



# Sustainability - Possible through Action

SUSTAINABILITY REPORT  
EXECUTIVE SUMMARY 2023

# KEY SUSTAINABILITY RECOGNITIONS AND AWARDS IN 2023



FOR MORE  
INFORMATION



**Achieved an AA rating  
for the first time in 2024**  
(improved from A Ratings in 2023)

Member of  
**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA

Listed in **DJSI World and Emerging Markets for the 5<sup>th</sup> and 7<sup>th</sup>**  
consecutive year respectively in the Chemicals sector  
Indorama Ventures was **ranked in the 92<sup>nd</sup> percentile**



**Achieved 99<sup>th</sup> percentile**  
among basic chemical companies assessed



**FTSE4Good**

**#1 constituent in the FTSE4Good  
Index Series** (ESG score 4.5 out of 5)



Achieved an **ESG rating in the 12<sup>th</sup> percentile**  
in the Chemical Industry Sector (lower percentile indicates better performance)  
among 563 companies



**Achieved a B rating**  
in the CDP's Climate Change



**Achieved a B-ranking, Rank = 2**  
in the 2023 ChemScore assessment,  
among 50 global chemical companies



**Achieved a total score of 80 with an AA grade**, surpassing the "Industrials"  
group's average score of 67 for companies with a market cap beyond THB 100B



**Sustainability  
Disclosure Award 2023**  
for the fifth consecutive year

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# DEPUTY GROUP CEO AND GROUP CHIEF FINANCIAL OFFICER MESSAGE



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**"Business strategic imperative requires  
ESG action and commitment to turn our vision  
and purpose into values and impacts  
that can make a difference."**

**DILIP KUMAR AGARWAL**

- Deputy Group CEO and Group Chief Financial Officer
- Member of the Sustainability and Risk Management Committee

## CHAIRMAN OF THE ESG COUNCIL MESSAGE



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**"Amplifying our sustainability commitment and actions to seize the opportunities for greater success and resilience."**

**YASH LOHIA**

- Chairman of the ESG Council
- Member of the Sustainability and Risk Management Committee

## CHIEF SUSTAINABILITY OFFICER MESSAGE



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**"Value creation is a key driver for Indorama Ventures' sustainability leadership. It was an important part of our impact in 2023 as we recycled over 300,000 tons of post-consumer waste."**

**ANTHONY M. WATANABE, PH.D.**  
Chief Sustainability Officer

# ABOUT INDORAMA VENTURES



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## AT A GLANCE

Revenue  
**\$ 15.6 B**

Core EBITDA  
**\$ 1.3 B**

EBITDA Margin  
**8%**

ROCE  
**4%**

### Americas

**51**  
Sites

**5**  
Countries

**50%**  
Revenue

### EMEA

**41**  
Sites

**20**  
Countries

**22%**  
Revenue

### Asia

**56**  
Sites

**10**  
Countries

**29%**  
Revenue

Note: Asia includes Egypt and EMEA includes Portugal in 2023

**29,056\***  
Total  
Employees



**148\*\***  
Sites

**24.26%**  
Female



**6**  
Continents

**35**  
Countries

**20**  
Recycling  
facilities

**27**  
R&D  
centers

\* This number combines permanent and temporary employees.

\*\* The Sustainability Report 2023 consists of data from 149 sites.  
Further details are provided in the full Sustainability Report 2023  
(under "About this Report").

## Our platform

- 1 Integrated and diverse portfolio
- 2 Inter-connected businesses through raw materials, R&D and customers
- 3 Leading position in attractive and growing end markets

# PERFORMANCE IN OUR SUSTAINABILITY AMBITIONS



FOR MORE INFORMATION

2023 Progress  
**682,204** people reached  
(2018-2023)

**CIRCULAR ECONOMY EDUCATION**  
Educate **1,000,000** people globally about recycling by 2030

2023 Progress  
**LTIFR = 0.49**

**OCCUPATIONAL HEALTH & SAFETY**  
LTIFR (cases per 200,000 man-hours)  
**< 0.5** by 2025  
**< 0.1** by 2030

*Note: 2025 target has been revised to 0.46, as the 2023 performance has already surpassed it.  
2030 target has been revised to 0.25.*

2023 Progress  
**3.14%**

**RENEWABLE ELECTRICITY CONSUMPTION**  
**10%** by 2025  
**25%** by 2030

2023 Progress  
Bio-based feedstock:  
**1.32%** against our external feedstock

Recycled feedstock  
(Post-consumer PET bale input):  
**5.11%** against our PET feedstock

**CIRCULAR FEEDSTOCKS**  
**Bio-based feedstock:**  
**16%** against our external feedstock  
**Recycled feedstock**  
(Post-consumer PET bale input):  
**23%** against our PET feedstock by 2030

**GHG\***  
Reduction in combined GHG (Scope 1&2\*\*) intensity  
**10%** by 2025  
**30%** by 2030

*\*\* Scope 2 intensity (market-based)*

2023 Progress  
**3.57%** reduction

**ENERGY\***  
Reduction in energy intensity  
**5%** by 2025  
**15%** by 2030

2023 Progress  
**5.60%** intensity increase

**WATER\***  
Reduction in water intensity  
**10%** by 2025  
**20%** by 2030

2023 Progress  
**1.33%** reduction

**WASTE**  
**90%** waste diverted from landfill by 2025/2030

2023 Progress  
**75%**

## RECYCLING COMMITMENT

- **Post-consumer PET bale input per year**  
**0.75 million tons** by 2025  
**1.5 million tons** by 2030
- **Post-consumer bottles recycled per year**  
**50 billion** by 2025  
**100 billion** by 2030

