

PANGEA

[ THIRD EDITION ]

2024  
Sustainability  
Report





# Table of Contents



## Introduction

- 04** Executive Summary
  - 11** Sustainable Development Goals
  - 13** Our Manufacturing Locations
- 



## Environmental

- 15** Environmental Introduction
  - 16** Greenhouse Gas Emissions
  - 22** Energy
  - 25** Water
  - 28** Chemicals and Material Management
  - 32** Responsible Chemistry
  - 34** Circularity and Waste
- 



## Social

- 41** Social Introduction
- 42** Our Employees
- 44** Safety and Wellbeing
- 45** Inclusive Environment
- 47** The Value of Different Minds
- 50** Employee and Community Engagement
- 52** Engagement with Customers



## Governance

- 55** Governance Introduction
- 61** Materiality Map
- 62** Macro-risks, Challenges and Opportunities
- 64** Respect for Human Rights
- 66** Global Code of Conduct
- 68** Supplier Management and Sustainable Procurement
- 70** Deforestation and Supply Chain Traceability
- 72** Animal Welfare
- 76** Data Security and Information Management
- 79** Industry Governance
- 85** Leather Leadership and Industry Relations
- 88** Life-Cycle Assessment
- 91** Closing Remarks



# Introduction



**A**s we look back on our achievements and challenges in 2024, we continue to navigate an evolving automotive industry driven by technological innovation and a growing focus on sustainability and decarbonization. Every challenge to the auto industry carries an effect on their suppliers and consumers alike.

In 2024, we saw the global leather industry embracing voluntary sustainability initiatives and a desire to make its clean presence in the market more visible. For example, The Sustainable Leather Foundation (SLF) reported a higher number of new partnerships. The Leather and Hide Council of America (LHCA) released a Life Cycle Assessment (LCA) study with updated metrics for US beef and dairy production. Through its representative model, the study highlighted that the Higg Material Sustainability Index (MSI) values for leather hide production were significantly overinflated, to the detriment of leather, as compared to other surface materials. On a similar front, the Leather Working Group (LWG) and a consultancy group shared

In 2024, we saw the global leather industry embracing voluntary sustainability initiatives and a desire to make its clean presence in the market more visible.

aggregated data from their audits globally. As a result, the MSI scale was adjusted to values 60% lower. When facts and primary data drive conclusions, an overall lower environmental impact is attributed to leather operations than what is calculated with proxy data.

In 2024, our customers continued to challenge and inspire us to meet high expectations for material performance and design—while advancing sustainability and cost-effectiveness. This year also marked a pivotal step forward in supply chain traceability and chemical management regulations, with initiatives such as the EU Deforestation Regulation (EUDR) and the Corporate Sustainability Reporting Directive (CSRD) introducing

clearer guidelines for the European leather market. Additionally, evolving restrictions from the European Chemicals Agency (ECHA) on bisphenols encouraged innovation in the chemical industry, leading to the development of more refined tanning chemicals. Altogether, these shifts signal a strong call to action—inviting greater collaboration, transparency, and a united commitment to communicating the sustainability of the modern leather industry with clarity and confidence.

The leather community has also united to challenge regulatory and misleading narratives. While EUDR prefaces cattle hides as a commodity linked to deforestation, analysis commissioned



# This report demonstrates not only the initiatives, projects, and commitments but also Pangea's results and evolution in relation to sustainability year after year.

by UNIC (Italian Tanneries Association) and COTANCE (The Confederation of National Associations of Tanners and Dressers of the European Community) concluded that leather is derived from cattle raised for meat and dairy consumption, and leather production does not incentivize cattle farming. Put simply, when you compare hide prices to live cattle and beef prices, it's clear that hides—making up just 1–2% of the value—aren't driving cattle farming. But it's still important to use the hides as a byproduct of the beef industry to avoid waste.

By sharing information with our customers, Pangea is focused on driving continuous improvement described in this report, led by a materiality assessment that has identified the important topics in the areas of ESG, product, and supply chain. As global sustainability challenges intensify, we continuously reassess our strategies and ambitions to stay at the forefront with renewed and bolder goals. We commit to take an industry-leading role in doing what is best for people and the conservation of resources. This 2024 Sustainability Report marks the fourth consecutive year of publication, whereby



we share environmental metrics, social, operational information and governance of the Company, all managed by our efforts to promote fair and transparent communication with all stakeholders. This report demonstrates not only the initiatives, projects, and commitments but also Pangea's results and evolution in relation to sustainability year after year.

Our commitment includes maintaining sustainability and leather manufacturing standards that are recognized by leading industry auditors and the multi-stakeholder community, such as the Leather Working Group (LWG) for our “Gold Certified” rating of all manufacturing sites, and NQC (Supplier Assurance) from Drive Sustainability - Automotive Partnership, whose ratings attest to our responsible supply chain management.



# We believe that the leather business can be a force for good.

We believe that the leather business can be a force for good. Our corporate metrics for Scope 1 and Scope 2 emissions were down 12.5% from 2023 levels. This marks a milestone in us reaching over 25% reduction from our baseline in 2021. This was made possible by our operations in Nigel, South Africa (RSA), deploying a large-scale solar project and improvements on energy commodities atop all energy projects Pangea reported in 2023.

We continue to drive the narrative that a change in the public perception of leather is only possible with correct and impactful messaging, showcasing sustainable innovation and a commitment to lowering the carbon footprint of our products and processes. As a result, we added two new articles to our Advanced

Products' family: **Verita**, a metal-free and glutaraldehyde-free leather substrate with translucent coating, and **Pulvera**, which places emphasis on circularity principles for chrome-tanned articles. It utilizes buffing waste that is transformed into liquified chemicals used in the retanning operations.

The leather industry has a complex environmental footprint, so it's important for us to reduce the amount of materials we use and make our production more sustainable. In this report, you'll find examples of how we're sourcing raw materials responsibly, improving production efficiency, managing waste, and making better use of by-products. We also highlight our commitment to fair labor, animal welfare, and working with responsible partners in our supply chain.

On top of that, we aim to raise consumer awareness about the value of choosing sustainable products.

Our efforts continue to uphold a respectful and inclusive corporate culture. Our global workforce maintained a 41% female participation. Communicating openly about our business has become vital to building trust with our customers, investors, and community. We welcome you to read our 2024 edition of the Sustainability Report for details on our sustainability vision and strategy and how it supports our business and customers.

The information in this report reflects Pangea's performance as of, and for the year ended December 31, 2024, and







is presented collectively on behalf of our Corporate Development Center (Rochester Hills, MI), our operations in Mexico: Leon (LN), Nuevo Laredo (NVL), and Saltillo (STL); in Germany: Mulheim (MH); in Hungary: Jánosháza (JZ); in South Africa: Nigel (RSA), and in China: Jiaxing (JX). This report has been reviewed by the Board of Directors of Pangea Made, Inc, and its Executive team. It is granted public view, sharing observed trends, absolute and relative results in comparison<sup>1</sup> to metrics of our previous reporting year. This report has a voluntary and narrative approach but still incorporates content from the guidelines of the Global Reporting Initiative (GRI). We also include information usually disclosed under the Sustainability Accounting Standards Board (SASB),

the Task Force on Climate-related Financial Disclosure (TCFD), we uphold the goal of providing reliable, comparable, and relevant data. The indicators fulfilled in this report are aligned with our material themes.

We are confident that our initiatives are on the right path, yet we recognize the need to observe markets and continually raise our ambitions. Our offerings of sustainable products helped answer the call of automotive customers working toward decarbonization of the supply chain that seeks the integration of sustainably sourced materials in the industry.

The leather industry still has a long way to go to meet expectations for clear messaging about its products, their benefits in diverse use and durability and overall lower environmental impacts. Looking ahead, we see collaboration as essential to finding solutions to the complex challenges we face as an industry to change public perception. Our expectation is for Pangea to be a leader in this area and be a trusted advisor to our customers.

Our efforts  
continue  
to uphold a  
respectful  
and inclusive  
corporate  
culture for all  
associates and  
collaborators.

<sup>1</sup> Percentual values comparing 2024 relatively to 2023 metrics are highlighted in text. Green color coding indicates a desired trend.



# Strategy

Our Sustainability Strategy encompasses every stage in the lifecycle of our products and is built upon a strong foundation of ethical and responsible material sourcing and modern manufacturing. Specifically, we aspire to lead the leather industry in offering a durable product with minimal impacts to the environment. Simply put, the chart below offers a snapshot of each ESG pillar and our priorities:

	Environment	Social	Governance
APPROACH	Reduce relevant impacts, continuously measuring our material and energy inputs and outputs	Hold excellency in well-being standards by improving the conditions of the value chain	Enable right decision makers to excel their vision and seamlessly integrate sustainability into core business practices
PRIORITIES	<div>Significantly reduce greenhouse gas emissions (CO<sub>2</sub>e) from our own operations and supply chain with renewable energy</div> <div>Transition to circular resource use, finding outlets for our waste streams</div> <div>Adapt increased share of renewable chemistry</div> <div>Only use chemistry screened and recognized for safety and performance standards</div>	<div>Uphold human rights and exemplary working conditions</div> <div>Ensure health and safety at all workplaces with constant awareness training</div> <div>Uphold equal protection and equitable opportunities for the entire workforce globally</div> <div>Extend volunteerism to the communities surrounding our industrial footprint</div>	<div>Embed sustainability into our culture and business practices</div> <div>Foster and support ethical business conduct within our own organization and with all our business partners</div> <div>Maintain a communication channel to welcome ideas and concerns from any individual and stakeholders</div> <div>Uphold certifications that award results and best practices in the industry</div>





# Short-term ESG Goals

Our **short-term ESG goals** help us quickly implement sustainable practices, typically within one to three years timeframe. These goals include cutting carbon emissions, advancing renewable chemistry, enhancing customer understanding of the leather manufacturing, and ensuring responsible sourcing. By focusing on areas in the near term, Pangea strengthens its ESG approach, builds stakeholder trust, and lays the groundwork for long-term sustainability.

We have managed a steady reduction of Scope 1+2 emissions by implementing energy efficiency measures and transition to cleaner energy sources where available. Pangea will continue to do so to improve our carbon footprint by acting on the processes we control while assisting our customers in their decarbonization goals for the supply chain.

By focusing on renewable chemistry, we will continue to give preference to

bio-based chemistry for new leather articles and reformulations while reducing dependence on petroleum-derived chemicals. This action allows us to prioritize greener alternatives that support a circular economy and local initiatives.

Transparency and communication are vital. Without them, progress remains incomplete. Customer engagement is key to building trust, reinforcing brand loyalty, and sustaining lasting relationships. We are committed to educating consumers about leather sustainability, our responsible manufacturing practices and edgy design, empowering them to make informed choices. Through trend (design) shows and direct interactions, we gain valuable insights into customer preferences, collect meaningful feedback, and refine ESG initiatives to align with evolving market needs and our advanced leather products.

As part of our governance, we aim at strengthening our sustainability ratings via auditors and certification bodies that further enhance credibility



of our actions and reinforce Pangea's commitment to sustainable development and supply chain compliance. With NQC, we focus on risk management and transparency in our global supply chain. LWG certifies our responsible leather production with environmental standards and best industry practices, while EcoVadis evaluates Pangea's ESG rating performance to meet and exceed global supply chain expectations. As a goal, we aim to continuously climb in these sustainability ratings.

Moving forward, we remain focused on continuous improvement, transparent reporting, and creating a culture of responsibility that aligns with our core values.

	2021	2022	2023	2024	2027
Scope 1+2 Emissions (kgCO <sub>2</sub> e/m <sup>2</sup> of finished leather)	1.14	1.13	0.96	0.84	< 0.80
Natural or Renewable Chemistry	10.3%	17.5%	19.6%	20.4%	24%
Customer Education: # of Corporate Shows	0	50	71	102	120
Responsible Sourcing: # of suppliers that report Scope 1 & 2 Emissions and ESG initiatives	-	-	-	76%	95%+
NQC (Corporate average sustainability score and range observed in SAQs)	73% (65-78%)	79% (74-84%)	B 84% (82-89%)	B 85% (82-90%)	A (91%+)
LWG (# of production sites certified and rating)	1 (Silver)	1 (Silver)	5 (Gold)	5 (Gold)	Maintain Gold to the most updated protocol
EcoVadis (percentile position of rated sites amongst all supply chain to the automotive industry)	75 <sup>th</sup>	74 <sup>th</sup> to 92 <sup>th</sup>	79 <sup>th</sup> to 94 <sup>th</sup>	79 <sup>th</sup> to 95 <sup>th</sup>	Top 5% (95 <sup>th</sup> +)



# Sustainable Development Goals

## 3 GOOD HEALTH AND WELL-BEING



We work to offer a safe, caring, inspiring and inclusive working environment to our employees and their families globally. We also strive to market products that are socially responsible.

## 7 AFFORDABLE AND CLEAN ENERGY



We look into minimizing energy use and also utilizing more renewable energy, year over year, sourcing energy from suppliers that offer carbon-emissions free or offsets for their electricity grids.

## 4 QUALITY EDUCATION



We know that continuous learning and development are fundamental for individual and organizational growth. Hence, we collaborate to support employees in developing their unique capabilities and to acquire new and advanced skills and knowledge to better serve our customers.

## 8 DECENT WORK AND ECONOMIC GROWTH



We are committed to promoting sustainable economic growth by offering a productive employment environment with decent work conditions for all and a fair compensation.

## 5 GENDER EQUALITY



We want to empower women to succeed in an overall diverse and inclusive organization. Here, differences are used to build strength and mirror the society we want to serve. We reached a mark of 43% of management positions held by women.

## 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Innovation is part of our history and keeps us going. We are constantly looking for new ways to respond to the needs of our customers and improve the leather industry.



We work to provide inclusive green places to our employees and volunteering opportunities for recreational parks, building renovations, and community beautification.



With our product having its origins with cattle farming, we have the responsibility to only source hides from supply chains that are not related to deforestation to protect natural ecosystems. We also have the goal of minimizing waste outputs and diverting them to the coproduction of other materials



We believe that responsible consumption and production start with strong governance, taking full ownership of processes across our value chain. We look at our operations and envision circular processes would ensure a more sustainable production.



We act in good faith to continue to be a company that is trusted by and resonates with customers and society. Our own values are reflected in policies, communicated and applied to the entire supply chain.



We believe that a prosperous society is one based on healthy ecosystems. To contribute to this call for action, we are committed to continuously improving our environmental performance and helping our customers contribute to the same objectives.



We collaborate with industry segments and institutions alike to promote synergy in sustainable development of the leather industry and funding for data and calls for action.



# Our Manufacturing Locations



# 2

# Environmental



Our goals in the environmental pillar are to improve the use of renewable energy, primarily in the retanning operations, and deploy company-wide standards in eco-efficiency.



ur goals in the environmental pillar are to improve the use of renewable energy and deploy company-wide standards in eco-efficiency: lower water consumption and generation of effluents, while accelerating the circular economy in the management of residues.

We strive to achieve this goal by minimizing the environmental and societal impact of our primary operations and industrial presence. To maintain a balance between growth and sustainability, Pangea focuses on reducing the material and energy demands of our processes and products through innovation, advanced technologies, and ethical sourcing practices that align with the upstream supply chain, including modern cattle farming essential for feeding the population. Our efforts actively promote fair and equitable access to a clean, safe, and healthy environment—a fundamental human right. In turn, a healthy environment fosters economic prosperity and overall wellbeing. Addressing these multifaceted challenges requires collaboration across the supply chain and extending our efforts beyond the boundaries of our facilities.

Through our efforts to share the life cycle assessment (LCA) of our products and highlight the environmental consequences of discarding, we've learned that customers often feel overwhelmed and need more concise, straightforward information. This indicates a lack of standardization across the supplier base, making data inconsistent and difficult to compare. To benefit everyone in the value chain, the industry needs a unified approach to defining which environmental impacts are significant and relevant to leather users when conveying product impact data.

The environmental section of this report presents various metrics associated with leather production, using a square meter of finished leather as the standard unit of measurement. These metrics are provided for informational purposes and are specific to our processes and production facilities.



## [ ENVIRONMENTAL ]

# Greenhouse Gas Emissions

### Scope 1 and 2 Emissions

By disclosing scope emissions, we spark confidence that we are tracking and managing emissions to be ahead of compliance requirements. We feel this results in operational improvements and future cost savings, driving innovation in sustainable practices that foster collaboration with other companies, suppliers, and stakeholders to reduce emissions across the value chain.

The emissions reported by Pangea encompass CO<sub>2</sub> equivalent emissions from our offices and industrial facilities. To achieve our objectives of minimizing environmental impacts and reducing the carbon footprint of our supply chain, we track emission scopes following the Greenhouse Gas Protocol (GHG). These include direct emissions from our processes (Scope 1) and indirect emissions from purchased electricity consumption (Scope 2). The data covers emissions from Pangea's owned and controlled assets, as well as indirect emissions generated by the power grids supplying our facilities. For Scope 2 emissions, we used a location-based approach, utilizing average emission factors in kgCO<sub>2</sub>e/kWh for energy generation within specific geographic regions where we operate.





