



Sustainability Performance 2013

Committed to Sustainability

Sustainable Business – DyStar Group at a Glance



HEADQUARTERS
SINGAPORE

VISION
STATEMENT

“We aspire to become the world’s most sustainable and responsible supplier of colors, chemicals and services to the global textile industry.”

DYNAMIC
PARTNERS

India-based Kiri Dyes Chemicals Limited + China-based Longsheng Group = Jointly owns DyStar Group

Recently acquired the assets and business of Lenmar Chemical Corporation.



Our Worldwide Locations



Global Manufacturing Facilities for dyes and chemicals

ASIA

China, India, Indonesia, Japan, Thailand

EUROPE

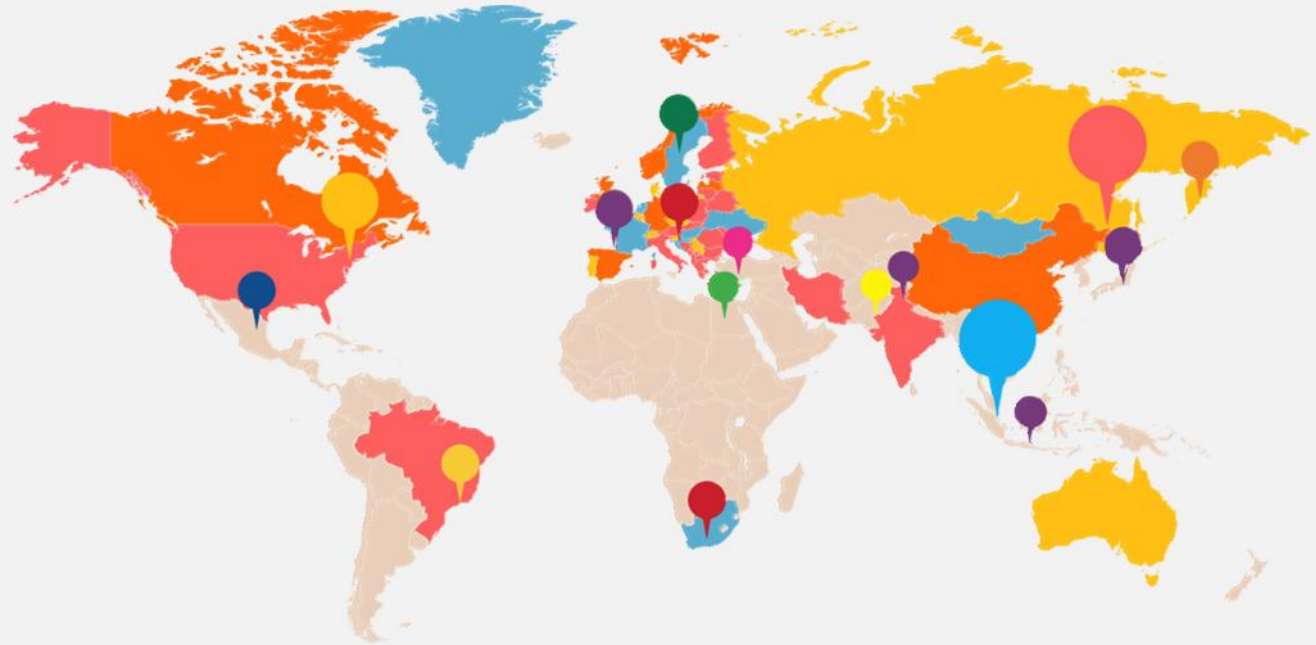
Germany, Portugal

TURKEY/AFRICA/MIDDLE EAST

Turkey, South Africa,

AMERICA

USA, Mexico, Brazil



