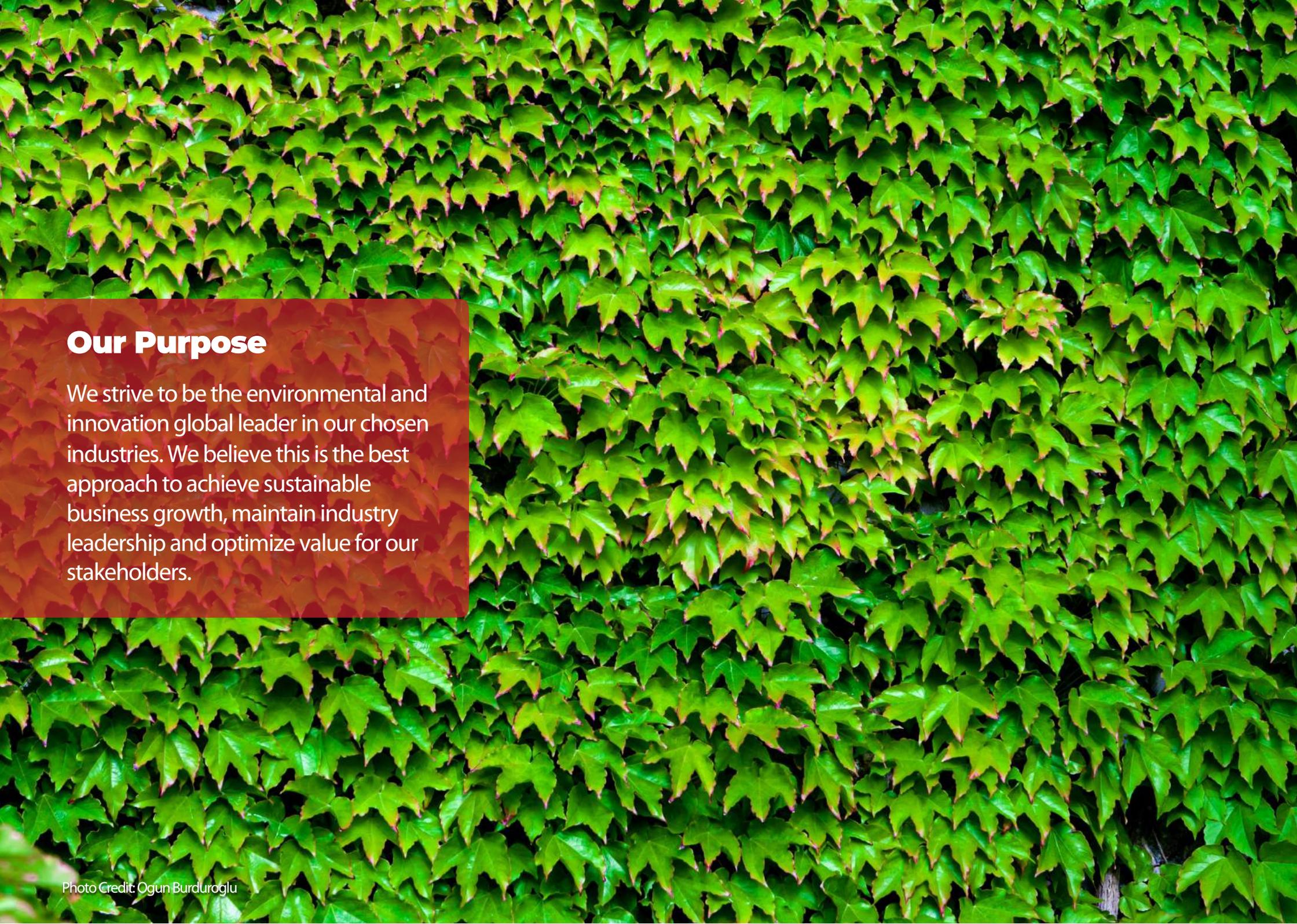




*Committed to Sustainability*



**Integrated Sustainability Report  
2020-2021**



## **Our Purpose**

We strive to be the environmental and innovation global leader in our chosen industries. We believe this is the best approach to achieve sustainable business growth, maintain industry leadership and optimize value for our stakeholders.

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## About this Report

# Navigating Our Report

## Our Capitals



Financial



Manufactured



Intellectual



Natural



Human



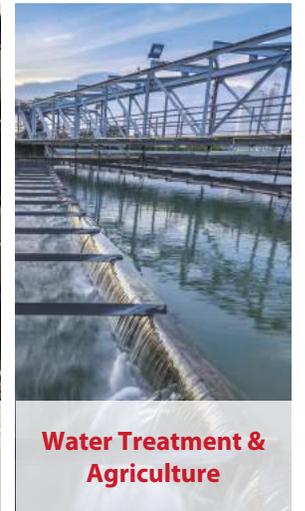
Social

# Our Business

## Who We Are

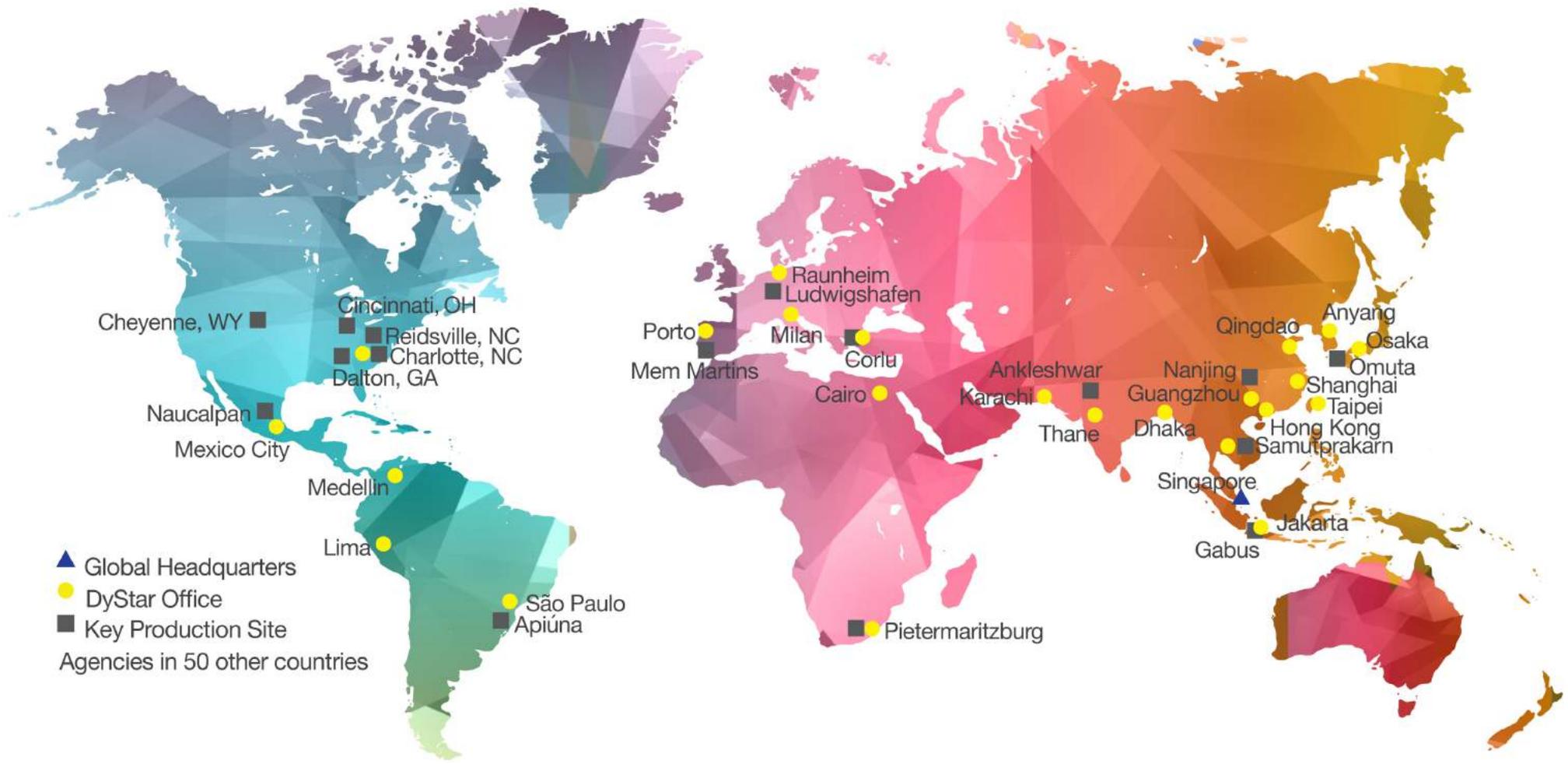
DyStar is a leading manufacturer and solution provider in the global dyestuff & chemical space, serving a variety of industries, including textile, apparel, food & beverage, personal care, pharmaceutical & household, paints, coatings, industrial & construction, water treatment & agriculture. We offer a spectrum of products and services which create shared value for a wide range of customers, including leading brands and retailers and their industry partners.

## Key Industries



## Where We Operate

DyStar is headquartered in Singapore, with a global workforce of over 1,900 employees strong. The company's business foundations are well built for resilient value creation and an ambitious future.



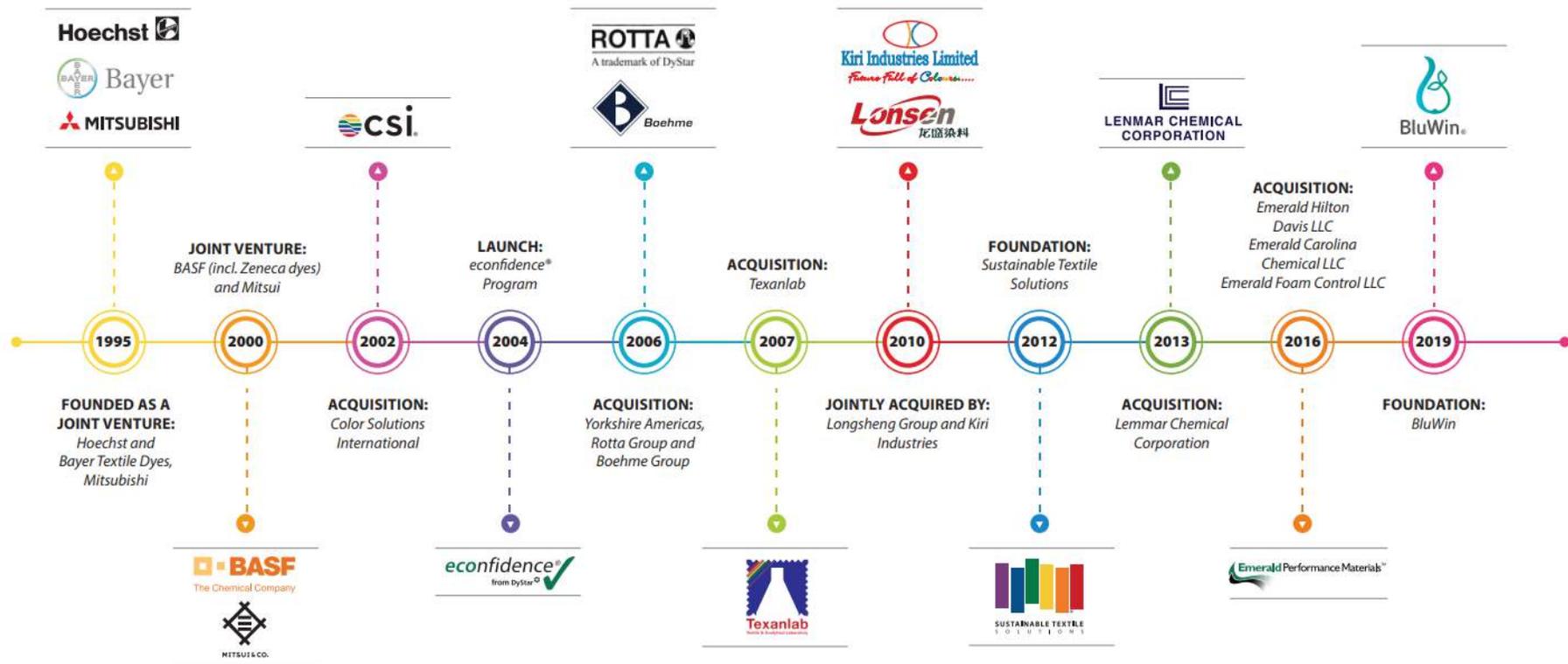
## Our History

DyStar was established as a joint venture between Hoechst AG and Bayer Textile Dyes on July 1, 1995. For more than a decade, DyStar has been leveraging and advancing the innovative work of our pioneering parent companies, including Hoechst AG, Bayer Textile Dyes, Mitsubishi, BASF AG Textiles Dyes, and Mitsui. Building on our prestigious heritage and continued excellence, DyStar has garnered and maintained the trust of key players, including those in the paints, coatings, paper, and packaging sectors.

DyStar's current era began in 2010, with our acquisition by Zhejiang Longsheng Group and Kiri Industries Limited (KIL). The company invested heavily in the expansion into the food and beverage and personal care sectors. In 2016, we substantially diversified our

product portfolio by acquiring Emerald Performance Materials LLC, a leading American manufacturer and marketer of specialty chemicals. This acquisition led to three businesses joining our DyStar group -- DyStar Carolina Chemical, DyStar Hilton Davis and DyStar Foam Control. In this era, DyStar has welcomed a number of other top value creators into the group, as shown in the timeline below.

Building on our diversity and synergy, DyStar has evolved into a resilient organization that thrives even in economic uncertainty and adapts to dynamic, multi-sector risks and opportunities.





## How We Create Sustainable Value Through Our Business Model

### Our Sustainability Vision and Values

We strive to be the environmental and innovation global leader in our chosen industries, leading other industry players towards a collectively sustainable value chain. We believe this is the best approach to achieve sustainable business growth, maintain industry leadership and optimize values for our stakeholders.

To achieve our sustainability vision, DyStar takes a value chain approach to catalyze change across our target industries. For instance, the fashion and textile industry in which we operate is increasingly coming under pressure to improve environmental performance and adapt to evolving standards and regulations. This comes on the back of concerns around chemical pollutions, waste and emissions generated along the value chain of the industry.

As such, DyStar positions itself as the partner of choice for businesses keen to improve their environmental performance. We will continue to improve our own operational impact, and extend upstream to our suppliers, who are expected to uphold ethical business practices and partake in 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.

Our value chain approach to sustainability is guided by our “Four Cs” - Creating safer and better products, Conserving the environment, Caring for our people and Communicating our value creation through our Integrated Sustainability Report<sup>1</sup>.

#### Creating Safer and Better Products

We constantly innovate and develop higher-quality, safer, and greener products and services, which we have done so over the years to create value for our partners and consumers<sup>2</sup>.

#### Conserving the Environment

DyStar has a two-fold sustainability approach - reducing our own operational impacts and helping customers reduce their impact. In line with this dual approach, we have established an organizational sustainability structure, broad strategies and goals across the value chain and a regular sustainability reporting process with robust data collection and environmental performance monitoring. These continue to help DyStar optimize our carbon efficiency and conserve finite resources like water, waste and energy throughout our value chain.

#### Caring for Our People

Our people are our best asset. DyStar has policies in place to ensure a fair, diverse and inclusive working environment. In addition, we invest in training and developing our employees to reach their professional aspirations, which in turn enhance the capabilities within our organization and the wider local communities.

#### Communicating Our Value Creation

DyStar discloses its sustainability efforts and performance in an annual Integrated Sustainability Report. We align all our efforts and strategies to the UN Sustainable Development Goals where possible.

<sup>1</sup> More details about how we apply our “Four Cs” can be found in our ‘Value Creation’ chapters.

<sup>2</sup> More details on our innovative and environmentally friendly products can be found under the “Innovative Portfolio” chapter.

## Incorporating Sustainability Into our Business Model

DyStar's business model leverages elements of integrated reporting approach to demonstrate sustainable value for our stakeholders and the wider society for the short, medium and long term. We illustrate our value creation model through the utilization and generation of capitals – namely, financial, manufactured, intellectual, natural, human, as well as social and relationship. This is demonstrated in the next section, 'How We Create Value'. Our performance based on the value generated through the different capitals is detailed in the 'Value Creation' chapters.

The company considers all these forms of capital in its decision making and business strategies, continuously exploring the relationship between these capitals, our company and our wider impacts. To drive the company towards integrated value creation, DyStar has established commitments and strategies for each type of capital and assigned a responsible department to lead specific initiatives<sup>3</sup>.

<sup>3</sup> More information about our approach to sustainability and business model can be found in DyStar Integrated Sustainability Report 2019-2020.



