

**Sustainability Report Executive Summary 2024** 

# Accelerating Sustainable Impact



**Indispensable Chemistry** 



### Key Sustainability Recognitions and Awards in 2024







Achieved the 99th percentile with a Platinum Medal for the 3rd time among assessed basic chemical companies





Ranked 3<sup>rd</sup> in the chemicals sector, placing in the 98<sup>th</sup> percentile secured its listing in the Dow Jones Best-in-Class World and Emerging Markets indices for the 6<sup>th</sup> and 8<sup>th</sup> consecutive years, respectively.



Achieved an AA rating for the first time in 2024



Ranked 1st in the FTSE4Good Index Series (ESG score 4.6 out of 5) for the 6th time



Achieved an ESG rating in the 9<sup>th</sup> percentile among 580 companies in the chemical industry (lower percentile indicates better performance)



Achieved a "B" rating in the CDP's Climate Change Assessment



Ranked 3<sup>rd</sup> with a B rating in the 2024 ChemScore assessment among 51 global chemical companies



Achieved a total score of 91 with an AAA rating,

surpassing the average score of 87 for companies with a market capitalization exceeding \$ 100 billion



Received the "Honorable" Sustainability Disclosure Award 2024 for the 6<sup>th</sup> consecutive year

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### **Deputy Group CEO Message**

"As we step into 2025, we remain committed to driving sustainable growth, leveraging our resilience and focus on innovation to create long-term value. IVL 2.0 is not just a strategy—it is a blueprint for positioning us as a leader in the evolving global economy."

Obgs

#### **DILIP KUMAR AGARWAL**

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



# Chairman of the ESG Council Message



**Chief Sustainability Officer Message** 





"By investing in decarbonization, circularity, and our passionate team, we are reimagining the very possibilities of how our business can create shared value for generations to come."



"Value creation is about resilience, adapting to change, embracing new technologies, and aligning environmental, social, and governance goals to create a lasting impact."

#### **YASH LOHIA**

- · Chairman of the ESG Council
- · Member of the Sustainability and Risk Management Committee
- · Executive President of Petchem

ANTHONY M. WATANABE, PH.D.

Chief Sustainability Officer

### **2025 Way Forward**

### Our growth journey and strategic vision



### 2025 onwards



Portfolio & Market Position

- Optimized footprint and asset quality
- Selective portfolio actions



**Value Chain Integration** 

- Cost leadership with sustainability
- Partnerships/Alliances



Sustainability, Innovation, and Circularity

- Advanced recycling and bio-based solutions
- Next-level R&D



**Operating Model** 

 Unified, agile, knowledge-led, Integrated Business Planning (IBP)

# Sustainability Value Creation through "INNOVATE TO 28"



FOR MORE

Looking ahead, our "INNOVATE TO 28" sustainability strategy serves as a three-year strategic roadmap to strengthen key sustainability initiatives while transforming others—all designed to drive value creation for Indorama Ventures.

The goal is to embed a sustainability mindset across operations, human capital, customer satisfaction, innovation, and the supply chain. Additionally, pioneering investments in decarbonization, advanced recycling technologies, biomass, and circular feedstocks—supported by an innovation system for startups—are essential to maintaining our leadership in sustainability and shaping our future as an industry trailblazer.



2026

### **Educate**

Expand our workforce from a 20-person corporate sustainability team to a network of 26,000 global sustainability champions.

2027

### **Calibrate**

Realign project structure, targets, and leadership KPIs to drive world-class sustainability performance. 2028

### **Motivate**

Increase engagement by leveraging data-driven communication to amplify our ambitions, showcasing incentives, market potential, and ESG opportunities.

### **Objectives**

- √ Embedding a sustainability mindset
- ✓ Driving pioneering investments/building an innovation landscape
- ✓ Advancing our leadership in sustainability
- ✓ Positioning ourselves as a transformational industry leader

### **About Indorama Ventures**



### At a Glance

Adjusted EBITDA Adjusted EBITDA<sup>1</sup> Revenue Adjusted ROCE Margin \$ 1.5 B \$ 15.4 B 7% 10% **Americas** Asia<sup>2</sup> **EMEA** 36 45 36 Manufacturing Manufacturing Manufacturing locations locations locations 9 18 Countries Countries Countries 50% 21% 29% Revenue Revenue Revenue <sup>1</sup> Total of each segment may not always tally with consolidated financials due to holding segment.

28,154<sup>3</sup>
Total
Employees

24.73% Female

117<sup>4</sup> 5 31 24 26

Manufacturing Continents Countries Recycling R&D facilities centers

- <sup>3</sup> This number includes both permanent and temporary employees.
- <sup>4</sup> The Sustainability Report 2024 consists of data from 150 sites. Further details can be found in the full Sustainability Report 2024 (under "About this Report").

### **Our Differentiation**

- 1 70% of our products serve daily necessities.
- Leadership positions across all major markets and products we manufacture.
- **3** Best-in-class management.
- **4** A world-class digital and AI platform.

<sup>2</sup> Asia included Egypt in 2024.

### **Performance in Our Sustainability Ambitions**



FOR MORE INFORMATION

2024 Progress 1,112,958 people reached (2018-2024)

### CIRCULAR ECONOMY EDUCATION

Educate **1,000,000 people globally** about recycling by 2030

#### GHG\*

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

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

FNFRGY\*

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

2024 Progress

4.49% reduction

2024 Progress

+4.09% intensity increase

2024 Progress **LTIFR = 0.39** 

OCCUPATIONAL HEALTH & SAFETY

**LTIFR** (cases per 200,000 man-hours) < **0.5** by 2025

< **0.1** by 2023

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.



