Integrated Sustainability Report

2019-2020

We strive to be the environmental and innovation global leader in our chosen industries.

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Executive Board Director Statement

Dear Stakeholders,

The global environment, financial systems, and society are rapidly changing at an unprecedented pace, scale, and complex interconnectedness. Challenges such as climate change, resource scarcity, and globalization are increasingly impacting industrial landscapes, and adapting to these changes requires innovative business models, resilient operations, and forward-thinking strategies.

Transitioning towards a more sustainable business model requires a keen understanding of key global trends and their material impacts to business, markets, and society. DyStar's business model is designed to understand, adapt, and capitalize on trends such as:

Macro and microeconomic

Conditions such as the current global economic instability, globalization, and industry-specific trends present a unique set of risks and opportunities. DyStar continually assesses new opportunities to grow and create value in our increasingly interconnected global economy and adapt to unprecedented economic challenges. In addition, we keep our finger on the pulse of our target industries as they continue to evolve.

The coronavirus pandemic has devastated the global economy and businesses around the world. DyStar is committed to persevering through these times while serving as a source of support for our industry and communities.

While the coronavirus pandemic has affected nearly every business as well as daily lives across the globe, DyStar is fortunate to have robust risk management and supply chain resilience mechanisms in place which have proven to be absolutely vital to overcoming this challenge. Effectively adapting to this challenge exhibits the effectiveness of DyStar's risk and supply chain strategies when faced with the ultimate stress test. Further, this challenge has helped the company identify potential areas of improvement regarding risk and supply chain management, and this information will be used to further refine our strategies to be able to overcome whatever challenges the future holds.

Market forces

Market drivers such as relative customer demand and the speed and implications of technological advancements continue to impact our business landscape. DyStar leverages rapidly developing new technologies and innovative processes to optimize financial, human, and natural resources and value. This means identifying and implementing the latest technologies to produce more products with fewer inputs and natural resources while reducing negative impacts and costs.

Not only does this cut costs, but it results in high sustainability performance, which increases the preference and demand for our products. This makes DyStar well-poised capitalize on the increasing demand for sustainable textiles and helping our downstream supply chain do the same. Macroeconomic issues also impact market forces such as changes in demand. For example, the coronavirus pandemic has increased the demand for sanitation products and personal protective equipment (PPE). To help adapt to this demand, we have authorized the production of hand sanitizers and are assessing new opportunities to meet the rising need for PPE. We also supply chemicals that aid in the production of PPEs.

Societal issues

DyStar operates in a context of increasing awareness and transparency regarding issues such as human rights, health, poverty, collective values, and educational systems. These issues have always been foundational values to our business, and we continue to lead our target industries towards a more fair and just society for future generations.

DyStar continues to address these issues through our ethical business best practices and policies, but also by engaging directly with stakeholders and community members to better understand and address their needs, building lasting and trusting relationships in the process. DyStar continues its excellent track record of compliance with all regulations related to ethical business practices.

Environmental challenges

Issues such as climate change, ecosystem loss, and the depletion of finite resources are changing the way business is conducted around the world. At DyStar, these issues are integrated into our business model, culture, processes, and business decisions. For example, DyStar's Global Innovation Centre (GIC) is working on new products focused on meeting those challenges. Therefore, as these unprecedented issues change our world, DyStar adapts to mitigate emerging risks, increase resource efficiency, and capitalize on new opportunities.

DyStar continues to develop and offer a wide range of products that improve environmental performance throughout the supply chain. As such, our environmental efficiency both helps reduce our footprint as well as our exposure to the risks associated with environmental challenges. As resources become scarcer and regulations tighten, our planetary resource efficiency will amplify our competitive advantage. DyStar is well-positioned to catalyze a transition to a sustainable future and thrive in a resource-constrained future that increasingly values sustainable products.

Legislative and regulatory

As sustainability issues become more urgent, environmental regulations will inevitably become more stringent, bringing potential supply chain and business continuity risks. We are already in the process of mitigating supply chain risks associated with environmental regulations and enhanced enforcement.

Further, to address climate change, new regulations will likely translate into new costs and opportunities relative to carbon intensity. These regulatory trends will benefit companies with lower environmental footprints compared to their peers, and as the regulatory environment continues to develop, our risk management will increasingly benefit supply chain resilience, our reputation for dependability, and relative cost savings.

To maintain market leadership and a competitive edge in today's dynamic business environment and into a sustainable future, our Board continuously assesses new challenges, opportunities, and technology-driven evolutions against a broad backdrop of trends and variables. The Board continues to explore new perspectives and knowledge to support management in accelerating business growth and evolving to ultimately achieve greater value for our stakeholders.

While DyStar's sustainability leadership and performance is a source of great pride, it remains essential to continually deepen and improve our strategies and commitment to a future of shared prosperity and holistic value creation. In line with this commitment, we have enhanced the role of the Board in advancing DyStar's sustainability leadership as well as my own personal oversight of daily operations. Further, internal sustainability leaders report directly to the Sustainability Committee.

The greatest accomplishments are not possible to achieve alone. I would like to extend my greatest appreciation for the past, present, and future contributions of our internal and external stakeholders that have joined our collaborative efforts to create a better world.

Xu Yalin
Executive Board Director

"To maintain market leadership and a competitive edge's in today's dynamic business environment and into a sustainable future, our Board continuously assesses new challenge, opportunities, and technology-driven evolutions against a broad backdrop of trends and variables."

CEO Statement

Dear Stakeholders,

After another year of continued success at DyStar, I am pleased to present our Integrated Sustainability Report for FY2019. This year exhibited significant economic and sustainability advances throughout the group. In this turbulent time, DyStar remains profitable (99 million USD Economic Value Retained) despite an overall revenue drop of 6% compared to the year 2018. Further, we have significantly improved our performance relative to nearly all material sustainability metrics. To ensure continued success in the future, we have set new targets to reduce the overall production footprint by 30% for every ton of production by the year 2025.

This was accomplished in a business context characterized by increasing consumer influence over businesses, heightened environmental awareness, and pressure for businesses to act on environmental and social issues. As sustainability challenges and opportunities continue to develop, and global sustainability issues such as climate change and extreme weather increasingly impact business operations, DyStar leverages its sustainability leadership and resilient business model to gain product preference competitive edge in markets that increasingly value and rely on sustainability.

This report is our opportunity to communicate to our stakeholders our strategies, initiatives, and achievements as we adapt to the complex challenges we continue to face as a business and a society. Our reporting process helps us identify the areas in which we can affect the greatest impact and progress, along with opportunities for improvement. Our sustainability communications are designed, to be honest, transparent, and material. In addition, we aim to communicate our strategies and performance in an increasingly integrated manner, capturing the full range of value we create as a company and identifying how various forms of value impact each other.

Vision

Our vision is to be the environmental and innovative global leader in our chosen industries. This includes providing innovative colorants, chemicals, and services to textile and apparel, food and beverage, personal care, pharma and household, paints, coatings, industrial and construction, water treatment, and agriculture industries. Guiding this vision are DyStar's core values of responsibility, innovation, and excellence.

Business Model

To achieve this vision, sustainability must be considered as an integral part of our business rather than an ancillary effort. As such, aspects of sustainability are integrated into all of our business decisions, operations, and the everyday work of all our employees. Further, our business model is designed to optimize value creation in all its forms and expand our strategies to account for the relationships between financial and non-financial inputs and outputs of our business.

I am proud to say that sustainability is fully embedded in our culture, values, and business model. 100% of business units within DyStar have established ambitious sustainability goals and initiatives to achieve them. Our overall business strategy was founded on the long-term approach needed to address complex sustainability issues while ensuring that the current needs of our business and stakeholder are exceeded.

Sustainability Approach

This approach enables us to work towards our collective goals. For this reason, all functions within the DyStar group are assessed based on sustainability objectives, which are treated as business imperatives of the utmost importance. With nearly a decade year of experience integrating sustainability into our core business strategy, I am proud of our industry leading performance and ability to dynamically adapt to our current business context as well as our uncertain future.

Commitment

DyStar's commitment to sustainability is underpinned by a two-fold strategy, focusing on both reducing operational impacts as well as enabling our customers to reduce their footprint through our products and services. This strategy involves incorporating sustainability across our value chain, extending beyond our operations to suppliers, customers, and other stakeholders. This year we have enhanced our sustainability strategy with a more integrated perspective, deepening our focus on the relationships and synergy between financial, manufactured, intellectual, natural, human, and social capital. This approach is reflected in the new structure of our sustainability reporting.

It is not possible to achieve great change in isolation, especially in the chemical industry. Therefore, we fully support industrial innovation, the development of new technology, and other collaborative efforts to foster a circular fashion industry. We develop and leverage strategic partnerships to collectively drive large-scale sustainability efforts.

While I am proud of our achievements, I am aware that there is still important work and advancements ahead. I remain convinced that our long-term approach coupled with our genuine determination, will help us lead the way to create a more sustainable business model.

The coronavirus pandemic has challenged society and businesses around the world at an unprecedented scale and pace. While the long-term impacts are still unclear, DyStar is fortunate to have robust business continuity and risk mitigation mechanisms in place and a strong strategic focus on resilience. In these turbulent times, our primary concern is the health and safety of our employees, stakeholders, and communities. Globally, DyStar's leadership has taken bold actions to weather the storm and will continue to keep DyStar strong. We have already been put in place or in the process of implementation and solutions – including harness coordinated joint action to fulfill the essential needs of the supply chain. DyStar's innovation has contributed differently to help the supply chain during this difficult period of COVID-19. For example, at DyStar USA, our Evo® and Microban® product range supported the medical textile sector in the manufacturing of masks and respirators. In Indonesia, our Auxiliary Chemical team produced hand sanitizers to cater for internal need and part of the production were later donated to support the increasing demand at the local community.

As the future continues to bring new challenges and opportunities, we are committed to moving towards a more prosperous and sustainable future for the company, our stakeholders, our communities, and the planet.

Eric Hopmann
Chief Executive Officer

"Sustainability must be considered as an integral part of our business rather than an ancillary effort. As such, aspects of sustainability are integrated into all of our business decisions, operations, and the everyday work of all our employees."

Key Performance Indicators

CREATING RESPONSIBLE PRODUCTS AND SERVICES

econfidence® from DyStar	csi	eliot	bluesign® / The independent industry textile standard
500 regulated or restricted substances monitored through econfidence®	**4,000** ColorWall™ reference available for better right-first-time performance	**28** positive lists, e.g. for compliance to brand and retailer Restricted Substances Lists (RSLs)	**1,480** bluesign® approved DyStar products
REACH COMPLIANCE	REACH KKDIK	ZDHC	OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 00000000 Institute Tested for harmful substances. www.oeko-tex.com/standard100
450 substances registered according to REACH®	**750** substances pre-registered according to KKDIK	**2,154** DyStar products compliant with ZDHC® MRSL 1.1	**2,103** DyStar products approved for use on Oeko-Tex® Standard-compliant articles

SUSTAINABLE BUSINESS GROWTH

USD 1.2 million Increase in global employee wages and benefits	**USD 1 million** Increase in tax contribution vs year 2018	**USD 99 million** Economic value retained

CONSERVING PLANETARY RESOURCES

▼6% energy intensity 2019 vs. 2011	▼19% emissions intensity 2019 vs. 2011	▼22% water intensity 2019 vs. 2011	▼23% wastewater intensity 2019 vs. 2011
▼27% raw materials 2019 vs. 2011	▼16% Non-Hazardous Waste 2019 vs. 2011	30% customer packaging reconditioned and reused	1.95 million m³ volume of water reused

CARING FOR PEOPLE

0% work-related fatalities	26,900 hrs staff training	29% management roles held by women	97% return-to-work rate after maternity leave
330,684 m³ water provided to communities at no-cost since 2011	36 scholarships provided to elementary school students	2,100 packages of rice and vegetable oils donated to village of Gabus, Indonesia	100% business locations audited for corruption-related risks

Our History

DyStar is a globally leading dyestuff & chemical manufacturer and provider of innovative solutions serving a range of industries such as textile, apparel, food & beverage, personal care, pharma & household, paints, coatings, industrial & construction, water treatment & agriculture industry. We offer a comprehensive range of products and services with a strong presence creating shared value worldwide with a diverse range of customers including leading brands & retailers, as well as their industry partners.

The DyStar Group was established on July 1, 1995, as a joint venture between Hoechst AG and Bayer Textile Dyes. Since inception, DyStar has exhibited an industry-leading track record of product and service innovation while continuously raising standards for quality, environmental protection, and safety. Excellence in these aspects creates shared value with its customers and partners, enabling them to share success and build sustainability, resilience, and quality throughout the value chain.

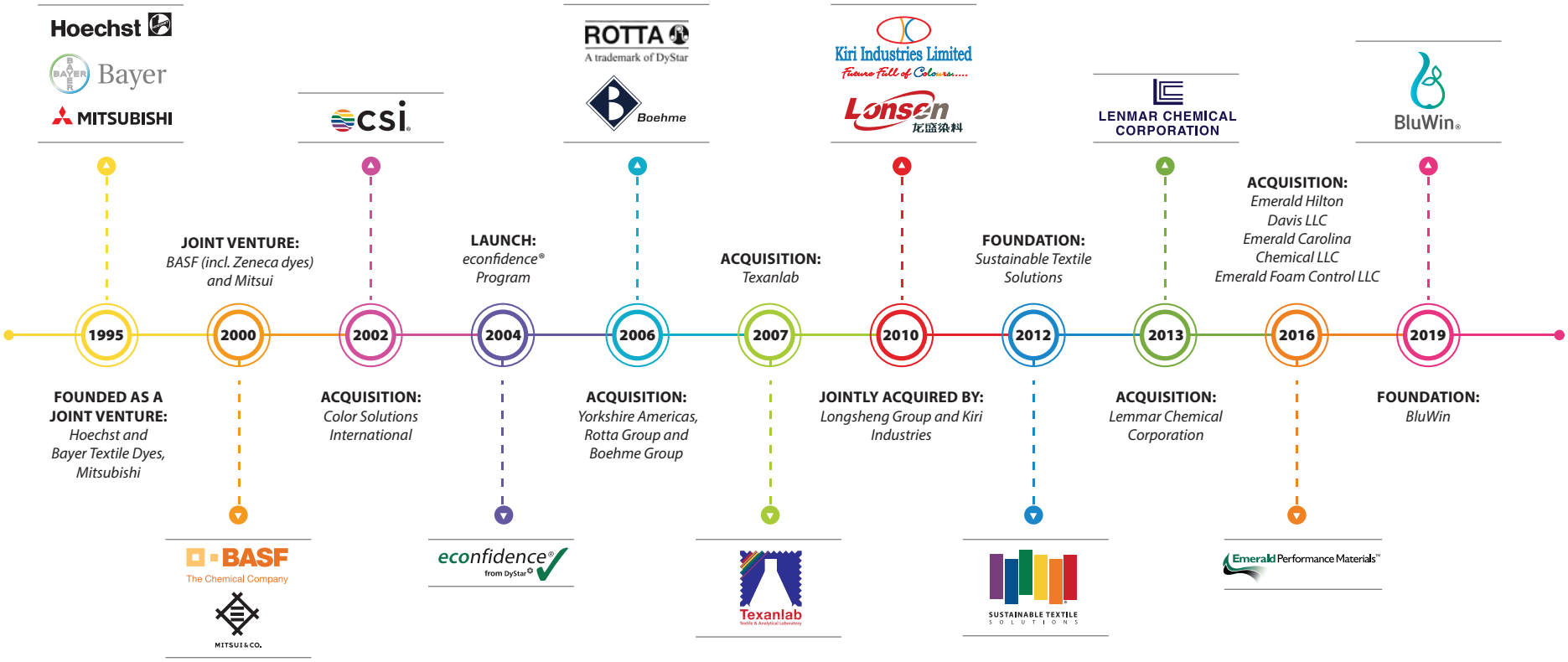
DyStar's legacy spans over a century, leveraging and building on the innovative work of its pioneering parent companies such as Hoechst AG, Bayer Textile Dyes, Mitsubishi, BASF AG Textiles Dyes, and Mitsui. Created from the top pedigree, DyStar has grown into a trusted partner for key players in the paints, coatings, paper, and packaging sectors, and beyond. Further, the company offers a full range of solutions to textile and apparel businesses. Throughout its history, DyStar has consolidated and innovated core solutions, fostering a streamlined approach, and unrivaled support for its customers.

During this era, DyStar has integrated a number of top value creators into the group, which are shown in the timeline below.

2010 marked the dawn of a new era for DyStar with its acquisition by Zhejiang Longsheng Group and Kiri Industries Limited (KIL). More recently, the company invested heavily in the expansion into the food and beverage, as well as personal care sectors. In 2016, DyStar significantly diversified its product portfolio with the acquisition of Emerald Performance Materials LLC, a leading American manufacturer and marketer of specialty chemicals, which resulted in three businesses joining the group, including DyStar Carolina Chemical, DyStar Hilton Davis and DyStar Foam Control. The combined offerings of these businesses extended DyStar's trusted and reliable reputation from the textile and apparel industry to other sectors, such as food and beverage, personal care, pharma and household, paints, coatings, industrial, and construction, water treatment, and agriculture.

Leveraging this diversity and synergy, DyStar has evolved into a robust organization that thrives even in economic uncertainty and adapts to emerging risks and opportunities across various sectors.

DyStar is headquartered in Singapore, with a global workforce over 2,000 employees strong. The company's business foundations are well built for resilient value creation and an ambitious future.



Our Key Industries

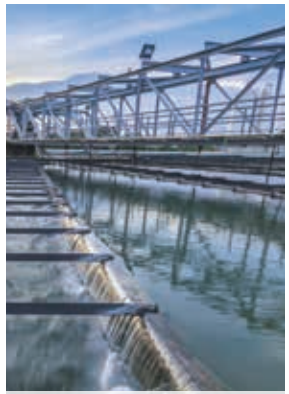
Textile & Leather

Personal Care, Pharma & Household

Food & Beverage

Paints, Coatings, Industrial & Construction

Printing, Paper & Packaging

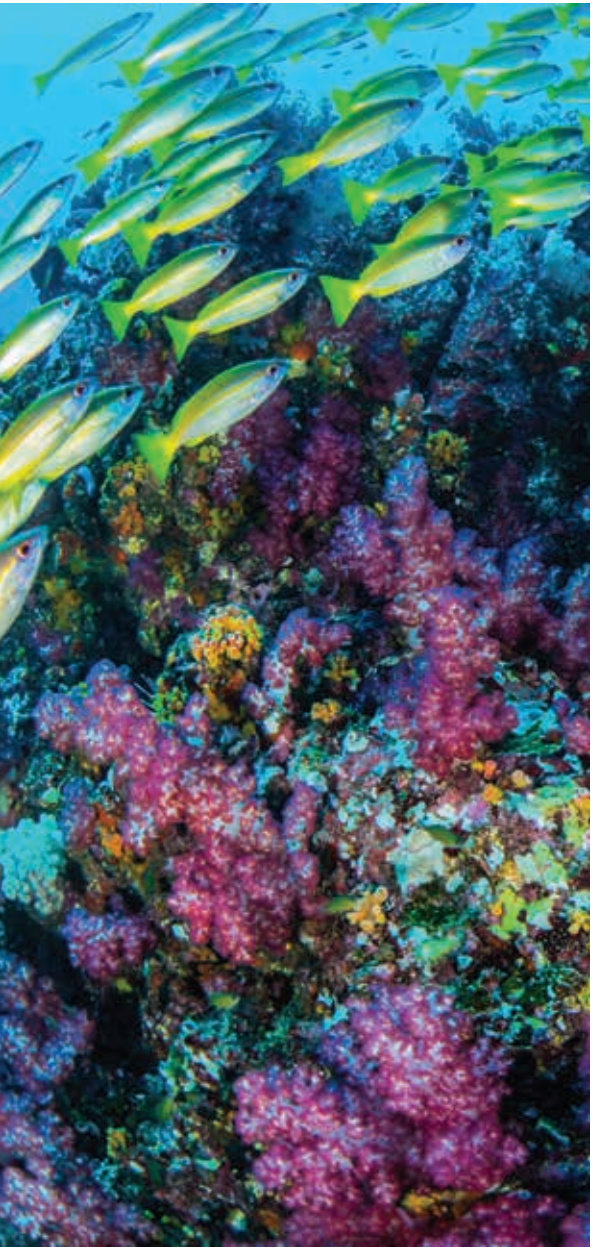


Water Treatment & Agriculture

Our Global Presence

- Global Headquarters
- DyStar Office
- Key Production Site

Approach to Sustainability



STRATEGY FOR SUSTAINABILITY

DyStar's strategy for sustainability is designed to achieve market and environmental leadership across all target industries, while simultaneously leading other industry players towards a collectively sustainable value chain. Numerous group-wide targets and goals have been set to track progress and ensure this vision is realized.

DyStar continuously innovates its products to be better, safer, and environmentally preferable; always driving towards the best interests of employees, customers, business partners, and consumers. It works to stay connected with its stakeholders and engage the communities where it operates to collaboratively create value in many forms.

DyStar pursues sustainability in all aspects of its business, aiming to achieve sustainable business growth and maintain industry leadership into an uncertain future. To drive the company and towards a sustainable future, it aligns its efforts and strategies to the UN Sustainable Development Goals where possible. DyStar continually optimizes its carbon efficiency and conserves finite resources throughout the value chain. As a result of these efforts, DyStar is consistently improving its sustainability performance and raising standards in the industries in which it operates. These efforts are extended to health, safety, and environmental protection in the value chain.

As a responsible business, it complies with all relevant laws and regulations worldwide in its areas of operation and meets or exceeds major industry standards.

Two-Fold Sustainability Strategy

DyStar's sustainability strategy is two-fold, focusing on both reducing its own operational impacts as well as helping customers to reduce their impact.

DyStar's organizational sustainability structure was established to continually optimize operational impacts. This is achieved through a regular sustainability reporting process with robust data collection and environmental performance monitoring. It has also implemented emissions reduction strategies and consistently improved its water, waste, energy, and greenhouse gas (GHG) footprints.

DyStar helps customers reduce their impacts through its econfidence® assurance backed with a strong ethos of product stewardship and environmental criteria. All DyStar products excel in quality, reliability, and eco-performance. The company consistently leads in terms of sustainable product innovation and processing.

The Value Chain Approach

The production of garments requires extensive and complex supply chains for fiber production, raw material sourcing, textile manufacturing, garment construction, shipping, storage, retail, use, and disposal. As this has resulted in highly pollutive operations in many parts of the world, DyStar makes significant strides to counter these impacts by catalyzing more sustainable textile, and apparel value chains.

To comprehensively assess the impacts of the sector, direct sources of pollution like the excess use of fertilizers and pesticides in cotton farming, the copious quantities of dyes and auxiliary chemicals applied in textile manufacturing, the accumulation in lakes and oceans of plastic microfibers shed by synthetic garments, and the growing volume of waste composed of cast-off clothing must be assessed alongside other factors for such as the sizable amount of natural resources required for raw material extraction, farming, harvesting, processing, manufacturing, storing, and shipping. The responsibility of such industry issues such are shared amongst many stakeholders, and together they must adopt a value chain approach to sustainability.

DyStar's sustainable value chain approach helps manage risks from improper use of chemicals to global issues such as climate change affecting DyStar and its customers' access to water, a crucial process input. Waste and wastewater management best practices enable DyStar's substances to be applied safely by customers in textile production. In the absence of such practices, textile production and value chains can be pollution-intensive.

Around the world, the progression of pollution-related issues and growing public concern have prompted many governments in emerging market countries to develop and enhance the enforcement of environmental laws and regulations— particularly those that target emissions, waste, and wastewater. Further, many end consumers are becoming more interested in the impacts of the products they purchase and increasingly prefer more ecological alternatives, particularly in the textile industry.

As many textile producers are facing pressure to improve environmental performance and adapt to evolving standards and regulations, DyStar is the natural partner of choice for businesses keen to improve their environmental performance. DyStar is committed to catalyzing sustainability across the entire value chain. That commitment begins at home, with DyStar continuously improving its own operational impacts, and extending upstream to its suppliers, who are expected to uphold ethical business practices and environmental stewardship. Downstream, DyStar provides a diverse range of responsible products, tools, and services to help improve sustainable performance and provide ecologically preferable alternatives to customers, brands, and retailers.

DyStar's value chain approach is guided by the "Four C's"– Creating, Conserving, Caring, and Communicating, that identify positive and negative impacts across DyStar's value chain.

DYSTAR VALUE CREATION

To ensure the efficacy of these efforts, the DyStar 2025 Sustainability Master plan has established objectives, goals, roadmap steps, and specific outcomes for each capital stock. The plan is founded on DyStar's sustainability vision to be the environmental and innovative global leader in its target industries. The respective outcomes and targets are ambitious, yet achievable by 2025.

