SUSTAINABILITY

FOREWORD ANNE-LAURE DESCOURS, CSO

↗ **ANNE-LAURE DESCOURS**
CHIEF SOURCING OFFICER (CSO)

In 2023 we started preparing our sustainability vision for 2030 by asking our most important partners and internal decision-makers to give us feedback on the sustainability topics that are most relevant for PUMA. The results are included in the materiality assessment published in this report.

In parallel, we accelerated the implementation of our FOREVER. BETTER. Sustainability Strategy, making progress towards achieving our 10FOR25 targets in Climate Action, Circularity, and Human Rights.

From a products and materials perspective, we produced eight out of ten products* according to our PUMA Sustainability Index, which means these products are made with materials that are classified as preferred fibres by Textile Exchange or originate from certified sources. In 2023, 99.7% of all leather was sourced from Leather Working Group-certified tanneries, 99.2% of all cotton was sourced from Better Cotton licensed farms or recycled and 99.4% of all paper and cardboard packaging was FSC-certified or recycled paper and cardboard.

In Circularity, we expanded take-back programmes in three new countries. Meanwhile, almost 65% of the polyester used for our apparel and accessories products came from recycled materials. We also started to scale up the use of recycled cotton, which reached 8.6% in 2023.

We published the results of our RE:SUEDE project, an experiment to turn a new version of our iconic Suede sneaker, into compost (under tailor-made industrial composting conditions) and expanded our RE:FIBRE programme to transform textile waste and other used materials into new textiles. During the Women's World Cup in Australia, the Swiss National Team played in RE:FIBRE jerseys, and our club partners re-

* Excluding products produced by PUMA Group company stichd and PUMA United. For further details on the reporting scope, please refer to the **Scope of the Report** section.

launched the RE:FIBRE initiative by deploying new take-back bins in additional locations. Overall, 46,000 RE:FIBRE garments were produced in 2023.

To help fight climate change, we continued to source 100% renewable electricity for PUMA's own offices, stores, and warehouses, with either renewable electricity tariffs or renewable energy attribute certificates. We also invested over € 2 million to electrify our PUMA car fleet and the first low carbon shipment tariffs with our logistics service provider Maersk were implemented for our most important sea freight routes between Asia and Europe. This has helped us to reduce our own carbon emissions by 85% (market-based, including the purchase of RECs) compared to our 2017 baseline, as well as our logistics emissions from sea freight by almost 50% compared to 2022.

In our supply chain, recycled material was up to 22% of the total material used for our products. Our core suppliers continued to transition to renewable energy with large-scale rooftop solar PV installations, REC purchases, and to transition boiler fossil fuels to renewable fuels. As a result, we reduced our absolute Greenhouse Gas emissions (for Scope 3 category 1) by 30% compared to our 2017 baseline and our core suppliers used 22% of renewable energy.

In 2023, PUMA joined Zero 100, a cross-sector membership-based research and intelligence organisation, to accelerate progress on Digital Supply Chain Transformation and the path to zero carbon emissions.

On the social side, more than 222,000 factory workers received training on sexual harassment at work, achieving our target three years ahead of schedule. As a long-term signatory to the Bangladesh International Accord on Building and Fire Safety, we also joined Accord Pakistan and a pilot to establish an Employment Injury Scheme in Bangladesh. Collectively, our PUMA employees contributed 57,000 hours of community engagement work around the globe to support educational, women empowerment, environmental, and sports activities.

Our efforts were recognised in several rankings and ratings such as the Corporate Human Rights Benchmark, the Platform Living Wage Financials Benchmark, Know the Chain, the Carbon Disclosure Project and being a finalist of the German Sustainability Award.

Despite this recognition, there are still many areas for improvement. We need to further strengthen our efforts in Human Rights, Climate Action and Circularity.

Following our Conference of the People in 2022, we created our Voices of a RE:GENERATION initiative. Empowering a cohort of four Young Voices to help PUMA identify key areas for improvement. Through various projects, the Voices are helping us to communicate in a way that resonates with the next generation, bringing new perspectives and challenging PUMA to think differently. The Voices have met several times with key players at PUMA to discuss the progress and challenges surrounding our FOREVER. BETTER. Sustainability Strategy and produced PUMA RE:GEN Reports; a podcast series created to engage and better communicate with the younger generation on PUMA's FOREVER. BETTER. 10FOR25 targets. The Voices have also produced RE:HACKS (a social content series sharing tips with consumers on how to extend the lifespan of clothing and kicks). The Voices participated in our materiality assessment, giving input into what will shape PUMA's 2030 Sustainability Strategy.

There is only one Forever – Let's Make it Better.

HIGHLIGHTS OF 2023

We continued to implement our FOREVER. BETTER. Sustainability Strategy working towards our 10FOR25 sustainability targets. We also started preparing for the Corporate Sustainability Reporting Directive (CSRD) and of our next target cycle for 2030 with a new double materiality analysis.

Eight out of ten PUMA products globally were made with a significant part of recycled or certified materials, such as better cotton or recycled polyester.

In **Circularity**, we re-launched product take-back initiatives at selected stores of our major football club partners. At PUMA, we now operate take-back bins at our Headquarters Store in Germany as well as stores in the USA, China/Hong Kong, and Australia. We equipped the Swiss National Women's Football Team with jerseys made from our RE:FIBRE initiative for the Women's World Cup in Australia and launched product take-back bins at our stores in Switzerland.