INDORAMA V E N T U R E S

Contributing to the
SUSTAINABLE
DEVELOPMENT
GOALS

WATER\*
Reduction

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

2024 Progress

6.44% reduction

2024 Progress **2.86%** 

### RENEWABLE ELECTRICITY CONSUMPTION

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





#### WASTE

90% waste diverted from landfill by 2025/2030

2024 Progress

71%

2024 Progress
Bio-based feedstock:

**1.50%** against our external feedstock

Recycled feedstock (Post-consumer PET bale input):

**4.94%** 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

#### 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

2024 Progress **396,666** tons **26.4** billion bottles

\* Base vear 2020

### **Indorama Ventures' Key ESG Highlights 2024**

### **Environment**





**Total Energy Consumption 121.5** million GI

\_\_\_\_\_

**Total Energy Intensity** 

**7.43** GJ/ton of production

Total Renewable Energy Consumption

1.34 million GJ

Total Renewable Electricity Consumption

2.86%



**Hazardous Waste Intensity** 

**0.0079** tons/ton of production

Waste Diverted from Landfill\*

71%

st Including waste incinerated with energy recovery.



**Total Water Withdrawal Intensity** 

**4.94** m³/ton of production

Total Recycled/Reused Water

7.16%



GHG Emissions (Scope 1) Intensity

**0.4264** tCO<sub>2</sub>e/ton of production

GHG Emissions (Scope 2) Intensity\*\*

**0.1591** tCO<sub>2</sub>e/ton of production

GHG Emissions (Scope 1&2) Intensity\*\*

**0.5855** tCO<sub>2</sub>e/ton of production

\*\* Market-based



### Recycling



Recycling of Post-Consumer PET Bale Input

396,666 tons

**2,655,175** tons (From 2011 to Dec 2024)

**Equivalent to** 

**26.4** billion PET bottles

**135** billion PET bottles (From 2011 to Dec 2024)



# Circular Feedstocks



Bio-based Feedstock

1.50%

against our external feedstock



Recycled Feedstock (Post-consumer PET bale input)

4.94%

against our PET feedstock





#### **Human Resources**

**Total Employees\*** 

28,154

\* This number includes both permanent and temporary employees.

Female

24.73%

**Employee Net Promoter Score** 

75.01% (NPS)

**Average Training** 

23.11 hours

Total Employee Turnover Rate 13.90%

### Corporate Social Responsibility

**Total CSR Contribution** 

USD 2.2 million

527

CSR activities conducted

**Circular Economy Education** 

1.1 million people reached (2018-2024)

### **Health and Safety**

**Total Recordable Injury Rate: TRIR** 

0.60

cases per 200,000 man-hours

Lost Time Injury Frequency Rate: LTIFR

0.39

cases per 200,000 man-hours

**Total In-Kind Support** 

USD **426,350** 

8,843

Volunteer hours

USD **69,097** 

allocated to overhead management





FOR MORE

#### **Financial Highlights**

**Total Production Volume** 

**14.04** million tons

**Consolidated Revenues** 

**USD 15.36** billion

Adjusted EBITDA

USD **1,522** million

Adjusted Net Profit after Tax and NCI

USD 175 million

**Operating Cash Flow** 

USD 996 million

Adjusted Earnings per Share

THB **0.88** 

AA-

TRIS Rating

#### Customer Satisfaction Study\*

84.55%

Customer Satisfaction Index (CSI)

86.68%

Customer Retention Rate (CRR)

46

Net Promoter Score (NPS)

\*A formal customer satisfaction study is conducted every other year as part of our group sustainability strategy. The latest study was conducted in 2024.



Corporate Governance Policy Awareness Campaign (CGPAC) Implementation

80%

**Employee Attendance** 

Human Rights Declaration

**100%** 

Signed by Business Heads and Site Heads



### Indovinya **Key ESG Highlights 2024**

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

### 2024 Performance



Revenue

\$ 0.4 B

Adjusted EBITDA

14% Adjusted EBITDA Margin



64% Operating Rate

### **Market Leadership**



Non-ionic surfactants producer in the Americas

#1

Fabric and home care ingredients provider in the Americas

Ethoxylation company globally

### 543

Patents (Cumulative until 2024)

\$ 21.30 million **R&D** Spending

207 **R&D** Employees

R&D Centers

### Satisfaction\*

### 83.99%

Customer Satisfaction Index (CSI)

### 83.29%

Customer Retention Rate (CRR)

### 44

Net Promoter Score (NPS)

### **Health and Safety**

### **Total Recordable Injury Rate: TRIR**

0.16

cases per 200,000 man-hours

### **Lost Time Injury Frequency Rate: LTIFR**

0.06

cases per 200,000 man-hours

#### **GHG Emissions**

0.6811 tCO\_e/ton of production Scope 1 intensity

**0.0491** tCO<sub>3</sub>e/ton of production Scope 2 intensity\*

**0.7302** tCO<sub>2</sub>e / ton of production Scope 1 & 2 intensity\* \* Market-based

### **Energy**

10.95 GI/ton of production Intensity

0.51%

Renewable electricity

#### Water

6.79 m³/ton of production Intensity

#### Waste

72.67%

Waste diverted from landfill\*\*

\*\* Including waste incinerated with energy recovery

<sup>\*</sup> A formal customer satisfaction study was conducted every other year as part of our group sustainability strategy. The latest study was conducted in 2024.



