
SCOPE 2	135,961	82%	142,670	82%	123,615	85%
Total CO <sub>2</sub> e emissions	166,509		173,689		144,699	

**Figure 5: Overall Summary of Emissions**



Scope 2 emission sources, which include purchased steam and electricity, continue to contribute the majority of our total emissions. Amongst Scope 1 sources, emissions are primarily attributable to combustion of natural gas in stationary equipment and process chemical reactions. The percentage contribution of Scope 1 emission sources has reduced to 15% from 18% in previous years despite the inclusion of additional sources in this list.

As Y2012 CEO Award winner, DyStar China Sales Office & Lab optimized energy management system and monitor monthly indicator to analyze any difference in 2012, and take control actions accordingly. Effective data mining and analysis can help us to drive sustainability development in right way

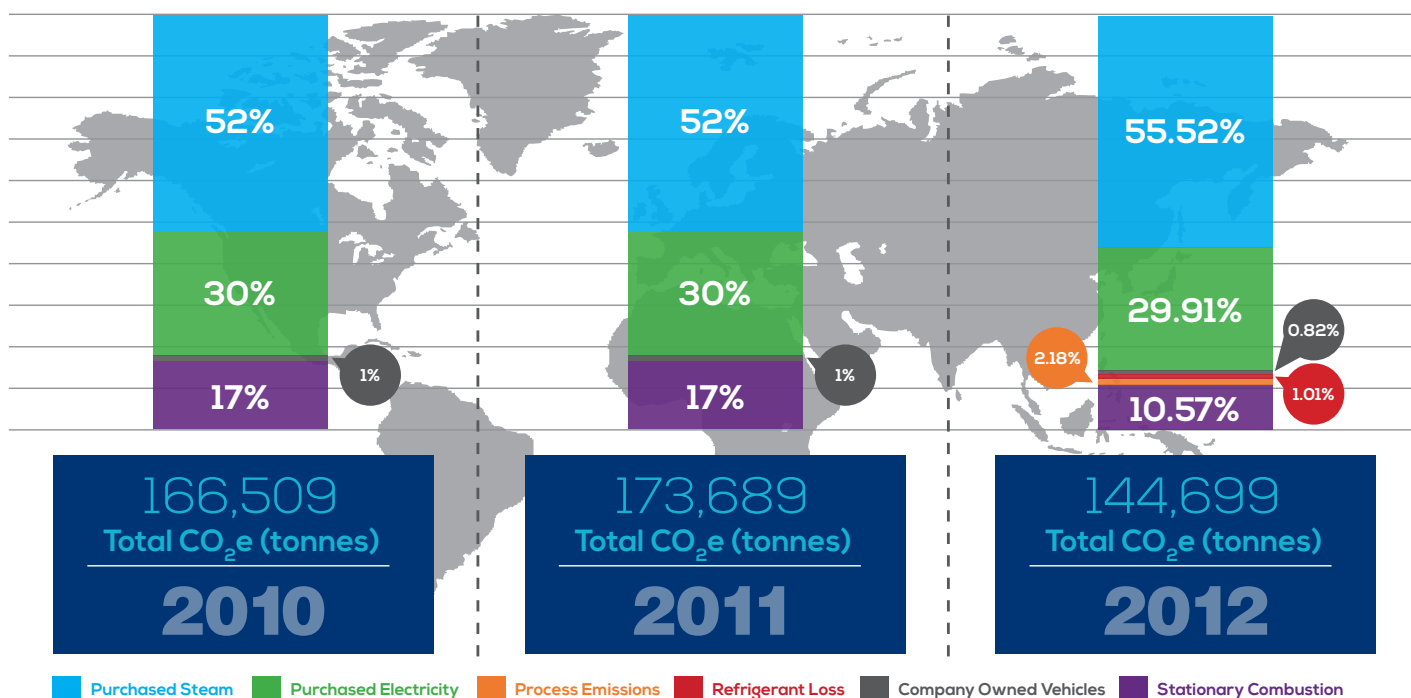


Gil Shen  
Quality Management Manager China

Table 6: Emissions from Each Source

EMISSIONS SOURCE	EMISSIONS (TONNES CO <sub>2</sub> e)					
	2010	%	2011	%	2012	%
<b>SCOPE 1</b>						
Stationary Combustion	28,591	17%	29,095	17%	15,293	10.57%
Company Owned Vehicles	1,957	1%	1,924	1%	1,180	0.82%
Refrigerant Loss					1,459	1.01%
Process Emissions					3,153	2.18%
<b>Total Scope 1 Emissions</b>	<b>30,548</b>	<b>18%</b>	<b>31,019</b>	<b>18%</b>	<b>21,084</b>	<b>14.57%</b>
<b>SCOPE 2</b>						
Purchased Electricity	48,794	30%	52,255	30%	43,272	29.91%
Purchased Steam	87,167	52%	90,415	52%	80,343	55.52%
<b>Total Scope 2 Emissions</b>	<b>135,961</b>	<b>82%</b>	<b>142,670</b>	<b>82%</b>	<b>123,615</b>	<b>85.43%</b>
<b>Total CO<sub>2</sub>e emissions</b>	<b>166,509</b>	<b>100%</b>	<b>173,689</b>	<b>100%</b>	<b>144,699</b>	<b>100%</b>

Figure 6: Break-up of Emissions Sources

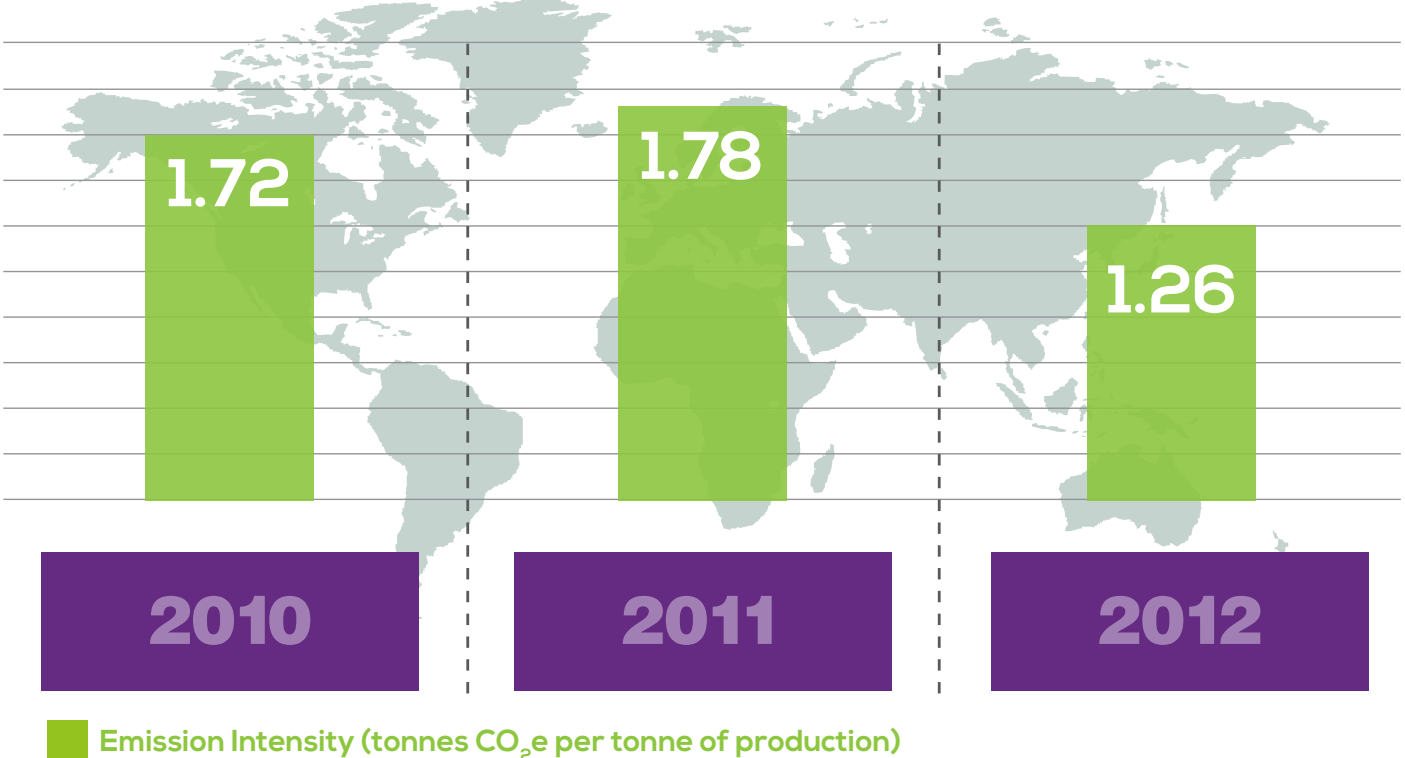


We are progressing steadily towards our long term commitment to reduce energy intensity. While the emission intensity remained constant between 2010 and 2011, it has reduced by 27% in 2012 as compared to base year. The observed reduction is partly due to the closure of Leverkusen and Cilegon production plants, which were highly emission intensive as compared to the Group's overall emission intensity. Production from these plants has been shifted to more modern plants, where we have invested heavily in state of the art production technology. As a result, products are now manufactured through a much less emission-intensive production process.

Table 7: GHG Emission Intensity Per Tonne of Production

GHG EMISSIONS INTENSITY	SITE TYPE		
	% 2010	% 2011	% 2012
Total CO <sub>2</sub> e emissions (tonnes)	166,509	173,689	144,699
Production (tonnes)	96,935	97,429	115,111
Emission Intensity (tonnes CO <sub>2</sub> e/tonne product)	1.718	1.783	1.257