In **Climate Action**, we agreed on a new more ambitious science-based greenhouse gas reduction target with the Science Based Targets initiative (SBTi) and published our first Climate Action Transition Plan. We continued to power our own offices, stores, and warehouses with 100% green electricity (including purchase of RECs) and added 92 electric cars to our PUMA car fleet. We decreased the air-freight ratio for the transport of our products to under 0.5% and started using biofuels for the shipping of PUMA products from Asia to Europe. We decreased our absolute Scope 3 emissions from the category purchased goods and services by 30% from 2017 to 2023, our core suppliers used 22% of renewable energy and almost 62% of the polyester used in our products is recycled.

In **Human Rights**, we made the payment of a fair wage a bonus relevant topic for PUMA's own staff and continued to track the payment of wages at our core suppliers. For our core supplier Tier 1 factories, the average payment is 12.7% above minimum wage. 222,933 factory workers received training on sexual harassment and 83,089 were paid a living wage on average. Our PUMA employees donated 57,000 working hours to community engagement work and we continued to focus on diversity and inclusion, for example by increasing the percentage of women on our management board to 50% and by becoming a signatory of UN Women Empowerment Principles (UNWEPs). Finally, we appointed a Human Rights Officer and worked on a Human Rights Handbook for our employees to be published in 2024.

In **Biodiversity**, we continued to partner with the Fashion Pact and Textile Exchange and supported the publication of a biodiversity landscape report for our industry. To ensure that the leather used for PUMA products does not contribute to deforestation, we joined the call to action launched by the Leather Working Group and Textile Exchange to source all bovine leather from deforestation-free supply chains by 2030 or earlier. Since 2022, almost all tanneries used for PUMA leather products have been certified by the Leather Working Group. For paper and cardboard, 99.4% are either FSC-certified and/or recycled, to avoid any link to deforestation.

AWARDS AND RECOGNITIONS

Our sustainability efforts continued to be recognised in several external rankings and recognitions. In 2023, PUMA maintained its triple-A rating from MSCI, achieved a "good" rating from the critical consumer labeling organisation "Good on You", and achieved the highest score in the Platform Financials for Living Wages benchmark report and Corporate Human Rights Benchmark for our industry, and maintained an A rating from CDP.

PUMA once again topped the FTSE4Good sector ranking. We received a prime rating from ISS and were included in the Corporate Knights Global 100 Most Sustainable Companies list for the third year in a row, leading the textiles and clothing peer group. PUMA also had the highest score among all sports brands in the S&P Corporate Sustainability Assessment.

At the same time, we continued to receive critical feedback in reports issued by Stand Earth on the use of biomass as a replacement for coal in our supply chain, the Changing Markets Foundation on the dependence on oil as a raw material for synthetic fibres and components, Labor Behind the Label on working conditions in Pakistan, and Clean Clothes Campaign and Action Aid on the wage gap during the COVID-19 pandemic in Cambodia. We consider these critical remarks as we develop our sustainability standards, process and strategy.

PUMA'S FOREVER. BETTER. SUSTAINABILITY STRATEGY

Sustainability remains an integral part of the strategic priorities for PUMA under the leadership of our CEO Arne Freundt and our CSO Anne-Laure Descours.

Our FOREVER. BETTER. Sustainability Strategy is based on our 10FOR25 targets, which were introduced in 2019 following an extensive materiality analysis and stakeholder dialogue. In 2023, we updated our materiality analysis in preparation for our new target cycle until 2030. The results confirm that the areas of Human Rights, Circularity, and Climate Action (including Biodiversity) were ranked as a high priority.

Until the end of our 10FOR25 targets period, we will still report on the 10 target areas to improve our sustainability performance: Human Rights, Climate Action, Circularity, Products, Water and Air, Biodiversity, Plastics and the Oceans, Chemicals, Health & Safety as well as Fair Income.

For each of these target areas, which reference the related United Nations Sustainable Development Goals (SDG), we have defined a minimum of three concrete targets, as well as key performance indicators to follow the progress we have made.

With our FOREVER. BETTER. Sustainability Strategy, we continue our path to fully integrate sustainability into all our core business functions. Sustainability targets are part of the bonus arrangements for every member of our global leadership team, from the CEO to Team Heads.

