

# Committed Towards A Sustainable Future





# Key Sustainability Achievements 2020

Member of  
**Dow Jones  
Sustainability Indices**  
Powered by the S&P Global CSA

**Sustainability Award**  
Silver Class 2021

**S&P Global**

- Indorama Ventures was **recognized in SAM's Sustainability Yearbook 2021 with the Silver Class distinction** and was listed in the **Dow Jones Sustainability Indices (DJSI) - World and Emerging Markets**.

- We were **ranked third** among 115 of the world's leading sustainable chemical companies.

- In 2020, Indorama Ventures **remained at the Gold Level, recognized as one of the top 2% of companies (98<sup>th</sup> percentile)** rated by EcoVadis in the **manufacture of basic chemicals**.



- Indorama Ventures **remained a constituent of the FTSE4Good Index Series** following the **October 2020 index review, achieving the top rank among chemical companies globally (scoring 4.6 out of 5)**.
- We received a **Best ESG score standing at the top of the group with a 100<sup>th</sup> percentile rank**.

- Indorama Ventures **improved its ESG rating from BB to BBB in 2020.**



- Indorama Ventures **achieved a B Rating in the CDP's Climate Change Assessment in 2020.**

- Sustainalytics assessed IVL as a leader in the chemicals industry placing the company **7<sup>th</sup> out of 202 companies, as per their report in January 2021.**



for 2<sup>nd</sup> consecutive year



- Indorama Ventures was awarded **"Best Regional Loan"** in the manufacturing sector for its US\$300 million Blue Loan – **the first of its kind granted to a plastic resin manufacturer.**

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For full  
message

# Group CEO Message



**“An even stronger focus on sustainability is necessary as we navigate through the pandemic and its uncertainties.”**

In light of COVID-19, sustainability means being resilient and agile in response to adverse events, working in partnership with others, and focusing ever more closely on health, safety and well-being.



Alope Lohia

Group Chief Executive Officer



# Chief Strategy Officer Message

For full  
message



**“At Indorama Ventures, we believe that sustainability is a source of our competitive advantage contributing to our long-term growth.”**

**Udey Paul Singh Gill**  
Chief Strategy Officer



# Chief Sustainability Officer Message



**“Our business potential and resilience is tied to our environmental responsibility and social empowerment.”**

We see sustainability as a transformative journey that demands constant and continuous improvements, and IVL intends on being a thought leader delivering a more sustainable and circular ecosystem in the future.

Yash Lohia

Chief Sustainability Officer



# IVL at a Glance

## IVL Operations

As of 31 December 2020

**123\***  
Sites

**6**  
Continents

**33**  
Countries

**15**  
Recycling facilities

\* The Sustainability Report 2020 consists of data from 107 sites. Further details are provided under 'About This Report' in the full Sustainability Report.

### North America

- Canada
- Mexico
- The United States

### Europe

- Austria
- Bulgaria
- Denmark
- France
- Germany
- Ireland
- Italy
- Lithuania
- Luxembourg
- Poland
- Portugal
- Russia
- Slovakia
- Spain
- The Czech Republic
- The Netherlands
- Turkey
- The United Kingdom

### South America

- Brazil

### Africa

- Egypt
- Ghana
- Nigeria

### Oceania

- Australia

### Asia

- China
- India
- Indonesia
- Israel
- Myanmar
- The Philippines
- Thailand



## Business Segments



Combined PET



Fibers



Integrated Oxides  
and Derivatives



# Sustainability Strategy

Our Sustainability Strategy focuses on the three core elements necessary to meet our 2025 targets – protecting the environment through responsible operations, empowering our people and transferring value to our stakeholders, and driving economic prosperity ethically and innovatively.

## Environment – Responsible Operations

Our operations and products are focused on being environmentally-friendly, contributing to the circular economy, minimizing resource consumption and reducing emissions to fight climate change, and contributing to the circular economy.

## Social – Empowerment Culture

Our respect for human rights, engagement and investments in capacity building, and creating shared value for our stakeholders demonstrates our commitment to achieving long-term success.

## Governance – Business Potential

Our business is based on our integrity and ethical principles, driving customer experiences through our innovative products and moving forward in meeting societal needs for sustainable growth and leadership.








# Sustainability Framework



For More  
Information



|                             |  |  |   |   |  |
|-----------------------------|--|--|---|---|--|
| <b>Vision</b>               | <b>To be a world-class sustainable chemical company making great products for society</b>                                  |  |   |   |  |
| <b>Values</b>               |  <b>"Always evidence-based"</b>           |  <b>"Honesty in everything"</b>                                   |  <b>"Collaborative &amp; Innovative"</b> |  <b>"Visionary leadership"</b> |  <b>"Adaptive mind-set"</b>           |
| <b>Aspirations</b>          | <b>Carbon Neutrality</b><br>to sustain our world and business  |  | <b>Improving Lives</b><br>through sustainable and affordable products   |   | <b>Trusted Partner</b><br>to the global community  |
| <b>Differentiators</b>      | <b>Thought Leadership</b><br>on sustainability and the circular economy  | <b>Global-Local</b><br>close proximity to stakeholders   | <b>Circular Approach</b><br>improving circularity in IVL's value chain  | <b>Early Adopter</b><br>bringing innovation to our operations   | <b>ESG Best-in-Class</b><br>investing in a sustainable business  |
| <b>Strategic priorities</b> | <b>Must do</b><br><br><b>Stakeholder Engagement</b><br>Aligning our actions responsibly and in a way that benefits society | <b>Thrusts - Sustainable growth</b><br><br><b>Recycling</b><br>Building the recycling infrastructure the world needs to deliver a circular economy |   |   | <b>Enabler</b><br><br><b>Education</b><br>Scaling our education programs while leveraging our extensive global footprint |
| <b>Metrics</b>              | IVL goals shared and adopted by society  | Recycling 750 kt (50 bn) PET bottles p.a. by 2025  | Towards carbon neutrality   | External validation   | Educate 1,000,000 consumers by 2030  |



# Climate Change Strategy

Climate change is one of the biggest challenges we face. As a business, IVL has a vital role to play. We recognize these risks and are committed to taking action. Our Climate Strategy 2025 focuses on better use of natural resources, support for the circular economy, climate change resilience and efficiencies across processes and operations.