## OVERALL SCOPE 1 & 2 EMISSIONS

# 0.84

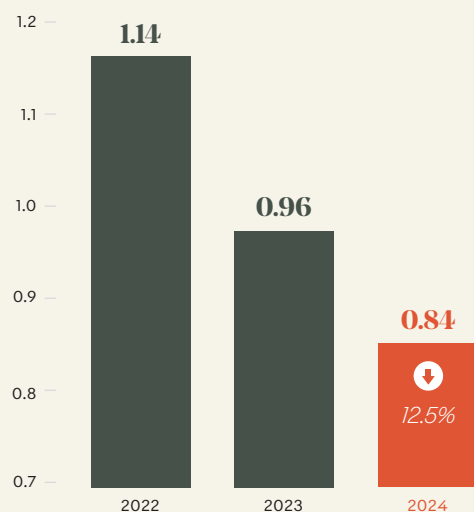
## kg CO<sub>2</sub>e

per m<sup>2</sup> of processed leather

*reduction of 12.5% from levels estimated in 2023 (0.96 kgCO<sub>2</sub>e/m<sup>2</sup>).*



## SCOPE 1+2 EMISSION PER SQUARE METER OF LEATHER PROCESSED

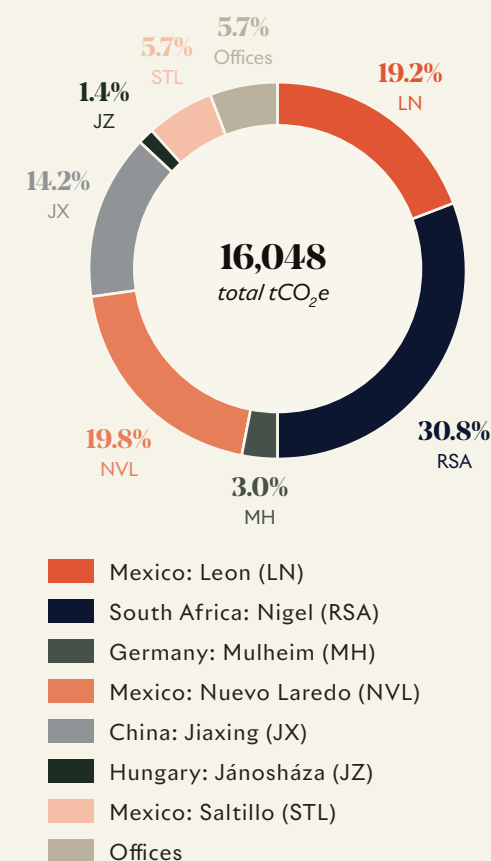


In 2024, the combined Scopes 1 and 2 GHG emissions were 0.84 kgCO<sub>2</sub>e per square meter of leather processed, reflecting a 12.5% decrease compared to the 2023 estimate of 0.96 kgCO<sub>2</sub>e/m<sup>2</sup>. This reduction was achieved through enhanced energy management across all facilities, on-site energy generation, and offsets via power purchase agreements (PPA) sourced from energy providers.

In 2024, our facility in Germany continued to operate with a 100% renewable electricity. The cutting plant in Hungary sourced 47 MWh per month from a French energy provider utilizing renewable and mechanical sources, such as hydro and marine power. At our manufacturing plant in León, Mexico, onsite power generation was implemented, achieving an average of 232 kWh daily throughout the year, marking a 16% increase over 2023. In South Africa, our retanning facility launched a solar project that, within its partial year of operation, generated 410 MWh—reducing reliance on the RSA national grid by 9% of its total energy demand. Across Nigel and León, Pangea's self-generated electricity increased sevenfold in 2024. Collectively, these

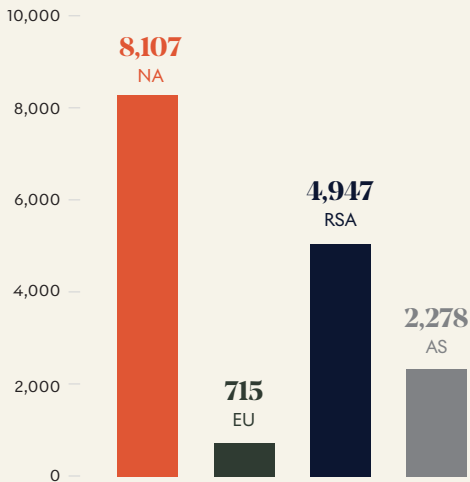
optimizations and renewable energy initiatives reduced the company's global electricity-related emissions to an average of 0.41 kgCO<sub>2</sub>e/kWh, a 14.5% decrease from previous year.

## SCOPE 1+2 EMISSION PROFILE Y'24



# SCOPE 1+2 EMISSION PROFILE Y'24

Regional allocations in tCO<sub>2</sub>e and relative change to 2023 levels

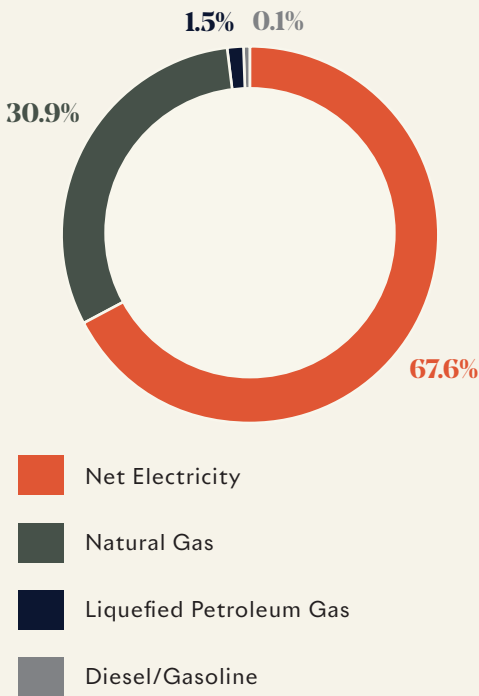


- North America (NA)** ⬆️ -4.8%  
*Despite increased regional leather production*
- Europe (EU)** ⬆️ -30.8%
- South Africa: Nigel (RSA)** ⬆️ -27%
- Asia (AS)** ⬆️ -34.2%  
*EU, RSA and AS: Carries impact of lower production into the metrics. But for RSA, we also have the benefit of solar energy generation*



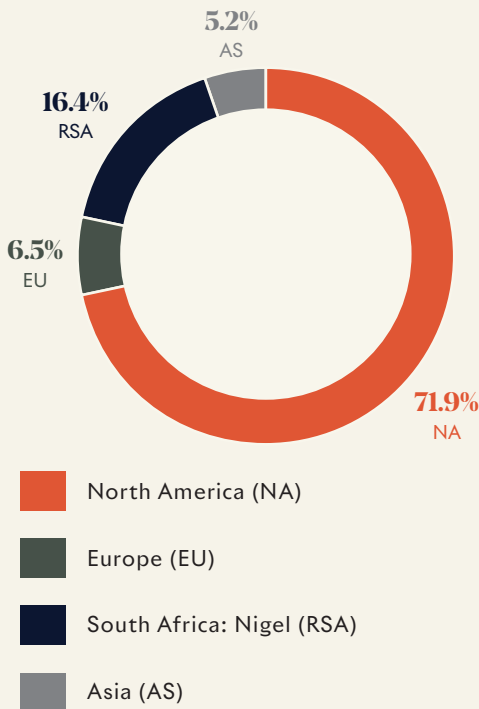
## SCOPE 1+2 EMISSION PROFILE Y'24

Energy commodity allocation

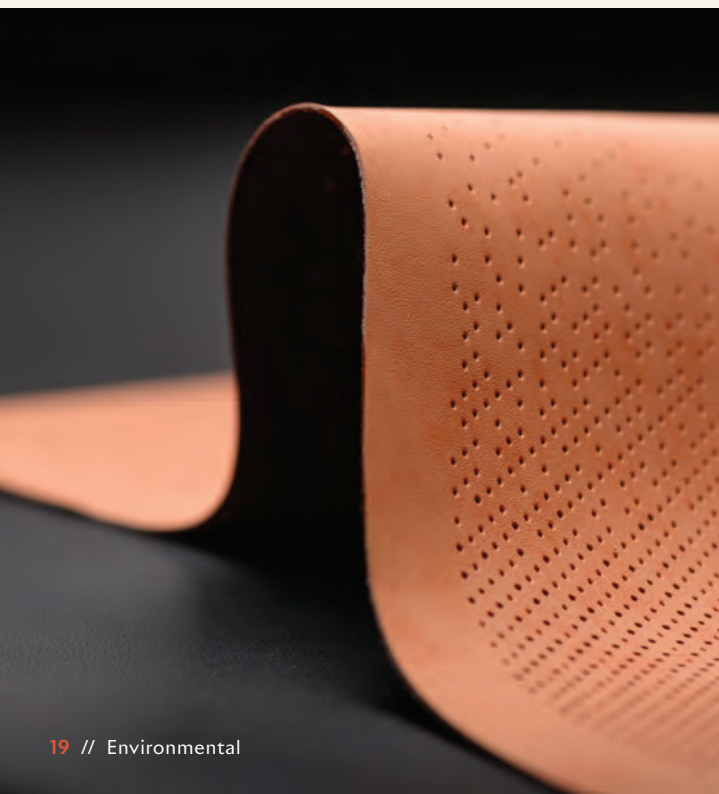
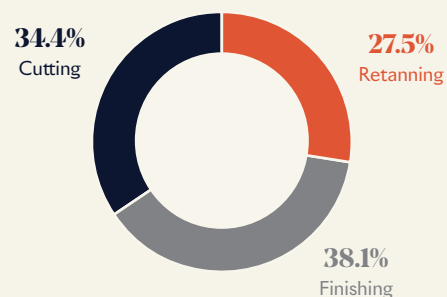


## 2024 LEATHER PRODUCTION

Regional allocations based on product m<sup>2</sup>



## 2024 PRODUCT SURFACE AREA ALLOCATIONS



The data collected supports that the most effective way to reduce Pangea's GHG emissions is to make our operations more efficient. This will reduce our current consumption of energy and by investing in alternative energy we can offset energy loads demanded at each production site.

Pangea remains dedicated to prioritizing energy conservation in its efforts to support the net-zero GHG emission goals of major automotive customers and their supply chain. This commitment involves leveraging the best available and economically feasible technologies across all production sites. By doing so, Pangea not only enhances the sustainability of its entire automotive leather portfolio but also encourages its supply chain partners to participate in energy efficiency programs aimed at reducing GHG emissions.





### Scope 3 Emissions

We remain committed to measuring indirect emissions throughout the value chain, which stem from assets and activities outside Pangea's control but contribute indirectly to the leather value chain (Scope 3). Increasing regulatory and financial sector demands to address Scope 3 emissions have made this a critical yet challenging task. Measuring Scope 3 emissions is crucial because they represent the largest share of an organization's total greenhouse gas (GHG) emissions and provides a complete picture of an organization's environmental footprint. As we create products using both renewable feedstock and chemistry, we collaborate closely with suppliers to prioritize sustainable materials. This partnership involves selecting suitable biobased feedstock, sourcing hides locally, adapting both internal and external processes, and effectively launching and distributing leather products that surpass customer expectations. This strategic vision to address Scope 3 emissions is a value-creation opportunity instead of a risk management task:

- We are engaging suppliers that are innovative and have the capability to offer materials that minimize both the cost and carbon footprint of their products
- We are communicating with customers about material specifications that drive complexity in leather making and lead to unnecessary overengineering and the burden of excess material and energy intensity
- We are developing partnerships across the value chain and other industries to leverage new technologies and circular solutions for our waste streams and to offer a reduced end-of-life impact



Addressing Scope 3 emissions requires broad collaboration across suppliers, our business units and departmental functions, all considering the upstream value chain, downstream distribution and use of our leather products.

- We are integrating our operations and new lines of sustainable leather products, investing in technology and aligning goals with regulatory requirements, investor expectations, and customer demands for sustainability
- We are enhancing the availability and reliability of data to track and manage Scope 3 emissions effectively

We aim to identify and leverage emission-reduction opportunities beyond our direct control. We are currently establishing our baseline and concentrating on emissions linked to waste management in our operations within the GHG Protocol Corporate Value Chain, Accounting and Reporting Standard (Scope 3, category 5). This encompasses emissions from third-party disposal, treatment of solid waste and wastewater generated during the reporting year.



## SCOPE 3 EMISSION (CATEGORY 5) PROFILE Y'24

---

Waste and its transportation,  
in tCO<sub>2</sub>e

- ▶ **1,329 tCO<sub>2</sub>e**  
Emissions from solid waste landfilled
- ▶ **-5.1 tCO<sub>2</sub>e**  
Emissions from waste incinerated  
with energy recovery loop
- ▶ **111 tCO<sub>2</sub>e**  
Emissions from municipality  
wastewater treatment plant
- ▶ **17.1 tCO<sub>2</sub>e**  
Emissions from transportation of  
waste streams
- ▶ **-557 tCO<sub>2</sub>e**  
Avoided emissions from global recycling



[ ENVIRONMENTAL ]

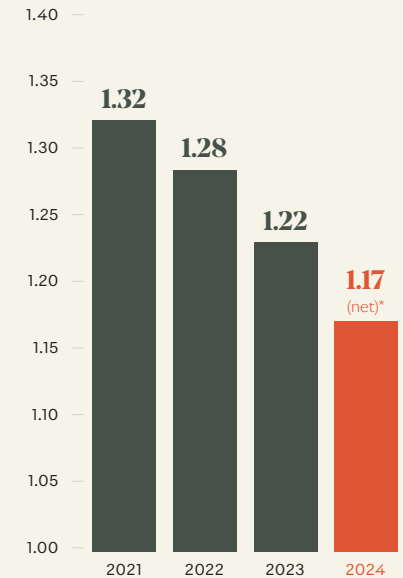
## Energy

We track our energy use from several sources, including electricity from local power grids, clean energy contracts, on-site solar panels, and thermal energy like natural gas. In 2024, 7.85% of our global electricity (2,089 MWh) came from clean, non-emitting sources through agreements, and we generated 495 MWh on-site using solar panels—seven times more than in 2023.

In 2024, Pangea's electricity consumption amounted to 1.17 net kWh per square meter of leather processed, a 4% reduction compared to the previous year. Thermal energy consumption, primarily from natural gas, was 4547 kJ per square meter, down by 1.3%. Scope 1 emissions from direct energy use were 95.2% attributable to natural gas, while liquefied petroleum gas (LPG) accounted for 4.8%, maintaining the same proportions of energy commodities as observed in 2023.



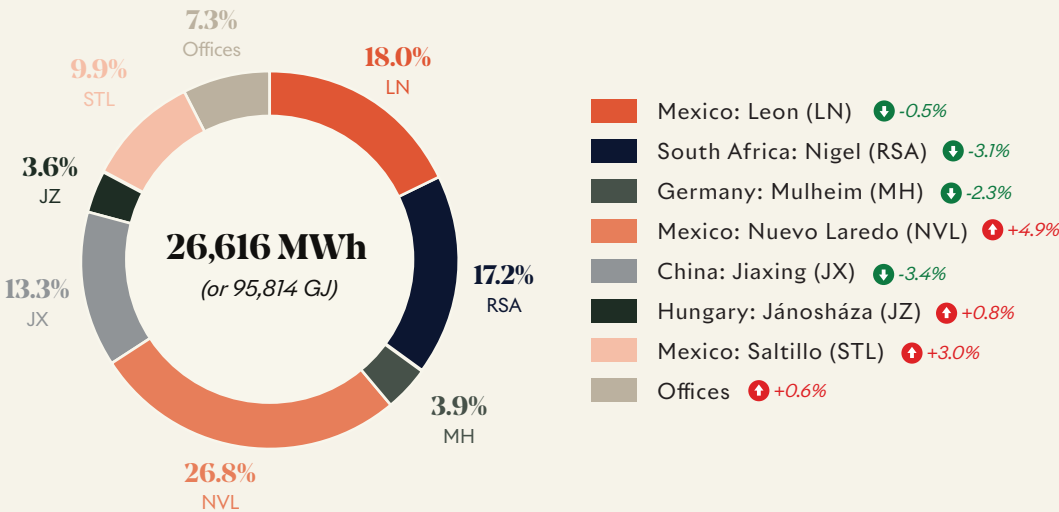
### ELECTRICITY PER LEATHER PRODUCTION (kWh/m<sup>2</sup>)



(\*) net electricity consumption, deducting self-generated.

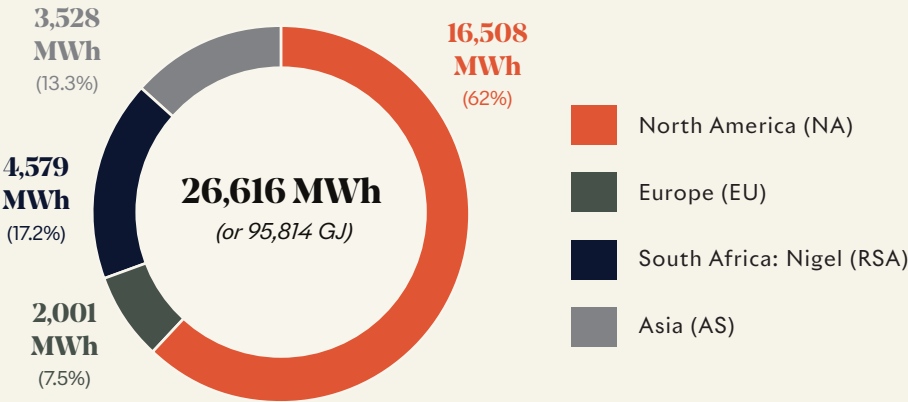


ENERGY PROFILE: ELECTRICITY Y'24



2024 ELECTRICITY CONSUMPTION

Regional allocations in MWh



1.17

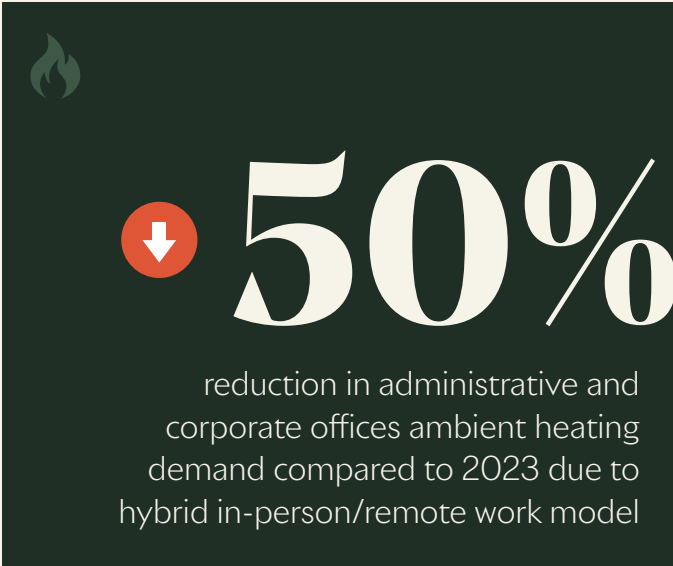
net kWh per m<sup>2</sup> total electricity consumption in 2024

Down 4.7% from 2023

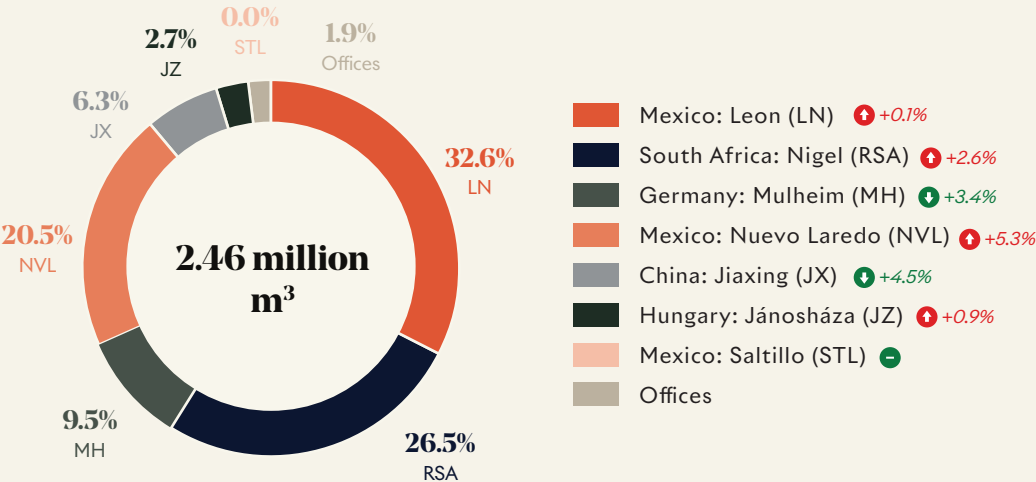
more energy generated using on-site solar panels than in 2023

The consolidation of office spaces and the adoption of a hybrid in-person/remote work model resulted in a 50% reduction in administrative and corporate offices ambient heating demand compared to 2023.