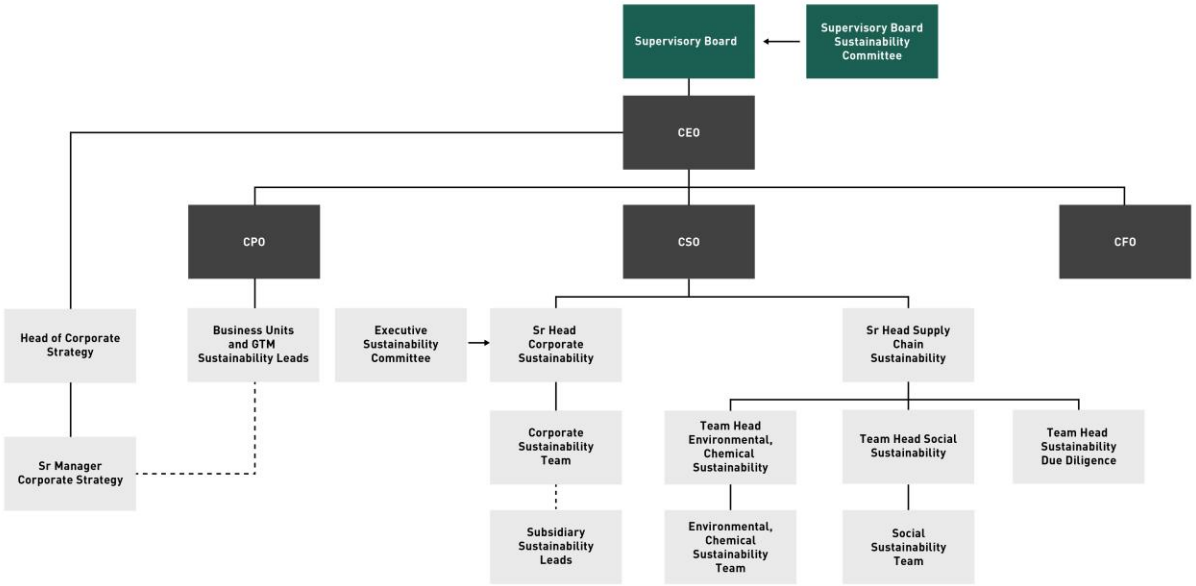
PUMA's Code of Conduct and our vendor compliance programme, which were introduced more than 20 years ago, are still the basis for any contractual relationship with manufacturers globally and remain the foundation of our responsible sourcing strategy and programme. We revised the Code in 2023 and will publish the new version in 2024.

SUSTAINABILITY ORGANISATION AND GOVERNANCE STRUCTURE

PUMA's sustainability organisation is structured and governed in multiple ways:

- At the Supervisory Board level, with a Sustainability Committee. In 2023, we had several meetings to discuss the PUMA action plan related to the Corporate Sustainability Reporting Directive (including our plan to conduct a double materiality assessment in 2023). We had a deep dive discussion into Human Rights including PUMA work on fair income, responsible purchasing practices, the implementation plan of the German Supply Act and critical feedback received through NGO reports regarding factories' working conditions. We also had a deep dive discussion into circularity, including PUMA programmes and projects update, and into Climate actions including our 2030 decarbonisation pathway plan.
- At the Management Board level, the responsibility for sustainability is assigned to the Chief Sourcing Officer (CSO).
  - There were several Management Board meetings in 2023 with dedicated sustainability updates and decision on topics like the 2022 sustainability target status and 2023 action plan, PUMA's action plan related to the German Supply Chain Act and Corporate Sustainability Reporting Directive (including our plan to conduct a double materiality assessment in 2023), new minimum wage negotiation development in Bangladesh and PUMA's position, circularity programmes and projects status and our 2030 decarbonisation pathway plan.
  - PUMA's CEO, the Chair of the Supervisory Board and the Works Council all participated in our materiality assessment, which will lay the foundations of our new Sustainability Strategy for 2030.
  - Our CSO has a monthly meeting with the Sustainability Leads for corporate and supply chain sustainability. Topics include Human Rights, Health and Safety, and chemical programmes, as well as climate and water projects in the supply chain.
- At the Functional Heads level, with an Executive Sustainability Committee.
  - The Executive Sustainability Committee comprises of all Functional Heads of the company, such as the People & Organisation, Sourcing, Finance, IT, Marketing, Risk Management, Investor Relations, Retail, Logistics and Legal Affairs. The committee met twice in 2023 to provide an update on sustainability programmes and approved the 2023 Sustainability Bonus Targets.
- At the Product level, with a Cross-Functional Business working group and monthly updates on PUMA's more sustainable product strategy and execution.
- At the Subsidiary level with nominated Sustainability Leads for each PUMA subsidiary (quarterly updates on PUMA Sustainability Strategy and performance, best practice sharing from individual subsidiaries).
- At the Sustainability Experts level, with a corporate sustainability department and a supply chain sustainability department.
- At the Legal and Compliance level, with a Human Rights Officer. In December 2023, PUMA appointed PUMA General Counsel Corporate Governance & Compliance as Human Rights Officer. The Human Rights Officer shall monitor PUMA's risk management system, risk analysis relating to Human Rights and compliance with Human Rights due diligence regulations.
- PUMA has a Health and Safety Committee that operates in the headquarters and conducts quarterly meeting. This committee regularly reviews existing reports on known health and safety risks, conducts frequent health and safety inspections and exchanges documentation on health issues and risks. The Global Director People & Organisation, who is part of the Health and Safety Committee, informs the Management Board of PUMA SE about relevant health and safety matters at least quarterly.