2023 Progress  
**324,256** tons  
**21.6** billion bottles

\* Base year 2020



# INDORAMA VENTURES' KEY ESG HIGHLIGHTS 2023

## ENVIRONMENT



Total energy consumption

**120.9** million GJ

Total energy intensity

**7.54** GJ / ton of production

Total renewable energy consumption

**1.41** million GJ

Total renewable electricity consumption

**3.14%**



Total water withdrawal intensity

**5.21** m<sup>3</sup> / ton of production

Total recycled / reused water

**6.96%**



GHG emissions

GHG emissions (Scope 1) intensity

**0.4430** tCO<sub>2</sub>e / ton of production

GHG emissions (Scope 2) intensity

**0.1482** tCO<sub>2</sub>e / ton of production

GHG emissions (Scope 1&2) intensity\*

**0.5911** tCO<sub>2</sub>e / ton of production

\* Market-based



Hazardous waste intensity

**0.0092** tons / ton of production

Waste diverted from landfill\*\*

**75%**

\*\* Including waste incinerated with energy recovery

## RECYCLING



Recycling of post-consumer PET bale input

**324,256** tons

**2,258,509** tons

(From 2011 - Dec 2023)

Equivalent to

**21.6** billion PET bottles

**109** billion PET bottles

(From 2011 - Dec 2023)

## CIRCULAR FEEDSTOCKS



Bio-based feedstock:

**1.32%**

against our external feedstock



Recycled feedstock  
(Post-consumer PET bale input):

**5.11%**

against our PET feedstock



## SOCIAL



### HUMAN RESOURCES

Total Employees  
**29,056**

Female  
**24.26%**

Employee Net Promoter Score  
**75.85%** (NPS)

Average Training  
**31.88** hours

Total Employee Turnover Rate  
**13.57%**



### HEALTH AND SAFETY

Total Recordable Injury Rate: TRIR  
**0.68**  
cases per 200,000 man-hours

Lost Time Injury Frequency Rate: LTIFR  
**0.49**  
cases per 200,000 man-hours



### CORPORATE SOCIAL RESPONSIBILITY

Total CSR contribution  
\$ **3.23** million

Total in-kind giving  
\$ **327,693**

**15,126**  
Volunteer hours

Circular economy education  
**437,465**  
people reached



## ECONOMIC & GOVERNANCE



### FINANCIAL HIGHLIGHTS

Total Production Volume  
**13.92** million tons

Consolidated Revenues  
\$ **15.56** billion

Core EBITDA  
\$ **1,284** million

Core Net Profit after Tax and NCI  
\$ **67** million

Operating Cash Flow  
\$ **1,526** million

Core Earnings per Share  
THB **0.28**

**AA-**  
Rating



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### CORPORATE GOVERNANCE POLICY AWARENESS CAMPAIGN (CGPAC) IMPLEMENTATION

**88%**  
Employee attendance



### HUMAN RIGHTS DECLARATION

**100%**  
Signed by business Heads  
and site Heads



### CUSTOMER SATISFACTION STUDY\*

**84.82%**  
Customer Satisfaction Index

**78%**  
Customer Retention Rate (CRR)

**48**  
Net Promoter Score (NPS)

\* A formal customer satisfaction study is conducted every other year as part of our group sustainability strategy. This study was conducted in 2022.




# INDOVINYA KEY ESG HIGHLIGHTS 2023

The previous name of the business division was Integrated Oxides and Derivatives (IOD).



## 2023 Performance

  
**\$ 3.6 B**  
Revenue

  
**\$ 0.5 B**  
EBITDA

  
**13%**  
EBITDA margin

  
**3%**  
ROCE

## Market Leadership

**#1**

Non-ionic  
surfactants producer  
in the Americas with  
shale integration

**#1**

Fabric and home care  
ingredients  
provider in the  
Americas

**#2**

Ethoxylation  
company  
globally

## INNOVATION

### VITALITY INDEX\*

**17.7%**  
2023 Actual

**15.0%**  
2023 Target

**\$ 22.4 million**  
R&D Spending

**7**  
R&D Centers

\* Revenue generated from the sales of products developed during the last five years.

## CUSTOMER SATISFACTION\*

**84.11%**  
Customer Satisfaction Index (CSI)

**84%**  
Customer Retention Rate (CRR)

**46**  
Net Promoter Score (NPS)

\* A formal customer satisfaction study was conducted every other year as part of our group sustainability strategy. This study was conducted in 2022.

## ENVIRONMENT

### GHG EMISSIONS

**0.8426** tCO<sub>2</sub>e / ton of production  
Scope 1 intensity

**0.0756** tCO<sub>2</sub>e / ton of production  
Scope 2 intensity\*

**0.9182** tCO<sub>2</sub>e / ton of production  
Scope 1 and 2 intensity\*

\* Market-based

### ENERGY

**14.36** GJ / ton of production  
Intensity

**3.16%**  
Renewable electricity

### WATER

**8.33** m<sup>3</sup> / ton of production  
Intensity

### WASTE

**75.92%**  
Waste diverted from landfill\*\*  
\*\* Including waste incinerated with energy recovery

## HEALTH AND SAFETY

**TOTAL RECORDABLE  
INJURY RATE: TRIR**

**0.21**  
cases per 200,000 man-hours

**LOST TIME INJURY  
FREQUENCY RATE: LTIFR**

**0.08**  
cases per 200,000 man-hours



## COMBINED PET (CPET) KEY ESG HIGHLIGHTS 2023



### 2023 Performance

  
**\$ 9.4 B**  
Revenue

  
**\$ 0.7 B**  
EBITDA

  
**7%**  
EBITDA margin

  
**9%**  
ROCE

### Market Leadership

**#1**

PET  
producer  
globally

**#1**

rPET  
producer  
globally

The only shale-integrated  
player in the West

Packaging leadership  
in emerging markets

### INNOVATION

#### VITALITY INDEX\*

**27.3%**  
2023 Actual

**21%**  
2023 Target

**\$ 4.5 million**  
R&D Spending

**3**  
R&D Centers

\* Revenue generated from the sales of products developed during the last five years.

### CUSTOMER SATISFACTION\*

**85.30%**  
Customer Satisfaction Index (CSI)

**78%**  
Customer Retention Rate (CRR)

**52**  
Net Promoter Score (NPS)

\* A formal customer satisfaction study was conducted every other year as part of our group sustainability strategy. This study was conducted in 2022.