Energy consumption fluctuations are linked to variations in production volumes across different regions. It is encouraging to see that we have exceeded our goal of achieving at least a 2-3% annual energy efficiency improvement relative to product output. This success is driven by a phased, site-specific approach, energy management initiatives to replace high carbon-intensity assets, and the adoption of efficient in-house technologies. As a result, 2024 saw a significant decrease in energy-related emissions, with further reductions expected in 2025.

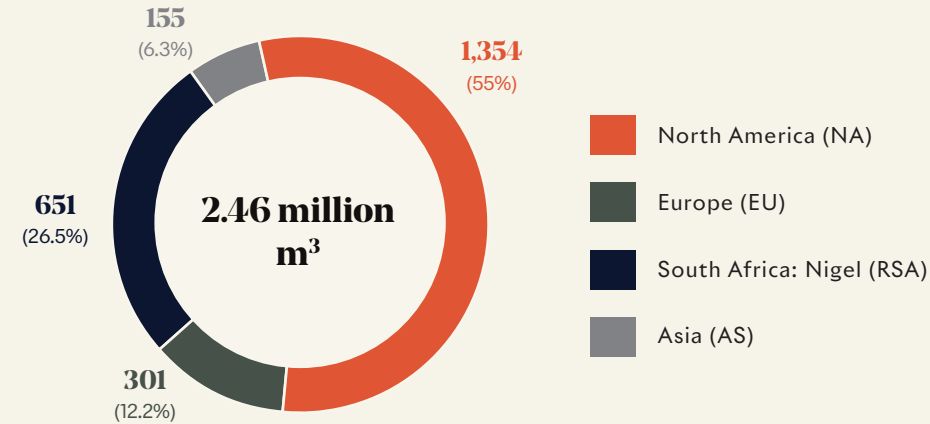


ENERGY PROFILE: NATURAL GAS Y'24



2024 NATURAL GAS CONSUMPTION

Regional allocations in 1000 m³





## [ ENVIRONMENTAL ]

# Water

Water plays a vital role in both life and our business operations, being the most heavily utilized resource in genuine leather production. Any risks to water availability can significantly affect our value chain, underscoring our responsibility to use water efficiently while ensuring its quality and accessibility in the regions where we operate.

Although implementing closed-loop systems is cost-intensive, practical measures such as adopting water-efficient tanning technologies, optimizing processes, and promoting employee training and awareness prove equally critical in reducing water usage. Examples of how tanning and post-tanning technologies aid in conserving water are demonstrated within our leather substrate portfolio:

- High efficiency FOC adapted for low-bisphenol resulted in a 7% savings in water used for chemical dilution and batch volume per lot produced
- Hybrid Puretan systems (free of both chromium and GDA), compared to traditional chromium-tanned substrate represents a 24% reduction in total water consumed per batch processed

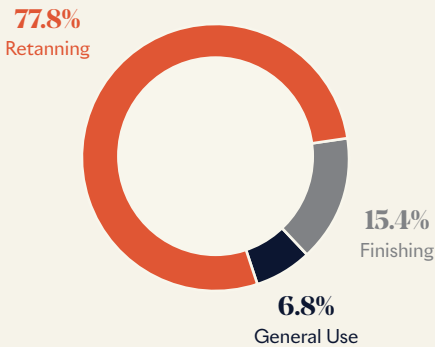




Pangea operations that involve retanning carry the highest consumption of water within Pangea, followed by finishing applications that use water in aqueous dispersions. Some water is incorporated into leather substrates, but the majority is returned to municipalities and subsequently to waterways as treated wastewater (two-thirds of the volume consumed) or returned to the natural atmospheric water cycle as water vapor (22% of consumption). Leather itself carries about 12% of the water intake as product moisture content.

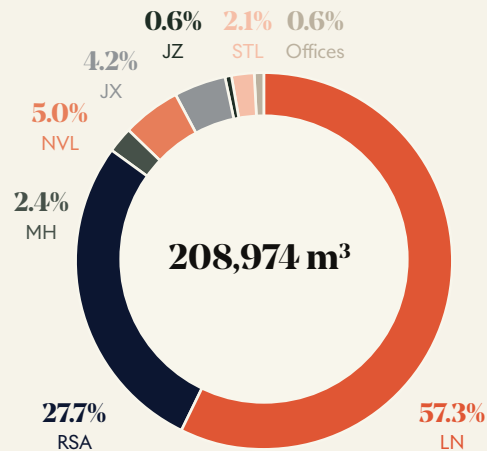
WATER USAGE PER OPERATION

(% of global consumption)



WATER PROFILE\* Y'24

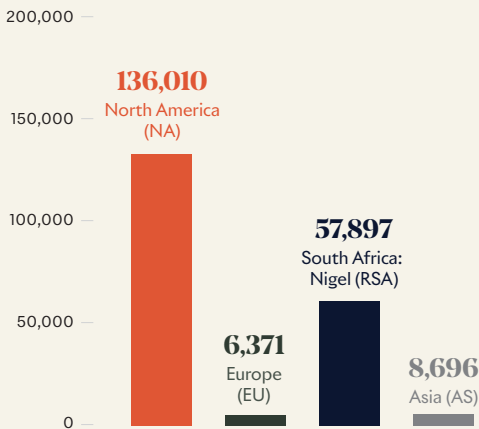
Regional allocation in m³



- Mexico: Leon (LN)
- South Africa: Nigel (RSA)
- Germany: Mulheim (MH)
- Mexico: Nuevo Laredo (NVL)
- China: Jiaxing (JX)
- Hungary: Jánosháza (JZ)
- Mexico: Saltillo (STL)
- Offices

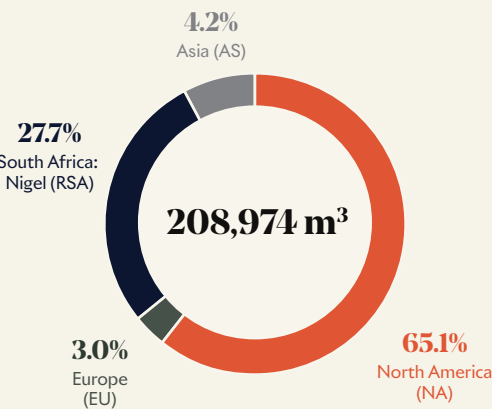
WATER USAGE

Regional allocation in m³



2024 WATER USAGE

Regional allocation (%) of total usage



Through collaboration with equipment suppliers, we aim to improve water quality and efficiency by developing innovative processes to tackle water scarcity in critical areas. Progress toward this goal shows that we are on track to meet local targets of reducing freshwater usage 8-16% by 2025, influenced by site-specific coating applications and retanning innovations aligned with Zero Discharge of Hazardous Chemicals (ZDHC) standards. We will continue to monitor our advancements, focusing on scalable technologies across production sites to minimize impacts on water quality.

Our commitment to water stewardship extends to optimizing our operations and improving water management in regions facing water stress.



## [ ENVIRONMENTAL ]

# Chemicals and Material Management

Proper chemical management is essential in our industry, where innovation and sustainability are core values—and it demands specialized knowledge. It plays a crucial role in reducing the release of harmful substances into the environment, thereby mitigating water pollution, soil contamination, and air emissions—often regarded as key environmental challenges within the leather industry and areas of focus of media and markets.

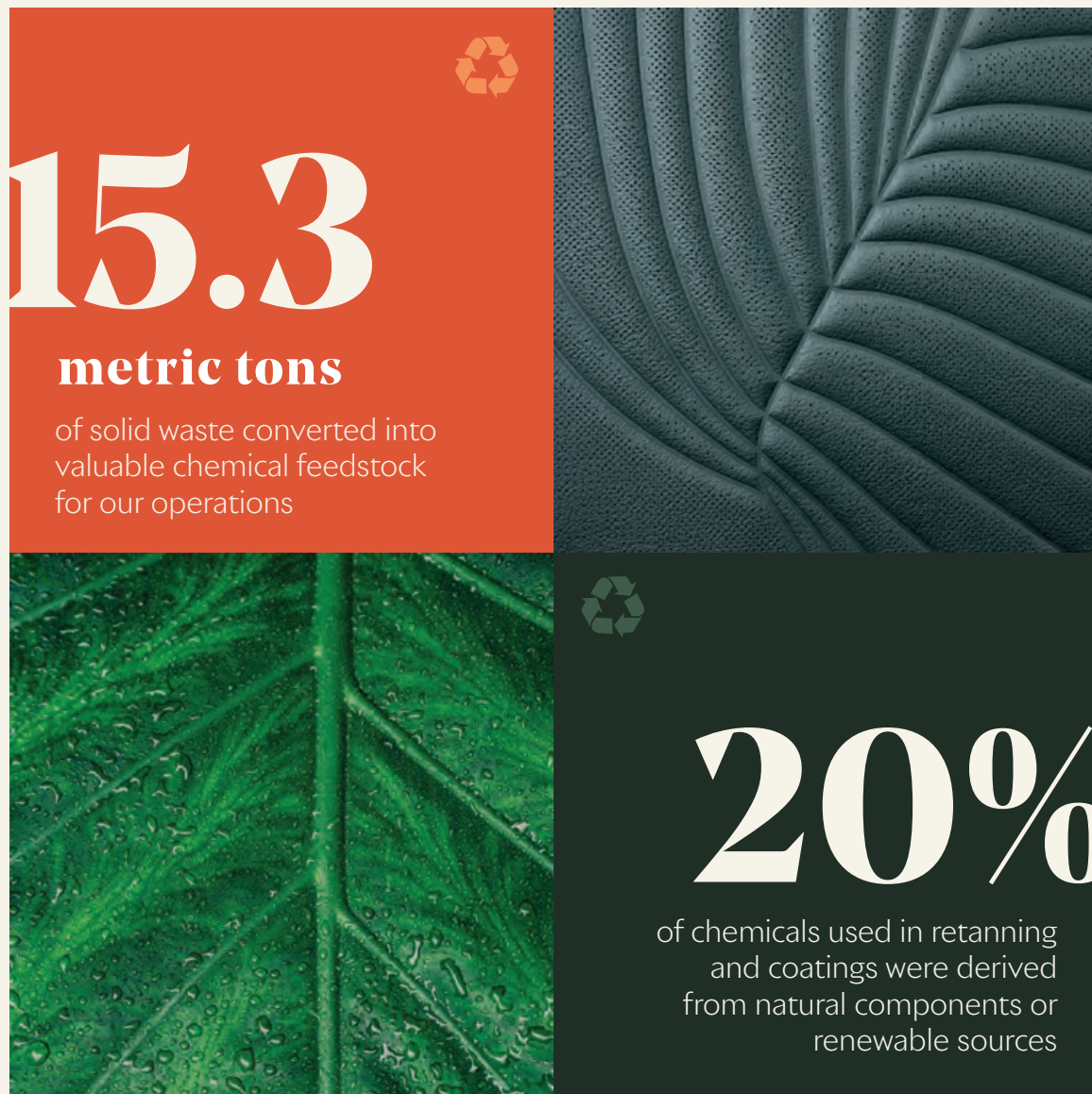
Our chemical use restrictions, including RSL and ZDHC MRSL standards, benefit from the proactive efforts of our global suppliers in monitoring regulatory compliance for chemical substances. This approach enables them to anticipate and implement safe raw material modifications well in advance of regulatory changes, avoiding rushed reformulations and delays in obtaining necessary customer approvals. The leather's intended use and customer specifications guide the chemical formulations selected. Our role is to leverage our approved global suppliers, who hold the largest market share of chemicals in the automotive leather industry, to only use the best performing chemistry. This collaboration ensures





the use of safer chemicals that adhere to strict regulations and sustainability initiatives during manufacturing and licensing for global markets. Ultimately, responsible chemical management prioritizes employee safety, offers less impact from effluents easier wastewater treatment, and delivers a risk-free leather to end-users. Articles produced by Pangea and consumables supplied to Pangea fully adhere to European legal standards as well as our stringent chemical requirements. To ensure safety and compliance, all suppliers partnering with us are required to deliver products that meet Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulations, including adherence to guidelines regarding Substances of Very High Concern (SVHCs).

The durability of our genuine automotive leathers, relies on a series of complex chemical processes, including tanning, retanning, and finishing. These processes are conducted in an aqueous phase, contributing to our industry's notably low VOC profile. Using chemicals that pose no risks to worker health, end-user safety, or the environment enhances both the reputation and market appeal of our products.



Pangea's Global Product Development and Design teams are united by their focus on both how leathers are crafted and how these products elevate the vehicle end-user experience. To reduce the chemical impact across the product life cycle, Pangea has implemented a product platform for new leather articles and a global program to standardize chemical usage across all production sites. This initiative aims to promote the adoption of functional chemicals sourced from renewable materials.

In 2024, 20.4% of the chemicals used were derived from natural components or renewable sources, marking a 4% increase over 2023. Driven by advancements in alternative tanning and the development of biopolymers and incorporating renewable-carbon content, Pangea expects the use of renewable chemistry in its products to grow substantially.

The production of leather involves various methods, tailored to automotive specifications and unique design needs of each OEM program. In 2024, we explored ways to minimize chemical

usage by identifying best practices, such as recovering process chemicals and adopting green chemistry principles, as outlined in previous reports. **Through a combination of ethical procurement practices and product innovation, we focus on recycling chemistry for suitable applications.** Notably, we repurposed wet-blue shavings—a solid waste material – into approximately 9,900 kg of biopolymers, which were used in our Recycled Tan substrate. This process converted roughly 15.3 metric tons of solid waste into valuable chemical feedstock for our operations.

We recognize that all materials contribute to our environmental footprint. Our focus is on the materials we use most frequently or those with the greatest potential to improve environmental and supply chain impacts. Guided by our Sustainable Procurement Policy, we address consumables and commodities, from hides to packaging.

Although lamination is not used in all leather parts, it remains essential for the design and engineering needs of



In 2024, we explored ways to minimize chemical usage by identifying best practices, such as recovering process chemicals and adopting green chemistry principles, as outlined in previous reports.



automotive seats, cabin wrapped parts, and door paneling. Efforts to standardize lamination materials across vehicle platforms are ongoing, but the wide variation in interior leather applications and customers' preferences for specific engineering materials make it challenging to reduce end-of-life complexity for leather trims. In 2024, Pangea supported customer design and engineering requirements by utilizing over 1.86 million square meters of leather lamination. We are currently experimenting with foam lamination offcuts to develop a solution for this additional waste stream that has a complex composition, low density and occupies a large volume.

We anticipate that the lamination industry and OEMs will start to collaborate to adopt sustainable alternatives to polyurethane foam backing and synthetic support materials for seating surfaces. In the meantime, Pangea provides a full-thickness leather construction (Natural Grain) that can be utilized without the need for lamination.

Our focus is on the materials we use most frequently or those with the greatest potential to **improve environmental and supply chain impacts.**







[ ENVIRONMENTAL ]

## Responsible Chemistry

At Pangea, we are deeply committed to safeguarding the well-being of our customers, employees, and the environment through careful and ethical chemical management, following these core principles include:

- **Sustainable Innovation:** we strive to create and implement safer and more natural chemical alternatives in our products and operations.
- **Transparency:** we openly share information about the materials we use and their benefits on performance and the environment.
- **Proactive Risk Reduction:** we not only adhere to regulatory standards but also take extra steps to mitigate risks associated with chemical usage and give preference to safer chemicals.
- **Collaboration:** we actively work alongside industry experts and suppliers to promote responsible chemical practices and implement higher use of renewable chemicals.