↗ G.01 SUSTAINABILITY ORGANISATION CHART

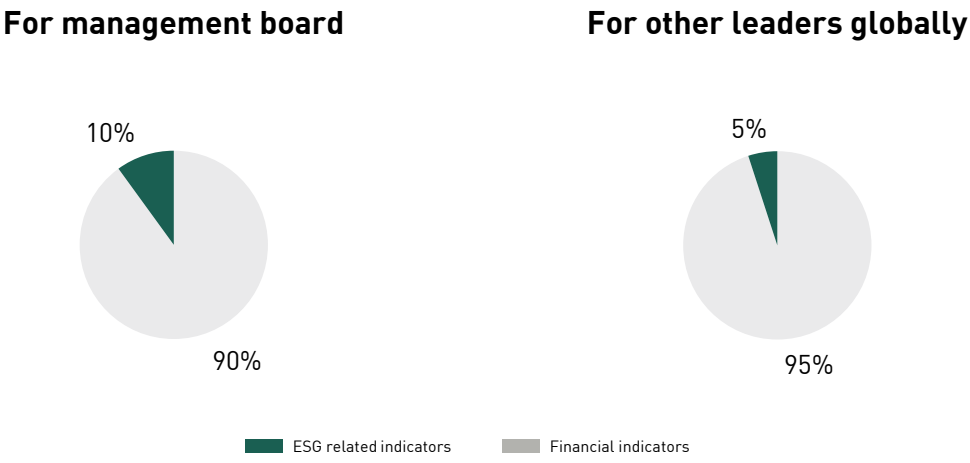


SUSTAINABILITY PERFORMANCE-RELATED REMUNERATION

At PUMA, we link performance criteria in the remuneration of all leaders globally with clear and defined sustainability targets. The variable annual performance bonus is based on the achievement of PUMA's FOREVER. BETTER. Sustainability Strategy targets.

All PUMA leaders globally, from the CEO to the Team Head level, have clearly defined sustainability targets as part of their annual performance bonus. These targets are aligned with PUMA's FOREVER. BETTER. Sustainability Strategy and focus on our 10FOR25 sustainability target areas: Human Rights, Climate Action, Circularity, and Health and Safety. The targets cover 10% of the overall bonus for members of the Management Board and 5% for other leaders globally.

↗ G.02 REMUNERATION CRITERIA BY WEIGHT



↗ T.01 2023 BONUS TARGETS

Area	Percentage of Bonus	Corporate & Subsidiaries Target	Sourcing & Supply Chain Target
Human Rights	1.25% (2.5%)	All PUMA employees are paid a living wage; 2 hours community engagement per FTE	No zero tolerance issues prevailing at year end 180,000 workers training on women empowerment
Climate Action	1.25% (2.5%)	30% of all cars in PUMA's car fleet hit the EU Taxonomy definition of a low-emission car (<50 g CO_2/km) Air freight ratio for transport of goods reduced to under 0.5%	15% renewable energy for core suppliers
Health and Safety	1.25% (2.5%)	Zero fatal accidents; Injury rate below 0.5 80% employees trained	Zero fatal accidents; Injury rate below 0.5 100,000 workers trained
Circularity	1.25% (2.5%)	Increase percentage of recycled polyester to 60% for apparel and accessories and 50% for footwear Take-back schemes rolled out in one country each in Americas, Europe and Asia	Increase percentage of recycled polyester to 60% for apparel and accessories and 50% for footwear

STAKEHOLDER OUTREACH

To ensure that the PUMA Sustainability Strategy covers the most relevant topics, we use a formal materiality analysis process combined with stakeholder dialogue and outreach.

For our updated materiality assessment, we interviewed several non-profit stakeholders including the Global Trade Union Federation IndustriAll, Fair Labor Association, Textile Exchange, United Nations Framework Convention on Climate Change (UNFCCC), and the German Development Organization GIZ.

Our first PUMA stakeholder dialogue dates back to 2003. Since then, we have organised 15 in-person stakeholder meetings and held one virtually. Our stakeholder dialogue includes representation in and contribution to several sustainability initiatives. In 2023, we actively participated in several sustainability initiatives and events, such as conferences by the UNFCCC (Global Stocktake and COP28), ZDHC (Board Meetings), Textile Exchange Annual Conference, Better Work Global Business Forum, OECD Forum on Due Diligence in the Garment and Footwear Sector, Better Cotton Initiative Annual Conference and the Global Fashion Agenda (Global Conference), to name just a few. Our overall investment in partnerships to accelerate sustainability efforts amounts to over €1 million. Our next formal PUMA stakeholder dialogue meeting is planned for April 2024.

In 2023, we developed a Civil Society Organisations (CSOs) engagement policy to engage with them reactively and proactively, further details are given in the **Due Diligence and Risk Assessment** section of this report.

PUMA has placed a large emphasis on industry collaboration and, where possible, supporting existing industry initiatives. Collaboration with our peers is paramount to streamlining the sustainability efforts of our industry. We believe that encouraging the alignment of individual industry organisations, e.g., converging the use of tools and processes, makes the overall system more efficient.