### Combined PET (CPET) Key ESG Highlights 2024

### **2024 Performance**



**\$ 10.3 B**Revenue



**\$ 1.0 B**Adjusted EBITDA



10% Adjusted EBITDA Margin



**82%**Operating
Rate

### **Market Leadership**

#1

PET producer globally #1

rPET\* producer globally

\* Recycled PET

The only shale-integrated player in the West.

Packaging leadership in emerging markets.

#### **Innovation**

### 80

Patents (Cumulative until 2024)

### \$ 2.87 million R&D Spending

**18** R&D Employees

3

R&D Centers

### Customer Satisfaction\*

### 85.40%

Customer Satisfaction Index (CSI)

### 89.31%

Customer Retention Rate (CRR)

### **51**

Net Promoter Score (NPS)

\* A formal customer satisfaction study was conducted every other year as part of our group sustainability strategy. The latest study was conducted in 2024.

### **Health and Safety**

### **Total Recordable Injury Rate: TRIR**

### 0.52

cases per 200,000 man-hours

### Lost Time Injury Frequency Rate: LTIFR

#### 0.29

cases per 200,000 man-hours

### **Environment**

#### **GHG Emissions**

**0.3317** tCO<sub>2</sub>e/ton of production Scope 1 intensity

**0.1286** tCO<sub>2</sub>e/ton of production Scope 2 intensity\*

**0.4603** tCO<sub>2</sub>e/ton of production Scope 1 & 2 intensity\* \* Market-based

#### **Energy**

**5.75** GJ/ton of production Intensity

### 3.06%

Renewable electricity

#### Water

**3.85** m³/ton of production Intensity

#### Waste

### 58.62%

Waste diverted from landfill\*\*

\*\* Including waste incinerated with energy recovery



### **Fibers Key ESG Highlights 2024**

### 2024 Performance



\$3.2B Revenue

5

\$ 0.2 B Adjusted EBITDA



5% Adjusted EBITDA Margin



69% Operating Rate

### **Market Leadership**

Lifestyle #1

Hygiene #2

#2

#2

in PET staple fiber ASEAN

in BiCO fiber

in airbag yarn

in tire cord fabric

### Customer

### 44

Patents (Cumulative until 2024)

\$ 8.50 million **R&D** Spending

105

**R&D** Employees

16

R&D Centers

### Satisfaction\*

Mobility

### 84.02%

Customer Satisfaction Index (CSI)

### 86.28%

Customer Retention Rate (CRR)

### 42

Net Promoter Score (NPS)

### **Health and Safety**

### **Total Recordable Injury Rate: TRIR**

0.86

cases per 200,000 man-hours

### **Lost Time Injury Frequency Rate: LTIFR**

0.62

cases per 200,000 man-hours

#### **Environment**

#### **GHG Emissions**

**0.4673** tCO<sub>a</sub>e/ton of production Scope 1 intensity

**0.5703** tCO<sub>2</sub>e/ton of production Scope 2 intensity\*

1.0377 tCO<sub>2</sub>e/ton of production Scope 1 & 2 intensity\* \* Market-based

#### **Energy**

10.24 GI/ton of production Intensity

3.41%

Renewable electricity

#### Water

7.62 m³/ton of production Intensity

#### Waste

92.51%

Waste diverted from landfill\*\*

\*\* Including waste incinerated with energy recovery

<sup>\*</sup> A formal customer satisfaction study was conducted every other year as part of our group sustainability strategy. The latest study was conducted in 2024.



# Protecting Our Planet through Climate Adaptation











Readiness and Capacity
Building
(2024–2025)



**Phase** 



Phase

## Implementation (2027)



### Key actions:

 Train 60% of leaders through the Climate Adaptation Academy Course

- Conduct preliminary vulnerability assessments for 12 key locations
- Utilize industry-leading risk tools and historical disaster records

### **Key actions:**

**Planning** 

(2026)

- · Identify high-risk locations
- Collaborate with site heads to formulate adaptation plans
- Target full plan completion by Q2 2026

### Key actions:

Phase 3

- Implement adaptation and resilience-building initiatives
- Monitor effectiveness and adjust measures based on findings

### **2024 HIGHLIGHTS**

We have strengthened resilience against disasters and extreme weather across our operations. Indorama Ventures Xylenes & PTA has implemented tornado preparedness measures, including severe weather protocols, emergency teams, and routine drills. Indorama Ventures Polímeros has enhanced wildfire risk management with emergency procedures and reinforced fire suppression systems. IVL Dhunseri Polyester Company S.A.E. has addressed water scarcity with a new Reverse Osmosis (RO) system to optimize water use. Indorama Polyester Industries (Nakhon Pathom) has implemented a flood emergency plan, protective barriers, and employee support.