### ENVIRONMENT

#### GHG EMISSIONS

**0.2734** tCO<sub>2</sub>e / ton of production  
Scope 1 intensity

**0.1041** tCO<sub>2</sub>e / ton of production  
Scope 2 intensity\*

**0.3775** tCO<sub>2</sub>e / ton of production  
Scope 1 and 2 intensity\*

\* Market-based

#### ENERGY

**4.25** GJ / ton of production  
Intensity

**2.16%**  
Renewable electricity

#### WATER

**3.43** m<sup>3</sup> / ton of production  
Intensity

#### WASTE

**59.71%**  
Waste diverted from landfill\*\*

\*\* Including waste incinerated with energy recovery

### HEALTH AND SAFETY

**TOTAL RECORDABLE  
INJURY RATE: TRIR**

**0.60**  
cases per 200,000 man-hours

**LOST TIME INJURY  
FREQUENCY RATE: LTIFR**

**0.38**  
cases per 200,000 man-hours




## FIBERS KEY ESG HIGHLIGHTS 2023



### 2023 Performance

  
**\$ 3.2 B**  
Revenue

  
**\$ 0.1 B**  
EBITDA

  
**4%**  
EBITDA margin

  
**-1%**  
ROCE

### Market Leadership

Lifestyle

**#1**

in PET staple  
fiber ASEAN

Hygiene

**#2**

in BiCO  
fiber

Mobility

**#2**

in airbag  
yarn

**#2**

in tire cord  
fabric

### INNOVATION

#### VITALITY INDEX\*

**18.0%**  
2023 Actual

**22.0%\*\***  
2023 Target

**\$ 9.9 million**  
R&D Spending

**17**  
R&D Centers

\* Revenue generated from the sales of products developed during the last five years.

\*\* With challenging business conditions impacting the entire fibers industry in 2023, the Fibers segment saw delays and cancellation of product launches by our customers and end users, resulting in a lower Vitality Index.

### CUSTOMER SATISFACTION\*

**84.15%**  
Customer Satisfaction Index (CSI)

**75%**  
Customer Retention Rate (CRR)

**42**  
Net Promoter Score (NPS)

\* A formal customer satisfaction study was conducted every other year as part of our group sustainability strategy. This study was conducted in 2022.

### ENVIRONMENT

#### GHG EMISSIONS

**0.4821** tCO<sub>2</sub>e / ton of production  
Scope 1 intensity

**0.5813** tCO<sub>2</sub>e / ton of production  
Scope 2 intensity\*

**1.0634** tCO<sub>2</sub>e / ton of production  
Scope 1 and 2 intensity\*

\* Market-based

#### ENERGY

**10.56** GJ / ton of production  
Intensity

**4.87%**  
Renewable electricity

#### WATER

**8.20** m<sup>3</sup> / ton of production  
Intensity

#### WASTE

**93.65%**  
Waste diverted from landfill\*\*

\*\* Including waste incinerated with energy recovery

### HEALTH AND SAFETY

**TOTAL RECORDABLE  
INJURY RATE: TRIR**

**0.95**  
cases per 200,000 man-hours

**LOST TIME INJURY  
FREQUENCY RATE: LTIFR**

**0.76**  
cases per 200,000 man-hours

# SUSTAINABILITY VALUE PROTECTION AND VALUE CREATION



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Our business aims to optimize the use of resources and generate meaningful outcomes from different activities in our value chain. To succeed and grow in the current business environment, ESG and sustainability factors are essential for protecting and creating corporate value.

## Value Protection



### Improving operational efficiency

By adopting circular economy principles, maximizing resource efficiency, minimizing the consumption of energy, raw materials and other inputs and minimizing waste, resorting to low carbon intensive energy at high emissions sites and exploring technologies to capture emissions.



### Complying with regulations and anticipating future trends and challenges

By complying with regulations and anticipating future trends and challenges and adhering to the relevant laws, regulations, standards in all the markets where the company operates.



### Reducing risks and enhancing resilience

By ensuring the continuity and reliability of the company's operations in the face of various internal and external challenges, such as natural disasters, cyberattacks, supply chain disruptions, market volatility, or regulatory changes.



### Retaining good relationships by engaging with stakeholders

By using various channels to communicate directly and indirectly with the stakeholders, and by soliciting and incorporating their expectations and feedback to improve the operations and services.



## Value Creation



### Driving innovation & growth through a sustainable product portfolio

By investing more in advanced technologies, R&D, and collaborating with stakeholders to create and deliver products and solutions that meet their current and future needs.



### Implementing circular economy principles and practices in value chain

By utilizing more circular feedstocks and energy from renewable sources, minimizing waste and maximizing resource efficiency as well as promoting PET waste separation and recycling.



### Enhancing the environmental performance and resilience of operations and supply chains

By collaborating with players in the value chain to strengthen the ESG practices and collaborate to achieve the sustainability and decarbonization goals.



### Gaining trust, enhancing our reputation, and improving stakeholder relations

By participating in advocacy programs globally, together with industry associations and memberships, adopting best-in-class ESG and sustainability practices, and being listed in recognized ESG ratings.



# ENVIRONMENTAL PERFORMANCE

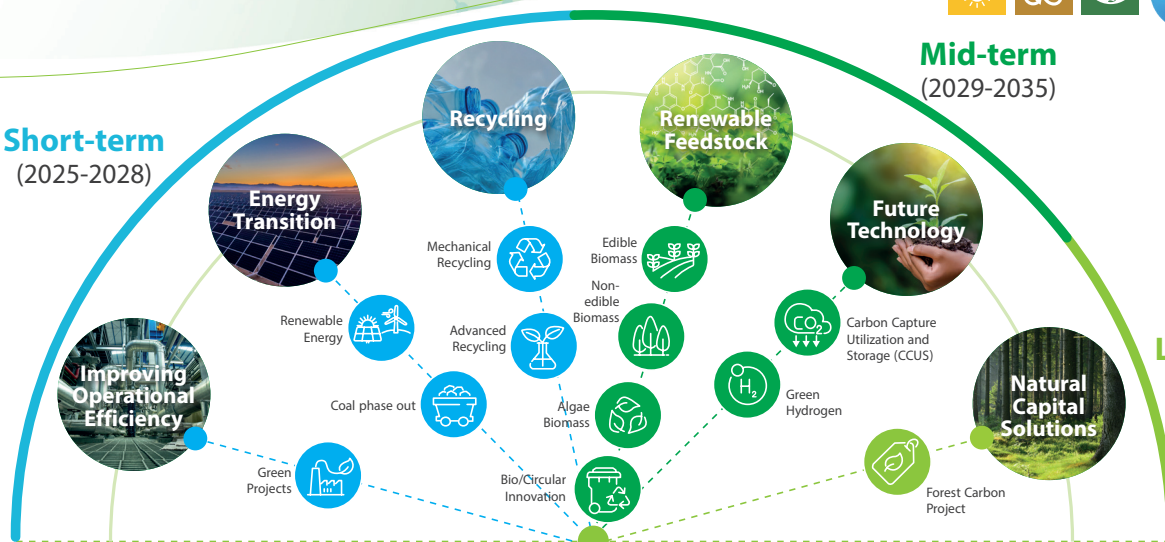
- 15 Decarbonization
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- 17 Energy Management
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- 19 Water Management
- 20 Circular Economy - Recycling