How We Create Value

Natural Capital

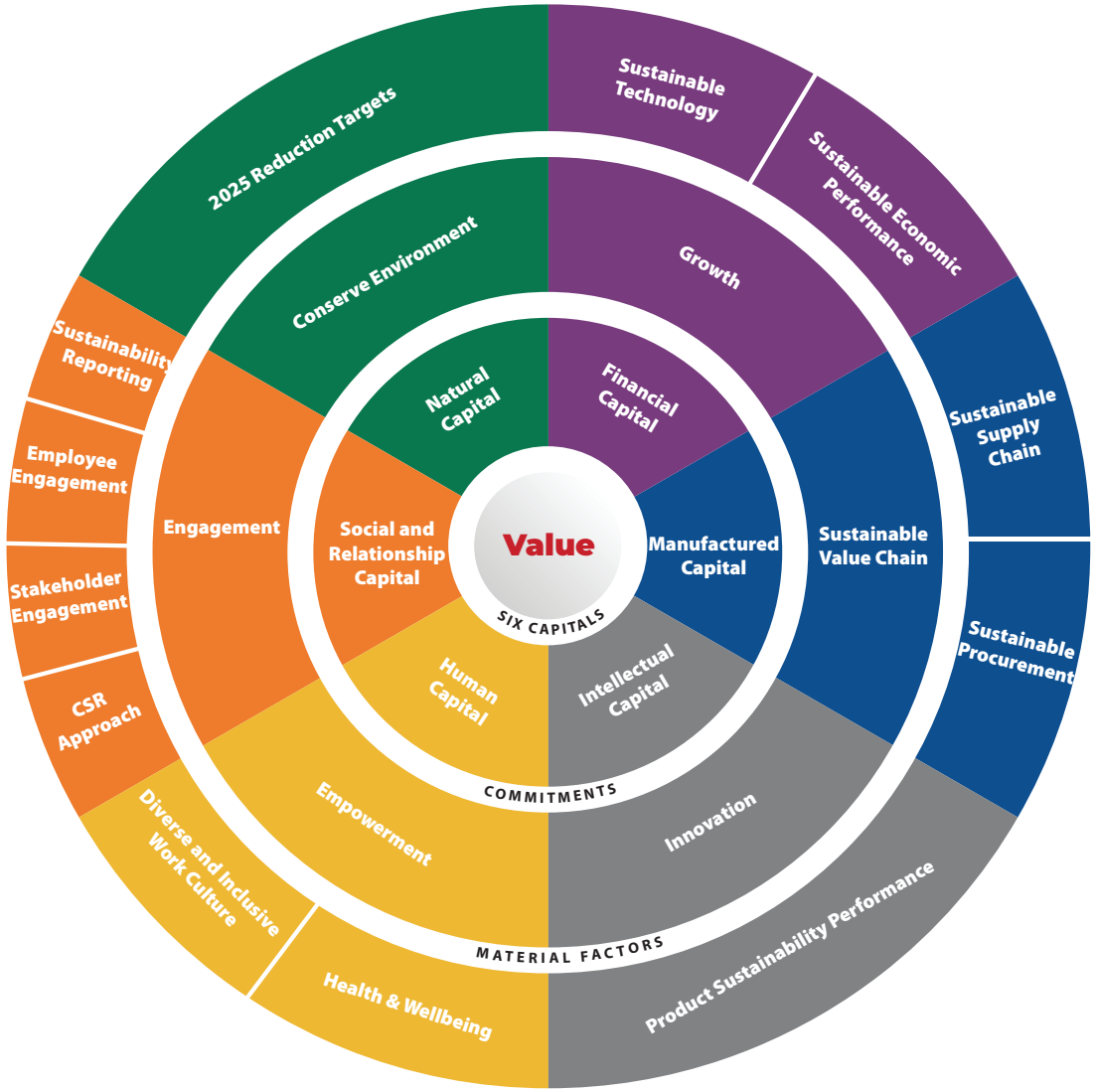
- Increase the conservation of energy.
- Reduce GHG emissions.
- Increase the conservation of water resources.
- Practice responsible wastewater management.
- Reduce targeted waste.
- Reduce Raw material consumption intensity.
- Sustainable Packaging

Social and Relationship Capital

- Implement integrated sustainability reporting principles.
- Align the strategies of all our business operations to the UN Sustainable Development Goals.
- Increase awareness of sustainability and the company's sustainability commitments.
- 100% of business units within DyStar have established sustainability goals.
- Respond to all feedback with the goal of creating long-term, enduring relationships. Serve stakeholder interests and add value to DyStar's business.
- Support social responsibility and community engagement with global volunteering efforts.

Human Capital

- Create a transparent, trustworthy, fair, and equal workplace with great opportunities for everyone.
- Equitably retain and advance our talented team.
- Drive inclusive leadership and individual behaviour.
- Align employee care efforts to increase health benefits and improve health and wellbeing.



How We Create Value

Financial Capital

- Integrates functions of various business lines as well as industry solutions.
- Achieve higher levels of economic productivity through diversification, cutting-edge technology, and innovation.

Manufactured Capital

- Encourage decision making and behaviors that lead to Sustainable Logistics optimization.
- Comprehensive and systematic management of Responsible Purchasing.

Intellectual Capital

- Develop application processes that save valuable resources and enhance product performance.
- Continually improve product recycling.

Approach to Sustainability

BUSINESS MODEL

DyStar's business model leverages integrated forward-thinking strategies to create and distribute value in all its major forms to its stakeholders and society at large over the short, medium, and long term. The company operates an expanded perspective on the value and understands that non-financial value stocks can have significant financial implications. Further, the company manages the relationships between various forms of value to dynamically optimize resource efficiency, mitigate risks, capitalize on emerging opportunities, and ultimately maximize financial value.

DyStar creates value in a form of six major types of capital: financial, manufactured, intellectual, human, social and relationship, and natural. The company considers all these forms of capital in its decision making and business strategies, continuously exploring the relationship between these capitals and the company, each other, and a sustainable future for society.

To drive the company towards integrated value creation, DyStar has established commitments and goals for each type of capital and assigned a responsible department to lead specific initiatives. The table below outlines DyStar's commitments and modes of value creation/ conservation for each type of capital.

DyStar manages each of these capitals as critical inputs for the business model and transforms them through their operations and activities into outputs such as products, by-products, services, innovation, and various other benefits for its stakeholders and society. These various forms of value are not ancillary to the company, but intricately interrelated with financial performance and therefore, they are managed in an integrated manner with careful attention to synergistic relationships. Examples of capital interrelationships include but are not limited to using fewer resources benefits all of society while minimizing costs for the company, eco brands reduce environmental impacts while differentiating DyStar's products in the marketplace, and developing our workforce improves the lives of our employees while building the business capacity of DyStar.

INPUT		
Financial Capital	Global Operating Cost	776.02 million USD
	Global Employee Wages and Benefits	144.97 million USD
	Payments to Providers of Capital	36.77 million USD
Manufactured Capital	Raw Material	93.95 thousand tons
	Packaging Material	4.06 thousand tons
	Associate Material	1.35 thousand tons
	Sustainability supplier assessment	Evaluate shortlisted suppliers of 80% of category expenditures at least once every two years
Intellectual Capital	Collaborations/memberships (Nos.)	39 Industry organizations/Business Associations
	Sustainability with Technology	eliot® online tool on product selection and process optimization.
	Textile Effects and Labels	5 Evo® product range
	Sustainability Across Processes	Optidye® tool
	Patents	More than 1,000 patents and pending patent applications
	Trademarks	More than 2,500 registered trademarks
Natural Capital	Direct Energy Consumed	542.68 TJ
	Indirect Energy Consumed	711.37 TJ
	Water Withdrawal	7.49 million m^3
	Water Reused	1.95 million m^3
	Direct GHG Emissions – Scope 1	38.05 thousand tCO_2e
	Indirect GHG Emissions – Scope 2	69.79 thousand tCO_2e
	Wastewater Discharged	1.32 million m^3
	Hazardous Waste	8.3 thousand tons
	Non-hazardous Waste	3.36 thousand tons
	Number of Spills, Total Amount Spilled	1 spill, 2.66 tons
Human Capital	Total number of workforce	2002
	Training were dedicated to skills enhancement	23,852 hours
	Training were dedicated to HSE topics	23,051 hours
Social and Relationship Capital	Water provided to communities at no-cost since 2011	330,684 m^3
	Provided to elementary school students	36 scholarships
	Rice and vegetable oils donated to families in the village of Gabus, Indonesia	2,100 packages
	Business locations audited for corruption-related risks	100%

Our Vision

We strive to be the environmental and innovation global leader in our chosen industries.

Strategy for Sustainability

The Value Chain Approach

OUTPUT

Global Revenue	1056.69 million USD
Economic Value Retained	99.45 million USD
Total production	129.327 thousand tons
Core Product Range	* Textile Dyes, Inks and Pigments * Colorants and Process Additives Applied in Consumer Products * Textile & Apparel Auxiliaries * Industrial Colorants and Performance Chemicals
Resource Efficiency	9 Cadira® Modules
Eco-performance program	500 regulated or restricted substances monitored through econfidence®
Products with a Difference	13 patented Dianix® items
Product Life Cycle and Circular Economy	39 DyStar dyes have received the Cradle to Cradle Product Innovation Institute's Gold Level Material Health Certificate.
CSI®	4000 ColorWall™ reference available for better right-first-time performance
eliot®	28 positive lists, e.g. for compliance to brand and retailer Restricted Substances Lists
REACH®	450 substances registered according to REACH®
KKDIK	750 substances pre-registered according to KKDIK
bluesign®	1361 bluesign® approved DyStar products
ZDHC®	2154 DyStar products compliant with ZDHC MRSL 1.1
Oeko-Tex®	2103 DyStar products approved for use on Oeko-Tex® Standard-compliant articles
Energy Consumption Intensity	9.45 GJ per ton production
Water Withdrawal Intensity	57.6 m^3 per ton production
GHG Emissions Intensity	0.81 tCO_2e per ton production
Wastewater Intensity	14.08 m^3 per ton of production
Overall Waste Intensity	104.16 kg per ton production
Diversity % of management roles held by women	29%
% return to work rate after maternity leave	97%
Customer satisfaction rate	90%
Work-related fatalities	0%

Risks and Opportunities

DyStar continuously monitors and mitigates risks through robust mechanisms to ensure business continuity and resilient value creation over the long term. The company's business model is well designed to adapt to emerging risks, changing business contexts, and unpredictable future scenarios. In addition, the company is well poised to capitalize on the opportunities brought on by industry trends and global issues. The examples below exhibit DyStar's approach to identifying emerging risks, mitigation measures, and associated business opportunities.

RISKS LANDSCAPE	MITIGATION MEASURES & OPPORTUNITIES
 **Macroeconomic and Business Risks** The coronavirus pandemic (COVID-19) has drastically affected nearly every facet of business around the world	To persevere through this unprecedented challenge, DyStar is optimizing business continuity by leveraging location intelligence to gain an actionable yet holistic view of operating status and risks. DyStar implements cutting-edge technology to monitor, manage, and communicate the impact of COVID-19 to internal and external stakeholders and support business continuity as the crisis develops.
 **Financial Risks** The COVID-19 crisis presents significant financial risks as a result of global operations and supply chain disruptions.	In such a scenario, liquidity and credit risk will increase. As at end of FY2019, DyStar does not have any external loans and holds a sufficiently large reserve of cash and cash equivalents. The group also maintains substantial credit lines at banks should additional funds be required.
 **Climate Change Risks** Climate change represents one of the most critical challenges facing humanity as well as businesses around the world. Along with the changing climate, DyStar anticipates a more stringent policy landscape, landscape; frequent extremes weather events and resulting supply chain disruptions, volatile energy prices, water scarcity, and markets that increasingly value carbon efficiency.	DyStar continues to invest in innovative technologies and process improvements that minimize its environmental footprint. At the management level, the company makes continuous efforts to better understand climate risks, exhibit climate leadership, and adapt the business to thrive in a low-carbon future. As awareness and transparency continue to increase, DyStar's environmental leadership will continue to increase the preference for our products, driving a competitive advantage and market share into the future.
 **Supply Chain Risks** Supply chain interruptions and supply shortages can result in significant cost increases and business continuity disruptions.	DyStar has implemented immense efforts dedicated to developing a sustainable supply chain and a robust supply base. DyStar projects that are designed to mitigate supply chain risks include the Supplier Audit-DOLPHIN project initiated at end 2018, the implementation of the Institute of Public and Environmental Affairs (IPE) tool to drive sustainable supply chain management, and the 2018-2019 Supplier Sustainability Survey. Specific details are discussed in the Sustainable Procurement section.
 **Regulatory Risk** The scarcity of key raw materials may constrain production output through 1) more stringent environmental policy resulting in small chemical factory closures, and 2) non-scheduled supplier closures due to the random inspections.	To mitigate these risks, the company's shareholders developed an environmentally friendly integrated chemical industry park to produce key raw materials and intermediates for the dyestuff industry. This provides DyStar not only with a supply guarantee but also with a significant price advantage. DyStar closely monitors environmental performance metrics to ensure continual improvement and compliance with all existing regulations.

RISKS LANDSCAPE	MITIGATION MEASURES & OPPORTUNITIES
Waste Management Risks Waste treatment may limit production capacity due to 1) on-site waste gas or water treatment facilities issues, or 2) the hazardous waste being unable to be removed from the production site induced by the venders' issue.	DyStar has established a dedicated process development team that deploys innovative methods of minimizing waste generation and improving the effluent purification process.
Operation Risks Critical equipment/unit malfunctions may induce unplanned interruptions to production.	DyStar has established a global project and engineering team to select high-quality and durable critical equipment, accompanied by preventive maintenance, critical spare parts, and safety stock practice to prevent breakdowns.
Safety Risks Major accidents such as severe fire, explosion, and hazardous materials leakage may induce serious environmental pollution, harm to employees, non-compliance with safety/environment laws and regulations, interruption of operations, damage to assets, and loss of reputations.	DyStar has a strong safety management system with mechanisms and procedures for risk prevention, assessment, and mitigation with the following components: 1) selecting the appropriate chemicals and working methods; 2) knowledge of the hazardous chemical materials existing at worksites; 3) knowledge of the occupational exposure limits for each chemical material; 4) knowledge of risk identification procedures; 5) establishing the measures for risk mitigation; 6) development of procedure instructions and occupational safety practices; 7) setting the instruments and procedures for emergency response; 8) regular internal and external safety audits and reviews of the safety measures; 9) periodic safety training for employees, contractors, and other relevant stakeholders; and 10) establishing safety performance KPIs for all employees.
Information Security Risks Breach of information and security incidents could lead to business disruption and damage to reputation.	DyStar has made significant efforts to increase IT security awareness, invested in IT security and compliance, and obtained comprehensive cyber insurance.
Community Risks Communities proximate to our operations live through significant socio-economic challenges while retaining a strong cultural heritage and an aspiration to overcome these challenges. Lack of an understanding of this duality in our communities and an inability to maintain a harmonious relationship with them would pose risk to our operations and reputation.	DyStar is committed to co-creating scalable solutions for the most endemic development challenges facing our communities. We invest in our communities each year through proven programs promoting health, education, livelihood generation, and basic amenities. DyStar deeply engages with the community and actively promotes cultural and ethnic diversity. We also recognize the value of culture differentiation at our operating locations and foster a relationship with our communities where we celebrate their history, culture, and tribal identity.

Financial Capital

DyStar creates financial value and sustainable business growth through its dynamic business model and resilient operations. DyStar recognizes the synergy between financial capital and non-financial sustainability issues, allowing the company to capitalize on a broader range of opportunities and mitigate non-financial risks that may have significant financial implications.

Governance Structure

BOARD OF DIRECTORS

Ruan Weixiang
Chairman

Xu Yalin
Executive Director

Yao Jianfang
Director

Manish Kiri
Director

Amit Mukherjee
Director

DyStar was founded on a philosophy that emphasizes corporate integrity and values. The company consistently implements the highest standards of corporate governance and ensures that principles of fairness and morality are upheld throughout the company. Members of the Board and Senior Management lead the company by example, with the collective recognition that transparency and accountability in management will secure long-term sustainability for DyStar while protecting the best interests of its stakeholders.

Over the years, DyStar has continually adapted to its ever-changing operating environment, always assessing management systems, identifying opportunities for improvement, and implementing initiatives across all business units and locations. This process is vital to the company's resilience and continued success, enabling it to acclimate to and prosper within ever-evolving business landscapes.

BOARD OF DIRECTORS

To ensure a balance of authority and enable independent decisions, the Chairman and the Chief Executive Officer (CEO) are different individuals and a non-executive Chairman head's the DyStar Board of Directors.

The Board acts as the guardian of the company and sets the overarching strategy for DyStar's long-term business objectives, organizational strategy, risk management, and global dealings. They review and approve business plans, and ensure the allocation of sufficient resources for DyStar to fulfill its objectives. As a global leader of the industry, DyStar leads by example and the Board makes it a top priority to ensure that environmental, social, and economic principles are ingrained in the corporate DNA and integrated into the business model. The Board's corporate responsibility also extends to DyStar's legal conduct and its dealings with partners in the business community.

The Board members contribute core competencies that support comprehensive corporate decision-making. This includes applied chemistry knowledge, technological insights, legal and regulatory expertise, accounting and finance proficiencies, business and management capabilities, and a well-rounded understanding of customer expectations. Collectively, this approach enables decision-making within DyStar to be properly balanced with a range of critical perspectives and considerations.

Executive Board Director, Xu Yalin, is based in DyStar's Singapore headquarters and is responsible for supervising the company's daily operations. As a representative of the Board, he also serves as the primary liaison between the Board and Senior Management, coordinating with members of Senior Management to ensure that the Board's decisions and strategies are successfully realized.

BOARD COMMITTEES

DyStar has established several specialized committees to support the Board in their decision-making, guide Senior Management, and reinforce governance throughout the company. The Audit Committee and Remuneration Committee are together responsible for enabling and ensuring good business conduct across the DyStar Group. Committee meetings are conducted periodically to discuss the latest developments, future planning, performance, challenges, opportunities, and potential new projects and policies. The Audit Committee closely monitors the effectiveness of DyStar's internal control processes and internal audit function. This involves evaluating the independence and objectivity of external auditors, as well as verifying the Group's financial statements and all announcements related to financial performance prior to disclosure.

The Remuneration Committee oversees DyStar's human resource policies and practices, making sure they properly reflect and DyStar's values and drive the company's long-term strategies. The Remuneration Committee focuses its efforts on effective organizational structure, human resource best practices, business continuity, operational efficiency, and fostering a competitive advantage. The Board reviews management performance and the Committee provides recommendations to the Board on market-adjusted remuneration that will properly compensate and motivate talented employees.

LEADERSHIP STRUCTURE

Together, the EBD and CEO lead members of Senior Management towards achieving the strategies and goals set out by the Board. These responsibilities are conducted with careful consideration of efficacy, transparency, and sustainability. The day-to-day management of DyStar is managed by the EBD & CEO. This includes coordinating the execution of strategic plans and policies with Senior Management and ensuring that the objectives of the Board and the two key committees are fulfilled in the process. The Senior Management team includes Vice President positions contributing their capacities as leaders of different key functions within DyStar. The management team is expected to instill a culture of responsible business practices aligned with the vision and values of DyStar.

Governance Structure

SENIOR MANAGEMENT TEAM

Xu Yalin
Executive Board Director

Eric Hopmann
Chief Executive Officer

Vera Huang
Vice President, Global Procurement

Ng Siew Boon
Vice President, Group Finance

DYSTAR SUSTAINABILITY COMMITTEE

Eric Hopmann
Chief Executive Officer

Fanny Vermandel
Vice President
Global Marketing Coloration

Clement Yang
Vice President
Global Manufacturing

Clemens Grund
Senior Director
Global Product Safety & Ecology and Global Intellectual Property

Hartmut Behnke
Director
Global Marketing Auxiliaries

Thorsten Huels
Director
Global Marketing Denim

Markus Dorer
Head
Global Marketing Printing

Bernhard Knoche
Global Head of Brand & Retailer Management

Adrian Ho
Senior Manager
Global Communications

SUSTAINABILITY COMMITTEE

DyStar's commitment to sustainability starts at the very top of the organization, and its sustainability mandate is driven across its global operations with the help of its Senior Management team. Leaders of various business functions form the Sustainability Committee and are tasked to integrate sustainability into the Group's business strategy, corporate culture, operations, and beyond. One of the key strengths that makes DyStar a global leader in sustainability is its ability to drive its sustainability agendas from the top down, and across various business functions, penetrating all aspects of the business.

DyStar's Sustainability Committee is chaired by the CEO and includes eight members representing the key functions in the company. The Sustainability Committee develops the company's long-term sustainability strategy and aligns sustainability objectives with core business objectives. The Sustainability Committee convenes on a quarterly basis to assess performance and progress, consider new initiatives, and discuss industry developments that could create new risks and opportunities. The Committee is also responsible for the DyStar's annual Sustainability Performance Report. This Report communicates a transparent overview of the company's achievements and challenges relative to key sustainability metrics.

The leaders of Senior Management identify economic, environmental, and social topics material to their respective functions and manage the associated impacts, risks, and opportunities in an integrated manner that optimizes value creation. Where feasible, Senior Management also ensures that sustainability aspects are carefully addressed by due diligence processes.

Periodic stakeholder engagement exercises are conducted to support these efforts. The Sustainability Committee holds meetings and forums throughout the year, which provide platforms to engage with stakeholders. On a bi-annual basis, an external consultant carries out a formal stakeholder engagement survey exercise. DyStar has identified six key stakeholders to focus engagement efforts, employees, shareholders, customers, brands and retailers, NGOs and industry groups, and suppliers. Although individual responses are kept confidential by the third-party consultant, a summary of these responses is presented to the Senior Management, Presidents, and Vice Presidents to inform decision making with a variety of valuable perspectives.

Each year, sustainability data are collected and shared with members of the Senior Management to measure progress and gauge the effectiveness of its risk management processes. Following annual sustainability reporting, DyStar's Sustainability Committee evaluates the efficacy of the management approach toward each material aspect of sustainability. Evaluation methods specific to each material topic include, but are not limited to, internal or external auditing or verification, measurement systems, external performance ratings, benchmarking, stakeholder feedback, and grievance mechanisms.

The results of engagement exercises, sustainability data, and other material information together inform the development and adaptation of the company's management policies. This practice applies to all material aspects of sustainability. Materiality is determined based on GRI criteria and business aspects such as economic performance, market presence, indirect economic impacts, socioeconomic compliance, etc.

An internal sustainability newsletter is regularly circulated to major stakeholders, covering the latest industry news and developments surrounding relevant laws and regulations, science and technology, research and findings, NGO programs, etc.

Directors and managers inform Senior Management and the members of the Sustainability Committee regarding their unique perspectives and observations relative to material aspects of sustainability. To provide stakeholders with information and create a platform to collect constructive feedback, DyStar has established a sustainability-related inquiry page on their website. To foster channels of communication further, DyStar's new hires are provided with the e-mail address of the Global Compliance Manager and the Internal Audit team mailbox was created to accept anonymous reports.

Our Economic Performance

As a global market leader, DyStar Group understands the importance of sustainability and environmental stewardship in driving economic success. DyStar's integrated approach to generating financial value accounts for the economic implications of sustainability issues. DyStar relies on environmental and social resources to generate financial value and the company, in turn, realizes cost savings, product preference, and brand enhancement in exchange for its advancements in resource efficiency. The proper management of sustainability aspects allows DyStar to optimize economic value creation and share the benefits with its stakeholders.

To achieve higher levels of economic productivity, DyStar adopts cutting edge technologies and fosters the continual innovation of its products, solutions, operations, and business model. In FY2019, DyStar had global revenue of US$1.06 billion, a marginal decline of 6.2% compared to FY2018. However, despite challenges to the topline, the group was able to increase profitability through prudent spending and efficient cost management. Economic value retained increased 65% from US$35 million in FY2018 to US$99 million in FY2019.

DyStar remains committed to supporting local economies across its global operations. The company puts the priority of purchasing sources from suppliers in regions where it operates. DyStar's approach focuses on stimulating local economies in a manner that benefits local communities, provides opportunities for local businesses, and improves local livelihoods. In addition, by purchasing local, DyStar reduces indirect greenhouse gas emissions from transport.

DyStar provides direct significant economic benefits to its employees through competitive compensation packages and provides them with career and development opportunities that will benefit their future financial capacity. By recruiting most of its workforce and management locally, the company benefits the skills development and employability of local workforces.

DyStar also generates indirect economic in various forms such as customers benefiting from resource-saving products, the end-users benefiting from the longer lifespan of garments associated with their high-quality and resource-efficient dyeing processes, and the local economies benefiting from improved infrastructure and services.

DyStar has mechanisms in place to ensure that proper tax is paid in all countries it operates in. The company understands that payments to local governments is part of being a good corporate citizen and enhances the stability of its operating environment. Worldwide, DyStar contributed US$36.77 million in tax payments to governments for FY2019.

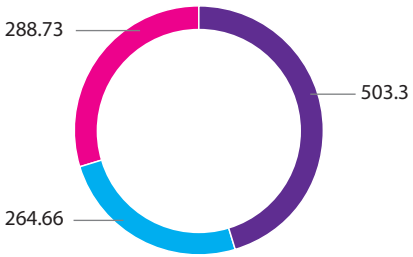
Across all operating locations, DyStar either meets or exceeds legal or industry minimum standards for employee wages in support of fair practices. Global wages and benefits continue to increase in recent years, reaching a record of US$145 million in wages and benefits in FY2019, an increase of 7.9% compared to FY2018.