## Our Ambitions



**Carbon reduction**

- Operational eco-efficiency improvements
- Target setting together with energy consumption and GHG emissions



**Renewable electricity**

Increasing the consumption of renewable electricity, both onsite (rooftop and ground mounting) and offsite (virtual power purchase agreements)



**Climate strategy**

- Internal shadow carbon pricing
- Emissions trading scheme (ETS)
- Water stress analysis by WRI



**Science-Based Targets**

Working on setting up Science-Based Targets (SBTs)

| Pillars                               | Strategies                        | Outputs  |
|---------------------------------------|-----------------------------------|--|
| <br><b>Process/Product Efficiency</b> | Upstream & Downstream Integration | <ul style="list-style-type: none"> <li>• Increase in the use of post-consumer recycled materials</li> </ul>          |
|                                       | Climate Innovation                | <ul style="list-style-type: none"> <li>• 5% reduction in energy intensity by 2025*</li> </ul>                        |
| <br><b>Natural Resources</b>          | Recycled Raw Materials            | <ul style="list-style-type: none"> <li>• Reduction in the use of virgin raw materials</li> </ul>                     |
|                                       | Renewable and Low Carbon Energy   | <ul style="list-style-type: none"> <li>• Renewable electricity consumption: 10% by 2025 and 25% by 2030</li> </ul>   |
|                                       | Low Carbon Products               | <ul style="list-style-type: none"> <li>• 10% reduction in combined GHG (Scope 1&amp;2) intensity by 2025*</li> </ul> |
|                                       | Water and Wastewater Management   | <ul style="list-style-type: none"> <li>• 10% reduction in water intensity by 2025*</li> </ul>                        |
| <br><b>Climate Change Resilience</b>  | Shadow Carbon Pricing             | <ul style="list-style-type: none"> <li>• Address climate-related risks</li> </ul>                                    |
|                                       | Water Risk Analysis               | <ul style="list-style-type: none"> <li>• Integrating ESG and carbon pricing into business decisions</li> </ul>       |
|                                       | TCFD Framework                    |  |
|                                       | Scenario Analysis                 |  |
| <br><b>Circular Economy</b>           | Waste Management                  | <ul style="list-style-type: none"> <li>• Reduce, recycle, reuse</li> </ul>   |
|                                       | Sustainable Supply Chain          | <ul style="list-style-type: none"> <li>• Reduction in the consumption of natural resources</li> </ul>                |
|                                       | Responsible Consumption           | <ul style="list-style-type: none"> <li>• Reduction in PET waste</li> </ul>   |
|                                       | Engagement with Stakeholders      | <ul style="list-style-type: none"> <li>• Recycling education</li> </ul>  |