Figure 7: GHG Emission Intensity Per Tonne of Production

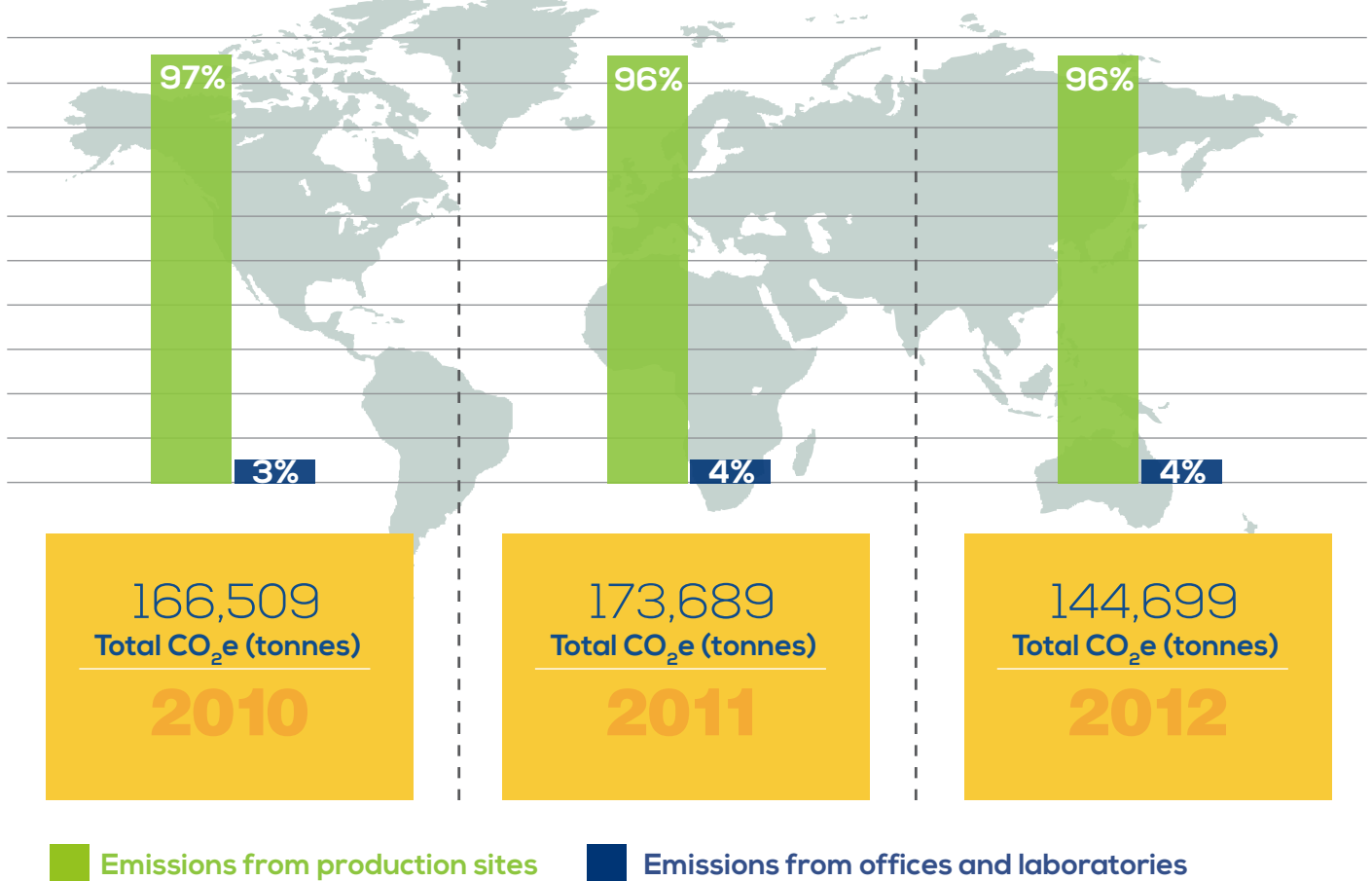


Our production units continue to account for the largest share of emissions. They make up 96% of the total emissions, with offices and laboratories accounting for the remaining 4%. Our major dye production plants at Ludwigshafen and Nanjing have demonstrated reductions in their emission intensity by more than 50% as compared to 2010. The production plant at Gabus has also reduced its emission intensity. This is partially because of shifting of production from closed plants to these plants, which led to higher economies of scale. In addition, the overall product mix for 2012 was less energy intensive as compared to 2010 and 2011. Our office in Portugal set-up an automatic control for air conditioning, which reduced annual electricity consumption by 42,000 kWh. Similarly, it also implemented an automatic control system for office illumination. This system is expected to further save about 2,600 kWh of electricity per annum.

Table 8: Emissions from Production and Non-Production Activities

EMISSIONS PRODUCTION AND NON-PRODUCTION ACTIVITIES	SITE TYPE	EMISSIONS (TONNES CO <sub>2</sub> e)			
		% 2010	% 2011	Total 2012	% 2012
	Emissions from Production Sites	97%	96%	138,789	96%
	Emissions from Offices and Laboratories	3%	4%	5,909	4%
	Total			144,699	

Figure 8: Emissions from Production and Non-Production Activities





By changing from single batch processing to back to back processing and by the use of a high pressure cleaners we were able to reduce water consumption and effluent amount per ton produced significantly.



**Frank Stohr**  
Production Head South Africa

**Water**

Water scarcity is emerging as one of the biggest environmental threats around the world. With climate change, the overall availability of fresh and underground water is expected to reduce further. Saving water is therefore a high strategic priority for DyStar.

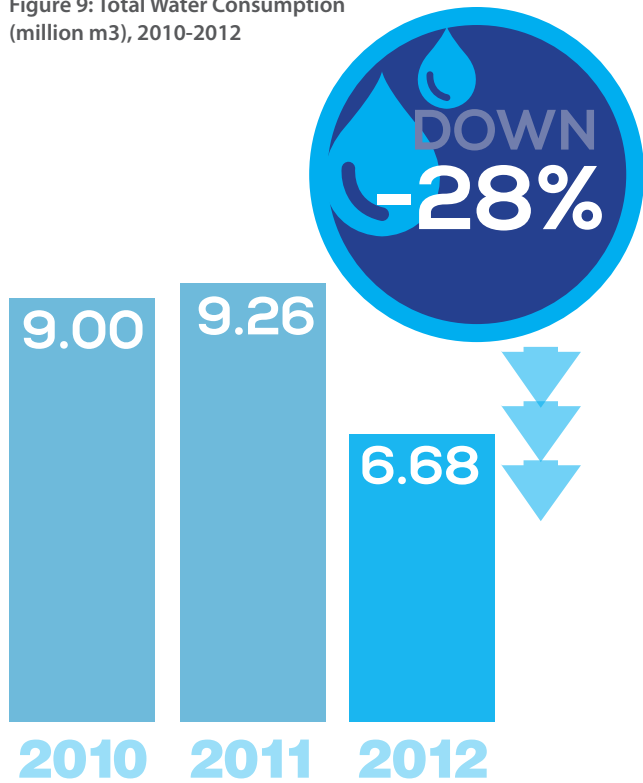
Water is a key input for production and processing of textile and leather goods. Dyes and chemicals consume water in their production process as well as in their use by the textile manufacturers. Hence, it is our responsibility to account for water consumption while evaluating the environmental impact of DyStar's operations.

We have integrated practices that promote efficient use of water in our production units and offices. Our aim is to reduce and, wherever possible, recycle water in order to minimise our footprint. We also promote the optimised usage of water through research and development of processes and products.

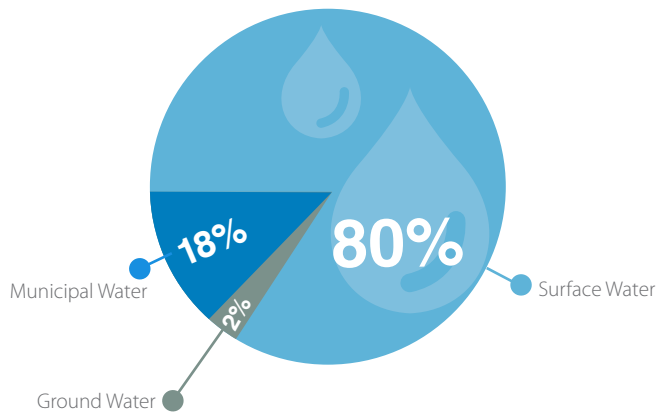
In dyestuff production process, water is directly added to product for dissolution, dilution of concentrate materials, washing of product at various stages of production, washing of vessels, cooling systems, and for directly controlling the temperature to enable safe reactions. The amount of water used in various processes could vary with changes in the product mix.

Our overall water consumption has decreased by 28% between 2011 and 2012, primarily due the closure of our Cilegon and Leverkusen plants. Our water use per tonne of product manufactured has declined by 39% in the same time period.

**Figure 9: Total Water Consumption (million m3), 2010-2012**



**Figure 10: Water Sources, 2012**



**Table 9: Water Consumption at DyStar**

Consumption from Water Sources (m3)	2010	2011	2012
Ground water consumption	180,144	194,660	115,599
Municipal water consumption	3,152,523	3,244,336	1,214,418
Surface water consumption	5,584,470	5,821,265	5,353,361
<b>Total Water Consumption</b>	<b>9,007,209</b>	<b>9,269,530</b>	<b>6,683,378</b>
Water consumption per tonne of production	93	95	58



## Water Conservation & Recycling

Concern for water conservation arises primarily at our production units since water is a critical input for dyes and chemical manufacturing processes. We have upgraded certain technologies to reduce the water footprint of our operations. At Naucalpan, Mexico, we have installed water saving devices at our production line, WC-S. The site is expected to save 180,000 liters of water each year. At our South Africa plant, drums are used in back-to-back production to reduce demand for vessel cleaning. We have also started using high pressure cleaners for vessels instead of cleaning them with boiling water to further conserve water.

### Use of recycled water

The ability to recycle our process and waste water plays a key role in helping us reduce our water consumption. At some of the sites, we recover the condensate from our steam traps, which is then reused as process water. A few of our sites are able to recycle water and use it again within the unit, though not directly for our production process. Most of the recycled water is used to wash equipment, vessels, and clean floors. It is also utilized for cooling purposes and in cooling systems. At our plant in Reidsville, USA, we have installed a dissolved air flotation device that removes oil and grease from our wastewater. This has allowed us to reuse 20% of our wastewater within the plant.

Our site in Brazil reported a 10% increase in water consumption owing to the lack of engagement of the employees. To rectify this, the production unit plans to implement a program for water conservation and recycling in the following financial year.

Figure 11: Quantity of water recycled (m3), 2010-2012



### Towards Efficiency at DyStar Boehme, South Africa

DyStar's production site in South Africa undertook several initiatives during the year to improve their resource use efficiency.

1. An energy efficiency audit was carried out to identify areas of improved energy utilisation in its operations.
2. An Odour Management and Reduction Plan was initiated in the reporting year. We relocated the Drum Washing recycling service off site, which resulted in reduction of odours. This step also reduced total air emissions. Further, a significant decline in the amount of waste water and Chemical Oxygen demand was recorded.
3. This production unit has also adopted a waste strategy to reduce, reuse and recycle items such as paper, all types of plastic, IBCs, and metals. The unit recruited an organisation to segregate waste-streams at their source. This is a time saving and value adding initiative, which also has benefits such as reduction of landfill and complete tracking of all waste generated on site. We plan to continue this plan in the following reporting year with increased focus on air emission reduction strategies.

We also organise an Open Day to engage with our stakeholders to help them understand the influence of our business on them. Our employees undergo regular training on the reduction of emissions and we adhere to emission limits and ensure periodic fence line and point source measurements.



For 2012, Reidsville became more efficient production facility through stepwise analysis of processes and procedures. The goal in 2013 is to build on this improvement and look to reducing waste streams.



**Marc Bumberger**  
Production Head - Reidsville USA

## Impact during transportation and handling

Customers, distributors and freight companies are advised by DyStar with respect to safe handling, storage, transportation, use and disposal of the products.

Information on how to handle, store, transport, use and dispose of our products safely is available on our product Safety Data Sheets (SDS). We have instituted ERP systems to automatically inform our customers, distributors and freight forwarders the necessary information to safely handle our products.

We are currently working on changing the information on the Shipping Notes/Delivery Notes to reflect the new GHS regulations.

As a result of our product handling processes most of our manufacturing units' maintained spill-free production throughout the reporting period. Despite our strong emphasis on handling our materials and products in the safest possible manner, in 2012 there were fifteen spills in our production plants located in Africa, Indonesia, Turkey, and USA. All spills were handled as per our spills management procedures and have not significantly harmed the environment. These incidents were caused by human error and efforts are underway to ensure that our employees and contractors are adequately trained in material handling procedures, and are able to deal with spills in a safe manner. We also continuously review our processes to ensure that they are not leading to situations that may result in spills or accidents.