### **GHG Management**



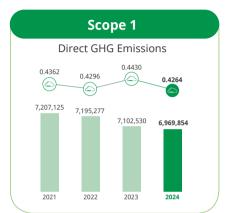


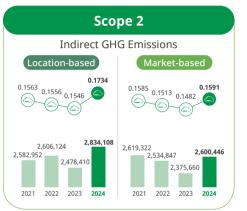


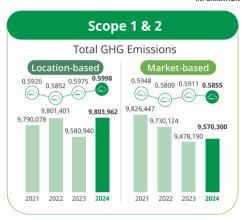


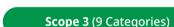












- Purchased Goods and Services (including Nitrogen)
- · Capital Goods

GHG emissions (tCO<sub>2</sub>e)

 Emissions from Electricity (T&D, WTT) and Fuels (WTT)

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

- · Upstream Transportation
- Waste
- · Business Travel
- Employee Commuting
- · Downstream Transportation
- Use of Sold Products



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

#### **Targets**

**10%** by 2025 and **30%** by 2030

\* Scope 2 intensity (market-based)

#### **Performance**

In 2024, we recorded an intensity of  $0.5855~{\rm tCO_2e/ton}$ , showing a 4.49% reduction against the 2025 target.

### **2024 HIGHLIGHTS**

**GHG** emissions for Scopes 1, 2, and 3 (9 categories) were 100% verified by an external auditor.

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

### **Energy Management**



77.87%

Natural gas



62.26%

Purchased

electricity



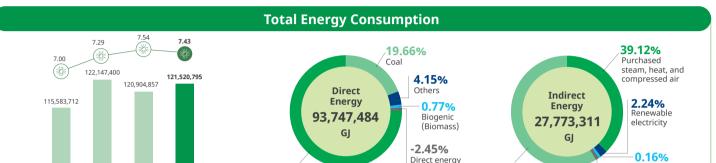






Purchased cooling.

chilled water





### Energy Intensity (2020 Baseline)

2022

2023

### Targets

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

2021

Total Energy consumption (GJ)

### Performance

In 2024, we recorded an energy intensity of **7.43** GJ/ton, reflecting a **4.09%** increase against the 2025 target.

### Renewable Electricity Consumption

### **Targets**

2024

- Intensity (GI/ton of production)

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

### Performance

In 2024, we consumed **2.86%** renewable electricity of total electricity consumption.

### HIGHLIGHTS From 2012 to 2024

**17** Onsite/Offsite solar installations

**148,459 MWh** of solar-based renewable electricity generated and used in plants.

**105,680** tCO₂e of total cumulative GHG reduction from renewable electricity consumption.

Indorama Ventures' CPET Packaging team in Ghana has launched its first sustainability initiative by installing a 1,000 kW rooftop solar power generation unit. Expected to generate 1.3 million units of clean energy annually and reduce GHG emissions by 394.68 tCO₂e per year, the installation optimizes space, reduces energy costs by 12%, and reinforces our commitment to sustainability goals.

-3.78%

sold

Indirect energy

### **Waste Management**







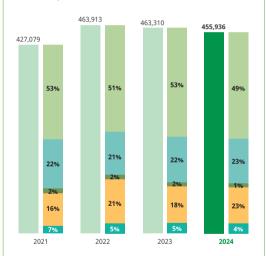






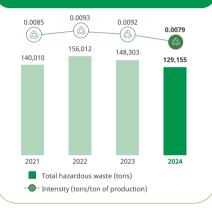
#### **Total Waste**

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**



# 10

### Waste Diverted from Landfill\*

### Target

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

### Performance

In 2024, **71%** of our waste was diverted from landfill.

\*Including waste incinerated with energy recovery.

### **2024 HIGHLIGHTS**

Total waste intensity **0.0279** tons/ton of production

**49%** of total waste was recycled and reused

**23%** of total waste went to incineration with energy recovery

### Reducing Flake Losses in the rPET Line

Indorama Ventures Sustainable
Solutions Brazil implemented
a waste reduction initiative in the rPET
production line by minimizing
"good flakes" in the metal reject
stream, aiming to reduce losses from
6.5% to 0.5%. The team addressed this
issue by adjusting detector sensitivity,
enhancing cleaning routines, conducting
loss audits, and installing magnetic grids.
As a result, flake losses dropped to
0.98% within six months, leading to an
average savings of 75 tons of flake per
quarter and an estimated annual cost
savings of \$ 135,000.

### **Water Management**



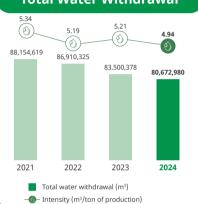




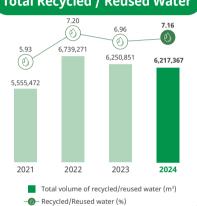








### **Total Recycled / Reused Water**



### **Water Intensity Reduction** (2020 Baseline)

### Targets

10% by 2025 and 20% by 2030

#### Performance

In 2024, we recorded a water intensity of 4.94 m<sup>3</sup>/ton of production, showing a **6.44%** reduction against the 2025 target.

### 2024 HIGHLIGHTS

### 6 sites have achieved Zero Liquid Discharge

- Avgol Nonwovens India Private Limited (Halol site)
- Indorama Petrochem Limited (PET)
- PT. Indorama Ventures Indonesia (PET)
- PT. Indorama Ventures Indonesia (Fibers)
- Schoeller Kresice s.r.o
- IVL Dhunseri Petrochem Industries Private Limited (Karnal site)

### **Wash Line Water Consumption Reduction**

Wellman Neufchateau Recyclage S.A. reduced wash line water consumption by 30% through prewash water recycling, optimizing washing water reuse, repairing leaks, minimizing autocleaning water use, and enhancing process monitoring. These efforts saved 34,503 m³ of water and € 600,000 annually, improving operational efficiency, sustainability, and long-term water conservation while maintaining production quality.