## How We Create Value

Capital	Inputs		
 <p><b>Financial</b></p> <p>Our financial capital is made of our balance sheet, cash flow and investments that can support our current and future business operations.</p>	<ul style="list-style-type: none"> <li>• Global operating cost: USD 553.95 million</li> <li>• Global employee wages &amp; benefits: USD 103.67 million</li> <li>• Payments to providers of capital: USD 25.98 million</li> </ul>		
 <p><b>Manufactured</b></p> <p>Our manufactured capital focuses on our end-to-end production process, including our suppliers and logistics partners.</p>	<ul style="list-style-type: none"> <li>• Raw material: 102.21 thousand tons</li> <li>• Packaging material: 3.37 thousand tons</li> <li>• Associate material: 1.40 thousand tons</li> <li>• Sustainability supplier assessment: Evaluate shortlisted suppliers of 80% of category expenditures at least once every two years</li> </ul>		
 <p><b>Intellectual</b></p> <p>Our intellectual capital consists of our intangible assets - innovative products, and proprietary technological solutions and processes, our digital capabilities, as well as global standards and certifications.</p>	<ul style="list-style-type: none"> <li>• Collaborations/memberships (nos.): 37 industry organizations/business associations</li> <li>• Sustainability with technology: eliot®, Optidye® &amp; Cadira®</li> <li>• Textile effects and labels: Evo® finishing products</li> <li>• Sustainability across processes: Cadira® and Optidye®</li> <li>• DyStar owns hundreds of patents of dyes and dyeing processes</li> </ul>		
 <p><b>Natural</b></p> <p>Natural capital includes the environmental resources we use and our impact on the environment.</p>	<ul style="list-style-type: none"> <li>• Direct energy consumed: 585.84TJ</li> <li>• Indirect energy consumed: 510.48TJ</li> <li>• Water consumption: 6.57 million m<sup>3</sup></li> <li>• Water reused: 1.74 million m<sup>3</sup></li> <li>• Direct GHG emissions – Scope 1: 40.48 thousand tCO<sub>2</sub>e</li> <li>• Indirect GHG emissions – Scope 2: 45.44 thousand tCO<sub>2</sub>e</li> <li>• Wastewater discharged: 1.17 million m<sup>3</sup></li> <li>• Hazardous Waste: 7.25 thousand tons</li> <li>• Non-hazardous waste: 6.87 thousand tons</li> <li>• Numbers of spills, total amount spilled: 0</li> </ul>		
 <p><b>Human</b></p> <p>Human capital consists of our people, ethics, values and culture.</p>	<ul style="list-style-type: none"> <li>• Total number of workforce: 1,954</li> <li>• Trainings were dedicated to skills enhancement: 13,946h</li> <li>• Trainings were dedicated to HSE topics: 10,563h</li> <li>• Total training hours: 24,509h</li> </ul>		
 <p><b>Social</b></p> <p>Social capital is made of our interactions, impacts and initiatives with local communities.</p>	<ul style="list-style-type: none"> <li>• Water provided to communities at no-cost since 2011: 352,689 m<sup>3</sup></li> <li>• 120 liters of hand sanitizer donated to local villages, clinics, government, police and military in Indonesia</li> <li>• USD 4,820.51 donated</li> <li>• Clothes donated from employees in Singapore</li> </ul>		

Capital	Our Business Strategies	Impacts for Stakeholders
 <p><b>Financial</b></p>	<ul style="list-style-type: none"> <li>Integrates functions of various business lines as well as industry solutions to improve efficiency.</li> <li>Achieve higher levels of economic productivity through diversification, cutting-edge technology, and innovation.</li> </ul>	<ul style="list-style-type: none"> <li>Global revenue: USD 758.42 million</li> <li>Economic value retained: USD 77.1 million</li> </ul> 
 <p><b>Manufactured</b></p>	<ul style="list-style-type: none"> <li>Encourage decision-making and behaviors that lead to Sustainable Logistics optimization.</li> <li>Comprehensive and systematic management of Responsible Purchasing.</li> <li>Continually improve product recycling.</li> </ul>	<ul style="list-style-type: none"> <li>Total production: 96,376.71 tons</li> <li>Core product range: Textile Dyes, Inks and Pigments, Colorants and Process Additives Applied in Consumer Products, Textile &amp; Apparel Auxiliaries, Industrial Colorants and Performance Chemicals</li> </ul> 
 <p><b>Intellectual</b></p>	<ul style="list-style-type: none"> <li>Develop application processes that save valuable resources and enhance product performance.</li> </ul>	<ul style="list-style-type: none"> <li>Eco-performance program: 500 regulated or restricted substances monitored through econfidence®</li> <li>Products with a Difference: 13 patented Dianix® Dyes</li> <li>eliot®: expanded content to include 28 Positive Lists, Product Finder, Information, eliot manuals, Optidye®, Cadira® modules, and the newly added Paper folder</li> <li>REACH® (EU hazard assessment and protection regulation): All DyStar product components manufactured or imported to EU</li> <li>KKDIK®: currently more than 1750 substances pre-registered</li> <li>bluesign®: 1,672 products certified</li> <li>ZDHC® Gateway MRSL V. 2.0: 2,318 products on level 3</li> </ul> 
 <p><b>Natural</b></p>	<ul style="list-style-type: none"> <li>Increase the conservation of energy.</li> <li>Reduce GHG emissions.</li> <li>Increase the conservation of water resources.</li> <li>Practice responsible wastewater management.</li> <li>Reduce targeted waste.</li> <li>Reduce Raw material consumption intensity.</li> </ul>	<ul style="list-style-type: none"> <li>Energy consumption intensity: 11.19 GJ per ton of production</li> <li>Water consumption intensity: 68.10 m³ per ton of production</li> <li>GHG emissions intensity: 0.87 tCO<sub>2e</sub> per ton of production</li> <li>Wastewater intensity: 12.94 m³ per ton production</li> <li>Overall waste intensity: 142.36 kg per ton production</li> </ul> 
 <p><b>Human</b></p>	<ul style="list-style-type: none"> <li>Create a transparent, trustworthy, fair, and equal workplace with great opportunities for everyone.</li> <li>Equitably retain and advance our talented team.</li> <li>Drive inclusive leadership and individual behavior.</li> <li>Focus on employees' health and wellbeing.</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of women in entire workforce: 29%</li> <li>Percentage of management roles held by women: 21%</li> <li>Return-to-work rate after maternity leave: 100%</li> <li>Work-related fatalities: 0%</li> </ul> 
 <p><b>Social</b></p>	<ul style="list-style-type: none"> <li>Increase awareness of sustainability and the company's sustainability commitments among stakeholders.</li> <li>100% of business units within DyStar have established sustainability goals.</li> <li>Respond to stakeholders' expectations and needs.</li> <li>Support social responsibility and community engagement with global volunteering efforts.</li> </ul>	

# Engaging with Our Stakeholders

## Stakeholders' Expectations and Needs

DyStar's business continuity and success are undergirded by our key stakeholders. Their contributions, perspectives, and feedback continue to drive innovation and improvements in DyStar's operations. Hence, consistent and effective communication and engagement with our stakeholders are especially important to us. By Engaging, Listening and Responding, we strive to build long-term, mutually beneficial relationships that serve our stakeholders' interests and maximize value for all parties.

DyStar's key stakeholder groups are determined based on our ability to impact their value chain and their potential impact on our business. Our key stakeholder groups are illustrated below:



Every year, DyStar connects with our stakeholders through various platforms, in particular to co-create a more sustainable textile industry<sup>4</sup>. We conduct biannual stakeholder engagement exercises with an independent external knowledge partner through both formal and informal channels, to understand their perspectives on the DyStar group's sustainability performance, strategy, and reporting practices.

Through our biannual stakeholder engagement exercise in FY2020, we gathered that the top three areas which stakeholders are interested in for our sustainability report include 1) the responsible sourcing of raw materials/goods/products from DyStar's suppliers, 2) how DyStar creates value for our customers, brands and retailers by addressing their needs, and 3) the management and improvement of DyStar's environmental footprint. DyStar will continue to highlight these areas in our upcoming sustainability reports, whilst continually advancing our corresponding sustainability performance.

### Top Three Areas Stakeholders Care About for DyStar's Sustainability Report



Based on stakeholders' inputs, the DyStar management team will strive to address and elaborate on the areas that are of interest to the stakeholders. We intend to deepen our disclosures on our ESG and climate-related risks and opportunities in the coming years. This will be announced in due course.

<sup>4</sup> More details about our industry partners and associations can be found in DyStar's Integrated Sustainability Report 2019-2020.

## Customer Training

Apart from stakeholder surveys, DyStar also conducts training for our customers to help them understand our products and services better. We also facilitate our customers' capacity to navigate the latest technologies in the sustainable manufacturing and textile sector — in Istanbul, we have conducted a training session on the ZDHC Chemical Gateway, which is the world's pioneer online database for safer chemistry. It aids brands, suppliers and chemical producers in making more informed sourcing decisions. DyStar has over 2,300 products that are rated 'Level 3' on the platform.

Other workshops that DyStar has conducted include:

- Training on cationic dyeable polyester in the Aegean region of Turkey
- Presentation on major brands' and retailers' sustainability requirements, sustainability terms, future trends, opportunities and potential R&D areas for DyStar in Corlu, Turkey.
- Joint webinar by DyStar and Kaiser - Roadmap to Zero Discharge Denim Solutions, where we explained the benefits of the Cadira® Denim & Laundry Concept to more than 20 Denim Brands.

Moving forward, DyStar also aims to organize more webinars about dyes, Cadira® modules and other products and services.



## Trade Show & Exhibitions

To reach out to a wider group of potential stakeholders, DyStar conducts various activities that are catered to their needs throughout the year. One of the events which we participated in is the November 2020 Shanghai Interdye Show. DyStar's managers welcomed and addressed the various queries of our visitors, who represented production houses, manufacturers and brands and retailers. Our team explained the concrete benefits of DyStar's products and services, including how they minimize waste production and water and energy consumption, whilst improving the quality of our stakeholders' end-products.

DyStar also participated in the 'China International Dye Industry, Pigments and Textile Chemicals Exhibition', 'Taipei Innovative Textile Application Show (TITAS) 2020', the 'Taiwan Printing and Dyeing New Products & New Technology Forum 2020' and other trade events.

While there were other tradeshow lined up during the reporting period, they were cancelled or postponed due to the pandemic.



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# DyStar®



Committed to Sustainability

DyStar®  
Committed to Sustainability

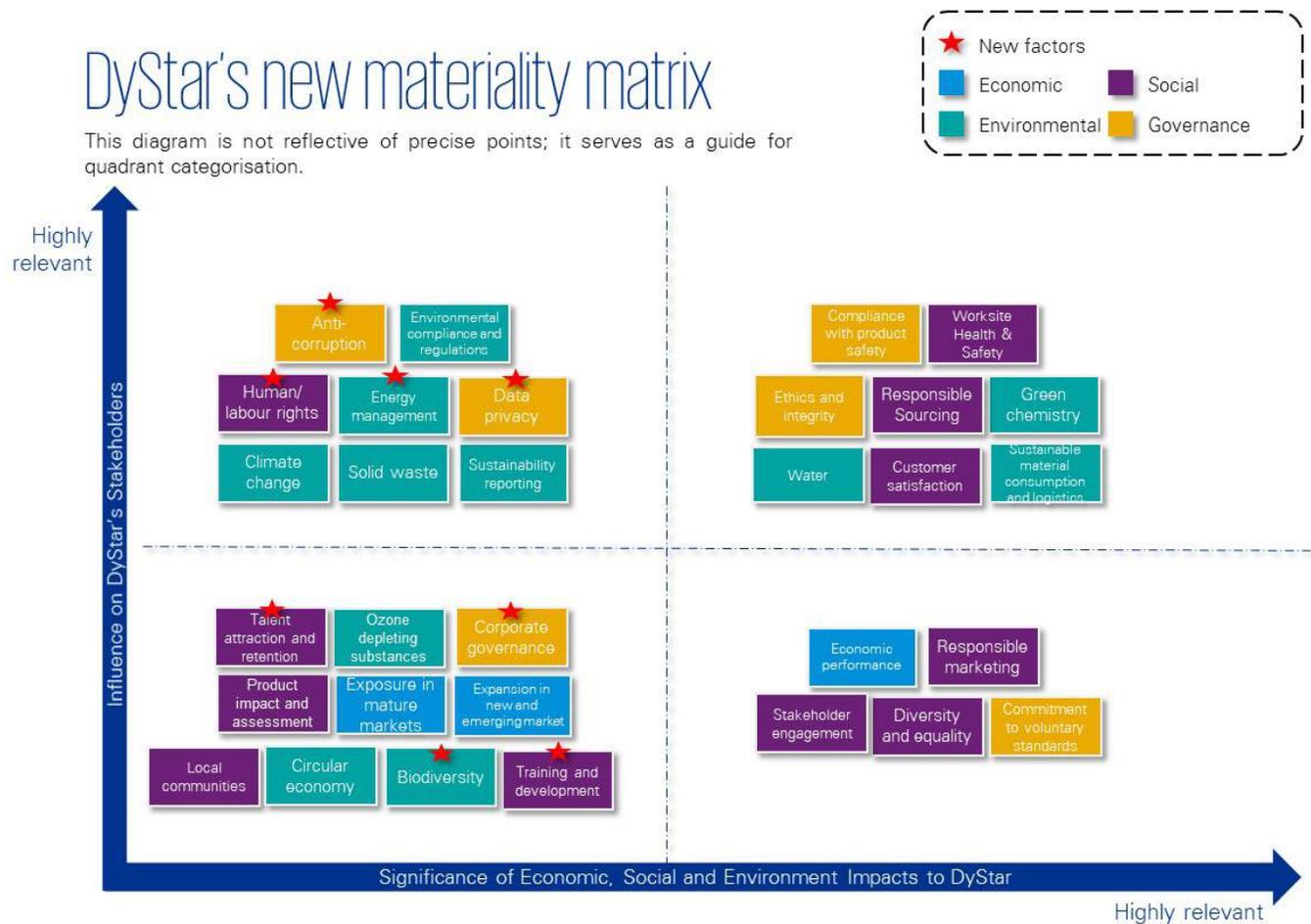


# Our Material Matters

DyStar's materiality assessment was refreshed in FY2021 in collaboration with a global knowledge partner. Our approach aims to understand how our material ESG topics impact the stakeholders across our value chain and the wider environment, as well as how significant they are to our internal stakeholders. This is aligned with our Sustainability Vision to create value for our stakeholders.

Our materiality assessment process involved three steps –selection, assessment and validation. Firstly, material topics were selected based on global ESG trends, sustainability topics relevant to our industries, as well as DyStar's risks and opportunities. Secondly, we assessed the shortlisted material topics based on the potential economic, environmental and social impacts on DyStar, and their substantive influence on stakeholders' decision-making process. Finally, we validated our material topics through engagement with internal and external stakeholders as part of our biannual stakeholder engagement exercise in FY2021.

The following materiality matrix was created to highlight the key ESG issues that are significant for both DyStar and our stakeholders, and guide our sustainability approach and targets, as well as the disclosures in this report.





## Governance

1. Corporate governance
2. Anti-corruption
3. Ethics and integrity
4. Compliance with product safety
5. Commitment to voluntary standards
6. Data privacy



## Environment

1. Climate change
2. Energy management
3. Water
4. Solid waste
5. Ozone-depleting substances
6. Circular economy
7. Biodiversity
8. Environmental compliance and regulations
9. Sustainable material consumption and logistics
10. Green chemistry
11. Sustainability reporting



## Social

1. Worksite health and safety
2. Diversity and equality
3. Training and development
4. Talent attraction and retention
5. Local communities
6. Human/labor rights
7. Responsible marketing
8. Customer satisfaction
9. Responsible sourcing
10. Product impact assessment
11. Stakeholder engagement



## Economic

1. Economic performance
2. Expansion in new and emerging markets
3. Exposure in mature markets

# Our Leadership and Strategy

## Message from The Executive Board Director



Dear Stakeholders,

This past year was a challenging one – with unprecedented and rapid changes as the result of a global pandemic, as well as challenges brought forth by global economic instabilities, climate change and resource scarcity. Despite these disruptions, DyStar’s business remained resilient, generating stable profit and value for all our stakeholders.

Last year, I spoke about the changing global environment that is increasingly impacting industrial landscapes. I also highlighted the importance of an innovative business model and forward-thinking strategies needed to mitigate these risks and tap new opportunities. This is just as important now, if not more so, given the ongoing pandemic, economic uncertainties and climate change.

Working alongside DyStar’s board and senior management, we will continue to adapt DyStar’s business model to be resilient, innovative and sustainable

in order to meet the challenges ahead of us.

### Macroeconomic Outlook

The coronavirus pandemic has impacted the global economy and changed the way businesses operate around the world. The economic outlook remains challenging and most forecasts have shown that recovery would be uneven. While the US and East Asia are expected to rebound strongly, the global output for 2022 will still remain about 2% below the pre-pandemic forecast<sup>5</sup>. The emergence of any new COVID-19 variants and waves of infections could further upset global markets.

In the industries we operate, the pandemic has put a pause on some suppliers’ raw material production and processing operations. This has in part led to a shortage of raw materials. As the supply of raw materials and partially-processed materials drop, the shipping and logistics costs of cross-border trades have been

simultaneously increasing, especially in developing economies. The combination of these global trends have translated into higher costs of production for most manufacturers and downstream customers, slowing down recovery across many markets.

However, DyStar’s robust risk mitigation and business continuity mechanisms in place have proven crucial to overcome COVID-19 challenges. For instance, there has been an increasing global demand for personal protective equipment (PPE) and DyStar, being an innovative provider is assessing new business opportunities arising from the pandemic to meet the rising need for PPE and other products.

DyStar is committed to persevering through these times, whilst catering to the global community’s evolving needs and serving as a source of support for our industry partners and other stakeholders.

5 Source: [Daily Treasury Outlook \(ocbc.com\)](#), Global Economic Prospects (World Bank)

## Climate Change Challenges and Opportunities

In recent years, environmental, social and governance (ESG), as well as climate change has become increasingly important in the industries we operate and for our stakeholders. Governments around the world are setting climate targets and ambitious commitments towards decarbonization, including in China and the US where some of our operations are. This will be a key driver for more sustainable practices across our value chain, higher demand for green products from our customers and greater potential opportunities for us to reduce the cost of capital through sustainability-linked financing.

As these topics become more prominent, DyStar's strategy is to mitigate emerging risks, increase resource efficiency, and capitalize on new opportunities. We will continue to innovate and develop a wide range of products and processes that improve environmental performance and reduce carbon footprint across our value chain. By helping to cultivate a more sustainable supply chain in this way, we create greater value for our industry

partners, customers and suppliers. This will remain one of DyStar's key competitive advantages as our global resources become scarcer and regulations tighten.

### Environmental and Social Disclosures

As more governments commit to decarbonization and climate ambitions, environmental regulations for corporates will inevitably become more stringent. This may mean greater demand for environmental and social disclosures in the markets we operate, especially in relation to carbon intensity, to meet the requirements of local regulators or customers' procurement policies.

In light of this, we already have in place robust supply chain traceability policies to ensure that our partners and suppliers share our environmental and social standards. We also have comprehensive data on our greenhouse gas emissions and have set targets to reduce our carbon emissions.

As the environmental regulatory landscape develops, our risk management strategies will continue to help us mitigate supply chain disruption and protect our

reputation as a sustainable and trusted leader in the markets we operate.

To achieve sustainable business growth, our Board plays a key role. The Board will continue to support the management in expanding the business, achieving values for stakeholders and spearheading sustainability initiatives to meet a rapidly changing environmental regulatory landscape.

All in all, our business resilience speaks volumes. Our success is the result of concerted efforts and a shared vision. I'll like to extend my heartfelt appreciation to our internal and external stakeholders that have joined our efforts to create a better world.

**Xu Yalin**  
**Executive Board Director**

## CEO'S Review



The COVID-19 pandemic overshadowed most of 2020, changing the way we operate our business, protect our people, and serve our stakeholders. We are fortunate to have emerged strong – with sustained profitability (USD 77 million Economic Value Retained). This is despite a 22% fall in profitability from the year before, owing to disruptions from the emergence of new COVID-19 variants, waves of infections around the world and challenges to vaccination schemes.

Furthermore, economic uncertainty and the closure of businesses have affected the demand in our markets. However, due to DyStar's flexible supply and purchasing processes, business continuity and risk mitigation mechanisms, we have been able to adapt to the changing environment, allowing us to retain our market share and business strength.

Moving forward, we are seeing demand recovery due to significant headways in vaccination programs in all major economies. However, some

other challenges have risen such as logistical constraints due to global movement restrictions and the shortage of raw materials. This impacts the cost of production and our ability to supply on time greatly. We are trying together with our partners in the industry to find solutions and we remain nevertheless positive about the performance and the outlook of the Group.

### **Strive to be A Sustainability Leader**

Despite the challenges brought about by the macroeconomic outlook, our commitment to value creation for our stakeholders has not changed. We create value by being an environmental and innovative global leader in our chosen industries. To achieve this vision, sustainability must be integral to every aspect of our business decisions, operations, and the everyday commitment and support of all our employees.

In FY2020, we were able to provide a safe environment for both our permanent and contract workers – with

zero outbreak from our facilities. We also made active efforts to reduce our environmental footprint – we aim to reduce the overall production footprint by 30% for every ton of production by the year 2025.

To advance our internal and external accountability for our sustainability efforts, we will continue to improve our financial and non-financial disclosures to support our business decisions and action plans.

### **Our Sustainability Commitments**

The global pandemic and economic uncertainties notwithstanding, the chemical, textile and fashion industries are changing at a rapid pace to meet the expectations of consumers who are environmentally and socially conscious. The need to advance sustainability across the value chain is further driven by institutional investors and regulators around the world. This has an immense and long term impact on our business and supply chain.