# DECARBONIZATION



FOR MORE INFORMATION

## Short-term (2025-2028)



## Decarbonization Strategies - Driving Towards Sustainable Future



### 2023 HIGHLIGHTS

In 2023, IVL Dhunseri Petrochem Industries Private Limited in India successfully converted a hot oil coal heater to natural gas, resulting in an estimated **GHG savings of 35,000 tCO<sub>2</sub>e annually**. This marks a significant step towards our overarching goal of achieving a **100% coal phase-out by 2030**.

From 2020 to 2023, we achieved a **reduction of 264,000 tCO<sub>2</sub>e**, which **equates to 3.8% of our Scope 1 baseline emissions**, through decreased coal usage. Our journey to phase out coal from our operations is underway and we have initiated several coal reduction projects. We are actively evaluating fuel transition technologies, with site readiness and alternative fuel availability being key factors under thorough examination.



Indorama Ventures has been awarded by CDP:

- a "B" rating for Climate Change Management
- a "B-" rating for the first year of assessment on Water Security

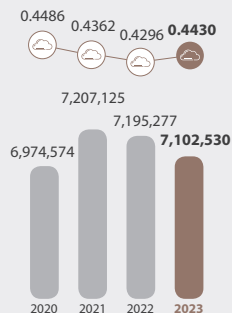
# GHG MANAGEMENT



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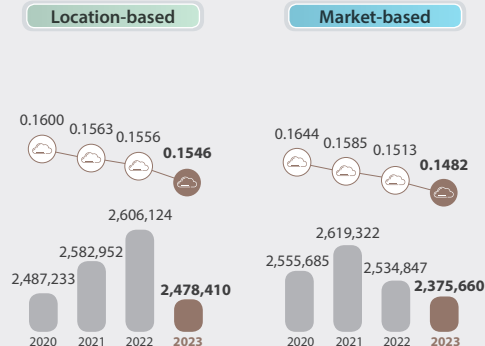
## Scope 1

### Direct GHG Emissions



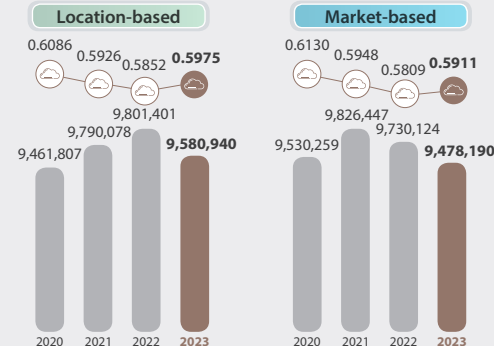
## Scope 2

### Indirect GHG Emissions



## Scope 1 & 2

### Total GHG Emissions



■ GHG emissions (tCO<sub>2</sub>e)

● Intensity (tCO<sub>2</sub>e / ton of production)

## Scope 3 (9 Categories)

- Purchased Goods and Services (including Nitrogen)
- Capital Goods
- Emissions from Electricity (T&D, WTT) and Fuels (WTT)
- Upstream Transportation
- Waste
- Business Travel
- Employee Commuting
- Downstream Transportation
- Use of Sold Products



## GHG (Scope 1 & 2\*) Intensity Reduction (2020 baseline)

### Target

**10%** by 2025 and

**30%** by 2030

\* Scope 2 intensity (market-based)

### Performance

In 2023, we recorded an intensity of **0.5911** tCO<sub>2</sub>e/ton, a **3.57%** reduction against 2025 target.



## 2023 HIGHLIGHTS

**GHG emissions for Scopes 1, 2, and 3** (9 categories) were verified by an external auditor

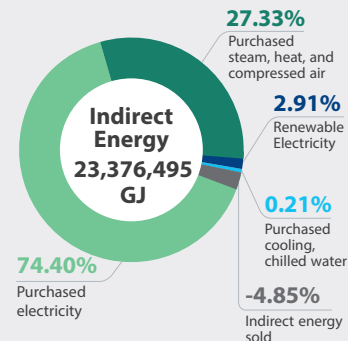
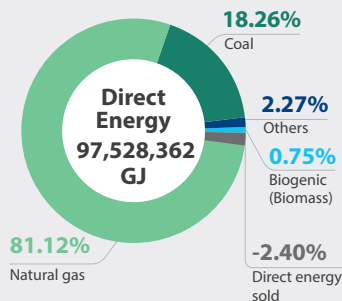
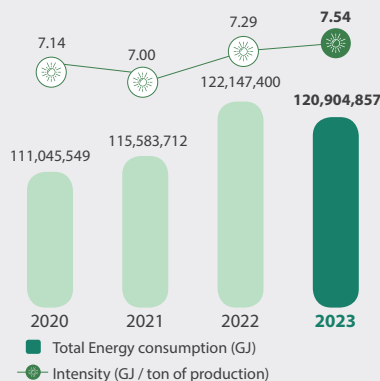
**100%** GHG accounting, verification, and assurance in accordance with ISO 14064-1 and ISO 14064-3

# ENERGY MANAGEMENT



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## Total Energy Consumption



### Energy Intensity (2020 baseline)

#### Target

**5%** by 2025 and **15%** by 2030

#### Performance

In 2023, we recorded an energy intensity of **7.54** GJ/ton, which was an increase of **5.60%** from 2020 baseline.