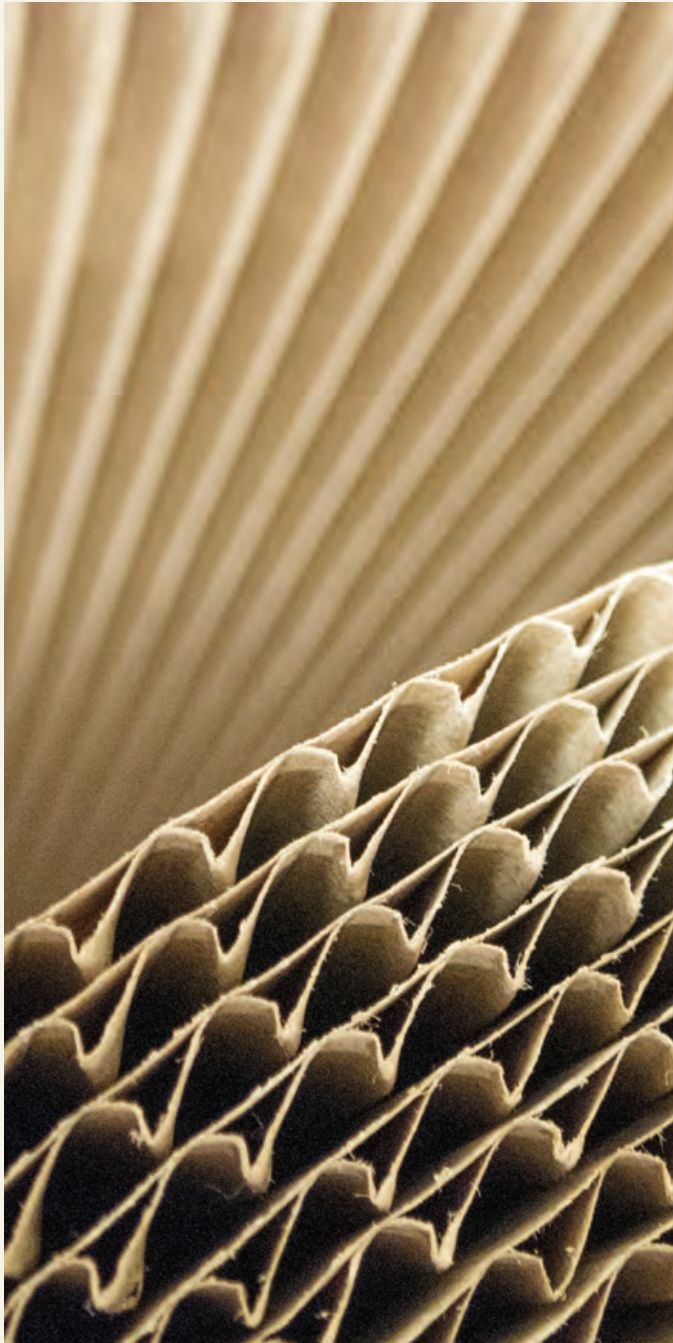
Our goal is to contribute to a sustainable world by adopting chemical practices that prioritize safety and environmental responsibility. We do so by designing and producing leather with necessary chemicals in ways that prioritize safety, sustainability, and environmental stewardship.

To prove that our responsible chemistry practices result in safe products, we evaluated leather against the OEKO-Tex® Leather Standard, which basic principle is that the more intensive the human skin contact is with a surface material, the more rigorous are the requirements for the laboratorial testing. It not only evaluates the leather product, but also the substances used in its manufacturing to certify the leather article is eco-friendly, safe for human health and a reliable choice as a sustainable product. We opted for Class 1 certification, testing our leathers to the chemical safety requirement for “baby products”,

although our market is intended for the automotive industry seating and wrapped surfaces.

We are proud to announce that our leather products have officially achieved OEKO-TEX certification, a prestigious recognition that highlights our commitment to quality, safety, and sustainability. This certification ensures that our leather meets rigorous standards for being free from harmful substances, making it safe for intended use.





## [ ENVIRONMENTAL ]

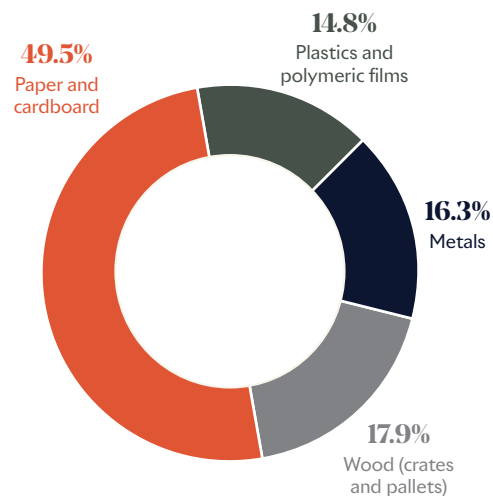
# Circularity and Waste

Waste reduction remains a key element of our environmental strategy, emphasizing the importance of addressing the entire life cycle of our leather products. Our objectives include forming supplier partnerships to integrate circularity into leather processing and implementing comprehensive waste management practices across various streams. Pangea also recycles typical waste materials with recovery value (metal, glass, paper/ cardboard, plastics, and wood). During this reporting period, 1,647 metric tons of waste were recycled—a 1.3% increase—representing 26% of the total solid waste generated globally. Recycling rates varied by facility, depending on production profiles and the availability of local recycling centers.



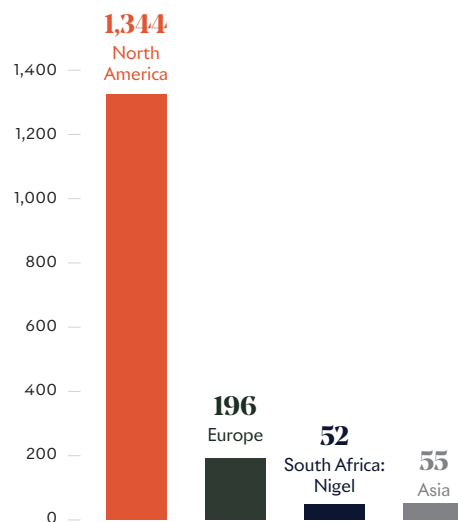
## RECYCLED WASTE IN 2024

Segregated composition (%)



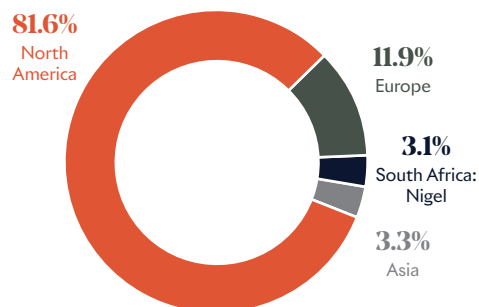
## RECYCLED WASTE

Regional recycling in metric tons



## REGIONAL RECYCLED WASTE GENERATION

(%) of Pangea global recycled waste output



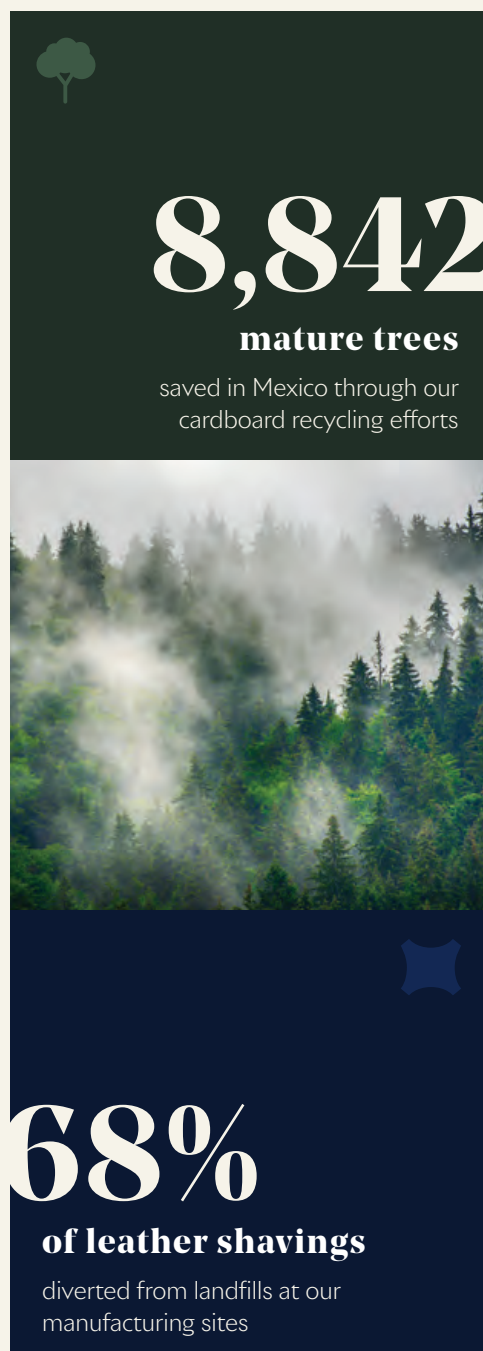
**1,647**  
metric tons

of waste were recycled in 2024,  
representing 26% of the total solid  
waste generated globally

In 2024, packaging materials, primarily paper and corrugated cardboard, made up nearly half of our global recycled waste. In Mexico, the world's fourth-largest paper recycling nation, we are committed to supporting the circular economy model established by the Paper Chamber. Our cardboard recycling efforts in Mexico accounted for 86% (706 metric tons) of Pangea's total paper recycling worldwide.

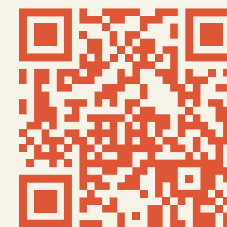
Projections indicate that this recycling initiative in Mexico helped save 8,842 mature trees, conserve 9,825 m<sup>3</sup> of water otherwise required for pulp and paper production, prevent 1,234 m<sup>3</sup> of municipal landfill space from being used, and reduce the paper industry's energy demand by 5,910 GJ. This energy saving is equivalent to avoiding 492 metric tons of CO<sub>2</sub> emissions from electricity consumption of the paper industry.

As we continue gathering metrics to optimize manufacturing processes, we remain dedicated to enhancing waste management through local partnerships and repurposing initiatives.



In 2024, our Leon, Mexico plant successfully achieved its goal of zero waste from leather shaving operations. This milestone was made possible through a partnership with an animal by-product conglomerate, facilitated by a local bio-collagen industry. All solid wet-blue shavings from the plant are now repurposed to produce agricultural bio-stimulants, and bio-polymers for our Recycled-Tan process. These shavings, primarily composed of tanned collagen (a protein), are hydrolyzed into amino acids, which agricultural crops can absorb and metabolize.

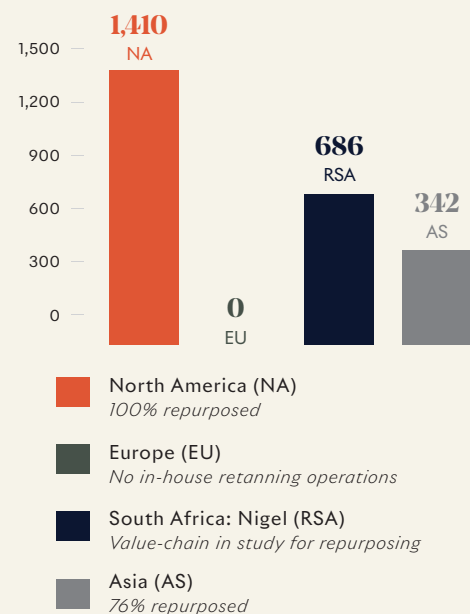
In 2024, our manufacturing sites diverted 68% (1,670 metric tons) of leather shavings from landfills. These were repurposed into co-products by local industries in Mexico and Asia, along with exports to third-party processing facilities in Italy.



**Scan to learn  
more about  
our zero waste  
initiative.**

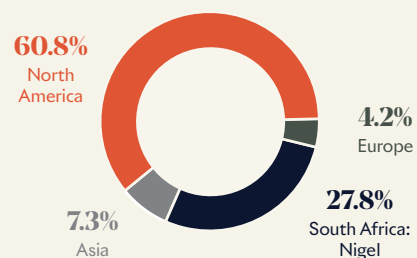
## LEATHER SHAVINGS

Regional production in metric tons and disposal

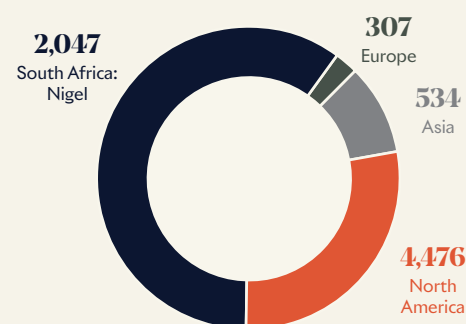


## REGIONAL SOLID WASTE GENERATION

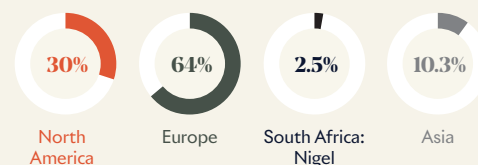
(%) of Pangea global waste output



## REGIONAL SOLID WASTE GENERATION IN METRIC TONS



## AMOUNT RECYCLED AT EACH REGION



Reducing the consumption of raw materials directly enhances our use of energy, chemicals, and water. We understand the importance of addressing the full life cycle of our leather products—from raw materials to end-of-life and potential reuse. Through a collaboration with local industry and a supplier in Leon, Mexico, we have established a circular system where tannery shavings are recycled into a hydrolyzed compound that is reintroduced into the retanning process, creating our Recycled Tan substrate.

Our ongoing efforts focus on the following areas: chemicals, water, production waste, energy, and people.

Our global non-hazardous waste production, which is primarily landfilled, totaled 178 grams per square meter of leather produced, reflecting a 9% reduction compared to 2023. With the reclassification of shavings waste as feedstock for the chemical industry and the elimination of this waste stream in Mexico, the processed hazardous waste per square meter decreased to 66% of the levels reported in previous years.



## OUR ONGOING EFFORTS FOCUS ON THE FOLLOWING AREAS:

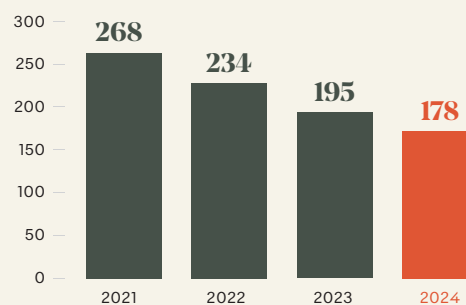
- 01 Chemicals:** implementing a screening process to identify high-performing, low-impact chemicals, reducing chemical usage, increasing renewable content, and recycling used chemicals.
- 02 Water:** minimizing over-batching, increasing recycling, reducing freshwater consumption, and improving wastewater quality.
- 03 Production Waste:** enhancing material recovery, reuse, and recycling rates while reducing overall waste generation.
- 04 Energy:** offsetting emissions, improving energy transfer efficiency, and reducing overall energy consumption.
- 05 People:** ensuring safe practices by providing proper personal protective equipment and safety training for chemical handling.

Reducing the consumption of raw materials directly enhances our use of energy, chemicals, and water, advancing our progress toward achieving a circular process.



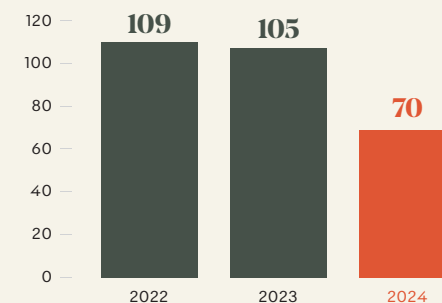
### NON-HAZARDOUS WASTE, LANDFILLED PER LEATHER PRODUCTION

(grams/ m<sup>2</sup>)



### SLUDGE AND SHAVINGS CONFINED AS HAZARDOUS WASTE PER LEATHER PRODUCTION

(grams/ m<sup>2</sup>)



## Aligned with circular economy principles, all waste handling follows a strict hierarchy: prevention, reuse, recycling, energy recovery, and disposal.

Pangea continues to reduce waste and improve resource efficiency through strategic partnerships and internal innovations. Our Pure Tan® line introduces sustainable, chrome- and glutaraldehyde-free chemicals for retanning and finishing, supporting closed-loop systems, composting, and energy recovery.

We empower design teams with tools to prioritize longevity, recyclability, and material reuse. Virtual prototyping allows customers to review and refine designs before physical production. This feedback-driven approach allows for design adjustments prior to creating a first prototype, effectively reducing waste during the development phase.

Aligned with circular economy principles, all waste handling follows a strict hierarchy: prevention, reuse, recycling, energy recovery, and disposal. We also repurpose leather offcuts—such as those from instrument panel production—into new designs, turning high-rejection material into creative opportunities.

While leather durability is not considered in ISO-aligned LCA standards, Pangea actively contributes to industry efforts for a unified, science-based framework that could shape future EU Product Environmental Footprint guidelines for leather.





# 3

## Social



We are  
dedicated to  
respecting and  
promoting  
the rights of  
every individual  
involved in our  
global operations

**I**n our interconnected world, addressing the social aspect of ESG is crucial to building Pangea's reputation and ensuring our long-term success. By emphasizing ethical practices, fostering diversity, treating employees with respect, and uplifting the communities we engage with, we strive to create value for all stakeholders.

Pangea's business serves automotive end-customers worldwide and is shaped by the craftsmanship of artisans from diverse backgrounds. We are dedicated to respecting and promoting the rights of every individual involved in our global operations, driven by our shared values and commitment to fairness and equality. We provide our employees with meaningful job responsibilities and fair compensation, ensuring a safe and inclusive workplace free from discrimination. This dedication extends to our supply chain collaborators and aligns with the *International Labour Organization's* Fundamental Principles and Rights at Work. Our approach reflects the ILO's definition of decent work as "productive work for women and men in conditions of freedom, equity, security, and human dignity."



[ SOCIAL ]

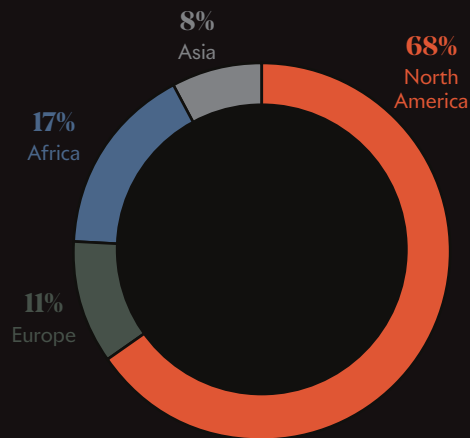
## Our Employees

Our production sites and offices span 8 countries across 4 continents, reinforcing our presence as a global employer. This geographic reach enables us to cultivate a diverse and multicultural workforce. Our extensive industrial footprint and interactions with suppliers underscores the importance of fostering strong, positive relationships with employees, contractors, suppliers, and community stakeholders in every region we operate.