While the textile and fashion industries are under pressure to improve environmental and social performance, we believe we are in a good position – with our diverse range of environmentally-friendly products and services, our stringent supply chain policies, as well as active efforts to reduce our environmental footprint. We remain committed to catalyzing sustainability across the entire value chain, and the industries we operate in.

We are also developing various projects in anticipation of future demands from customers as well as adopting more environmentally friendly technologies and improve our workflows and processes. Some of our projects include traceability programs, adopting renewable energy technologies, and digitalizing our business processes.

For traceability programs, we are seeing more interest from customers to understand the origin of their purchases. Through these programs, DyStar hopes to convey to our stakeholders that we are accountable and transparent across our value chain.

DyStar has also started to adopt renewable energy as we seek to reduce the greenhouse gas (GHG) emissions that we produce. We are carefully reviewing options to shift our energy supply in our sites to renewable energy gradually as this transition requires major investments.

To strengthen both business operations and our traceability initiative, DyStar has invested in and implemented the ERP – SAP to streamline business operations, trace raw materials, optimize our inventory, among other functions. This allows us to raise productivity, improve data management and increase operational efficiency.

With all that said, it is not possible to achieve sustainability as a single company. We support industrial collaborations and innovations to foster a circular economy. We will continue to develop and leverage strategic partnerships to drive our sustainability vision.

There are certainly a lot more work to be done ahead. We are keenly aware that sustainability efforts can be costly and

require buy-in from all our partners. DyStar strives to improve sustainability across our value chain, while ensuring we remain financially competitive. Nevertheless, I am convinced that we are on the right track and our approach to sustainability will help our business remain resilient in the long term.

**Eric Hopmann**  
**Chief Executive Officer**

## Our Performance This Year

### CREATING RESPONSIBLE PRODUCTS AND SERVICES

			
<p><b>500</b> regulated or restricted substances monitored through econfidence®</p>	<p><b>4,000</b> ColorWall™ reference available for better right-first-time performance</p>	<p><b>28</b> positive lists, e.g. for compliance to brand and retailer Restricted Substances Lists (RSLs)</p>	<p><b>1,672</b> bluesign® approved DyStar products</p>
			<p><b>Standard 100 by Oeko-Tex®</b></p>
<p><b>450</b> substances registered according to REACH®</p>	<p><b>1,750</b> substances pre-registered according to KKDIK</p>	<p><b>2,308</b> DyStar products compliant with ZDHC MRSL 2.0</p>	<p><b>2,103</b> DyStar products recommended for use on Oeko-Tex® Standard-compliant articles</p>

### SUSTAINABLE BUSINESS GROWTH

		
<p><b>USD 104 million</b> paid in global employee wages and benefits</p>	<p><b>USD 26 million</b> paid in tax contribution vs year 2019</p>	<p><b>USD 77 million</b> economic value retained</p>

CONSERVING PLANETARY RESOURCES



**▲ 12%**  
energy intensity 2020 vs. 2011



**▼ 13%**  
emissions intensity 2020 vs. 2011



**▼ 8%**  
water intensity 2020 vs. 2011



**▼ 29%**  
wastewater intensity 2020 vs. 2011



**▲ 6%**  
raw materials 2020 vs. 2011



**▲ 71%**  
Non-Hazardous Waste 2020 vs. 2011



**30%**  
customer packaging  
reconditioned and reused



**1.74 million m<sup>3</sup>**  
volume of water reused

CARING FOR PEOPLE



**0%**  
work-related fatalities



**24,509 hrs**  
staff training



**21%**  
management roles held  
by women



**100%**  
return-to-work rate  
after maternity leave



**22,005 m<sup>3</sup>**  
water provided to communities  
at no-cost in 2020



**100%**  
business locations audited for  
corruption-related risks

# Our Governance

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## Governance Structure

DyStar consistently implements the highest standards of corporate governance and ensures that principles of fairness and morality are upheld throughout the company. The Members of the Board and Senior Management recognize that transparency and accountability in management will secure the long-term sustainability of DyStar and protect the best interests of its stakeholders<sup>6</sup>.

To ensure a balance of authority and enable independent decisions, there is a clear delineation of responsibilities between the Chairman and the Chief Executive Officer (CEO). In line with this, DyStar's Board of Directors is helmed by a non-executive Chairman.

The Board sets the overarching strategy for DyStar's long-term business objectives, organizational strategy, risk management and global dealings. The Board is responsible for reviewing and approving business plans, legal conduct, and ensuring the allocation of enough resources for DyStar to fulfill its objectives.

DyStar's Board members provide core competencies that enable comprehensive corporate decision-making. Contributions from the Board members include 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.

Based in DyStar's Singapore headquarters, the Executive Board Director (EBD), Xu Yalin, is responsible for supervising the company's daily operations. Director Xu also serves as the representative of the Board, acting as the primary liaison between the Board and the Senior Management. He coordinates with members of the Senior Management to ensure the Board's decisions and strategies are successfully realized.

<sup>6</sup> More information about our ethics and code of conduct in 'Supporting and Developing Our People' chapter.

<sup>7</sup> More information about our board committees can be found in DyStar Integrated Sustainability Report 2019-2020.

## Board Committees

To provide better support to the leaders of the company and to reinforce governance throughout the company, DyStar has established several specialized committees. These committees are the Audit Committee and the Remuneration Committee. For both committees, meetings are held periodically to allow the discussion of latest developments, performance, challenges, opportunities, possible projects and policies, and future planning<sup>7</sup>.

## Senior Management Structure

The Senior Management is led by the EBD and CEO and sets out to achieve the strategies and goals laid down by the Board. In carrying out these responsibilities, the management emphasizes efficacy, transparency and sustainability. The EBD and CEO are also responsible for the day-to-day management of DyStar, coordinating the execution of strategic plans and policies with Senior Management and ensuring that the objectives of the Board and its committees are fulfilled. The Senior Management team also includes the Vice President positions, who contribute in their capacities as leaders of various key functions within DyStar.



Photo Credit: Peter Collishaw

## Sustainability Committee

As DyStar is committed to integrating sustainability in its global operations, it has set up a Sustainability Committee, chaired by the CEO. The committee has eight other members, each representing a key function in the company. The Sustainability Committee is responsible for developing the company's long-term sustainability strategy and aligning sustainability objectives with core business objectives. The Committee also oversees DyStar's annual Sustainability Performance Report which communicates the company's achievements and challenges relative to key sustainability metrics, as well as the company's future sustainability plans and goals. To ensure the company is on track, the Sustainability Committee convenes quarterly to assess the company's performance and progress, consider new initiatives, and discuss industry developments that could create new risks and opportunities.

The Sustainability Committee holds periodic stakeholder engagement exercises to support its various sustainability efforts. The committee also reviews the sustainability data collated every year and evaluates the efficacy of the management approach towards each identified material aspect of sustainability, after the annual sustainability reporting<sup>8</sup>.

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

In FY2020, Ng Siew Boon, Vice President of Group Finance joined the Sustainability Committee. The addition of the CFO will ensure a better alignment of sustainability and financial objectives and ensure that the interests of DyStar and its stakeholders are well protected. The Vice President of Group Finance will be responsible for identifying financial-related sustainability risks, as well as overseeing the strategic planning for sustainable finance. This move will also be key in maintaining the company's financial competitiveness while pursuing sustainability objectives. Through DyStar's strong commitment to sustainability, the company continues to strive to be a global leader in sustainability.

<sup>8</sup> Please see 'Our Material Matters' section for more details.

# Our Risks and Opportunities

The identification and management of risks and opportunities are integral to DyStar’s business continuity and resilient value creation over the long term. We integrate robust mechanisms into our business model to continuously monitor and mitigate risks and identify and leverage opportunities.

Risk Landscapes	Our Risk and Opportunity Strategies	Capitals Impacted
<p><b>Macroeconomic and Business Risks</b>            COVID-19 has substantial, far-reaching impacts on business continuity</p>	<p>DyStar leverages location intelligence to gain an actionable and holistic view of operating status and risks. We implement cutting-edge technology to monitor, manage, and communicate the impact of COVID-19 to internal and external stakeholders and support business continuity throughout the pandemic.</p>	
<p><b>Financial Risks</b>            COVID-19 has been disrupting global operations and supply chain disruptions, thereby significantly increasing liquidity and credit risks</p>	<p>DyStar did not have any external loans at the end of FY2020 and continues to hold a sufficiently large reserve of cash and cash equivalents. We also maintain substantial credit lines at banks should additional funds be required.</p>	
<p><b>Climate Change Risks</b>            The changing climate is accompanied with a more stringent environmental policy landscape, landscape, frequent extremes weather events and resulting supply chain disruptions, volatile energy prices, water scarcity, and markets that increasingly value carbon efficiency.</p>	<p>DyStar continually invest in innovative technologies and process improvements that minimize our environmental footprint. Our management 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.</p>	
<p><b>Supply Chain Risks</b>            Substantial cost increases and business continuity disruptions may arise from supply chain interruptions and supply shortages.</p>	<p>To develop a sustainable supply chain and a robust supply base, DyStar has launched multiple projects, including the Supplier Audit-DOLPHIN project at end 2018, the implementation of the Institute of Public and Environmental Affairs (IPE) tool to drive sustainable supply chain management, and the Supplier Sustainability Survey in 2019. Specific details are discussed in the Sustainable Procurement section.</p>	

### Risk Landscapes

### Our Risk and Opportunity Strategies

### Capitals Impacted

#### Regulatory Risk

More stringent environmental policies and corresponding random factory inspections may result in non-scheduled supplier closures and small chemical factory closures. These will decrease the supply of key raw materials and may thereby constrain production output.

DyStar’s shareholders developed an environmentally friendly integrated chemical industry park to produce key raw materials and intermediates for the dyestuff industry. DyStar also closely monitors environmental performance metrics to ensure continual improvement and compliance with all existing regulations.



#### Waste Management Risks

Issues with on-site waste gas or water treatment facilities and/or vendors’ inability to remove hazardous waste from their production sites may limit production capacity.

DyStar’s dedicated process development team continually works on innovative methods of minimizing waste generation and improving the effluent purification process. These also present an opportunity for DyStar to adopt more advanced waste management technology and ameliorate our operations’ environmental impact.



#### Operation Risks

Critical equipment/unit malfunctions may cause unplanned interruptions in production.

DyStar’s global project and engineering team curates and procures high-quality and durable critical equipment, accompanied by preventive maintenance, critical spare parts, and safety stock practices to prevent operational breakdowns.



## Risk Landscapes

## Our Risk and Opportunity Strategies

## Capital Impacted

### Safety Risks

Severe fire, explosion, hazardous materials leakage and other major accidents may result in 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. These include 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 continues to promote awareness regarding IT security, invest in IT security and compliance, and obtain 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 collaborating with our local communities to co-create scalable solutions that address their pertinent development challenges.

We invest in our communities each year through proven programs promoting health, education, livelihood generation, and basic amenities. DyStar engages deeply with the community and actively promotes cultural and ethnic diversity.







## **Resilient Economic Performance**

We recognize the importance of both financial capital and non-financial sustainability factors to sustain resilient business growth. Our focus on both areas allows us to capitalize on a broader range of opportunities and mitigate non-financial risks that may have significant economic implications in the future.



# Resilient Economic Performance

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## Our Economic Performance

As a leading dyestuff and chemical manufacturer and solution provider, DyStar Group recognizes its role in conserving global environmental and social resources. As we rely on these resources to generate financial value, the company's advancements in resource efficiency realizes cost savings, more competitive products and brand enhancement for the company. The proper management of sustainability aspects allows DyStar to optimize economic value creation and share the benefits with its stakeholders.

In FY2020, DyStar reported a revenue of USD 758 million, down 28.2% compared to FY2019 due to business and supply chain disruptions caused by the pandemic. As a result, the group also experienced a decline in profitability. Economic value retained decreased 22.5% to USD 77 million in FY2020, from USD 99 million the previous year.

## Generating Economic Value

DyStar generates economic value through various avenues. The company prioritizes sourcing from suppliers in regions where it operates – providing opportunities to local businesses and improving local livelihoods. DyStar is able to improve economic capital to local areas, while reducing the cost of transport for our operations by sourcing locally. In FY2020, we upheld our commitment to support local economies across our global operations amid economic headwinds and the COVID-19 pandemic.

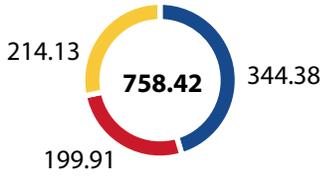
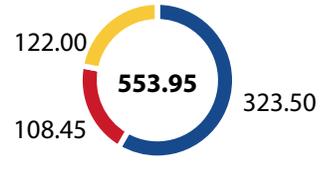
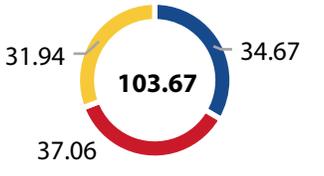
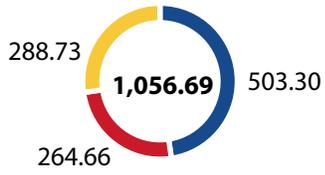
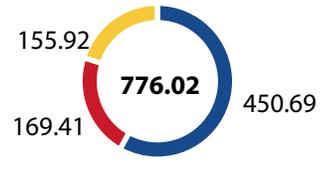
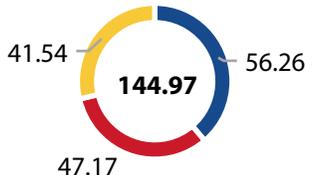
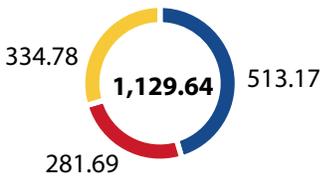
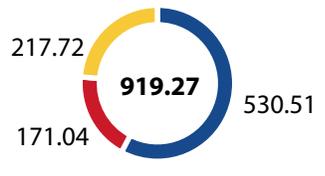
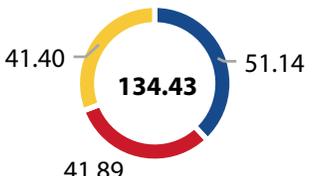
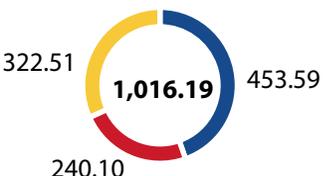
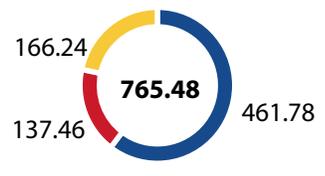
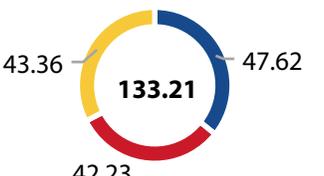
DyStar also recruits most of its workforce and management locally. This provides significant direct economic benefits to local communities through wages, as well as career and skills development, which will benefit the local workforce's future capabilities. In FY2020, DyStar met or exceeded legal and industry minimum standards for employee

wages in support of fair practices. Across all our operations, global wages and benefits amounted to almost USD 104 million.

DyStar has mechanisms in place to ensure that proper tax is paid in all countries it operates in. The company recognizes that payments to local governments are an essential part of being a good corporate citizenry and that such taxes enhance the stability of the operating environment. Globally, DyStar contributed USD 25.98 million in tax payments to governments for FY2020.

Our organization also generates indirect economic value in various forms such as benefits to customers from resource-saving products, benefits to end-users from the longer lifespan of garments due to DyStar's high-quality and resource-efficient dyeing processes, as well as benefits to the local economies as a result of improved infrastructure and services.

## Economic (Million USD)

	Global Revenue	Global Operating Costs	Global Employee Wages and Benefits	Net Payments/(receipt) to/from Providers of Capital	Payments to Government	Economic Value Retained
2020	 <p>214.13 <b>758.42</b> 344.38 199.91</p>	 <p>122.00 <b>553.95</b> 323.50 108.45</p>	 <p>31.94 <b>103.67</b> 34.67 37.06</p>	(2.28)	25.98	77.10
2019	 <p>288.73 <b>1,056.69</b> 503.30 264.66</p>	 <p>155.92 <b>776.02</b> 450.69 169.41</p>	 <p>41.54 <b>144.97</b> 56.26 47.17</p>	(0.52)	36.77	99.45
2018	 <p>334.78 <b>1,129.64</b> 513.17 281.69</p>	 <p>217.72 <b>919.27</b> 530.51 171.04</p>	 <p>41.40 <b>134.43</b> 51.14 41.89</p>	5.26	35.62	35.06
2017	 <p>322.51 <b>1,016.19</b> 453.59 240.10</p>	 <p>166.24 <b>765.48</b> 461.78 137.46</p>	 <p>43.36 <b>133.21</b> 47.62 42.23</p>	6.07	27.37	84.06

■ Asia ■ Europe ■ Americas

FINANCIAL  
CAPITAL

MANUFACTURED  
CAPITAL

INTELLECTUAL  
CAPITAL

NATURAL  
CAPITAL

HUMAN  
CAPITAL

SOCIAL  
CAPITAL

ABOUT THIS  
REPORT

## Investments

As DyStar continues to adapt to a changing business environment, the company optimizes efficiency, enhances resilience, and builds capacity by investing in infrastructure. DyStar sees investments in digital infrastructure as a key strategy for maximizing value creation at DyStar.

In FY2020, DyStar continued to pursue its digital transformation roadmap<sup>9</sup> to boost efficiency through streamlining processes, improve data management by organizing the data as a single source of truth, as well as optimize production time and cost by reducing operational complexities and expenses.

With restricted movements across the world in FY2020, there was a clear push towards digitalization. We adapted to digital training and skills development, ensuring business continuity and development among our employees. For instance, we are launching DyStar University by the end of this year – an internal LMS platform to facilitate the transfer of knowledge among employees in a secured environment, augmenting the potential impact of our existing training and education programs.