No significant indirect adverse economic impacts have been identified in any of DyStar's operational locations.

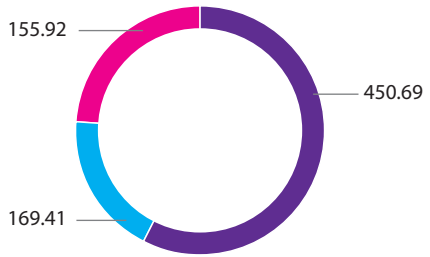
	2017	2018	2019
Global Revenue	1016.19	1129.64	**1056.69**
Global Operating Cost	765.48	919.27	**776.02**
Global Employee Wages and Benefits	133.21	134.43	**144.97**
Net Payments/Receipt to/from providers of capital	6.07	5.26	**-0.52**
Payments to Government	27.37	35.62	**36.77**
Economic Value Retained	84.06	35.06	**99.45**

(Million USD)

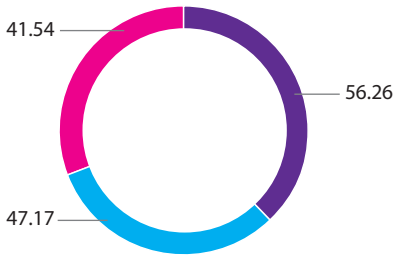
Global Revenue (2019)



Global Operating Costs (2019)



Global Employee Wages and Benefits (2019)



Asia Europe Americas (Million USD)

Ethics and Compliance

DyStar is committed to fostering a culture of responsibility and conducts its business in accordance with the highest ethical and legal standards across all its business activities. All DyStar employees are required to adhere to the company's Code of Conduct, which stipulates a common understanding of the company's expectations regarding ethical behavior. The Code of Conduct is binding for all employees of the group and establishes legal and ethical principles and guidelines. These principles are the foundation of DyStar's reputation as an employer of choice, a reliable business partner, and an ethical company.

DyStar is committed to being a good corporate citizen and while no company is immune to bribery, fraud, and corruption, the company has implemented robust mechanisms to prevent unethical behavior and strengthen existing safeguards. In addition to the Code of Conduct, the company also has a Fraud Policy to protect whistle-blowers, a Code of Business Conduct for Suppliers and Third-Party Service Providers, as well as the Code of Business Conduct for Sales Related Service Partners. Collectively, these principles and policies combined with the vigilance of managers and employees protect the company and its stakeholders from the corruption of all kinds.

Anti-corruption policies have been communicated to all governance body members, managers, directors, and VPs, as well as all external business partners and the employees that interact with them. DyStar's provides training to applicable employees so that they are well prepared to address matters of ethical business conduct.

DyStar has a zero-tolerance policy regarding anti-competition behavior. Compliance with all laws and regulations is a primary responsibility of the company. Legal counsel is available for any employee that may have questions regarding what may or may not constitute anti-competitive behavior. In FY2019, there were zero legal actions against DyStar regarding violations of anti-trust and monopoly legislation.

DYSTAR'S CODE OF CONDUCT

DyStar's Code of Conduct consists of eight principles that correspond internationally accepted business ethics standards. The Code is designed to promote transparent operations and encourage occupational safety best practices. The Code is the moral compass of the business, protecting interests of internal and external stakeholders alike.
DyStar understands that ethical companies are better able to attract and retain the top talent in the industry, and therefore, its culture of ethics helps generate a valuable competitive advantage. The company's Code of Conduct also benefits external stakeholders as it helps build trusting relationships and facilitate compliance with relevant laws and regulations. This safeguards the long-term interests of the company and value for its customers, suppliers, brands and retailers, and the local communities in which it operates.

CODES OF BUSINESS CONDUCT

DyStar's Code of Business Conduct for Suppliers and Third-Party Service Providers communicate its fundamental principles and expectations to its upstream partners. This includes, but is not limited to, all suppliers of raw material, intermediate goods and finished goods, IT and engineering suppliers or service providers, and freight forwarders and logistics providers. Any company that wishes to build a long-term relationship with DyStar must comply with the Code of Business Conduct.

DyStar implements a zero-tolerance policy for bribery of any kind. Corruption exposes DyStar and its employees to consider risks such as criminal prosecution, civil fines, and penalties, as well as the resulting reputational consequences. No circumstances could justify these risks. Its Code of Business Conduct forbids inappropriate payments, regardless of the source, and it applies all business functions, dealings, locations, and operations. To avoid any potential conflicts of interest, company employees and their relatives are forbidden to accept payments, gifts, or entertainment services from any individual or company desiring to do business with DyStar.

DyStar's suppliers and third-party service providers are required to comply with all relevant laws and regulations regarding competition and antitrust laws. As part of these requirements, trusted suppliers are expected to keep accurate business records and maintain mechanisms to comply with relevant laws and DyStar's Code of Business Conduct. Such mechanisms include policies, training, monitoring, and auditing. DyStar believes in giving preference to ethical and sustainable suppliers and encourages company suppliers and third-party service providers to do the same with their own suppliers and contractors.

To avoid any potential downstream transfer of business risks, DyStar also has a Code of Business Conduct for Sales Related Service Partners. Breach of either code by DyStar staff will result in discipline or dismissal, and business relations will be suspended with partners contravening company policies, or repeatedly failing to implement corrective actions in their operations.

There are no reported instances of noncompliance with any social or economic laws or regulations in FY2019.

COMPLIANCE MANAGEMENT

DyStar's Compliance Group is responsible for ensuring that the company operates in accordance with all applicable laws and regulations, as well as to the company's values, internal policies, and management directives. In the process, the Compliance Group also evaluates and eliminates potential risks to the business and its stakeholders across the value chain. Further, the Compliance Group fosters a culture of ethics and raises awareness among managers and employees.

All new DyStar team members are given the contact details of the Global Compliance Manager upon onboarding. Across all locations and functions, Compliance Management Representatives are assigned to each area of operation, to ensure that all business activities and operations are conducted in line with company policies and applicable regulations. To provide staff guidance, legal counsel is available for anyone with questions regarding the legality of potential decisions and actions.

FRAUD POLICY

DyStar implements a strict fraud policy, as breaking laws for personal gain can result in severe adverse impacts on the environment, local communities, and DyStar's reputation. DyStar combats potential corruption through a two-way communication approach, from the top-down and a bottom-up. DyStar conducts regular internal audits for corruption-related risks and DyStar's Fraud Policy was created to further reinforce the company's anti-corruption efforts. This policy enables staff to safely and anonymously report known or suspected instances of fraud and allows the company to effectively identify instances of wrongdoing by assuring potential whistle-blowers that they can act without fear of unjust retribution.

Investment in Infrastructure

OUR CODE OF CONDUCT PROMOTES EIGHT KEY PRINCIPLES THAT ARE ALIGNED WITH INTERNATIONAL STANDARDS[1]:

1. **Compliance with Laws and Regulations**
2. **Protection of Intellectual Property Rights**
3. **Commitment to Fair Competition**
4. **Separation of Private and Company Affairs**
5. **Prioritizing Health, Safety and the Environment**
6. **Ensuring Product and Service Quality**
7. **Respect for the Rights of Employees**
8. **Cooperation with Authorities**

[1] *The international standards referred to include the following: The International Labour Organization Core Labour Standards; ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy; The Universal Declaration of Human Rights; The OECD Guidelines for Multinational Enterprises; The United Nations Global Compact Ten Principles; Social Accountability SA8000; and The Responsible Care Global Charter.*

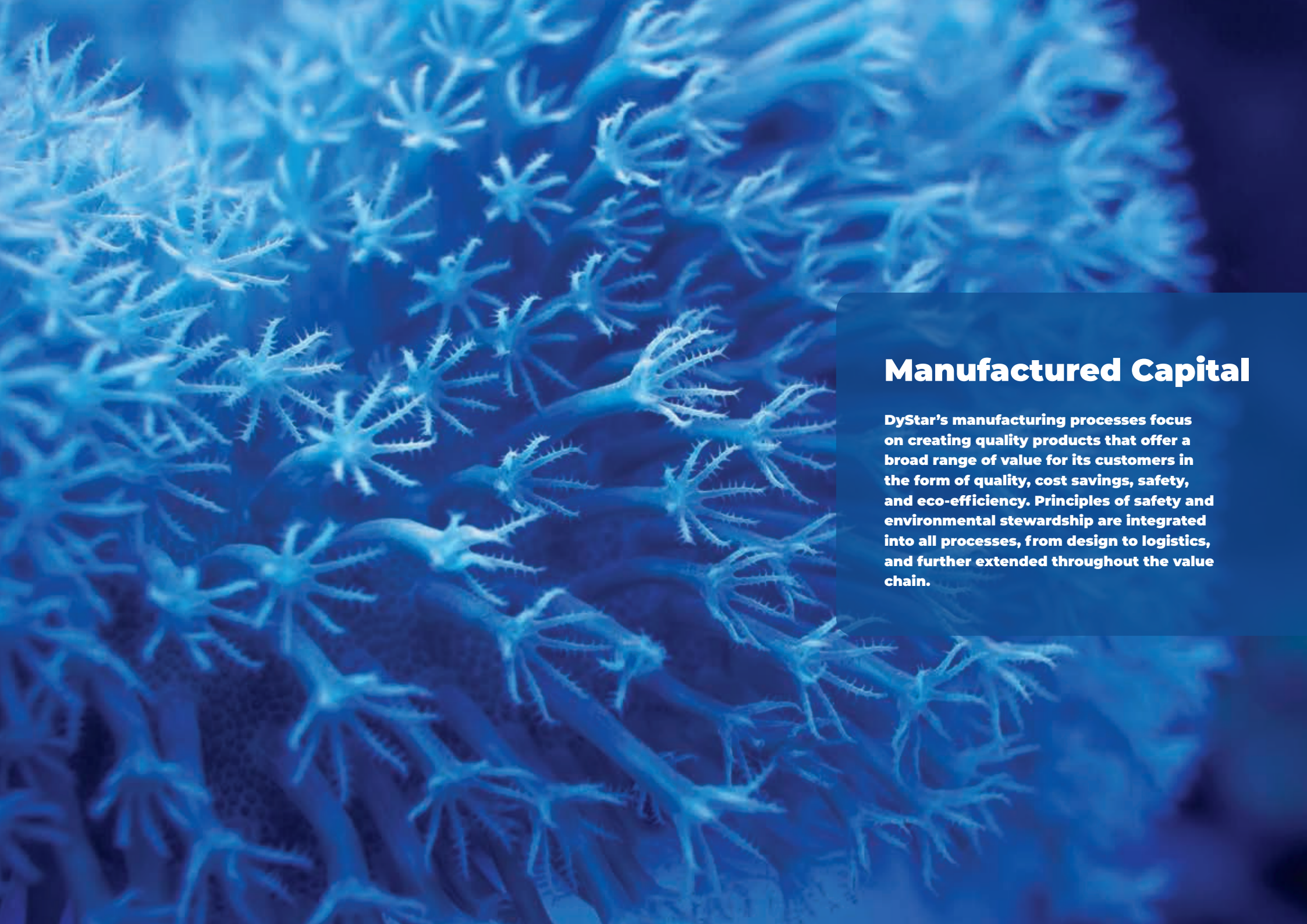
Investing in infrastructure and technology is a key strategy for optimizing efficiency, enhancing resilience, building capacity, and ultimately maximizing value creation at DyStar. Here are several examples of initiatives undertaken in FY2019.

SAP® S/4HANA is an intelligent Enterprise Resource Planning (ERP) solution that can help businesses capture opportunities and remove common problems with legacy applications, helping businesses to function more effectively and efficiently.

Last year, DyStar embarked on a journey to help standardize and harmonize many operational procedures and systems. DyStar leveraged the SAP S/4HANA real-time platform to optimize ERP, and significantly reduce costs for the company.

DyStar's digital transformation enables the re-engineered and simplification of business processes, improves the user digital experience, automates tasks, and helps run next-generation processes. In addition to optimizing DyStar's use of capital resources, it allows the company to better engages its stakeholders across multiple channels.

In order to improve management controls of company information, a new Customer Relationship Management system called SAP Sales Cloud was launched in January 2019. This provides a more systematic approach to the management of customer information as well as opportunities across the business.



Manufactured Capital

DyStar's manufacturing processes focus on creating quality products that offer a broad range of value for its customers in the form of quality, cost savings, safety, and eco-efficiency. Principles of safety and environmental stewardship are integrated into all processes, from design to logistics, and further extended throughout the value chain.

Our Core Products

Textile Dyes, Inks and Pigments

DyStar is the world's leading supplier of dyes. We have by far the broadest product range on the market.

DISPERSE DYES
Dianix® | Palanil®

REACTIVE DYES
Levafix® | Procion® | Remazol® | Realan®

DENIM DYES
DyStar Indigo | Cassulfon®

INKS
Jettex®

VAT DYES
Indanthren®

ACID DYES
Telon® | Supralan® | Isolan®

DIRECT DYES
Sirius®

PIGMENTS
Imperon®

BASIC DYES
Astrazon®

MORDANT DYES
Diamond®

Textile & Apparel Auxiliaries

DyStar's innovative auxiliaries range spans the entire textile wet processing chain. DyStar's auxiliaries provide textile manufacturers enhanced cost and resource efficiency.

PRE TREATMENT
Sera® Fil | Sera Wash | Sera Zon | Sera Wet
Sera Zyme

DYEING
Sera Gal | Sera Fast | Sera Quest | Sera Foam
Sera Con | Sera Lube

FINISHING
Evo® Soft | Evo Protect | Evo Pret | Evo Fin
Evo Care

COATING
Evo Top | Evo Xen

PRINTING
Sera Print | Sera Binder

LAUNDRY
Lava®

SPINNING & WEAVING
Isafil | Filapan® | Synthesin® | Cerat

Colorants and Process Additives Applied in Consumer Products

DyStar offers additives and colorants to multiple consumer industries including food, drugs and cosmetics (FD&C), FDA certified and quality Food D&C and globally certified Food Grade / Food Safe defoamer additives.

FD&C REGULATED
Certified FD&C Dyes | FD&C Lakes
Certifiable Dyes | Lakes

D&C REGULATED
Certified D&C Dyes | D&C Lakes
Certifiable dyes | lakes

FOOD FOAM CONTROL
Foam Blast® | Acepol® | Mazu® | KFO | Masil®

SECONDARY BLENDS
From Regulated and technical dyes

TECHNICAL DYES
Hidacid®

Industrial Colorants and Performance Chemicals

Our diverse portfolio of dyes, pigment dispersions, defoamers, functional silicones and specialty esters enable manufacturers of coatings, inks, and adhesives to meet performance and regulatory compliance targets.

TECHNICAL DYES
Hidacid® | Jettex®

PIGMENT DISPERSIONS
Hilton Davis® Formulator 24A and Industrial 42A Super Seatone® | Sup-R-Conc® | Black Shield® Auracote® | Sup-R-Cryl® | Lucida®

DEBONDERS
Fluffsoft®

INDUSTRIAL DEFOAMERS
Foam Blast®

INDUSTRIAL SILICONES
Masil® Functionalized | Emulsions | Reactive Fluids

SPECIALTY ESTERS
Novaflex®

PRODUCT STEWARDSHIP ACROSS OUR VALUE CHAIN

DyStar is committed to product stewardship and minimizing environmental, health, and safety risks throughout a product's lifecycle. Product stewardship is managed through an integrated process and the expertise of multiple product divisions. DyStar expands its sustainability efforts and values across its value chain as a product's indirect impacts can be significant or even greater in downstream life stages.

DyStar imbeds considerations of sustainability in the early stages of design and sourcing to minimize impacts and to provide value for its customers by providing quality alongside positive impacts on workers, communities, and the environment. Further, sustainability considerations such as avoiding certain chemicals help lower impacts during end-use and end-life phases of products. Therefore DyStar's stewardship lowers lifecycle impacts from cradle to grave.

The UN SDGs Across DyStar's Value Chain

The United Nations (UN) Sustainable Development Goals (SDGs) are designed to help the world become more sustainable by 2030. These 17 goals serve as a common framework for all countries, companies, and civic societies across the world to drive their actions towards a common vision of a sustainable future. DyStar has joined this global movement, and as such, has aligned its sustainability strategy to this worldwide agenda.

While DyStar aims to support all the SDGs, it has identified eight goals to which it can make particularly significant contributions. DyStar's integrated perspective accounts for the interconnection of all the SDGs and pledges its support as opportunities arise.

For example, Goal 12 focuses on responsible consumption and production. This is one area where DyStar's sustainability achievements contribute a direct, significant, and positive impact. DyStar's internal commitment to conserving ("conserving" being the second of the four Cs) planetary resources in its own operations is in direct alignment Goal 12. The company also indirectly contributes to Goal 12 by creating ("creating" is the first of the four Cs) responsible products and services, as many of which are designed to help customers become more resource-efficient. If you follow the impacts downstream, DyStar's colors are made to last; not only is this indicative of high quality, but it extends the lifetime of the end-product, thereby indirectly reducing consumption.

DESIGN > **MANUFACTURING** > **STORAGE** > **TRANSPORT**

DIRECT IMPACTS

Research and Development for New or Improved Products and Processes

At DyStar, product stewardship begins in the design phase, where careful attention is given to green chemistry principles. The development of safer and more resource-efficient products benefits the environment and DyStar's stakeholders across the value chain.

Production of Dyes and Auxiliaries

DyStar eco-tests raw materials and ensures that contaminated substances do not enter the production process. In addition, production processes undergo rigorous risk assessment and mitigation measures to ensure that DyStar products and processes are safe for human and ecosystem health. Products and processes are designed to optimize resource efficiency.

Warehousing of Dyes and Auxiliaries

DyStar implements safety and environmental best practices for warehousing and transportation, which are also thoroughly assessed for environmental and health risks. DyStar strategically locates its warehouses to optimize transportation while reducing emissions.

Delivery of Dyes and Auxiliaries to Customers

DyStar complies with the Globally Harmonized System (GHS) for labeling which promotes the safe handling of chemical products.

DyStar's logistics optimization minimizes space wastage, fuel consumption, and annual transport costs.

PROCUREMENT > **CUSTOMERS** > **BRANDS AND RETAILERS** > **CONSUMERS**

INDIRECT IMPACTS

Sourcing of Materials and Services

To protect human health and the environment, DyStar's econfidence® program prevents more than 500 restricted substances from entering the value chain. More details can be found in the econfidence® section.

Application of Dyes and Auxiliaries in Textile & Apparel Manufacturing

DyStar passes its costs savings, resource-efficiency, and quality onto their customers through the innovative characteristics of DyStar products.

Product eco-testing and design phase precautions assure brands and retailers that it is safe to incorporate DyStar products.

Sale of Clothing and Apparels

Use of Textiles and Apparels

DyStar's precautions and risk mitigation measures protect consumers from exposure to carcinogenic, mutagenic, and reprotoxic substances.

DyStar products extend the lifespan of clothing and apparel, which benefits the environment and the consumers simultaneously

Sustainable Procurement

WE KNOW WHAT WE BUY!
RESPONSIBLE AND SUSTAINABLE PURCHASE

SUPPLIER ECO LETTER

DyStar's sustainability agenda extends upstream from its own operations, taking the initiative to promote ecological safety at the source. In line with this effort, DyStar has created an ECO Letter based on applicable regulations, leading industry standards, and best practices. The letter specifies ingredients that are prohibited, discouraged, or shall not exceed specified concentrations. The Eco Letter is distributed and communicated to the top 80% of DyStar suppliers by contract value. This project is imperative to avoid the risk of contamination throughout DyStar's supply chain. To date, more than 200 suppliers have been engaged regarding the ecological requirements of their products.

SUPPLIER DEVELOPMENT AND QUALITY CONTROL

DyStar develops and maintains long-term trusting relationships with its suppliers to help safeguard a reliable supply chain and maintain a competitive cost base. Building such relationships cultivates influence over the supply chain and helps DyStar fulfill its commitments to its customers and society. DyStar is careful to select and develop suppliers that share its values and commitment to sustainability.

Potential material suppliers across all geographies undergo initial-phase ecological testing for their products to ensure they are eco-friendly and do not contain any restricted substances or noncompliance with industrial standards. Upon passing, these products have the potential to be shortlisted for an on-site audit, which includes commercial, environmental, and social criteria.
If a supplier advances to DyStar's qualified supplier pool, they are subject to regular performance checks and continuous eco-monitoring processes based on product specification and quality history.

SUPPLIER EVALUATION

DyStar has developed a robust supplier evaluation program to ensure its suppliers meet rigorous commercial and sustainability criteria. The program applies to suppliers contributing 80% of each category purchase value. The initial phase of the programs begins with an on-site evaluation conducted by responsible category managers or buyers. Based on the results, suppliers are given a rating based on suppliers' financial standing, quality of service, delivery performance, reliability, pricing policy, ethics, the security of their premises, factory condition, etc. The evaluation process includes environmental and social considerations, which are increasingly crucial under the current environmental policy landscape. DyStar will suspend business with any supplier scoring below 60% or exhibiting critical nonconformity to applicable regulations or standards until an acceptable correction has been completed.

Sustainable Procurement

SUPPLIER AUDIT-DOLPHIN

Taking supplier evaluation to the next level, DyStar initiated a more comprehensive and in-depth supplier audit program named "DOLPHIN" project in FY2018, aiming to identify the full range of core suppliers' potential strengths and risks. The development of the DOLPHIN project leveraged DyStar's technology experts, who enhanced the technical capacity of the audit team and inspired new insight into the supplier evaluation process. The project also expanded the scope of audit processes to include aspects of environmental and sustainability performance.

The project has identified the most crucial aspects of environmental performance to be the management of solid waste, wastewater treatment, and gaseous emissions, and therefore, these aspects are given top priority and are evaluated with scrutiny. These issues not only impact the environment but could also interrupt business continuity as suppliers have been shut down due to environmental non-compliance at an accelerating pace.

Occupational health and safety remain the most critical focus of DyStar's supply audit program. The DOLPHIN-program seeks to ensure that selected suppliers provide staff with necessary training on how to handle chemicals and maintain a safe work environment. In the case of health and safety incidents, their employees shall be given adequate medical attention and prompt corrective action shall be taken when necessary.

Human rights violations are not common in DyStar's niche industry, nonetheless, DyStar remains vigilant and committed to ensuring human rights are upheld across its value chain.

The DOLPHIN project began with DyStar's most crucial suppliers. After two successful trials in FY2018, Tier-1 audits on the 10 top-spending dyes suppliers were successfully executed in FY2019. During this process, auditors conducted in-depth assessments and were able to indicate the perceived strengths and weaknesses of the audited suppliers against a comprehensive range of criteria. Essential improvement recommendations are then developed from the findings agreed upon by both parties. This process provides a foundation for longer and healthier business operating conditions and drives suppliers to develop into more reliable and sustainable partners for DyStar. Internally, audit findings are key supporting documents for supplier positioning analysis, as well as providing guidance on strategic cooperation with new and existing suppliers.

To further strengthen DyStar's supply base, it plans to roll out DOLPHIN to tier-2 dyes suppliers, aux category suppliers, and promising new players in FY2020.

DRIVING SUSTAINABILITY & GREENING THE SUPPLY CHAIN WITH IPE TOOL

DyStar implemented an Institute of Public and Environmental Affairs (IPE) tool in order to assess the environmental performance of its key suppliers. The tool maps shortlisted suppliers on a 'Blue Map.' The tool then helps monitor suppliers' environmental performance and screens for non-compliances. Suppliers will then be prompted to address any violations with timely and effective corrective action. suppliers who had its correction verified by local government will be required to submit their correction verification documents in order to erase their violation record from the Blue Map.

2019 SUPPLIER SUSTAINABILITY SURVEY

In FY2019, the top 20 third party suppliers (based on 2019 spending value) have been administered sustainability questionnaires to learn more about their sustainability performance. The survey contains an extensive set of questions on their management and performance regarding general sustainability efforts, planetary resources, human/social resources, and product sustainability. The results help DyStar identify programs or initiatives that support, facilitate, and coordinate sustainability among its supply base. Further, these surveys help its business partners understand DyStar's expectations and priorities as well as how they are measured and evaluated.

Intellectual Capital

DyStar fosters a culture of innovation and builds intellectual capacity to continuously drive its processes and products to be more sustainable, efficient, and profitable, providing value to its stakeholders in many forms. This, in turn, enhances product preference and increases DyStar's market share.

Textile Effects and Labels

DyStar's Evo® finishing products provide solutions for a variety of requirements in the textile industry. Together with the Evo product range, DyStar also offers labels for customers to demonstrate the high quality standard on the finished product.

EVO® Protect

- Water and oil repellent
- Soil repellent
- Keeps fabrics cleaner for longer
- Wash-fast durability
- Based on PFOA- and PFOS-free recipe

EVO® Protect D

- Water repellent
- Soil repellent
- Keeps fabrics cleaner for longer
- Wash-fast durability
- Based on flourine-free recipe

EVO® Care Aloe

- Contains natural aloe vera extract
- Comfortable softness and absorbency
- Wash-fast durability

EVO® Care Vital

- Contains natural aloe vera extract, jojoba oil, and vitamin E
- Comfortable softness and absorbency
- Wash-fast durability

EVO® Fresh

- Odor absorbing finish
- Long-lasting freshness
- Eco-friendly
- Reactivated by washing
- Wash-fast durability

ECO-PERFORMANCE PROGRAM

econfidence® from DyStar

DyStar's econfidence® program assures customers that its dyes and chemicals are safe for people and the environment and compliant with all applicable regulations. econfidence is backed up by the most extensive eco-testing program of any textile chemical supplier.