**Table 10: Spills, 2012**

Location of Spill	Product(s) spilled	Total volume of spill (annual number)
Indonesia – Gabus	Product – Chemical spills on water & soil surface	10.3 m <sup>3</sup> (6 spills)
	Wastewater – Waste spill on water & soil surface	
South Africa - Pietermaritzburg	Tannit LSW - Chemical spill on soil surface	2.8m <sup>3</sup> (6 spills)
	Diesel – Fuel spill on soil surface	
	Cutapol – Chemical spill on soil surface	
USA – Reidsville	BIP – Chemical spill on soil surface	25m <sup>3</sup> (2 spills)
	Acetone – Chemical spill on soil surface	
<b>Total</b>		<b>38.1m<sup>3</sup> (14 spills)</b>

## Impact during disposal

### Waste

Our processes produce both hazardous and non-hazardous wastes, and we make continuous attempts to reduce the amount of waste generated. For example, our production site in Omuta, Japan, has attempted to change flocculent to reduce fluid in the drainage sludge. The filter cloth was also overhauled to reduce fluid waste. Our offices, labs, and production units are implementing recycling programs to recycle waste such as paper, cardboards, plastic bottles, glass, and aluminium. The Reidsville production site, USA, has successfully reduced its waste sent to landfill by 25% in the reporting period. Employees are also encouraged to use less paper for printing and to reuse discarded prints for rough work. Turkey office has implemented centralized printing to save paper.

Largely, our manufacturing units determine the disposal method for waste as per the regulations of the local governments, or the guidelines stated by the pollution control boards. The amount of waste generated is monitored regularly at the unit level, sometimes with the support of external consultants.

For hazardous waste, the units either ensure its disposal in the least harmful manner in a landfill, or they send it to a licensed contractor who is authorized to handle industrial wastes. Similar methods are followed to dispose non-hazardous waste from production sites, office and laboratories. Some sites, such as those in Mexico and Pakistan, separate organic, inorganic, and recyclable wastes, which is further channeled accordingly. The municipal authorities and their waste management services also help us in the disposal of non-hazardous waste.

The waste generated in the manufacturing process is substantially greater than the volume produced in the offices and labs. The external discharge of waste is limited mostly to the city of production or neighboring cities. None of the waste is transported outside the physical boundaries of the country where the unit is located. Some production units, namely the ones located in Africa, Japan, Indonesia, Turkey, and USA, send their waste to more than one sites, each located in a different city.

Our overall waste reduced by 12.5% between 2011 and 2012.



**Table 11: Waste Generated, 2012**

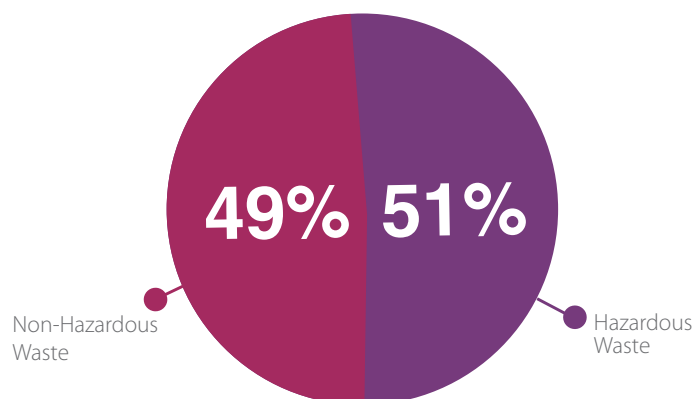
Waste	2010	2011	2012
Hazardous Waste (MT)	4,805	5,783	4,099
Non-Hazardous Waste (MT)	3,534	3,378	3,911
Total Waste	8,339	9,161	8,010
Hazardous waste per t of production	0.050	0.059	0.035
Non-Hazardous waste per t of production	0.036	0.035	0.033
Overall waste per t of production	0.086	0.094	0.069

### Save, Recycle, Reuse

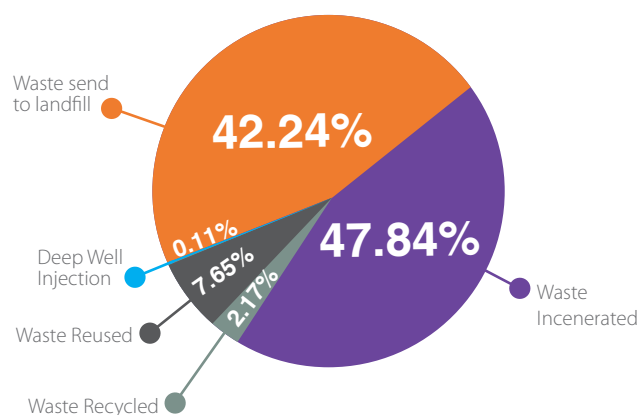
DyStar China Ltd. received a certificate for CO2 reduction in paper recycling. We collected 3,075 kgs of waste paper from files and handed it to recycling company.

Our production plant in Portugal (Mem Martins) has taken up the task of reducing its solid waste. For this, it plans to recycle plastic used in Hobbocks and other containers. It has set a target of recycling 15 tonnes of plastic per year, starting from 2013. Among other efforts for environmental protection, this unit is implementing a water reduction project. The project will setup a cooling water closed circuit, which is estimated to reduce water consumption by 220 cubic meters each year.

**Figure 12: Breakup of waste, 2012**



**Figure 13: Waste Disposal Methods**



### Wastewater

Water is a critical resource for many industrial operations. Some of the water is consumed in the production process, while the rest is discharged. During wet processing of textiles, and in production and use of dyes and chemicals, excess colours and chemicals are discharged in wastewater. If such polluted water is released in the environment without being treated, it can pose a threat to flora and fauna. Legal regulations restrict the discharge of such polluted water, especially in the Asian countries, which have seen a surge in the activities of both the textile and chemical industries in the last few decades.

All DyStar's production units are connected to wastewater discharge treatment facilities. We aim for the lowest feasible discharge of chemicals and other impurities from our plants. We have also set up systems for the reuse of water in some of our production units. Such recycling helps to reduce our dependence on fresh water obtained from surface and ground water sources, and municipal supplies. Additionally, it also reduces the cost of our production. None of our wastewater is reused by another organization. The Ankleshwar manufacturing unit in India is our first zero discharge plant. At other units, we regularly measure the amount of discharge through meters after treatment. A variety of techniques are used to treat waste water, based on the conditions and suitability of technology, before releasing it into a water body. We use neutralization, coagulation and sedimentation technique, Anaerobic Pond Sequence Batch Reactor, vacuum evaporator, two stage reverse osmosis, and other chemical and biological processes for treatment. We have also implemented certain changes in the production process, which have resulted in reduction of the volume of

wastewater generation. The Thailand production unit has re-arranged production planning and reduced the volume of water used to wash machinery and equipment. Similarly, the USA manufacturing plant has installed a Dissolved Air Flotation device to remove oil and grease from wastewater. Currently, this unit is recycling 20% of its wastewater and aims to increase it to 50%. Our sites in Africa, China (Hangzhou and Nanjing), and Portugal do not have waste water treatment facilities onsite and, hence, they discharge it to an external water treatment facility.

Production Facility	Destination of wastewater	Treatment Method
South Africa - Pietermaritzburg	Darvill Waste Water Treatment Facility	Settling tanks to allow sludge to settle and treatment for stable pH between 6.5 – 7.5
USA – Reidsville	City of Reidsville water treatment facility	Wastewater goes through a coagulant tank, is pH adjusted in a flocculent tank, and then passed through a dissolved air flotation unit before discharge

**Table 13: Wastewater discharged, 2010-2012**

Wastewater	2010	2011	2012
Total wastewater discharged (m3)	1,749,333	1,792,395	1,552,400
Wastewater intensity per t of production (m3)	18.05	18.40	13.48

**Figure 14: Total Wastewater (m3)**



# Helping our Customers Reduce Their Environmental Impact



## A Word from our Head of DTS & Sales Areas America

"The DyStar Textile Service" team continues to focus on providing Brands, Retailers and their Industry Partners services that improve their ability to deliver more sustainable products and processes. In 2012, we significantly increased our Sustainable Textile Service (STS) team. We now have over 30 auditors positioned in Asia and Europe to provide chemical and environmental compliance audits for Brands & Retailers."

The role of DTS is crucial in helping our customers save time, money and the environment. Our three-level check ensures that our supply chain is able lower its environmental impact.

We work with textile manufactures to ensure that they use the correct colours, which match the designer's inspiration. Too often, we have seen an improper communication of the color by the designer to the vendor or the textile mill, resulting in wasted of money and time. These errors cause delays in delivery at multiple levels across the supply chain. They also have a negative environmental impact due to product and energy wastage.

DyStar, through DTS is extremely particular about providing only the correct colours to its clients so the whole supply chain can meet the demands in time and lower its environmental footprint.

This cumulative improvement in color selection, reduction in wastage, delays and environmental performance has helped our customers enhance their brands' reputation, ensuring that their customers continue to trust them for their textile sourcing needs.

We will continue to work with our customers and partners to ensure that they are able to maintain high standards of quality and delivery while maintaining globally acceptable environmental standards.

**Ron Pedemonte**



**Dr. Clemens Grund**  
Vice President, Technology

"Sustainability is one of the most important drivers for DyStar not just in Product Safety & Ecology but also in new product Research & Development. So, for example in 2012 we launched a new trichromie of disperse dyes with very high wash- and contact-fastness properties and which feature newly-developed AOX-free chromophores." Based on our econfidence® program, our customers can rest assured that they are buying quality products with the highest standards of ecological and toxicological information and guidance on their suitability for various Restricted Substance Lists and eco label requirements.

Our products are constituted from a wide variety of industrial chemicals, some of which are harmful to human health if exposure is not controlled. DyStar takes great care to ensure that the products it sells are safe for human health and environment.

For example, vat dyes form an important component of our product range. Many tested vat dyes in the market contain elevated levels of heavy metal and other hazardous impurities. Often marked differences occur between different lots from the same supplier, and even between samples and the corresponding bulk supply. Therefore, permanent attention to quality control is necessary to maintain acceptable limits of these heavy metals and other potentially hazardous chemicals. We assess all of our products for health & safety impacts at each stage of the product lifecycle.

**Table 14: Health & Safety impact assessment across product lifecycles**

Product Lifecycle	Assessed for health & safety impacts?
Development of product concept	Yes
R&D	Yes
Registration	Yes
Manufacturing and Production	Yes
Marketing & promotion	No
Storage, distribution and supply	Yes
Use and service	Yes
Disposal, reuse, or recycling	Yes

### Ensuring Product Safety - REACH®

Product stewardship is one of DyStar's core strengths. We work continuously to reduce the health & safety impacts of our products. Our R&D is driven by the need to provide healthier, safer and ecologically friendly products for the apparel industry.

#### REACH® Update –

##### DyStar focuses on registrations in the second tonnage band

REACH® (the Registration, Evaluation, Authorization and Restriction of Chemicals) is the European Community Regulation on chemicals and their safe use to protect the environment and health, which came into effect June 1, 2007. REACH® continues to be the most demanding international chemical legislation. REACH® implementation and compliance has been a key priority at DyStar even before the legislation came into force.

The REACH® Regulation places greater responsibility on the industry to manage the risks from chemicals and to provide safety information on products. The regulation requires manufacturers and importers to gather information on the properties of their chemical substances, to facilitate their safe handling, and to register the information in a central database administered by the European Chemicals Agency (ECHA) in Helsinki, Finland

In October 2008, the European Chemical Agency published for the first time a Candidate List of Substances of Very High Concern for Consultation under REACH®. Since then, the list has been updated and amended several times and it currently includes 138 chemicals or chemical groups (as of December 2012). We are in a position to declare that DyStar products do not intentionally contain any of the 138 substance groups that have been proposed in the ECHA Candidate List of Substances.

In 2012, we also successfully complied with Phase II of the regulation and submitted 30 registration dossiers, most of them as Lead Registrant. Besides our competence in textile dyes, these dossiers make use of our huge archive of toxicological and eco-toxicological testing reports that we have collected over many years. These registrations already cover most of the high volume textile dyes that DyStar supplies to the European market. As the deadline for the chemicals above 100 tonnes ends by May 31st, the priorities for the first months of 2014 will be to complete the registrations for the dyes above 100 tonnes as well as the most important formulating agents. But since the market for textile dyes is dominated by specialities, the number of chemicals that require registration will increase significantly in the coming years up to the 2018 deadline.