\* Base year 2020

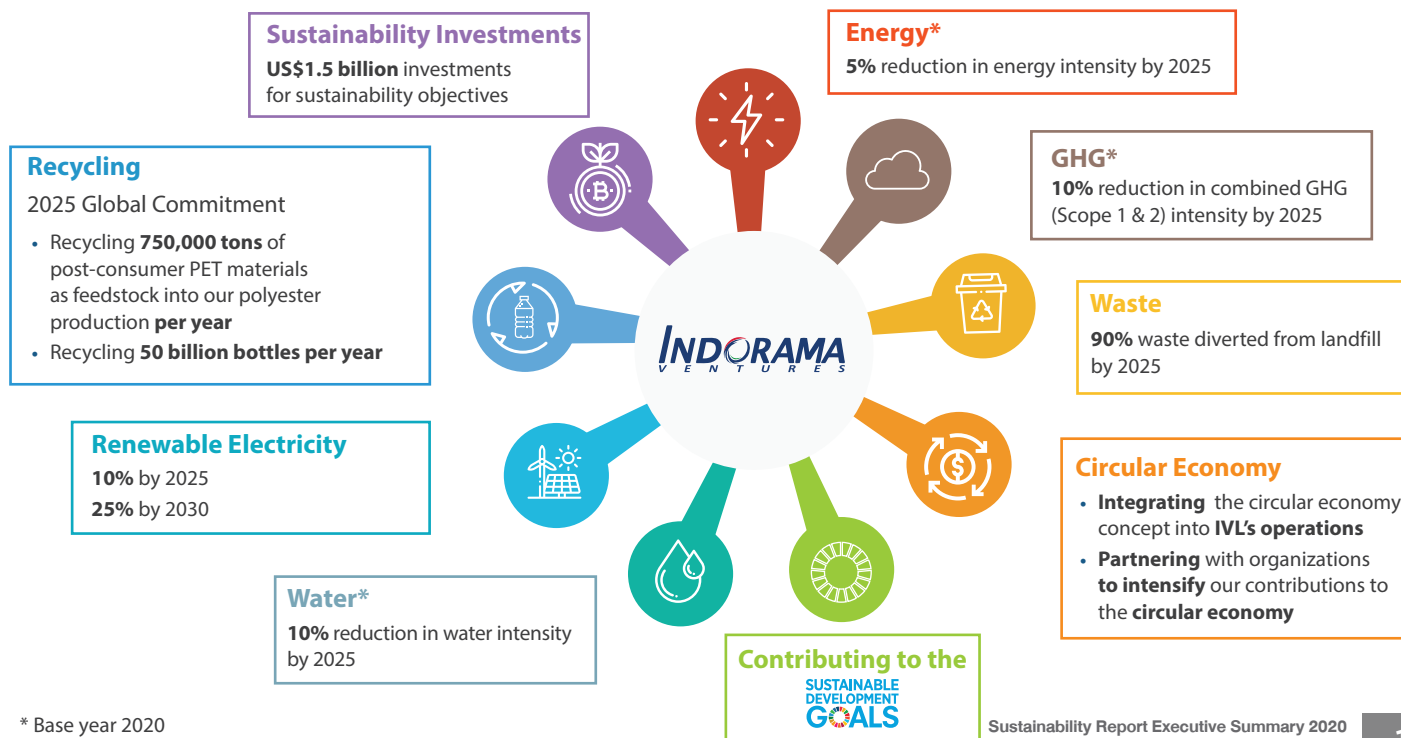




# Our Sustainability Ambitions Towards Carbon Neutrality

## Focusing on short and medium-term targets

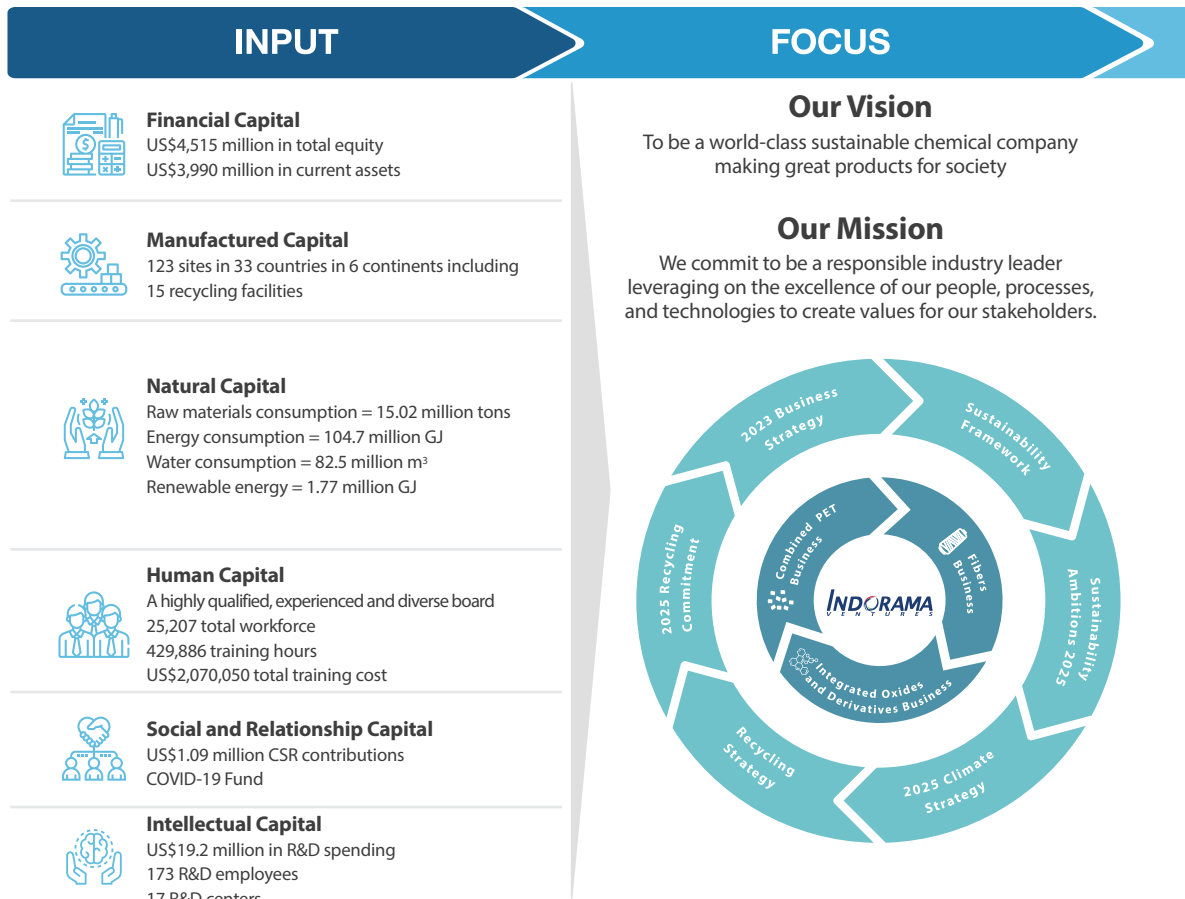
We are reducing GHG emissions by utilizing renewable energy, implementing energy efficiency projects and reducing energy consumption in every country where we operate. We also support the Paris Climate Agreement for which many countries have pledged to reduce their GHG emissions through nationally determined contributions (NDCs). We set the following key sustainability ambitions for 2025-2030:



\* Base year 2020

# Value Creation Model

As we enter the tenth year of sustainability reporting, we have adopted the International Integrated Reporting Council (IIRC)'s International Integrated Reporting <IR> Framework. By structuring our report based on this framework, we can demonstrate to our stakeholders how we are creating value through our short, medium and long-term strategies in six capital inputs.





# Value Creation Model (cont'd)

## OUTPUT

### Total production volume

13.72 million tons  
(excluding inter-company sales)

15.55 million tons  
(including inter-company sales)

### IOD Business

Production volume = 1.98 million tons  
Core EBITDA = US\$105 million

### Combined PET Business

Production volume = 10.17 million tons  
Core EBITDA = US\$794 million

### Fibers Business

Production volume = 1.57 million tons  
Core EBITDA = US\$195 million

## OUTCOME

### Financial Capital

Revenue = US\$10,594 million  
Core EBITDA = US\$1,114 million  
Core Earning Per Share (EPS) = THB 1.01

### Manufactured Capital

Flake Production = 155,586 tons  
rPET production = 70 kt  
10.1 billion PET bottles recycled

### Natural Capital

3% reduction in total energy intensity compared with 2019 reporting scope  
5.6% reduction in combined GHG (Scope 1&2) intensity compared with 2019 reporting scope  
10% reduction in total water intensity compared with 2019 reporting scope  
17% reduction in total hazardous waste intensity compared with 2019 reporting scope

### Human Capital

91.51% overall retention rate  
22% female  
0.91 cases per 200,000 man-hours in TRIR  
0.48 cases per 200,000 man-hours in LTIFR

### Social and Relationship Capital

86.16% overall Customer Satisfaction Index (CSI)  
92% overall Customer Retention Rate (CRR)  
585 CSR activities

### Intellectual Capital

35% vitality index in Specialty PET Business  
23% vitality index in Fibers Business  
94 Patents

## IMPACT

### Better Growth



Contributing to **3 4 6 8 12 13 14 15 17** SDGs

### Better Environment



Contributing to **3 6 7 9 12 13 14 15 17** SDGs

### Better Life



Contributing to **3 4 5 8 12 13 14 15 17** SDGs



For More  
Information

# Our Contributions to the UN SDGs



With a strong focus on creating value for the 3Ps - People, Planet and Prosperity, we continue to support and contribute to the UN SDGs.

## Recycling and Circular Economy

3 8 9 11 12 13 14 15 17

Bringing customers into the product value chain cycle and developing ways to support the circular economy.



Recycling  
Commitment



Industry  
Partnerships



Recycling  
Education

## Climate Change and Energy

7 9 11 12 13 14 17

Being fully aligned with global initiatives that develop strong low-carbon strategies.



Renewable  
Energy



Science-Based  
Target (SBTs)



GHG Reduction &  
Energy Efficiency

## Environmental Stewardship

3 6 7 9 12 13 14 15 17

Improving resource efficiencies and ensuring that our production is environmentally-friendly.



Water Stress  
Analysis



Waste Diverted  
from Landfill



Plastic Bottle  
Collection

## Health, Safety and Well-being

3 4 5 8 12 14 15

Guaranteeing that health and safety are at the forefront of our activities.



Safe  
Workplace



Human Rights  
Protection



Process  
Safety

## CSR and Collaborations

3 4 6 8 11 12 14 15 17

Making Recycling Education a global program and collaborating to have further positive impacts on society.



Knowledge



Environment



Well-being



# Response to the COVID-19 Pandemic

The COVID-19 pandemic in 2020 had an unprecedented impact around the world and challenged our ability at all levels to ensure the safety and well-being of our stakeholders across our value chain while maintaining business resilience. However, our decade-long effort at embedding sustainability in IVL allowed us to successfully navigate its effects of the pandemic.



Employee Care



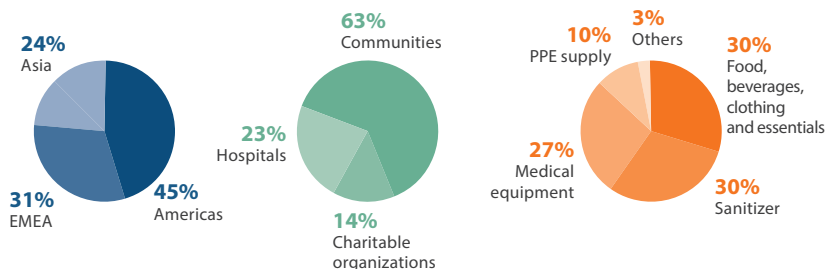
Business Continuity



Contributions to Society

## Contributions through IVL's COVID-19 Fund (US\$1.88 million)

Support for 135 organizations in 29 countries



\* Data as of December 2020, % of total contributions.



Three ambulances donated in Indonesia to support COVID-19 emergency response.

Masks donated to communities around the world.