The econfidence program is led by a diverse team of experts who meticulously monitor over 500 restricted chemicals to ensure consistency and reliability.
This enables DyStar's customers and their stakeholders to protect and enhance their own sustainability performance through the use of DyStar products.
This assurance allows downstream stakeholders to confidently incorporate DyStar's products into their supply chain.

Brands and retailers place their trust in econfidence and gain confidence in the eco-performance of their textiles and garments among other benefits such as shorter lead times, more reliable supply, and enhanced reputation and brand integrity.

Products with a Difference

DIANIX® XF2 DYES

The latest high wet-fastness disperse dye developments

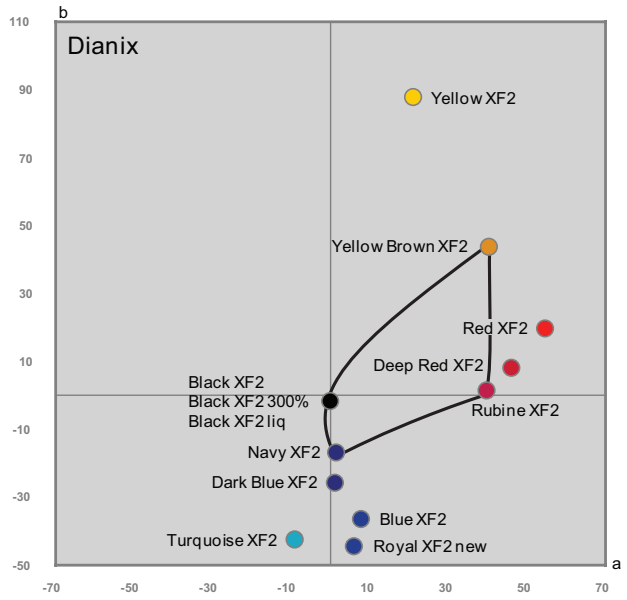
The Brand & Retailer fastness specifications can be a challenge for high wet-fast sportswear, apparel and workwear on critical fabrics like polyester microfiber, polyester elastane, polyester cellulosic, and other polyester blends. In addition, Brands & Retailers have enhanced their environmental and eco-standards. DyStar's Dianix® XF2 dyes have been designed for Color Confidence®, providing the highest levels of wet-fastnesses on critical fabrics while meeting the environmental standards of all major Brands & Retailers.

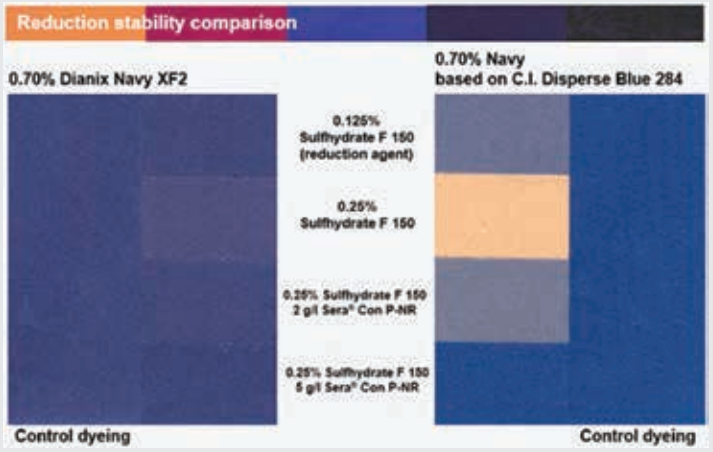
The Dianix XF2 range** consists of 13 dyes, which are mostly based on a new chemistry, covering a wide space gamut.

All Dianix XF2 dyes are fully compliant with Standard 100 by Oeko-Tex® and have been verified by bluesign®, a leading independent verifier for responsible and sustainable textile products. All dyes are free of organic chlorine and Dianix Yellow XF2, Dianix Yellow Brown XF2, Dianix Red XF2, Dianix Deep Red XF2, Dianix Rubine XF2, Dianix Blue XF2, and Dianix Turquoise XF2 are AOX-free.

The Dianix XF2 dyes offer excellent Right-First-Time performance in ternary shades through good reduction stability and compatibility of Dianix Royal XF2 New, Dianix Dark Blue XF2, Dianix Navy XF2, and Dianix Black XF2 dyes.

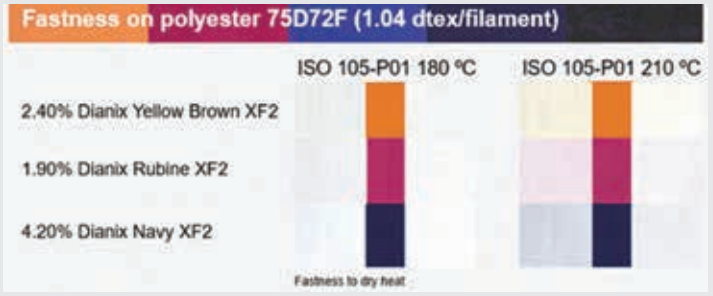
***The majority of XF2 dyes are patented or patent pending.*





The dyes are characterized by excellent wet-fastness performance

and high sublimation fastness



with good build-up properties to dark shades on polyester microfiber & polyester/cellulosic blends at dyeing temperature of 135 °C and on polyester/elastane blends at dyeing temperature of 130 °C.

Sustainability Across Processes

OPTIDYE®

The Optidye® N tool improves right-first-time performance for polyamide dyeing processes by determining the optimum dyeing conditions when using Telon® and Isolan® dyes and Sera® auxiliaries in the exhaust dyeing process.

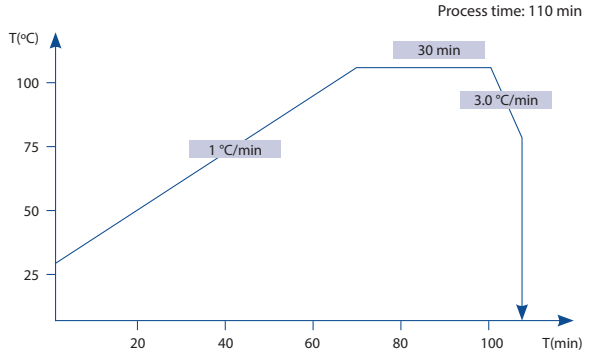
Optidye® N improves the reliability of the dyeing process and the quality of finished products. The tool calculates the optimum pH, concentration of auxiliaries, heating rate, and the minimum dyeing time depending on specific machine settings and substrates.

Benefits:
- Increased combinability of dyes
- Precise temperature control
- Optimized dye bath exhaustion
- Enhanced levelness
- Shortened dyeing cycles
- Heightened quality
- Reduced process costs
- Improved reproducibility

STANDARD PROFILE

Pale shades

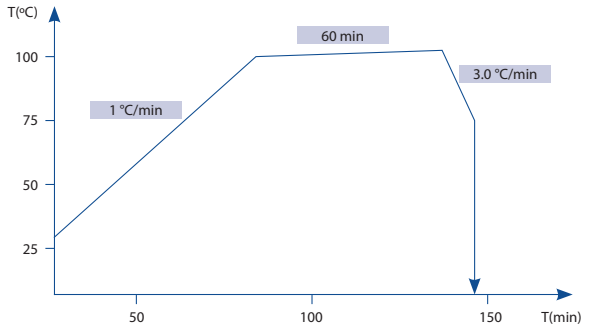
Process time: 110 min



0.2	% C.I. Acid Yellow
0.05	% C.I. Acid Red
0.1	% C.I. Acid Blue
1.0	% Leveling agent with dye affinity
pH	8.5

Dark shades

Process time: 140 min



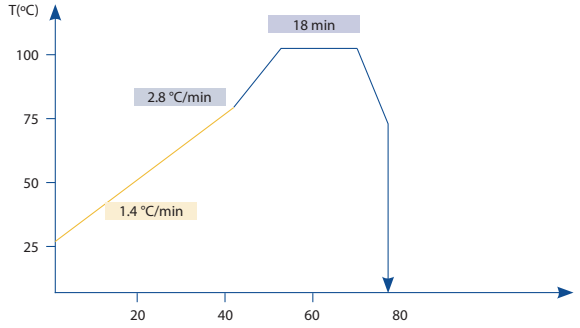
1.5	% C.I. Acid Yellow
0.5	% C.I. Acid Red
1.2	% C.I. Acid Blue
3.0	% Leveling agent with dye affinity
pH	5.5

A guideline for the correct handling of Optidye® N in eliot is available in the module 'eliot® manuals'.

[1] DIK = Difference in K-value (index for the combinability of dyes)
[2] SF – value = Fiber saturation value
[3] V – value = Fiber dyeing rate

OPTIDYE® N PROCESS OPTIMIZATION

Pale shades – Optidye® N calculation

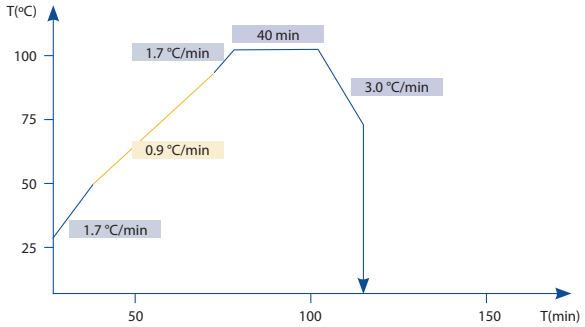


0.2	% Telon Yellow A2R	Critical temperature
0.05	% Telon Red A2R	range: 28 – 78°C
0.1	% Telon Blue A2R	DIK[1] = 0.7
0.4	% Sera Gal N-FS	
pH	8.2	

Benefits in process savings: *up to 30% Electricity | 5% Steam | 25% Process time*
Benefits in productivity: *up to 35% Productivity Increase*

Dark shades – Optidye® N calculation

Process time: 117 min



1.5	% Isolan Yellow NHF-S	Critical temperature
0.5	% Isolan Red NHF-S	range: 52 – 92 °C
1.2	% Isolan Blue NHF-S	DIK = 0.85
2.0	% Sera Gal N-FS	
pH	6.0	

Benefits in process savings: *up to 20% Electricity | 5% Steam | 15% Process time*
Benefits in productivity: *up to 20% Productivity Increase*

Sustainability with Technology

DyStar goes beyond product responsibility by leveraging cutting-edge technologies and innovation to improve its products.

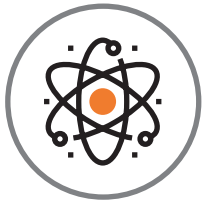
eliot®

Accessing Sustainability Through Online Technology

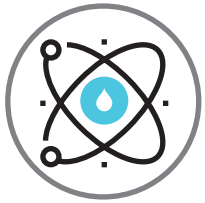
DyStar has developed and deployed eliot®, an information platform that provides straightforward guidance on sustainable product selection and process optimization. The tool helps clarify DyStar's sustainable products and processes through its user-friendly online platform. Customers have direct access to the system to get the information they need quickly and conveniently.

The eliot® tool consists of six modules: Positive Lists, Product Finder, Optidye®, Information, Cadira® modules, and eliot manuals.

POSITIVE LISTS
Customers and stakeholders explore a large selection of recommended DyStar products that comply with Restricted Substances Lists and meet eco-standards, such as bluesign® and GOTS®. Products can be bookmarked in the system, allowing users to explore their favorite products in other eliot modules, or return to a list of their preferred products.



OPTIDYE® PROGRAMS
Through Optidye®, users can access recipes and determine the most resource-efficient recipe for their chosen product through guidance on shortening their dyeing cycles and reducing effluent load. Optidye® programs improve the reliability of the dyeing process to improve right-first-time processing performance and product quality.



CADIRA® MODULES
The Cadira® module provides guidance on optimizing energy and water consumption and waste streams. Cadira helps Brands & Retailers and their production partners conserve resources, cut costs, and reduce their environmental footprint.

PRODUCT FINDER
The Product Finder allows customers to search and filter products based on required fastness and dyeing performance specifications. Users can find products with specific technical properties and export results to a spreadsheet.

INFORMATION
The eliot tool gives DyStar's customers and stakeholders direct access to product information from industry segments such as activewear, technical textiles, denim, workwear, carpet, digital printing, home textiles, automotive, and fashion. Shade cards and brochures can also be found under the Information module.

Modules Making an Impact

DYSTAR CADIRA® MODULES

Saving Valuable Resources

DyStar's Cadira Modules help improve carbon footprints and optimize productivity by optimizing the utilization of machinery.

There are 9 Cadira modules offered which not only improve energy- and water efficiency but also significantly reduce wastewater.

CADIRA® REACTIVE

Conserve valuable resources while lowering reactive dyeing costs

Cadira® Reactive Dyeing > Compared to Conventional Reactive Dyeing

- ▼28% *Water*
- ▼22% *Electricity*
- ▼24% *Process time*
- ▼31% *Steam*
- ▼30% *Emissions*
- ▼28% *Wastewater*

CADIRA® POLYESTER

Optimize resource-efficient exhaust processing

*Fully Optimized Cadira Polyester Dyeing > Compared to Conventional Polyester Dyeing**

- ▼50% *Water*
- ▼43% *Electricity*
- ▼46% *Process time*
- ▼46% *Steam*
- ▼45% *Emissions*
- ▼50% *Wastewater*

CADIRA® REACTIVE/DISPERSE CONTINUOUS

Optimize resource efficiency in continuous dyeing of Polyester/ Cellulosic blends

Cadira® Reactive /Disperse Continuous Dyeing > Compared to Conventional Continuous PDTPS process

- ▼45% *Electricity*
- ▼54% *Water*
- ▼41% *Chemical*

Modules Making an Impact

CADIRA® VAT

Improve the resource-efficiency of exhaust processing of cellulosic fibers

*Cadira® Vat Dyeing > Compared to Conventional Vat Dyeing**

- ▼30% Water
- ▼20% Electricity
- ▼30% Process time
- ▼25% Steam
- ▼24% Emissions
- ▼30% Wastewater

CADIRA® DENIM

Adopt the ultimate sustainable solution for clean denim production

Cadira® Denim vs standard Indigo dyeing process using Hydrosulphite

- ▼95% Sulphate
- ▼50% Total suspended solids reduction
- ▼82% COD
- ▼10% Wastewater

CADIRA® PRINTING PX

Conserve resources during the wash-off process

Cadira® Printing PX vs conventional wash-off

- ▼50% Electricity
- ▼50% Process time
- ▼50% Steam
- ▼33% Wastewater

CADIRA® RECYCLED POLYESTER

Minimize the impact of the rPET dyeing process with Gold Level Material Health certified DIANIX Dyes by the Cradle to Cradle Products Innovation Institute

Cadira® Recycled Polyester vs dyeing virgin polyester with standard dyes

- ▼50% Water
- ▼43% Electricity
- ▼46% Process time
- ▼46% Steam
- ▼45% Emissions
- ▼50% Wastewater

CADIRA® WOOL

Protect the environment with clean and more efficient dyes for the wool dyeing process

Cadira® Wool vs Mordant Black 9 dyeing process

- ▼50% Electricity
- ▼50% Process time
- ▼50% Steam
- ▼40% Wastewater

CADIRA® LAUNDRY

Innovative product range for ultra-low liquor ration machines

- ▼90% Water
- ▼40% Electricity
- ▼60% Chemical impact
- ▼45% Worker impact

* Actual reductions may vary. Figures presented in diagram represents the best-known performance results.

Circular Economy Approach

Product Life Cycle and Circular Economy

Traditionally linear product life cycles have resulted in unsustainable rates of resource extraction and waste production, which is harmful to both human health and the environment. The earth's resources are finite and economic models based on the take-make-waste pathway cannot continue indefinitely. Further, natural resources are tied to economic value and it does not make good business sense to waste valuable resources.

DyStar works towards a circular economy—where recycled material inputs are preferred instead of virgin materials, and products are reused or recycled at the end of their lifecycle. This transition from "cradle-to-grave" to "cradle-to-cradle" avoids the loss of valuable resources while reducing environmental impacts. The ultimate goal of the circular economy is to recirculate materials and completely eliminate waste.

As a society, the journey to a circular economy is just beginning, but forward-thinking industry leaders like DyStar are already making strides towards this circular economy paradigm. To catalyze this transition. DyStar maintains a long-term collaboration with the Cradle to Cradle Products Innovation Institute™ to apply the Cradle to Cradle Design Concept in its product offerings. DyStar's products were assessed against the criteria of the Material Health category in Cradle to Cradle® product standard and were awarded a Material Health Certificate on the Gold level by the Cradle to Cradle Products Innovation Institute™.

To date, 39 of DyStar dyes have received the Cradle to Cradle Product Innovation Institute's Gold Level Material Health Certificate for meeting the Material Health requirements of the multi-attribute Cradle to Cradle Certified™ Product Standard.

Disperse Dyes
Dianix® Blue XF
Dianix® Yellow AM-SLR 200%
Dianix® Yellow S-3G
Dianix® Yellow Brown XF2
Dianix® Yellow XF2
Dianix® Orange AM-SLR
Dianix® Turquoise S-BG
Dianix® Blue S-BG
Dianix® Brilliant Violet R
Dianix® Red AM-SLR
Dianix® Red XF2
Dianix® Rubin XF2
Dianix® ECO Black HF

Reactive Dye for Wool
Realan® Black MF-PV

Indigo Dyes
DyStar® Indigo Vat 40% Solution

Reactive Dyes
Levafix® Amber CA-N
Levafix® Brilliant Yellow CA
Levafix® ECO Forest
Levafix® ECO Black
Levafix® Fast Red CA
Remazol® Brilliant Blue RN
Remazol® Brilliant Red F3B
Remazol® Brilliant Yellow GL 150%
Remazol® Yellow GR 133%
Remazol® Luminous Yellow FL 150%
Remazol® Golden Yellow RGB
Remazol® MAP Black NN
Remazol® Navy RGB 150%
Remazol® Red RGB
Remazol® Ultra Carmine RGB
Remazol® Ultra Orange RGB
Remazol® Ultra Orange RGBN
Remazol® Ultra Rubine RGB
Remazol® Ultra Navy Blue RGB

VAT Dyes
Indanthren® Brilliant Orange GR Coll
Indanthren® Red FBB Coll
Indanthren® Brilliant Green FFB Coll
Indanthren® Olive Green B Coll
Indanthren® Scarlet GG Coll

eliot®

Find the latest relevant updates in eliot®.

Scan the QR-code to learn more

dystar.com/eliot-2/

Natural Capital

DyStar is dedicated to catalyzing the transition to more sustainable textile industry. In addition, it operates under a deep understanding of the relationship between critical natural resources and financial value. As a result, DyStar continuously optimizes the use of planetary resources in its operations and supply chain in a manner that minimizes environmental impacts, reduces costs, and enhancing its market leadership and competitive advantage.

Conserving Planetary Resources

THE 2025 TARGETS

Nine years after beginning its sustainability journey, DyStar is now continuing its sustainability commitments beyond the original 2020 targets, to reduce its production footprint by 30% for every ton of production by the year 2025. Included in this goal are the resources used for production, including energy, water, and raw materials, as well as their corresponding outputs - greenhouse gas (GHG) emissions, waste, and wastewater. DyStar's highly efficient production system is part of its long-term strategy to remain within planetary boundaries. Further, resource efficiency improvements are a significant source of cost-saving, which alongside its sustainability performance, increases profit margins as well as the preference for its products.

In recent years, DyStar has made significant and collective efforts to improve the efficiency of its facilities that have considerably reduced the average resource input requirements across all product offerings.

Scope and Methodology

DyStar implements a centralized reporting platform to measure and monitor impacts across all its operations. The platform also features a standardized dashboard tool to help teams understand their progress towards the 2025 targets. In addition to being an effective reporting tool, the dashboard helps align, consolidate, and synchronize communication and critical data across business units and locations.

DyStar's environmental dataset is comprehensive, including production sites and warehouses, as well as smaller office locations across the world regardless of the scale of their impacts. DyStar concentrates its efficiency improvement efforts on production activities, as this is where they can make the greatest impact.

	2017	2018	2019
Raw Material (thousand tons)	137.45	111.80	**93.95**
Raw Material Usage Intensity (tons per ton production)	0.79	0.72	**0.73**
Packaging Material (thousand tons)	6.69	4.43	**4.06**
Associate Material (thousand tons)	1.55	1.52	**1.35**
Direct Energy Consumed (TJ)	631.56	654.93	**542.68**
Indirect Energy Consumed (TJ)	1,018.79	822.52	**711.37**
Energy Consumption Intensity (GJ per ton production)	9.33	9.30	**9.45**
Water Withdrawal (million m^3)	7.80	7.95	**7.49**
Water Withdrawal Intensity (m^3 per ton production)	45.07	50.38	**57.60**
Water Reused (million m^3)	1.97	2.03	**1.95**
Direct GHG Emissions – Scope 1 (thousand tCO_2e)	35.96	37.15	**38.05**
Indirect GHG Emissions – Scope 2 (thousand tCO_2e)	125.88	86.77	**69.79**
GHG Emissions Intensity (tCO_2e per ton production)	0.91	0.78	**0.81**
Wastewater Discharged (million m^3)[1]	2.04	1.68	**1.32**
Wastewater Intensity (m^3 per ton of production)	12.86	13.23	**14.08**
Hazardous Waste (thousand tons)	5.87	6.05	**8.30**
Non-hazardous Waste (thousand tons)	4.25	3.97	**3.36**
Overall Waste Intensity (kg per ton production)	66.61	70.81	**104.16**
Number of Spills, Total Amount Spilled[2]	2 spills, 3 tons	2 spills, 0.57 tons	**1 spill, 2.66 tons**

[1] *Wastewater discharged depending on the physical and chemical nature of wastewater produced, the various stages of treatment are completed on-site and/or externally by an authorized third party.*

[2] *Number of spills refer to significant spills that affected soil or water surfaces.*

Conserving Planetary Resources

ENERGY

To help combat the urgent issue of climate change, while reducing operational costs for the company, DyStar is continually assessing and implementing strategies to reduce energy intensity.

DyStar's energy portfolio includes purchased electricity, steam, natural gas, and liquefied petroleum gas (LPG). The majority of electricity consumption is from plant machinery, IT systems, and air conditioning. Steam is generally used from process heating and is either generated on-site or purchased from external providers.

Energy conservation efforts prioritize production sites as they are major consumers of energy, and hence, present the greatest opportunity to conserve energy. Production heads are given specific annual reduction targets to continually drive these efforts at the ground level. During the reporting period, resource consumption data is routinely reviewed by members of senior management to engage discussions on opportunities for ongoing improvement.

In FY2019, DyStar's overall energy consumption was 1,254 TJ, representing a 15% reduction from FY2018. Although considerable efforts have been made to diversify the company's product portfolio in favor of less carbon-intensive resources, energy intensity was 9.45 GJ per ton of production in FY2019. DyStar has strong plans in place to ensure that the company's less efficient acquisitions are provided the support required to align its energy performance with the rest of the group.

The most energy-intensive phase of textile dye production is typically manufacturing. In FY2019, this accounted for approximately 70% of total energy consumption. The production of auxiliaries and chemical production activities represented 27% of total consumption. Energy use in offices, laboratories, and non-production site warehouses represented less than 3% of overall energy use.

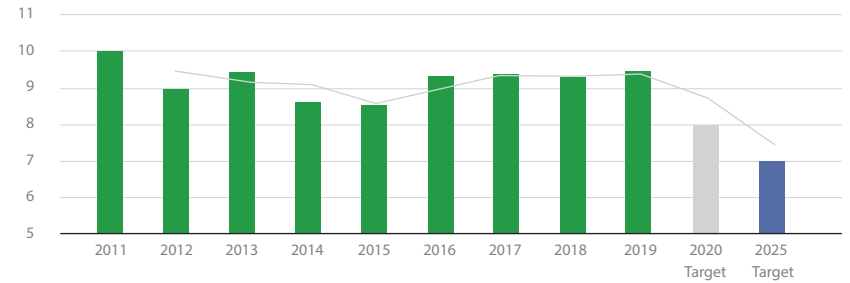
Indirect energy from purchased electricity and steam represented approximately 57% of DyStar's total energy consumption in FY2019, a 29% reduction compared to the 2011 baseline. This was achieved despite production volumes increased by over 5% over the same period. This is a testament to the positive impact that auxiliaries are having on the company's overall environmental footprint, as well as the efforts of dyes production engineers, who are vastly outperforming the industry status quo.

The proportion of direct energy sources increased to approximately 43% of DyStar's total demand in 2019, compared to just 29% in 2014. This is due to the notable shift from purchased steam to onsite generation from 2014 This shift, along with the acquisition of three new production sites, caused direct energy consumption to increase by 190 TJ over a four-year period. The majority of direct energy consumption is from natural gas and LPG, respectively accounting for 35.80% and 5.97% of DyStar's total energy consumption.