We intend to register all individual substances contained in our products within the respective deadlines. DyStar has already successfully completed many registrations of new chemical substances according to chemical regulations worldwide.

### ZHDC (Zero Discharge of Hazardous Chemicals)

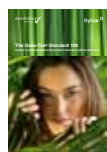
In response to the Greenpeace Detox campaign, a group of major apparel and footwear brands and retailers made a shared commitment to help lead the industry towards Zero Discharge of Hazardous Chemicals (ZDHC) by 2020.

We have created a positive list of products in keeping with "Zero Discharge



Fanny Vermandel  
Marketing Director, DyStar Coloration Business

We never compromise on eco-compliance, even when working on cost reduction projects. Our product portfolios contain top-end chemicals which comply with today's legal requirements and Brand & Retailer RSLs. Our target is that all newly launched products are best in class.



of Hazardous Chemicals” commitment and which indicates those DyStar products that do not include any of the 11 chemical groups restricted by the ZHDC group. The vast majority of our products do not contain any of these chemicals as intentional ingredients. DyStar has always been committed to the highest standards of product safety and through its econfidence® program is actively supporting the objectives of the ZHDC Group.

### APEO (Alkylphenol Ethoxylates)

The most important APEOs or alkyl phenol ethoxylates for the textile industry are NPEOs (Nonylphenol ethoxylates) and OPEOs (Octylphenol ethoxylates) due to their detergent properties. APEOs are usually present in detergents, cleaning agents as well as other chemicals used for textile or leather production.

DyStar had already stopped the use of APEO in the manufacture of all global dyestuff and pigment preparations before the 2001 European Union agreement on a program for the cessation or phasing-out of AP and APEO, and the 2003 EU directive 2003/53/EC introducing marketing restrictions on AP and APEO.

In 2011 the Greenpeace “Dirty Laundry” report brought these chemicals under renewed scrutiny and it is expected that the use of APEOs in the global textile supply chain will be eliminated as far as possible.

### bluesign®

The bluesign® standard is based on five principles of sustainability. These are: resource productivity, consumer safety, air emission, water emission and occupational health & safety.

Instead of testing a manufacturer’s finished product, the applied components and processes are pre-screened. This so-called Input Stream Management system ensures that the use of problematic substances is avoided from the start resulting in an entirely safe finished product.

The bluesign® standard defines specific criteria applied to each phase within the production chain to ensure compliance with the five principles of sustainability. These criteria are based on the concept of “Best Available Technology” (BAT). Fundamentally, they require a high level of safety both for human beings and the environment as well as a sustainable production process.

DyStar joined the bluesign® platform as a system partner in 2008 and now has more than 900 textile dyes and pigment preparations and more than 200 textile auxiliaries listed in the bluefinder database so that manufacturers have the widest possible choice of quality products to choose from when they are seeking to produce bluesign® approved fabric.

### Oeko Tex® Standard 100

The Oeko-Tex® Standard 100 is a testing and certification system for textile products operated by a global network of franchised laboratories. The tests cover substances, which are prohibited or regulated by law, chemicals that are known to be harmful to health and parameters, which are included as a precautionary measure to safeguard health.

A tested textile product is allocated to one of the four Oeko-Tex® Standard 100 product classes based on its intended use. DyStar recently updated its brochure giving product recommendations for articles required to comply with Oeko-Tex® Standard 100 (Version 4/2013).

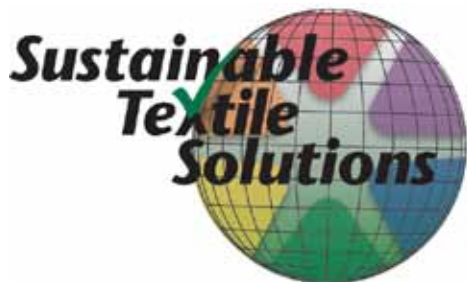
### We are GOTS approved!

In recent years leading retailers and brands have launched organic cotton lines in their clothing ranges. DyStar offers a wide range of colorants and auxiliaries approved for use on organic textiles. We have received certification by the Institute for Marketecology (IMO), an organization approved by the Global Organic Textile Standard (GOTS). Fulfilling our commitment to the production of environmentally-advanced dyestuff production and application processes, DyStar was one of the first companies to have its products approved to the GOTS standard and now has an extensive range of products approved to Version 3.0 of the standard

Our experts in cotton processing have defined how to use GOTS-approved products to achieve sustainable and optimized results in organic cotton processing using best available technology in pre-treatment, dyeing and finishing.

### Sustainable Innovation

Research and Development (R&D) is one of the key competitive strengths of DyStar. We have an active R&D Department that is responsible for inventing new textile dyestuff, auxiliaries and processes for synthesis and application. We have a rich heritage of about 150 years of R&D including intellectual property inheritance from our antecedent companies. Our R&D



Management of chemicals in the supply chain has never been more important for textile and clothing retailers and brands. Through our econfidence® commitment on products and our STS services offer DyStar is recognised as a trusted partner for the industry



**Dr. John Easton**  
Global Ecology Services Manager

efforts have resulted in more than 1,700 patents and patent applications worldwide.

Through focused and strategic collaborations with customers, industry partners, institutes and universities, we continue to anticipate and successfully meet our customers' needs. Our high performance textile dyes and auxiliaries have improved ecological and toxicological profiles, and are of a consistently high quality that enables optimized coloration and superior technical, environmental and economic performance. A key innovation goal for DyStar's R&D division is to help customers achieve new standards of product and process excellence, including shorter or more economical dyeing procedures, reduced water and energy consumption, and reduced pollution due to waste water and air emissions.

We have globalized our R&D activity to gain greater market proximity and insight, and to be closer to our customers in Asia-Pacific.

In 2012, our R&D efforts have focused on improving the ecological performance of disperse dyes. We launched a trichromatic system (amber, rubine, navy) of disperse dyes with very high wash and contact fastness properties. These dyes do not contain any halogens in the chemical structures and can thus be classed as AOX-free. A new AOX-free disperse black for the large medium-energy segment is under development. We have also developed metal-free dyes for wool and polyamides.

Because of the environmental impact of the water consumption of dyeing processes, "waterless dyeing" has gained importance in the last few years, with dyeing from supercritical CO<sub>2</sub> receiving particular attention. Special dyestuffs and auxiliaries to be used for this technology are being developed.

To improve the re-usability of recycled polyester, the decolorization of dyed polyester should be as efficient as possible. DyStar has participated in an international multi-disciplinary project to investigate in detail the decolorization processes of polyester.

### **Sustainable Textile Solutions**

Our Sustainable Textile Solutions (STS) programs help brands and retailers monitor and improve the capability of their supply chains in order to achieve compliance with environmental, health and safety standards.

### **Restricted Substances Lists (RSL) Compliance Assessment**

STS assists Brands & Retailers communication and implementation of RSLs with Industry Partners.

The STS team's expertise lies in providing consultation and guidance on suitability of dyes and chemicals as well as offering advice on test methods and procedures in order to help Brands, Retailers and Industry Partners effectively monitor chemicals along the apparel supply chain.

### **ZDHC Benchmarking & Improvement**

STS provides integrated advice on ZDHC compliance including advice on third party testing results to further improve compliance.

The 11 priority chemicals as identified by ZDHC are the pillars of this program. The STS team assesses the supplier, its full chemical inventory and provides advice to third party testing labs on most appropriate time and place to sample water analysis. STS provides in addition an interpretation of test results and recommendations for improvement.

### **Textile Mill Efficiency**

STS works directly with mills to raise productivity and efficiency levels in textile processing. STS's mill efficiency program's objective is to support textile mills, dye-houses, printers and laundries in conservation of natural resources like water and energy as well as savings in chemicals used by improving right first-time production levels. This STS program assesses the current textile processing practices and offers suggestions to improve productivity and machine utilization.

### **Chemical Inventory Management**

STS understands global chemical legislation and the requirements of the textile and apparel industry.

The STS chemical inventory management program tool is designed to identify opportunities for improvement of compliance, and supply chain chemical management. This is further achieved by building capacity through trainings and awareness sessions in the supplier countries specifically related to dyes and auxiliaries and their chemistry.

For more information on Sustainable Textile Solutions please visit [www.SusTexSolutions.com](http://www.SusTexSolutions.com)



### Reducing Product Wastage for our Customers

Textile manufacturers have to meet very stringent colour specifications prescribed by their customers (Brands & Retailers). It is very important for them to have a reliable way to identify dye combinations that meet their requirements. Very often this process can involve several rounds of trial and error that results in product wastage.

DyStar is committed to helping our customers getting their colour specifications right first time thereby saving time, resources and money

### Color Solutions International (CSI)

CSI, a subsidiary of DyStar, supports brands and retailers by providing color tools, building color palettes, engineering colors and standards, and distribution to brands, retailers or industry partners. Its expert staff provides the customers with a fast, efficient and accurate process to respond quickly and effectively to changing demands of the customers. Their products and services facilitate a sustainable design process. One of the ways it does this is by providing a virtual design environment. By using this technology, Brands, Retailers & their Industry partners have reduced the lab-dipping and bulk approval steps of color communication by more than 50%. This translates into a 50% reduction of lab-dip sample shipments via express couriers. The sustainable benefit to this technology is lower CO<sub>2</sub> emissions by reducing air-freight sample shipments.





## Labeling our Products and Services

### Creating a better informed customer

DyStar offers a wide range of products. Our dyes and chemicals are manufactured to be used for a wide variety of substrates including cellulose, acrylics, polyamides, wool and silk, polyester, fur and leather. Given our global supply chain and customers, it becomes imperative that our labeling standards are consistent with international regulations, such as GHS, as well as recognized standards such as GOTS.

### DyStar & GHS

DyStar's Code of Conduct states:

"DyStar is a chemical industry enterprise and is committed to the principles of sustainability and to follow the principles of Responsible Care®. When using DyStar products, customers know that they are being offered environmentally sustainable solutions. Although some of the raw material and intermediates we handle are hazardous materials we strive to ensure that our products are made, handled, transported and disposed safely and in full compliance with the national law. Accordingly, DyStar is committed to the corporate principles and goals of maximum possible safety and environmental protection. This embraces the thoughtful development of new products and processes, safe handling of products, safe operation of plants, a responsible attitude towards the environment and responsible use of resources.

Our products are continuously evaluated for potential hazards, and preventive measures are taken to limit or avoid risk. DyStar is committed to informing customers, sales partners and distributors about the safe handling, storage, transport, use, and disposal of DyStar products. The evaluation of hazards to health and the environment begins during the product planning and development stages and continues through commercialization".

In this context, DyStar welcomes the UN activities on development and revision of the "Globally Harmonized System of Classification, Labelling and Packaging of Chemicals (GHS)" and its national implementations. This system is designed to harmonize hazard communication elements i.e. replace different classification and labelling systems in different countries by one global system. GHS sets rules for classification and labelling of chemicals so that hazardous chemicals will be labelled according to the uniform rules using the same pictograms, hazard and precautionary phrases world-wide. Safety Data Sheets are also harmonized in this respect.

Since its first publication in 2003, the UN-GHS has been revised every two years and latest revision GHS V. 5 was published in 2013. The GHS has been introduced to many countries/regions such as Europe, USA, China, Japan and Korea via their own legislation or standards.

