



**CASE
STUDY**

Indorama Ventures Poland

INDUSTRY
Chemical

SIZE
25.000 employees worldwide,
135 in Poland

DATE
2018

Indorama Ventures Poland

Indorama Ventures Poland Sp. z o.o. is part of the Indorama Group, a major global producer in the polyester and chemical sector. With 117 plants across 31 countries, the group employs approximately 25,000 people worldwide.

The Włocławek site in Poland focuses on producing polyethylene terephthalate (PET), widely used in everyday packaging. Given the chemicals sector's significant environmental footprint and high energy demands, implementing sustainable practices can be particularly challenging.



What is your approach towards sustainability?

For companies in chemicals and plastics, embarking on the sustainability journey can seem daunting due to complex processes, resource intensity, and strict regulatory requirements. Indorama Ventures Poland registered with EMAS in 2018, recognising the scheme as a practical framework to guide and structure their environmental management. EMAS has provided the company with a transparent, systematic approach to monitoring impacts, ensuring compliance, and identifying opportunities for improvement.

While Indorama Ventures Poland is at the beginning of its sustainability journey, the company is focusing on foundational steps: improving resource efficiency, optimising processes, and engaging employees in environmental initiatives. The adoption of EMAS has helped the company to develop clear procedures, enhance internal awareness, and lay the groundwork for future projects. Indorama's experience shows how companies in high-impact sectors can start making incremental progress.



Why did your company join EMAS?

Indorama Ventures Poland chose EMAS to benefit from its clear structure and third-party verification, helping to build trust with stakeholders and ensure accountability. The annual environmental declaration supports transparent communication with customers, partners, and investors. Importantly, EMAS has made it easier for the company to keep up with evolving environmental legislation and to establish reliable systems for monitoring and compliance—particularly relevant in a sector facing increasing regulatory scrutiny.





What are the main results so far?

Since joining EMAS, Indorama Ventures Poland has implemented a range of measures focused on improving operational efficiency and establishing a foundation for more sustainable practices. These steps illustrate how companies in the chemicals sector can begin to address environmental challenges in a structured and measurable way.

In 2022, the company introduced adiabatic cooling towers, which significantly reduced noise emissions and water consumption, and eliminated the need for refrigerants—substances that carry environmental risks if leaked. Compared to standard fan towers, adiabatic towers offer higher heat transfer efficiency.

To support the use of renewable energy, Indorama Ventures Poland installed a photovoltaic system with a capacity of 50 kWp, which is expected to reduce CO₂ emissions by up to 25.8 tonnes annually. The company also operates an ISO 50001-certified energy management system, enabling systematic monitoring, analysis, and optimisation of energy use.

Quantitative improvements under EMAS include:

- A 2.43% reduction in Scope 1 greenhouse gas emissions (from 25,873 t CO₂e in 2023 to 25,245 t CO₂e in 2024).
- A 3.67% reduction in Scope 2 emissions (from 18,354 t CO₂e in 2023 to 17,680 t CO₂e in 2024).

In 2023, the company expanded its production process to include recycled PET flakes, enabling up to 40% of PET granules to be made from recycled materials. This investment is projected to recycle approximately 11 million PET bottles daily, reducing reliance on primary raw materials and lowering both industrial wastewater generation and natural gas consumption.

To prepare for upcoming regulations such as the EU Pellets Regulation, Indorama Ventures Poland has conducted risk assessments, developed an implementation plan for the Operation Clean Sweep programme, and introduced closed-loop material handling systems to minimise pellet loss and related environmental impacts.

Resource efficiency has also been improved through the optimisation of production processes, leading to reduced electricity and water consumption, as well as improved waste segregation and a higher share of internally reused waste. Beyond technical improvements, Indorama Ventures Poland has actively engaged in environmental education within the local community. The “Recycled Lessons” project, launched in 2022, offered workshops for children, youth, and seniors, using specially designed graphic materials to explain plastic recycling and proper waste segregation. These interactive sessions combined theory with hands-on activities, encouraging dialogue and practical understanding of recycling’s importance.

In 2023, the “Waste Hero Education” campaign further expanded these efforts, distributing educational materials such as presentations, lesson scripts, exercises, colouring books, and leaflets. Notably, the campaign provided editable scripts and workshop presentations, enabling teachers to adapt content to their needs. By empowering educators and raising awareness across generations, Indorama Ventures Poland is fostering a culture of environmental responsibility alongside its operational improvements.



Sustainability means making responsible decisions today that will have a positive impact on the environment in the long term. Through education, waste reduction and the use of renewable solutions, it is possible to strengthen communities and make a real contribution to protecting the environment.

Tomasz Morawski
Site manager



What can other organisations **learn** from your example?

Indorama Ventures Poland's experience demonstrates that even in sectors with high environmental impacts, it is possible to take meaningful first steps towards sustainability. EMAS offers a structured pathway for companies to begin improving their practices.

While Indorama Ventures Poland is classified as a large enterprise, the implementation of EMAS still posed some organisational and resource-related challenges, particularly in adapting existing procedures to new requirements. These were overcome through a phased approach, breaking down implementation into logical stages and investing in internal environmental training. As a result, an in-house team now coordinates EMAS activities, and ongoing training has helped reduce operational costs while maintaining full system functionality.

Indorama Ventures Poland's experience thus shows that a structured, step-by-step approach to EMAS implementation is possible even with limited resources. Investing in internal expertise and continuous training pays off through reduced costs, improved compliance, and a stronger market position. Open dialogue with employees and stakeholders, as well as synergies from environmental and educational projects, are key success factors that can inspire other companies.



What do you have in mind for the **future**?

Looking ahead, Indorama Ventures Poland plans to build on its initial progress by further optimising resource use, expanding the use of recycled materials, and continuing its environmental education initiatives. The company remains committed to making steady progress with EMAS as a guiding tool for ongoing improvement.



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