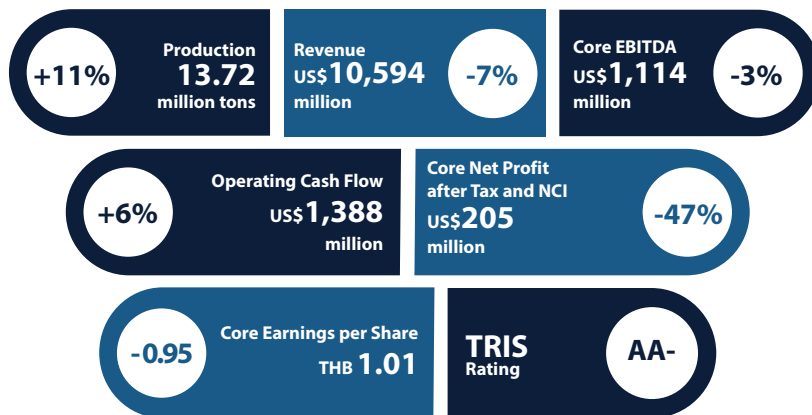
IVL and partner organizations produced and donated 20,000 PPE suits to more than 200 hospitals for use by doctors and dentists in Thailand.



# RESPONSIBLE AND EFFECTIVE GOVERNANCE



IVL recorded organic volume growth of 5% and total volume growth of 18% despite the COVID-19 pandemic. This success was driven in part by our effective leadership team and our focus on sustainability.







# Corporate Governance



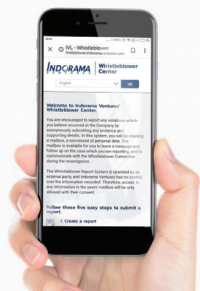
For More  
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Corporate Governance encompasses the policies, people, processes and expectations that IVL and its subsidiaries adhere to on a daily basis, across the world. Rooted in our Vision, Mission and Values, and overseen by our Board of Directors, our Corporate Governance system is the foundation of our daily actions. It holds us accountable and ensures that we do business the right way.

## Whistleblower Center

whistleblower.indoramaventures.com



For reporting policy violations  
and unethical practices

The Whistleblower Reporting Channel is an independent site offering an easier and secure way to communicate.

**100%**  
independent  
Directors on the  
NCCG Committee

Directors on the Nomination, Compensation and Corporate Governance Committee (NCCG Committee) are 100% independent.



IVL received an "Excellent - 5 Star" CG score by the Thai Institute of Directors (IOD) for the eighth consecutive year.



IVL successfully renewed its certification with Thailand's Private Sector Coalition Against Corruption (CAC) in May 2018, having been first certified in October 2014.

## 2020 Highlights

In 2020, we improved diversity by appointing an independent female director to the board, in line with IVL's gender diversity agenda.



**81%** of our sites completed training of our new Corporate Governance Manual.



Anti-Corruption Training to **86%** of our employees.



**No penalties** were imposed on IVL for material non-compliance with respect to corporate governance regulations.



IVL was one of the recipients of the **Asset Class PLC** award for the 2019 ASEAN CG Scorecard (ACGS) announced in 2020.



# DRIVING SUSTAINABLE GROWTH



## Our Ambitions for Better Sustainable Growth



### Short-Term (2021–2024)

- **Vitality Index**  
34% for the Specialty PET business and  
22% for the Fibers business in 2021
- **Customer Satisfaction Index (CSI) ≥ 86.0%** in 2021
- **Leading rPET player in core markets**



### Medium-Term (2025)

- 750,000 tons of total post-consumer PET as feedstock into our polyester production per year
- To recycle 50 billion bottles per year
- US\$1.5 billion sustainable investments for sustainability objectives
- 7% revenue from low carbon products



### Long-Term (2050)

- **Towards A Circular Economy**  
by :
  - developing partnerships with external associations and organizations
  - becoming a circular economy thought leader
  - innovating sustainable products serving customers' needs
  - diverting plastic waste from the environment and oceans



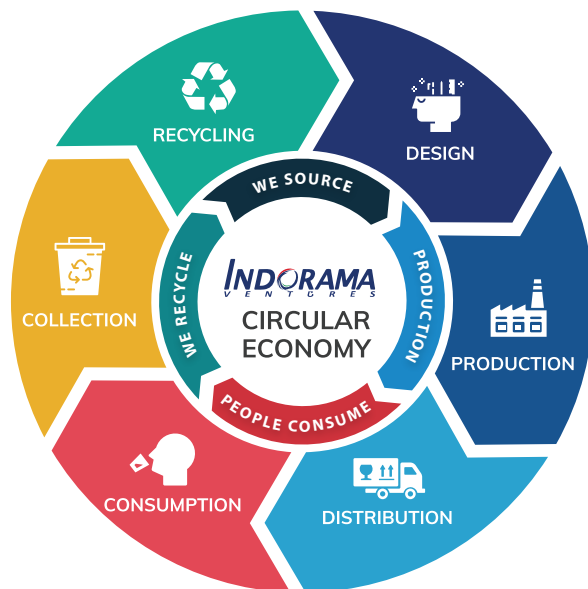
# Circular Economy Thought Leadership



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As the largest virgin PET producer, we strive to be a leader that promotes concepts of circularity to achieve our 2025 recycling targets with a broader aim of creating a better tomorrow. One of our key drivers in becoming a circular economy thought leader is by engaging in meaningful collaborations with our industry partners to push our capacity for innovations and to drive increased demand for rPET.



ELLEN MACARTHUR  
FOUNDATION



GLOBAL  
PLASTIC ACTION  
PARTNERSHIP



NAPCOR  
National Association for PET Container Resources



Indorama Ventures is a member of the Circular Economy Accelerator: A Recycling Partnership Initiative. We are increasing our recycling efforts by placing curbside collection carts in multi-family residential complexes to further extended producer responsibility (EPR) initiatives with the US government.

## Overall Goals

- Bring curbside recycling of films and flexibles to more residents
- Increase demand to support end markets
- Achieve a 30% recovery rate in line with the EMF's definition of recyclable



# Driving Circularity Through Recycling



For More Information



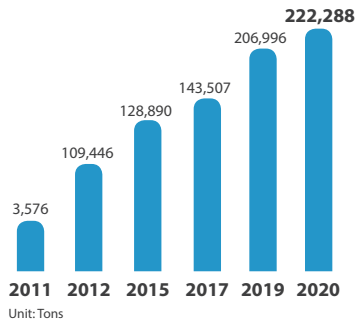
With a worldwide footprint, we are driving real change in recycling and constantly looking to increase our recycling capacity and efficiency to achieve our goal of becoming a circular economy thought leader.



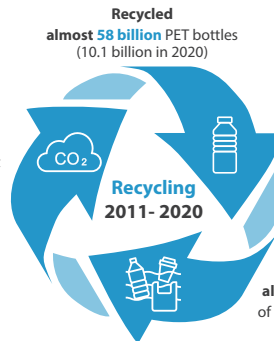
## Our Recycling Strategy

- Strengthening our global recycling capabilities
- Contributing to a circular economy
- Ensuring a fully closed loop

## Post-Consumer PET bottles recycled



Reduced almost **1.9 million tons** of carbon footprint in their life cycle



**Deja™ Brand** - Always striving to close the loop, our range of Deja™ sustainable rPET/rPET blend flakes, pellets, fibers and filaments are **made to be remade again**.