DyStar Hazard Labels as well as Safety Data Sheets – both for substances and mixtures - are reviewed and updated in compliance with the national regulations or standards respecting individual transitional periods for implementation to ensure that information on physical hazards and toxicity from chemicals is available in order to enhance the protection of human health and the environment during the handling, transport and use of chemicals, and to facilitate global trade activities.

All our labels display the following information:

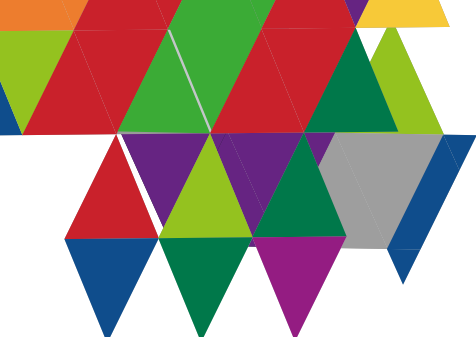
**Table 15: Information on our labels**

Information	Present on DyStar product labels?
The sourcing of components of the product	No
Content, particularly with regard to substances that might produce an environmental or social impact	Yes
Safe use of product	Yes
Disposal of the product and environmental/social impacts	Yes

**Figure 16: Our GHS Compliant Label**







In countries like Pakistan, importance of Ecology and Sustainability in Textile Supply Chain is being newly recognized. Textile Industry is facing fresh challenges every day related to compliance and Manufacturers are looking upto dystar for environmental solutions. Our econfidence® products , certification and expertise are highly valued in the market. We have successfully established DyStar as the company who cares for the future.



**Mumtaz Faisal**  
Managing Director, Pakistan

**Figure 17: DyStar's DG labels**



**Figure 18: OSHA label**



As a result of our labeling procedures, there have been no incidents of non-compliance with national/international labeling regulations.

**Table 16: Incidents of non-compliance with labeling regulations**

Category	Number
Incidents of non-compliance with regulations resulting in a fine or penalty	0
Incidents of non-compliance with regulations resulting in a warning	0
Incidents of non-compliance with voluntary codes	0

**Our econfidence® labels program**  
Our econfidence® labels are well-structured programs for customers to show-case their commitment towards sustainable textile production. These hangtags allow our clients to promote their eco-products to their customers. These hangtags are provided to customers, if the textile uses DyStar products that are tested for meeting ecological parameters at our Texanlab facilities. It certifies that the products do not contain any harmful substances above defined limits.  
  
We also provide our customers with “econfidence® organic” hang-tags if their textiles use with GOTS-approved dyestuffs supplied by DyStar.





# Economic Performance of DyStar

DyStar has gone through significant changes in its ownership structure in the last few years. The company established its headquarters in Singapore following its joint acquisition by India-based Kiri Dyes and Chemicals Limited and China-based Longsheng Group in 2010.

The new ownership structure has brought a renewed focus to expand the reach of our products to new markets as well as improve our financial performance. The company has also had to contend with an overall downturn in the global economy and fluctuations in the currency market that have impacted our revenues and profitability. However, we have retained our focus on ensuring that our sustainability programs continue unabated. We have also retained our focus on R&D and innovation.

## Creating local value, globally

The value that a company creates for the economies where it operates can be determined by the direct economic spend by the company or economic value distributed. In 2012, DyStar distributed more value to the economies where it operates, including employee wages and benefits, payments to providers of capital and payments to government. This allowed us to continue the process of consolidation that was required after the joint acquisition; by helping us retain the right talent and ensuring that we do not lose focus on our high quality standards.

The year also saw our production volumes grow by 18% to 115,111 tons, despite the closure of two of our largest plants in Cilegon and Leverkusen. This could be achieved because of our continued focus on improving production efficiency. It is also a reflection of the quality of our relationships with our suppliers that has allowed us to meet our higher production targets, positively influencing our revenue/sales targets. Our suppliers are selected based on the requirements of individual units. This decentralized process allows site management to select the best possible suppliers based on cost of raw material, quality of goods and time taken to deliver them. Additionally, we also give importance to environmental friendliness of the supplier, past performance, and payment terms.

Where possible, we emphasize on purchasing locally<sup>3</sup> produced goods and supplies, provided they meet our strict quality requirements. This allows us to reduce transportation costs, meet delivery targets, and positively impact local economies. More than half of our sites obtain approximately 50% of their supplies from local sources. Such supplies include dyes and chemicals, fuels, packaging material, spare parts, and office equipment.

**Table 17: DyStar's Economic Performance, 2012**

Direct Economic Value Generated (USD)	
<b>Revenues</b>	<b>764,138,154</b>
Asia	337,278,244
Europe	228,265,669
Americas	198,594,241
Economic Value Distributed (USD)	
<b>Operating Costs</b>	<b>634,772,023</b>
Asia	335,195,564
Europe	188,549,259
Americas	110,307,200
<b>Employee Wages and Benefits</b>	<b>109,278,331</b>
Asia	47,463,526
Europe	42,856,801
Americas	18,958,003
<b>Payments to Providers of Capital</b>	<b>23,329,111</b>
<b>Payments to Government</b>	<b>7,150,427</b>
<b>Economic Value Retained (USD)</b>	<b>(10,391,737)</b>

**Table 18: Local supplier spend, 2012**

	2011	2012
<b>Amount spent on local suppliers (USD)</b>	<b>282,266,532</b>	<b>263,173,985</b>
<b>Total material costs (USD)</b>	<b>502,218,771</b>	<b>526,028,854</b>
<b>Percent sources from local suppliers</b>	<b>56.2%</b>	<b>50%</b>

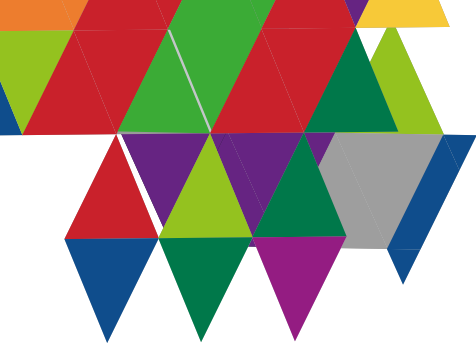
We also hire local services such as IT, transport, maintenance, calibration, cleaning, security, freight transport, utilities, insurance, and consultancy services.

## Investing in Reducing our Environmental Impact

DyStar's production units maintain high environmental standards in all manufacturing processes. Each unit ensures compliance with national and international environmental laws applicable to the unit. Consequently, none of our sites have faced any legal proceedings nor were imposed any fines for non-compliance in 2012. However, our production site in Reidsville, USA was sent three notices of violation in the reporting year for higher than permitted values of BOD. Action has been taken to ensure full compliance going forward.

Over the years we have closed/sold some of our largest production sites –

<sup>3</sup> We consider national boundaries to be 'local'.

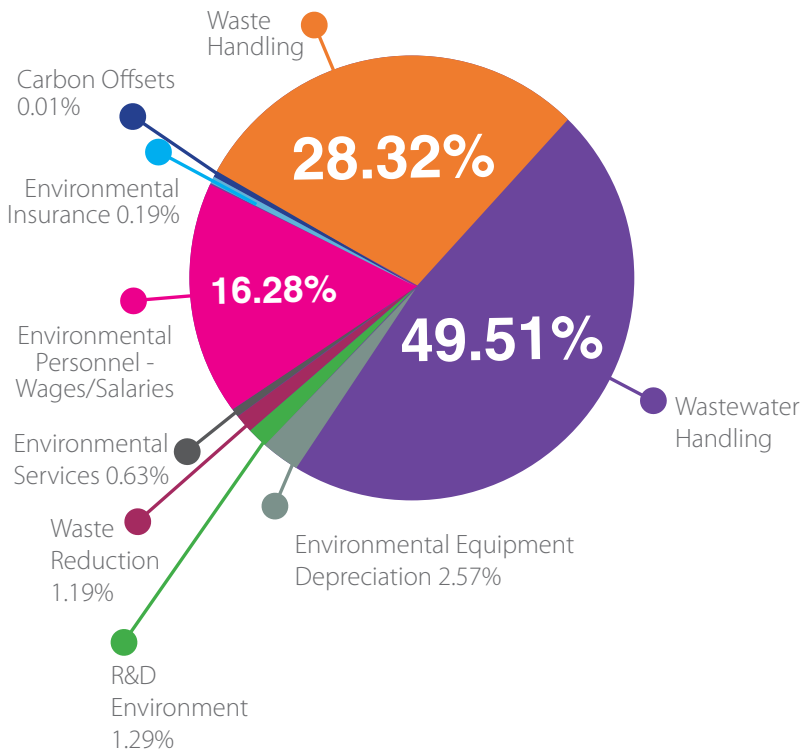


Brunsbettel, Leverkusen, and Cilegon, which has resulted in the company having to spend less on environmental expenditure; however, on average our per site spend has gone up by 10% compared to 2011 numbers.

**Table 19: DyStar's environmental expenditure, 2012**

	2010 (USD)	2011 (USD)	2012 (USD)
<b>Environmental Protection Expenditure</b>	7,990,000	7,453,116	7,148,359
a) Waste Disposal, Emissions Treatment & Remediation Costs	-	6,851,596	5,694,313
b) Prevention & Environmental Management Costs	-	1,368,984	1,454,045
<b>Environmental Protection Expenditure/Site</b>	470,000	465,820	510,597

**Figure 19: Environmental Spend 2012, by Category**



# Ensuring Workplace Safety & a Productive Work Environment

DyStar endeavours to provide a safe and productive workspace for all its 2,001 employees. Our goal is to become an 'employer of choice'. Key to meeting this aspiration is providing a workplace that engages our diverse workforce in a culturally responsible manner and provides them the avenues to enhance their professional careers. We put a lot of emphasis on keeping our workforce up-to-date with the latest technological trends through training programs and production-line enhancements.

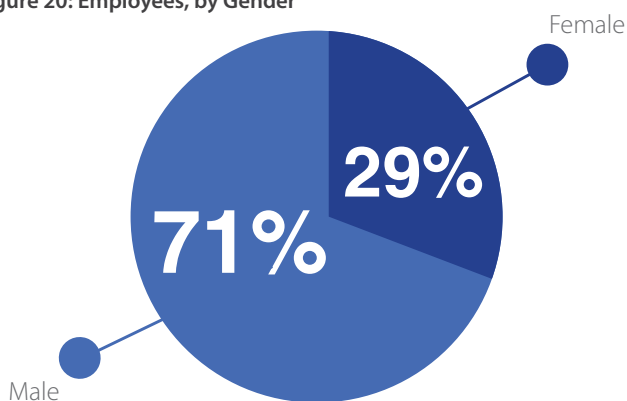
DyStar ensures freedom of association and right to collective bargaining to its employees. We respect the right of all personnel to form and join trade unions, and to bargain collectively. We also ensure that there is no discrimination against the representatives of trade unions and they have access to their members at the workplace. We do not have any child or forced labor at any of our sites; however we are yet to evaluate our suppliers for potential risks related to child or forced labor.