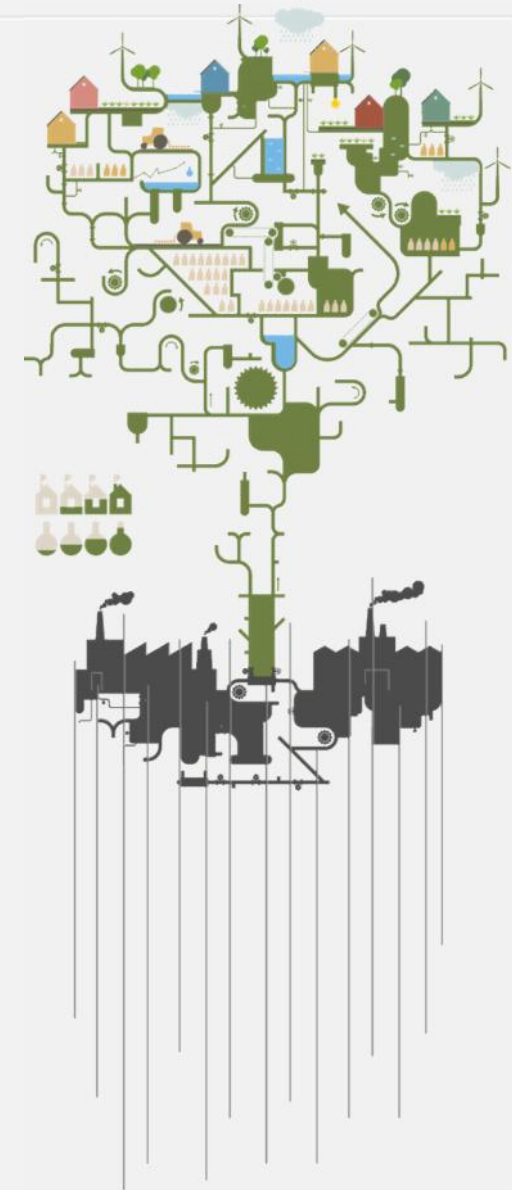
- Bangladesh
- Brazil
- China/Hong Kong
- China
- Egypt
- Germany
- India
- Indonesia
- Italy
- Japan
- Korea
- Mexico
- Pakistan
- Portugal
- South Africa
- Spain
- Taiwan
- Thailand
- Turkey
- USA



External Environment – Challenges

Challenges we face:

- Adverse climatic conditions across the globe
- Challenging global economic conditions
- Textile & Chemical Industries are two of the most polluting industries on the planet
- Production and usage of our products has an environmental impact due to
 - GHG emissions, resource usage, water and energy consumption, waste generation and water pollution
- Increasingly tough global legal regulations concerned with the health and environmental impact of chemical production, usage, and disposal