### Circular Economy-Recycling















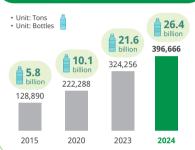




going to landfill







### Recycling Commitment

#### **Targets**

- Post-consumer PET bale input per year: **0.75** million tons by 2025
- · Post-consumer bottles recycled per year: **50 billion** by 2025

#### **Performance**

- Post-consumer PET bale input: **0.40 million tons** in 2024
- · Post-consumer bottles recycled: **26.4** hillion PET bottles in 2024

Recycled 135 billion post-consumer PET bottles\* RECYCLING Reduced 2011- 2024 3.6 million tons \* As of 31 Dec 2024 of carbon footprint from the product lifecycle **Prevented** 2.6 million tons of plastic waste from

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 and December 2024. Weighting will be referenced to the International Bottled Water Association.

### **CELEBRATE WITH US**

As of 31 December 2024, we have successfully recycled 135 billion post-consumer PET bottles (since 2011)—and the number is still growing.

### Recycling From 2011 until now, we have recycled 350000000000000 BOTTLES As of 31 December 2024 Rillion Thousand

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

### 2024 HIGHLIGHTS

- Towards our ambitious target of recycling 1.5 million tons annually by 2030—we achieved 852,581 tons of bale input capacity in 2024.
- Indorama Ventures' Specialty Polymers team in Germany (IVPG) has successfully produced polymer with 30% enhanced recycled PCR content derived from colored PET bottles on a Continuous Polymer (CP) line. This achievement represents a significant milestone in advancing sustainable recycling technology.

# Advanced Technologies and Bio-Feedstocks













Indorama Ventures Investments & Holding (IVIH), a fully-owned subsidiary, was established with a mandate to achieve our Vision 2030 ambitions.

### **2024 HIGHLIGHTS**

**40+**Circularity
opportunities

including those we have identified to deliver drop-in recycled feedstocks derived from hard-to-recycle polyester-based waste (i.e., waste that would otherwise be landfilled or incinerated) or other plastic waste.

**30+** Low-carbon opportunities including those we have identified to deliver drop-in bio-based or  $CO_2$ -based feedstocks (such as bio-based or  $CO_2$ -based polyester precursors).

#### **ISCC Plus**

We became a member of the International Sustainability & Carbon Certification (ISCC) and hold 10 ISCC Plus certificates at 10 sites in Europe, Asia, and Brazil.

The ISCC is a certification system that offers solutions for the implementation and certification of sustainable, deforestation-free and traceable supply chains for agricultural, forestry, waste and residue raw materials, non-bio renewables and recycled carbon materials and fuels.



### Indorama Ventures joins the world's first¹ supply chain established for more sustainable polyester fiber

Renewable and bio-based materials, as well as materials produced via carbon capture and utilization (CCU para-xylene)² will be used in the manufacturing of polyester fibers for THE NORTH FACE brand in Japan, instead of fossil-based materials. Alongside Indorama Ventures representing Thailand, the project parties involved in the pilot are Goldwin (the project owner), Mitsubishi Corporation, Chiyoda Corporation (all three from Japan), SK geocentric (South Korea), India Glycols (India), and Neste (Finland).

- <sup>1</sup> This refers to the first time CCU para-xylene (direct synthesis from CO<sub>2</sub>) is applied as well as the first time polyester is made without the use of fossil materials, through collaboration among upstream material companies and a downstream apparel company through mass balancing, according to the companies' research.
- <sup>2</sup> Regarding the production of para-xylene derived from CO<sub>2</sub> as a raw material, the University of Toyama, HighChem Company Limited, Nippon Steel Engineering Co. Ltd., Nippon Steel Corporation, Chiyoda Corporation and Mitsubishi Corporation were awarded a NEDO project in 2020 (New Energy and Industrial Technology Development for Carbon Recycling and Next-Generation Thermal Power Generation/Technology Development for CO<sub>2</sub> Emission Reduction and Effective Utilization" and are conducting joint research and development. This project aims to supply CO<sub>2</sub>-derived para-xylene on a trial basis, which has been produced during the operation of a pilot plant installed at Chiyoda Corporation's Koyasu Research Park since March 2022.





### **CSR** at a Glance



















Our commitment to creating social value continues to drive meaningful change, aligning with business objectives and stakeholder expectations to build a more sustainable and resilient future. In 2024, we are proud to have reached new milestones, achieving our global CSR targets across three focus areas:





Educate **1,112,958** individuals on recycling and circular economy principle (since 2018)

### **COMMUNITY CARE**



Enable **141,439 local residents** through community-based development program (since 2020)

### **ENVIRONMENT**



Collect **120** tons of post-consumer PET bottles for recycling to protect and conserve the environment (since 2020)

### **JOURNEY OF ACHIEVEMENTS**

### **2024 Social Contributions**

Total amounts to a \$ 2.2 million investment

\$ 1,717,755 in cash contributions \$ 426,350 worth of in-kind support \$ 69,097 allocated to overhead management



**527** CSR activities conducted across the globe

**8,843** volunteer hours contributed; engaging more than **1,100** employees



We are reaching new heights with ambitious targets for 2025, further reinforcing our commitment to creating lasting social impacts.