Details about our workforce is given in the tables below:

**Table 20: DyStar Employees, 2012**

Employee Type	Male	Female	Total
Senior Management	86	15	101
Middle Management	193	93	286
Admin/Support Staff	298	328	626
Technical Staff	230	109	339
Production Workers/Supervisors	636	12	648
<b>Total</b>	<b>1,444</b>	<b>557</b>	<b>2,000</b>

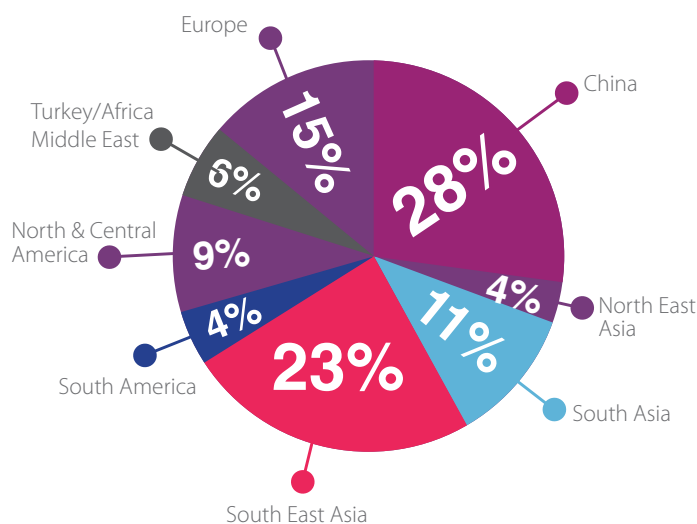
**Figure 20: Employees, by Gender**



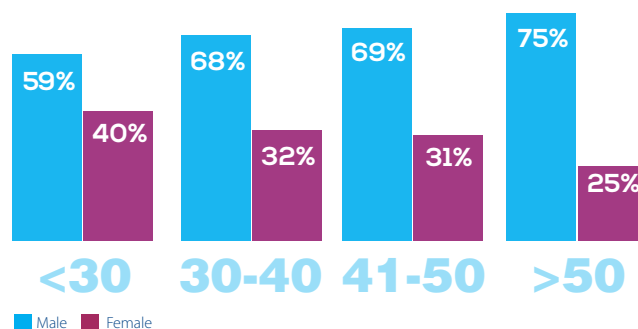
**Table 21: Employee Turnover, 2012**

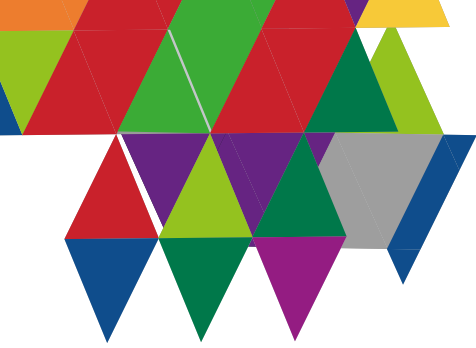
Age Group	Male	Female	Total
< 30 years	3	3	6
30-50 years	7	7	14
> 50 years	14	0	14
<b>Total</b>	<b>24</b>	<b>10</b>	<b>34</b>

**Figure 21: Employee Distribution, by Region**



**Figure 22: Employees, by age group**





**Table 22: Employee Training Hours, 2012**

Employee Type	Male	Female	Total
Senior Management	209	92	301
Middle Management	292	199	491
Admin/Support Staff	736	500	1236
Technical Staff	478	456	934
Production Workers/Supervisors	8,858	163	9021
<b>Total</b>	<b>10,571</b>	<b>1,410</b>	<b>11983</b>

### Occupational Health and Safety

Our employees work with dyes and chemicals, of which a few can be hazardous to employee health if adequate personal protection equipment or engineering safeguards are not provided. Some of the potential health and safety risks may emerge from handling of hazardous materials, hazards of pressure vessels, hazardous chemical reactions, flammable gases, vapours and dust hazards. Other potential hazards include heat stress, accidental escapes or spills of hazardous material, hazards due to corrosion, work in confined spaces, slips, trips and falls, exposure to harmful substances and disposal of waste. The employees may also suffer from common injuries such as chemical burns, skin irritation, respiratory irritation, back ache and other musculoskeletal injuries, and eye injury.

DyStar is dedicated to ensuring the wellbeing and safety of its workforce. It is our responsibility to protect them from direct and long-term health risks by identifying such hazards and providing information, training, and suitable protection.

DyStar has developed and implemented an occupational health and safety policy, with the assistance of our employees. This policy covers the following aspects:

1. Operating procedures
2. Occupational safety
3. Preventive health care
4. Safety technology
5. Hazardous substances
6. Production processes

This year, our on-site health and safety teams have undergone minor

changes in their organisational structure. We have separate Ecology, Health, Environment and Safety (EHES) departments at each of our sites. All EHES managers' report to the global EHES head who coordinates their activities.

In order to facilitate an open and transparent dialogue with on health and safety, we have established channels of communication with our employees around the world. Their concerns and suggestions on occupational health and safety are considered while defining actions, objectives and targets for the company. They are duly informed about any developments.

DyStar has developed and implemented a policy for plant safety and hazard prevention. These are a part of our "Guidelines for Responsible Care in Environmental Protection and Safety". We ensure that our plants are designed for safe operations. It is our policy to identify and assess the hazard potential, and risks associated with processes. Such risks must be kept to a minimum by selecting suitable processes. Safety, health and environmental protection are essential criteria to choose the subcontractors who have to work on our sites.

At the policy level, DyStar emphasises on systematic development of safety concepts. Some arenas for such systematic development are as follows:

- Plant safety must be subject of continual development.
- Technical standards in plants must be adapted in line with technological advances.
- Technical equipment must be inspected regularly and systematically.
- Effective measures must be planned to deal with incidents and limit their impact.
- Detailed hazard prevention plans must be drawn up for all plants. If necessary, these must be reconciled with the global specialist department and authorities.
- Employees must be trained to handle plant and equipment.
- The action to be taken in the event of emergencies and hazardous situations must be practiced.

### On-site Health & Safety

All sites, including office and laboratories, adhere to strict norms with respect to employee health and safety, and comply with the stipulated local and national health, safety regulations and labor laws of their local government ministries and regulatory authorities. Some examples are COIDA (Af-





rica), ISHL (Japan), and OSHA (USA). We also have detailed internal guidelines for the employees pertaining to environmental protection and safety.

To avoid any injuries at work, we provide necessary safety equipment to all the employees. We also impart regular training to both new and experienced employees, through safety camps, toolbox talks, and safety campaigns. We ensure that the employees adhere to our strict measures on PPE usage. New machines to be installed on-site and new products to be launched in the market undergo requisite safety assessment as per the legal norms. The measures that we introduce to improve occupational safety are based on thorough investigation of the previous incidents.

Our production unit in Omuta, Japan, conducts daily and monthly safety meetings, which has resulted in zero incidences of injuries. Our office in Pakistan conducts regular fire drills to prepare the employees well. We also periodically audit our facilities to ensure that they meet the safety requirements and make changes, if necessary. The employees also undergo periodical medical checkups, which is followed by special treatment for those suffering from any health issues.

### Our Health & Safety Performance

DyStar makes every endeavour to provide a safe and healthy working environment and prevent accidents and injuries. We believe that a safe workplace is the collective responsibility of DyStar management and its employees. We depend on our employees to observe all regulations and policies with respect to work-related health and safety. Their personal commitment is critical to make further improvements in safety.

In the year 2012, 9 injuries have been reported across our operations. This has risen from 8 injuries reported in our last sustainability report. 6 of these injuries happened in our production unit in USA, 2 in Nanjing, and 1 was reported in South Africa. The injuries reported in USA constituted minor back injuries and slight exposure to chemicals. As a remedial measure, the services of the operators found responsible for these incidents due to non-adherence to the safety procedures were discontinued. The remaining DyStar plants have been able to carry out their operations without any injury at the workplace for the last two years. This is significant progress towards safety of our employees at workplace.

In 2012, acid burns, chemical exposure, contusion, laceration, and back ache were some of the common injuries observed at the sites. A few cases

of hypertension were also reported.

Due to the nature of the injuries reported this year, a total of 266 work days were lost. This is significantly higher from figures reported in 2011, when only 34 work days were lost. None of the injuries reported in 2012 were fatal.

No cases of occupational disease were reported this year across any of our operational units.

The working hours reported in 2012 are equal to 1,930,988 hours.

**Table 23: DyStar Safety Record, 2012**

	2010	2011	2012
Total Lost Days – Injury	309	34	266
Lost Days Rate	15.92	2.42	27.55
Total Occupational Disease Incidents	3	0	0
Occupational Disease Rate	0.15	0	0
Total Workplace Injuries	18	8	9
Injury Rate	0.67	0.57	0.93
Fatalities	0	0	0





# Our Social Initiatives

## Social Accountability

In April 2010, DyStar formalised its Social Accountability Declaration. We define social responsibility in keeping with main points of SA 8000, which is the international standard on accountability. As per our commitment, we also follow the principles of Responsible Care® that imply:

- Safe production, handling, transport, application and disposal of our products.
- A responsible attitude to the environment and natural resources.
- Protecting our employees from accidents and health hazards.
- Treating employees, customers and suppliers fairly, respecting people and avoiding discrimination.

We have strict policies against child labour and forced labour. We do not support, tolerate, or engage in such practices. DyStar does not tolerate discrimination of any kind. We also do not tolerate behaviour that is sexually coercive or threatening.

DyStar has set out its commitment to the Social Accountability Declaration in the form of a directive in the company's Code of Conduct. We regularly review and check the adequacy and effectiveness of this directive, and strive to improve its contents. We analyse and respond to every infringement of this formal obligation. Expanding the scope of the directive beyond the company, we also ensure that our suppliers and sub-contractors act according to this Declaration, as long as we have the power to do so.

## Dealing with Complaints

DyStar works earnestly to minimize negative impact of its operations on the employees and the surrounding areas. However, during the reporting period, some of our plants received operations-related complaints, which were also publicized in the news media. These complaints were addressed fully and with the utmost priority.

In April 2012, a complaint was raised against the Pietermaritzburg plant (South Africa) claiming for unsafe carriage of wastewater away from the unit. The problem occurred due to a damaged pipeline that belonged to the municipal infrastructure – an area outside the jurisdiction of our company. DyStar effectively liaised with municipal authorities for the need to fix the infrastructure and resolved the issue.

We did not receive any complaint against any of our office and laboratory facilities through the reporting period.

## Engaging with Society

DyStar believes in creating a congenial environment for the communities around it. We engage with local communities to build a cohesive society through community development activities. Our offices and production units are engaged with local communities through charity and direct participation programs for activities such as HIV/AIDS prevention, care for disabled people, food and environmental drives, and educational tours. We are associated with the Red Cross Society, and other local and national charitable entities, which work at the grassroots and help us, reach out to the community.

Our organisation's major thrust is on development of textile chemicals and creating the technical knowledge for the textile industry. Seeing knowledge as the core functional area for DyStar, we have chosen the field of technical education as our primary focus area for community development.

One of our first initiatives is the establishment of the Advanced Academy for Development of Textile Technologists (AADTT) in India in collaboration with our partners in the industry. This initiative was taken to impart technical education to students for skills highly in demand by the textile industry. The Academy also benefits industry by developing a trained workforce.

**Advanced Academy for Development of Textile Technologists**  
This academy was established in 2010 in cooperation with the most diversified and vertically integrated textile manufacturer in India, Alok Industries. India faces a shortage of trained textile technologists who have the key skills required by the industry. This collaborative effort was initiated in India as a not-for-profit academy. It provides an excellent platform for identification, training, placement, and career development of textile professionals. It has helped impart knowledge to the students and raise standards of textile manufacturing in India. Presently, AADTT is established as a charitable trust.

As an advanced academy, AADTT is committed to providing quality training, impart practical knowledge, evolve innovative technology, encourage entrepreneurship and mould youngsters into highly qualified and trained professionals. We see AADTT as a catalyst to enhance the work culture and

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technical knowledge of next generation of workers in the Indian Textile Industry.

To recruit the students, the institute has signed memorandums of understanding (MOUs) with more than ten premium institutes across the country, such as the Society of Dyers and Colourists (SDC), American Association of Textile Chemist and Colorists (AATCC), and ASTM among others.