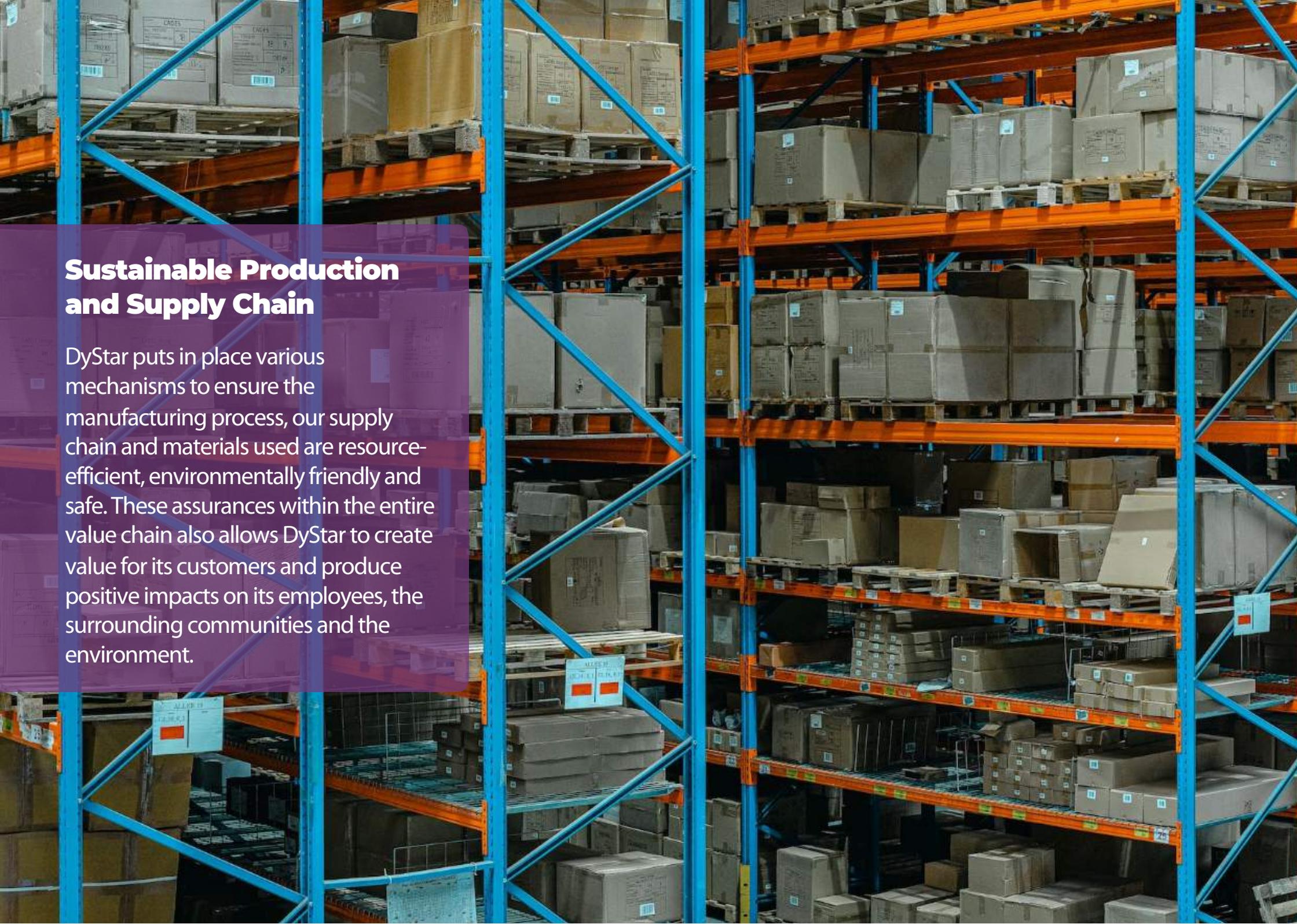
DyStar also recognizes that the trend toward digitalization would require the appropriate security systems to ensure that the information of the company and its customers remain safe. In accordance with the **Singapore Personal Data Protection Act**, DyStar made improvements to its existing infrastructure in FY2020 to better protect customer data, providing customers with greater security and a peace of mind.

Moving forward, DyStar will continue to digitalize our processes, with new products being developed and released. We also hope to speed up this process of digitalization and further expand our Global Innovation Center setup and organization.



<sup>9</sup> More information about DyStar Digital Transformation Plan can be found in DyStar's Integrated Sustainability Report 2019-2020 and DyStar's Sustainability Performance Report 2018-2019.





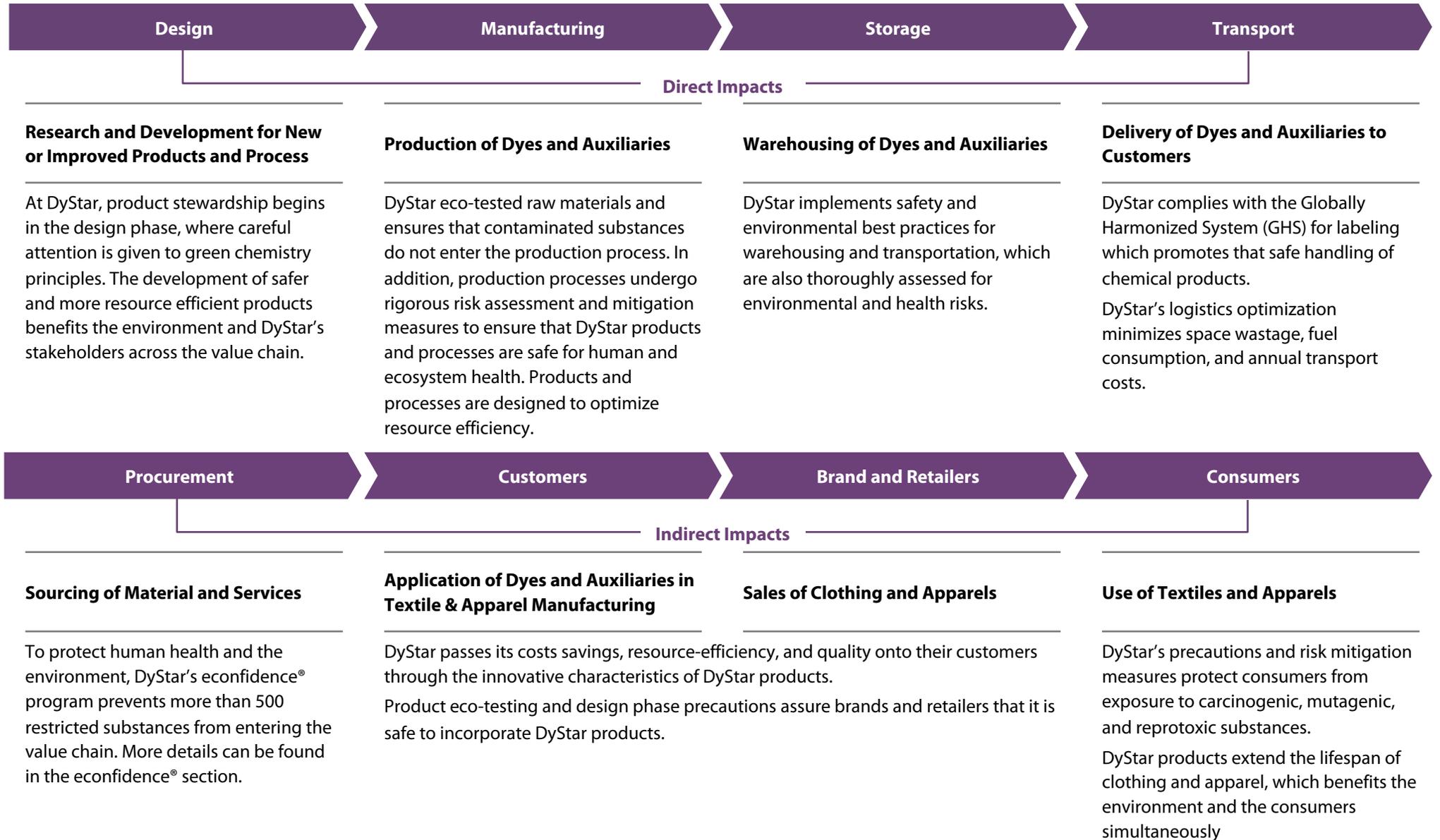
## **Sustainable Production and Supply Chain**

DyStar puts in place various mechanisms to ensure the manufacturing process, our supply chain and materials used are resource-efficient, environmentally friendly and safe. These assurances within the entire value chain also allows DyStar to create value for its customers and produce positive impacts on its employees, the surrounding communities and the environment.



# Sustainable Production and Supply Chain

## Creating Value Across Our Entire Value Chain



## Meeting Global Standards

DyStar adheres to several global standards that are relevant to our industry to ensure that our supply chain meets high ecological and safety standards. For instance, we have adopted the ISO9001:2015 standard (Quality Management System), which focuses on the monitoring and control of supply chain risks, and established countermeasures to manage such risks to product quality. In FY2020, our customer service quality performance improved. The total customer complaint cases in FY2020 reduced by 14.5% compared to FY2019. The implementation of ISO9001:2015 (Quality Management System) had significantly lowered DyStar's susceptibility to internal and external risks.

Additionally, DyStar's Global Quality Management and Global Manufacturing departments implemented the ISO14001:2015 (Environmental Management System Standard) to comply with the requirements of bluesign®, which verifies the sustainability performance of its partners<sup>10</sup>. This new environment management system standard will be implemented in DyStar Turkey plant in 2021 to manage environmental risks and ensure compliance with local and international environmental laws and regulations.

<sup>10</sup> More information on our data protection law, global quality management, global compliance management, chemical registration worldwide, and environmental compliance audits policies can be found in DyStar's Integrated Sustainability Report 2019-2020.

## Responsible Procurement

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 our influence over the supply chain and helps us fulfil our commitments to customers and society.



## Screening Our Suppliers

DyStar is careful to select and develop suppliers that share its values and commitment to sustainability. Prior to establishing supply relationships, potential material suppliers across all geographies are required to undergo an initial-phase ecological testing for their products to ensure that: 1) their products are eco-friendly, 2) their products do not contain any restricted substances, and 3) their products comply with industrial standards. Upon passing, these products may be shortlisted for an on-site audit.

Successful completion of DyStar's supplier quality control process would place the supplier in DyStar's qualified supplier pool, and suppliers in this pool would be subjected to regular performance checks and continuous eco-monitoring processes.



## Our Agreement with Suppliers

To promote ecological safety upstream from its own operations, DyStar has created an ECO Letter requirement for suppliers, which consists of industry regulations and best practices. The letter also specifies the types of ingredients and respective concentrations that can be used<sup>11</sup>. To date, DyStar has engaged more than 200 suppliers regarding the ecological requirements of their products and a significant number of DyStar's suppliers have signed the ECO Letter. This letter has helped to avoid the risk of contamination throughout DyStar's supply chain.



## Final Evaluation Program

The final evaluation program applies to existing suppliers contributing 80% of each category or region's purchase value, as well as to all new qualified suppliers. DyStar had developed this program to ensure its suppliers meet rigorous commercial, social and environmental criteria set out by DyStar<sup>12</sup>. This is typically done through on-site evaluation.

In FY2020, the COVID-19 pandemic unfortunately prevented DyStar from conducting physical on-site evaluations. However, the company sought out alternative approaches such as self-assessment tests conducted by suppliers, virtual tours of sites, among other initiatives.

While the COVID-19 situation continues to develop and international restrictions continue to change, DyStar will proactively seek good alternative practices to ensure that the company and its suppliers continue to follow DyStar's principle of sustainability.

## Supplier Audit-DOLPHIN

To further improve supplier evaluation, DyStar created a more comprehensive and in-depth supplier audit program named "DOLPHIN" in FY2018. The DOLPHIN project, developed by DyStar's technology experts, aims to identify the full range of core suppliers' potential strengths and risks – including sustainability, occupational safety and environmental performance<sup>13</sup>.

While the project has been successful since its inception, the COVID-19 pandemic in FY2020 caused the suspension of the DOLPHIN project due to international travel restrictions. Despite these setbacks, DyStar plans to reinstate the project and extend the DOLPHIN project to Tier-2 dye suppliers, auxiliary category suppliers, as well as promising new players once the global situation improves.



11 More information on the ECO Letter can be found in DyStar's Integrated Sustainability Report 2019-2020.

12 More information on the program can be found in DyStar's Integrated Sustainability Report 2019-2020.

13 More information can be found in DyStar's Integrated Sustainability Report 2019-2020.

## Driving Sustainability & Greening the Supply Chain with IPE Tool

In FY2019, DyStar adopted the Institute of Public and Environmental Affairs' (IPE) tool to assess the environmental performance of DyStar's key suppliers. The tool maps shortlisted suppliers on a 'Blue Map' and monitors suppliers' environmental performance and non-compliance. Identified suppliers have to address any violation and take corrective action<sup>14</sup>.

The adoption of the IPE tool has allowed DyStar to monitor their core suppliers' environmental performance regularly, motivating suppliers with a violation record to take the appropriate corrective action and eliminate these records from the Blue Map.



## New Sustainable Supply Chain Initiatives in FY2020

### Letter of Commitment to Professional Integrity

DyStar is committed to a corporate culture that follows the guiding principles of professionalism, credibility, transparency, integrity, and fairness in its dealings. Likewise, DyStar has the same expectations of its suppliers.

DyStar has created the Letter of Commitment to Professional Integrity to ensure that DyStar's business dealings with its suppliers uphold fair, efficient, mutually beneficial and legal practices. The letter is required to be signed by the top 80% of DyStar suppliers (by contract value) and regulates the commercial activities and performance of the contracts between DyStar and its suppliers, including legal and regulatory violations.

## Vegan Components

In FY2020, DyStar started the Vegan Components project as part of our commitment towards ecological sustainability and the protection of animal rights. As an environmental leader, DyStar seeks to ensure that the materials used in its vegan product series are properly sourced and certified. As part of the project, suppliers are required to issue relevant statements, guarantying that their products do not contain any animal product or by-product, and that any possible cross-contamination from animal substances was eliminated or minimized, as far as reasonably possible.

To date, DyStar has engaged material suppliers, whose materials are widely used in DyStar's products, on the Vegan Components project.



14 More information can be found in DyStar's Integrated Sustainability Report 2019-2020.

## Sustainable Logistics

To minimize possible risks from spillages or mishandling that can result in health, safety and environmental impacts, DyStar has established an in-house logistics team. This team is not only responsible to minimize health, safety and environmental risks, it also optimizes the logistics process, which improves overall business efficiency<sup>15</sup>. For instance, this team ensures a careful selection of experienced and licensed transportation contractors.

To further improve the efficiency of its logistics process and reduce its environmental footprint, DyStar 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.

## Product Life Cycle and Circular Economy

Linear product life cycles can result in unsustainable rates of resource extraction and waste production, harming people and the environment. The earth's resources are finite and economic models based on the take-make-dispose pathway cannot continue indefinitely. Just as important, natural resources are tied to economic value and it does not make good business sense to waste these valuable resources.

At DyStar, we take a circular economy approach —where recycled material inputs are preferred over virgin materials, and products are reused or recycled at the end of their lifecycle. This transition from “cradle-to-grave” to “cradle-to-cradle” prevents the loss of valuable resources while reducing the environmental impacts of product wastes. The ultimate goal of the circular economy is to recirculate materials and completely eliminate waste.

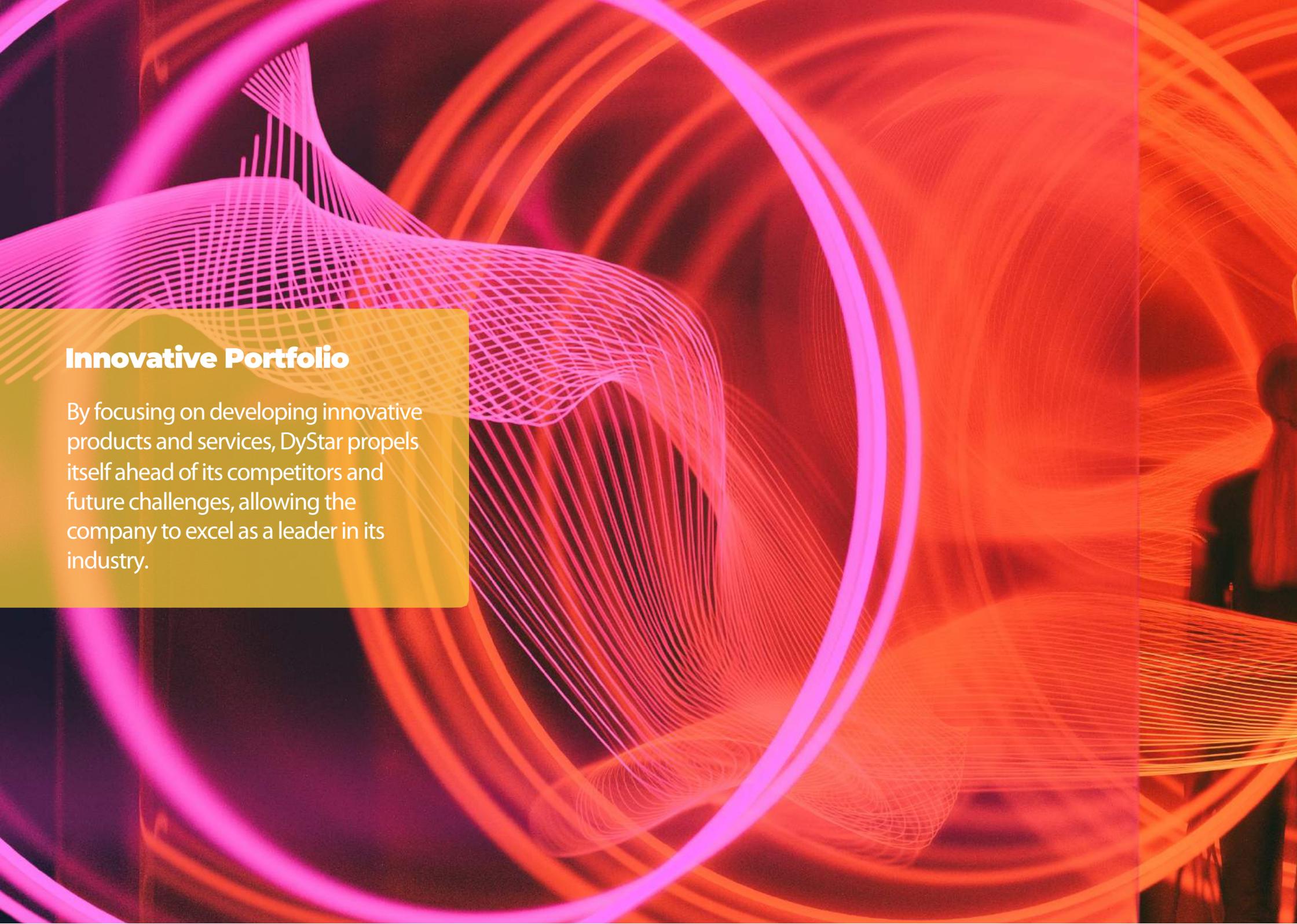
To catalyze this transformation, DyStar works with Cradle to Cradle Products Innovation Institute® to apply the Cradle to Cradle Design® Concept in our product offerings. DyStar's products were assessed against the criteria in the Material Health category of Cradle to Cradle® product standards. In FY2020, DyStar's products made improvements in the category and all were awarded the Material Health Certificate on the Platinum Level.

To date, 54 of DyStar dyes have received the Cradle to Cradle Product Innovation Institute Platinum Level Material Health Certificate for meeting the Material Health requirements of the multi-attribute Cradle to Cradle Certified® Product Standard.

<sup>15</sup> More information can be found in DyStar's Integrated Sustainability Report 2019-2020.