↗ G.03 MATRIX OF KEY PARTNERSHIP INITIATIVES

Human Rights		Chemicals	Products	Climate Change		Health and Safety	Water and Air	Biodiversity	Plastics and the Oceans	Circularity	Fair Income
UN Global Compact Peer Learning Group (Germany)	International Organisation for Migration (IOM)	Zero Discharge of Hazardous Chemical Foundation (ZDHC)	Textile Exchange	Fashion Industry Charter for Climate Action (UNFCCC)	Fashion Pact	International ACCORD (Bangladesh, Pakistan)	Zero Discharge of Hazardous Chemicals Foundation (ZDHC)	Fashion Pact	Fashion Pact	Global Fashion Agenda	Fair Labor Association (FLA)
Fair Labor Association (FLA)	Better Buying	AFIRM Group	Better Cotton Initiative (BCI)	Carbon Disclosure Project (CDP)	Zero100	ITC-ILO	Sustainable Apparel Coalition (SAC)	Forest Stewardship Council (FSC)	Textile Exchange	Textiles Exchange	Fair Wage Network
Social and Labor Convergence Program (SLCP)	Elevate Amader Kotha (Bangladesh) Hamari Awaz (Pakistan)	GOBlu	Leather Working Group	Stiftung Klima Wirtschaft (Germany)	Guidehouse	Fair Labor Association (FLA)	Carbon Disclosure Project (CDP)	Canopy	Microfiber Consortium	Policy Hub	
ILO Better Work (Bangladesh, Cambodia, Indonesia, Vietnam, Egypt, Pakistan)	MicroBenefits (China, Vietnam) Labor Solution (Indonesia, Cambodia, Philippines, Vietnam, Turkey, Pakistan)	Sustainable Apparel Coalition (SAC)	V-Label	International Finance Corporation (IFC) (Bangladesh)	Institute of Public and Environmental Affairs (IPE) (China)	ILO Better Work (Bangladesh, Cambodia, Indonesia, Vietnam, Egypt, Pakistan)	Institute of Public and Environmental Affairs (IPE) (China)	Textile Exchange	Federation of the European Sporting Goods Industry (FESI)	Federation of the European Sporting Goods Industry (FESI)	
Freedom of Association Protocol (Indonesia)	econsense (Germany)	Federation of European Sporting Goods Industry (FESI)	Federation of European Sporting Goods Industry (FESI)	Apparel Impact Institute (China, Taiwan, Vietnam, Indonesia)	German Corporation for International Cooperation (GIZ) (Vietnam, Cambodia)	Elevate (India, Indonesia)		Carbon Disclosure Project (CDP)			

international national

CONFERENCE OF THE PEOPLE AND VOICES OF A RE:GENERATION

In 2022, PUMA held the Conference of the People, a first-of-its-kind event for PUMA. Industry peers, activists, NGOs, experts, ambassadors, and consumers came together to discuss solutions for some of the fashion industry's pressing sustainability challenges. With a special focus on Gen-Z, the conference highlighted the need for brands to improve transparency and communication more regarding sustainability.

Following this event, in April 2023 PUMA launched its year-long Voices of a RE:GENERATION initiative, empowering a group of Young Voices to help PUMA identify key areas for improvement and giving them a seat at the table alongside leading stakeholders.

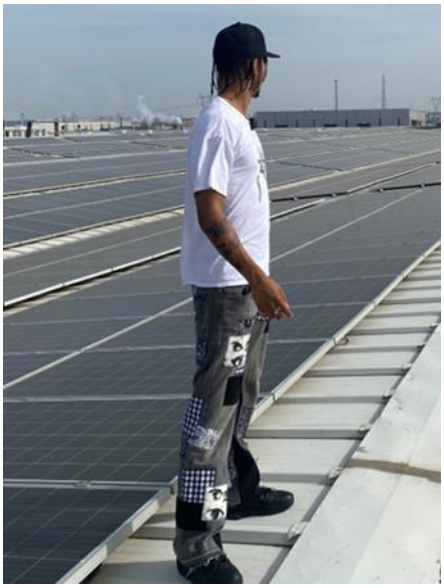
Through various projects, the Voices are educating, engaging and co-creating with PUMA to help improve how PUMA communicates about sustainability in a way that resonates with the next generation, bringing new perspectives and challenging PUMA to think differently. In September 2023, PUMA expanded the reach of the initiative beyond Europe and the USA by adding Indian sustainable fashion advocate **Aishwarya Sharma**. Aishwarya joined PUMA's current Voices, the USA-based upcycler **Andrew Burgess**, Germany-based sustainable and healthy living vlogger **Luke Jaque-Rodney** and France-based visual artist and creative consultant **Jade Roche**.

Voices of a RE:GENERATION: Aishwarya Sharma, Andrew Burgess, Jade Roche, Luke Jaque-Rodney (from left to right)

To date, the Voices have met several times with key players at PUMA to discuss the brand's progress and challenges surrounding its FOREVER. BETTER. Sustainability Strategy and produced PUMA **RE:GEN Reports**, a podcast series created to engage and better communicate with the younger generation on PUMA's FOREVER. BETTER. 10FOR25 target areas.

Since then, the Voices have also partnered with PUMA to produce RE:HACKS (a social content series sharing tips with consumers on how to care for and extend the lifespan of clothing and kicks) and participated in the PUMA 2023 sustainability materiality assessment, giving input into what will shape PUMA's 2030 sustainability action plans.

In October 2023, three of the Voices visited some of PUMA's manufacturing partners in Bangladesh, Vietnam, and Turkey to get their impressions of PUMA's supply chain and experience the realities, progress and challenges of sustainability at scale on the ground. Their learnings will be shared through their social channels in 2024. Building on these efforts and progress, PUMA will continue the RE:GENERATION initiative into 2024.



Voices of a RE:GENERATION visiting factories in Bangladesh, Turkey and Vietnam

PUBLIC POLICY ADVOCACY ENGAGEMENT

PUMA does not lobby as a separate entity. However, as part of our membership in industry federations and expert organisations like the Federation of the European Sporting Goods Industry (FESI) or the Policy Hub, our experts provide feedback on policy positions to those organisations and attend meetings with policy makers from time to time. We ensure that our feedback provided is aligned with our Sustainability Strategy and targets, such as limiting global warming to 1.5 degrees. In 2023, PUMA joined the Fashion Industry Charter for Climate Action (UNFCCC) policy dialogue event in Bangladesh. Membership fees paid by PUMA to the organisations involved in policy outreach are below € 300,000 per year in total.