The year-long program provides candidates with training, accommodation, transport, and a stipend to support them through the training period. The curriculum combines theoretical understanding, and specific application expertise and practices, which are relevant and adapted to meet the needs of the modern textile industry. The students are able to learn directly from renowned and well-trained industrial experts. This institute provides the students with the opportunity to build a successful career in the textile industry.

AADTT is also a student chapter member of AATCC. It helps the students accomplish activities like industrial visit programs, technical seminars and presentations, social events, and group activities. It helps to enhance leadership qualities in every individual member of the chapter.

The academy organised its first convocation in 2011 with 10 students completing their course. In 2012, the graduation class increased to 15 students who have been successfully placed at the leading textile companies in India.





# Our Sustainability Performance in a Nutshell

GRI Indicator	Description	2010	2011	2012
<b>Economic</b>				
EC1	Economic Value Generated (USD)	–	–	764,138,154
	Economic Value Distributed (USD)	–	–	774,529,892
	Economic Value Retained (USD)	–	–	(10,391,737)
EC6	Total Material Costs (USD)	–	502,218,771	526,028,854
	Amount Spent on Local Suppliers (USD)	–	282,266,532	263,173,985
<b>Environment</b>				
EN1	Raw Materials (MT)	–	–	103,188
	Packaging Material (MT)	–	–	3,599
	Associate Materials (MT)	–	–	1,002
EN3	Direct Energy Consumed (Kwh)	–	145,286,560	84,511,631
	Direct Energy Consumed (GJ)	–	523,032	304,242
EN4	Indirect Energy Consumed (Kwh)	252,170,491	265,197,203	224,203,606
EN8	Total Water Consumed (m <sup>3</sup> )	9,007,209	9,269,530	6,683,378
EN10	Total Water Recycled (m <sup>3</sup> )	1,720,000	1,780,000	1,691,079
EN16	Total Direct GHG Emissions – Scope 1 (tCO <sub>2</sub> e)	30,548	31,019	21,084
	Total Indirect GHG Emissions – Scope 2 (tCO <sub>2</sub> e)	135,961	142,670	123,615
	Total GHG Intensity (tCO <sub>2</sub> e/ton of production)	1.718	1.783	1.257
EN21	Total Wastewater Discharged (m <sup>3</sup> )	1,749,333	1,792,395	1,552,400
	Wastewater intensity per t of production	18.05	18.40	13.48
EN22	Hazardous Waste (MT)	4,805	5,783	4,099
	Non-Hazardous Waste (MT)	3,534	3,378	3,911
	Total Waste	8,339	9,161	8,010
	Hazardous waste per t of production	0.050	0.059	0.035
	Non-Hazardous waste per t of production	0.036	0.035	0.033
	Overall waste per t of production	0.068	0.094	0.069
EN23	Total number and volume of spills	–	–	38.1m <sup>3</sup> (14 spills)
EN30	Environmental Protection Expenditure (USD)	7,990,000	7,453,116	7,148,359
	Environmental Protection Expenditure/Site (USD)	470,000	465,820	510,597
<b>Labor Practices &amp; Decent Work</b>				
LA1	Senior Management	–	–	Male: 86
		–	–	Female: 15
		–	–	Total: 101
	Middle Management	–	–	Male: 193
		–	–	Female: 93
		–	–	Total: 286
	Admin/Support Staff	–	–	Male: 298
		–	–	Female: 328
		–	–	Total: 626

GRI Indicator	Description	2010	2011	2012
<b>Labor Practices &amp; Decent Work</b>				
	Technical Staff	–	–	Male: 230
		–	–	Female: 109
		–	–	Total: 339
	Production Workers/Supervisors	–	–	Male: 636
		–	–	Female: 12
		–	–	Total: 648
	Total	–	–	Male: 1,444
		–	–	Female: 557
		–	–	Total: 2,000
	Breakdown by region	China: 30%	China: 25%	China: 28%
		Germany: 21%	Indonesia: 19%	South East Asia: 23%
		Indonesia: 19%	Germany: 18%	Europe: 15%
		India: 5%	India: 9%	South Asia: 11%
		Brazil: 4%	Singapore: 4%	North & Central America: 9%
		USA: 3%	USA: 4%	
		Singapore: 3%	Brazil: 3%	Turkey/Middle East/Africa: 6%
		Others: 16%	Turkey: 3%	
			Others: 16%	North East Asia: 4%
				South America: 4%
LA2 –	< 30 years	–	–	Male: 3
Employee		–	–	Female: 3
Turnover		–	–	Total: 6
	30-50 years	–	–	Male: 7
		–	–	Female: 7
		–	–	Total: 14
	> 50 years	–	–	Male: 14
		–	–	Female: 0
		–	–	Total: 14
	Total	–	–	Male: 24
		–	–	Female: 24
		–	–	Total: 34
LA7	Total Lost Days – Injury	309	34	266
	Lost Days Rate	15.92	2.42	27.55
	Total Occupational Disease Incidents	3	0	0
	Occupational Disease Rate	0.15	0	0
	Total Workplace Injuries	13	8	9
	Injury Rate	0.67	0.57	0.93
	Fatalities	0	0	0

GRI Indicator	Description	2010	2011	2012
LA10	Senior Management	-	-	Male: 209
		-	-	Female: 92
		-	-	Total: 301
	Middle Management	-	-	Male: 292
		-	-	Female: 199
		-	-	Total: 491
	Admin/Support Staff	-	-	Male: 736
		-	-	Female: 500
		-	-	Total: 1,236
	Technical Staff	-	-	Male: 478
		-	-	Female: 456
		-	-	Total: 934
	Production Workers/Supervisors	-	-	Male: 8,858
		-	-	Female: 163
		-	-	Total: 9021
	Total	-	-	Male: 10,571
		-	-	Female: 1,410
		-	-	Total: 11,983

<b>G3.1 Content Index - GRI Application Level B</b>					
<b>Application Level B</b>				<b>Assured by</b>	
<b>STANDARD DISCLOSURES PART I: Profile Disclosures</b>					
<b>1. Strategy and Analysis</b>					
<b>Profile Disclosure</b>	<b>Disclosure</b>	<b>Level of Reporting</b>	<b>Location of disclosure</b>	<b>Reason for omission</b>	<b>Explanation for the reason for omission</b>
1.1	Statement from the most senior decision-maker of the organization.	Fully	Letter from CEO, 4		
1.2	Description of key impacts, risks, and opportunities.	Fully	Letter from CEO, 4		
<b>2. Organizational Profile</b>					
<b>Profile Disclosure</b>	<b>Disclosure</b>	<b>Level of Reporting</b>	<b>Location of disclosure</b>	<b>Reason for omission</b>	<b>Explanation for the reason for omission</b>
2.1	Name of the organization.	Fully	About DyStar, 6		
2.2	Primary brands, products, and/or services.	Fully	About DyStar, 6		
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Fully	About DyStar, 6		
2.4	Location of organization's headquarters.	Fully	About DyStar, 6		
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Fully	About DyStar, 6		
2.6	Nature of ownership and legal form.	Fully	About DyStar, 6		
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Fully	About DyStar, 6		
2.8	Scale of the reporting organization.	Partially	About DyStar, 6 ; Ensuring workplace safety & a productive work environment, 44	Proprietary information	Organisation has reported Net Revenues instead of Net Sales. If feasible, net sales will be reported next year.
2.9	Significant changes during	Fully	About DyStar, 6		

# GRI Index

	the reporting period regarding size, structure, or ownership.				
2.10	Awards received in the reporting period.	Fully	Memberships, Awards and Recognitions, 11		
<b>3. Report Parameters</b>					
Profile Disclosure	Disclosure	Level of Reporting	Location of disclosure	Reason for omission	Explanation for the reason for omission
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Fully	About the report, 5		
3.2	Date of most recent previous report (if any).	Fully	About the report, 5		
3.3	Reporting cycle (annual, biennial, etc.)	Fully	About the report, 5		
3.4	Contact point for questions regarding the report or its contents.	Fully	About the report, 5		
3.5	Process for defining report content.	Fully	About the report, 5		
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	Fully	About the report, 5		
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Fully	About the report, 5		
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Fully	About the report, 5		
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to	Fully	About the report, 5		

# GRI Index

	substantially diverge from, the GRI Indicator Protocols.				
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	Fully	About the report, 5		
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Fully	About DyStar, 6		
3.12	Table identifying the location of the Standard Disclosures in the report.	Fully	GRI Index, 58		
3.13	Policy and current practice with regard to seeking external assurance for the report.	Fully	About the report, 5		
<b>4. Governance, Commitments, and Engagement</b>					
Profile Disclosure	Disclosure	Level of Reporting	Location of disclosure	Reason for omission	Explanation for the reason for omission
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Fully	Corporate Governance, 12		
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Fully	Corporate Governance, 12		
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	Partially	Corporate Governance, 12	Proprietary information	The number of members of the highest governance body that are independent and/or non-executive members are not reported; will be reported next year
4.4	Mechanisms for shareholders and employees to provide	Fully	Corporate Governance, 12		

# GRI Index

	recommendations or direction to the highest governance body.				
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Not reported		Proprietary information	Can be considered for reporting in the next reporting cycle, subject to internal approval
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Not reported		Proprietary information	Can be considered for reporting in the next reporting cycle, subject to internal approval
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	Fully	Corporate Governance, 12		
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Fully	Sustainability Vision, 20 ; Ethics and Compliance, 13		
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Fully	Governance for Sustainability, 12; Ethics and Compliance, 13; International Environmental Standards & Regulations, 20		
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental,	Not reported		Proprietary information	Can be considered for reporting in the next reporting cycle, subject to internal approval

# GRI Index

	and social performance.				
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Not reported		Proprietary information	Can be considered for reporting in the next reporting cycle, subject to internal approval
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Partially	Ethics and Compliance, 13	Proprietary information	Externally developed "other initiatives" to which the organization subscribes or endorses are Not reported; It is not material or applicable for the organization
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	Partially	Memberships, Awards and Recognitions, 11	Proprietary information	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization participates in projects or committees, provides substantive funding beyond routine membership dues are not reported; It is not material or applicable for the organization
4.14	List of stakeholder groups engaged by the organization.	Fully	Stakeholder Engagement & Materiality, 17		
4.15	Basis for identification and selection of stakeholders with whom to engage.	Fully	Stakeholder Engagement & Materiality, 17		
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Fully	Stakeholder Engagement & Materiality, 17		
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has	Fully	Stakeholder Engagement & Materiality, 17		



# GRI Index

	responded to those key topics and concerns, including through its reporting.				
			<b>STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMAs)</b>		
<b>G3.1 DMAs</b>	<b>Disclosure</b>	<b>Level of Reporting</b>	<b>Location of disclosure</b>	<b>Further comments</b>	
<b>DMA EC</b>	<b>Disclosure on Management Approach EC</b>				
<b>Aspects</b>	Economic performance	Fully	Letter from CEO, 4; Economic Performance of DyStar, 42		
	Market presence	Fully	Letter from CEO, 4; Economic Performance of DyStar, 42		
	Indirect economic impacts	Partially	Letter from CEO, 4; Economic Performance of DyStar, 42		
<b>DMA EN</b>	<b>Disclosure on Management Approach EN</b>				
<b>Aspects</b>	Materials	Fully	Management Approach to Environmental Sustainability, 20		
	Energy	Fully	Management Approach to Environmental Sustainability, 20; A Word from our Global Sustainability Manager, 16		
	Water	Fully	Management Approach to Environmental Sustainability, 20; A Word from our Global Sustainability Manager, 16		
	Biodiversity	Not reported			
	Emissions, effluents and waste	Fully	Management Approach to Environmental Sustainability, 20; A Word from our Global Sustainability Manager, 16		
	Products and services	Fully	Management Approach to Environmental Sustainability, 20		
	Compliance	Fully	Management Approach to Environmental Sustainability, 20		
	Transport	Partially	A Word from our VP – Global Manufacturing, 21; Impact during transportation & handling, 32		
	Overall	Partially	Governance for Sustainability, 12; Management Approach to Environmental Sustainability, 20		
	<b>DMA LA</b>	<b>Disclosure on Management Approach LA</b>			
<b>Aspects</b>	Employment	Fully	Ensuring workplace safety & a productive work environment, 44		