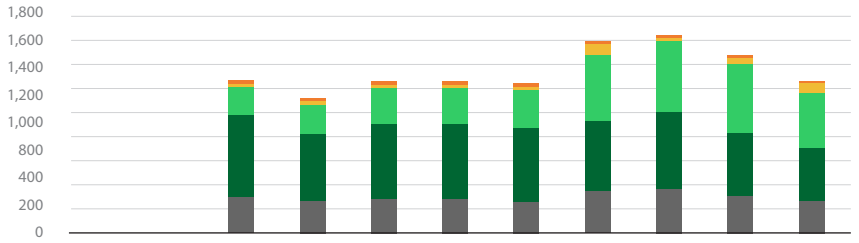
DyStar is cognizant of the steep rise in direct energy consumption and is continually exploring innovative technologies and opportunities such as fuel-efficient combustion units and carbon capture technology to reduce energy intensity. DyStar will continue to capitalize on simple yet effective initiatives such as installing variable frequency controllers for water pumps, reducing, canceling or shortening processing steps, and replacing live steam with indirect heating through a heat exchanger.

DyStar believes the future will be powered by renewable energy and aims to help drive the transition to a clean energy future. DyStar increased its renewable energy consumption by nearly 14% to 2.5 TJ in 2019, compared to 2.2 TJ 2018. Although many sites have limited capacity for onsite renewable energy generation, DyStar carefully monitors renewable energy technology development with the hope of a broader and cost-effective implementation of renewable energy in the future.

NON-RENEWABLE ENERGY INTENSITY
(GJ energy used per ton production)



NON-RENEWABLE ENERGY CONSUMPTION BY SOURCE
(TJ)



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Vehicular Travel (diesel, gasoline, LPG, ethanol)	25	21	21	22	22	21	18	17	14
Stationary Combustion (LPG, diesel and fuel oil)	25	24	29	17	10	86	28	50	79
Stationary Combustion (natural gas)	227	251	295	314	330	565	584	588	449
Purchased Steam	686	556	628	620	621	564	656	512	424
Purchased Electricity	316	257	277	277	257	360	363	311	287

GHG EMISSIONS

DyStar is committed to drive positive change and lead the way to a low-carbon future. This ambition goes beyond corporate responsibility, it's a fundamental business imperative. Over the last nine years, DyStar's GHG management approach has proven to be highly effective, boosting drastic and consistent reductions in GHG intensity.

DyStar production sites measure GHG emission performance and improvements in tons of CO_2-equivalent (tCO_2e) per ton of production. Non-production sites, comprising a minor fraction of the company's emissions footprint, are also accounted for in its initiatives and targets, but their emissions profiles are measured in absolute quantities.

DyStar's Scope 1 and Scope 2 GHG emissions totaled approximately 107,837 tCO_2e in FY2019, representing a 17% decrease since the 2011 baseline year and 13% decrease compared to FY2018. In FY2019, 65% of DyStar's emissions were Scope 2, with purchased steam (26,979 tCO_2e) accounting for fewer emissions than purchased electricity (42,813 tCO_2e). 64% of Scope 1 emissions were from natural gas alone, and about 13% were from LPG, with the remaining from stationary combustion fuels combined with vehicular fuels.

More than 97% of DyStar's total carbon footprint is from production facilities, with the remaining from non-production sites including laboratories, offices, and warehouses.

Scope 1 and 2 emissions are managed through energy optimization measures and the use of renewable energy. These efforts focus on the careful monitoring and streamlining of production operations and product ranges. When products manufactured have been proven to be cost or energy inefficient, they are discontinued by the company. DyStar's current priority is mitigating the impact of the new acquisitions which are temporarily hindering its GHG emission intensity. DyStar's GHG intensity was 0.81 tCO_2e for every ton of production in FY 2019, 19.01% below 2011 levels, and 4.37% above 2018 levels, in line with the 2025 target.

As for many companies, Scope 3 emissions account for most (approximately 95% and 2,386 thousand tCO_2e total) of DyStar's total emissions profile. The categories that contribute most significantly to Scope 3 emissions are goods transportation (2,355 thousand tCO_2e), purchased energy (20 thousand tCO_2e), packaging (9,259 tCO_2e), and business travel (1,615 tCO_2e). Nearly 99% of Scope 3 emission come from transportation. Indirect Scope 3 emissions represent a new challenge for corporations like DyStar and the company will increasingly focus on upstream and downstream partnerships to collaboratively optimize indirect GHG emissions.

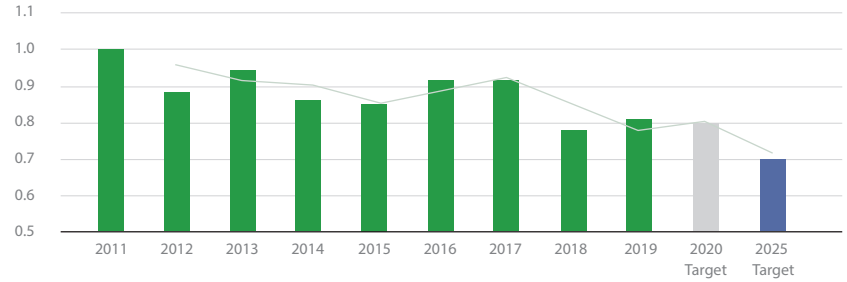
GHG emissions are calculated in accordance with the Greenhouse Gas Protocol Corporate Standard, developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). Scope 1 emissions are selected for reporting based on their presence in company operations and include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. Global Warming Potentials (GWP) and Scope 1 emission factors are sourced from the GHG Protocol guidelines. Scope 2 and Scope 3 emission factors were drawn primarily from the 2011 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting, jointly developed by the United Kingdom Department for Environment, Food and Rural Affairs and the Department for Energy and Climate Change.

[1] *Scope 1 emissions: Occur from sources owned or operationally controlled by DyStar. These include emissions from stationary combustion fuels, vehicular fuels, process emissions, refrigerants, and ozone-depleting substances. A large proportion of the company's direct emissions come from the stationary combustion of fossil fuels.*

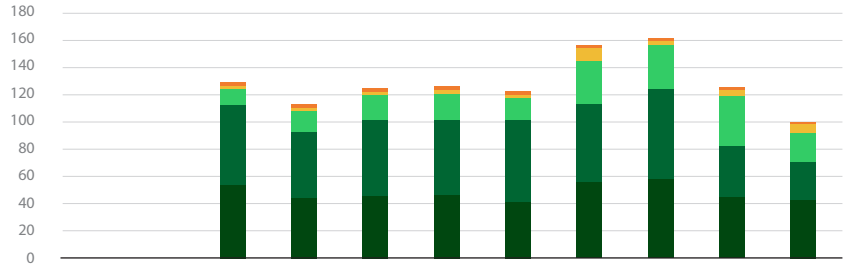
[2] *Scope 2 emissions: Produced during the generation of purchased electricity and purchased steam.*

[3] *Scope 3 emission: Those resulting from company operations, but not directly owned or controlled by DyStar.*

GREENHOUSE GAS EMISSIONS INTENSITY
(tons CO_2e emitted per ton production)



GREENHOUSE GAS EMISSIONS BY SOURCE
(thousand tons CO_2e)



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Vehicular Travel (diesel, gasoline, LPG, ethanol)	2.2	2.2	2.4	2.2	2.4	2.4	2.1	1.2	1.0
Stationary Combustion (LPG, diesel and fuel oil)	1.8	1.7	2.1	1.2	0.7	6.1	2.0	3.4	5.5
Stationary Combustion (natural gas)	12.3	13.6	16.1	17.1	18.0	30.8	31.8	32.1	24.0
Purchased Steam	60.6	49.8	59.8	59.1	61.0	59.6	68.0	38.5	27.0
Purchased Electricity	52.6	44.2	46.6	48.1	44.3	57.9	57.9	48.3	43.0

Conserving Planetary Resources

OZONE-DEPLETING SUBSTANCES

To the best of the company's knowledge, ozone-depleting chemicals (ODCs) are not intended components of DyStar's DyStar products or processes. GHG emissions calculations include any ODCs that are used as refrigerants at any company location. Scope 1 emissions from ODCs totaled to 7,194 tons in FY2019. DyStar has taken action to reduce the use of refrigerants in production. These efforts have resulted in reductions in GHG emissions. GWPs for refrigerants are derived from the Intergovernmental Panel on Climate Change's Fifth Assessment Report.

WATER

Water is the most essential resource on earth and a critical input for DyStar's operations. Water is an ingredient in synthesis, a medium for dispersions that are required at various stages of processing, and is frequently added as a formulant in many products. Water is also used to clean machinery and hydrate the staff. As such, DyStar aims to continually improve the water efficiency of its processes.

In FY2019, DyStar's water withdrawals totaled 7.5 million m3, representing a 6% decrease compared to FY2018. In addition to reducing total withdrawals, water intensity has improved for the seventh consecutive year. In FY2019, water withdrawal intensity was 57.6 m^3 per ton production, a significant reduction of 22% compared to the 2011 baseline. The business development teams have done an excellent job assessing the environmental implications of each new investment or divestiture. In addition, DyStar has invested in cutting-edge technology upgrades to further improve its water efficiency. Technology, equipment, and process improvements have all contributed to considerable cost reductions.

DyStar's talented production managers have also served as effective drivers of water efficiency, deploying new and improved methods such as the reuse of steam condensate for a range of purposes such as floor cleaning. Steam condensate remains uncontaminated by chemical mixtures and can be used in place of municipal water, surface water, or groundwater sources. In FY2019, DyStar reused 1.95 million m^3 of water, the equivalent of 26.08% of the company's total water consumption.

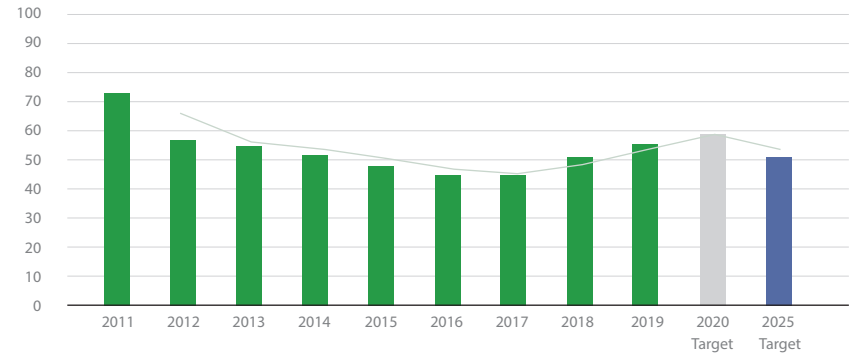
WASTEWATER

In order to protect local communities, water resources, and the environment, DyStar employs wastewater management best practices to minimize the risk of impacts. DyStar uses a combination of onsite and offsite approaches to treat wastewater, each tailored to the unique characteristics of the site. The sequence of chemical, biological, mechanical, or thermal treatment processes depends on the physical and chemical nature of the wastewater generated at each production plant.

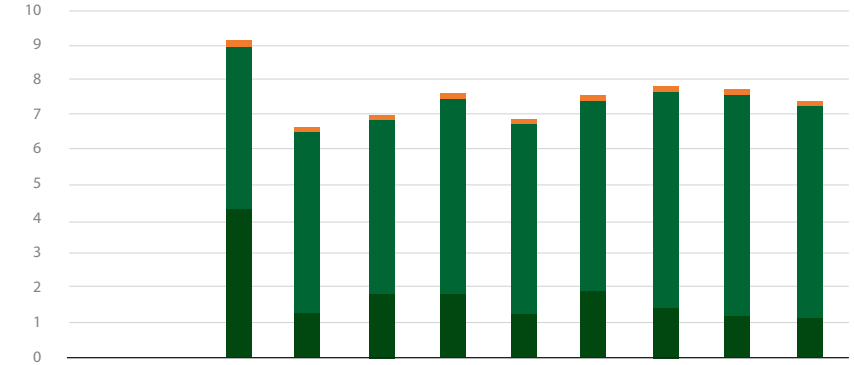
All wastewater produced by DyStar operations is treated and discharged in accordance with all applicable regulations and local permits. Further, treated wastewater that is intended for final treatment elsewhere will undergo monitoring to ensure that regulatory or contractual threshold limits are not exceeded. The same precautions are taken for wastewater bound for final treatment at municipal plants and wastewater handled by third-party contractors. The reuse of its wastewater by other organizations is prohibited by DyStar under any circumstances.

DyStar utilizes a combination of wastewater treatment methods at production sites, including those utilizing licensed external contractors. Pre-treatment methods include sedimentation and flocculation and are conducted before external contractors transport it for final treatment offsite.

WATER WITHDRAWAL INTENSITY
(m^3 water withdrawn per ton production)



WATER WITHDRAWAL BY SOURCE
(million m^3)



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Ground Water	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Surface Water	4.6	5.4	5.3	5.8	5.5	5.6	6.1	6.4	6.2
Municipal Water	4.4	1.3	1.6	1.6	1.3	1.9	1.5	1.3	1.1

In FY2019, DyStar has reduced the amount of wastewater discharged by a significant 21% compared to FY2018. Likewise, wastewater intensity has improved to 14.08 m^3 per ton of production, a 22.87% improvement compared to the 2011 baseline, already surpassing the 2020 target by a margin of nearly 3 percent.

DyStar's production teams have made tremendous strides in wastewater management by optimizing water-demanding processes that result in wastewater. For instance, maximizing batch sizes where feasible allows DyStar to reduce the volume of cleaning water needed for product changeover processes. One particularly impressive feat was the conversion of two large production plants to zero wastewater discharge plants. DyStar's production sites in India and Indonesia have long utilized a combination of evaporation and spray drying methods to convert their wastewater into solid or semi-solid sludge. Conversion in this way minimizes difficulties in handling and treating wastewater, but the trade-off is that active drying processes tend to be energy-intensive.

DyStar's wastewater treatment processes are site-specific. At Ludwigshafen plant, the process includes cooling the water below 35°C and adjusting the pH value before discharge. DyStar's licensed wastewater contractor treats the wastewater at a municipal sewage treatment plant through both mechanical and biological processes in accordance with German standards. At the Ankleshwar Production Plant, solid and semi-solid wastewater residue generated on-site is treated through physical processes of filtration and ultra-filtration by an external contractor. In addition, filtered material like powder from dust catcher bags and sludge from the filter press of water treatment plants are also treated. At Gabus production plant, wastewater is treated with a Flocculation - Coagulation system, where raw wastewater is concentrated by a Multi-effect Evaporator, dried into powder waste using a spray dryer, and ultimately disposed of by a licensed disposal contractor. In general, at other production plants, treated wastewater is discharged by the licensed external contractor.

HAZARDOUS AND NON-HAZARDOUS WASTE

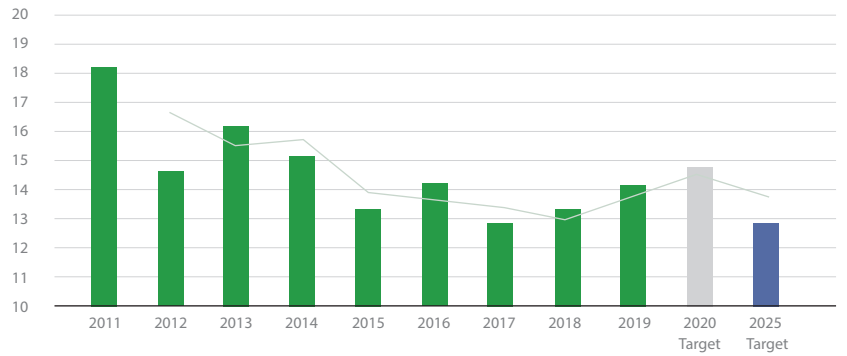
DyStar's manufacturing activities are responsible for the majority of its hazardous waste generation. Hazardous waste generated by DyStar includes contaminated packaging material, product residues, residues resulting from the distillation recovery of solvents, solutions and other liquids that cannot be disposed of as wastewater, and residues that may remain after wastewater evaporation at certain plants.

Non-hazardous waste mostly consists of office waste, uncontaminated packaging material, and pallets, representing only a small percentage of total waste production. DyStar's teams aim to reuse and recycle as much of their non-hazardous waste as possible. Material categories deemed recyclable vary regionally depending on the facilities and services available from country to country. Non-hazardous waste unsuitable for recycling due to local limitations is disposed of as municipal waste.

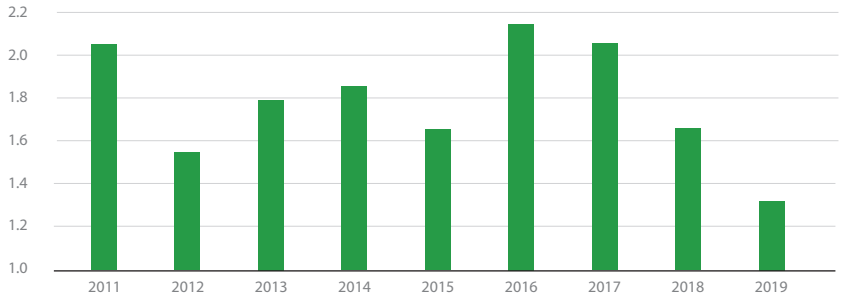
In FY2019, DyStar disposed of a total of 11,656 tons of hazardous and non-hazardous waste, with 71% being categorized as hazardous. In FY2019, the total waste intensity was 104 kg per ton of products, and a hazardous waste intensity was 82.57 tons per ton production.

The increase in waste intensity was due to nationally mandated waste management priorities, which resulted in the accumulation of solid and powder waste at the Indonesia Gabus Plant. Due to the increased focus of the Health Ministry on infectious waste disposal treatment from hospitals, the solid and powder waste incinerator capacity of a major third-party waste disposer was limited, and the pickup and disposal of solid and powder waste were temporarily suspended in 2018 at the Indonesia Gabus Plant. This led to accumulation in 2018, and subsequently, a spike in waste disposal intensity in 2019, when capacity was increased as a countermeasure with the addition of 6 new incinerators. Further exacerbating the accumulation, another third-party waste disposer temporarily suspended service to the Indonesia Gabus Plant due to permit delays as a result of a recent acquisition.

WASTEWATER PRODUCTION INTENSITY
(m^3 water withdrawn per ton production)



WASTEWATER DISCHARGE VOLUME
(million m3)



Conserving Planetary Resources

In addition to the issues of accumulating solid and powder waste, in 2019, more waste was disposed to third parties in concentrated form due to a damaged direct burner in Spray Dryer, which is usually used to dry waste into powder. This increased the total volume of waste disposal in 2019.

There were zero major hazardous waste spillages across all DyStar's locations in FY2019.

In FY2019, 11.26% (1,313 tons) of DyStar's waste was either reused or recycled, 60.69% (7,075 tons) was incinerated, and 26.16% (3,049 tons) was landfilled. The majority of waste sent to be landfilled was non-hazardous. The small quantity of hazardous waste sent to be landfilled was contained on licensed sites dedicated to stabilized industrial waste. Most hazardous waste is sent for incineration and converted to energy at vendor-located waste-to-energy incineration plants.

DyStar's HSE management system implements a precautionary approach to the handling and disposal of hazardous waste. Only licensed waste management contractors are permitted to handle and dispose of DyStar's hazardous waste. DyStar's external partners are required to adhere to all applicable laws and regulations as well as participate in annual audits. DyStar's policy prohibits any hazardous waste disposal methods that may harm communities or the environment in any way. DyStar also prohibits the transportation of company waste across national borders.

To the best of the company's knowledge and understanding, DyStar operations do not take place near protected, highly biodiverse, or critically important ecosystems or habitats. New manufacturing sites are subjected to robust environmental and social impact assessments to determine any potential risks resulting from company presence and activities. Hazardous waste and wastewater contractors are subjected to similar evaluations.

No significant impacts on local biodiversity or habitats have been identified due to DyStar production activities at any of its operational locations. The improper use or treatment of DyStar products by customers after the use phase has the potential to cause ecological damage.

Although DyStar has little influence over the use of its products post-sale, it communicates with customers to encourage proper safe handling practices and provide technical advice regarding wastewater treatment.

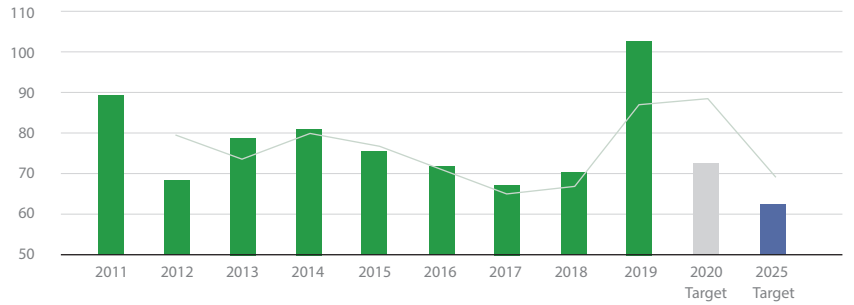
MATERIALS

In FY2019, DyStar's production plants consumed a total of 129,327 tons of raw materials. This includes the chemical substances that are either processed or manufactured into a finished product. Utilization intensity was 0.73 tons of raw material per ton of production, representing a significant 27.46% decrease compared to the 2011 baseline, surpassing the 2020 reduction target by 7%. Associate materials, such as glass beads used for grinding press cakes, are not included in raw material input totals but are necessary for production. In FY2019, DyStar purchased 1,353 tons of associate materials.

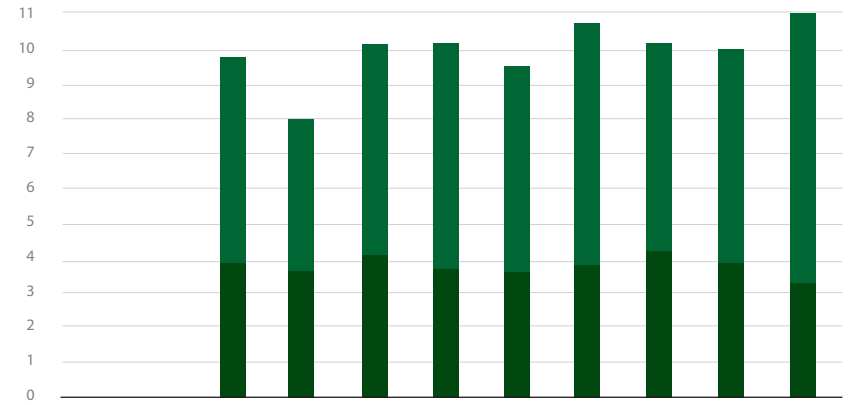
As for most chemical companies, the majority of DyStar's raw materials are not renewable resources and many essential materials are limited. Further, most raw and associate materials are sourced from virgin materials, and not available as recycled content. DyStar understands that raw materials have an environmental footprint and thus optimizes its material efficiency accordingly.

In recent years, DyStar has considerably improved its material efficiency by optimizing its inventory and preventing unnecessary accumulation. This was accomplished through frequent and accurate communication between master planners, sales teams, and production heads. DyStar's master planners have been very tactful in determining what and when to purchase, minimizing the demand for raw materials and the associated environmental impacts. R&D chemists and process development teams ensure the final product is produced with the least steps and resources as possible. DyStar is fortunate for its talented scientific minds that consistently find pathways to maximize the utilization of material inputs.

WASTE PRODUCTION INTENSITY
(kg of waste per ton production)



WASTE PRODUCTION BY CATEGORY
(thousand tons)



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Hazardous Waste	5,797	4,133	5,610	6,419	5,951	6,843	5,872	6,050	8,298
Non-Hazardous Waste	4,005	3,861	4,458	3,725	3,642	3,845	4,253	3,971	3,357

SUSTAINABLE PACKAGING

DyStar's products require packaging that is suitable to effectively contain and protect products throughout its journey to the customer and withstand the unique weather conditions of each destination.

In FY2019, DyStar used 4,060 tons of packaging material- including cardboard boxes, plastic drums, bulk containers, plastic wrapping, etc. Whenever feasible, specialized service providers are utilized to collect, clean, and re-distribute the company's Intermediate Bulk Containers (IBCs) for reuse, working towards a circular economy approach to packaging. In FY2019, approximately 30% of DyStar's global packaging utilized reconditioned IBCs. DyStar has improved its overall packaging intensity) by approximately 16% compared to the 2011 baseline.

PACKAGING INNOVATION PROJECT

Previous methods of box sealing involved hot glue with HSE concerns, ineffective water-based adhesive tape, and a packing method that was not conducive to auto-packing. Plywood and paper protectors were inefficient and not environmentally friendly.

To address these issues, DyStar implemented Polylactic acid tape (PLA tape), a box-erecting machine, a box top sealing machine, and corrugated protection lids.

These improvements eliminated the use of hot glue guns and ineffective tape. In addition, the PLA tape is more environmentally friendly and is compatible with the new machinery (improving efficiency). Corrugated lids are also more effective, efficient, and sustainable than plywood and paper protectors. In addition, corrugated lids are more cost-effective and lighter, thus cutting emissions from transportation.

Before shipping, appropriate warning labels are applied to every box, drum, and container, in accordance with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS). These labels provide DyStar customers with the proper information needed to safely handle the materials and respond to emergencies. All DyStar products are compliant with GHS requirements. There have been no serious labeling-related incidents.