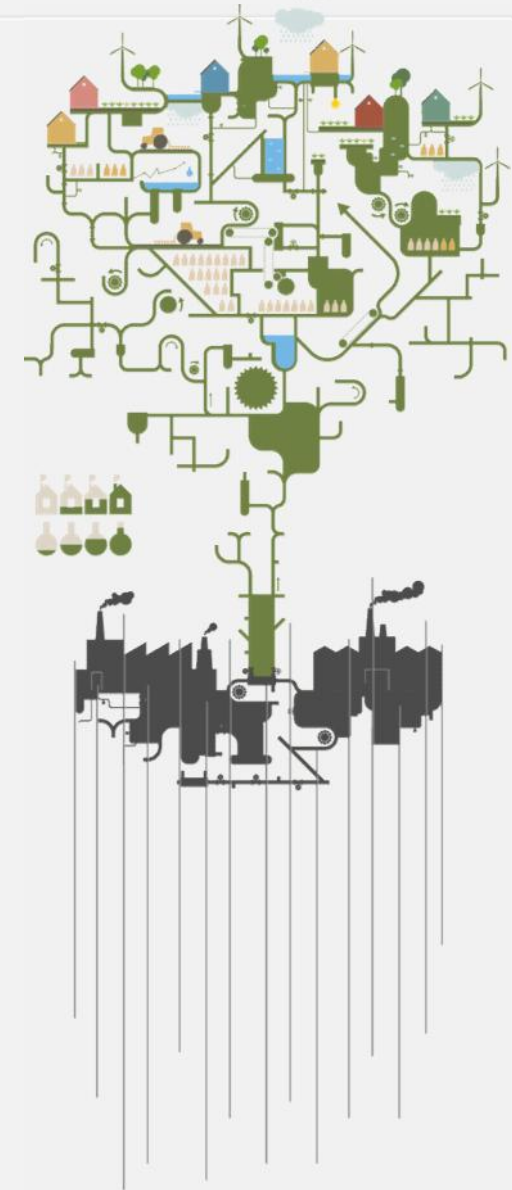


Sustainable Business – Opportunities



Opportunities we have:

- Increased awareness and demand for sustainable products & services from our customers & the fashion scene
- Benefits from integrating sustainable business practices at all operational levels
- DyStar's dual approach to sustainability: decrease the environmental impact of our operations, decrease the health and environmental impacts of our customers' operations
- We strive to find new ways in product development to avoid hazardous substances, high energy and water usage which leads to less pollution



Two - Fold Sustainability Strategy

Reduce our operational impact

- Established Sustainability structure
- Measure environmental performance - Sustainability Reporting
- Implement emission reduction strategies
- Commitment to reduce our footprint in water, waste, energy, GHG

Customers

- Foundation of confidence
- Product safety & Environmental compliance
- Sustainable Product Innovation
- Sustainable Processing
- Sustainability Services
- Ecology Services
- Sustainable Textile Solutions
- Testing Solutions
- Color Solutions
- Academic Services through AADTT



Vision

To become the world's most **sustainable** and **responsible** supplier of colors, chemicals and services to the **global textile industry'**



Goals

To **reduce** our impact by **20%** by **2020** in four areas: **Energy, Water, Waste Water, GHG**

Our Stakeholders

- Our global operations bring us in direct or indirect contact with a variety of stakeholders
- The management team re-evaluates the changing influence of stakeholders groups on the company
- Engaging with stakeholders helps DyStar make sound business decisions and reduce reputational risks
- We actively work with the chemical and textile industry on key issues. We also participate in a number of multi-stakeholder initiatives to improve industry performance
- Our sustainability journey is closely aligned to the expectations of our stakeholders



Our Stakeholders



Stakeholders	How DyStar engages them
Employees	Regular HR policies Review for fairness and relevance. Management interacts 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
Shareholders	Periodic meetings with key shareholders to update them on company performance and sustainability initiatives
Customers	Organization of customer seminars on ecology and sustainability. Hold regular meetings with customers to exchange information. Attend industry forums and conferences
Suppliers	Ongoing dialogue with our key suppliers to better understand and explain issues relating to quality, social and environmental performance
Government	Work with government agencies to promote environmental health and safety practices. Respond promptly to government requests for information
Media	Provide regular updates to media through press releases



Collaboration with External Stakeholders



We are associated with a number of industry associations and national & international advocacy organizations who are seeking to promote sustainability. This enables us to build relationships with key influencers and to position DyStar as a trusted and knowledgeable partner.

Key CSR, Sustainability and Ecology Organizations:

- UN Global Compact
- Sustainable Apparel Coalition (SAC)
- Zero Discharge of Hazardous Chemicals Group (ZDHC)
- Textile Exchange
- Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers, ETAD®
- bluesign®
- Global Organic Textile Standard GOTS®
- Made-By, Solidaridad (NL)
- AATCC, AAFA



Stakeholder Engagement & Materiality



An extensive stakeholder engagement exercise was conducted in 2013

Aim: Assessment of key sustainability issues

Results:

01	02	03
Material Issues - Internal Stakeholders <ul style="list-style-type: none">• Use of recycled material• Economic performance• Environmental impact of materials used• Compliance with regulations• Disposal of effluents	Material Issues - External Stakeholders <ul style="list-style-type: none">• Health and safety impacts of products on customers• Product quality• Compliance with regulations• Appropriate labelling of products and services• Environmental impact of materials used	Material Issues - Top management <ul style="list-style-type: none">• Economic performance• Ensuring no human rights violation in operations• Product quality• Disposal of effluents• Disposal of solid waste• Occupational health and safety



Despite producing a more energy intensive product mix, we succeeded keeping our energy intensity at a similar level to our production in 2012. Some notable initiatives to reduce energy consumption:

Nanjing Plant, China

- Optimize agitation time in buffer vessels
- Optimizing agitation in the production process of cationic dyes
- Better control of electrical heat tracing
- Modification of the air compressor system
- Improvement in the efficiency of the chiller system

Wuxi Plant, China

- Capacitors were updated and the power factor was increased
- The production process was optimized and agitation time of buffer vessels was reduced
- Replacement of compressors to optimize usage

Naucalpan Plant, Mexico

- A campaign was run to save energy in electric lighting and use of electronic and computer equipment

Mem Martins Plant, Portugal

- The use of pre-heated dispersing agent was reduced

Samutprakarm Plant, Thailand

- Production planning was rearranged to reduce cleaning and fuel consumption

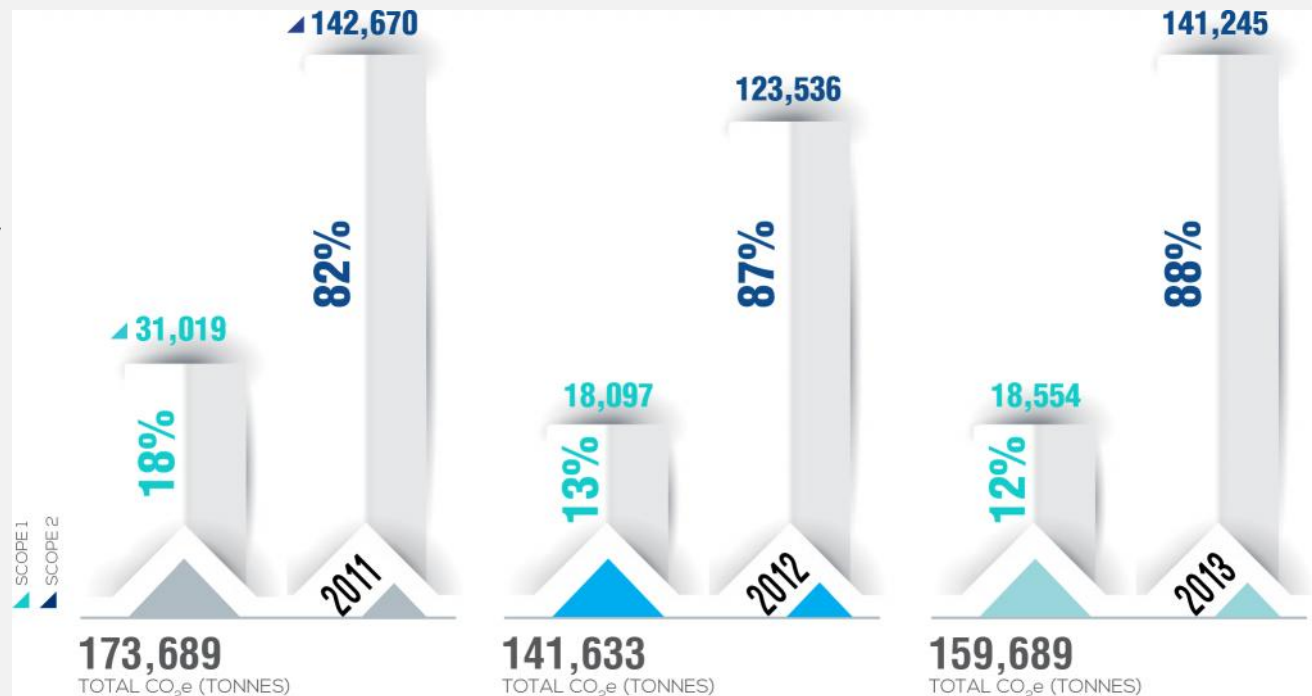


GHG Emissions Reduction



TOTAL GHG EMISSIONS	EMISSIONS SOURCE	EMISSIONS (TONNES CO ₂ e)					
		2011	%	2012	%	2013	%