## 2020 Highlight



Coca-Cola Beverages Philippines, Inc. (CCBPI), the Bottling arm of Coca-Cola in the country, and Indorama Ventures signed a joint-venture agreement to establish PETValue, the largest state-of-the-art, bottle-to-bottle recycling facility in the Philippines.

PETValue will ensure that used PET plastic bottles that are 100% recyclable, and therefore not "single-use," are given new life and used again and again within a circular economy. The plant's projected capacity is 30,000 MT/year of flakes which will recycle almost two billion plastic bottles with an output of 16,000 MT/year of recycled PET resin in the first phase. A second extruder will subsequently be installed to consume the remaining quantities of flakes.



# Innovation-Driven Growth



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Innovation drives growth and is vital for the long-term sustainability of our business. Being innovative means foreseeing market demands, creating cutting-edge products, encouraging creativity in our workforce and investing significantly in research and development (R&D).

It also means ensuring that our processes and solutions meet environmental needs and are in line with our Sustainability Strategy. We adopted six categories: product innovation, process innovation, environmental innovation, open innovation and internal and external collaborations.

## Vitality Index\*

### Fibers Business



2020

Actual **23%**

Target **22%**

2021

Target **22%**

### Specialty PET Business



2020

Actual **35%**

Target **34%**

2021

Target **34%**

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

## 2020 Highlights



**US\$19.2 million** in R&D Spending



**173** R&D Employees



**17** R&D Centers



**94** Patents in 2020  
(applied and granted) out of overall 884 patents



Over **300** Collaborative Projects

## Wellman HealthGuard® AMIC

To meet consumer demand for viral protection, Wellman International has joined forces with the HealthGuard Corporation, to develop a range of antiviral, antimicrobial and anti-bacterial polyester staple fibers. Our fibers, when treated with HealthGuard® AMIC, mitigate the transmission of the SARS-CoV-2 (COVID-19) virus.





# Safe and Sustainable Products

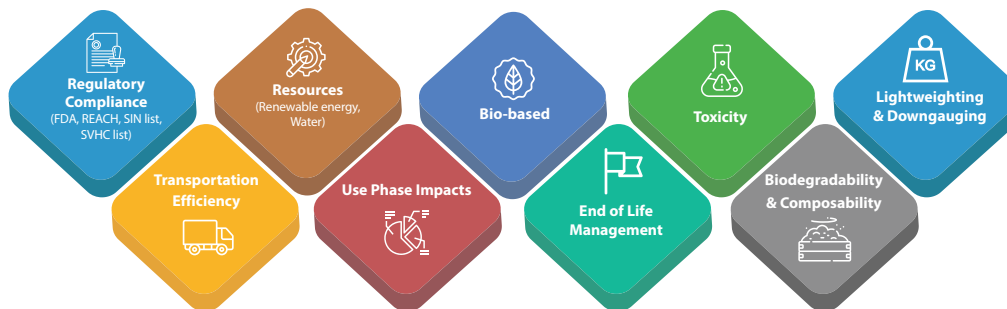


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To lower our environmental impact, we design, develop and deliver products that adhere to the most stringent quality and sustainability standards. From the responsible sourcing of raw materials to maintaining efficient systems and investing in the full life cycle impacts of our products, we continue to grow sustainably and with a focus on safety.

## Product Design Criteria



## Product Safety Mechanisms

### Product Compliance Risk Characterization (PCRC) Process

Assessment conducted on 100% of our products for potential environmental and human health impacts.

Customer inputs collected to obtain downstream application information.

The PCRC process includes raw material assessments covering manufacturing hazards and product compliance (chemical registration and food safety) with a focus on new formulations in targeted markets.

## Management of Hazardous Chemicals/Substances

An improved approach and targets are set to phase out at risk chemical substances.

Products across the portfolios are assessed for challenged chemicals or substances.





# Creating Strong Customer Relationships



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As stated in our values, the customer is why we exist. We offer our customers world-class products of the highest quality and seek continuous improvements in how we deliver our services. In addition to strengthening relationships on an ongoing and daily basis, we actively seek feedback via tools such as the Customer Satisfaction Index (CSI), Customer Retention Rate (CRR), the Net Promoter Score (NPS), and comprehensively integrate recommendations. We will continue to place the customer at the heart of how we run our business.

## IVL Products

## End uses and IVL CoMa share<sup>2</sup>

IVL CoMa share<sup>3</sup>

|                                   |   |                            |     |
|-----------------------------------|---|----------------------------|-----|
| PET, PTA, EG                      |  | F&B Packaging              | 48% |
| PET, PEO, Surf., Hygiene Fibers   |  | HPC & Hygiene <sup>1</sup> | 20% |
| Oxyfuels, Surfactants             |  | Oil & Gas                  | 1%  |
| Mobility Fibers, Lifestyle Fibers |  | Automotive parts           | 10% |
| Lifestyle Fibers                  |  | Apparel                    | 6%  |
| Lifestyle Fibers, PO, PEO         |  | Housing & Construction     | 5%  |
| PET, NDC                          |  | Electrical & Electronics   | 3%  |

**2020 Target :**  
IVL Overall  
**CSI ≥ 86%**

**2020 Actual :**  
IVL overall



## Business Segments

Customer satisfaction measurement covered  
**100%**  
of global operations



PET

CSI **86.51%**  
CRR **95%**



Fibers

CSI **85.86%**  
CRR **93%**



Feedstocks

CSI **88.35%**  
CRR **93%**



IOD

CSI **84.76%**  
CRR **85%**



Packaging

CSI **84.81%**  
CRR **94%**



Wool

CSI **85.67%**  
CRR **93%**



Recycling

CSI **87.13%**  
CRR **91%**

Notes: (1) Home, Personal Care and Hygiene products; hygiene products include baby diapers, adult incontinent, feminine care products, disposable wipes, as well as medical applications (e.g., masks and gowns).

(2) CoMa (Contribution Margin) based on IVL 2020A; above end-market represents 94% of IVL's portfolio.