SUSTAINABLE LOGISTICS

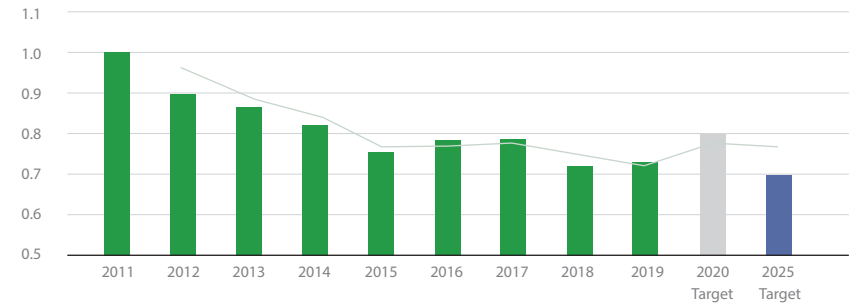
The safe transportation of dyes, auxiliaries, and other chemicals are crucial due to the risk of spillage caused and mishandling. The HSE implications of unsafe chemical transportation can be significant.

To mitigate these risks, multiple precautionary measures are utilized to ensure that DyStar products arrive safely and intact. This begins with the careful selection of experienced and licensed transportation contractors.

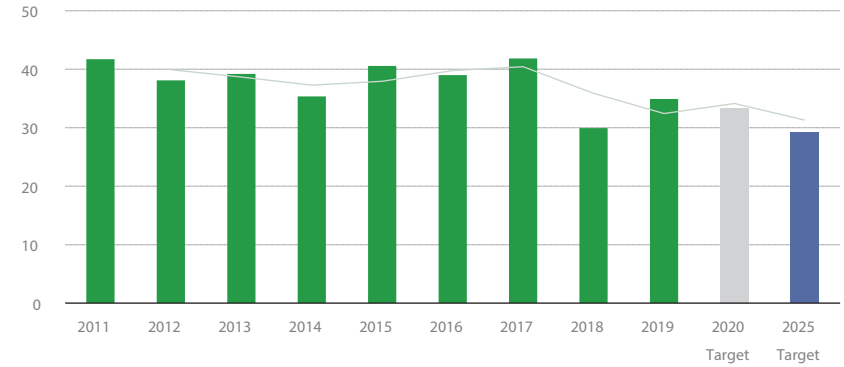
DyStar has established an in-house logistics team that takes the necessary steps to minimize DyStar's indirect environmental impacts. The logistics team coordinates with numerous customers and transport companies to meet expectations and minimize risks. The logistics team also has a strong focus on optimizing efficiency, which in turn, reduces environmental impacts and transportation costs.

DyStar carefully optimizes its distribution networks and ships directly from production plants to sales regions. Regionally, the company maintains a distribution center as well as a network of smaller local warehouses that are strategically located near clusters of textile producers. The strategic placement of warehouses helps minimize the number of partial truckload trips required to reach customers. In areas where purchase volumes are consistently high, the company also provides on-site consignment stocks. While DyStar is responsible for the risks of any consignment inventory remaining unsold, the risk is outweighed by the benefits of reducing trucking frequency at applicable locations.

RAW MATERIAL USAGE INTENSITY
(tons of raw material per ton production)



PACKAGING USAGE INTENSITY
(kg of packaging material per ton production)



Human Capital

DyStar's employees are its most valuable asset. DyStar invests heavily in the development and wellbeing of its workforce in order to build its current and future capacity to create value for the business as well as all major stakeholders. Further, our dedication to employee wellbeing and development not only improves morale and productivity but also the ability to attract and retain the most talented professionals in the industry.

Caring for People

OUR EMPLOYEES

DyStar is committed to fostering a diverse and inclusive workforce throughout global locations and operations. Throughout all aspects and functions of the business, DyStar provides a fair and equitable work environment for all employees, always. These principles are upheld through equal opportunity best practices and the encouragement of teamwork and collaboration. DyStar's culture of inclusiveness and fairness helps promote innovation and creativity in the workforce and build its capacity for adaptability, conflict resolution, and dynamic problem-solving.

DyStar does not tolerate any form of discrimination, in any form based on ethnicity, religion, ideology, gender, age, disability, or sexual orientation. Further, DyStar's Code of Conduct prohibits all forms of harassment in the workplace and will act swiftly on any reported incidents pertaining to discrimination or harassment. To uphold strong principles of equity and incentivize excellent performance, DyStar provides opportunities based solely on merit.

DyStar's aims to increase the role of women in its workforce, and actively seeks to provide more women with excellent career opportunities. However, due to the nature of the production jobs, the majority of its applicants continue to be men, as roles requiring manual labor and machinery are generally less appealing to women.

As of 2019, women comprise about 30% of the workforce and 29% of management positions. Women are better represented at non-production sites, making up 57% of DyStar's administration staff. DyStar is also grateful and proud of its many talented women serving as engineers, chemists, and laboratory technicians. In FY2019, 33% of new hires at the company were women. 97% of women had returned to the workforce from maternity leave.

Going forward, DyStar will continually improve the representation of women in its workforce, as more opportunities arise to further narrow the workplace gender gap, and female interest in professional careers increases, specifically in developing markets.

Benefits provided to employees

Regular full-time and part-time employees are provided with a wide variety of competitive benefits. Temporary employees are not eligible to receive benefits. DyStar's benefit plans vary by country, as they are designed to build on the social security benefits provided in each country. In many DyStar locations, employees are provided with the following benefits:

- Pension plans – either defined benefit or defined contribution plans
- Medical plans – often including prescription drug coverage and dental
- Life insurance
- Disability protection
- Accident insurance
- Business travel accident insurance
- Paid vacation, holiday, and leave programs

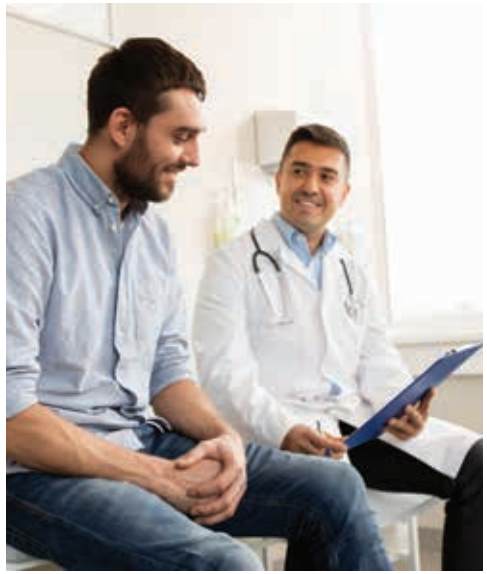
Number of Workforce

	Total	Male	Female
Number of Senior Management Staff	84	65	19
Number of Middle Management Staff	323	222	101
Number of Admin / Support Staff	527	233	294
Number of Technical Staff	397	245	152
Number of Production Workers / Supervisors	671	633	38
Total Workforce	**2,002**	**1,398**	**604**

PROMOTING EMPLOYEE HEALTH

In 2019, DyStar Singapore participated in the National Steps Challenge™ Corporate Challenge, a nationwide initiative organized by the Health Promotion Board to encourage Singaporeans to be more physically active and promote healthy lifestyles. DyStar Singapore won 1st for the "March Most Improved Organization."

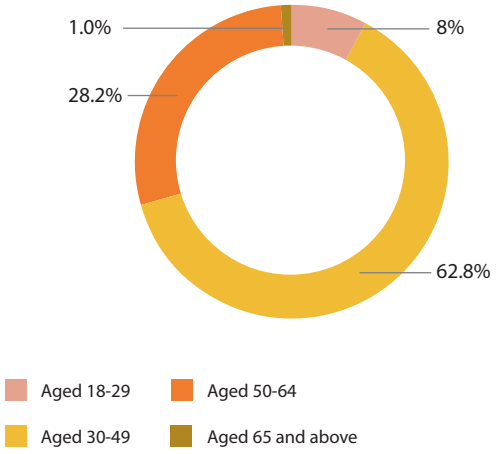
To promote the health and wellbeing of its employees and help them better understand their health status, they are provided with a free basic health screening each year. A personalized health report is sent to the individual employee, with tips and advice on how to improve their lifestyle. An anonymous corporate statistic was also generated and shared with the employees, to help them benchmark their health report with the company's average. This program has been effective for reminding employees to lead a healthier lifestyle and making improvements when necessary.



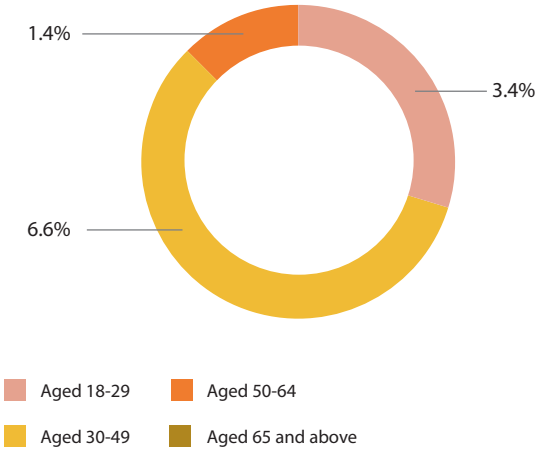
Caring for People

EMPLOYEE RESTRUCTURE

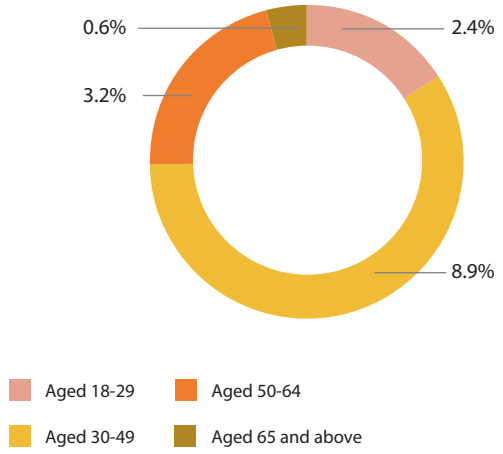
Total Workforce by Age



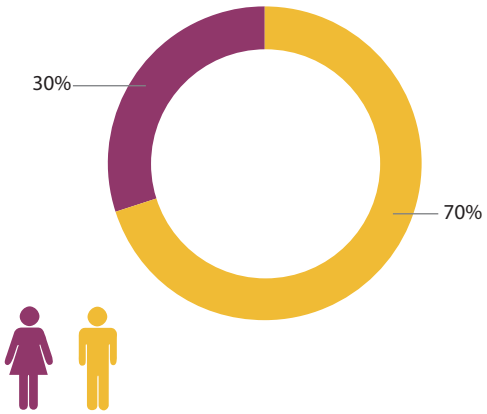
New Employee Hires Rate by Age



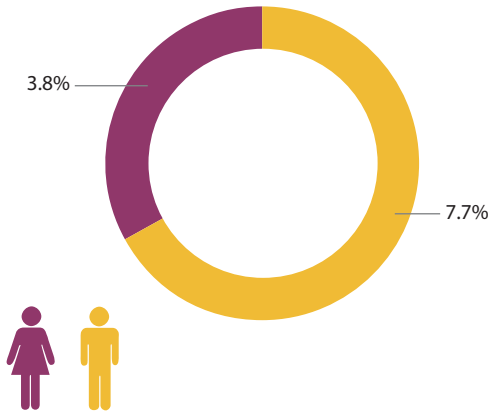
Employee Attrition Rate by Age



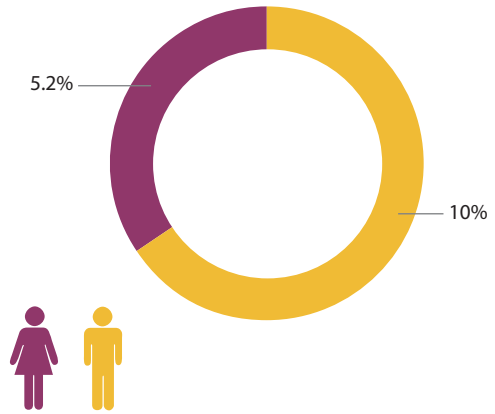
Total Workforce by Gender



New Employee Hires Rate by Gender



Employee Attrition Rate by Gender



Employee Empowerment

STAR EMPLOYEES

Each year, DyStar's Global Employee Recognition Awards recognizes exceptional employees who have gone above and beyond to create a positive impact within DyStar. This year, the following employees were recognized for their outstanding efforts.

BRONZE AWARD

JO WU
Manager, Technical Service (Taiwan)
"I appreciated the big DyStar family for accepting my weakness and giving me great support. It makes me stronger over time"

SILVER AWARD

JENNY REN
Customer Service Specialist (China)
"As always, I will not only live up to the expectations of the leaders by putting in more delicate and hard work, as well as constantly learning to improve my working skills."

SILVER AWARD

HARALD HENKES
Production Manager (Germany)
"I would like to extend my sincere appreciation towards receiving this award, which I see as a merit and recognition of my work"

BRONZE AWARD

ABHINAV SAXENA
Deputy Manager, Sourcing & Procurement (India)
"Coming together is a beginning. Keeping together is progress. Working together is a success"

GOLD AWARD

CHUA PEI HONG
Assistant Manager, Global Treasury (Singapore)
"We will overcome COVID-19 together, like how we fought and contributed towards the success of DyStar together"

BRONZE AWARD

KADIR FIRAT
QC Lab Technician (Turkey)
"I am thankful to the management who evaluated my performance. It made a positive and motivating impact on me, but I wouldn't do it alone. The most important factor of this success is, without a doubt, the support given by my team."

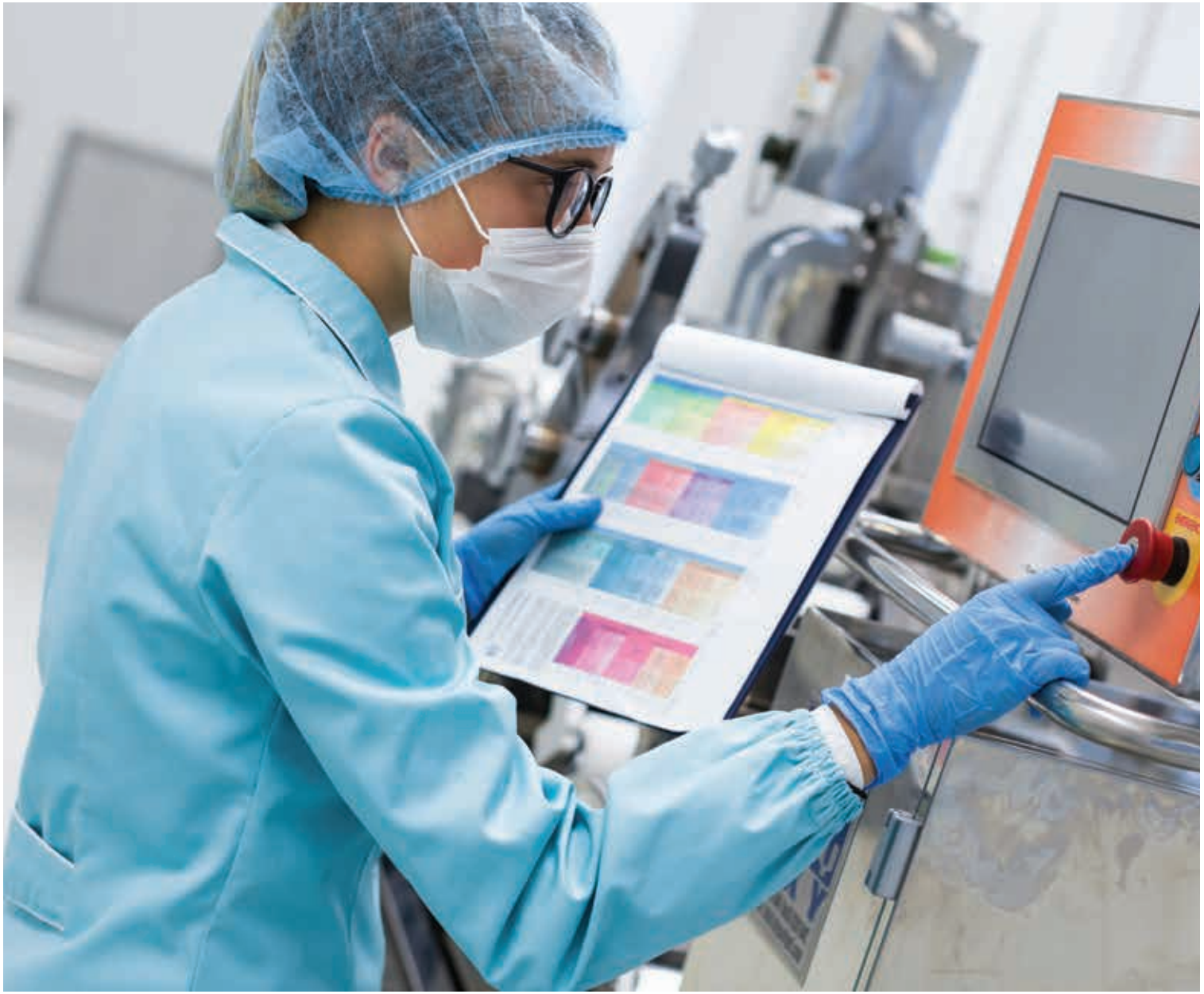
Employee Empowerment

DyStar's employees are the primary drivers of its success and the value that its stakeholders benefit from as a result. Accordingly, the company maintains a strong focus on recruiting and developing top talent and providing them an inclusive work environment where they can flourish and build a strong future for DyStar. These efforts are supported by an extensive workforce engagement program that is designed to map specific pathways for each employee and providing the necessary skills to path the way to their specific goals. Each employee's potential is maximized through training, development, and advancement opportunities, which are provided according to their specific needs and capacities. This approach has been consistently effective, demonstrating strong results in both workforce diversity and growing long-term employee retention.

Out of DyStar's total workforce of over 2,000 employees consist of 94% permanent full-time employees and approximately 1% of permanent part-time employees. Temporary employees, including employees with fixed-term or temporary employment contracts, represent approximately 5% of DyStar's workforce. Approximately 5% of work performed at various DyStar locations is conducted by external contract workers including those overseeing security, cleaning, IT, and maintenance services, based on the number of man-hours.

As of 2019, approximately 5% of the global workforce is composed of individuals from groups that are identified as being a minority or vulnerable groups in their country locations. Minority representation is higher in the United States, where 19% of the workforce is composed of members from minority groups. DyStar's employment figures are not subject to seasonal variation. 100% of DyStar's permanent employees receive annual performance reviews.

DyStar respects its employees' right to establish and support labor unions and to participate in collective bargaining. The company does not discriminate against labor union representatives and their members have full access to the workplace. DyStar did not have any labor-related violations or related fines in 2019.



Skills Enhancement

DyStar's success and market leadership can be attributed largely to the skills and capacity of its talented workforce. The company's leadership consistently provides effective skills development opportunities for its employees through various training and development programs. The company continually builds its capacity with the most effective skills and the latest relevant industry knowledge. To ensure that employees are equipped with the information they need, learning opportunities are developed in line with the latest industry trends and technological advances. Throughout the organization, DyStar pushes HSE and technical training for its employees.

All DyStar employees receive annual performance appraisals, career development planning, and training opportunities to enable them to effectively perform their responsibilities and rise to new challenges as they develop their capacity. Training opportunities are available and encouraged at every level of the company, from production workers to senior management.

To foster synergy and effectively transfer knowledge and information across DyStar's global presence in over 20 countries, DyStar promotes the use of English as a common language. Clear and consistent communication enables the best ideas to be exchanged and realized effectively.
The scarcity of skilled labor at rural production plants and other locations can be a significant human resource challenge. DyStar transforms this challenge into a mutually beneficial opportunity by hiring and training local community members, fulfilling a need for the company while providing economic opportunities, and enhancing the capacity of local workforces.

Employees are encouraged to continuously enhance their knowledge, skills, and capacity to advance their careers, take on the challenges of the future, and achieve sustainable growth for the company.
In FY2019, DyStar sponsored 23,852 training hours dedicated to skills enhancement, and 23,051 hours of training were dedicated to HSE topics.

GLOBAL TRAINING PLAN

DyStar's HR is working with regional offices across its global operations to synergize the training objectives for its employees. These efforts include mandatory training for regulatory, safety, quality, and certification work, as well as technical training to improve job competencies, and soft skills training for areas such as supervisory, interpersonal, and leadership skills. DyStar's Global Training Program is designed to both enhance an individual's job performance and capacity as well as the overall efficiency and effectiveness of the organization as a whole.

In addition to training opportunities, DyStar offers a variety of additional programs designed to help its employees thrive and excel. Some of the programs include internship programs for promising young textile professionals, employee referral programs to recruit talented members from employees' networks and recognition of top achievers with awards to exhibit and reward their achievements.

To further enrich the employees' knowledge of DyStar's businesses and product offerings, the company invests in building from scratch an in-house developed online training platform offering employees opportunities to get up to speed quickly with what the organization does and how DyStar does its businesses globally at a one-stop platform.

ACHIEVING EFFECTIVE TIME MANAGEMENT WITH POWER OF ACTION (POA)

$$\text{Power of Action} = \frac{\text{Partner} \times \text{Acceleration}}{\text{Objective}}$$

Training Courses arranged for employees, aimed at bridging the gap of departments for better cooperation and performance.

This year, DyStar Shanghai participated in a training on "Power of Action (POA) Time Management," a concept which highlights the importance of teamwork in achieving effective time management. Another crux of the POA methodology is clarifying the difference between important tasks and urgent tasks.

The POA methodology depends on all partners agreeing on a common objective and staying on the same page in order to achieve the maximum effectiveness with the least time required.

The POA training received excellent feedback and the trainees expressed that they gained a better understanding of more effective work dynamics, improved relationships with their colleagues, and better communications and understanding of each other's perspectives.

MANAGEMENT TRAINEE PROGRAM (MTP)

Finding and retaining top talent is a common business challenge. To ensure that DyStar managers are prepared to meet current needs and overcome future challenges, DyStar established its Management Trainee Programme (MTP) to identify, develop, and advance young talents from within the organization so they can be an effective driver of innovation and leadership in the future. The MTP's objectives include a balanced pace of assignments and acquisition of key leadership competencies to ensure that participants get tailored experiences while the company cultivates a global approach to leadership. The MTP focuses on improving engagement and retention, and as a result, maintaining DyStar's status as an employer of choice and improving its edge in the labor market.

Respecting Cultural Identity

With locations and operations around the world, DyStar understands the value of diversity. As such, the company is dedicated to providing an inclusive work environment that embraces a variety of cultures and uses different perspectives as a driver of innovation.

DyStar's offices encourage and celebrate local traditions and cultures and often engage in respective traditional practices at company-sponsored events.

To show appreciation for the hard work and achievements of its employees, annual year-end celebrations are organized by management to boost employees' confidence and morale and to build on that momentum for success in the New Year.

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1. *Annual Party in DyStar Shanghai*
2. *Diwali Party Ankleshaw 2019*
3. *DyStar teambuilding event*
4. *Family Day at DyStar Shanghai*
5. *Singapore HQ Team Building Event - Amazing Race 2019*

YEAR IN HIGHLIGHT

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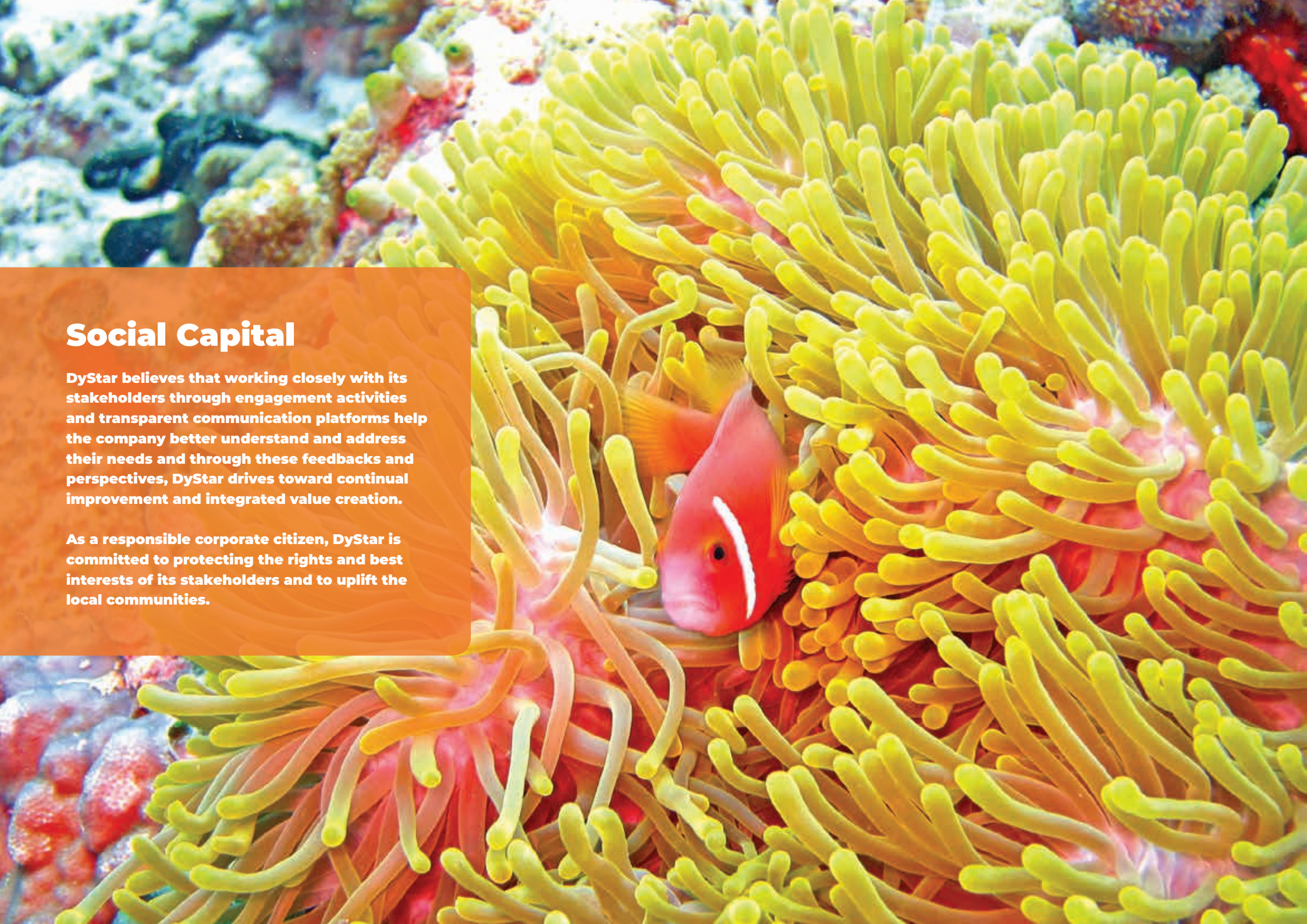
1. *Birthday celebration for DyStar's 24th anniversary*
2. *2019 Annual Party in DyStar Shanghai (Theme Together, We are Brilliant.)*
3. *Christmas Celebration in India Head Office*
4. *Diwali Party Ankleshwar 2019*
5. *DyStar Premier League Champions*
6. *Face Every Change With Positive Thinking*
7. *Family Day at DyStar Shanghai*
8. *United We Go Forward, Together We Are Strong*



Social Capital

DyStar believes that working closely with its stakeholders through engagement activities and transparent communication platforms help the company better understand and address their needs and through these feedbacks and perspectives, DyStar drives toward continual improvement and integrated value creation.