### **Awards and Recognitions**

For the third consecutive year, we are honored to be recognized by the American Chamber of Commerce in Thailand (AMCHAM) for our commitment to impactful, sustainable community initiatives and Corporate Social Responsibility (CSR).

### **Success with Purpose: Global Impact Creation**























learning.

117 initiatives

Equipped over 400,000 students with

through education and hands-on

Empowered 13,840 educators across

resources, driving sustainability

Provided 6.800 students across six

quality education, and essential

professional skills.

education on a global scale.

knowledge and skills to drive recycling,

the circular economy, and sustainability

150 countries with our recycling teaching

### Knowledge



**Community** Care

### 334 initiatives

- Supported over 25 associations and foundations, improving the lives of over 4,600 vulnerable individuals.
- Improved the well-being of 10,270 people through community health programs.
- Promoted entrepreneurship and income generation in 10 communities, benefiting over 530 individuals.
- Promoted diversity and social inclusion through 68 cultural engagement events.



### **Environment**

### **76** initiatives

- Recycled 1.35 million post-consumer PFT hottles from communities and the environment, reducing approximately 30 tons of CO<sub>2</sub> emissions.
- Empowered 10 communities to adopt better waste management practices, driving lasting behavioral change in waste segregation.
- Conducted 14 ecological restoration initiatives across 10 locations. enhancing biodiversity and promoting sustainable green environments.

### across four countries in STEM education and innovation.

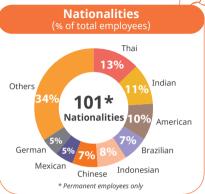
Engaged 6,686 students from 21 schools

countries with learning opportunities,

### **Investing in Our People**

























#### Nurturing the next generation of leaders

To anchor sustained quality of next-generation leadership. in tandem with building our young talent pipeline through successor planning, a new Indorama Ventures' Future Leaders Program was launched in 2023 and continued in 2024. The program is targeted at accelerating the development of young leaders through a comprehensive 12-month development journey.



The program received a Gold Award for Excellence in 2024 in the Best Leadership Development Program category, which recognized the commitment, investment, and delivered value in leadership development.

We will continue to leverage the program to nurture the next generation of leaders.



Indorama Ventures won the Golden **Globe Tigers Award for Best in Training** and Organizational Development, reflecting our effort to create a culture of continuous learning, innovation, and sustainability. Our "DNA of Knowledge" promotes collaboration, knowledge sharing, and strong global expertise to enhance competitiveness.



We proudly received the Bronze Award for Excellence in Employee Advocacy and Brand Ambassadors at the 4th Human Resources Excellence Awards 2024. underscoring our commitment to redefining corporate excellence. We are a driving force, reshaping industry standards and leaving a lasting global impact.

### **2024 HIGHLIGHTS**

73.91% employee engagement (actively engaged employees)

**75.01%** Employee Net Promoter Score (NPS)

**47.94%** of our employees was covered by collective bargaining agreements

**597,519** total training hours

**23.11** average training hours per employee

### **Health and Safety**

















### **Total Recordable Injury Rate: TRIR**



### **Lost Time Injury** Frequency Rate: LTIFR



### **Process Safety Event Rate**

(events per 200,000 man-hours)



### 2024 HIGHLIGHTS

**55%** of our sites (83 out of 150) achieved zero recordable injuries

17% decline in environmental permit exceedances

66% decrease in notices of violation received

Almost 2 times increase in global and regional training hours compared to 2023, reaching over **1,260** employees worldwide

### Global EHS leadership boot camp

We launched the first global **EHS Leadership Boot Camp,** engaging 155 leaders across all regions with 56 hours of training on Safety Culture, Process Safety Management, Industrial Hygiene, and Crisis Management. This initiative introduced 360-degree assessment to align leadership behaviors with EHS excellence, continuing into 2025.

### EHS audit program

In 2024, we conducted 22 Corporate EHS audits, focusing on site compliance and maturity evaluations. Of the identified findings, 75% of the corrective actions were completed within the year. Since the program's inception in 2022, we have audited 45% of our operational sites.

### **Enhancing EHS management** with new digital tools

We rolled out Management of Change (MOC) and Industrial Hygiene (IH) modules in our EHS management software. Additionally, a new software was deployed to standardize and optimize Process Hazard Analyses (PHA). These software tools provide custom dashboards and reports that transform raw data into actionable insights.



### Target

**LTIFR < 0.5\* by 2025** (cases per 200,000 man-hours)

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

#### Performance

0.39 cases per 200,000 man-hours

### **Human Rights**

















### **Commitment to Human Rights**

At Indorama Ventures, we firmly uphold human rights and dignity, strictly prohibiting all forms of slavery and human trafficking across our operations and supply chain. Our **Human Rights Policy** and **HRDD framework** are aligned with:

- The Universal Declaration of Human Rights (UDHR)
- The United Nations Guiding Principles on Business and Human Rights (UNGPs)
- The ILO Declaration on Fundamental Principles and Rights at Work



### Human Rights Due Diligence (HRDD)

- Assessing actual and potential issues and impacts by reviewing issues from countries at risk, peers' risks, and our company's risk profile
- Integrating and acting upon the findings and taking appropriate action to further minimize the impact and strengthen the process
- Tracking responses based on appropriate indicators to ensure continual improvements by further engaging stakeholders and implementing corrective actions
- Communicating how impacts are addressed by disclosing our human rights performance annually through sustainability reports and the company's website



### **Human Rights Training and Awareness**

- The Corporate Governance Policy Awareness Campaign (CGPAC) team conducted onsite and online training sessions on Human Rights Policy to our employees across local and international sites.
- The training emphasizes employees' roles in preventing human rights violations and understanding reporting mechanisms for non-compliance.