## DyStar Dyes which received the Cradle to Cradle Certified Material Health Certificate™ at the Platinum level.

#	VAT Dyes	Reactive Dyes	Acid Dyes	Disperse Dyes	Indigo Dyes	Reactive Dye for Wool
1	Indanthren® Brilliant Orange GR Coll	Levafix® Amber CA-N	Telon® Blue BRL micro	Dianix® Blue XF	DyStar® Indigo Vat 40% Solution	Realan® Black MF-PV
2	Indanthren® Red FBB Coll	Levafix® Brilliant Yellow CA	Telon® Blue T-4R	Dianix® Yellow AM-SLR 200%		
3	Indanthren® Brilliant Green FBB Coll	Levafix® ECO Forest	Telon® Brown 3G 200%	Dianix® Yellow S-3G		
4	Indanthren® Olive Green B Coll	Levafix® ECO Black	Telon® Red T-2B	Dianix® Yellow Brown XF2		
5	Indanthren® Scarlet GG Coll	Levafix® Fast Red CA	Telon® Yellow T-3R	Dianix® Yellow XF2		
6		Remazol® Brilliant Blue RN	Telon® Blue A2R	Dianix® Orange AM-SLR		
7		Remazol® Brilliant Red F3B	Telon® Blue AFN	Dianix® Turquoise S-BG		
8		Remazol® Brilliant Yellow GL 150%	Telon® Navy AMF	Dianix® Blue S-BG		
9		Remazol® Luminous Yellow FL	Telon® Orange AGT 01	Dianix® Brilliant Violet R		
10		Remazol® Golden Yellow RGB 01	Telon® Rubine A5B 01	Dianix® Red AM-SLR		
11		Remazol® MAP Black NN	Telon® Yellow ARB	Dianix® Red XF2		
12		Remazol® Navy RGB 01 150%	Telon® Blue M-GLW	Dianix® Rubin XF2		
13		Remazol® Red RGB 02	Telon® Green M-6GW	Dianix® ECO Black HF		
14		Remazol® Ultra Carmine RGB	Telon® Red M-BL			
15		Remazol® Ultra Carmine RGB	Telon® Yellow M-4GL			
16		Remazol® Ultra Orange RGB				
17		Remazol® Ultra Orange RGBN				
18		Remazol® Ultra Rubine RGB				
19		Remazol® Ultra Navy Blue RGB				



## **Innovative Portfolio**

By focusing on developing innovative products and services, DyStar propels itself ahead of its competitors and future challenges, allowing the company to excel as a leader in its industry.



## 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<sup>®</sup>, Palanil<sup>®</sup>*

#### REACTIVE DYES:

*Levafix<sup>®</sup>, Procion<sup>®</sup>, Remazol<sup>®</sup>, Realan<sup>®</sup>*

#### DENIM DYES:

*DyStar<sup>®</sup> Indigo, Cassulfon<sup>®</sup>*

#### INKS:

*Jettex<sup>®</sup>*

#### VAT DYES:

*Indanthren<sup>®</sup>*

#### ACID DYES:

*Telon<sup>®</sup>, Supralan<sup>®</sup>, Isolan<sup>®</sup>*

#### DIRECT DYES:

*Sirius<sup>®</sup>*

#### PIGMENTS:

*Imperon<sup>®</sup>*

#### BASIC DYES:

*Astrazon<sup>®</sup>*

#### MORDANT DYES:

*Diamond*



### Textile & Apparel Auxiliaries

DyStar's innovative auxiliaries range provides textile manufacturers with enhanced cost and resource efficiency

#### PRE-TREATMENT:

*Sera<sup>®</sup> Fil, Sera Wash, Sera Zon, Sera Wet, Sera Zyme*

#### DYEING:

*Sera Gal, Sera Fast, Sera Quest, Sera Foam, Sera Con, Sera Lube*

#### FINISHING:

*Evo<sup>®</sup> Soft, Evo Protect, Evo Pret, Evo Fin, Evo Care*

#### COATING:

*Evo Top, Evo Xen*

#### PRINTING:

*Sera Print, Sera Binder*

#### LAUNDRY:

*Lava<sup>®</sup>*

#### SPINNING & WEAVING:

*Isafil, Filapan<sup>®</sup>, Synthesin, Cerat*



### Colorants and Process Additives Applied in Consumer Products

DyStar offers additives and colorants that are Food, Drugs and Cosmetics (FD&C) certified.

#### 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<sup>®</sup>, Acepol<sup>®</sup>, Mazu<sup>®</sup>, KFO, Masil<sup>®</sup>*

#### SECONDARY BLENDS:

*From Regulated and technical dyes*

#### TECHNICAL DYES:

*Hidacid*



### Industrial Colorants and Performance Chemicals

Our diverse portfolio of products enables manufacturers of coatings, inks, and adhesives to meet performance and regulatory compliance targets

#### TECHNICAL DYES:

*Hidacid, Jettex<sup>®</sup>*

#### PIGMENT DISPERSIONS:

*Hilton Davis<sup>®</sup> Formulator 24A and Industrial 42A Super Seatone<sup>®</sup>, Sup-R-Conc<sup>®</sup>, Black Shield<sup>®</sup> Auracote<sup>®</sup>, Sup-R-Cryl<sup>®</sup>, Lucida Colors<sup>®</sup>*

#### DEBONDERS:

*Fluffsoft<sup>®</sup>*

#### INDUSTRIAL DEFOAMERS:

*Foam Blast<sup>®</sup>*

#### INDUSTRIAL SILICONES:

*Masil<sup>®</sup> Functionalized, Emulsions, Reactive Fluids*

#### SPECIALTY ESTERS:

*Novaflex<sup>®</sup>*

## New Sustainability Initiative in FY2020

### Vegan Positive List

Consumers are becoming increasingly aware of the need to protect animals, including reducing or eliminating animal usage in food and material production. We strive to meet these consumers' expectations by providing assurance and transparency of the materials used in our products.

In FY2020, we launched the Vegan Positive List on eliot®, our online marketing and product database tool. DyStar's Vegan Positive List certifies and provides clarity on the vegan products within our extensive catalogue of Dyes and Auxiliaries. The products registered on this list undergo our econfidence® program, in which the sourcing and production processes are carefully audited and monitored. The program ensures that the products on our Vegan Positive List are credibly and reliably vegan.

For more information regarding the products on the Vegan Positive List, you may access our free-of-charge eliot® web-platform.

### Virtual Education on our Denim Sustainability



#### ***“A digital Roadshow for Brands & Retailers who want to save Natural Resources and Protect the Environment”***

In FY2020, the denim market faced new challenges and opportunities for demonstrating sustainability amid consumer expectations for sustainable products. With the support of the Global Brand & Retailer Management team, the DyStar Denim and Laundry Team launched a series of webinars in May 2020. These webinars consisted of 60 to 90-minute virtual sessions on the Cadira® Denim and Cadira® Laundry modules. The webinars were intended to facilitate collaborative interactions with our brands and retailers, helping them to achieve their respective sustainability goals. The webinar series also invited various experts in the denim industry to provide a comprehensive overview of the industry challenges and latest innovations.

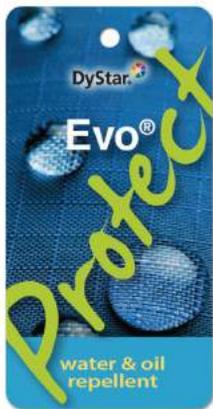
From May to December 2020, more than 20 virtual sessions were held and attended by leading global denim brands, as well as dedicated denim start-ups who wanted to begin their journey to sustainability with us. The sessions were well received by the various brands and helped to promote our more sustainable Indigo dyeing and laundry process, in the industry. Multiple publications wrote on our salt-free indigo dyeing process and our solutions to eliminate Potassium Permanganate or Pumice Stones from the Laundry process.

Moving forward, more webinars are planned for 2021 and DyStar expects more Brands & Retailers to reach out to us to learn more and collaborate.

## Textile Effects and Labels

### Evo Product

DyStar's Evo® finishing products provide a variety of value-adding solutions that improve customers' textile products. The Evo product range offers labels for customers to demonstrate the high-quality standard of the finished product and other desirable characteristics.



#### 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



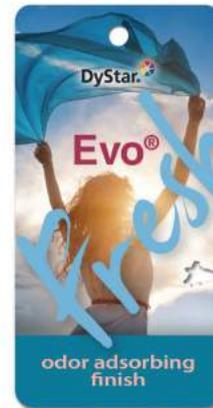
#### EVO® Care Aloe

- 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®

DyStar's econfidence® program assures customers that its dyes and chemicals are safe for people and the environment. The econfidence program considers all applicable legislations and is one of the most extensive eco-testing programs for textile dyes and chemicals.

Led by a diverse team of experts, the program meticulously monitors the sourcing and production of DyStar's products to ensure that our products achieve the highest level of product quality and environmental responsibility. econfidence allows DyStar to build partnerships along the textile supply chain to foster a more sustainable textile production.



# Products with a Difference

## Dianix® Dyes

### The latest high wet-fastness disperse dye developments

**Reduction stability comparison**

0.70% Dianix Navy XF2 vs 0.70% Navy based on C.I. Disperse Blue 214

Control dyeing

The dyes are characterized by excellent wet-fastness performance

**Fastness on polyester/elastane 82/18 – postset 30 s at 135 °C**

adidas® 40 °C vs Nike® 50 °C

2.40% Dianix Yellow Brown XF2  
1.90% Dianix Rubine XF2  
4.20% Dianix Navy XF2

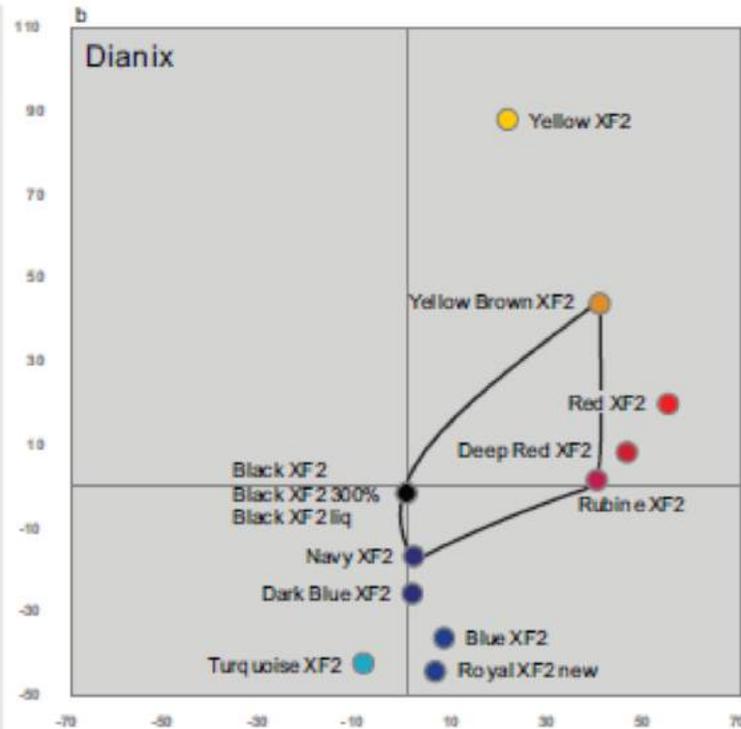
and high sublimation fastness

**Fastness on polyester 75D72F (1.04 dtex/filament)**

ISO 105-P01 180 °C vs ISO 105-P01 210 °C

2.40% Dianix Yellow Brown XF2  
1.50% Dianix Rubine XF2  
4.20% Dianix Navy XF2

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.



The brand and retailer fastness specifications can be a challenge for high wet-fast sportswear, apparel and workwear, especially on critical fabrics like polyester microfiber, polyester elastane, polyester cellulosic, and other polyester blends. In addition, the improvements in brands' and retailers' environmental and eco-standards call for new wet-fastness solutions.

DyStar's Dianix® XF2 dyes are designed for Color Confidence®, providing the highest levels of wet-fastnesses on critical fabrics while meeting the environmental standards of all major brands and retailers. The Dianix XF2 range (which are mostly patented or patent-pending) consists of 13 dyes. These dyes are mostly based on a new chemistry, covering a broad gamut space.

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 some dyes are AOX-free<sup>16</sup>.

16 The Dianix XF2 dyes offer excellent right-first-time performance in ternary shades through good reduction stability and the compatibility of Dianix Royal XF2 New, Dianix Dark Blue XF2, Dianix Navy XF2, and Dianix Black XF2 dyes.

## Modules Making an Impact

### DyStar Cadira® Modules

#### “Saving Valuable Resources”

DyStar's Cadira® Modules help to lower carbon footprints and optimize productivity through the optimal utilization of machinery.

We now offer 11 Cadira Modules which serve to: improve energy and water efficiency, significantly reduce wastewater, and reduce the quantities of chemicals used.

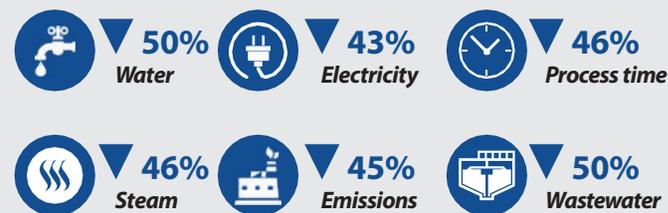
Essentially, the Cadira Modules are developed to reduce greenhouse gas emissions in the textile industry.



#### CADIRA® POLYESTER

Optimize resource-efficient exhaust processing

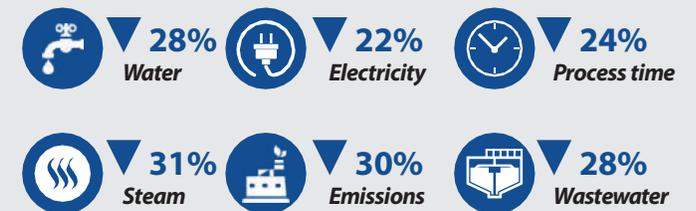
*Fully Optimized Cadira Polyester Dyeing > Compared to Conventional Polyester Dyeing\**



#### CADIRA® REACTIVE

Conserve valuable resources while lowering reactive dyeing costs

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



#### CADIRA® REACTIVE/DISPERSE CONTINUOUS

Optimize resource efficiency in continuous dyeing of Polyester/ Cellulosic blends

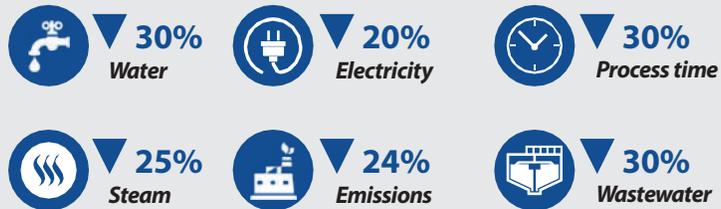
*Cadira® Reactive /Disperse Continuous Dyeing > Compared to Conventional Continuous PDTPS process*



### CADIRA® VAT

Improve the resource-efficiency of exhaust processing of cellulosic fibers

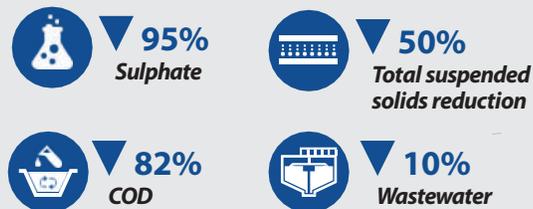
*Cadira® Vat Dyeing > Compared to Conventional Vat Dyeing\**



### CADIRA® DENIM

Adopt the ultimate sustainable solution for clean denim production

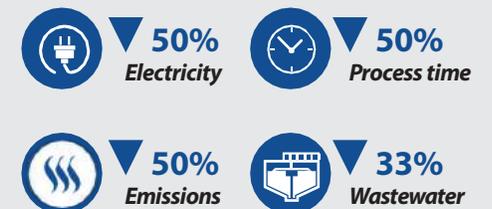
*Cadira® Denim vs standard Indigo dyeing process using Hydrosulphite*



### CADIRA® PRINTING PX

Conserve resources during the wash-off process

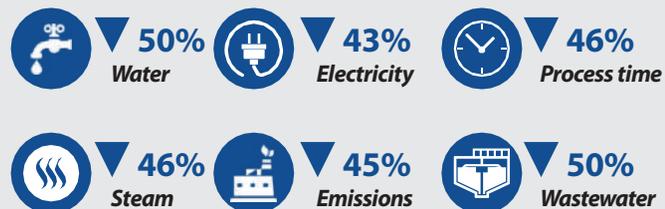
*Cadira® Printing PX vs conventional wash-off*



### CADIRA® RECYCLED POLYESTER

Minimize the impacts of the rPET dyeing process with Dianix(R) Dyes which received a Cradle to Cradle Certified Material Health Certificate™ at the Platinum level.

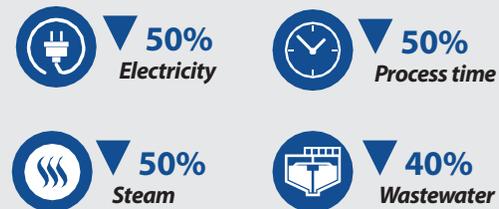
*Cadira® Recycled Polyester vs dyeing virgin polyester with standard dyes*



### CADIRA® WOOL

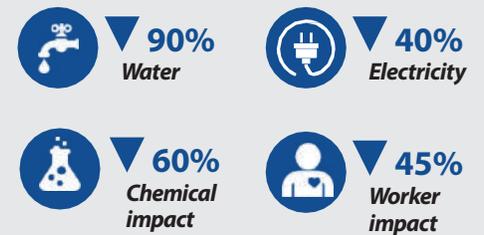
Protect the environment with clean and more efficient dyes for the wool dyeing process

*Cadira® Wool vs Mordant Black 9 dyeing process*



### CADIRA® LAUNDRY

Innovative product range for ultra-low liquor ration machines





## New Modules

10. Cadira Polyester/ Cellulosic Exhaust: Combining Cadira Polyester and Cadira Reactive for increased productivity with even greater resource efficiency and cost savings

11. Cadira Polyamide: environmentally friendly scour-dyeing process for Nylon, Nylon blends and recycled Nylon

### Savings with Cadira® Polyamide

**Example**  
300 kg batch, 100% PA, Jet dyeing, LR 8:1  
3 shifts per day, 250 working days per year

-   up to 30% less water consumed
-   up to 20% less electricity consumed
-   up to 25% less steam consumed
-   up to 30% less dyeing time



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### Cadira® Polyester/Cellulosic Exhaust

#### Benefits of combining Cadira Polyester and Cadira Reactive for medium shades

- Rapid two-bath process

#### Benefits in process savings

- 47% electricity
- 54% steam
- 49% water
- 52% process time
- 50% cost in total (including equipment, overheads ...)

#### Benefits in productivity

- 72% productivity increase
- higher RFT performance achieved with Optidye® PES

### WATER AND ENERGY SAVINGS



**With Dianix® & Levafix® / Remazol® dyes and Sera® process auxiliaries**

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## Technology and Processes

### Improving Dyeing Processes with Optidye® CI

The Optidye® CI tool improves right-first-time performance for vat dyeing processes. The tool determines the optimum chemical amounts when using Indanthren® and Sera® process auxiliaries in both the exhaust and continuous dyeing processes.

Optidye® CI also improves the reliability of the dyeing processes and the quality of finished products. The tool calculates the optimum quantity of caustic soda and reducing agent, depending on the specific machine settings.

The benefits of Optidye CI include:

- Optimized dye fixation
- Enhanced levelness
- Reliable process control
- Improved reproducibility
- Reduced wastewater load

Recipe	Conc.	Amount	Method
Indanthren Navy SR-N Coll	4.0 %	4,000 kg	IH process
Indanthren Red FBB Coll	0.5 %	0,500 kg	IW process
<b>Dyeing</b>			
Sera Gal C-VAT	2.0 g/l	2,000 kg	
Sera Quest C-PX	1.0 g/l	1,000 kg	
Sera Sperse C-SN	2.0 g/l	2,000 kg	
<b>Oxidizing</b>			
Sera Con M-LU gran	4.0 g/l	4,000 kg	
<b>Solacing</b>			
Sera Sperse M-DEW	1.0 g/l	1,000 kg	
<b>Auxiliaries (calculated)</b>			
NaOH (liquid 50%/50°Bé)	17,59 ml/l	17,59 l	
Hydrosulphite	12,93 g/l	12,93 kg	

### Enhancing Sustainability with eliot®

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 seven modules: Positive Lists, Product Finder, Information, eliot manuals, Optidye®, Cadira® modules, and the newly added Paper folder<sup>17</sup>.