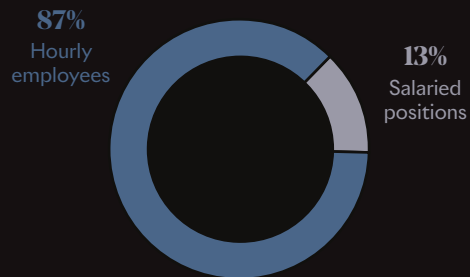
In 2024, we continued to align roles and responsibilities to better match individual capabilities, potential, and the evolving needs of the company. At the same time, we maintained a balanced proportion of hourly to salaried positions, ensuring operational efficiency while supporting our people.

Through an internal performance and responsibility reassessment program, Pangea rightsized its workforce and encouraged its employees to embrace a transformative journey—adapting to new technologies, digitalizing processes, advancing leather production techniques, and elevating sales strategies. In return, we acknowledge our employees’ desire for transparency, highlighting how their contributions shape Pangea’s future and how we, as a company, actively support the communities where we operate.

## WORKFORCE ENDING DEC Y'24



## HOURLY VS SALARIED POSITIONS DEC Y'24



Our production sites  
and offices span

**8**  **4**  
**countries** **continents**

reinforcing our presence  
as a global employer

Our extensive industrial footprint and interactions with suppliers underscores the importance of fostering strong, positive relationships with employees, contractors, suppliers, and community stakeholders in every region we operate.





Pangea's total  
recordable injury rate is

**93% lower**

than what is benchmarked  
as average by the Bureau of  
Labor Statistics

[ SOCIAL ]

## Safety & Wellbeing

As we advance our sustainability strategy, ensuring that all associates feel safe, valued, and respected remains a priority. In 2024, Pangea's workforce contributed over 6.1 million working hours. The uncontrolled absenteeism rate in North America held steady at 2.43%, while the global average returned to the 2022 level of 4.1%, driven by increases in Europe. For comparison, we benchmark against the U.S. manufacturing sector's average for durable goods, which is 2.8%.

Pangea is committed to maintaining safe, reliable, and efficient operations. Our Total Recordable Injury Rate (TRIR) for 2024 indicates one injury for every 870,000 work hours, with seven recordable cases reported. This rate (0.23) is 93% lower than the Bureau of Labor Statistics average for businesses in a similar category (Motor Vehicle Seating and Interior Trim Manufacturing, NAICS 33636). Notably, this represents less than half the recordable cases from 2023. We continually emphasize that safety is paramount, striving for zero incidents across all facilities. Preventive measures, such as daily safety walks and employee training programs focused on wellbeing and chemical handling, are now integral to our production sites.



[ SOCIAL ]

## Inclusive Environment

Pangea is dedicated to attracting and retaining talent while fostering an equal and inclusive work environment. Guided by our Code of Conduct, we align with the UN Sustainable Development Goal promoting equal access to resources, opportunities, and universal protections.

We believe that achieving our full potential as a global organization requires empowering employees to bring their authentic selves to work. We actively support the empowerment of women across the workplace, industry, and community. Currently, women make up 43% of our salaried management positions and account for 41% of our global workforce. Embracing diversity, we recognize and promote its benefits—such as enhanced creativity and innovation, a stronger brand reputation, and improved productivity—through dynamic interactions at all organizational levels.

Pangea is dedicated to fostering an inclusive workplace on a global scale, guided by its commitment to transparency and progressive business practices. By cultivating such an environment, we remain focused on delivering exceptional customer experiences.



# 43%

of salaried management positions are fulfilled by women globally



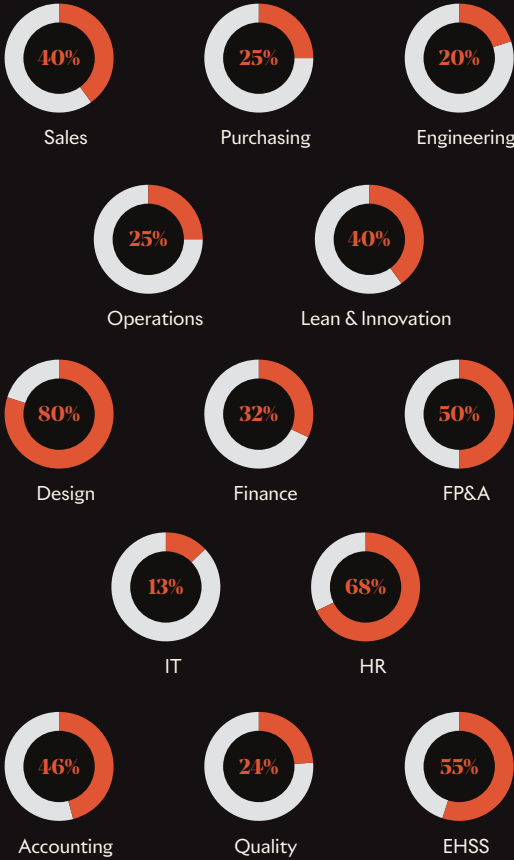
# 41%

of Pangea's global workforce is made up of women



WORKFORCE DEC Y'24

Women participation in management organizational positions







## [ SOCIAL ]

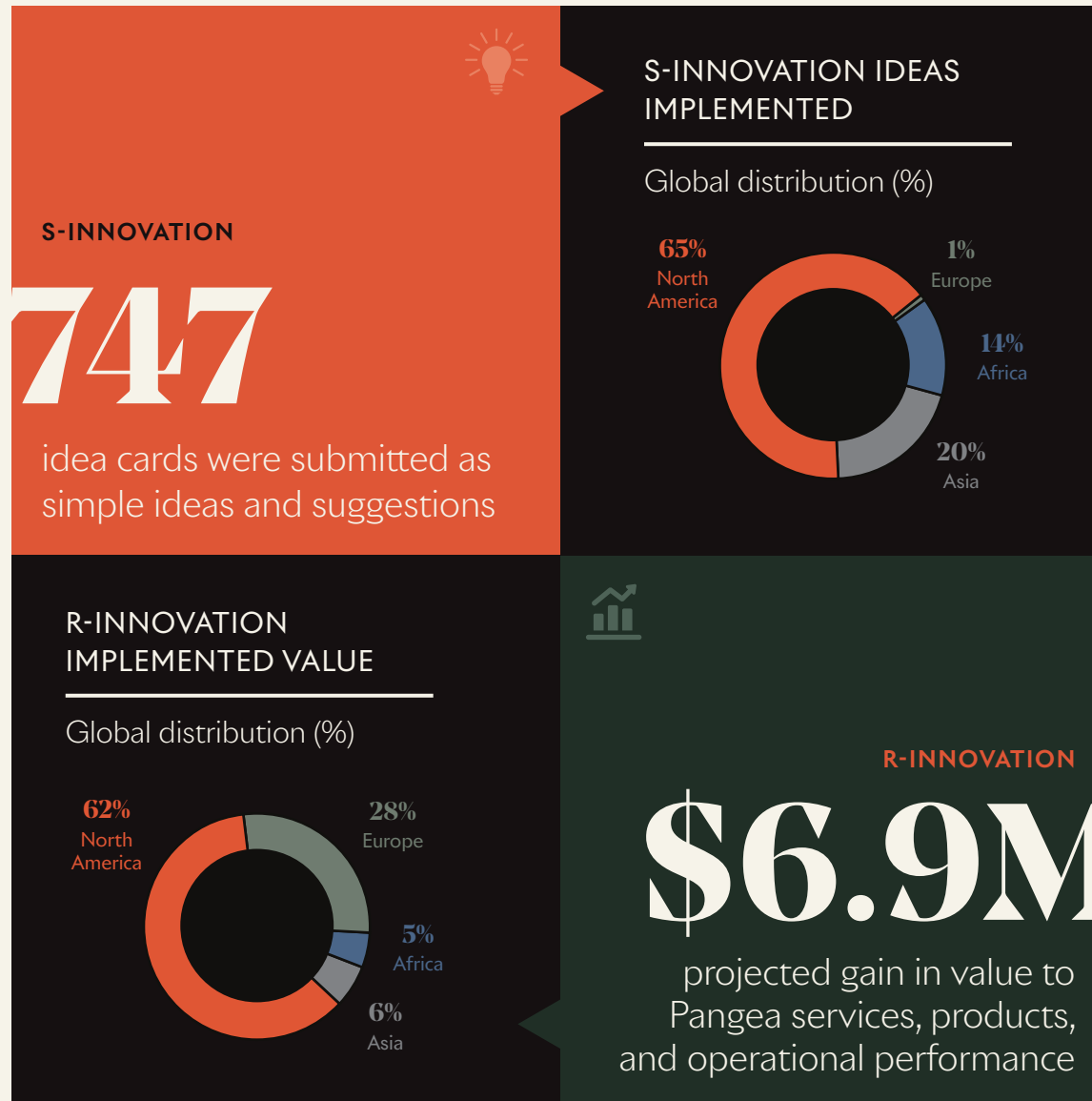
# The Value of Different Minds

At Pangea, our employees are the cornerstone of sustainable growth, contributing not only through their daily tasks but also by driving waves of creativity and innovation. We deeply value their feedback and prioritize fostering a workplace where individuals feel respected. Their ideas significantly influence personal growth, societal advancement, and innovation across various domains of life and business.

Our Global Innovation Dashboard tracks the submission, and resulting savings or added value of ideas. In 2024, as part of **S-Innovation**—initiated through straightforward idea submissions—747 idea cards were proposed, with 61% of them implemented. These implementations delivered an average gain of \$665 per idea, and each implemented idea is rewarded for its meaningful contribution.

The defining feature of these ideas is their problem-solving nature, enabling the resolution of routine issues encountered daily across industrial sites. Some ideas go beyond practical solutions, serving as a source of inspiration for individuals and communities by fostering motivation, creativity, and a sense of purpose. They can open doors to new opportunities, drive transformative changes, and enhance knowledge-sharing within teams and departments. By exchanging ideas, we strengthen connections, encourage collaboration, and deepen understanding, both within our workforce and across society.

Other innovative ideas focus on processes and systems, offering repeatable and strategic solutions with a higher return. In the **R-Innovation** category, Pangea projected an added value of \$6.9 million (+3%) to its services, products, and operational performance in 2024, maintaining levels comparable to 2023.



At Pangea, our employees are the cornerstone of sustainable growth, contributing not only through their daily tasks but also by driving waves of creativity and innovation.

We recognize that our employees fulfill diverse roles, and with this comes a natural expectation of acknowledgment for their hard work. Recognition is a straightforward yet impactful way for us to show our commitment to our team, boosting morale and enhancing job satisfaction and productivity. We take pride in our thoughtful approach to rewarding and acknowledging employees, ensuring it remains inclusive, strengthens positive relationships, and fosters collaboration among teammates. Reflecting this mindset, Pangea introduced the Global Recognition Award in 2023, structured with multiple levels of recognition, and continued to reward employees in 2024.

**Teamness Award:** in recognition of extraordinary working efforts resulting in outstanding accomplishment for the departmental function related.

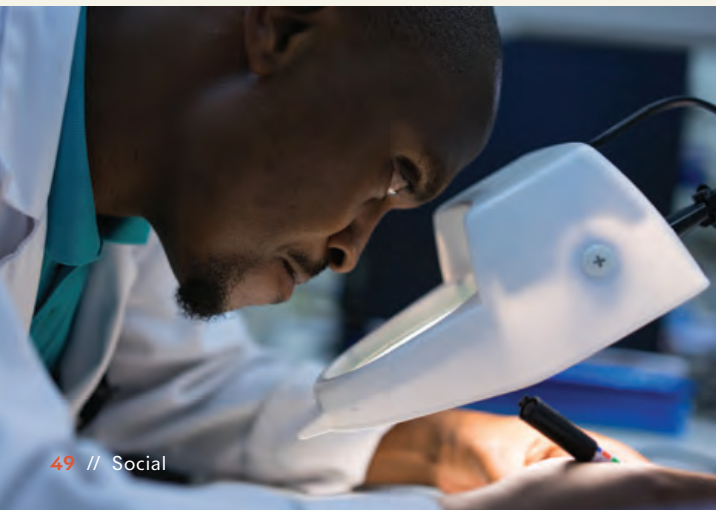
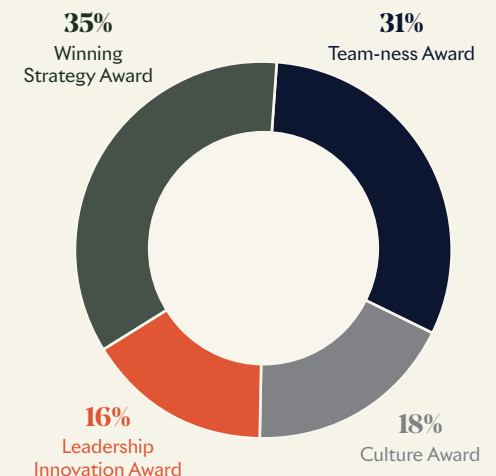
**Culture Award:** in recognition of the efforts of living Pangea's Core Behaviors and Cultures, maintaining a positive outlook and engaging servant leadership to the benefit of all.

**Winning Strategy Award:** in recognition of representation of Pangea's Winning Strategy: outstanding customer service and disciplined passion for leather, advancing our position as leaders in the leather industry.

**Leadership Innovation Award:** in recognition of employees who exhibit a combination of exceptional leadership behaviors and achievements associated with the Strategic Scope of our business, making Pangea a more effective and efficient supplier of quality leather.



## GLOBAL RECOGNITION AWARDS DISTRIBUTION







[ SOCIAL ]

## Employee and Community Engagement

Through our intranet, we enable regions and their HR departments to share experiences, achievements, unique awards, and community engagement initiatives—activities that might not otherwise be visible between production sites. Regional HR teams also distribute monthly newsletters and quarterly updates to facilitate two-way communication between regions, corporate, and stakeholders. This platform serves as a channel for corporate leaders, including executives and general managers, to relay important updates.

In addition to supporting the wellbeing and growth of our employees, we actively contribute to the development of local communities. Our efforts include collaborations with municipal governments, public schools, parks and recreational centers, NGOs, and community organizations, aiming to enhance the economic and social progress of the communities we serve.

Our efforts include collaborations with municipal governments, public schools, parks and recreational centers, NGOs, and community organizations, aiming to enhance the economic and social progress of the communities we serve.



In Hungary, we revisited the fence project of the local kindergarten in Jánosháza to reinforce and re-layer the painting job completed in 2023. We know that a freshly painted environment fosters a sense of pride among residents, boosting morale and local identity while preserving the structures from weathering, extending the lifespan of the community assets.



Leon organized a collection of drawing materials and books to benefit ALUCCA (Asociación de Lucha Contra el Cáncer en Niños).



PANGEA Nuevo Laredo actively participated in the “Festival de la Tapita” organized by the Alianza Anticáncer Infantil Foundation. The purpose of this event was to collect CAPS to support children and young people who are fighting cancer. On this occasion, employees from the HR-EHS departments and the PANGEA Union joined together to deliver a significant donation of the bottle caps collected every day at the plant. This action not only reflects PANGEA’s commitment to social causes, but also its contribution to the welfare of the community and the support of those who need it most.

We frequently organize collections of school supplies, children’s books, shoes, and uniforms. Across all sites, we dedicate time for volunteering, recognizing that this simple act of kindness brings joy to children in kindergartens and public schools in the neighborhoods we serve. Compassion is at the heart of these efforts, and we are deeply grateful for the generosity and thoughtfulness demonstrated by all Pangea members.



[ SOCIAL ]

## Engagement with Customers

Pangea is committed to strengthening customer connections and positioning itself as the preferred brand for OEM interiors. As a leader in automotive leather manufacturing, we stay at the forefront by developing innovative products inspired by trends from other sectors of the leather industry, such as fashion and structural design. Beyond delivering exceptional products, we strive to provide valuable insights to our customers.

To foster understanding, we host learning sessions for new associates from our clients who may be unfamiliar with industrial settings or leather manufacturing. This open engagement not only benefits Pangea but also enriches the leather industry as a whole, showcasing the craftsmanship of this unique resource.



These efforts ensure we continue to exceed customer expectations and uphold our reputation for excellence.

In today's market, customers seek more than exceptional products and services—they expect companies to be responsible community members and advocates for sustainability. Our Engineering, Product Development, and Design teams actively participate in industry fairs and customer events, enabling us to gather valuable feedback and relay customer insights to relevant departments within our business. At the same time, we evaluate how our brand and products are perceived by end consumers and assess their loyalty to both our brand and leather as a material.

Client satisfaction and market surveys guide us in identifying critical areas for improvement, implementing corrective

actions, enhancing customer service, and introducing innovative features to the leathers we produce. Together, these efforts ensure we continue to exceed customer expectations and uphold our reputation for excellence.

For the year of this report, Pangea presented its Oneness Trend Show and Advanced Products at customer sites, off-campus, and virtually more than 120 times. On 24 occasions, Pangea interacted formally with customers (OEMs and supply chain Tiers) to discuss sustainability topics and illustrate to them our approach and belief that the choice of leather and its durability is a logical one. We see these examples of engagement with customers growing in frequency and becoming a large feature of our corporate culture.



**Scan to learn more about our advanced products.**



# 4

## Governance

**T**ransparency, respect, and traceability across our value chain are integral to Pangea's ESG framework.

These efforts provide greater oversight and control over our impacts while enabling us to share performance updates on identified areas for improvement, fostering corporate accountability.

Our governance approach is forward-looking, emphasizing a robust structure that includes Board oversight. Pangea has implemented global management systems to monitor and analyze a wide array of metrics, complemented by a sustainability framework that delivers relevant data to support strategic decision-making. In addition to publishing this public report, we also provide our equity holders with a more financially-and-productivity focused report. This information is carefully reviewed by our Board of Directors, through the Executive Committee—which encompasses Operations, Purchasing, Business Development, Finance, and Quality—and the Chief Executive Officer, ensuring alignment with our vision and goals.