### Renewable Electricity Consumption (2020 baseline)

#### Target

**10%** by 2025 and **25%** by 2030

#### Performance

In 2023, IVL consumed **3.14%** of renewable electricity against total electricity consumption.



### HIGHLIGHTS

From 2014 to 2023

**16 Onsite/Offsite solar installations** in China, India, Indonesia, Thailand, Lithuania, USA, Italy, and Egypt

**98,878 MWh** of solar based renewable electricity generated and used in plants

**49,162 tCO<sub>2</sub>e** of total cumulative GHG reduction from renewable electricity consumption

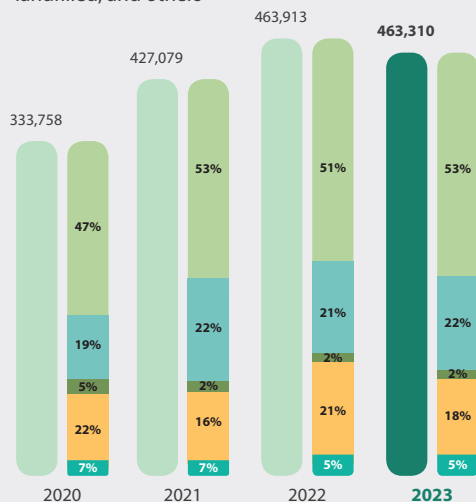
# WASTE MANAGEMENT



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## Total Waste

Generated, recycled & reused, incinerated (with and without energy recovery), landfilled, and others



- Total generated waste (tons)
- Recycled & reused (% of total generated waste)
- Incinerated with energy recovery (% of total generated waste)
- Incinerated without energy recovery (% of total generated waste)
- Landfilled (% of total generated waste)
- Others (% of total generated waste)

## Total Hazardous Waste



- Total hazardous waste (tons)
- Intensity (tons / ton of production)



## Waste Diverted from Landfill\* (2020 baseline)

### Target

**90%** Waste diverted from landfill by 2025

### Performance

In 2023, **75%** of our waste was diverted from landfill.

\* Including waste incinerated with energy recovery.

## 2023 HIGHLIGHTS

Total waste intensity  
**0.0289 tons / ton of production**

**53%** of total waste was recycled and reused

**22%** of total waste went to incineration with energy recovery

## Waste Management Audit Program

Initiated in 2021, the objective of this audit program is to verify the amount and certify the diversion rate. This audit helps us to better understand waste management practices and utilize more waste in line with a circular economy approach.

In total, **35 sites** were audited by an external auditor :

**17 sites** received Platinum certification (diversion rate of more than 95%)

**12 sites** received Gold certification (diversion rate of more than 90%)

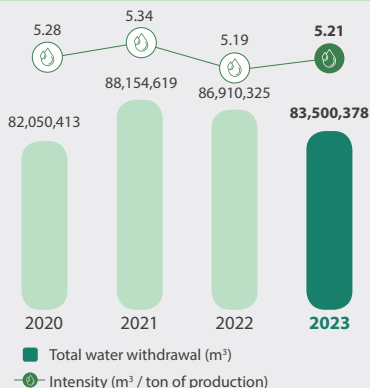
**1 site** received Silver certification (diversion rate of more than 85%)

# WATER MANAGEMENT

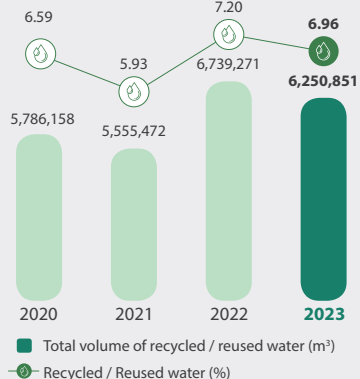


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## Total Water Withdrawal



## Total Recycled / Reused Water



## 2023 HIGHLIGHTS

**5** sites achieved

### Zero Liquid Discharge

- Avgol Nonwovens India Private Limited
- Indorama Petrochem Limited (PET)
- PT. Indorama Ventures Indonesia (PET)
- PT. Indorama Ventures Indonesia (Fibers)
- Schoeller Kresice s.r.o



## Water Intensity Reduction (2020 baseline)

### Target

**10%** by 2025 and

**20%** by 2030

### Performance

In 2023, we recorded a water intensity of **5.21** m³/ton of production, a **1.33%** reduction against 2025 target.



**The Indorama Ventures Fibers team in Kaiping celebrated the successful commissioning of a new wastewater treatment system, the Ultrafiltration Membrane System.**

This system reduces water consumption at the Green Hill site by approximately 100 tons per day (30% of total usage). The achievement of zero wastewater discharge for both the Changsha and Green Hill sites signifies a major milestone in our sustainability and cost improvement journey.

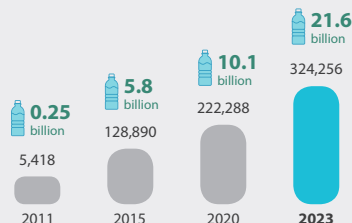
# CIRCULAR ECONOMY - RECYCLING



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## Post-consumer PET bale input for recycling

- Unit: Tons
- Unit: Bottles



The PET bottles figure uses an average weight and an overall height of on-the-go PET water and soda bottles, equivalent to the volume recycled at Indorama Ventures recycling sites between February 2011–December 2023. Weighting shall be referenced to The International Bottled Water Association.



## Circular Feedstock

### Target

Recycled feedstock  
(Post-consumer PET bale input):  
**23%** against our PET  
feedstock by 2030

### Performance

In 2023, we recorded **5.11%**  
against our PET feedstock.

**Reduced**  
**3.2 million tons**  
of carbon footprint  
from the product  
lifecycle



**Recycled**  
**109 billion**  
post-consumer  
PET bottles\*

**Prevented**  
**2.2 million tons**  
of plastic waste from  
going to landfill



## 2023 HIGHLIGHTS

Joint effort with Evertis  
and AMB through the  
**‘Tray-to-Tray  
Recycling’ program**  
to produce recycled PET  
(rPET) flakes for food  
packaging trays

**Expansion of PET  
Recycling Capacity in Brazil,**  
(from 9,000 tons to 25,000 tons  
per year), supported  
by a ‘Blue Loan’ from the  
International Finance Corporation  
(IFC), a member of the World Bank.