	SCOPE 1	31,019	18%	18,097 ⁵	13%	18,554	12%
	SCOPE 2	142,670	82%	123,536	87%	141,245	88%
	Total CO ₂ e emissions	173,689	100%	141,633	100%	159,799	100%

- In 2013, the total GHG emissions increased by 12.8% to 159,799 tCO₂e compared to 2012
- The increase in emissions is primarily attributed to increased overall production volume and a more energy intensive product mix
- Our 5 largest dyestuff manufacturing plants – Ludwigshafen, Nanjing, Gabus, Omuta and Wuxi are responsible for 96% of total emissions

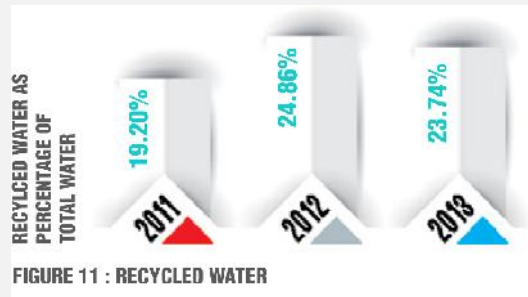


- We need water both due to process requirements, especially cooling and as a component in our products
- In 2013, our absolute water consumption increased by 4.5 % from 2012 levels (production up 12%)
 - ◆ Higher efficiency

Water management

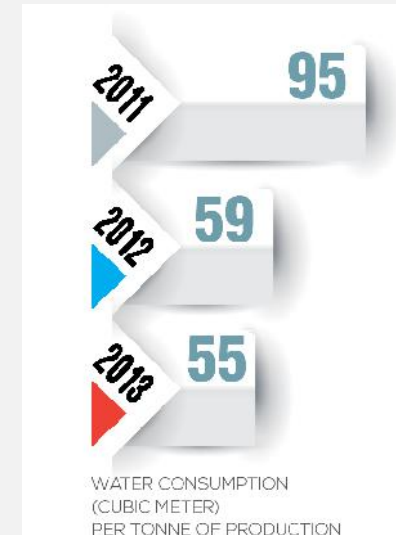
Focus on 2 main areas:

- Recycling of water
 - ◆ We recycled 1,688,019 m3 water which is 23.8 % of overall water consumption



Effluent Management

- ◆ All production units either have own waste water treatment units or are connected to external facilities
- ◆ Ongoing monitoring and analysis before discharging to treatment facilities



Water Sources



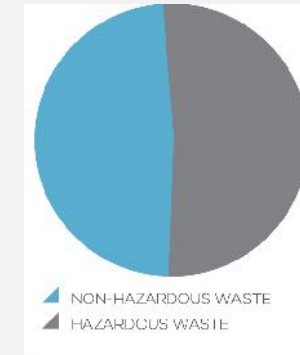
We generate solid and liquid waste material, both hazardous and non-hazardous

Hazardous waste

- Mainly packaging material from raw materials (big bags, pallets, paper bags, inliners)
- Product residues and residues from the distillate recovery of solvents or from waste water treatment (liquid and solid)

Non-hazardous waste

- Mainly paper, typical household waste material, packaging material and wooden or plywood pallets which don't contact chemicals



Overall waste per t of production in 2013: 0.076 ton

- Due to different product mix with higher degree of backwards integration, the specific quantity waste per ton of total increased

Some 2013 initiatives to reduce waste:

Naucalpan Plant, Mexico

Plastic containers were taken back from customers for reusing

Reidsville Plant, USA

40% quantity reduction to landfill by continuing recycling program for cardboard, plastic bottles, glass, aluminium and paper

Our Sustainability Targets and Performance for 2013



Production Up 12% in 2013

Target area	Target	Target Year	2013 Progress
	(Baseline 2010)		
Greenhouse Gas Emissions	20% reduction in absolute emissions	2020	4% reduction achieved since 2010
Energy Consumption	20% reduction in absolute energy consumption	2020	15% reduction achieved since 2011
Water Consumption	20% reduction in absolute water consumption	2020	21% reduction achieved since 2010
Waste Generation	20% reduction in absolute waste generation	2020	16% increase in waste since 2010



Product Stewardship

Continuous reduction of safety, health and environmental impact

- Example ZDHC (Zero Discharge of Hazardous Chemicals)
- We publish a positive list with DyStar products that do not include any of the chemical groups restricted by the ZDHC group

We assess our products for health & safety impacts at different stages of the product lifecycle

- R&D to provide healthier, safer and more ecologically-compatible products
 - ◆ Example Remazol® Onyx RGB & Remazol® Midnight Black RGB, 5 Dianix® XF2 dyes, Indanthren® Navy SR-N, Jettex® range for digital printing, Evo® Xen series
- Production & manufacturing methods are regularly optimised
- Product Application Processes are improved to reduce water, energy, process time
- Optidye programs, Sera Eco Wash Process

REACH® Update

- We complied with Phase II of the regulation - the registration all chemical substances in the tonnage band 100 – 1000 tons/year by 31st of May 2013
- 20 registration dossiers submitted by year-end, most of them as Lead Registrant

Product labelling

- DyStar® updates Hazard Labels and Safety Data Sheets, for substances in compliance with the national regulations/GHS
- Zero incidents of non-compliance

Sustainable Textile Solutions (STS) division helps Brands and Retailers

- Monitor and improve their supply chains
- Achieve compliance to their environmental, health and safety standards
- Services offered:
 - ◆ Restricted Substances Lists (RSL) - Compliance Assessment
 - ◆ ZDHC Benchmarking & Improvement
 - ◆ Textile Mill Efficiency Assessment
 - ◆ Chemical Inventory Management
 - ◆ Root Cause Analysis



SUSTAINABLE TEXTILE®
S O L U T I O N S

®

Ethical Practices – Strong Governance



Governance is driven by Board of Directors and Senior Management team
Responsible to achieve long terms goals in a transparent and sustainable manner