As a responsible corporate citizen, DyStar is committed to protecting the rights and best interests of its stakeholders and to uplift the local communities.

Employee and Worker Safety

SAFE WORKING CONDITIONS

The safety of DyStar employees is a top priority and the company is dedicated to providing a safe work environment. Manufacturing of dyes and chemicals can involve harsh elements requiring careful management, powerful equipment, and large volumes of chemical mixtures in production. To avoid risks, managers must ensure that employees adhere to safety procedures and best practices outlined for work sites such as production plants, laboratories, and warehouses.

At a minimum, DyStar complies with all applicable laws and regulations and adopts additional safety measures whenever feasible. Health and safety policies are tailored to activities specific to each work site. To support safety measures throughout the company, a global network of Health Safety Environment (HSE) team functions under central leadership. Local HSE managers and their teams ensure all employees and subcontractors adhere to applicable laws, regulations, and internal policies at each location. The HSE team develops vigilance-related guidelines and training programs to educate technical and production staff on how to prevent occupational safety incidents.

DyStar's health and safety framework consist of three pillars to enable a safe working environment:

1. Adequate personal protective equipment for employees to protect from both direct and long-term health risks.
2. Implementation of regular and rigorous site inspections, which are essential to identify potential health and safety risks. Any inspection gaps are remediated within a set timeframe with appropriate follow-up actions.
3. Investigation by on-site management to address root causes and prevent recurrences.

To foster a culture of precaution and safety at DyStar, strict safety policy and the associated mechanisms are in place to help eliminate risks and prevent all avoidable incidences. This policy implements safety rules for office premises and production sites, communicates potential risks and associated procedures with clear visual displays, and outlines emergency plans and evacuation routes in the case of an emergency. Ensuring a safe work environment is a collaborative effort at DyStar.

FIREFIGHTING TRAINING

Fire safety and preparedness are crucial precautions for many of DyStar's production facilities and laboratory environments. Fires can be extremely destructive and lead to loss of life, structures, equipment, investments, and jobs.
To ensure that employees are well equipped to prevent and mitigate the damage of potential fires, relevant employees receive basic firefighting training. The training consisted of a theory session focusing on how to prevent fires and proper protocols for the event of a fire. This was then supported by a practical, hands-on session where each employee had the opportunity to go through all the steps of effectively operating an extinguisher to put out a fire.

EMERGENCY EVACUATION DRILL

Emergencies are inherently unexpected and difficult to predict. DyStar employees are prepared to take swift and effective action in the event of emergencies through the annual evacuation drills at each location. During these exercises, emergency exits are used, and staff evacuates the offices as quickly, orderly, in the safest manner as possible. Evacuation times and staff headcounts are measured and recorded to ensure the evacuation is efficient and effective.

Employee and Worker Safety

PT. DyStar Colors Indonesia Wins Occupational Health and Safety Award

DyStar is proud to announce to that PT. DyStar Colors Indonesia was recognized by the Governor of Banten for upholding excellence in occupational safety and health in August 2019. The award is a testament to DyStar's robust health and safety program, which demonstrates high-levels of care for the employees and the environment, as well as its dedication to good corporate citizenship.

DyStar Japan Ltd. Omuta Factory Receives Safety Performance Award

In May 2019, DyStar Japan's Omuta Factory was presented with an award from the Omuta Labor Standard Association for their record of zero safety incidents record over a period of four years.

The Gabus Plant Receives the Award for Best of P2K3 from the Committee of Health and Occupational Safety

The Banten Governor presented The Gabus Plant with the Best of P2K3 award for having the best safety performance of the Panitia Pembina Keselamatan dan Kesehatan Kerja (P2K3).

DyStar Africa Celebrates 2000 Injury-Free Days

In August 2019, DyStar Africa celebrated its achievement of 2,000 Injury Free Days with a lunch, followed by the awarding of certificates and DyStar's branded jackets.

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1. *PT. DyStar Colors Indonesia Wins Occupational Health and Safety Award*
2. *CIPA - Internal Accident Prevention Commission in Apiúna*
3. *DyStar Japan Ltd. Omuta Factory Receives Safety Performance Award*
4. *DyStar Africa Celebrates 2000 Injury-Free Days*

Human Rights

DyStar holds the utmost respect for the fundamental human rights of every citizen across the globe. All of DyStar's operations are fully compliant with all applicable laws, regulations, and standards regarding human rights. To ensure continual compliance, any changes in operations are subject to two-weeks' notice (or longer) to implement the necessary compliance measures. DyStar has not received any fines or penalties related to labor practices, human rights abuse, or treatment of local communities and indigenous peoples.

DyStar's Code of Conduct features a Social Accountability Declaration. The company does not tolerate any discrimination based on race, ethnic origin, gender, religion, philosophy, political or union membership, disability, age, or sexual orientation. DyStar respects its employees' entitlement to freedom of association, the right to form and join trade unions, and the right to collective bargaining. The company is committed to allowing trade union representatives and their members to interact freely at DyStar's workplaces.

DyStar's management teams are well equipped to protect human rights through their understanding and adherence to the Code of Conduct and the Code of Business Conduct. Managers ensure that the company's values and principles of ethics are represented in their specific activities and locations, with careful consideration of local contexts and human rights risks. All DyStar employees are required to read the company's Code of Conduct, including the Human Rights policy, upon onboarding. All DyStar's agreements and contracts include a clause that requires its business partners to abide by all local laws and regulations.

DyStar implements business ethics best practices that are robust enough to withstand any oversight by local management. To enable this, employees have direct communication and feedback channels to the Global Compliance Officer and are encouraged to report any violations directly. Any feedback or information on potential breaches of ethics can also be reported to DyStar's Sustainability Committee via the DyStar website feedback page on Sustainability, which is available to all DyStar stakeholders.

To stay ahead of the emerging risks from ever-changing political and economic landscapes, DyStar regularly monitors for potential human rights risks in its supply chain through its supplier engagement process and regular on-site visits. Basic standards of business conduct are required for suppliers, and to ensure this is maintained, DyStar continually reassesses and improves the efficacy of its approach to supplier and risk management.

DyStar has a zero-tolerance policy for child labor throughout its operations and supply chain. DyStar's Head of Compliance frequently visits site locations to ensure compliance. For safety and human rights purposes, individuals under 18 years are not employed regardless of the local legal working age. Suppliers are audited onsite either annually or once every two years, to ensure compliance with child-labor and human rights policies, among other criteria.

Although compulsory labor is uncommon in developed markets, DyStar remains vigilant in every market and conducts internal and external audits are to ensure no forced labor takes place in DyStar operations. To eliminate supply chain risks associated with compulsory labor, our suppliers' auditors remain vigilant for signs of forced labor, including prison labor.

DyStar does not seek to influence policy on the state, provincial, or national level. As such, DyStar's position is to not make political contributions or provide support for lobbying activities on laws or regulations that may impact its industry.

Community Impact

In some instances, DyStar has a significant economic impact on towns and villages near its operations. Communities are the bedrock of society and the pool from which DyStar's talent is drawn. Therefore, DyStar is committed to uplifting local communities and investing in the local workforce as an investment in the future of DyStar and humanity. DyStar is committed to the responsible management of environmental risks and protecting the local communities in which it operates. Further, it fosters symbiotic and mutually beneficial relationships by providing economic and development opportunities in exchange for a high-capacity workforce.

DyStar maintains open channels of communication with local community leaders and takes any concerns with a high priority. DyStar's engagement with the community enables it to address any grievances and mitigate any impacts should they arise. DyStar has an open-door policy and local community members have been invited to tour plants, observe equipment, safety measures, and pollution control devices that are used. This enabled plant managers to effectively handle any concerns relating to operations and their impacts. DyStar is not aware of any locations that have an actual or potential negative impact on local communities.

DyStar aims to cultivate a significant positive indirect impact on the local economy and to contribute positively toward water and food accessibility, capacity building, and education.

This approach not only uplifts local communities and builds trusting long-term relationships, but it helps DyStar fulfill an important strategic imperative to create value beyond just financially but to systematically benefit and improve the lives of its stakeholders. Through ongoing dialogues with key community stakeholders, company management is enabled to understand the fundamental needs of its neighbors and implement initiatives to meet their needs. These efforts provide focus and purpose for corporate philanthropic activities as well as overall business strategy and vision.

Collaborations with local authorities, non-governmental organizations, and research institutions further fuels DyStar's ambition to improve education, economic development, and the protection of planetary resources for local communities.

Laws and Compliance

With compliance as a key focus of DyStar's activities as an industry leader, the company works closely with global regulators and industry-related bodies to meet several requirements, such as General Data Protection Regulation (GDPR), Personal Data Protection Act 2012 (PDPA), ISO9001 and ISO9001:2015 Transition, REACH, and Environmental Legal Compliance Audits, as highlighted below:

DATA PROTECTION LAW

DyStar respects data privacy and is committed to safeguarding its stakeholder's sensitive personal data. To achieve this aim, global compliance management has implemented data privacy measures and mechanisms in accordance with Singapore Personal Data Protection Act (No. 26 of 2012) ("PDPA") and other applicable data protection laws, including the European Union ("EU") General Data Protection Regulation ("GDPR"), where applicable.

DyStar Global Personal Data Protection Policy was established during the 2018-2019 reporting period to comply with GDPR (EU) and PDPA (Singapore). This policy sets out its practices regarding the collection, processing, use, and disclosure of personal data, and describes privacy rights.

In 2019, DyStar selected staff received GDPR compliance training. In an effort to comply with local law and regulations, DyStar headquarters' Data Protection Policy under its Management Manual was reviewed for compliance with PDPA in Singapore.

GLOBAL QUALITY MANAGEMENT

DyStar's Global Quality Policy outlines and communicates the company's commitment to producing products that meet high ecological standards and are safe for human use. The policy is designed to ensure consistent product quality and safety for its customers, end-users, and the environment.

As the world grabbles with the COVID-19 virus pandemic, it is apparent that there is a great need for well-organized quality management systems to manage external risks. DyStar has adopted the ISO9001:2015 standard (Quality Management System) and established countermeasures to manage such risks to product quality.

To minimize the risk associated with COVID-19, DyStar has implemented compulsory employee temperature monitoring and imposes a mandatory 14-day Leave of Absence (LOA) for any employees with suspected contact with the COVID-19 virus. The ISO9001:2015 (Quality Management System) stresses the close monitoring and control of supply chain risks, which has helped DyStar manage the impacts of COVID-19 on its supply chain. Moving forward in 2020, there will be a new DyStar subsidiary (Pakistan) added to the ISO9001:2015 multi-sites certification. As a result of these measures, DyStar is well-positioned to manage the external and internal risks to the quality standard of DyStar's range of products and services.

DyStar's customer service quality performance for FY2019 indicated satisfactory levels of quality. Total complaint cases reduced by 2% compared to 2018. The recent implementation of ISO9001:2015 (Quality Management System) has significantly lowered DyStar's susceptibility to risk and established a framework to achieve best-in-class quality excellence in the dyestuff industry.

GLOBAL COMPLIANCE MANAGEMENT

For the reporting period 2020-2021, the Global Quality Management and Global Manufacturing departments plan to implement ISO14001:2015 (Environmental Management Standard) to comply with the requirements of bluesign®, which verifies the sustainability performance of textile products. As a strong advocate of sustainable production, DyStar is proud to have joined the Zero Discharge of Hazard Chemicals (ZDHC) Foundation, which manages the Roadmap to Zero Program with the aim of phasing out hazardous chemicals in the textile, apparel, footwear, and leather value chain by promoting safer chemistry and driving innovation.

DyStar Quality Management Audit

Laws and Compliance

CHEMICAL REGISTRATION WORLDWIDE

DyStar is committed to protecting people and the environment from dangerous chemicals. Therefore, we are implementing the following more or less new registration systems worldwide.

Likewise, the European chemicals regulation REACH aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. DyStar is currently in compliance with REACH and has registered more than 450 substances.

Obligations on updates of dossiers and initial registration of substances newly brought onto the market did not stop with the deadline. To meet its full requirements in 2019, DyStar made 7 new inquiries, created 8 new registration dossiers, and updated further 26 dossiers in the complex IT-system IUCLID and successfully submitted them to the European Chemicals Agency (ECHA) via their REACH-IT platform.

DyStar's compliance relationship and obligations with REACH will continue indefinitely. Each year, DyStar will measure and monitor annual imported and manufactured volumes for each substance to determine whether they trigger upgrading or downgrading obligations. When DyStar adjusts its use of registered substances, the changes and their compliance implications will be reflected in updated dossiers and risk assessments. In the case of any uncertainties, ECHA will evaluate the submitted registration dossiers and will request revisions and/or further testing if necessary.

The Korean Ministry of Environment's Act on Registration and Evaluation of Chemical Substances in South Korea - "K REACH" - requires registration of chemical substances, screening of hazardous substances, hazard, and risk assessment of products containing chemical and hazardous substances, and sharing of chemical information. DyStar Korea's operations are currently in the process of aligning and complying with K REACH as DyStar closely monitors their progress and updates to the K REACH legislation.

DyStar is also working to register substances that are manufactured or placed on the Turkish market, currently more than 800 substances pre-registered according to KKDIK. The pre-registration phase for chemicals will be completed end of 2020. In the period from 2021 – 2023 all chemicals must be registered according to the KKDIK guideline. All activities for the pre-registration and registration according to KKDIK have to be arranged in the Turkish language.
Similar legal requirements for chemical registration are under introduction or preparation in Taiwan and Russia/Eurasia.

ENVIRONMENTAL COMPLIANCE AUDITS

DyStar conducts regular environmental compliance audits across its operations to ensure all facilities are in compliance with all applicable environmental regulations, as well as any resulting liability in the case of non-compliance. Audits generally involve examining operations, waste streams, permit requirements, regulatory reporting and recordkeeping, chemical and hazardous material usage and handling, any discharges to air, land, or water. Audits also confirm the efficacy of environmental management systems, identify opportunities for improvement, and prescribe corrective action if necessary. All DyStar operations have undergone Environmental Legal Compliance Audits. The external auditor of Boehme Africa production commended the commitment, knowledge, and capacity that all staff exhibited during the audit.

Communicating with the Stakeholders

STAYING INVOLVED AND CONNECTED WITH STAKEHOLDERS

The success of DyStar is enabled by its key stakeholders as their contributions, perspectives, and feedback drive innovation and continual improvement. As a result, DyStar prioritizes effective communication and engagement with its stakeholders with the intent of building long-term mutually beneficial relationships that serve stakeholder interests and maximize value for all parties involved.

Engage, Listen and Respond: The Cornerstone of Sustainable Stakeholder Relationships

Every year, DyStar communicates with stakeholders through various platforms, with special focus given to collaboratively creating a more sustainable textile industry. Key stakeholder groups are determined based on DyStar's ability to impact their value chain and their potential impact on DyStar's business. DyStar's key stakeholder groups are employees, customers, brands and retailers, industry groups, NGOs, suppliers, and shareholders.

A biannual stakeholder engagement exercise was conducted in FY2019 to consult with key stakeholders through both formal and informal channels and gauge their perspectives on the company's sustainability performance, strategy, and reporting practices. Additionally, brands and retailers were consulted through individual phone interviews, with priority given to those who can contribute the most value to DyStar's sustainability performance and plans.

In addition to these efforts, numerous are activities are conducted throughout the year to further interact and build relationships with key stakeholders. The following stakeholder engagement events were conducted in 2019.

Industry Organizations	Business Associations	Sustainable Textile Standards and Organizations
• Asia Dyestuff Industry Federation (ADIF) • American Association of Textile Chemists and Colorists (AATCC) • Associação Brasileira das Indústrias Químicas (ABIQUIM), Brazilian Chemical Industry Association • The Association of Thai Textile Bleaching Dyeing Printing and Finishing Industries (ATDP) • Basic Chemicals, Cosmetic & Dyes Export Promotion Council, India (CHEMEXCIL) • China Dyestuff Industry Association (CDIA) • Disaster Prevention & Management Center (DPMC), Ankleshwar • German Chemicals Industry Association (VCI) • Gujarat Dyestuffs Manufacturers Association (GDMA) • Japan Dyestuff & Industrial Chemical Association (JDICA) • Society of Dyers and Colourists, United Kingdom (SDC) • Society of Leather Technologists and Chemists (SLTC) • South African Dyers & Finishers Association (SADFA) • Sindicato das Indústrias de Produtos Químicos (SINPROQUIM), Brazilian Chemical Industry Association • Taiwan Dyestuffs & Pigments Industrial Association • TEGEWA	• Ankleshwar Industries Association • Corlu Chamber of Commerce and Industry • Directorate General of Foreign Trade, India (DGFT) • Greater Dalton Chamber of Commerce • Employers' Association of Indonesia (APINDO) • Importers and Exporters Association of Taipei (IEAT) • Indian Merchant Chamber of Commerce • Pietermaritzburg Chamber of Business (PCB) • Raigad Chamber of Commerce & Industry • Reidsville Chamber of Commerce (RCCI) • Singapore Business Federation (SBF) • National Committee of Responsible Care, Indonesia (KNRCI) • Responsible Care®	• American Apparel & Footwear Association (AAFA) • Associação Brasileira da Indústria Têxtil e de Confecção (Abit), Brazilian Textile and Apparel Industry Association • bluesign® • Cradle to Cradle® • Global Organic Textile Standard (GOTS®) • OEKO-TEX® • Sustainable Apparel Coalition (SAC) • Textile Exchange • Zero Discharge of Hazardous Chemicals (ZDHC)

Communicating with the Stakeholders

ITMA: DyStar showcased a diverse portfolio of eco-friendly products in ITMA 2019, a quadrennial textile technology show held in Barcelona, Spain from 20 to 26 June. Themed Innovating the World of Textiles, the 18th edition of ITMA attracted more than 105,000 visitors from 137 countries over seven days, chalking up new records for the exhibition.

SEMINAR: On 11th September 2019, DyStar Taiwan hosted a seminar on the topic of the solution of pre-treatment and dyeing in polyester elastane and polyamide elastane blend. We invited a total of approximately 100 brands and customers to join this event. This seminar received excellent feedback and created more opportunities for technical exchanges, which had a positive effect on the promotion of our auxiliary products.

TITAS: The 23rd edition of the annual Taipei Innovative Textile Application Show (TITAS) was held from 7 to 9 October 2019, providing innovative textiles that meet the needs of global buyers. In response to recent industry developments, TITAS 2019 focuses on four themes: Functional Applications, Sustainability, Smart Textiles, and Intelligent Manufacturing.

KINGPINS SHOW: In October 2019, DyStar's Denim and Laundry team showcased at the Kingpins Show in Amsterdam. Denim producers, as well as Brands & Retailers from all over the globe, attended the show. It was a great opportunity for our experts to present DyStar's latest developments — Cadira® Denim and Cadira Laundry, for the ultimate ecological processing of Denim.

PERFORMANCE DAYS: On April and November 2019, DyStar participated at the Performance Days in Munich, Germany to intensify the contact with brands & retailers. DyStar had multiple conversations with Global Brands on Cadira® modules and other sustainable solutions from our product portfolio.

Additional traffic was generated through the exposure of five of our new developments chosen by the Jury of PERFORMANCE FORUM were displayed on the Wall Special. They are namely DyStar Cadira Reactive, DyCon® HF on TENOWA 1, DyCon® HF on TENOWA 12, DyCon® HF on Texlene, DyCon® HF on Ceramica® Green. At DyStar's booth, we kicked-off potential collaborations that will help to make the industry cleaner.

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1. *DyStar at ITMA 2019*
2. *Seminar of auxiliary products*
3. *TITAS*
4. *Kingpins*
5. *DyStar Japan annual meeting*
6. *DyStar joined the ZDHC Conference 2019*

STAKEHOLDER ENGAGEMENT

DyStar receives "Preferred Trader" Status

The South African Customs and Revenue Authority (SARS) approached 20 companies nationally to embark on a Preferred Trader program. DyStar South Africa willingly accepted the challenge despite the mammoth task that it entailed. After a series of onsite audits and staff competency testing, the DyStar Pietermaritzburg site successfully achieved the "Preferred Trader" Status. In recognition of the team's success, we were presented with SARS Preferred Trader Certification.

Stakeholder Groups	Mechanism for Engagement	Typical Frequency
Employees	Internal communication channels	Frequently
	Team building events	Yearly
	Performance reviews	Yearly
	Employee Sustainability Survey	Yearly
	Sustainability enquiry page at DyStar Website	Frequently
Customers	Website, product brochures, social media, newsletter	Frequently
	Meetings with sales associate	Frequently
	Interaction with DyStar's Ecology team for chemical guidance	Frequently
	Forums, seminars and conferences	Frequently
	Visits to DyStar production sites	As and when requested
	DyStar's Customers, Brands and Retailers Sustainability Survey	Yearly
	Sustainability enquiry page at DyStar Website	Frequently
Suppliers	Tendering process	As and when needed
	Supplier site audits	Yearly
	Supplier Ecological Survey on chemical compliance	Yearly
	Supplier Sustainability Performance Questionnaire	Yearly
	DyStar's Supplier Sustainability Survey	Yearly
Brands and Retailers	Meetings with sales associates	Frequently
	Color design process	Frequently
	Forums, seminars and conferences	Frequently
	DyStar's Customers, Brands and Retailers Sustainability Survey	Yearly
	Visits to DyStar production sites	As and when needed
	Sustainability enquiry page at DyStar Website	Frequently
Shareholders	Shareholder meetings	Quarterly
	Long-term planning with senior management and key committees	Quarterly
	DyStar's Shareholder Sustainability Survey	Yearly
NGOs and Industry Groups	Forums, seminars and conferences	As and when opportunities arise
	Working groups	Quarterly or yearly
	Collaborative projects	As and when opportunities arise
	DyStar's NGO and Industry Group Sustainability Survey	Frequently
		Yearly

Corporate Social Responsibility

As a responsible corporate citizen, DyStar supports local communities and environments through extensive CSR activities throughout the year. DyStar makes significant investments into local communities and initiatives through volunteering, hosting events, and philanthropic activities. CSR activities also provide opportunities to build lasting relationships with community stakeholders. DyStar conducted the following CSR activities in 2019.

DyStar India had a notable year in CSR. Specifically, they contributed financial support to the PM Relief Fund to be used to promote the welfare of society as well as to the Sardar Patel hospital to be used for the procurement of a navigation system for Hip / Knee replacement and a Minimal Invasive Cardiac surgery instrument set. In addition, they have sent a proposal to the Institute of Chemical Technology (ICT) for laboratory renovation and to create a facility capable of conducting basic research as well as innovative technology and solutions development for current industrial issues in the field of textile processing, manufacturing, and effluent treatment. The facility will be used to train students from all institutes and industries from across the country.

Green Belt Expansion Project

As part of the Green Belt Expansion Project, DyStar's Ankleshwar site planted 650 trees on the site premises to maintain a 33% green belt area. In May 2019, Chief Executive Officer of DyStar Group, Mr. Eric Hopmann, and Vice President of South Asia, Mr. Jayant Khera inaugurated this meaningful initiative by planting the first couple of trees on site. Together, the group will continue its commitment to the environment and sustainability!