17 More information can be found in DyStar's Integrated Sustainability Report 2019-2020

## Collaborations & Memberships

### DyStar Receives “Preferred Trader”

The DyStar Pietermaritzburg site in South Africa was successfully accredited the “Preferred Trader” status by the South African Customs and Revenue Authority (SARS). SARS’ Preferred Trader accreditation is an advanced program which forms a partnership between SARS and clients with a good record of compliance and financial stability and high-quality internal operational processes. Obtaining the accreditation entailed a series of onsite audits and staff competency testing, which DyStar South Africa successfully passed, allowing the site to be awarded the SARS Preferred Trader Certification.

DyStar’s global network of production plants and offices are well integrated into their respective local economies via memberships in various industry organizations and business associations. In FY2020, DyStar remained a member of the following 37 organizations:

#### Industry 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
- Association of Manufacturers of Process and Performance Chemicals (TEGEWA)

## Business Associations

- 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

## Other Standards and Organizations

- American Apparel & Footwear Association (AAFA)
- Associação Brasileira da Indústria Têxtil e de Confecção (Abit), Brazilian Textile and Apparel Industry Association
- bluesign®
- Cradle to Cradle Product Innovation Institute®
- Global Organic Textile Standard (GOTS®)
- Oeko-Tex®
- Textile Exchange
- Zero Discharge of Hazardous Chemicals (ZDHC)



## **Environmental Resources Management**

DyStar recognizes that the financial value we create through our operations are derived from the natural resources that we use. As we understand that these resources are finite, we seek to optimize our processes to ensure the conservation of our natural capital and ensure minimal impact on the environment. In catalyzing the transition toward a more sustainable textile industry, DyStar hopes to minimize any negative environmental impacts, all the while reducing costs, enhancing market leadership and ensuring a competitive advantage.



Photo Credit: Ogun Burduroglu

## Progress on 2025 Targets

In FY2019, DyStar decided to move beyond its 2020 targets and established its 2025 Targets. The targets outlined DyStar's sustainability goal in the next 5 years, to reduce its production footprint by 30% (from 2011 levels) for every ton of production. The resources targeted as part of the production footprint goal include energy, water, raw materials, greenhouse gas (GHG) emissions, waste and wastewater. Efficiency improvements in these resource areas will be a significant source of cost-savings, contributing to more resilient profit margins. DyStar will strive to meet its 2025 targets.

## Scope and Methodology

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

DyStar's environmental dataset is comprehensive, ensuring that all production sites, warehouses and even smaller office locations across the world are recorded, regardless of the scale of their impacts.

Data Overview	2018	2019	2020
Raw Material (thousand tons)	111.8	93.95	99.16
Raw Material Usage Intensity (tons per ton production)	0.76	0.82	1.02
Packaging Material (thousand tons)	4.43	4.06	3.37
Associate Material (thousand tons)	1.52	1.35	1.41
Direct Energy Consumed (TJ)	654.93	542.68	585.84
Indirect Energy Consumed (TJ)	822.52	711.37	510.48
Energy Consumption Intensity (GJ per production)	9.30	9.45	11.19
Water Consumption (million m <sup>3</sup> )	7.83	7.46	6.57
Water Consumption Intensity (m <sup>3</sup> per ton production)	50.38	57.60	68.10
Water Reused (million m <sup>3</sup> )	2.03	1.95	1.74
Direct GHG Emissions - Scope 1 (thousand tCO <sub>2</sub> e)	37.15	38.09	40.48
Indirect GHG Emissions - Scope 2 (thousand tCO <sub>2</sub> e)	86.84	69.79	45.44
GHG Emissions Intensity (tCO <sub>2</sub> e per ton production)	0.78	0.81	0.87
Wastewater Discharged (million m <sup>3</sup> )	1.68	1.32	1.17
Wastewater Intensity (m <sup>3</sup> per ton of production)	13.23	14.08	12.94
Hazardous Waste (thousand tons)	6.04	8.29	7.25
Non-hazardous Waste (thousand tons)	3.97	3.35	6.87
Overall Waste Intensity (kg per ton production)	70.81	104.16	142.36
Number of Spills, Total Amount Spilled	2 spills, 0.57 tons	1 spill, 2.66 tons	0 spills

## Energy

Energy is a significant component in DyStar’s operations but also a component that DyStar actively seeks to reduce. Since most electricity is currently created from the burning of fossil fuels, DyStar seeks to minimize its impact on climate change by reducing its energy usage. Reductions in energy usage may also accrue cost savings to DyStar and its customers.

DyStar’s energy portfolio consists of purchased electricity, steam, natural gas, and liquefied petroleum gas (LPG). Most of its electricity consumption comes from plant machinery, IT systems, and air conditioning. Steam is mainly used for process heating and is either generated on-site or purchased from external providers.

As DyStar focuses its resource conservation and process efficiency efforts on production sites, production heads are given specific annual reduction targets. These targets help to continuously drive resource conservation efforts on the ground. During the reporting period, members of senior management routinely review resource consumption data in order to engage discussions on opportunities for ongoing improvement

In FY2020, DyStar’s energy consumption was 1,096.32 TJ, a 15% reduction from FY2019, partly due to the decrease in production activities as the Wu Xi plant in China ceased production. This was due to the impacts of COVID-19. However, production levels fell more than energy usage in FY2020 compared to FY2019. Thus, energy intensity was 11.19 GJ per ton of production in FY2020, up from 9.45GJ per ton of production in FY2019.

The company’s production plants accounted for approximately 98% of total energy consumption in FY2020 and the energy use in offices, laboratories, and non-production site warehouses represented about 2% of the overall energy use.

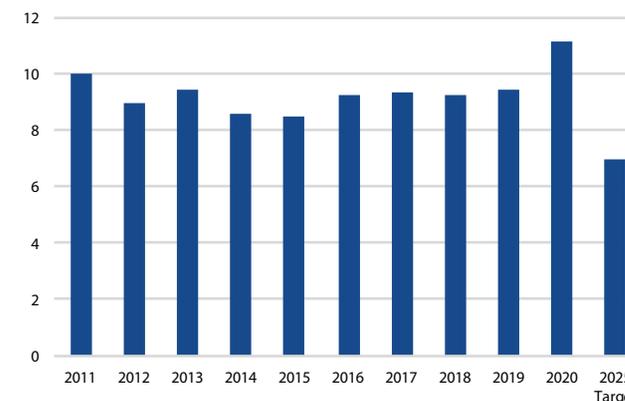
Indirect energy from purchased electricity and steam accounted for approximately 47% of DyStar’s total energy consumption in FY2020, a 49% reduction compared to the 2011 baseline.

The proportion of direct energy sources increased to approximately 53% of DyStar’s total demand in 2020, from 43% in FY2019. Most of the direct energy consumption came from natural gas, accounting for 52% of DyStar’s total energy consumption in FY2020.

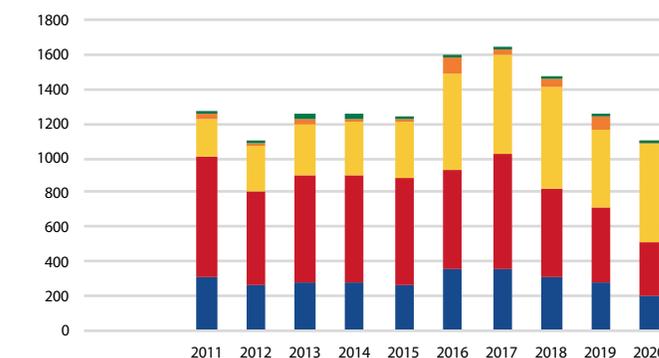
DyStar is aware of the sharp rise in direct energy consumption and is continually exploring innovative technologies and opportunities such as fuel-efficient combustion units and carbon capture technology to reduce energy intensity. DyStar will continue to capitalize on simple yet effective initiatives such as installing variable frequency controllers for water pumps, reducing, cancelling 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. However, DyStar renewable energy consumption totaled to approximately 2.3TJ, an 8% decline from 2019. The organization will strive to improve these numbers in the years forward.

### Non-Renewable Energy Intensity (GJ used per ton of production)



### Non-Renewable Energy Consumption by Source (TJ)



■ Vehicular Travel (diesel, gasoline, LPG, ethanol)	25	21	21	22	22	21	18	17	14	8
■ Stationary Combustion (LPG, diesel and fuel oil)	25	24	29	17	10	86	28	50	79	3
■ Stationary Combustion (Natural gas)	227	251	295	314	330	565	584	588	449	575
■ Purchased steam	686	556	628	620	621	564	656	512	424	300
■ Purchased electricity	316	257	277	277	257	360	363	311	287	210

## GHG Emissions

In DyStar's journey toward a low-carbon future, it has become a business imperative for DyStar to lead the positive change in emissions reductions. Over the last ten years, DyStar's GHG management approach has proven to be highly effective, boosting drastic and consistent reductions in GHG intensity.

DyStar's GHG emissions are calculated in accordance with the Greenhouse Gas Protocol Corporate Standard, developed by the World Resources Institute (WRI) and the 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 are drawn primarily from the Institute for Global Environmental Strategies (IGES), Climate Transparency and 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. In FY2020, DyStar updated its emission factors in accordance with the latest guidelines and this has resulted in some sharp changes in emission data compared to the previous reporting years.

DyStar's production sites measure GHG emission performance and improvements in tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) per ton of production. While the emissions from non-production sites are accounted for in DyStar's initiatives and targets, they represent only a small fraction of the company's emissions footprint and are thus measured in absolute quantities.

DyStar's Scope 1 and Scope 2 GHG emissions totaled approximately 85,922 tCO<sub>2</sub>e in FY2020, representing a

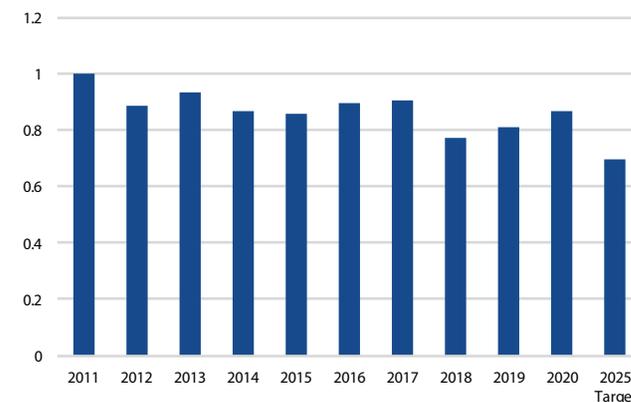
33% decrease since the 2011 baseline year and a 20% decrease compared to FY2019 amid lower production activities in FY2020 due to COVID-19 disruptions. In FY2020, 53% of DyStar's emissions were Scope 2, with purchased steam (15,645 tCO<sub>2</sub>e) accounting for fewer emissions than purchased electricity (29,795 tCO<sub>2</sub>e). In the same period, 36% of Scope 1 emissions were from natural gas alone, with the remaining from stationary combustion fuels combined with vehicular fuels.

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

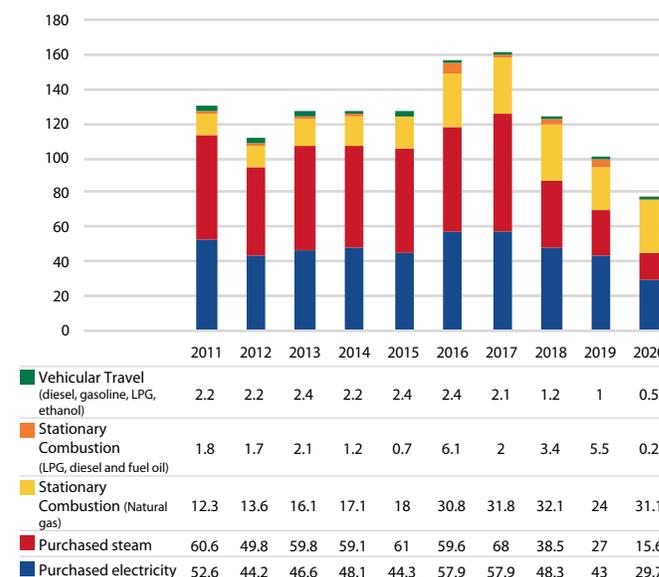
Scope 1 and 2 emissions were managed through energy optimization measures and the use of renewable energy. These efforts focus on the careful monitoring and streamlining of production operations and product ranges. When products manufactured have been proven to be cost or energy inefficient, they are discontinued by the company. DyStar's current priority is mitigating the impact of new acquisitions which are temporarily hindering its GHG emission intensity. DyStar's GHG intensity was 0.87 tCO<sub>2</sub>e for every ton of production in FY2020, up by approximately 7% compared to FY2019.

Scope 3 emissions account for 98% of DyStar's total emissions profile at 4,841 thousand tCO<sub>2</sub>e. The categories that contribute to Scope 3 emissions are freight activities and business travel. The majority of Scope 3 emissions this year came from freight activities from the Turkey production site. 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 direct GHG emissions.

### Greenhouse Gas Emissions Intensity (tons CO<sub>2</sub>e emitted per ton of production)



### Greenhouse Gas Emissions by Source (thousand tons CO<sub>2</sub>e)



## Ozone-depleting Substances

Ozone-depleting chemicals (ODCs) are not intended components of DyStar’s products or processes. However, GHG emissions calculations also include any ODCs that are used as refrigerants at any company location. GWPs for refrigerants are derived from the Intergovernmental Panel on Climate Change’s Fifth Assessment Report.

In FY2020, Scope 1 emissions from ODCs increased to 8,545 tons in FY2020, up from 7,194 tons in FY2019. This was due to the increased usage in the Thailand production site.

## Water

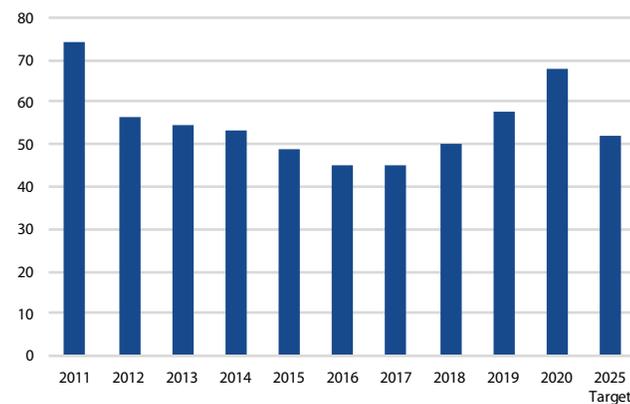
Water is a scarce yet essential resource. As a critical input for DyStar’s operations, water is used as an ingredient in synthesis, a medium for dispersions, which are required at various stages of processing, and as a formulant in many products. Water is also used to keep our machinery clean.

In FY2020, DyStar’s water consumption totaled 6.57 million m<sup>3</sup>, representing a 12% decrease compared to FY2019. However, water consumption intensity in FY2020 increased 18% compared to FY2019 as the rate of decrease in water consumption was lesser than the rate of decrease in production, which fell 25.5% in FY2020 from the year before. There was substantial increase in water consumption in Charlotte, USA and Cincinnati, USA production sites as well during the reporting period.

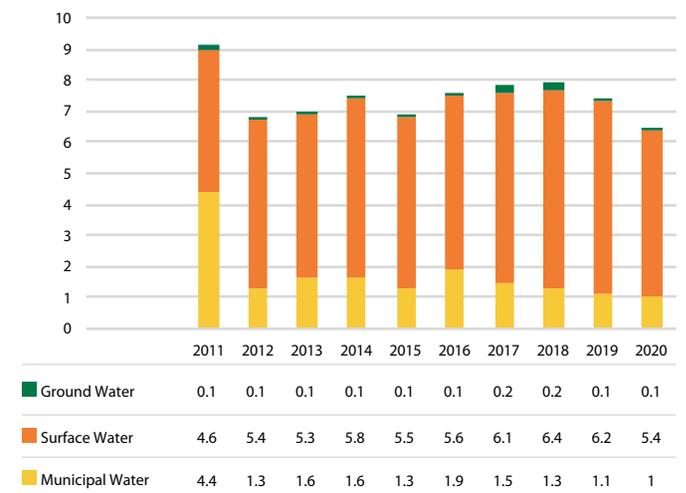
DyStar has invested and will continue investing in cutting-edge technology upgrades to further improve its water efficiency. These technologies, equipment, and process improvements have contributed to considerable cost reductions.

DyStar’s production managers have also driven water efficiency, deploying new and improved methods such as reusing steam condensates for floor cleaning and more. Steam condensate remains uncontaminated by chemical mixtures and can be used in place of municipal water, surface water, or groundwater sources. In FY2020, DyStar reused 1.74 million m<sup>3</sup> of water, the equivalent of approximately 26% of the company’s total water consumption.

**Water Consumption Intensity**  
(m<sup>3</sup> of water consumed per ton of production)



**Water withdrawal by Source**  
(million m<sup>3</sup>)



## Wastewater

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, with each approach tailored to the unique characteristics of the site. At production sites, DyStar utilizes a combination of wastewater treatment methods, including the commissioning of licensed external contractors. Pre-treatment methods, such as sedimentation and flocculation, are also conducted before these external contractors transport it for final treatment offsite. The sequences of chemical, biological, mechanical, or thermal treatment processes of the wastewater depend 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.

In FY2020, wastewater discharged fell 11% compared to the previous year amid lower production activities. Likewise, wastewater intensity decreased to 12.94 m<sup>3</sup> per ton of production from 14.08 m<sup>3</sup> per ton of production in the year before.

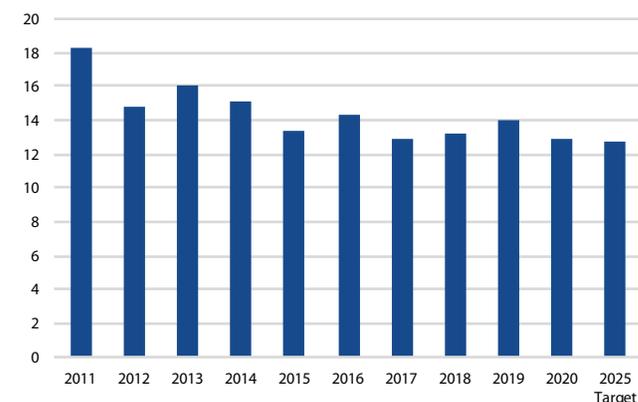
## Hazardous and Non-hazardous Waste

DyStar's manufacturing activities generate most of its hazardous waste. The hazardous waste that DyStar generates includes contaminated waste packaging, 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. In FY2020, DyStar's hazardous waste disposal was about 7,251.78 tons.