## CELEBRATE WITH US

As of September 25, 2023, we successfully **recycled 100 billion post-consumer PET bottles** (since 2011) - and counting



Our real-time bottle recycling counter is available on our website.



## SOCIAL IMPACT

- 22 Giving Back to Communities
- 23 Circular Economy Education
- 24 Investing in Our People
- 25 Health and Safety
- 26 Supply Chain Management



# GIVING BACK TO COMMUNITIES



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## Overall CSR Performance 2023

### Social Contributions

Environment **3%**  
Knowledge **25%**

**\$ 3,226,922**

Community Care  
**72%**

### Activities

Environment **6%**  
Knowledge **19%**

**529**  
CSR  
activities

Community Care  
**75%**

**\$ 2,773,633**

Cash Contribution

**\$ 327,693**

In-kind giving

**15,126 hours**

Time Volunteered by Employees

**\$ 125,597**

Total Management  
Overhead



A second consecutive silver recognition &  
Best-in-class for the Special Thai  
Development Award 2023

## 2030 Targets & Performance

### Knowledge

Educate  
**1,000,000** people  
globally

**682,204**  
people reached  
(since 2018)

### Community Care

Reach at least  
**100,000** people  
in the community

**98,496**  
beneficiaries  
(since 2020)

### Environment

Collect at least  
**100** tons of post-consumer  
PET bottles for recycling

**80**  
tons collected  
(since 2020)

## Results and Outcomes



### Knowledge:

- **65** initiatives that promote recycling awareness and education.
- **24** initiatives that support internship and scholarship programs.
- **9** initiatives that support the STEM education and innovation program.



### Community Care:

- **165** initiatives that support infrastructure, sports, health, and well-being enhancement.
- **110** initiatives that support local activities and events.
- **85** initiatives that support groups of vulnerable people, natural disasters, and emergency cases.
- **37** initiatives that empower local enterprises and skills development.



### Environment:

- **15** initiatives that support the waste management system.
- **13** initiatives that support reforestation and tree planting programs, including creating greener areas.
- **6** initiatives that create an improved and cleaner environment and surroundings.

# CIRCULAR ECONOMY EDUCATION



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## 2023 HIGHLIGHTS

Indorama Ventures, in collaboration with Yunus Thailand, has introduced the Waste Hero Education program, a free-to-use teaching resource. This global resource for teachers includes 19 meticulously crafted lesson plans focused on Recycling Fundamentals, Creating Zero Waste, and Building the Circular Economy.

Predominantly, over 7,236 educators applied the Waste Hero teaching resources in the classroom that reached to 413,056 students in more than 83 countries, and 26 international organizations engaged and still counting.

We cooperate in disseminating the program with strategic partners for global implementation and localization:



Scale up the 15 promotional campaigns and engage with 10 influencers and 5 affiliates.



Promote the utilization of education resources at more than 1,000 schools across Southeast Asia.



Reach more than 4 million educator communities throughout the United States



**Southeast Asia Waste Hero has a Social Return 4.49 times\***  
the social value.



*\* This calculation is based on the social impact data gathered from teachers in Indonesia and the Philippines who participated in the Southeast Asia Waste Hero Training Session in 2023.*

## 2023 PERFORMANCE



**437,465**  
people reached



**860**  
schools and universities engaged



**141**  
training sessions



**15**  
events to promote Circular Economy



**525**  
teaching hours



**6**  
Thai companies joined the Circular Economy program



**26**  
international organizations received Waste Hero Education materials and knowledge

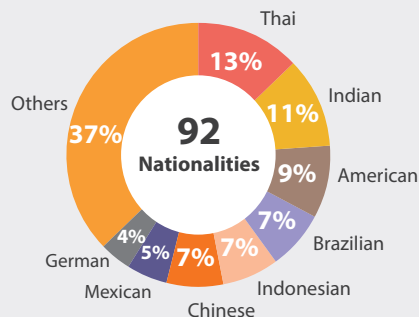


Indorama Ventures, in partnership with the Education Bureau under the Bangkok Metropolitan Administration (BMA), organized training sessions on sustainable plastic waste management at 100 BMA schools, reaching 11,593 students and teachers. We also hosted a school model competition, with 87 BMA schools participating. These schools showcased their practical application of knowledge in managing plastic waste within their schools.

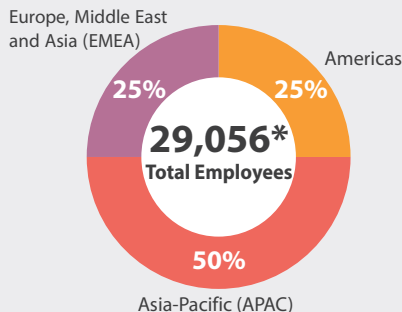
# INVESTING IN OUR PEOPLE



## Nationalities (% of total employees)

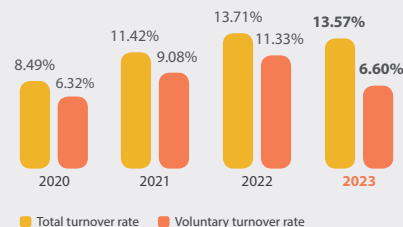


## Employees by Continent (% of total employees)



\* Includes temporary employees

## Employee Turnover Rate



## Sustaining Strong Leadership

**49 young leaders** worldwide participated in Indorama Ventures inaugural Future Leaders Program aimed at nurturing the next generation of leaders.

Well-purposed leadership curriculum deployed to develop strong leadership involving more than **3,000 leaders**.

Succession Planning executed for all targeted positions covering **1,154 leadership positions** with **1,828 validated successors**.



**24.26%**  
Female  
(% of permanent employees)



**221**  
Employees  
with disabilities



**Indorama Ventures was honored as an award recipient of the HR Asia Best Companies to Work for in Asia 2023.** This recognition is a testament to our commitment to providing an exceptional workplace environment and promoting a culture that values and supports employees.