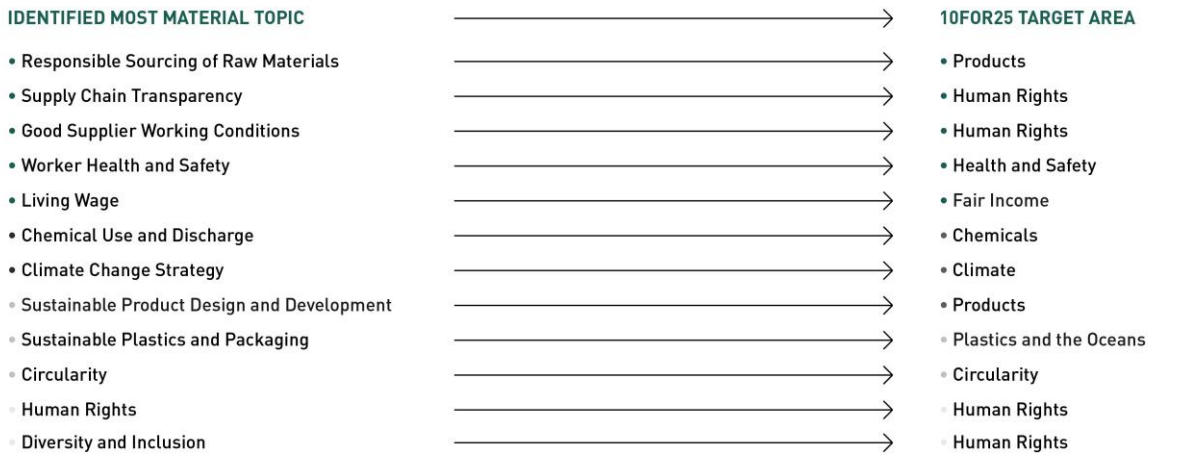
Organisations engaged in public policy outreach in which PUMA is a member:

- Policy Hub
- World Federation of the Sporting Goods Industry (WFSGI)
- Federation of the European Sporting Goods Industry (FESI)
- Bundesverband der Sportartikelindustrie (BSI)
- Fashion Industry Charter for Climate Action (UNFCCC)
- Stifung Klimawirtschaft

MOST MATERIAL ASPECTS

PUMA performed a formal materiality analysis in 2018 – 2019 with the help of expert consultancy BSR. The methodology, list of consulted stakeholders, and results were reviewed and approved by PUMA's Managing Directors. Materiality assessment results are also considered in the risk management process. Our risk management function assesses our most material topics and the risks related to those topics in collaboration with the risk owners. The 2019 materiality assessment formed the basis for our existing PUMA FOREVER. BETTER. Sustainability Strategy and 10FOR25 targets, as well as the structure of this 2023 report, and is outlined in the graph below. Further details on the methodology can be found in PUMA's **2022 Annual Report**.

↗ G.04 PUMA'S MOST MATERIAL ASPECTS (2018 – 2023)



DOUBLE MATERIALITY ANALYSIS – 2024 AND BEYOND

In 2023, PUMA conducted an updated materiality analysis based on the principle of double materiality as requested by the Corporate Sustainability Reporting Directive (CSRD). The methodology, list of consulted stakeholders, and results were reviewed and approved by PUMA's Managing Directors (CEO, Chief Financial Officer, Chief Product Officer and Chief Sourcing Officer). PUMA's CEO, the Chair of the Supervisory Board, and a Workers Council representative participated in the materiality assessment.

The 2023 materiality assessment was conducted by the expert consultancy Radley Yeldar and included:

- A horizon scanning stage, including peer benchmark assessment, legislation, sustainability frameworks and ratings, and media screening
- Development of CSRD-compliant impact assessment criteria
- Stakeholders interviews with 32 participants, including 16 PUMA and 16 external stakeholders as well as an online survey (37 responses)
- Out of the interviews, eight in-depth interviews for financial impact were conducted, including investor and lender views
- Results validation meetings between PUMA's Sustainability Team and Radley Yeldar
- Managing Directors' approval

A total of 25 sustainability topics were selected after the horizon scanning stage to be evaluated by stakeholders. Seven topics were identified by our stakeholders as being **financially material** to PUMA.

Social topics
- Forced and Child Labor in the supply chain
- Gender Equity in the supply chain
- Worker Wages in the supply chain
- Labor Conditions in the supply chain
- Employee engagement and development of own workforce

Other topics
- Circular Design and Production
- Supply Chain Traceability and Management