# GRI Index

	Labor/management relations	Partially	Corporate Governance, 12	
	Occupational health and safety	Fully	Letter from CEO, 4; DyStar & Sustainability, 16; Occupational Health and Safety, 45	
	Training and education	Partially	Ethics and Compliance, 13; Ensuring workplace safety & a productive work environment, 44	
	Diversity and equal opportunity	Not reported		
	Equal remuneration for women and men	Not reported		
<b>DMA HR</b>	<b>Disclosure on Management Approach HR</b>			
<b>Aspects</b>	Investment and procurement practices	Not reported		
	Non-discrimination	Not reported		
	Freedom of association and collective bargaining	Partially	Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44	
	Child labor	Partially	Ethics and Compliance, 13; Social Accountability, 47	
	Prevention of forced and compulsory labor	Partially	Ethics and Compliance, 13; Social Accountability, 47	
	Security practices	Not reported		
	Indigenous rights	Not reported		
	Assessment	Not reported		
	Remediation	Not reported		
<b>DMA SO</b>	<b>Disclosure on Management Approach SO</b>			
<b>Aspects</b>	Local communities	Partially	Letter from CEO, 4; Engaging with Society, 47	
	Corruption	Not reported		
	Public policy	Not reported		
	Anti-competitive behavior	Not reported		
	Compliance	Not reported		
<b>DMA PR</b>	<b>Disclosure on Management Approach PR</b>			
<b>Aspects</b>	Customer health and safety	Fully	Letter from CEO, 4; Our Products and Solutions, 7; DyStar & Sustainability, 16; A Word from our VP – Global Manufacturing, 21	
	Product and service labelling	Fully	Our Products and Solutions, 7; Labelling our products and services, 40	
	Marketing	Partially	Ensuring Product Safety –	

# GRI Index

	communications		REACH, 36
	Customer privacy	Not reported	
	Compliance	Fully	Letter from CEO, 4; Compliance Management at DyStar, 14
STANDARD DISCLOSURES PART III: Performance Indicators			
Economic			
Indicator	Disclosure	Level of Reporting	Location of disclosure
Economic performance			
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Fully	Economic Performance of DyStar, 42; Creating local value, globally, 42
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Not reported	
EC3	Coverage of the organization's defined benefit plan obligations.	Not reported	
EC4	Significant financial assistance received from government.	Not reported	
Market presence			
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	Not reported	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Partially	Letter from CEO, 4; Economic Performance of DyStar, 42; Creating local value, globally, 42
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	Not reported	
Indirect economic impacts			
EC8	Development and impact of infrastructure investments and services	Not reported	

# GRI Index

	provided primarily for public benefit through commercial, in-kind, or pro bono engagement.		
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Not reported	
<b>Environmental</b>			
<b>Indicator</b>	<b>Disclosure</b>	<b>Level of Reporting</b>	<b>Location of disclosure</b>
<b>Materials</b>			
EN1	Materials used by weight or volume.	Fully	Managing our Environmental Impacts during Product Manufacturing, 22; How we manage our materials, 22
EN2	Percentage of materials used that are recycled input materials.	Partially	How we manage our materials, 22; Packaging Materials, 22
<b>Energy</b>			
EN3	Direct energy consumption by primary energy source.	Fully	Energy Management, 23; Energy use at our operations, 23
EN4	Indirect energy consumption by primary source.	Fully	Energy Management, 23; Energy use at our operations, 23
EN5	Energy saved due to conservation and efficiency improvements.	Partially	Energy Management, 23; Energy Efficiency & Energy Conservation, 24
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Partially	Energy Management, 23; Lava® Auxillary and Effects Range (text box on Pg 24); Reducing product wastage for our customers - CSI, 39
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Not reported	
<b>Water</b>			
EN8	Total water withdrawal by source.	Fully	Water, 30
EN9	Water sources significantly affected by withdrawal of water.	Not reported	
EN10	Percentage and total volume of water recycled and reused.	Fully	Water conservation & recycling, 31; Use of recycled water, 31
<b>Biodiversity</b>			

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EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Not reported	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Not reported	
EN13	Habitats protected or restored.	Not reported	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Not reported	
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Not reported	
<b>Emissions, effluents and waste</b>			
EN16	Total direct and indirect greenhouse gas emissions by weight.	Fully	GHG Emissions, 25
EN17	Other relevant indirect greenhouse gas emissions by weight.	Not reported	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Not reported	
EN19	Emissions of ozone-depleting substances by weight.	Not reported	
EN20	NOx, SOx, and other significant air emissions by type and weight.	Not reported	
EN21	Total water discharge by quality and destination.	Fully	Wastewater, 33
EN22	Total weight of waste by type and disposal method.	Fully	Waste, 32
EN23	Total number and volume of significant spills.	Fully	Impact during transportation and handling, 32
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage	Not reported	

# GRI Index

	of transported waste shipped internationally.		
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	Not reported	
<b>Products and services</b>			
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Not reported	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Partially	Packaging Materials, 22
<b>Compliance</b>			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Fully	Economic Performance of DyStar, 42
<b>Transport</b>			
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	Partially	Energy Management, 23; Impact during transportation and handling, 32
<b>Overall</b>			
EN30	Total environmental protection expenditures and investments by type.	Fully	Economic Performance of DyStar, 42; Investing in Reducing our Environmental Impact, 42
<b>Social: Labor Practices and Decent Work</b>			
<b>Indicator</b>	<b>Disclosure</b>	<b>Level of Reporting</b>	<b>Location of disclosure</b>
<b>Employment</b>			
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	Partially	Ensuring workplace safety & a productive work environment, 44
LA2	Total number and rate of new employee hires and employee turnover by age	Partially	Ensuring workplace safety & a productive work environment, 44

# GRI Index

	group, gender, and region.		
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Not reported	
LA15	Return to work and retention rates after parental leave, by gender.	Not reported	
<b>Labor/management relations</b>			
LA4	Percentage of employees covered by collective bargaining agreements.	Not reported	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	Not reported	
<b>Occupational health and safety</b>			
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	Not reported	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	Fully	Our health & safety performance, 46
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Not reported	
LA9	Health and safety topics covered in formal agreements with trade unions.	Not reported	
<b>Training and education</b>			
LA10	Average hours of training per year per employee by gender, and by employee category.	Fully	Ensuring workplace safety & a productive work environment, 44
LA11	Programs for skills management and lifelong	Not reported	

# GRI Index

	learning that support the continued employability of employees and assist them in managing career endings.		
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	Not reported	
<b>Diversity and equal opportunity</b>			
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	Fully	Ensuring workplace safety & a productive work environment, 44; Corporate Governance, 12
<b>Equal remuneration for women and men</b>			
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	Not reported	
<b>Social: Human Rights</b>			
<b>Indicator</b>	<b>Disclosure</b>	<b>Level of Reporting</b>	<b>Location of disclosure</b>
<b>Investment and procurement practices</b>			
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	Not reported	
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	Not reported	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Not reported	
<b>Non-discrimination</b>			



# GRI Index

HR4	Total number of incidents of discrimination and actions taken.	Not reported	
<b>Freedom of association and collective bargaining</b>			
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	Fully	Ensuring workplace safety & productive work environment, 44
<b>Child labor</b>			
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	Fully	Ensuring workplace safety & productive work environment, 44
<b>Forced and compulsory labor</b>			
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	Fully	Ensuring workplace safety & productive work environment, 44
<b>Security practices</b>			
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	Not reported	
<b>Indigenous rights</b>			
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Not reported	
<b>Assessment</b>			
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	Not reported	
<b>Remediation</b>			

# GRI Index

HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	Not reported	
<b>Social: Society</b>			
Indicator	Disclosure	Level of Reporting	Location of disclosure
<b>Local communities</b>			
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	Not reported	
SO9	Operations with significant potential or actual negative impacts on local communities.	Not reported	
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	Not reported	
<b>Corruption</b>			
SO2	Percentage and total number of business units analyzed for risks related to corruption.	Not reported	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	Not reported	
SO4	Actions taken in response to incidents of corruption.	Not reported	
<b>Public policy</b>			
SO5	Public policy positions and participation in public policy development and lobbying.	Not reported	
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Not reported	
<b>Anti-competitive behavior</b>			
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	Fully	There have been no legal actions for anti-competitive, anti-trust and monopoly practices

# GRI Index

Compliance			
Indicator	Disclosure	Level of Reporting	Location of disclosure
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Fully	Economic Performance of DyStar, 42
Social: Product Responsibility			
Customer health and safety			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Fully	Helping our Customers Reduce Their Environmental Impact, 35; Ensuring Product Safety - REACH, 36
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	Not reported	
Product and service labelling			
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Fully	Labelling our products and services, 40
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	Fully	Labelling our products and services, 40
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Partially	Letter from CEO, 4; Stakeholder Engagement & Materiality, 17
Marketing communications			

# GRI Index

PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Not reported	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	Fully	Ethics and Compliance, 13; Labelling our products and services, 40; Helping our Customers Reduce Their Environmental Impact, 35
<b>Customer privacy</b>			
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Not reported	
<b>Compliance</b>			
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Fully	Labelling our products and services, 40

# UN Global Compact Index

The Ten Principles of the United Nations Global Compact		
UNGC Principle	Description	Section(s)/Page(s)
1	Support and respect protection of internationally proclaimed human rights	Code of conduct, 13; Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44; Social Accountability, 47
2	Make sure business is not complicit in human rights abuses	Code of conduct, 13; Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44; Social Accountability, 47
3	Uphold freedom of association and the effective recognition of the right to collective bargaining	Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44
4	Support elimination of all forms of forced and compulsory labor	Code of conduct, 13; Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44; Social Accountability, 47
5	Support effective abolition of child labor	Code of conduct, 13; Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44; Social Accountability, 47
6	Eliminate discrimination in employment and occupation	Compliance Management at DyStar, 14; Ensuring workplace safety & a productive work environment, 44; Social Accountability, 47
7	Support a precautionary approach to environmental challenges	Not reported
8	Undertake initiatives to promote greater environmental responsibility	Managing our Environmental Impacts during Product Manufacturing, 22; Energy Management, 23; Energy Efficiency & Energy Conservation, 24; GHG Emissions, 25; Labeling our products and services, 40
9	Encourage the development and diffusion of environmentally friendly technologies	REACH Update, 36; Reducing Product Waste for our Customers, 39; Sustainable Innovation, 37; Sustainable Textile Solutions, 10
10	Work against all forms of corruption, including extortion and bribery	Not reported



## Statement GRI Application Level Check

GRI hereby states that **DyStar Group** has presented its report "DyStar Sustainability Report 2012" 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](http://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, 17 January 2014

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a large, faint watermark of the GRI globe logo.

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](http://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 1 January 2014. GRI explicitly excludes the statement being applied to any later changes to such material.

*Committed to Sustainability.*

At DyStar, our products and services help customers worldwide reduce costs, shorten lead times and meet stringent quality and ecological specifications.



Information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery.

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