(3) 2020A



## 2021/2022 Target

IVL Overall CSI **≥ 86%**



# TOWARDS CARBON NEUTRALITY



## Our Ambitions for a Better Environment for the Planet



### Short-Term (2021–2024)

- Set Science-Based Targets (SBTs)
- Set the Scope 3 GHG emissions target
- No major cases of environmental non-compliance



### Medium-Term (2025)

- 10% reduction in combined GHG (Scope 1 and 2) intensity\*
- Renewable electricity 10% by 2025 and 25% by 2030
- 5% reduction in energy intensity\*
- 10% reduction in water intensity\*
- 90% waste diverted from landfill

\* Base year 2020



### Long-Term (2050)

- Towards A Circular Economy
- Towards Carbon Neutrality by :
  - continuously reducing our carbon footprint
    - > improving operational eco-efficiency
    - > procuring renewable and low carbon intensive energy
  - optimizing natural resource consumption



# Energy Management

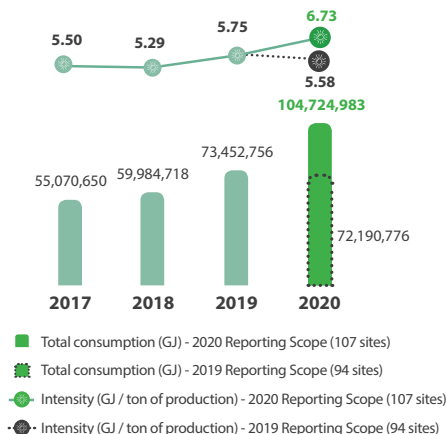


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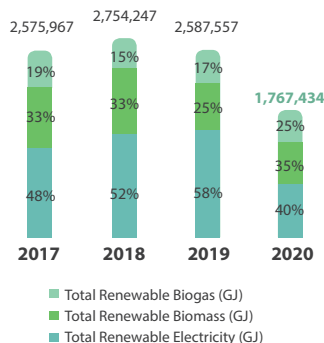
Our key strategies to become carbon neutral include actively reducing our reliance on conventional energy, increasing the renewable energy utilization mix in our day-to-day operations, and improving operational eco-efficiencies.

## Total Energy Consumption



Note: Intensities are calculated based on overall production including inter-company sales.  
2020 energy has increased as IVL acquired cracker plants, which resulted in higher energy consumption.

## Total Renewable Energy Consumption



## 2020 Highlights

- **3%** reduction in total energy intensity compared with 2019 reporting scope
- **8%** increase in biogas consumption



UAB Orion Global PET, our subsidiary in Lithuania, installed a solar power plant in place of a fence, which performs the dual functions of marking the boundary and generating 55.82 MWh of electricity per year bringing total solar energy capacity at the site to 390,000 kWh.



\* Base year 2020

## 2025 Target

- 5%** reduction in energy intensity\*
- 10%** renewable electricity consumption

## 2030 Target

- 25%** renewable electricity consumption

## 2013-2020 Progress

- 4%** reduction in energy intensity



# GHG Management

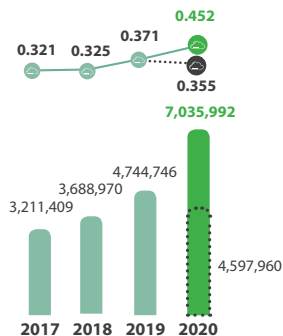


For More Information

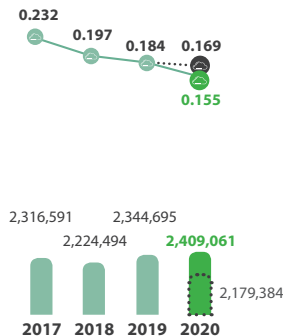


We are reducing our carbon footprint and driving transformations across our value chain to achieve our goal of a 10% reduction of Scope 1 and 2 GHG emissions by 2025.

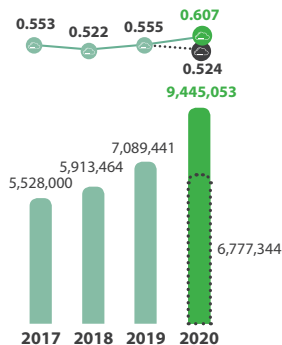
## Direct GHG Emissions (Scope 1)



## Indirect GHG Emissions (Scope 2)



## Total GHG Emissions (Scope 1 & 2)



■ GHG emissions (tCO<sub>2</sub>e) - 2020 Reporting Scope (107 sites)  
 ■ GHG emissions (tCO<sub>2</sub>e) - 2019 Reporting Scope (94 sites)  
 ● Intensity (tCO<sub>2</sub>e / ton of production) - 2020 Reporting Scope (107 sites)  
 ● Intensity (tCO<sub>2</sub>e / ton of production) - 2019 Reporting Scope (94 sites)

Note: Intensities are calculated based on overall production including inter-company sales.  
 2020 emissions has increased as IVL acquired cracker plants, which resulted in higher GHG emissions.

## 2020 Highlight

- **5.6%** reduction in combined GHG (Scope 1&2) intensity compared with 2019 reporting scope

## 2013-2020 Progress

**10%** reduction in combined GHG (Scope 1&2) intensity



## 2025 Target

**10%** reduction in combined GHG (Scope 1&2) intensity\*

\* Base year 2020



**100%**

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

## GHG (Scope 3)

In 2020, GHG Scope 3 data collection coverage was 100% for the categories below.  
 We plan to expand the reporting of all relevant categories to our business by 2023.



- Purchased Goods and Services



- Upstream Transportation and Distribution



- Downstream Transportation and Distribution



- Fuel and Energy - related Activities



- Employee Commuting and Business Travel



- Waste Generated in Operations



# Water Management

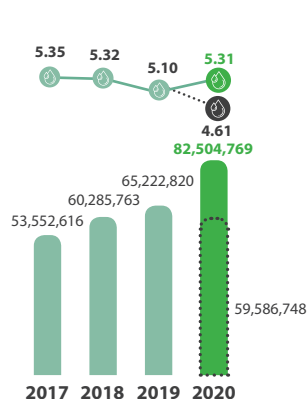


For More  
Information

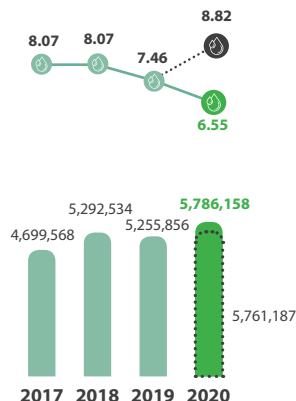


We manage our water responsibly, including water withdrawal and discharge, and seek continuous improvements in water management through the 3Rs. To ensure accountability in water stress areas, we regularly conduct water stress assessments and mitigate negative impacts to the environment and communities surrounding our operations.

## Total Water Withdrawal

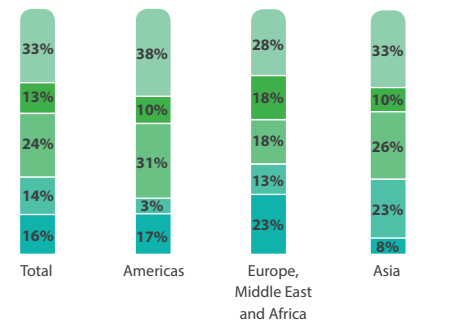


## Total Recycled/Reused Water



## 2020 Water Stress Assessment

(% of IVL's operations identified in water stress areas using the AQUEDUCT Water Risk Tool)



- Total water withdrawal (m³) - 2020 Reporting Scope (107 sites)
- Total water withdrawal (m³) - 2019 Reporting Scope (94 sites)
- Intensity (m³ / ton of production) - 2020 Reporting Scope (107 sites)
- Intensity (m³ / ton of production) - 2019 Reporting Scope (94 sites)

- Total volume of recycled/reused water (m³) - 2020 Reporting Scope (107 sites)
- Total volume of recycled/reused water (m³) - 2019 Reporting Scope (94 sites)
- Recycled/Reused water (%) - 2020 Reporting Scope (107 sites)
- Recycled/Reused water (%) - 2019 Reporting Scope (94 sites)

- Extremely High
- High
- Medium to High
- Low to Medium
- Low

Note: Intensities are calculated based on overall production including inter-company sales.  
2020 water has increased as IVL acquired cracker plants, which resulted in higher water withdrawal.