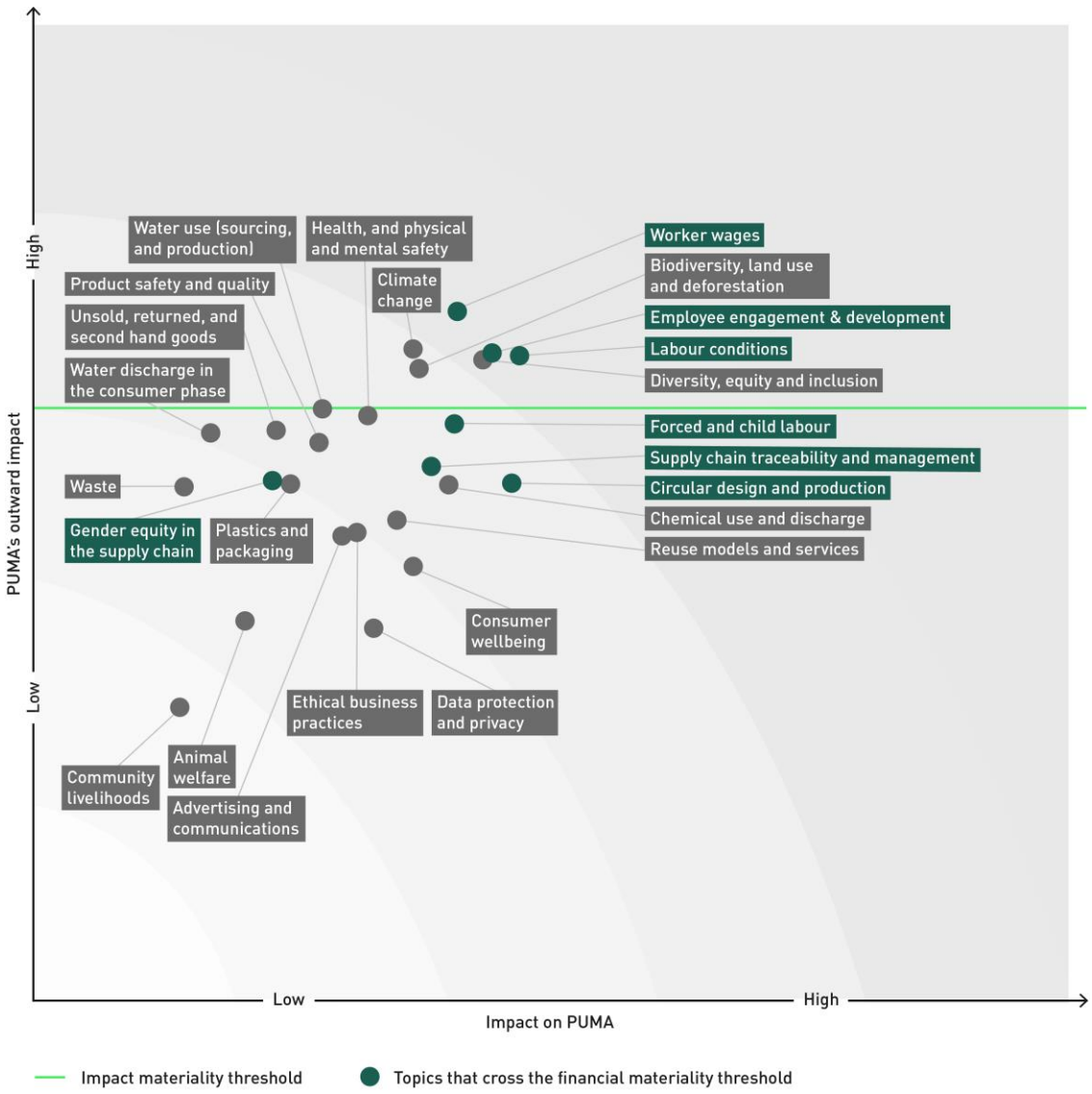
Seven topics were assessed to have a significant **outward impact**.

Social topics
- Worker Wages in the supply chain
- Labor Conditions in the supply chain
- Diversity, Equity, and Inclusion of own workforce
- Employee Engagement and Development of own workforce

Environmental topics
- Water Use in the supply chain
- Biodiversity, Land Use and Deforestation in the supply chain
- Climate Actions in the value chain

Notably, Labor Conditions, Worker Wages, and Employee Engagement and Development passed both the financial and outward impact threshold for materiality. All eleven topics, targets and achievements, identified as material (from a financial and outward impact perspective) are already included in this report. Going forward, we will transition from our 10FOR25 targets toward our 2030 strategy, which will be based on the new materiality assessment and the outcome of our stakeholder dialogue in 2024.

↗ G.05 PUMA'S DOUBLE MATERIALITY MATRIX



↗ G.06 PUMA'S 2025 SUSTAINABILITY TARGETS

* SDG: United Nations Sustainable Development Goals

↗ T.02 PUMA 10FOR25 SUSTAINABILITY TARGETS PERFORMANCE SUMMARY[1]