Pangea has implemented global management systems to monitor and analyze a wide array of metrics, complemented by a sustainability framework that delivers relevant data to support strategic decision-making.

Leadership, corporate governance, and strategic development have together shaped a business culture that aligns with the Sustainable Development Goals (SDGs), enabling Pangea to sustain and expand its industry presence. Transparency remains a cornerstone of our values, reflecting a commitment to ethical practices and dedicated service to our customers through measurable activities.

This governance framework empowers us to enforce critical monitoring practices and address potential risks that could otherwise hinder progress in the regions where we operate. To embed sustainability across our operations,

Pangea has instituted processes that incorporate feasibility assessments and sustainability considerations into product development and manufacturability design. These efforts are bolstered by a strong corporate commitment and robust talent management strategies, ensuring our continued growth and alignment with sustainable practices.

Beyond focusing on the environmental dimensions of sustainability, Pangea actively aligns its operations and governance with the principles of the United Nations Global Compact. This includes a strong commitment to upholding and promoting human rights in accordance with the UN Guiding





collective bargaining agreements, social responsibility, and the right to privacy through non-discrimination and anti-harassment policies. These policies are intentionally written with broader language than regional legal requirements to ensure inclusivity and respect for all.

Pangea's unwavering commitment to human rights extends across every aspect of our operations and value chain. This dedication is encapsulated in our Sustainable Procurement, Supply Chain, and Supplier Code of Conduct Policy. As a global leather company with an expansive supply chain, we hold ourselves to high standards that protect our workforce, enhance corporate integrity within our organization and communities, and provide effective grievance mechanisms for employees and stakeholders.

All suppliers and business partners are required to sign and comply with the standards outlined in our Code of Business Conduct and Ethics and our Supplier Code of Conduct. We encourage adherence to these standards while aspiring to exceed minimum legal requirements and international

Principles and International Conventions, as well as the standards set by the *International Labour Organization* (ILO).

Placing sustainability at the heart of decision-making enhances Pangea's performance, boosting economic and financial efficiency through cost reduction, driving innovation, and unlocking new revenue streams. This forward-thinking approach also helps to protect the value of our assets and improve risk management in key areas, including social, environmental, legal, financial, and reputational aspects.

We remain committed to enhancing transparency across our value chain,

helping OEMs and vehicle owners gain a deeper understanding of leather's environmental and societal impacts. Pangea consistently releases information that educates readers about the modern leather industry and its current sustainability profile. By collaborating with industry leaders, we aim to collectively emphasize the value of leather as a responsible use of animal by-products—preventing waste and mitigating the higher GHG emissions that would result if these materials were discarded instead of being transformed into leather.

In support of fostering diverse dialogue, Pangea upholds and safeguards

benchmarks, reinforcing our dedication to sustainability and ethical practices.

To evaluate the accuracy of our ESG approach and identify the metrics most relevant to our business, we conducted a comprehensive analysis of topics derived from standards across the leather industry spectrum, including fashion, textiles, and automotive sectors in 2023. This assessment factored in the priorities of both internal and external stakeholders, as reflected through customer and employee engagement, past ESG disclosures, peer and sector benchmarking, evolving regulatory requirements, and the broader media coverage surrounding the leather industry.

Revisiting information fed into this process in 2024, we recognized and deeply valued the insights provided by our key stakeholders. We prioritized meaningful engagement to better understand their needs, concerns, and expectations regarding sustainability at Pangea.

Our materiality assessment served as a guide, focusing on whether a topic could influence the company's value through associated risks or opportunities and assessing the significance of Pangea's impact on the economy, environment, and society.

Risk areas were preliminarily identified through the expertise of relevant departments within our organization and constructive dialogue with key stakeholders. This materiality assessment enabled us to concentrate our sustainability reporting on information that is most valuable to our organization and key customers. It also helped us pinpoint critical economic, environmental, and social issues that Pangea directly impacts or that pose significant risks to our business performance and long-term value creation.

Placing sustainability  
at the heart of decision-  
making enhances  
Pangea's performance,  
boosting economic  
and financial efficiency  
through cost reduction,  
driving innovation, and  
unlocking new revenue  
streams.

**Strategic** risks refer to potential challenges stemming from the choices made by Pangea in pursuit of its commercial objectives or from constraints in capacity or competence. These risks are often driven by shifts in the external environment, such as political, economic, and social issues, market dynamics, competitive forces, mergers and acquisitions, resource availability, innovation, and the diversity of products and services offered. Among the most significant strategic risks, succession planning, business continuity, business and competition models are particularly notable.





**Financial** risks pertain to the transparency and integrity of Pangea's financial and accounting activities, as well as the reliability of its balance sheet. These risks are categorized based on risk assessment methods, encompassing market, credit, liquidity, and operational risks. Key considerations include: the effectiveness of cash flow management to optimize and generate operational cash; the execution of financial transactions; the identification and allocation of financial resources; and the risk of issuing incomplete, inaccurate, or delayed financial, managerial, and tax reports. Addressing these areas is critical to

ensuring robust financial governance and maintaining stakeholder trust.

**Operational** risks refer to factors that can disrupt the smooth functioning of processes, including systems, protocols, and personnel. These risks may arise from internal or external sources, such as human errors, accidental mistakes, fraud, IT system failures, supplier disruptions, or inventory losses due to unforeseen incidents. Such risks directly affect Pangea's operational efficiency and resource management, potentially compromising both effectiveness and productivity.

**Compliance** risks encompass challenges related to adhering to regulations and standards. These risks are associated with compliance with performance incentives, shareholder interactions, internal communications, public disclosures, reputation and image management, as well as the Code of Ethics and Conduct and other internal guidelines. They also include adherence to a broad array of laws and regulations, both general and sector-specific, on national and international levels. This extends to labor, civil, tax/fiscal, environmental, criminal, and business laws, as well as contractual obligations and industry-specific regulations.

After identifying and prioritizing our impacts, we implemented monitoring processes to track any adverse effects or changes that may arise. Many of these monitoring mechanisms have been integrated into pre-existing programs, ensuring efficiency and continuity.

The steps we take to identify, monitor, prevent, mitigate, remediate, or address actual or potential adverse impacts related to our material topics are



We remain committed to enhancing transparency across our product and value chain, helping OEMs and vehicle owners gain a deeper understanding of leather's environmental and societal impacts.

addressed under business continuity strategy. Where applicable, action plans are detailed and activities scheduled. However, we want to emphasize **four key actions** that play a pivotal role in addressing major concerns:

Enhancing health and safety for workers across the value chain through initiatives such as the Incident Reporting Dashboard/

- 1 Lowering the environmental impact of leather production through processes that can lead to water and energy conservation, and consequent



- 2 reduction of greenhouse gas emissions, by adapting eco-friendly tanning technologies and renewable chemistry.

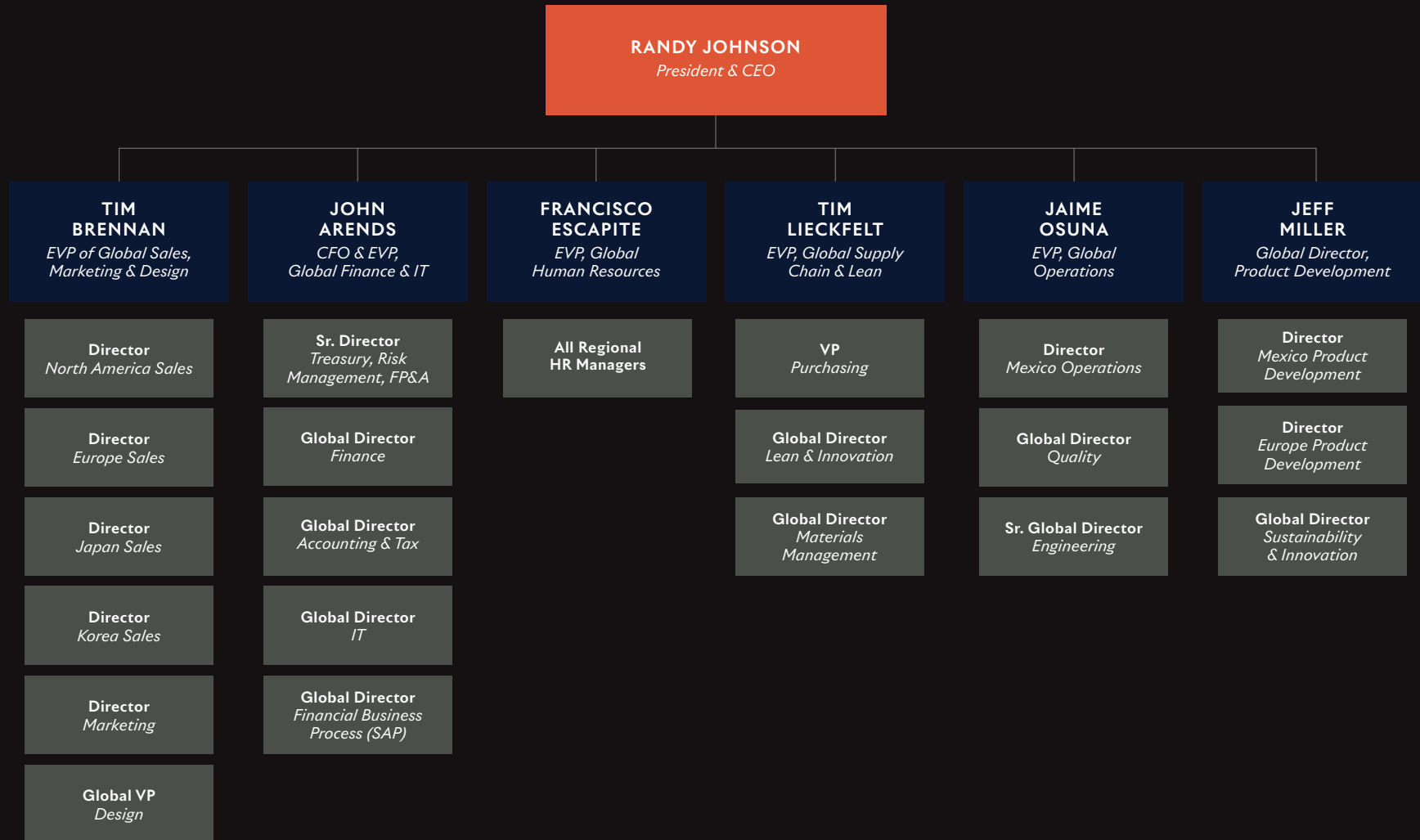
Managing vulnerabilities because our industry often relies on complex supply chains, which can be disrupted by resource shortages, supplier failures, or geopolitical issues. Risk mitigation is centered around strengthening supplier relationships, diversifying sourcing strategies, and adopting traceability systems that can enhance supply chain resilience.

Addressing labor and ethical concerns by having strong policies, grievance mechanisms and safe work

- 4 environments. These are addressed by enforcing strict labor standards, conducting regular social audits, and ensuring compliance with international and local labor laws.

By collaborating with industry leaders, we aim to collectively emphasize the value of leather as a responsible use of animal by-products.

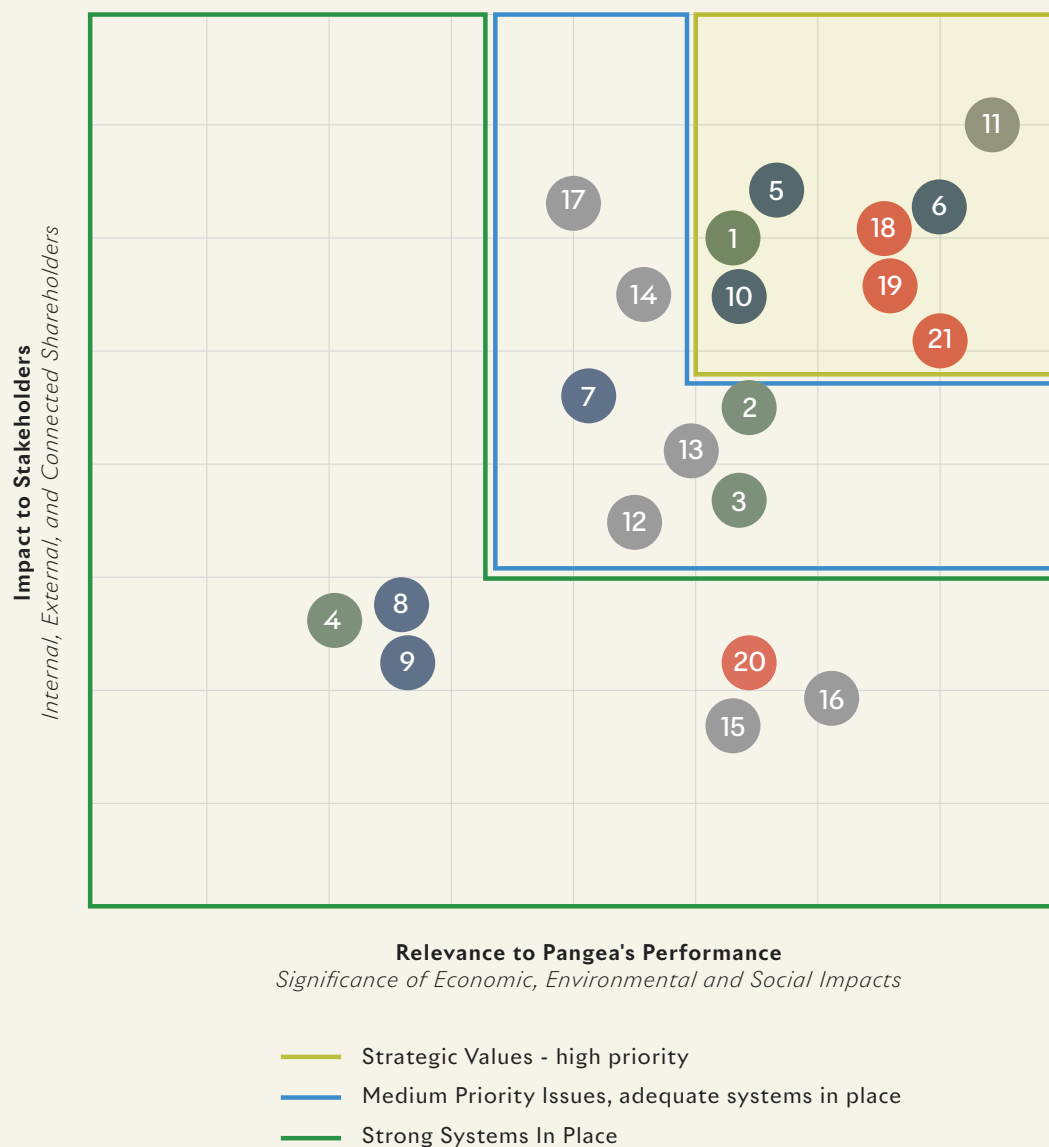
# Corporate Governance Structure Chart



# Materiality Map



## ESG TOPIC MATERIALITY MATRIX





# Macro-Risks, Challenges and Opportunities

Macro-risk	ESG Challenges / Opportunities	Definition used in the assessment	Relevant material topics
Bringing a tangible impact on the environment	Industrial site carbon footprints, GHG emissions and climate change relationship	Management of direct and indirect emissions of greenhouse gases (GHGs) and emission reduction targets to limit Pangea's contribution to climate change.	<ol style="list-style-type: none"> <li>1. Energy consumption &amp; related emissions</li> <li>2. Water usage</li> <li>3. Material consumption &amp; waste output</li> <li>4. Animal welfare &amp; traceability</li> </ol>
	Energy management and transition to renewables	Management of energy consumption, production, energy grid diversification and offsets associated with the environmental and social impact from energy use, to be less reliant on fossil-fuel.	
	Waste management	The practices implemented to control materials used or disposed of in operations and circularity approaches to minimize the burden to health or the environment.	
	Environmental impact	Our operational impacts that affect the protection of land, forests, and biodiversity resources.	
	Deforestation	How relatable is our supply chain to issues contributing to deforestation and our actions to improve traceability and forest conservation.	
Being fair and equal, ensuring protection of human rights and supporting a balanced supply chain	Sustainable procurement and responsible consumption of materials	Our ability to promote sustainable sourcing, consumption, and production routes and maintain an interactive communication with suppliers on these matters.	<ol style="list-style-type: none"> <li>5. Responsible sourcing</li> <li>6. Health &amp; safety</li> <li>7. Working hours &amp; fair compensation</li> <li>8. Labor rights, worker protections &amp; anti-discrimination</li> <li>9. Inclusion, diversity &amp; equal rights</li> <li>10. Continuous training</li> </ol>
	Human rights	The fundamental rights and freedoms inherent to all of us and the global policies, measures, and actions necessary to uphold these rights.	
	Labor practices	Employment practices regarding the internal and contracted workforce throughout the value chain, our compliance with regulatory regimes and internationally accepted labor standards in the workplace (labor rights, accessibility to benefits, and fair compensation).	
	Workforce management	How we ensure workforce functions at its most productive levels throughout organizational changes, including employee recruitment, retention, and skill development programs.	
	Employee health and safety	Safety performance and the mechanisms in place to maintain a safe and healthy workplace environment (protocols, training, work arrangements, and the physical and mental working conditions to which employees are exposed.	
	Community and employee engagement	The relationship between us and the communities in which we operate, including engagement mechanisms, outreach and community contributions, volunteering, and impact on local communities.	
	Employee diversity	Our processes and policies are designed to attract and retain diverse talent, to ensure equal opportunities, fair treatment, and a culture where every voice is heard and valued.	