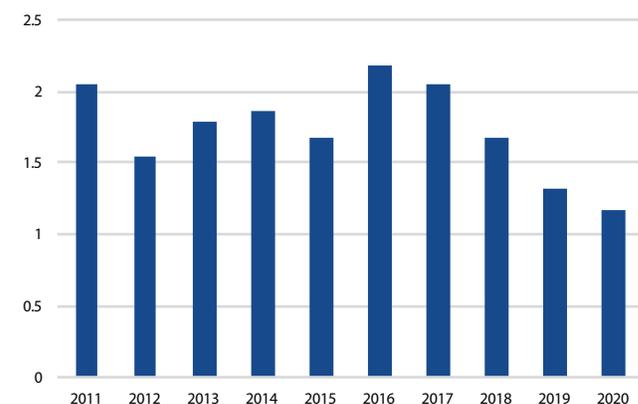
DyStar's non-hazardous waste mostly consists of office waste, uncontaminated packaging material, and pallets. At DyStar, we aim to reuse and recycle as much of our non-hazardous waste as possible. Material categories deemed recyclable vary regionally due to the different facilities and services available in different countries. Non-hazardous waste that is deemed unsuitable for recycling due to local limitations are disposed of as municipal waste. In FY2020, DyStar disposed around 6,867.43 tons of non-hazardous waste.

In total, DyStar disposed of 14,119.20 tons of hazardous and non-hazardous waste in FY2020, with 51% categorized as hazardous. The significant increase in non-hazardous waste produced was largely due to an increase in non-hazardous waste produced by the Reidsville production plant in USA. As COVID-19 had impacted the demand for products, the plant was left with large amounts of raw and product materials. This excess raw and product material could no longer be used and were thus disposed of as non-hazardous waste. The overall waste intensity for FY2020 was 142.36 kg per ton of products, with hazardous waste intensity at 77.59 kg per ton of production. In FY2020, there were no major hazardous waste spillages across all DyStar's locations.

**Wastewater Production Intensity**  
(m<sup>3</sup> of wastewater discharged per ton of production)



**Wastewater Discharged**  
(million m<sup>3</sup>)



This increase in overall waste intensity was due to the significant increase in waste produced while production volumes suffered from a decline in product demand.

Approximately 8% of DyStar’s waste was either reused or recycled, 24% was incinerated and 68% was landfilled in FY2020. Most of the waste sent to be landfilled were non-hazardous. The small quantity of hazardous waste sent to be landfilled was properly contained on licensed sites dedicated to stabilized industrial waste. The hazardous waste was mainly disposed of via incineration and were 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. This means that DyStar does not engage in any handling or disposal methods that could potentially be harmful to the local communities, employees and the environment. DyStar only permits licensed waste management contractors to handle and dispose of DyStar’s hazardous waste. In addition, all DyStar external partners are required to adhere to all applicable laws and regulations as well as participate in external audits. DyStar’s policy also prohibits the transportation of company waste across national borders.

DyStar’s operations do not take place near protected, highly biodiverse, or critically important ecosystems or habitats and the company takes the necessary precautions to ensure that there are no significant impacts of the company’s operations on surrounding ecosystems. As part of these precautions, new manufacturing sites are subjected to robust environmental and social impact assessments. These assessments are also extended to hazardous waste and wastewater contractors. No significant impacts on local biodiversity or habitats have been identified as a result of DyStar’s production activities at any of its operational locations.

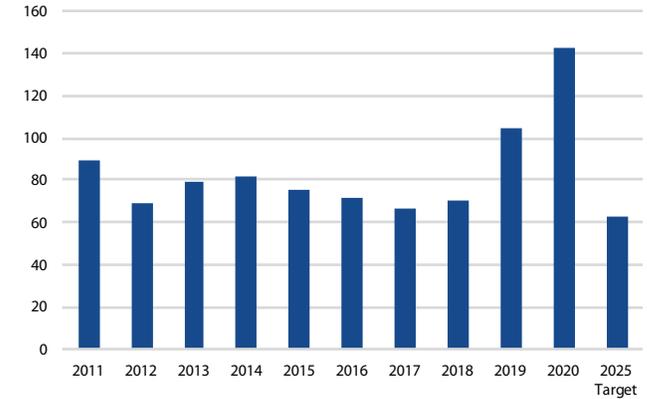
DyStar recognizes that the improper use or treatment of DyStar’s products by customers, post-use, has the potential to cause ecological damage. While DyStar has little influence over the use of its products post-sale, DyStar ensures proper communication with customers on the proper safe-handling practices and will provide technical advice regarding wastewater treatment.

## Materials

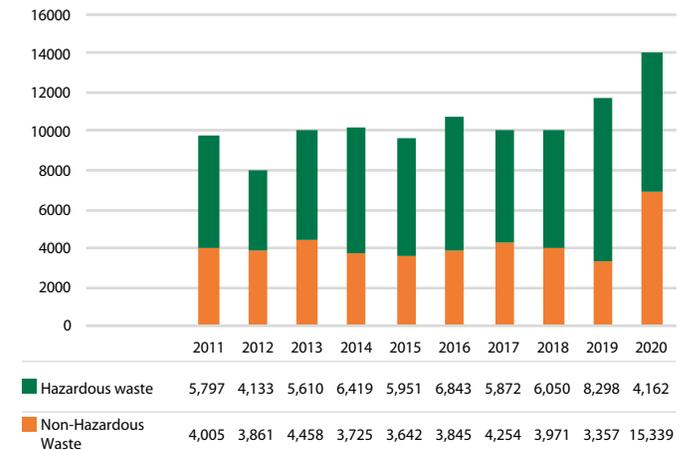
In FY2020, DyStar’s production plants consumed a total of 102.21 thousand tons of raw materials. This includes the chemical substances that are either processed or manufactured into a finished product. Utilization intensity was 1.06 tons of raw material per ton of production, representing a 6% increase compared to the 2011 baseline and a 29% increase from FY2019. This was mostly due to an increase in raw material usage in FY2020 compared to FY2019 in the Charlotte, USA and Cincinnati, USA production sites.

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 FY2020, DyStar purchased 1,408.72 tons of associate materials, relatively consistent with the previous year.

**Waste Production Intensity**  
(kg of waste per ton of production)



**Waste Production by Category**  
(tons)



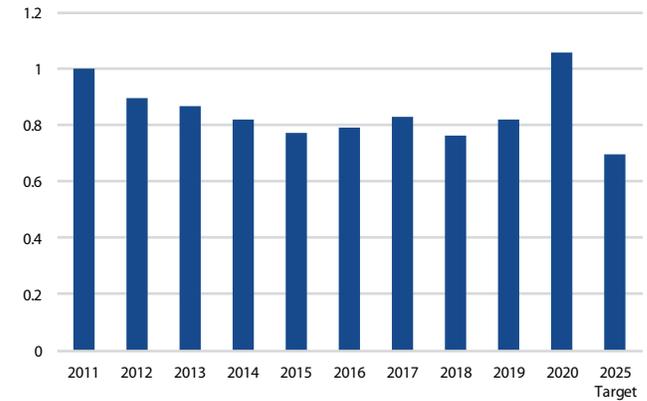
Like most chemical companies, the majority of DyStar’s raw and essential materials are non-renewable resources. As most raw and associated materials have to be sourced from virgin materials, due to the lack of more sustainable alternatives, DyStar optimizes its material efficiency accordingly to reduce the environmental footprint of these materials. In recent years, DyStar was able to improve its material efficiency by optimizing its inventory through more frequent and accurate communication between the various teams. DyStar’s master planners have minimized the demand for raw materials through planned purchases of materials and the Research & Development (R&D) and process development teams have also crafted resource and process efficient products. DyStar is fortunate for its talented employees who consistently find pathways to maximize the utilization of material inputs.

### Packaging Materials

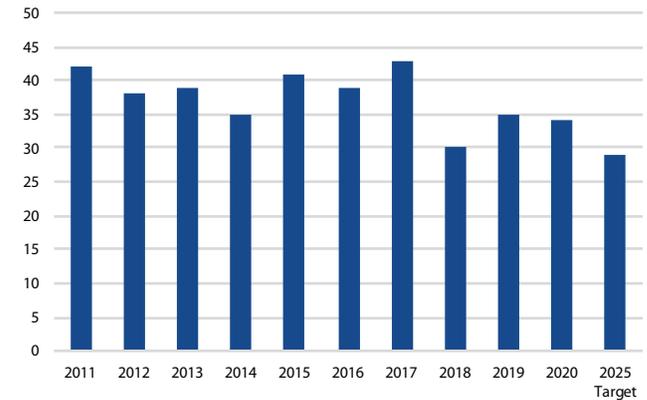
DyStar’s products require suitable packaging to effectively contain and protect the products throughout its journey to the customer, withstanding unique weather conditions of different destinations.

In FY2020, DyStar used 3,369.01 tons of packaging material including cardboard boxes, plastic drums, bulk containers, plastic wrapping, etc. Where feasible, specialized service providers are utilized to collect, clean and re-distribute the company’s Intermediate Bulk Containers (IBCs) for reuse, reducing the amount of waste generated by these packaging and contributing to the circular economy approach for packaging. DyStar’s overall packaging intensity decreased by 19% compared to the 2011 baseline.

### Raw Material Usage Intensity (tons of raw material per ton of production)



### Packaging Usage Intensity (kg of raw material per ton of production)





ABOUT  
DVS/STAR

FINANCIAL  
CAPITAL

MANUFACTURED  
CAPITAL

INTELLECTUAL  
CAPITAL

**NATURAL  
CAPITAL**

HUMAN  
CAPITAL

SOCIAL  
CAPITAL

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## Supporting and Developing our People

At DyStar, our employees are our most treasured asset. We invest deeply in the development and wellbeing of our team, so that we may strengthen our capabilities to create value for our business and stakeholders.

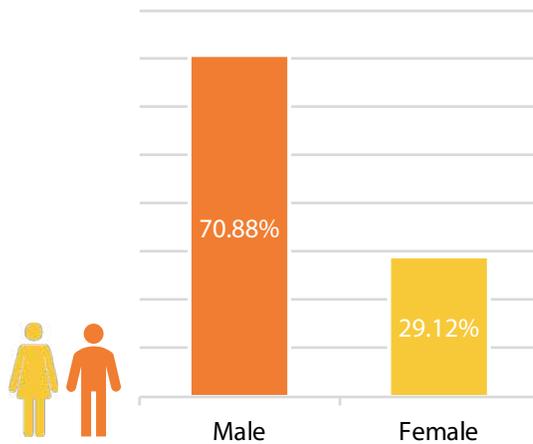


## Overview of our Workforce

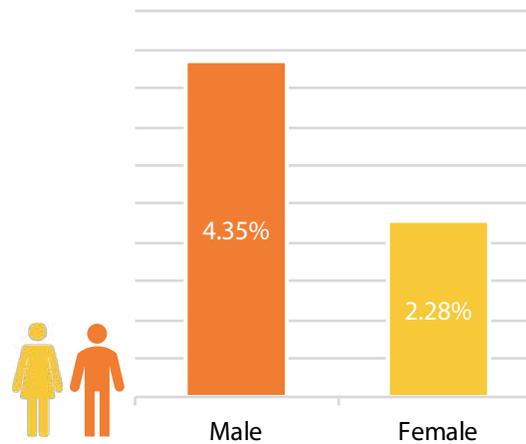
	Total	Male	Female
Number of Senior Management Staff	81	63	18
Number of Middle Management Staff	349	239	110
Number of Admin/Support Staff	536	257	279
Number of Technical Staff	351	217	134
Number of Production Workers / Supervisors	637	609	28
<b>Total Workforce</b>	<b>1,954</b>	<b>1,385</b>	<b>569</b>

## Employee Restructure

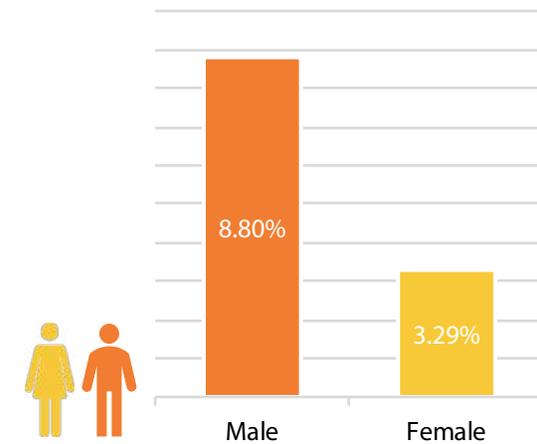
Total Workforce by Gender



New Employee Hires Rate<sup>18</sup> by Gender



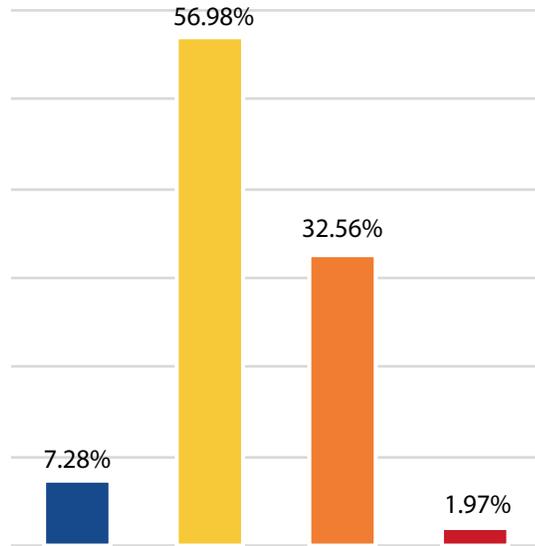
Employee Attrition Rate<sup>19</sup> by Gender



<sup>18</sup> New employee hires rate = No. of new hires / (Average of No. of employees in FY2020 + No. of employees in FY2021)

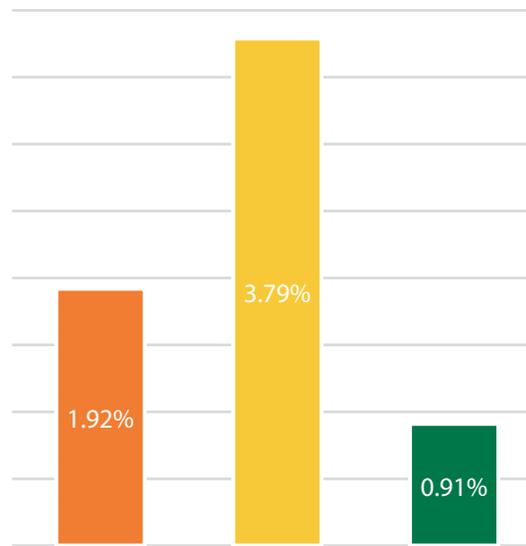
<sup>19</sup> Attrition rate = No. of employees who left / (Average of No. of employees in FY2020 + No. of employees in FY2021)

**Total Workforce by Age<sup>20</sup>**



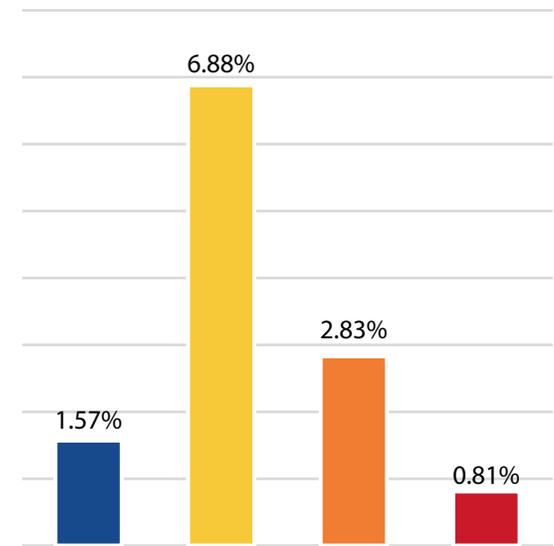
■ Age 18-29      ■ Age 30-49  
■ Age 50-64      ■ Age 65 & above

**New Employee Hires Rate by Age<sup>21</sup>**



■ Age 18-29      ■ Age 30-49      ■ Age 50-64

**Employee Attrition Rate by Age<sup>22</sup>**



■ Age 18-29      ■ Age 30-49  
■ Age 50-64      ■ Age 65 & above

20 Data for total workforce by age was obtained from analysis of the total number of employees with and without employment contracts with DyStar  
 21 New employee hires rate = No. of new hires / (Average of No. of employees in FY2020 + No. of employees in FY2021)  
 22 Attrition rate = No. of employees who left / (Average of No. of employees in FY2020 + No. of employees in FY2021)

## Caring for Employees

### Creating an Equitable Workplace

DyStar strives to offer a fair and equitable work environment for our team across all aspects and functions of our operations. DyStar upholds this commitment by taking inspiration from the most up-to-date best practices on equitable employee opportunities and by fostering teamwork across functions. DyStar's principles of inclusiveness and fairness have enabled us to offer conducive work environments for our team to unleash their innovativeness and creativity. These principles have built up our workforce's capacity to adapt to dynamic scenarios, resolve conflicts, and problem-solve with progressive methodologies.

Discrimination is strictly not tolerated in any form at DyStar, be it based on ethnicity, religion, ideology, gender, age, disability, or sexual orientation. To curb all forms of harassment in our workplaces, DyStar's commits to adhering to our Code of Conduct and responding promptly to any reported incidents pertaining to discrimination or harassment. We offer opportunities to our employees and contractors solely based on merit, so as to uphold strong principles of equity and encourage exemplary performance.

We also aim to advance the role of women in our workforce by offering them with distinguished career opportunities. Despite our efforts, most applicants for our production jobs continue to be individuals who identify as male, as these roles require manual labor and machinery which are generally less attractive to individuals who identify as female. As of FY2020, DyStar's production team

is about 4.4% female, compared to 21% female for our management staff and 29% female for our entire workforce. In contrast, women are better represented in our non-production sites, accounting for 52% of DyStar's administration staff. Additionally, many talented women have joined our team as engineers, chemists, laboratory technicians and other roles.

Moving forward, DyStar will continue to strive for better female and non-binary representation in our workforce. We will sustain our efforts in seeking opportunities that can further narrow the workplace gender gap – both for DyStar's operations and for our sector, especially in light of females' increasing capacities to pursue professional careers in developing markets.

### Providing Competitive Benefits

Beyond DyStar's commitment to offer our employees more equitable positions and working conditions, we provide both our regular full-time and part-time employees with a wide variety of competitive benefits. Temporary employees are currently not eligible for benefits. DyStar's benefit plans are tailored to individual countries, as they are intended to align with and value-add to their respective social security benefits<sup>23</sup>.

### Promoting Employee Health

DyStar supports the health and wellbeing of all employees through participation in health and wellbeing activities and practices. For instance, DyStar conducts an effective accident & safety prevention program that involves all its

employees in the effort to eliminate workplace hazards. Management will also keep abreast of workplace safety and health hazards issues and regularly review the company safety and health program.

### Supporting our Workforce during the Pandemic

In view of COVID-19, we strive to provide a safe and healthy environment for our workforce. We installed hand sanitizers in our offices and facilities and continue to offer a sufficient supply of masks for our employees. Our HR team supported our employees' mental well-being throughout this period with guidance on COVID-19-related rules and safety tips.

In Germany, Italy and Portugal, we implemented shorter working hours, apart from work-from-home arrangements. In Mexico, area leaders communicated closely with their teams via virtual means. For instance, they shared tips on managing personal finances amidst the uncertain economy, and recommendations for wellness applications. Area leaders also regularly check in on team members to offer support via online platforms like Microsoft Teams.

In Japan, DyStar's Osaka Office implemented flexible working arrangements in March 2020 and WFH (Work From Home) in principle from April to June. All employees and visitors who must go to site at the Omuta Factory were limited to a maximum 30-minute stay whilst wearing a mask at all times. At the end of the approved travel visits, employees must work for 2 weeks in an isolated room with daily temperature checks.