World Environment Day at India Office & Ankleshwar Plant

This World Environment Day, colleagues from Sustainable Textile Solutions (STS) conducted a thought-provoking session on sustainability and air pollution. Colleagues shared department-level initiatives that can be taken to reduce their respective carbon footprints, which was appreciated by one and all. Subsequently, the Ankleshwar plant conducted a tree-planting drive to contribute to a healthier planet.

Spotlight on DyStar Colors Indonesia (DCI)

DyStar Colors Indonesia team had a highly successful and productive year for CSR. Their activities and accomplishments are outlined as follows:

- **Supporting Education:** DCI delivered symbolic scholarships for 36 outstanding elementary school students.
- **Delivering Donated Clothes and Medicine:** DCI employees delivered donations to victims of floods and landslides in Cipanas, Lebak Banten.
- **Food Donation:** Donated packaged rice, sugar, and cooking oil to 2100 families surrounding the Gabus plant, which were received by the local chief of police. This is an annual tradition before festive Idul Fitri's.
- **DCI Symbolic Handover of Goats:** To foster community relations, DCI symbolically hands over 7 sacrificed goats on Eidul Hajj.
- **National Tree Planting Program at Banten Province:** Each year, DyStar Colors Indonesia participates (alongside with approximately 500 local companies) on the national tree planting day, in Curug, Bitung, Lebak District.
- **Employee Engagement and Volunteering:** To foster team bonding and interpersonal relationships, employees and managers participated in monthly fishing activities at the Gabus site. In addition, some Gabus employees actively work together with local villages to repair roads and foster both employee and community relationships.
- **Supplying Local Communities with Water:** DCI has been helping supply clean water to local communities since 2005. This year, they held a symbolic event for providing clean water to communities adjacent to the Gabus plant.
- **Award:** DCI has been awarded the category of a good predicate by the World Environment Day Celebration at the Serang district level.
- **Active Contributor in CSR:** DCI Gabus received the award from Government as one of the active contributors for the Community Social Responsibility (CSR) program surrounding the district of Serang.


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1. *National Tree Planting Program at Banten Province*
2. *Tree Plantation at DyStar Ankleshwar*
3. *Green Belt Expansion Project*

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4. *Tree Plantation at DyStar Ankleshwar*
5. *National Tree Planting Program at Banten Province*
6. *Company donation to community*
7. *Scholarships provided to elementary school students*
8. *DCI Symbolic Handover of Goats*
9. *Deliver voluntary donation to the victim of floods and landslide*

About this Report

Methodology

This is DyStar Group's tenth annual Sustainability Performance Report. This report outlines the details of our commitments and sustainability performance that matter most to our stakeholders and business success. This report also communicates DyStar's vision and plans to drive sustainability throughout the textile industry.

Through this report, DyStar wishes to reach out to as many of its stakeholders as possible and provide a transparent account of its progress toward catalyzing sustainable practices across the value chain. DyStar's believes that its sustainability strategy will be a critical enabler of its long-term success.

DyStar considers the opinions of both its internal and external stakeholders as a valuable resource for continual improvement. We welcome your questions, feedback, and suggestions. You may contact us at:

Yu Jing
DyStar Sustainability Reporting
jing.yu@DyStar.com

SCOPE OF THE REPORT

This report covers DyStar's global operations for the financial year January 2019 to December 2019. It contains performance data for all production sites, warehouses, offices, and laboratories that are either owned or operated by DyStar. The previous and most recent report was the FY2018 Sustainability Performance Report. DyStar reports on an annual basis and there have been no significant changes observed between reporting years.

DATA AND EXTERNAL ASSURANCE

DyStar collects and analyzes data across all its operations in a standardized manner. A centralized data management system is utilized to collect and assess sustainability performance data from all its business entities. Information supplied to this system undergoes a two-step verification process to ensure the integrity of the final report's data. The procedure also lends accuracy to the year-on-year performance results. Wherever relevant, applied methods and assumptions are detailed within the body of the report.

The data disclosed in this report is not externally assured, however, DyStar is currently exploring options to externally assure highly material sections in subsequent sustainability reports.

REPORTING FRAMEWORK

This report was prepared in accordance with the GRI Standards: Core option. The GRI Standards provide the principles and disclosures required by organizations to report their economic, environmental, and social performance and impacts. DyStar applies the GRI's principles in defining report content and quality, as set out by the GRI Standards. Readers may refer to the full GRI Standards Index at the end of this report for an overview of the company's approach in this regard.

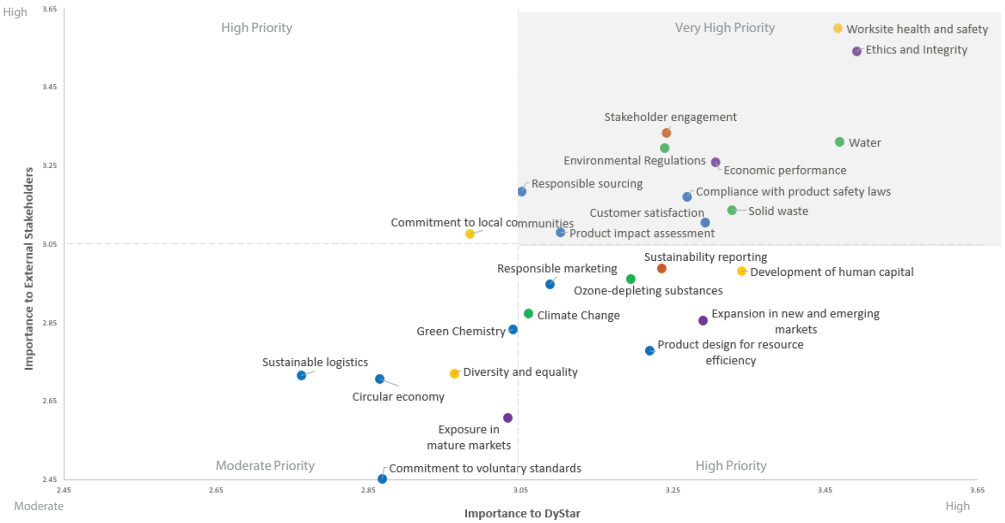
This year marks the beginning of DyStar's integrated approach to sustainability reporting, based on the Integrated Reporting <IR> framework issued by the International Integrated Reporting Council (IIRC). This integrated approach recognizes a range of value stocks represented by the chapters of this report. DyStar also recognizes, manages, and communicates the interconnections between various forms of value in order to optimize the use of resources of all kinds

APPROACH TO MATERIALITY

DyStar's biannual comprehensive stakeholder engagement exercise was conducted in FY2019. From this engagement, materiality was evaluated in two dimensions: stakeholders provided feedback on the relevance of each topic for DyStar from their perspective, and senior managers across the company assessed the topics for value creation by DyStar. The latter assessment included the potential influence of each issue on strategy development and achievement, market positioning and growth opportunities, risk management, compliance, and reputation management. A materiality matrix was created to provide structure and focus on the key issues important for DyStar stakeholders.

The next biannual stakeholder engagement exercise will take place in FY2021.

Materiality Matrix



Focus Areas:

- Conserving Planetary Resources
- Caring for People
- Creating Responsible Products and Solutions
- Communicating with Stakeholders
- Responsible Business Practices

Topic	Concerns	Aspect Boundary	Priority
Climate Change	• Energy efficiency in production process • Global warming and commitment to reducing air pollution • Utilizing renewable sources of energy	Within and outside organisation	High
Water	• Water use efficiency in production process • Responsible waste and wastewater management at plant locations • Mitigating risks of water pollution from effluent discharge	Within and outside organisation	Very High
Solid Waste	• Mitigating risks of soil contamination	Within and outside organisation	Very High
Ozone-Depleting Substances	• Mitigating risks of releasing ozone-depleting substances	Within and outside organisation	High
Environmental Regulations	• Compliance with environmental standards and regulations • Sustainability and carbon emissions reporting • Adopting energy/water management facilities	Within and outside organisation	Very High
Responsible Sourcing	• Traceability • Factoring supplier environmental performance in the selection process for materials and services • Factoring supplier workplace ethics performance in the selection process for materials and services • Factoring supplier diversity into selection process for materials and services (e.g. women, minorities, disabled people, etc.) • Factoring supplier health and safety performance in the selection process for materials and services	Within and outside organisation	Very High
Compliance with Product Safety Laws	• Maintaining various accreditation programs • Product compliance with standards from brands and retailers, including restricted substances lists (RSLs)	Within and outside organisation	Very High

Topic	Concerns	Aspect Boundary	Priority
Commitment to Voluntary Standards	• Commitment to voluntary standards	Within and outside organisation	Moderate
Product Design for Resource Efficiency	• Development of more resource efficient products (e.g. dyes that utilize less energy and water for the textile dyeing process)	Within and outside organisation	High
Green Chemistry	• Embracing green chemistry practices and principles	Within and outside organisation	Moderate
Product Impact Assessment	• Substitution and use of alterative chemicals for hazardous and/or toxic compounds • Establishing carbon footprints at the product level	Within and outside organisation	Very High
Sustainable Logistics	• Embracing green chemistry practices and principles	Within and outside organisation	Moderate
Circular Economy	• Life cycle considerations in value chain • Exploring opportunities for a circular business model	Within and outside organisation	Moderate
Responsible Marketing	• Provision of online tools or advisory services to assist customers in the selection of more sustainable products • Adherence to ethical marketing principles	Within and outside organisation	High
Customer Satisfaction	• Commitment to customer satisfaction	Within and outside organisation	Very High
Commitment to Local Communities	• Monitoring the economic impact of development • Respect for labor and social policy rights • Providing channels for local communities to express their grievances • Social commitment including employee volunteering programs and social investment	Within and outside organisation	High
Worksite Health and Safety	• Ensuring occupational health & safety for all personnel	Within organisation	Very High
Development of Human Capital	• Managing human capital - employee training and development, remuneration, benefits, recruitment and retention	Within organisation	High
Diversity and Equality	• Employee Diversity - ensuring a sound diversity of gender, age, ethnic background etc. of employees • Ensuring that indefinite and non-permanent workers are not exploited	Within organisation	Moderate
Stakeholder Engagement	• Stakeholder engagement (create opportunities for dialogue between the company and stakeholders)	Within and outside organisation	Very High
Sustainability Reporting	• Transparency (willingness to communicate these in a clear, accurate, timely and complete manner) • Accountability (being answerable and responsible for decisions and activities) • Due diligence (comprehensive and proactive process to identify the actual and potential negative impacts of company decisions and activities)	Within and outside organisation	High
Ethics and Integrity	• Ensuring adherence to company Code of Conduct; commitment to ethical workplace and labor practices • Ethical behavior in accordance with accepted principles of right • Commitment to anti-corruption and anti-bribery policies	Within organisation	Very High
Economic Performance	• Meeting financial performance expectations	Within organisationn	Very High
Expansion in New and Emerging Markets	• Expansion in new markets and in emerging markets • Innovation & adopting new technologies	Within and outside organisation	High
Exposure in Mature Markets	• Exposure in mature markets	Within and outside organisation	Moderate

GRI Content Index

This report was prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. For many categories, the information provided in this document exceeds the GRI core disclosure requirement. Depending on the availability of information, some GRI disclosures are only partially addressed.

GRI 102: General Disclosures

GRI 102: General Disclosures 2016	Indicator	Description	Page number(s)
1. Organizational Profile	GRI 102-1	Name of the organization	6
	GRI 102-2	Activities, brands, products and services	6, 24, 30-37
	GRI 102-3	Location of headquarters	9
	GRI 102-4	Location of operations	9
	GRI 102-5	Ownership and legal form	8
	GRI 102-6	Markets served	9
	GRI 102-7	Scale of the organization	9, 20, 47
	GRI 102-8	Information on employees and other workers	47, 48
	GRI 102-9	Supply chain	10, 25-28
	GRI 102-10	Significant changes to the organization and its supply chain	Not applicable
	GRI 102-11	Precautionary principle or approach	10, 26, 44, 45
	GRI 102-12	External initiatives	61
	GRI 102-13	Membership of associations	61
2. Strategy	GRI 102-14	Statement from senior decision-maker	2, 4
	GRI 102-15	Key impact, risks and opportunities	6, 7, 10-15
3. Ethics and Integrity	GRI 102-16	Values, principles, standards, and norms of behavior	2, 4, 10-12, 21, 22, 37, 57
	GRI 102-17	Mechanisms for advice and concerns about ethics	21, 57
4. Governance	GRI 102-18	Governance structure	17-19
	GRI 102-19	Delegating and authority	17-19
	GRI 102-20	Executive-level responsibility for economic, environmental and social topics	19
	GRI 102-21	Consulting stakeholders on economic, environmental and social topics	19, 61-63
	GRI 102-23	Chair of the highest governance body	17
	GRI 102-26	Role of highest governance body in setting purpose, values and strategy	17
	GRI 102-27	Collective knowledge of highest governance body	17
	GRI 102-29	Identifying and managing economic, environmental and social impacts	10-15, 19
	GRI 102-30	Effectiveness of risk management processes	14-15
	GRI 102-31	Review of economic, environmental and social topics	19
	GRI 102-32	Highest governance body's role in sustainability reporting	19
	GRI 102-33	Communicating critical concerns	19
	GRI 102-36	Process of determining remuneration	17
	GRI 102-37	Stakeholders' involvement in remuneration	17

GRI 102: General Disclosures

GRI 102: General Disclosures 2016	Indicator	Description	Page number(s)
5. Stakeholder Engagement	GRI 102-40	List of stakeholder groups	63
	GRI 102-41	Collective bargaining agreements	50
	GRI 102-42	Identifying and selecting stakeholders	63
	GRI 102-43	Approach to stakeholder engagement	61-63
	GRI 102-44	Key topics and concerns raised	68, 69
6. Reporting Practice	GRI 102-45	Entities included in the consolidated financial statements	8, 9
	GRI 102-46	Defining report content and topic Boundaries	68, 69
	GRI 102-47	List of material topics	68, 69
	GRI 102-48	Restatement of information	Not applicable
	GRI 102-49	Changes in reporting	67
	GRI 102-50	Reporting period	67
	GRI 102-51	Date of most recent report	67
	GRI 102-52	Reporting cycle	67
	GRI 102-53	Contact point for questions regarding the report	67
	GRI 102-54	Claims of reporting in accordance with the GRI Standard	67
	GRI 102-55	GRI content index	70-74
	GRI 102-56	External assurance	67
GRI 103: Management Approach 2016	**Indicator**	**Description**	**Page number(s)**
GRI 200: Economic	GRI 103-1	Management approach: Explanation of the material topic and its boundary	20
	GRI 103-2	Management approach: The management approach and its components	17-22
	GRI 103-3	Management approach: Evaluation of the management approach	17-22
GRI 300: Environment	GRI 103-1	Management approach: Explanation of the material topic and its boundary	10-13, 39-45
	GRI 103-2	Management approach: The management approach and its components	10-13, 17, 25-28, 37, 39-45
	GRI 103-3	Management approach: Evaluation of the management approach	19, 39-45,60
GRI 400: Social	GRI 103-1	Management approach: Explanation of the material topic and its boundary	10-13, 46-65
	GRI 103-2	Management approach: The management approach and its components	10-13, 17, 46-65
	GRI 103-3	Management approach: Evaluation of the management approach	19,46-65

GRI Content Index

GRI 200: Economic			
GRI 201: Economic Performance 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 201-1	Direct economic value generated and distributed	20
	GRI 201-2	Financial implications and other risks and opportunities due to climate change	2, 4, 10, 14
GRI 202: Market Presence 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 202-1	Ratios of standard entry level wage by gender compared to local minimum wage	9
	GRI 202-2	Proportion of senior management hired from the local community	9
GRI 203: Indirect Economic Impacts 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 203-1	Infrastructure investments and services supported	20
	GRI 203-2	Significant economic impacts	20
GRI 204: Procurement Practices 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 204-1	Proportion of spending on local suppliers	20
GRI 205: Anti-corruption 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 205-1	Operations assessed for risks related to corruption	7, 12
	GRI 205-2	Communication and training about anti-corruption policies and procedures	21
GRI 206: Anti-competitive Behavior 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	21
GRI 300: Environment			
GRI 301: Materials 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 301-1	Materials used by weight or volume	44
	GRI 301-2	Recycled input materials used	37, 44
	GRI 301-3	Reclaimed products and their packaging materials	45
GRI 302: Energy 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 302-1	Energy consumption within the organization	40
	GRI 302-2	Energy consumption outside of the organization	40
	GRI 302-3	Energy intensity	40
	GRI 302-4	Reduction of energy consumption	40
	GRI 302-5	Reductions in energy requirements of products and services	35-36, 40
GRI 303: Water and Effluents 2018	**Indicator**	**Description**	**Page number(s)**
	303-2	Management of water discharge-related impacts	42, 43
	303-3	Water withdrawal	42
	303-4	Water discharge	43
	303-5	Water consumption	42

GRI 300: Environment			
GRI 304: Biodiversity 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	44
	GRI 304-2	Significant impacts of activities, products, and services on biodiversity	44
GRI 305: Emissions 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 305-1	Direct (Scope 1) GHG Emissions	12, 39, 41
	GRI 305-2	Energy indirect (Scope 2) GHG emissions	12, 39, 41
	GRI 305-3	Other indirect (Scope 3) GHG emissions	41
	GRI 305-4	GHG emissions intensity	41
	GRI 305-5	Reduction of GHG emissions	41
	GRI 305-6	Emissions of ozone-depleting substances (ODS)	42
GRI 306: Effluent and Waste 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 306-1	Water discharge by quality and destination	43
	GRI 306-2	Waste by type and disposal method	44
	GRI 306-3	Significant spills	12, 39, 44
	GRI 306-4	Transport of hazardous waste	43
	GRI 306-5	Water bodies affected by water discharges and/or runoff	43
GRI 307: Environmental Compliance 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 307-1	Non-compliance with environmental laws and regulations	60
GRI 308: Supplier Environmental Assessment 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 308-1	New suppliers that were screened using environmental criteria	27-28
	GRI 308-2	Negative environmental impacts in the supply chain and actions taken	26-28
GRI 400: Social			
GRI 401: Employment 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 401-1	New employee hires and employee turnover	47, 48
	GRI 401-3	Parental leave	7, 13, 47
GRI 402: Labor/Management Relations 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 402-1	Minimum notice periods regarding operational changes	57
GRI 403: Occupational Health and Safety 2018	**Indicator**	**Description**	**Page number(s)**
	403-4	Worker participation, consultation, and communication on occupational health and safety	55
	403-5	Worker training on occupational health and safety	12, 55
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	28, 55
	403-9	Work-related injuries	7

GRI Content Index

GRI 400: Social

GRI 404: Training and Education 2016	Indicator	Description	Page number(s)
	GRI 404-1	Average hours of training per year per employee	12, 51
	GRI 404-2	Programs for upgrading employee skills and transition assistance programs	50-51
	GRI 404-3	Percentage of employees receiving regular performance and career development reviews	50
GRI 405: Diversity and Equal Opportunity 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 405-1	Diversity of governance bodies and employees	18, 47-48, 50
GRI 406: Non-discrimination 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 406-1	Incidents of discrimination and corrective actions taken	47 and 57
GRI 408: Child Labor 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	57
GRI 409: Forced or Compulsory Labor 2016	**Indicator**	**Description**	
	GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	57
GRI 411: Rights of Indigenous Peoples 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 411-1	Incidents of violations involving rights of indigenous peoples	57
GRI 412: Human Rights Assessment 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 412-1	Operations that have been subject to human rights reviews or impact assessments	57
	GRI 412-2	Employee training on human rights policies or procedures	57
	GRI 412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	57
GRI 413: Local Communities 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 413-1	Operations with local community engagement, impact assessments, and development programs	58, 64-65
	GRI 413-2	Operations with significant actual and potential negative impacts on local communities	58
GRI 414: Supplier Social Assessment 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 414-1	New suppliers that were screened using social criteria	27-28
	GRI 414-2	Negative social impacts in the supply chain and actions taken	27-28
GRI 415: Public Policy 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 415-1	Political contributions	57
GRI 416: Customer Health and Safety 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 416-1	Assessment of the health and safety impacts of product and service categories	35, 36
	GRI 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	35, 36
GRI 417: Marketing and Labelling 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 417-1	Requirements for product and service information and labelling	26, 30, 45
	GRI 417-2	Incidents of non-compliance concerning product and service information and labelling	45
	GRI 417-3	Incidents of non-compliance concerning marketing communications	45
GRI 418: Customer Privacy 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 418-1	Substantial complaints concerning breaches of customers privacy and losses of customer data	59
GRI 419: Socioeconomic Compliance 2016	**Indicator**	**Description**	**Page number(s)**
	GRI 419-1	Non-compliance with laws and regulations in the social and economic area	21

SDG Index

HOW DYSTAR SUPPORTS THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

At DyStar, we believe businesses play an important role in helping achieve the SDGs. We reviewed how our sustainability activities through DyStar's Four C's (Creating, Conserving, Caring and Communicating) support the 17 Goals. As a global corporation, we acknowledge our ability to have an impact on all the goals but there are key goals where we believe DyStar is able to contribute in meaningful way.

How We Support The Goals	Page number(s)
• Providing stable jobs that pay fair wages • Enhancing livelihoods through youth capacity building	6, 12, 20, 50-51
• Organizing annual food donation drives in North Carolina • Providing food to local communities in Indonesia every year ahead of the Idul Fitri holiday	7, 64-65
• Promoting good occupational health and safety practices among employees • Introducing safer dyes and chemicals to the market • Facilitating occupational health and safety for textile production workers • Mitigating impact to consumer health through product testing	25-26, 28, 35-37, 47, 55-56, 60
• Supporting employees through knowledge, skills or technical training • Providing scholarships to students from rural communities • Providing dye samples and dyeing expertise to educational institutions	7, 12, 51-52
• Ensuring a fair and equitable workplace, free from discrimination • Empowering underprivileged women through skills training	7, 13, 18, 47-48
• Providing water to nearby rural communities • Responsible withdrawal and consumption of water for manufacturing • Ensuring effective treatment and proper discharge of wastewater • Developing less water-intensive dyes and chemicals for application processes	7, 12-13, 35-36, 39, 42-43, 64
• Adopting more energy-efficient technologies at production plants • Purchasing energy derived from renewable sources	7, 12-13, 39-41
• Protecting labor rights and ensuring safe working environments • Decent work for employees, with fair opportunities for career progression • Hiring and training employees drawn from nearby communities	20, 47-51, 55-57
• Establishing industry and fostering innovation in the places we operate • Investing in state-of-the-art research facilities and scientific know-how • Upgrading technology and infrastructure for resource-efficient processes	22, 29, 32-37, 40-45

How We Support The Goals	Page number(s)
• Actively providing jobs and training opportunities to nearby residents • Supporting rural communities through education and capacity building • Zero tolerance for discrimination enforced through the Code of Conduct	7, 47, 50, 57
• Quality clothing dyes reduce the burden on city water treatment systems • Volunteering work hours to keep the local community clean and green	7, 12, 15, 42, 58, 64-65
• Actively reducing intensity of resource consumption in manufacturing • Designing products and modules for resource-efficiency in application • Developing lasting colors to mitigate consumer consumption	26-29, 31-37, 39-45
• Adopting newer technologies in manufacturing to mitigate GHG emissions • Optimizing transport and logistics to reduce Scope 3 GHG emissions • Awareness raising through training courses • Developing products that enable customers to be more energy-efficient	14, 35-36, 39-41
• Ensuring effective treatment and proper discharge of wastewater • Incorporating end-of-life considerations in product design • Assessing wastewater treatment capabilities during supplier audits	35-36, 42-43
• Opting not to develop on virgin greenfield land • Completing Environmental Impact Assessments before projects go live • Printing sustainability reports on Forest Stewardship Council (FSC) paper • Printing CSI Color Analysis magazine on 100% recycled paper • Virtual color management tools available via DyStar CSI Design Tools	44-45
• Maintaining a robust governance structure • Conducting business in keeping with highest ethical and legal standards • Effectively implementing the DyStar Code of Conduct • Code of Business Conduct for Suppliers and Third Party Service Providers • Code of Business Conduct for Sales Related Service Partners • Auditing all business units for corruption-related risks	19, 21-22, 57
• Collaborating with responsible textile producers, brands and retailers • Encouraging and facilitating sustainable practices among suppliers • Supporting NGO and non-profit initiatives that help further the Goals • Youth capacity building through partnerships with academic institutions • Active engagement with authorities, residents and community leaders	19, 21-22, 57, 27-28, 61

Committed to Sustainability

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

Information and 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. DyStar's advice does not release you from the obligation to check its validity and to test DyStar's products as to their suitability for the intended processes and uses. The application, use and processing of DyStar's products and the products manufactured by you on the basis of DyStar's technical advice are beyond DyStar's control and, therefore, entirely your own responsibility. DyStar's products are sold in accordance with our General Conditions of Sale and Delivery.

Global Headquarters
DyStar Singapore Pte Ltd

Tel: +65 6671 2800
Fax: +65 6659 1328
DyStar.Singapore@DyStar.com
www.DyStar.com

DyStar®