**Securing a second consecutive win at the Thailand Best Employer Brand Awards 2024** highlighted the exceptional achievement of our Corporate Head Office in Sustainable Career Development for High Employee Engagement. This initiative comprises five pillars: Career Leadership, Career Goals, Career Strengthening, Career Experience, and Career Growth Development.



## 2023 HIGHLIGHTS

**13.57%** total employee turnover rate

**40.55%** of our employees are covered by collective bargaining agreements

**831,855** total training hours

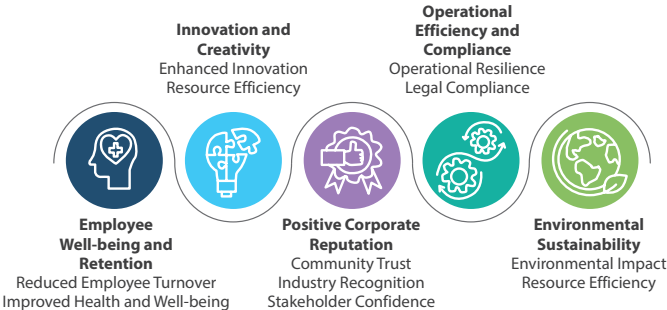
**31.88** average training hours per employee

# HEALTH AND SAFETY



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## Key Benefits of Good EHS Management



## Strategic Priorities

- Governance**
- Standardization**
- Capability Building**
- Assurance**
- Culture**



## 2023 HIGHLIGHTS

**50%** of our operations (77 out of 153) achieved zero recordable injuries

**18** new standards released by corporate EHS providing guidance on various topics to our sites worldwide

**2,678** employees participated in EHS training

Establishment of the **EHS Transformation Subcommittee** within the Manufacturing Excellence Council

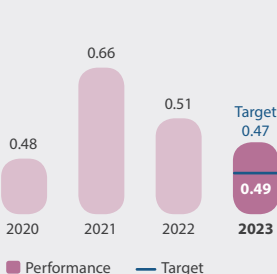
## Total Recordable Injury Rate: TRIR

(cases per 200,000 man-hours)



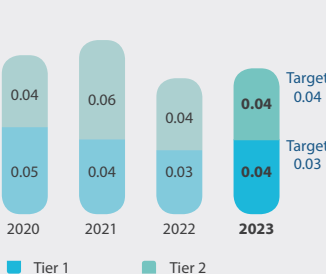
## Lost Time Injury Frequency Rate: LTIFR

(cases per 200,000 man-hours)



## Process Safety Event Rate

(events per 200,000 man-hours)



## Targets

### LTIFR

(cases per 200,000 man-hours)

**< 0.5\* by 2025**

\* 2025 target has been revised to 0.46, as the 2023 performance has already surpassed it.

### Performance

**0.49 cases**

per 200,000 man-hours

# SUPPLY CHAIN MANAGEMENT



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## Sustainable Supply Chain Program

### Responsible Sourcing Policy

- A policy is designed to integrate and ensure sustainability criteria and compliance throughout our supply chain, including but not limited to, business ethics, human rights, diversity and equity, health and safety, as well as environment and climate protection, which covers energy, water, greenhouse gases, waste, biodiversity, and the fair treatment of stakeholders.
- It is applicable to suppliers and their employees, parent companies, subsidiaries, affiliated companies, and subcontractors.

### Supplier ESG Assessment

Two-pronged approach - Direct engagement led by procurement and sustainability leaders, and indirect engagement through third parties, such as EcoVadis, TFS, and others.

### Objectives for Supplier Engagement

- Product Carbon Footprint Management
- Compliance Management
- Capacity Building on ESG criteria and requirements

## 2023 HIGHLIGHTS



**Awarded a Platinum Medal and placed in the Top 1%** of the best performing companies in sustainability assessments



TOGETHER FOR  
SUSTAINABILITY

Joined **Together for Sustainability (TFS)** to drive sustainable solutions with in our supply chain

### 2024 KPIs for Supplier Assessment and Audit

- **366** suppliers to be assessed through EcoVadis
- **7** suppliers to have onsite 3<sup>rd</sup> parties audit



### 2023 Gold Business Partner Award

Petform (Thailand) Limited, a subsidiary of Indorama Ventures was honored with the 2023 Gold Business Partner award by its customer, Thai Beverage Public Company Limited, highlighting our strong partnership and shared commitment to consumer value and industry sustainability.



### 2023 Pirelli Supplier Award

In 2023, the Fibers team at Indorama Ventures received the Pirelli Supplier Award for their exceptional service level. This recognition underscores our commitment to continuous support and collaboration on innovation and development projects, the high quality and consistency of delivered products, and our global presence, particularly in Single End Cord (SEC) production.

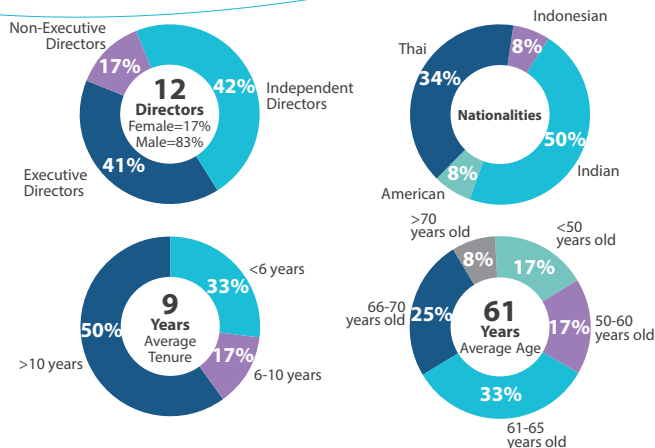


# ROBUST GOVERNANCE

- 28 Corporate Governance and Business Ethics
- 29 Innovation and Product Stewardship
- 30 Performance Excellence Award



# CORPORATE GOVERNANCE AND BUSINESS ETHICS



## 74 Reports Received through Whistleblower Reporting Channels

Environment, Health and Safety	5 reports	7%
Conflict of Interest	5 reports	7%
Corruption or Bribery	4 reports	5%
Human Rights - Harassment	12 reports	16%
Human Rights - Discrimination	2 reports	3%
Human Rights - Unfair Termination	14 reports	19%
Miscellaneous	8 reports	11%
Money Laundering or Insider Trading	0 report	0%
Not qualified as Whistleblower Cases	24 reports	32%

Of these 50 were qualified as whistleblower cases – 16 were substantiated complaints, 14 were unsubstantiated complaints, five lacked sufficient information to start an investigation and 15 are still under investigation.