Continued on next page ►

Macro-risk	ESG Challenges / Opportunities	Definition used in the assessment	Material topics
Upholding high standards and ethics in governance and business practices	Business model resilience	How we identify and manage risks and opportunities connected to ESG challenges. This includes how Pangea responds and adapts to these challenges to carry on its business, profitability, growth, and create value for stockholders and customers in the long term.	11. Profitability 12. Public policy 13. Ethical business & fair trade
	Competitive behavior	Our practices to compete and not restrict free trade between commercial partners in a market, including anti-competitive behavior and protectionism. This includes protection and infringement of intellectual property rights.	14. Data privacy & security
	Customer engagement	Management of the dynamics of client expectations that affect satisfaction, loyalty, and brand reputation, as well as the mechanisms to ensure clients are treated fairly and honestly during commercial transactions	15. Supplier performance
	Customer privacy and data security	How we manage information technology related to protecting private information, critical information systems, and networks from security breaches	16. Marketing & authentic messaging
	Selling practices and product marketing	The requirements, standards, certifications, and established practices regarding the information presented to potential clients when designing, advertising, and selling services.	17. Governance communication
	Transparency	Our comprehensive management of corporate communication through recording, reporting, and the flow of information and analysis of corporate developments and performance to equity holders and how accurate and complete the information is presented to clients and our employees.	
	Corporate ethics	The moral code of conduct and guiding principles to the strategic and operational management of our business. This includes the management of risks and opportunities associated with ethical considerations, lawful behavior, and compliance practices.	
	Corporate governance	The mechanisms, procedures, and rules concerning a company's internal control, supervision, reporting, and decision-making systems.	
Being at the forefront of development that adapts to changes in market and to new customer expectations	Management of legal and regulatory scopes	Regulatory compliance strategy and how we engage and align ourselves with regulators to make public and corporate interests compatible. This includes corporate compliance management, government relations, as well as responsible tax planning.	18. Innovation 19. Customer engagement
	Innovation and technology	Our processes, policies, and mechanisms are designed to attract and retain diverse talent, to ensure equal opportunities, fair treatment, and a culture where every voice is heard and valued.	20. Business due diligence 21. Customer & regulatory compliance



## [ GOVERNANCE ]

# Respect for Human Rights

Pangea's Human Rights Policy is built on the solid foundation of our Code of Ethics & Conduct, which defines our stance on various legal, ethical, and operational matters. It outlines the key behaviors and standards we expect, serving as the cornerstone of our culture. The Code guides how we interact with one another and how we address societal issues, both directly and indirectly. It emphasizes individual accountability, thoughtful decision-making, and our collective impact.

By setting clear standards, the Code ensures that fairness and human rights remain central to our operations, while providing mechanisms to prevent abuse, report incidents, and address them effectively. Our human rights policies and programs are informed by internationally recognized principles, including the United Nations Guiding Principles on Business and Human Rights, the Universal Declaration of Human Rights (UDHR), and the *International Labour Organization's* (ILO) Declaration on Fundamental Principles and Rights at Work.



We acknowledge our role within the communities where we operate and strive to act in a socially responsible manner, respecting the cultures and traditions of these communities. At Pangea, every team member is expected to act with integrity and good faith to earn the trust and support of the community. We also hold our suppliers to the same high standards, partnering with companies that share our values and human rights commitments across the supply chain. Our Human Rights Policy reinforces Pangea's dedication to respecting and advocating for human rights throughout our entire value chain. We firmly condemn all forms of forced, compulsory, exploitative, and child labor, while actively promoting diversity and inclusion among the individuals we work with and for.

Safeguarding the personal dignity of our employees is a top priority at Pangea. We are committed to preventing intimidation, harassment, and violence within our workplace. In the rare instances where such behaviors occur, we ensure they are thoroughly investigated and

appropriately addressed in a timely manner. Pangea upholds a zero-tolerance policy for harassment and discrimination, firmly rejecting any form of disrespectful or inappropriate behavior, unfair treatment, or retaliation.

We fully respect employees' rights to freedom of association and collective bargaining, ensuring they can exercise these rights without fear of reprisal. Our commitment extends to fostering constructive dialogue with freely chosen employee representatives, promoting mutual understanding and collaboration. Additionally, our recruitment and hiring practices are grounded in merit, applied consistently, and free from discrimination of any kind.

We acknowledge our role within the communities where we operate and strive to act in a socially responsible manner, respecting the cultures and traditions of these communities.





## [ GOVERNANCE ]

# Global Code of Conduct & Ethics

Pangea's sustainability efforts are deeply rooted in the ability of all employees to carry out their responsibilities with integrity. Our Code of Business Conduct & Ethics forms the foundation for conducting business as a respectable corporate citizen, fully complying with the laws of the jurisdictions in which we operate. It fosters a work environment where employees uphold high ethical standards, and it defines clear behavioral expectations, addressing risks associated with the complexity, scope, and scale of our operations. Key focus areas include:

- Anti-corruption and anti-bribery
- Data protection and information security
- Financial responsibility
- Privacy and disclosure of information
- Fair compensation and anti-trust compliance
- Conflicts of interest
- Counterfeit part provisions
- Intellectual property protection
- Ethical recruiting, hiring, and civil rights
- Whistleblowing and protection against retaliation
- Export controls

To ensure widespread understanding, all policies and guidelines are accessible online and translated into local languages. Supplementary corporate statements enhance decision-making, information security, customer privacy, and responsible use of social media. Pangea actively promotes ethical behavior across its business relationships, extending relevant information to suppliers via our Supplier Portal. For any uncertainty regarding proper conduct, employees can seek guidance from their supervisor or use the anonymous, multilingual Ethics Hotline.

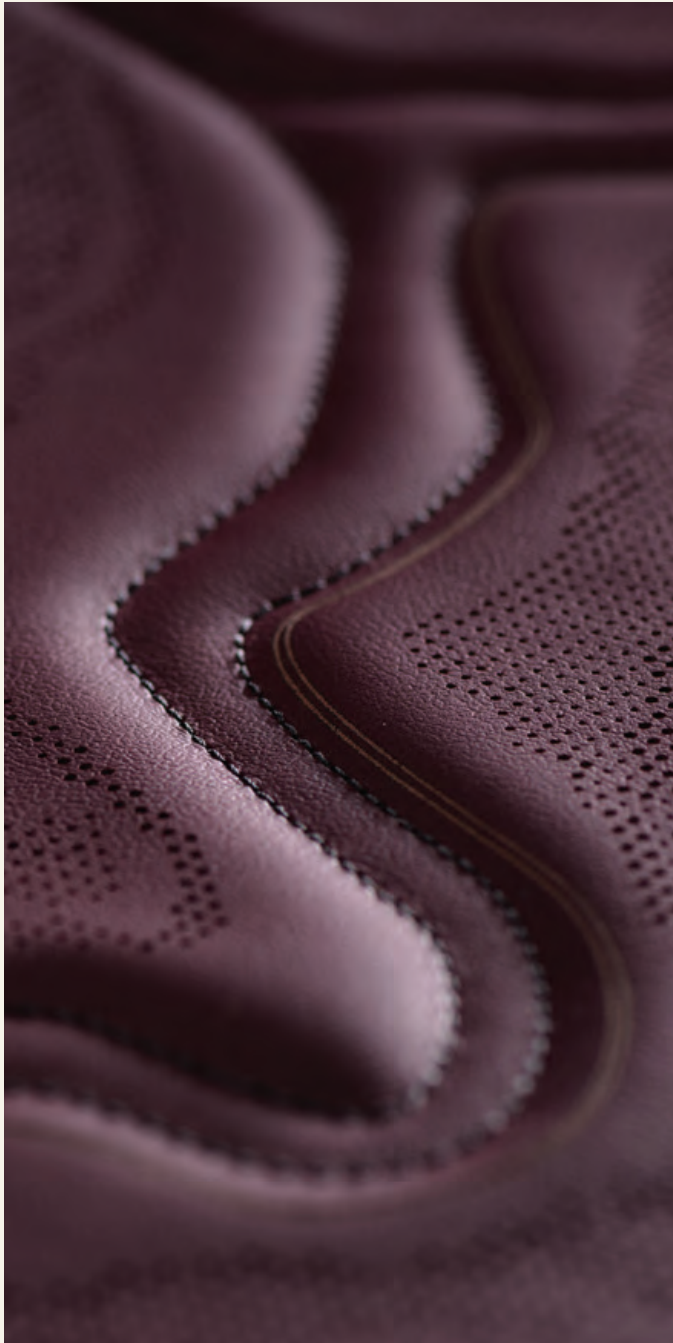
Doing what is right is central to Pangea's success. To uphold compliance with laws and regulations, education is a cornerstone of our ethics and compliance program. All salaried employees are required to complete annual ethics and compliance training to ensure understanding of our Code and related policies.

Our Code of Business Conduct & Ethics forms the foundation for conducting business as a respectable corporate citizen

## IN SUMMARY, THE GLOBAL CODE OF CONDUCT CARES FOR:

- 01 Complying with all laws and regulations
- 02 Promoting safety and wellness
- 03 Avoiding conflict of interest
- 04 Preserving company assets
- 05 Being impartial and acting with fairness
- 06 Being transparent and accountable
- 07 Valuing diversity and providing equal opportunity
- 08 Being environmentally responsible
- 09 Being active towards the Code of Conduct





## [ GOVERNANCE ]

# Supplier Management and Sustainable Procurement

Pangea is committed to sustainable procurement and responsible purchasing practices, aiming to create significant social and environmental benefits. This commitment spans the entire lifecycle of products and services—from selection and purchase to usage and disposal—while fostering collaboration with suppliers to enhance their own sustainability performance. Our objective is to uphold high sustainability standards across our operations and inspire all stakeholders to embrace similar principles, contributing collectively to a more sustainable future.

Pangea expects suppliers to...

For Clients

- Understand the goals and priorities our clients and services in a manner which is compliant with and/or contributes value
- Minimize their impact on the environment via resource conservation, emission mitigation and sustainability best practices (personnel, equipment, products and procedures used)
- Deliver smart, forward-thinking and value-enhancing solutions at every opportunity

For People

- Provide a culture of safety
- Follow national minimum wage requirements and adhering to Fair Wage and Living Wage requirements
- Ensure effective systems and procedures are in place to eliminate Modern Slavery
- Be committed to the health and well-being of their staff and in the safety of goods and services provided
- Promote Diversity & Inclusion by embracing diverse background and skillsets in their workplaces

For Workplaces

- Actively reduce the carbon footprint of their products or services and provide energy/carbon efficiency options
- Demonstrate climate resilience of their operations, goods, and services to ensure client needs are met
- Understand and reduce waste, water, the life cycle environmental impacts of their products and services while working towards circular economy

For Communities

- Demonstrate positive social impact and responsible procurement practices
- Support community engagement
- Promote professional skills development through employee training and offering employment to the local community
- Commit to strong principles of business ethics, ensuring compliance to regulatory requirements

An integral part of Pangea’s supplier due diligence process is the evaluation of certifications, practices, and policies across critical areas such as environmental standards, sustainability, and data privacy. This process employs a risk-based approach to identify and mitigate potential adverse ESG impacts within our supply chain.

Supplier assessments involve thorough document verification conducted by Pangea representatives, as well as certification by independent third parties adhering to globally recognized standards and frameworks.



## [ GOVERNANCE ]

# Deforestation and Supply Chain Traceability

Pangea's extended global supply chain includes cattle farming, an industry often scrutinized for its potential contributions to deforestation and land degradation. To address these concerns, Pangea adheres to due diligence and accountability frameworks established within the beef industry. The United Nations defines deforestation as the conversion of natural forests or ecosystems into agricultural, livestock, or other land uses that cause sustained degradation of these natural biomes.

We expect all new and existing suppliers to adhere to specific guidelines aimed at preventing deforestation, following cut-off dates set by forthcoming governmental and market legislations, such as the European Union Deforestation Regulation (EUDR). Using satellite imagery to delineate farmland and forestry boundaries, we require that all raw, tanned, or crust hides supplied to Pangea originate from deforestation-free areas, are sourced legally, and maintain transparency throughout the supply chain.





Our efforts to expand deforestation-free requirements include utilizing aligned certifications, developing more detailed specifications, and sharing best practices when applicable. Strategically, we are adapting our supply chain to uphold manufacturability and ensure on-time productivity while meeting the demands of the automotive industry and complying with relevant regulations affecting the cattle industry.

Pangea is mapping potential risks and drivers of deforestation in sensitive biomes—particularly in South America—that can be addressed through technological and monitoring initiatives already employed by exporting beef industries. We aim to simplify our supply base, enhancing monitoring and traceability effectiveness and ensuring collaboration only with hide suppliers that meet our stringent requirements.

Engagement with South American hide suppliers has revealed readiness to implement sector-wide, satellite-based monitoring systems to ensure ranchers comply with deforestation and traceability standards. These suppliers have also established protocols to address deforestation instances within their upstream supply chains, including actions such as engaging, suspending, or removing non-compliant suppliers. Measures like reforestation or restoration of affected areas are also being explored as viable solutions.

We aim to simplify our supply base, enhancing monitoring and traceability effectiveness and ensuring collaboration only with hide suppliers that meet our stringent requirements.



## [ GOVERNANCE ]

# Animal Welfare

Animal welfare, a key aspect of cattle well-being, aligns closely with the objectives of beef assurance systems, which aim to deliver safe beef to consumers and food chain stakeholders. Since the establishment of animal welfare standards by the World Organization for Animal Health (WOAH, formerly OIE), regional and international organizations have worked to ensure private-sector standards—such as commercial guidelines—are aligned with these evolving welfare codes. Central to these standards are the Five Freedoms, which underpin best practices for farm animal welfare.

Today, protecting animal welfare is intrinsically tied to animal productivity, including the quality of hides, and has become a central aspect of public policy in protein-consuming markets. Significant public and private regulations now govern animal welfare practices, reflecting its importance to both society and industry.

**Pangea prioritizes animal welfare by upholding the Five Freedoms for all animals throughout their lifetime.**

Supplier partners are required to meet these standards and implement written policies that outline best practices for their products. Whenever possible, Pangea conducts supplier evaluations and utilizes third-party certifications, common in the beef industry to attest for animal wellbeing, to ensure compliance with these commitments. Additionally, Pangea provides animal welfare awareness to internal teams involved in sourcing leather products. Suppliers are expected to extend training to all individuals directly handling cattle across the supply chain.

FIVE BASIC ANIMAL FREEDOMS:



**Freedom from hunger and thirst**

by ready access to fresh water and diet to maintain health and vigor.



**Freedom from discomfort**

by providing an appropriate environment including shelter and a comfortable resting area.



**Freedom from pain, injury or disease**

by prevention or rapid diagnosis and treatment.



**Freedom to express normal behavior**

by providing sufficient space, proper facilities and company of the animal's own kind.



**Freedom from fear and distress**

by ensuring conditions and treatment which avoid mental suffering.



LIVESTOCK AND THE SDGS

How livestock farming supports sustainable development goals



Adapted from: Food and Agricultural Organisation of the United Nations (2015). *FAO Synthesis – Livestock and the Sustainable Development Goals*  
Global Agenda for Sustainable Livestock. Draft prepared by FAO-AGAL Livestock Information, Sector Analysis and Policy Branch.



Over the years, we have witnessed animal welfare science evolve into a respected discipline. The countries we source hides from align their cattle farming and safe-beef practices with cultural and economic particularities while adhering to export market requirements. These nations have developed robust animal welfare policies and governance structures that include training, guidance, research, and analysis of implemented strategies.

Pangea values and supports the work of the World Organization for Animal Health and expects our supply chain to continue adhering to the following principles:

- **Implementing the WOA/OIE Animal Welfare Standards** within their commercial farming practices.
- **Promoting animal welfare** throughout their value chain using coordination, communication, and education initiatives.
- **Achieving sustainable improvements in animal welfare** through the development of regional and international research.
- **Establishing sustainable mechanisms** to coordinate and promote animal welfare programs, particularly with indirect suppliers throughout the cattle lifecycle.
- **Partnering with stakeholders** to facilitate the implementation of WOA/OIE standards.

Our suppliers take pride in participating in effective and innovative animal welfare certification programs, which benefit not only the animals but also the people and businesses involved. These programs reflect our shared commitment to ethical practices and continuous improvement.





## [ GOVERNANCE ]

# Data Security and Information Management

Our strategy includes both short- and long-term initiatives to increase the security surrounding our assets, prototyping, and sensitive information shared with our customers. This is supplemented using third-party threat monitoring and rigorous security protocols that involve regular vulnerability assessments. Employees are required to participate in regular cyber security training campaigns designed to assist with safeguarding data and information.



## Key achievements in 2024

### ENHANCED CYBERSECURITY MEASURES

We successfully implemented advanced monitoring tools to cover the global infrastructure of the company. Performance, security and availability metrics are included, and the objective is to increase the availability of the systems.

### COMPLIANCE AND AUDIT SUCCESS

We obtained 4 TISAX certificates (Leon, Saltillo, Nuevo Laredo and South Africa). TISAX is a global IT security certification scheme for the automotive industry and it's a standard that some of our clients require us to implement.

### TRAINING AND AWARENESS

Two annual training courses with 100% of employees having IT access completed this task, fostering a culture of vigilance against phishing and other cyber threats.

### INCIDENT MANAGEMENT

We responded effectively to potential threats; this is the third consecutive year with zero critical cybersecurity incidents. We obtained the labels and now we have

more and better cybersecurity controls.

This result was thanks to teamwork in each of the plants; collaboration between the IT, Human Resources, Purchasing and EHSS departments was essential.

### RISK MANAGEMENT

With our risk management policy and solutions in place, now we can focus to remediate our internal and external vulnerabilities and have third party assessments completed to validate our actions.



### AWARENESS

- Two annual security awareness training courses for all locations.
- Reinforcement courses for people who fail simulated phishing emails.
- Prevention
- Monthly vulnerabilities report
- Continuous monitoring
- Full Asset and Business applications inventory

### ASSET AND EVENT MANAGEMENT

We completed the implementation of monitoring tools focusing on infrastructure monitoring with an event management process configured to thresholds and critical alerts to respond quickly when we have an incident. Pangea now uses two categories for configuration, warning and critical, which bring the benefit of proactively anticipating an incident.

“Our success depends on collaboration. I encourage everyone to remain vigilant, follow our security guidelines, and report any suspicious activities. Together we can maintain a resilient and secure environment for our company’s growth.”