## 2020 Highlights

- **10%** reduction in total water intensity compared with 2019 reporting scope
- **10%** increase in volume of recycled / reused water over 2019

## 2013-2020 Progress

**7%** reduction in total water intensity



\* Base year 2020

## 2025 Target

**10%** reduction in water intensity\*



# Waste Management

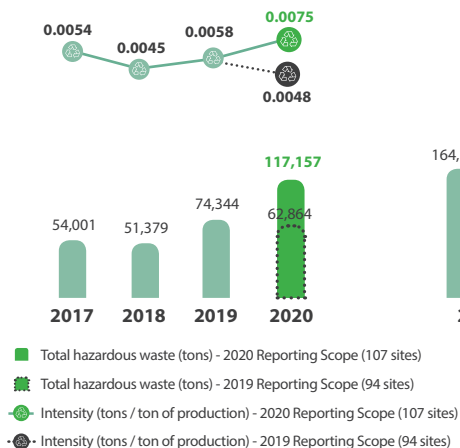


For More  
Information



Our ambition to reduce waste from our operations is in line with our pledge to achieve 90% waste diverted from landfill by 2025. We are ensuring that our approach to waste management complies with regulatory requirements, and exceeds them where possible. This means building a detailed inventory of waste and always applying new designs to advance waste reduction, recycling and recovery.

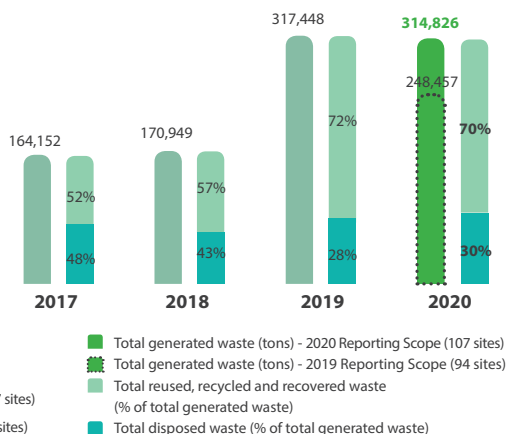
## Total Hazardous Waste



Note: Intensities are calculated based on overall production including inter-company sales.

## Total Waste

Generated, Disposed, Reused, Recycled and Recovered



## Waste Diverted from Landfill

### Platinum Certification

5 plants were certified with a more than 95% hazardous waste diversion rate.

8 plants were certified with a more than 95% non-hazardous waste diversion rate.



### Gold Certification

6 plants were certified with a 90-95% non-hazardous waste diversion rate.

## 2020 Highlights

- Total waste intensity = **0.0202** tons / ton of production
- 17%** reduction in total hazardous waste intensity compared with 2019 reporting scope



## 2025 Target

**90%** Waste diverted from landfill

## 2013-2020 Progress

Total waste diverted from landfill increased from **48%** to **84%**





# Operational Excellence Awards



For More  
Information



Underway since 2017, this award is based on stellar performance across 10 criteria based on: Financial Performance, Operational Performance, and Sustainability Performance (environment, health and safety). The best Business Units are identified by benchmarking their performance across these criteria and are awarded at the annual Global Management Conference (GMC).



**PET Business winner:** AlphaPet Inc., USA



**PET Business winner:**  
PT Indorama Polypet Indonesia (PTIPPI), Indonesia



**Fibers Business winner:**  
Indorama Polyester Industries PCL. (Rayong), Thailand



**Packaging Business winner:**  
BevPak, (Nigeria) Ltd., Nigeria



**Aromatics Business winner:**  
Indorama Ventures Quimica S.L.U., Spain



**IOD Business winner:**  
Indorama Ventures Oxides LLC, USA



# EMPOWERING OUR PEOPLE AND COMMUNITIES



## Our Ambitions for Improving Lives



### Short-Term (2021–2024)

- EHS operationalized standards and strengthening EHS talent by 2024
- About 1,000 leadership positions involved in succession planning by 2023
- 3,500 leaders involved in leadership development curriculum by 2024



### Medium-Term (2025)

- LTIFR < 0.5 cases per 200,000 man-hours
- Educating one million consumers around the world on recycling by 2030



### Long-Term (2050)

- LTIFR < 0.1 cases per 200,000 man-hours
- Protecting our people and planet, enabling further prosperity
- Having a positive impact on society by delivering social, economic and environmental value