## Corporate Governance Policy Awareness Campaign (CGPAC) Implementation Report 2023

**88%** of all employees attended the Corporate Governance Manual Training in the past 3 years

**77%** of all sites achieved full training coverage in 2023

**100%**  
Independent Directors on the NCCG and Audit Committees

Directors on the Nomination, Compensation and Corporate Governance (NCCG) and Audit committees are **fully independent**.



**A score of 100%** for the 2023 Annual General Meeting of shareholders, judged by the Thai Investors Association. This was our the 12<sup>th</sup> consecutive year with a full score.

## 2023 HIGHLIGHTS

**NO** material cases or incidents of corruption or bribery

**NO** legal cases involving corruption or anti-competitive practices concerning the company or our employees

**NO** material litigation against the company or our subsidiaries that negatively impacted our business

**NO** penalties imposed for material non-compliance



Indorama Ventures received an **"Excellent - 5 Star" CG score** by the Thai Institute of Directors (IOD) for the 11<sup>th</sup> consecutive year. We have also earned a place among the **"Top Quartile Companies"** for the first time in the category of companies with a market capitalization exceeding 10,000 million baht.

# INNOVATION AND PRODUCT STEWARDSHIP



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## Indovinya Won Kurt Politzer Technology Award

Sustainable chemical solutions: **OXISENSE® H 1000** is a hydrotrope derived from vegetable sources, 100% renewable, and safe for human health and the environment.

In the field of cleaning products designed for heavy cleaning and degreasing applications, **formulations are based on mixtures of non-ionic surfactants with high levels of alkaline electrolytes**. Developing such formulations presents the challenge of ensuring compatibility among these ingredients to achieve a stable system.

With OXISENSE® H 1000, Indorama Ventures invested in the development of a product with several environmentally friendly properties:

- It is **simultaneously cold processable** (leading to energy savings).
- It is **water-free** (contributing to water savings).
- It is **free from phosphates and any other phosphorus derivative** (avoiding eutrophication).



## World-First Sustainable PET Sparkling Wine Bottles



- Developed and designed by SIPA and made from Indorama Ventures' bottle resin and OxyClear® barrier, **helping the European wine industry address a glass shortage**.
- The award-winning PET packaging solution for sparkling wine provides brands with a **fully recyclable option that maximizes logistics efficiencies, minimizes handling risks, runs on existing glass-filling lines, and has a lower carbon footprint**.
- OxyClear® PET wine bottles offer the **same benefits and functionality of glass, even after 24 months in storage at 15 degrees**.



## New Sustainable Solution Based on 100% Recyclable Polyester, to Replace Car Seat Foam



Auraloop: a new sustainable and innovative solution from Faurecia and Indorama Ventures, based on **100% recyclable polyester, designed to replace traditional car seat foam**.

It not only meets the dynamic new market for car seats with improved performance and comfort, but also embraces sustainability by **integrating materials that combine comfort with the circular economy into future vehicles**.

- **Enhanced seating comfort:** a more open fiber structure and permeability for air than current seating pad solutions.
- **Improved breathability:** the seating facilitates superior passive thermal regulation for occupants.
- **Increased durability:** the seating's resilience is sustained by limited subsidence over its lifetime.

# PERFORMANCE EXCELLENCE AWARD



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For the rewards system, we offer the **Indorama Ventures Performance Excellence Award 2024**, a significant initiative aimed at sustaining and improving employee engagement, as well as motivating our employees to achieve exceptional results. This award recognizes stellar performance across three criteria: Financial Performance, Operational Performance, and Sustainability Performance. The top-performing business units are identified by benchmarking their performance across these criteria, while cash incentives are also provided to employees of these standout units to recognize their excellent teamwork.

## Fibers Winner



Avgol Industries 1953 Ltd. (Dimona), Israel

## Indovinya Winner



Oxiteno S.A. Indústria e Comércio (Tremembé), Brazil

## PET Winner



IVL Dhunseri Polyester Company S.A.E., Egypt

## Packaging Winner



Indorama Ventures Packaging (Myanmar) Limited, Myanmar

## Recycling Winner



Indorama Polyester Industries Public Company Limited (Nakhon Pathom), Thailand

## Aromatics Winner



Indorama Petrochem Limited (PTA) – Rayong, Thailand

# DATA REPORTING, VERIFICATION AND REPORT ASSURANCE

This report was prepared in adherence with the **Global Reporting Initiative (GRI) standards** core option and the **International Integrated Reporting Council (IIRC)**'s International Integrated Reporting Framework 2021.

**100% Reporting Certification and Assurance** in accordance with the GRI Standards, Framework and AA1000AS by an independent auditor.

**100% GHG Accounting, Verification and Assurance** in accordance with **ISO 14064-1** and **ISO 14064-3** by an independent auditor.

## CONTACTS AND FEEDBACK



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Sustainability Report 2023



Annual Report 2023  
(Form 56-1 One Report)



Indorama Ventures - ESG Profile



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**INDORAMA**  
VENTURES

**Celebrate with us!**

Since 2011, we have ACHIEVED

**100**  
**billion**  
**PET bottles**

Recycled on  
25 September 2023 and Counting

With a total reduced  
GHG emission of  
**2.9 million tons**

**Recycling**

Since 2011 until now, we recycled

**1 0 0 0 0 0 0 0 0 0**

BOTTLES

As of 25 September 2023 @ 10:00



Please visit our website for  
The real-time bottle recycling counter

## SUSTAINABILITY REPORT EXECUTIVE SUMMARY 2023

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THIS SUSTAINABILITY REPORT  
WAS PRINTED ON ECO-FRIENDLY PAPER (PS GREEN).  
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