Arturo Sevillano  
Global Information Security Manager





## [ GOVERNANCE ]

# Industry Governance

At Pangea, we strive to cultivate a culture rooted in ethical practices, accountability, and open governance. Our framework is built on principles of integrity, ensuring long-term business viability and responsible operations. Our approach emphasizes:

- **Transparency:** We are dedicated to maintaining clear, timely communication with stakeholders, offering visibility into our governance practices, performance, and initiatives.
- **Accountability:** Our leaders actively uphold ethical business standards, ensuring adherence to laws and regulations while aligning our objectives with responsible practices.
- **Stakeholder Collaboration:** We value the insights and contributions of employees, customers, investors, and communities, incorporating their perspectives into our decision-making processes.
- **Sustainability:** We embed environmental, social, and governance (ESG) priorities into our operations to create mutual value and drive sustainable development.

Through these principles, we aim to build trust, strengthen relationships, and contribute positively to society while achieving our organizational objectives.





Pangea is committed to advancing the leather industry, especially in automotive applications. We foster strong, transparent partnerships and help clients make informed, sustainable leather choices that drive long-term success.

To support this, we participate in supply chain and sustainability rating platforms that promote verified, evidence-based practices. We also uphold rigorous leather industry certifications to ensure ethical standards, quality, and accountability—building trust across the value chain.



International  
Automotive  
Task Force

The International Automotive Task Force (IATF) sets global quality standards for the automotive industry, including IATF 16949, which focuses on process improvement, defect prevention, and waste reduction. In 2024, all Pangea sites successfully completed assessments to this standard, reinforcing our commitment to customer needs and continuous improvement in automotive leather manufacturing.



NQC SupplierAssurance, backed by Drive Sustainability and recognized by AIAG, assesses supplier sustainability performance in the automotive sector. Through the SAQ system, Pangea submits verified evidence—covering environmental, social, and ethical practices—which is reviewed and shared with customers. This centralized, transparent platform reduces administrative burden and aligns with global sustainability goals.

By participating in the NQC assessment, we are compared to peer industries and the automotive supplier segment of the countries where we operate.

In 2024, Pangea earned a “B” rating in the NQC SAQ 5.0—surpassing leather and automotive supplier industry averages across all our regions. Our sites ranked in the top quartile for sustainability performance, outperforming local supply chain benchmarks and even exceeding national SDG Index scores from the UN’s 2024 report.

Our objective is to become an NQC-rated “A” company within two years of this publication, rated to the most updated SAQ protocol.

COUNTRY SPECIFIC SUSTAINABILITY RANKINGS:  
SDG INDEX 2024

	Mexico	Germany	Hungary	RSA	China
World Placement:	80th	4th	20th	115th	68th
SDG index	69.28	83.45	79.53	63.44	70.85

NQC SCOPE RATING FOR SAQ 5.0

	Mexico	Germany	Hungary	RSA	China
Automotive Industrial Sector	C	C	C	D	C-
Leather Industry	C	C	C	C	C-
Pangea	B	B	B	B	B

NQC SUSTAINABILITY SCORE

	Mexico	Germany	Hungary	RSA	China
Automotive Industrial Sector	62%	59%	63%	55%	57%
Leather Industry	71%	74%	73%	64%	59%
Pangea	84%	88%	85%	85%	88%

Pangea sites earned a “B” rating on the NQC SAQ 5.0 - outperforming both the leather industry and broader automotive suppliers.



IntegrityNext, the world’s largest supply chain sustainability network, spans 190 countries and covers 40+ ESG topics. Recognized as a leader in Verdantix’s 2024 Green Quadrant report, it helps drive meaningful, lasting impact. Pangea proudly participates, with top performance across key ESG areas—shared directly with customers in the network.







CDP (formerly Carbon Disclosure Project) is a global platform for companies to disclose and manage environmental impacts. In 2024, CDP raised its standards, requiring key criteria across all climate scoring levels to encourage consistent, transparent reporting and highlight progress toward environmental stewardship.

Pangea participated in the Climate Change section, self-reporting emissions and reduction strategies. Our reporting focuses on operations and subcontractors, helping us identify areas for immediate improvement. Tackling broader supply chain emissions will require cross-industry collaboration.



We earned a “C” Awareness Level score—matching the regional average for agriculture-related industries—and are working toward a “B” by expanding our scope and deepening our climate strategy. Engaging with sustainability platforms allows us to benchmark progress and stay agile in advancing.



LWG is a global organization promoting responsible leather sourcing through rigorous audit standards. Over one-third of the world’s finished leather is certified to LWG standards, underscoring its industry influence.



Each facility surpassed the 85% minimum score requirement across all 17 audit subject matters

Pangea’s LWG certification covers post-tanning and finishing, requiring extensive on-site audits and two years of detailed data, including traceability and supplier compliance. **We’re proud to share that, In 2024, all eligible Pangea sites maintained LWG Gold status with scores above 85%, reflecting our high standards and responsible practices across both operations and supply chain partners.**

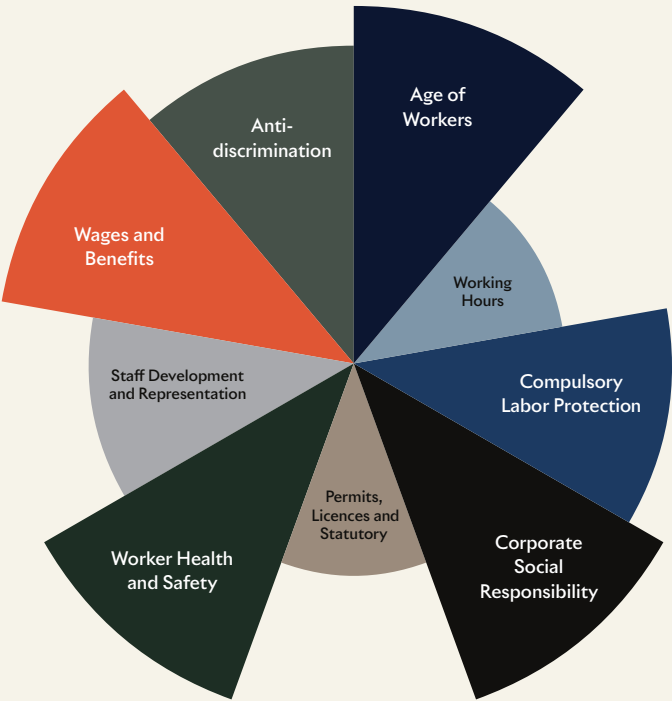




Using the framework of the Sustainable Leather Foundation for Social Responsibility audits and SMETA (Sedex Members Ethical Trade Audit), we evaluated how our ethical, social, and environmental practices are aligned with industry standards and how our actions are reaching beyond our promises to all employees. Their auditing brought up opportunities to help us motivate the workforce even further and identify mechanisms to answer to non-government organizations and customers and gain insights into the social and environmental performance of our own suppliers.

SOCIAL AUDIT RESULTS

+ (standard) ++ (above standard)



	Leon Mexico	Nuevo Laredo Mexico	Saltillo Mexico	Mulheim Germany	Janoshaza Hungary	Jiaxing China	Nigel RSA
Age of Workers	++	++	++	++	++	++	++
Working Hours	+	+	+	++	+	+	+
Compulsory Labor Protection	++	+	++	++	++	+	++
Corporate Social Responsibility	+	++	+	+	++	+	++
Permits, Licenses, Statutory	+	+	+	++	+	+	+
Worker Health & Safety	++	++	++	++	++	++	++
Staff Development & Representation	+	+	++	+	+	+	++
Wages & Benefits	++	++	++	++	++	++	++
Anti-discrimination	++	++	++	++	++	++	++



## [ GOVERNANCE ]

# Leather Leadership and Industry Relations

The leather industry significantly influences the automotive, fashion, and furniture sectors, with leadership and collaboration being crucial to its sustainable growth. The industry's ability to adapt to shifting consumer demands and environmental challenges showcases the importance of a visionary leadership and strong partnerships.

Pangea is active in the automotive supply chain and champions leather as highly (80%+) biobased, , renewable material for vehicle interiors. We are dedicated to strengthening the positive image of leather by interacting with our automotive customers, media, and the end-consumer.



The leather industry significantly influences the automotive, fashion, and furniture sectors, with leadership and collaboration being crucial to its sustainable growth.

Industry collaboration between leather producers, automotive manufacturers, and trade organizations create a cohesive approach to maintaining high standards of quality and sustainability. Such collaborations drive advancements in leather processing, enhance traceability, and reduce environmental impact, making leather an increasingly eco-friendly option.

Expanding messaging beyond the automotive sector helps us underscore the leather industry's essential role and fosters a mindset that challenges misinformation. In May 2024, we contributed content to the 118th American Leather Chemists Association (ALCA) conference, being speakers on two subjects: i) market dynamics of genuine leather in contrast to synthetic alternatives, and ii) automotive leather opportunities and challenges to sustainability.

The data and content shared with the audience highlighted that the favorable sentiment of the public toward leather varies overtime and by impressions caused by provocative media, however,

with increasing awareness about sustainable fashion, the habit of choosing genuine leather products from brands committed to ethical sourcing and responsible manufacturing practices is trending among consumers. We also corroborated that the automotive industry faces ongoing challenges in choosing cabin interior materials that require a balance of performance, functionality, design trends, and cost, with a growing customer preference for



what is perceived as eco-friendly options. Those in the automotive industry that accept leather as a sustainable material by addressing eco-friendly market demands, ask and promote alternative tanning methods, come up with adaptive design trends, and require the leather industry to continuously “innovate” best-practices and curtail life-cycle environmental impacts in its manufacturing.

Our work in detailing life-cycle assessment of our products resonates with the findings of the Leather and Hide Council of America (L&HCA). Processing hides, which are natural waste materials, results in a notably lower carbon footprint than previously believed, further underscoring leather’s potential as a renewable and sustainable option. Unlike synthetic materials derived from petroleum, leather utilizes a byproduct that would otherwise go to waste, reducing environmental strain or further lowering the need to harvest materials for production of synthetics. Recent

data highlights leather’s production environmentally friendly properties and also suggests that it outperforms oil-based synthetics in durability. These findings emphasize the role of leather as an eco-conscious choice, especially when considering the impacts of the leather industry starting at the abattoirs where hides become available.



Industry collaboration between leather producers, automotive manufacturers, and shared-goals organizations create a cohesive approach to maintaining high standards of quality and sustainability.



#### [ GOVERNANCE ]

## Life-Cycle Assessment

Recent discussions on Life Cycle Assessment (LCA) boundaries for leather have highlighted the need for more comprehensive and updated studies to address incomplete analyses.

The Product Environmental Footprint Category Rules (PEFCR) for cattle and beef provide a standardized methodology to assess and allocate environmental impacts, including carbon emissions, across different products derived from cattle. The allocation value is determined based on the relative economic value and physical mass of the products, such as beef, hides, and byproducts. Utilizing the PEFCR methodology to allocate carbon emissions from farming to cattle hides, considering Q3/2024 market factors for the countries listed below, the values shown would represent kg CO<sub>2</sub>e/kg raw hide at point of harvesting.



## CATTLE FARMING CARBON ALLOCATION

kgCO<sub>2</sub>e/kg raw hide

*(using current economic and weight factors for cattle hides)*

### Leather manufacturing has a low carbon footprint.

The purpose of this illustration is to emphasize that comparing estimated environmental impacts of leather—specifically its Global Warming Potential (GWP)—depends heavily on the supply chain and requires careful evaluation of multiple factors, despite leather originating from a common source: cattle. Additionally, the processing of raw hides into leather generates byproducts that further dilute the carbon allocated to the hides. The contribution of cattle farming to GWP persists as long as there is demand for beef and livestock, regardless of the ultimate use of cattle hides—be it

leather, gelatin and collagen, or disposal in landfills.

When conducting a life cycle assessment for leather production, the boundary can begin either at the slaughterhouse or at cattle farming, depending on the study's objectives and scope. If the focus is on leather's environmental impact as an independent product, starting at the slaughterhouse, as hides are treated as byproducts of the meat industry. This method excludes emissions from cattle farming, attributing them to meat production while concentrating on the

processes directly involved in creating leather.

With this in mind, we look at our series of intricate processes—starting from rawhide collection to tanning, retanning, and finishing—each of which with its own environmental footprint and each of them with measurable primary data, rather than estimated factors. By analyzing these stages through an LCA, we can identify the key contributors to environmental impacts, and focus on chemicals, energy, packaging and transportation, waste management and water use. An

Leather manufacturing has a low carbon footprint.

LCA not only provides transparency but also enables us to adopt more sustainable practices, optimize resource efficiency, and mitigate possible negative environmental outcomes. Furthermore, it fosters accountability within the supply chain and a commitment to be trusted advisors to the conscious customer.

Per standard LCA framework and carbon accounting, farming would detain the largest share of the overall GWP impact attributed to the whole supply chain and production of a leather article (about two-thirds), while the leather manufacturers can primarily work on improvements of their core processes only, from beamhouse to finishing, and essentially act on one-third of the environmental footprint of leathers.

The climate impact results we share next should not be viewed as definitive or absolute measures of environmental impact but rather as approximations that provide a comparative understanding of our advanced leather products

and own processes. They should be always considered as complement to other sustainability indicators and contextualized within broader environmental, social, and economic considerations.

The figures to the right (GWP<sub>100</sub> estimates in kg CO<sub>2</sub>e/m<sup>2</sup> of leather surface) come with considerations: all leathers produced in Mexico at a standard thickness 1.2 mm, lime-split ratios, green-energy offsets, circular economy and zero-waste initiatives combined, among other particularities of calculations. The intent here is to illustrate that a benefit exists when we promote circularity into our processes and materials while still maintaining chrome-tanning, and that benefits can be improved even further when we opt for more sustainable tanning methods. By embracing greener practices, the leather industry can significantly lessen its environmental impact while catering to the rising demand for responsible and ethical products.

LEATHER MANUFACTURING CONTRIBUTION

GWP<sub>100</sub> estimates in kgCO<sub>2</sub>e/m<sup>2</sup>

1.94	Chrome-tan, circularity in retan with buffing dust <b>PULVERA</b>
2.15	Chrome-free, Veg-tan,Veg-retan: <b>NEVILA</b>
2.21	Chrome-free, Sustainable tanning Pure-Tan, translucent coating <b>VERITA</b>
2.24	Chrome-free, Sustainable tanning and retaning Pure-Tan <b>VENDURA</b>
2.45	Chrome-tan, light-weight retan <b>TEROVA</b>
2.47	Chrome-tan, Recycled-Tan, circularity of wet-blue shavings <b>ECODA</b>
2.93	Chrome-tan, wet-blue, standard retan
3.30	Chrome-free, wet-white GDA, standard FOC retan



# Closing Remarks

**T**his edition marks the fourth report on corporate sustainability, highlighting key priorities, metrics, goals, and accomplishments within Pangea's global leather operations. We take pride in the significant progress achieved in a relatively short period and are pleased to present this report voluntarily. Our aim remains centered on fostering ongoing improvements in the sustainability areas that matter most to our production facilities, team members, customers, and stakeholders.

Many decades ago, our founders understood that true success in 'making leather' comes from a deep commitment transforming this natural material, enhancing its functionality, and caring for the people handling it through all the processes – combining customer's needs with craftsmanship. Guided by this vision, we have upheld a legacy of principled stewardship, ensuring the company thrives in its mission to serve not only our team and customers but

also our stakeholders and communities at large. In today's fast-evolving world and marketplace, we remain resolute in our belief that staying true to these core principles will drive lasting growth for the company and value for our customers. Our people and processes embody a passion for leather mastery, the lean enterprise, continuous sustainability and a global connectedness built on trust and commitment.

Amid evolving consumer demands and competitive challenges, we are investing in our corporate culture and team development to ensure a joyful experience. Sharing insights and fostering understanding of the leather industry's positive contributions fills us with pride as we advance our sustainability journey. Our progress in creating impactful changes across our operations and value chain depends on embedding a culture of sustainability, complemented by strong customer relationships. These core principles enable us to tackle sustainability challenges, improve our products and services, and achieve shared success through collaboration.





Sustainable solutions strengthen our future by minimizing business risks and enhancing long-term performance. Climate-focused initiatives not only deliver immediate cost savings and value but also align with our customers' carbon neutrality goals.

Take for example installing rooftop solar systems in RSA, a country in which national electricity grid suffers outage and is one with the highest carbon emissions per kWh for its reliance on coal. By integrating photovoltaic systems during planned remodels, we achieve greater carbon efficiency and lower our dependency on external energy supply. Our zero-waste initiative promotes environmental benefits beyond our core industry while enhancing brand reputation and community engagement, driving both sustainable progress and mutual success for all parties involved.

At Pangea Made Inc., sustainability is central to our vision, inspiring global products crafted with respect for our customers, shaped by our diverse culture, and enriched by the communities we

Our progress in creating impactful changes across our operations and value chain depends on embedding a culture of sustainability, complemented by strong customer relationships.

serve. We see this journey as an art of transformation—turning discarded animal waste into a prized natural material sought after by consumers. Our commitment to sustainable practices is vital to our mission, ensuring a future where many more can discover and appreciate the essence of leather. Ethical governance and transparent reporting are essential for accountability and goal achievement. Pangea has proudly shared its corporate responsibility efforts—a tradition continued in this report.



"I am both inspired and humbled by our team's progress, resilience, and dedication to these initiatives, which align with priorities vital to our business. Together, we remain committed to driving leather sustainability forward, creating lasting value for our customers, our communities and those that surround us. Thank you for supporting our journey."



**Roger Pinto**

*Global Director of  
Sustainability & Innovation*

Together, we remain  
committed to driving  
leather sustainability  
forward, creating lasting  
value for our customers,  
our communities and  
those that surround us.





The background of the entire page is an aerial photograph of a vast ocean. The water is a deep, vibrant blue, and the surface is covered in a dense pattern of small, white-capped waves, creating a textured, shimmering effect. The lighting appears to be coming from the upper left, casting soft highlights on the crests of the waves and creating subtle shadows in the troughs.

# PANGEA

[ 2024 SUSTAINABILITY REPORT ]