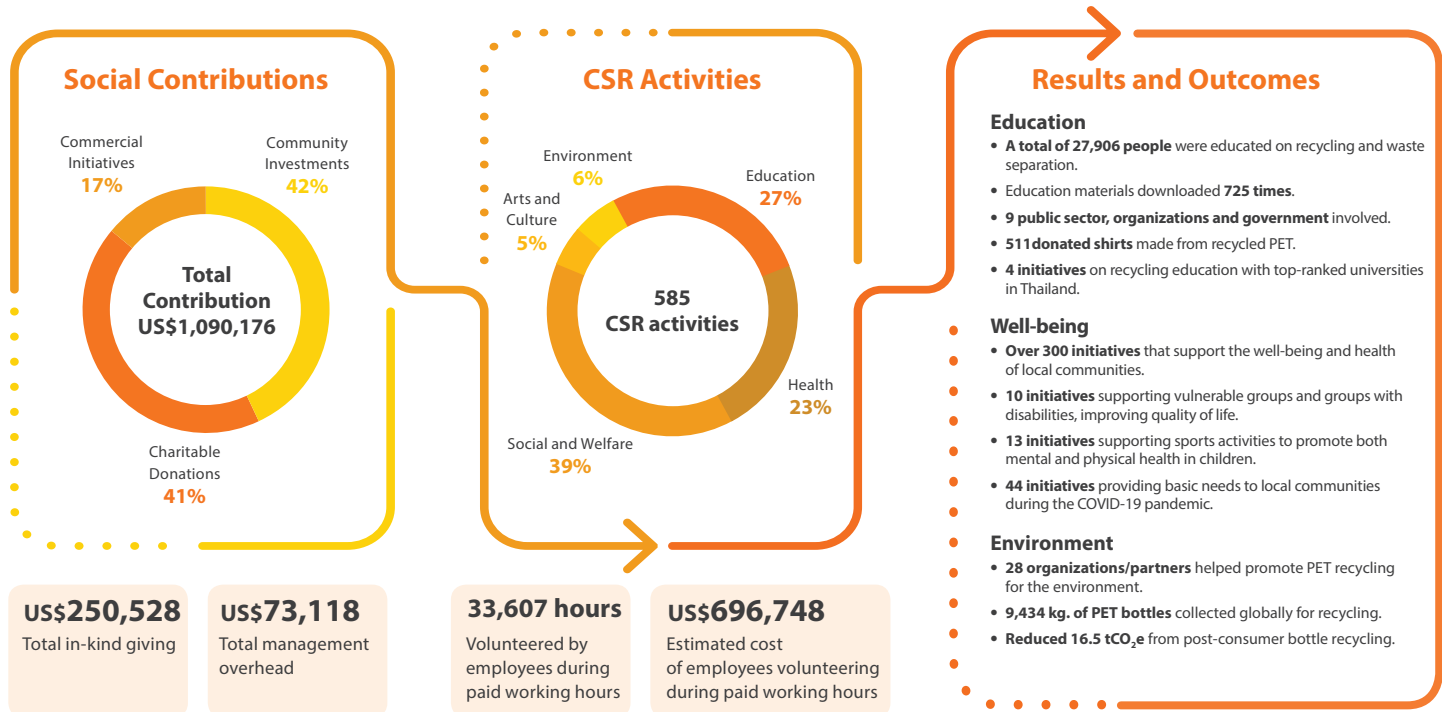
# Giving Back to Our Communities



For More  
Information



Our business is having a positive impact on the communities where we operate, and we will continue to achieve sustainable social, environmental and economic value. We are also addressing major challenges facing the global community by adhering to the Sustainable Development Goals (SDGs). Our group-wide strategy on corporate citizenship and philanthropic contributions focus on economic growth, innovation and maintaining a thriving social license to operate.



\*The figure on social contribution and activities are excluded the initiatives from the COVID-19 fund and IVL Foundation.



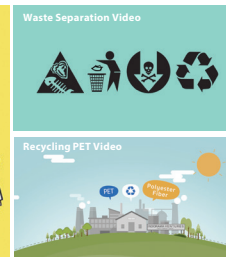
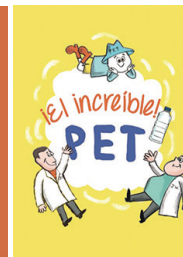
# Recycling Education



For More  
Information



Last year, we released and distributed our 'Let's find out about types of plastics, recycling PET and waste separation' booklet. Our edutainment and waste separation video was prepared in Spanish, while our new animation on the PET recycling process provides a fun and easy to understand visual option. We achieved remarkable progress on recycling education in 2020 despite the pandemic.



## 2030 Target

Educating **one million** consumers around the world on recycling

| 2020 Recycling Education                                |  |  |  |   |
|---|--|--|--|---|
| <b>60</b><br>Schools                                    | <b>27,906</b><br>People Received Trainings | <b>2,806</b><br>Students                                 | <b>153</b><br>Teachers                             | <b>23,562</b><br>Public and Community People                |
| <b>9</b><br>Public Sector, Organizations and Government | <b>5</b><br>Public Events                  | <b>34</b><br>Virtual Trainings                           | <b>30</b><br>Classroom Trainings                   | <b>732</b><br>Teaching Hours                                |
| <b>24</b><br>Recycling Talks                            | <b>279</b><br>Recycling Articles           | <b>725</b><br>Downloads of Recycling Education Materials | <b>96</b><br>Downloads of Recycling Education VDOs |   |
| <b>250</b><br>Recycling Bins Donated                    | <b>511</b><br>rPET Shirts Donated          | <b>6</b><br>Recycling Factory Visits                     | <b>424,530</b><br>Bottles Collected Globally       | <b>6,109</b> kg.<br>Bottles Returned to Recycling Factories |



# Investing in Our People



For More  
Information



Our people are our most valuable asset and we invest heavily in our workforce. We are focused on creating a strong leadership team with the right capabilities and experiences to drive our ambitions and achievements. Through our career management strategies, learning and development opportunities and access to global resources, we develop our people and reward strong performance.



**25,207**

Total Workforce



**82**

Nationalities



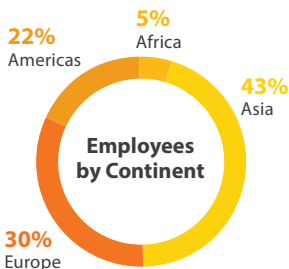
**22%**

Gender Diversity



**294**

Employees  
with Disabilities



**76.20%**

Employee  
Net Promoter Score

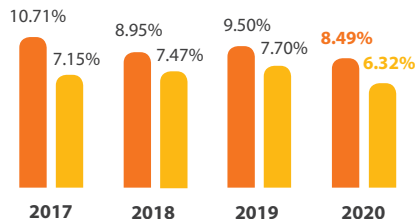
**82.87%**

Employee Participation

**73.90%**

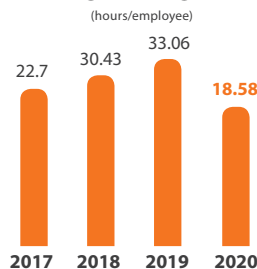
Employee engagement  
(An actively engaged  
employee)

## Employee Attrition



Overall attrition Voluntary attrition

## Average Training Hours



## 2020 Highlights

- **429,886** training hours
- **us\$2,070,050** total training cost
- **91.51%** overall retention rate



## Targets

About **1,000** leadership positions involved in succession planning by 2023  
**3,500** leaders involved in the leadership development curriculum by 2024



# Ensuring a Safe and Conducive Workplace

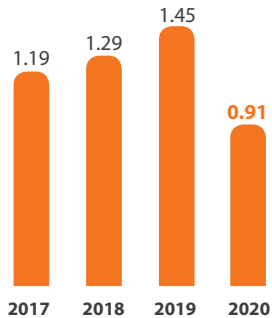


For More  
Information

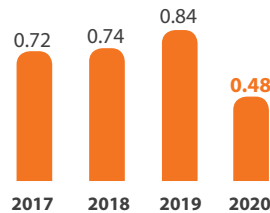


Safety and health at work are paramount for our workforce and our operations globally. We are proud to be a responsible operator maintaining our duty of care for the environment and our employees, and we routinely go beyond minimum legislative requirements. Our well-established Occupational Health and Safety (OHS) system ensures that everyone understands their responsibility in providing a safe work environment and maintaining safe and healthy habits on a daily basis within our business.

**Total Recordable Injury Rate: TRIR**  
(cases/ 200,000 man-hours)



**Lost Time Injury Frequency Rate: LTIFR**  
(cases/200,000 man-hours)



## 2025 Target

LTIFR < **0.5** cases per 200,000 man-hours



## 2020 Highlights

- **72%** ISO 45001:2018 / OHSAS 18001:2007 certification
- **TRIR improved from 2019**
- **LTIFR improved from 2019**
- **No fatalities**
- A total of **44** (over 41%) of our sites attained the goal of **"Zero-Accidents"** in 2020.



## 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 <IR> Framework** 2021.

**100%**

Reporting Certification and Assurance in accordance with **the GRI Standards, <IR> Framework and AA1000AS** by an independent auditor.

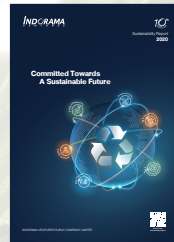
**100%**

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

## Contacts and Feedback



[Sustainability@indorama.net](mailto:Sustainability@indorama.net)



### Sustainability Report 2020

For More Information



### Annual Report 2020

For More Information





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