### 2024 HIGHLIGHTS

100% human rights risk assessments across all manufacturing locations

**100%** human rights declarations signed by business heads and site heads

**No** significant human rights issues or major violations recorded in our operations or supply chain

Approximately 900 employees participated in 30 onsite and online Human Rights Policy training sessions.

Strengthened employee data security and privacy **protection** in compliance with Thailand's PDPA (2012) and the FU GDPR

### **Supply Chain Management**















### Supplier ESG Engagement

- ESG assessment on the EcoVadis platform for all Tier-1 suppliers in the Sustainable Supply Chain Program
- · Onsite audits of selected suppliers by approved third-party auditors in alignment with Together for Sustainability (TfS) standards
- ESG capacity building of our suppliers and buyers through training sessions and the TfS Academy to advance sustainable practices

### **Responsible Sourcing Policy**

- ESG principles are embedded in our policy across the value chain to ensure responsible practices from upstream to downstream.
- Our suppliers, along with their workforce and business partners, are expected to uphold **ESG compliance** and ethical standards outlined in this policy.
- The policy covers practices including, but not limited to, product stewardship, environmental stewardship, decarbonization, and Diversity, Equity, and Inclusion (DEI).
- In cases where there are differences between the standards of the Policy and national laws or other applicable standards, suppliers shall adhere to the more stringent requirements.



Petform (Thailand) Limited, a subsidiary of Indorama Ventures, was honored to receive the Gold Business Partner Award 2024 from Thai Beverage Public Company Limited for the second consecutive year. This prestigious recognition underscores our strong partnership and reaffirms the value we consistently deliver to their business.

### 2024 HIGHLIGHTS



Awarded a Platinum Medal for the 3<sup>rd</sup> times and placed in the **Top 1%** of the best performing companies in sustainability assessments.



Active member of TfS, contributing to a range of workstreams aimed at enhancing the sustainability of chemical supply chains.

### **Supplier Assessments and Audits**

- Achieved 103% beyond the target for suppliers who completed an **EcoVadis assessment** in the past 36 months.
- Surpassed 143% of the target for suppliers who successfully completed an onsite audit.



# Capital Markets Day 2025

### **Robust Governance**

Corporate Governance	31
and Business Ethics	
Sustainable Finance	32
Innovation and Product Development	33
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**Corporate Governance and Business Ethics** 

















17%

61-65 years old Corporate Governance Policy Awareness Campaign (CGPAC) Implementation Report 2024

**80%** of all employees attended the Corporate Governance Manual Training in the past 3 years

**82%** of all sites achieved full training coverage in 2024

### **2024 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

For the 12<sup>th</sup> consecutive year, we achieved an "Excellent - 5 Star" Corporate Governance (CG) score from the Thai Institute of Directors (IOD). We 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.

6-10 years



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



Awarded by the Thai Investor Association for achieving a **100% score** in the Annual General Meeting. This marks our **13th consecutive year** of receiving a full score.

## 69 Reports Received through Whistleblower Reporting Channels

Conflict of Interest	8 reports
Corruption or Bribery	10 reports
Environment, Health, and Safety	2 reports
Human Rights - Harassment	20 reports
Human Rights - Unfair Termination	6 reports
Miscellaneous	9 reports
Money Laundering or Insider Trading	0 report
Not qualified as Whistleblower Cases	14 reports

Of these 55 qualified as whistleblower cases: 15 were substantiated complaints, 28 were unsubstantiated complaints, five lacked sufficient information to initiate an investigation, and seven are still under investigation.

### Sustainable Finance





#### USD 420 m\* USD 255 m\*\* **USD 300 m USD 360 m** Blue Loan INFORMATION **Green Loan\*** Ninja Sustainability-USD 150 m USD 100 m **USD 50 m** THB 10.000 m USD 60 m\*\*\* arranged Linked by Mizuho Bank Sustainability-Sustainabilityarranged by arranged by arranged by Syndicated **Linked Revolving** Linked Bond International the Asian Deutsche \*Fully repaid in 2024 Term Loan USD 1.080 m Finance Development Investitions-und arranged by arranged by arranged by Corporation Bank Entwicklungsge-**Natixis** BBL, KBank, KTB. USD 100 m\*\* EUR 275 m\*\*\* Mizuho Bank (IFC) (ADB) sellschaft (DEG) SCB. and HSBC \*\*\*Matured Sustainability-Sustainability-\*\*Refinanced in 2024 Linked Linked Term Loan **Syndicated** Linked with ESG rating - - -Use of Proceed Revolving arranged by 2021 2018 2019 2020 Bank of China arranged by ING (syndicated) \*\*Refinanced in 2024 \*\*\*Matured **TOTAL = USD 2.7 billion (2018–2024)** 2022 THB 6,000 m USD 500 m Sustainability-Sustainability-2024 2023 Linked Linked Term Loan **Syndicated** Linked with Linked with SPTs and ESG rating ► --- Linked with SPTs ESG rating **Term Loan** arranged by **USD 570 m USD 830 m** Siam arranged by SMBC & BNPP Commercial USD 255 m **EUR 170 m USD 100 m USD 30 m USD 200 m** THB 10,000 m THB 3,000 m Bank (SCB) Ninja Sustainability-Sustainability-Sustainability-Sustainability- Sustainability-Sustainability-Sustainability Linked AR **Linked Term** Linked Term Loan **Linked Term Loan Linked Supplier** Linked Linked Factoring Revolving & Loan Factoring arranged by arranged by KBank Syndicated Term Loan Siam Commercial arranged by arranged by arranged by Term Loan

arranged by

Bank of China

Bank (SCB)