DyStar Board of Directors

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

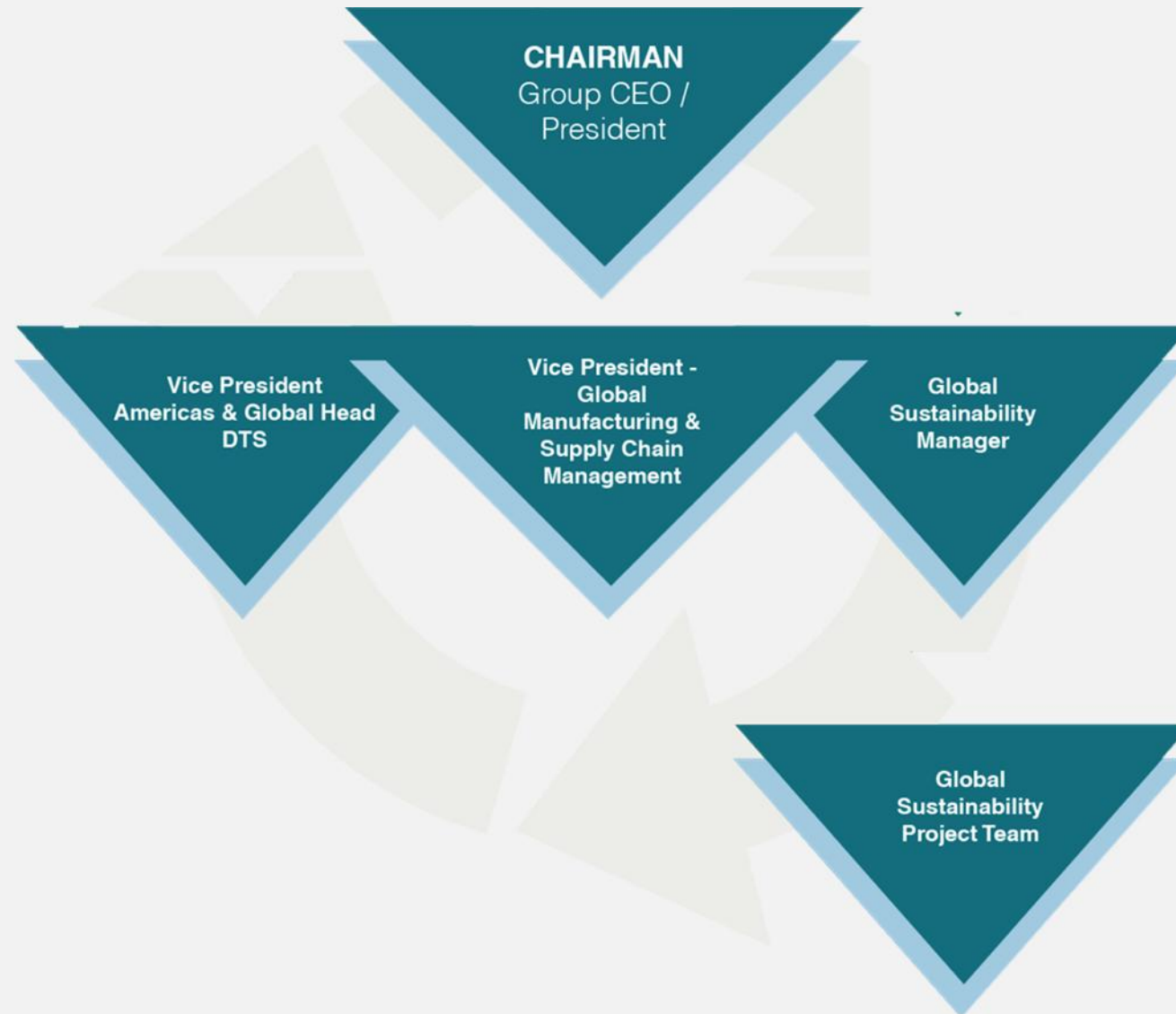


DyStar Senior Management

- 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



2013 Sustainability Committee Structure



DyStar Group is committed to conducting business in an ethical manner and in compliance with all applicable regulations

Our Code of Conduct includes the following principles:

1. Compliance with laws
2. Intellectual property protection
3. Fair competition
4. Separation of private and company affairs
5. Safety, health and environmental protection
6. Product and service quality
7. Relationships with employees
8. Cooperation with authorities



Our Social Initiatives

- **Supporting HIV/AIDS affected in Africa**
- **Helping the disabled in Brazil**
- **Food Donation in USA**
- **Disaster Management in Japan**
- **Community Assistance in Mexico**



GRI Application Level Check Statement



Statement GRI Application Level Check

GRI hereby states that **DyStar Group** has presented its report "DyStar Sustainability Report 2013" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B.

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

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

Amsterdam, 19 of September 2014



Ásthildur Hjaltadóttir
Director Services
Global Reporting Initiative



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

***Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 02 of September 2014. GRI explicitly excludes the statement being applied to any later changes to such material.*

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- *Cradle to Cradle[®] is a registered trademark of McDonough Braungart Design Chemistry LLC.*
- *REACH - The European Union, represented by the European Commission, 1049, Brussels, BE*
- *ETAD[®] is a trademark of The Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers*
- *GOTS[®] is a trademark of International Working Group on Global Organic Textile Standard*

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