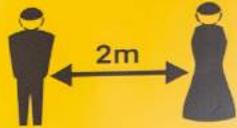
23 More information can be found in DyStar's Integrated Sustainability Report 2019-2020.



FOR EVERYONE'S SAFETY  
PLEASE WEAR A MASK



FOR OUR HEALTH  
PLEASE WEAR A MASK  
AND PRACTICE  
SOCIAL DISTANCING



KEEP A SAFE DISTANCE

SAFE  
SANIT  
  
PLE  
HAND

ABOUT  
DIVERSITY

FINANCIAL  
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NATURAL  
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**HUMAN  
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SOCIAL  
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## Caring for Employees

### Our Commitment to Workplace Safety

DyStar places a lot of importance on ensuring the safety of all our employees. We are committed to offering a safe work environment across all our operations. 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<sup>24</sup>, and makes information on safety policies more accessible anytime via DyStar's internal portal.

In FY2020, we conducted a number of safety walks and events to refresh and enhance our workers' health and safety knowledge.



24 More information can be found in DyStar's Integrated Sustainability Report 2019-2020.

## We Adhere to Global Safe Chemical Standards

DyStar is committed to protecting people and the environment from dangerous chemicals. Therefore, we are implementing the relevant registration systems worldwide. DyStar is currently in compliance with European chemical regulations REACH® and has registered more than 450 substances<sup>25</sup>. In FY2020, DyStar made 7 new inquiries, created 8 new registration dossiers, and updated further 48 dossiers in the complex IT-system IUCLID and successfully submitted them to the European Chemicals Agency (ECHA) via their REACH-IT platform.

DyStar is also working to meet the legal requirements of chemical registration in Taiwan. In 2019, Taiwan EPA introduced legal requirements for chemicals registration. The registration of the first list of 106 priority existing chemicals (PEC) commenced on 1 January 2020 with a deadline for high (> 100 t/a) tonnages being 31 December 2021 and for low (1-100 t/a) tonnages being 31 December 2022. Additionally, registration requirements for new substances are to be included. DyStar Taiwan's colleagues are in the process of aligning with the Taiwanese regulation and monitor the progress and updates of the legislative development.

DyStar is also working to register substances that are manufactured or placed on the Turkish market, currently more than 1750 substances pre-registered according to KKDIK. The main pre-registration phase for chemicals was completed end of 2020. In the period from FY2021 – FY2023, all chemicals must be registered according to the KKDIK guideline.

Similar legal requirements for chemical registration are

being introduced in Russia and Eurasia. For starters, each Member State of the Eurasian Economic Union (EAEU) compiled its own national inventory by accepting nominations from domestic companies. These national lists had to be submitted by national authorities in 2020 to the Eurasian Economic Commission (EEC) to be compiled into one inventory. The regulators request information on chemical substances for inventory nomination. To nominate substances to the Russian national inventory, manufacturers and formulators not located in the Eurasian Economic Union had to appoint a local representative. Nomination was requested until 1 August 2020 and DyStar prepared more than 6900 entries for nomination.

## Developing Skills

Our workforce's skillsets and capacity to excel have always been the cornerstone of DyStar's success and market leadership. DyStar's leadership consistently leverages a range of training and development programs to offer effectual skills development opportunities for our employees, including Health, Safety and Environment (HSE) and technical training.

A consistent upgrade of our employees' knowledge, skills and capacity is key for our employees to respond to future challenges and contribute to sustainable growth for DyStar. In FY2020, DyStar sponsored 24,509 training hours for our employees, including 13,946h on skills enhancement and 10,563h on HSE topics. In view of COVID-19 regulations, many training courses became available online and trainings were compressed into shorter hours.

All employees are encouraged to learn and use English as

a common language, to facilitate exchanges of knowledge and resources across DyStar's global operations. Furthermore, to enable all our employees to advance their job-related capabilities and careers, we provide them with annual performance appraisals and career planning workshops.

In response to the challenge of skilled labor scarcity at rural production plants and other locations, DyStar recruits and trains the local workforce, fulfilling our manpower needs whilst simultaneously providing local communities with employment and economic capacity-building opportunities.

## Global Training Program

To synergize training outcomes for our employees, DyStar's HR team collaborates with regional offices across our global operations to plan and execute DyStar's Global Training Program. Synergized training include mandatory training for regulatory, safety, quality, and certification work, technical training to improve job competencies, and soft skills training for supervisory, interpersonal, and leadership skills. DyStar's Global Training Program aims to simultaneously improve employees' individual job performance and capacity and advance DyStar's organizational efficiency and effectiveness.

Beyond training opportunities, DyStar offers internship programs for promising young textile professionals, manages employee referral programs to hire talented members from employees' networks, and recognizes and rewards our top achievers with awards.

<sup>25</sup> More information on our data protection law, global quality management, global compliance management, chemical registration worldwide, and environmental compliance audits policies can be found in DyStar's Integrated Sustainability Report 2019-2020.



## Empowering Employees

At DyStar, our employees are the key drivers of our success. They form the foundation of our ability to create value for our stakeholders. In recognition of this, DyStar maintains a strong focus on recruiting and developing top talent and maintaining an inclusive work environment for them to flourish and build a strong future. Building on these efforts, we have an extensive workforce engagement program that designs tailored pathways for individual employees and offers them the relevant skills to advance towards their specific goals. This approach has consistently demonstrated strong results in both workforce diversity and growing long-term employee retention, reflecting its effectiveness.

Out of DyStar's total workforce of 1,954 employees in FY2021, 92% are regular full-time employees and less than 1% are regular part-time employees. Temporary employees, including employees with fixed-term or temporary employment contracts, account for about 7% of DyStar's workforce. External contract workers, including those performing security, cleaning, IT, and maintenance services, put in approximately 12.7% of the total man-hours clocked across various DyStar locations. Most of our permanent employees received annual reviews – with 86% of male permanent employees and 76% female permanent employees undergoing reviews in FY2020.

All DyStar employees have the right to establish and support labor unions and to participate in collective bargaining. We do not discriminate against labor union representatives and their members have full access to our workplaces. Zero labor-related violations and related fines were accorded to DyStar in 2019.

## Star Employees

To celebrate our employees who have gone above and beyond in their work for DyStar, we reward them in our annual Global Employee Recognition Awards. This year, the following employees were recognized for their outstanding efforts:



**DyStar Global Employee Recognition Award 2020**

GOLD AWARD	SILVER AWARD	
<p><b>Belle Fang</b>  <b>Logistics Supervisor</b>  <b>China</b></p> <p>Belle joined DyStar in 2013 as a Customer Service Representative and gradually rose through the ranks due to her hard work, and spirit of excellence. Through her commitment and dedicated work, she has helped to strengthen and improve the logistics service level to be nimble and flexible, especially during these trying times. She has shown resilience in overcoming challenges to ensure that daily operations and customers' demands are timely fulfilled. In terms of cost control management, she was prompt to identify opportunities in support of cost savings initiatives operationally. In her daily work, she communicates with her team respectfully and encourages open sharing of ideas for problem-solving. A key member to the logistic team with a positive attitude and great team spirit.</p>	<p><b>Hamit Çiftçi</b>  <b>Waste Water Technician</b>  <b>Turkey</b></p> <p>Hamit is appreciated for his commitment, hardworking nature and dedication to DyStar. In 2018, as a Production Operator, he undertook a Waste Water Technician course through his own efforts. He spent time to study water treatment and voluntarily participated in training to better his knowledge. During COVID-19, when Turkey was short on manpower, he stepped in to assist with painting the factory and the pedestrian paths which helped DyStar save costs. Through his dedication, there was a reduction in workplace incidents. His loyalty to DyStar and can-do attitude is a great inspiration to everyone.</p>	<p><b>Ong Li Li</b>  <b>HR Manager</b>  <b>Singapore</b></p> <p>Li Li is part of the Safety Management (SMO) Team in Singapore managing the office response in compliance with local authorities for COVID-19. Over and above her busy HR duties, she plays an active role as a Safe Management Officer (SMO) who helps in preparing DyStar Singapore's office to be safe for employees to resume work while meeting the government agencies' requirements. From the start of COVID-19 in March, she has been the main point of contact with the government agencies – from the application of DyStar Singapore to resume business and timely follow-up with agencies in ensuring DSS meets the regulatory numbers of employees at work during different phases of economy opening up. This includes close follow-up with HODs in planning and updating work schedule while complying with advisories on an ongoing basis. She is also very prompt in providing timely feedback to employees' inquiries and responses to employees reporting unwell during this period. Despite her tight work schedule, she is able to successfully place key positions in Finance and IT and has been giving Michelle active support on ISO &amp; PDPA audits. A dedicated employee who has gone above and beyond as many times she responded to requests by HODs and MD beyond her normal call of duty.</p>

**DyStar Global Employee Recognition Award 2020**

BRONZE AWARD

**Peter Pan**  
**Chemist in Songjiang Application Lab**  
**China**

Through Peter’s efforts on safety protocol, his team was awarded USD 30,000 bonus from the government for their internal safety and sustainability projects. In his role as a lab supervisor, his eye for detail on technical processes, his loyalty to DyStar and his patience to guide others are highly commendable.

**Anja De Vreese**  
**Sales Representative**  
**Belgium**

Anja is appreciated for her inspiration and excellence to drive the concept of reducing Fluorocarbon (used in water/oil repellence recipe) in workwear. Despite the COVID-19 restriction imposed to visit clients, she found other ways to do so and managed to promote the concept to her customers. Her grit to overcome obstacles serves as a role model for others.

**Jignesh Sutariya**  
**Production Officer**  
**India**

Jignesh played an important role when the Ankleshwar Plant had to temporarily cease operations. He successfully supported customer’s order in achieving production yield in another Plant. The production was set up very quickly within the space of 24 hours. Quality batches were produced on time, delighting customer.

## Our Ethics and Values

DyStar is committed to fostering a culture of responsibility in our organization 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<sup>26</sup>, which establishes legal and ethical principles and guidelines and sets a common understanding of the company's expectations regarding ethical behavior. These principles are the foundation of DyStar's reputation as an employer of choice, a reliable business partner, and an ethical company.

DyStar recognizes its responsibilities to society and is committed to be a good corporate citizen. To prevent unethical behavior and to strengthen existing safeguards, DyStar has implemented robust **ethics and compliance mechanisms**. 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**. These principles and policies, combined with the vigilance of managers and employees, serve to protect the company and its

stakeholders from corruption and to maintain high standards of ethics and compliance<sup>27</sup>.

Given our vast operational footprint and workforce, DyStar adheres to strict human rights policy. We are fully compliant with all laws, regulations, and standards relevant to human rights. To support our team in implementing the necessary compliance measures for all changes in our operations, we offer them a notice of two weeks (or longer if necessary) to do so. We have not been charged any fines or penalties related to labor practices, human rights abuse, or treatment of local communities and indigenous peoples to date<sup>28</sup>.

## Celebrating Cultural Identities

We are committed to providing an inclusive work environment that embraces different cultures and values unique perspectives that can drive innovation. Local traditions and cultures are encouraged and celebrated, and traditional practices are often featured in company-sponsored events.

Annual year-end celebrations that incorporate local traditions and cultures are also organized to show appreciation for our employees' hard work and achievements over the past year (see following pages). These celebrations have boosted employees' confidence and morale and have helped to build employees' momentum for success in the New Year.

26 More information about DyStar's Code of Conduct can be found here: [https://www.dystar.com/wp-content/uploads/2019/07/Code-Of-Conduct-V9\\_1.pdf](https://www.dystar.com/wp-content/uploads/2019/07/Code-Of-Conduct-V9_1.pdf).

27 More information on our ethics standards, including on anti-competition and anti-corruption policies, can be found in DyStar's Integrated Sustainability Report 2019-2020.

28 Our policies on anti-discrimination, human rights, child labor, forced labor, collective bargaining, ethical business conduct and political lobbying can be found in DyStar's Integrated Sustainability Report 2019-2020.

## South Africa: Heritage Day

In South Africa, Heritage Day on 24 September recognizes and celebrates their nation's cultural wealth. Our South African employees commemorate the day through various events that pay tribute to their country's rich heritage and diverse cultures.



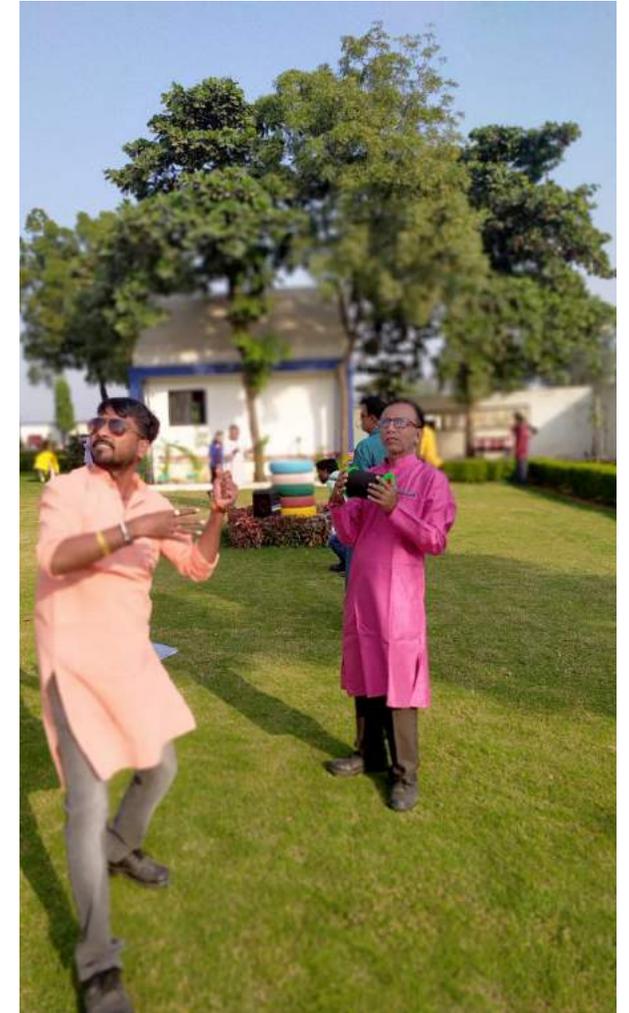
## India: New Year Breakfast Meeting

In India, the office's first activity for the new year of 2020 was a breakfast meeting. Our employees participated in fun team-building activities and enjoyed breakfast together as one team. A post-activity self-reflection session was facilitated by Regional Vice President Jayant Khera.



## Uttarayan At Ankleshwar Plant

Uttarayan (Kite Festival) is regarded as one of the biggest festivals celebrated in India. Months before the festival, homes in Gujarat begin to manufacture kites for the festival. This day is one of the most important harvest days in India as it marks the termination of the Winter season and the beginning of a new harvest season. Many cities in Gujarat organized kite competitions between their residents.



## DyStar Japan Omuta Factory: New Year starts with the Annual Safety Ceremony in A New Style on 4 Jan 2021

In Japan, a 25-minute Annual Safety Ceremony was held on 4 January, the first working day in 2021. Whilst all employees joined the ceremony in previous years to pray for the safety of the factory and the health of all employees, 8 individuals represented the different departments this year, in compliance with COVID-19 measures.



**Contributing to  
the Community**





Photo Credit: Fifi Tio

## Caring for Our Community

### Engaging Local Communities

DyStar recognizes that we have a substantial economic impact on towns and villages that surround our operations. Our approach is to foster long-term trust with local communities, which will create value for our stakeholders while meeting local communities' needs.

As such, DyStar pledges to empower these local communities by investing in the training and development of the local workforce. We have policies in place to ensure that local communities are prioritized in our hiring process.

DyStar is also committed to protecting local communities by managing environmental risks responsibly. In FY2020, DyStar kept close contact with local community leaders via virtual, open channels of communication, and addressed all concerns with high priority.

During the same period, we informed local authorities and community at our Pietermaritzburg facilities in South Africa of potential safety and environmental risks. Measures were taken to protect the community near our facilities in accordance to the Major Hazard Installation requirements by the MHI. For example, our employees will spend one hour a year per employee to pick litter at an open field as part of our commitment to the local community.

Based on DyStar's internal survey with employees, none of our locations created actual or potential negative impacts on local communities. DyStar seeks to create a significant, indirect positive impact on the local economy and expand the community's access to food, water, education and other capacity building opportunities.

To further improve our contribution to the local economy, DyStar will continue to collaborate with local authorities, non-governmental organizations and research institutions towards our collective community goals.

## Corporate Social Responsibility

DyStar has always supported local communities and the environment through its CSR activities, including volunteering, hosting events, and philanthropic activities. CSR initiatives provide the organization opportunities to build long-lasting relationships with community stakeholders. DyStar conducted the following activities in FY2020, despite the challenges of COVID-19 pandemic.

### Book Donation Drives in Turkey, Africa and Middle East (TAME)



### DyStar Book Donation



In Kahramaras and Sanliurfa, Turkey, DyStar initiated book donation drives for village schools in need. We collected unused or new books like coloring books for kindergarten and other books for primary to high school students in November 2019.

## DyStar Colors Indonesia (DCI) Donated Hand Sanitizer To Government Institutions

To help the local community fight COVID-19, DyStar Indonesia donated 120 liters of hand sanitizer in April 2020, with the following government institutions receiving 20 liters each:

- Sub regent (Local government)
- Village Gabus
- Clinic Kopo
- Clinic Nyompok
- Police sector Kopo
- Military sector Kopo



## Sustainability Program 2020 – Textile Recycling Initiative at Singapore Headquarters

DyStar Singapore headquarters started 2020 with a textile recycling initiative, collecting 330 pieces (56.7kg) of pre-loved clothes from employees who wanted to give their clothes a new lease of life. The clothes were sent to the appointed agent to support communities in need.



# ABOUT OUR REPORT

This is DyStar Group's eleventh annual Sustainability Performance Report. This report details our sustainability commitments and business performance that are most valuable to our stakeholders.

Through this report, DyStar hopes to provide a transparent account to our stakeholders regarding our progress in catalyzing sustainable practices across the value chain, guided by our sustainability strategy and material topics.

DyStar values the opinions of all our internal and external stakeholders as a resource for continual improvement. Please send your questions, feedback and suggestions to:

DyStar Sustainability Committee Group:  
[groupcomms@dystar.com](mailto:groupcomms@dystar.com)

## REPORT SCOPE

This report covers DyStar's global operations for the financial year 1 January 2020 to 31 December 2020. 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 FY2019 Sustainability Performance Report. DyStar reports on an annual basis and there have been no significant changes observed between reporting years.

## 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.

Since FY2019, DyStar started adopting an integrated approach to sustainability reporting. We will continue to disclose and communicate on our sustainability strategy, business model, material issues, risks and opportunities, as well as our performance. Going forward, DyStar is considering applying the integrated reporting principles set out by the Value Reporting Foundation<sup>29</sup>. This integrated approach allows stakeholders to assess our sustainability efforts and our ability to create long-term value beyond financial performance.

## DATA AND EXTERNAL ASSURANCE

DyStar collects and analyzes data across all its operations in a standardized manner. Through the collaboration with a global consulting partner, the company uses an external data management system to collect and assess sustainability performance data from all its business entities.

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.

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<sup>29</sup> Value Reporting Foundation consists of the International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB).

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