USD 190 m

Sustainability-

Linked Term Loan arranged by SMBC

**USD 50 m** 

arranged by SMBC

**Sustainability-Linked Trade Finance** 

arranged by

Mizuho Bank

**BBVA** 

Bank of China

**BBVA** 

### Innovation and **Product Development**

















Our commitment to "Indispensable Chemistry" reflects our dedication to developing essential materials that not only meet the needs of today but also anticipate the demands of tomorrow. At Indorama Ventures, we believe that true innovation is indispensable, just like our chemistry.



#### OXISMOOTH® LINE Multifunctional emollients made from 100% renewable resources

Composed of multifunctional green emollients. this line delivers unique benefits with superior sensory experiences for personal care solutions.

The line includes esters produced by the reaction of a responsibly sourced palm oil derivative with Isoamvl Alcohol, which is obtained from the upcycling of fuel oil, a by-product of the bioethanol process derived from sugarcane.

The general benefits include:

- Moisturizina
- Conditioning properties
- · High spreadability and fast absorption
- Pleasant sensory feel and non-greasy
- · Preservative-free
- · Easy handling and incorporation
- Suitable for all cosmetic formulations



### WORLD'S FIRST BIO-PET **BOTTLE**

for commercial scale, made from ISCC+ certified bio-paraxylene<sup>2</sup>

As part of a supply chain collaboration with Suntory, ENEOS Corporation, Mitsubishi Corporation, Iwatani, and Neste, the world's first bio-PET bottle for commercial scale will be launched, made from ISCC+ certified bio-paraxylene.<sup>2</sup> This collaboration marks a significant milestone in the journey toward sustainable packaging, introducing PET bottles derived from used cooking oil. PET bottles made with this technology can significantly reduce the CO<sub>2</sub> emissions of products.

The collaboration will launch approximately 45 million PET bottles for Suntory's selected beverages in Japan made with this innovative material<sup>3</sup>, with further introduction of other products to be considered in the future.

- <sup>1</sup> As of October 28, 2024. Based on research by ENEOS Corporation and Mitsubishi Corporation.
- <sup>2</sup> The mass balance approach is applied. Under this approach, for a product manufactured by mixing a material with a specific characteristic with materials lacking that characteristic. the characteristic can be allocated to a portion of the product's output in proportion to the amount of the material with the characteristic used in the production process. The mass balance approach has been ISCC+ certified.
- 3 280 ml and 285 ml PET bottles.



### **DEVELOPING TECHNOLOGIES**

Improving the softness of non-woven fibers

Our fiber products from Avgol are innovatively produced by following techniques.

- Biocomponent spinning process-produces a bulky, super-soft material.
- Waveform 3D Technology-unique fabric designs to create a softer and more comfortable feel.
- · Advanced resins which are specially formulated to:
  - Enhance the tactile properties of the fibers
  - Contribute to a softer and more luxurious feel
  - Provide more comfort for end-users
- · Incorporation of various additives and bonding patterns-to further improve the softness and overall quality of the fabrics.
- Modifying fiber geometry to enhance new fiber properties
- Eliminate or reduce the use of titanium dioxide (TiO<sub>2</sub>).

# Customer Relationship Management











**Indorama Ventures Overall\*** 

84.55%

Customer Satisfaction Index (CSI)

86.68%

Customer Retention Rate (CRR) 46

Net Promoter Score (NPS)

### **Business Segments\***



### **CPET**

CSI 85.40% CRR 89.31% NPS 51



### Fibers

CSI 84.02% CRR 86.28% NPS 42



### Indovinya

CSI 83.99% CRR 83.29% NPS 44

\*A formal customer satisfaction study is conducted every other year as part of our group sustainability strategy. The latest study was conducted in 2024.

Customer satisfaction measurement covered

**100%** of manufacturing locations



### **2024 HIGHLIGHT**



Indorama Ventures was honored with an award from Akzo Nobel, recognizing us as one of the top five suppliers in the Brazil region.

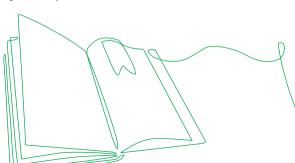
This achievement reflects the strong collaboration between our Química and Fibers Brazil teams and highlights our commitment to excellence in local deliveries, ensuring high-quality products and reliable services for coatings, UPR, and adhesives customers.

### 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, <IR> 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







Indorama Ventures - ESG Profile



FOR MORE



Sustainability Report 2024



FOR MORE INFORMATION



Annual Report 2024 (Form 56-1 One Report)



FOR MORE INFORMATION



### Celebrate with us!

Since 2011 until now\*, we have ACHIEVED

135 billian **PET bottles** 

(\*As of 31 December 2024)

With a total reduced GHG emission of 3.6 million tons



### INDORAMA VENTURES PUBLIC COMPANY LIMITED

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