○ Not started ◔ In progress ◑ On track ◎ Achieved

Target area	Targets for 2025	Performance 2023	Status
01 **Human Rights**	Target 1: Train 100,000 direct and indirect staff members on women's empowerment	222,933 factory workers and 3,727 PUMA employees trained	◎
	Target 2: Map subcontractors and Tier 2 suppliers for Human Rights risks	Tier 1 subcontractors mapped Tier 2 mapping completed (since 2022)	◎
	Target 3: 25,000 hours of global community engagement per year	57,000 hours	◎
02 **Health and Safety**	Target 1: Zero fatal accidents (PUMA and suppliers)	Zero fatal accidents at PUMA 1 fatal accident at suppliers	◑
	Target 2: Reduce accident rate to 0.5 (PUMA and suppliers)	0.46 at PUMA 0.2 injury rate at PUMA suppliers	◎
	Target 3: Building safety policy operational in all high-risk countries	ACCORD Bangladesh: Progress rate 94% Signed ACCORD Pakistan Building safety assessments in 35 factories in Indonesia, India, Bangladesh and Pakistan	◎
03 **Chemicals**	Target 1: Ensure 100% of PUMA products are safe to use	No product recall from the market	◎
	Target 2: Maintain RSL compliance rate above 90%*	6,130 tests with RSL compliance rate at 98.7%	◎
	Target 3: Reduce organic solvent usage to under 10 gr/pair	VOC index at 12.5 g/pair	◑
04 **Water and Air**	Target 1: 90% compliance with ZDHC Wastewater Guidelines	Conventional parameters: 99% Restricted chemicals: 98% Heavy metals: 99%	◎
	Target 2: 90% compliance with ZDHC Air Emissions Guidelines	Our core Tier 1 and Tier 2 follow local regulation Joined ZDHC pilot	*
	Target 3: 15% water reduction per pair or piece based on 2020 baseline	Textile: -4.9% per ton Leather: +11.7% per square meter Apparel: +9.4% per piece Footwear: -21.5% per pair	◔
05 **Climate**	Target 1: Align PUMA's climate target with 1.5 degrees global warming scenario	SBTi approved our new 1.5 degree aligned target for absolute GHG emission reduction: Scope 1 and 2 by 90%, Scope 3 by 33% in 2030. Our first 2019 SBT achieved in 2023.	◎
	Target 2: 100% renewable electricity for PUMA entities	100% renewable electricity used for PUMA entities (including RECs purchase)	◎
	Target 3: 25% renewable energy for core suppliers	23.1% for Tier 1 (finished goods) 21.7% for Tier 2 (materials) (including RECs purchase)	◑

* ZDHC air emission guidelines have not been yet released at the end of 2023. We have participated in a pilot in collaboration with ZDHC to test the draft standards.

 06 **Plastics and the Oceans**	Target 1: Eliminate plastic bags from owned and operated PUMA stores	As of 1 January 2023, plastic bags are no longer used in PUMA's owned and operated stores	✓
	Target 2: Support scientific research on microfibres	Signed 2030 commitment of microfiber consortium, 12 shedding tests conducted	✓
	Target 3: Research biodegradable plastics options for products	RE:SUEDE experiment as a test for biodegradability completed and results publicly shared	✓
 07 **Circularity**	Target 1: Establish take-back schemes in all major markets	Take-back schemes established in at least one country in each of Americas (the USA), Europe (Switzerland) and Asia (Australia)	◑
	Target 2: Reduce production waste to landfills by at least 50% compared to 2020	64.7% reduction of waste to landfill per footwear pair 87.4% reduction of waste to landfill per apparel piece	✓
	Target 3: Develop recycled material options for cotton, leather and rubber	Recycled cotton used at scale Recycled rubber and reconstituted leather used in selected collections	✓
 08 **Products**	Target 1: Procure 100% cotton, polyester, leather and down from certified sources	99.2% cotton 85% polyester 99.7% leather 100% down	◑
	Target 2: Increase recycled polyester use to 75% (apparel & accessories)	64.9% recycled polyester used for apparel and accessories	◑
	Target 3: 90% of apparel and accessories classified as more sustainable 90% of all footwear contains at least one more sustainable component	87% apparel volume 40% accessories volume 93% footwear volume	◑
09 **Fair Income**	Target 1: Fair wage assessments for the top five sourcing countries	Five out of five assessments completed (Bangladesh, Cambodia, Indonesia, Vietnam, China)	✓
	Target 2: Effective and democratically elected worker representatives at all core suppliers	66% core Tier 1 factories have elected worker representatives	◑
	Target 3: Ensure bank transfer payments for all core suppliers	100% core Tier 1 and Tier 2 suppliers use digital payment 100% of workers are paid digitally in core factories	✓
 10 **Biodiversity**	Target 1: Support setting up a biodiversity SBT	Sponsored a biodiversity landscape analysis report with Textile Exchange and Fashion Pact	✓
	Target 2: Procure 100% cotton, leather, and viscose from certified sources	99.2% cotton 99.7% leather 84% viscose	◑
	Target 3: Zero use of exotic skins or hides	Phased out the usage of kangaroo leather during 2023 No exotic skins or hides in use	✓

1 REC: Renewable Energy Attribute Certificates, RSL: Restricted Substances List, SBT: Science-Based Target, SLCP: Social and Labor Convergence Programme, Tier 1 (T1) suppliers: Supplier of finished goods, Tier 2 (T2) supplier: Supplier of materials or components, Tier 3 (T3) supplier: Supplier of yarn, hides, etc., VOC: Volatile Organic Compound, ZDHC: Zero Discharge of Hazardous Chemicals

SCOPE OF THE REPORT

DATA COLLECTION

In the Sustainability report, we cover the PUMA Group data, excluding PUMA United. We collect data from our core suppliers of components, materials, and finished products. Our materials data excludes the materials used by stichd (mainly socks and bodywear) and PUMA United, as well as the materials used for Cobra Golf equipment, as these companies run their own sourcing. For social compliance data, PUMA United, stichd, and Cobra Golf factories producing PUMA products are included. For environmental data, we also report stichd own sites and factories according to PUMA's Environmental Performance Rating System.

We do not provide separate reports for PUMA SE and the Group in the Sustainability section.

DATA SOURCES

To ensure a high level of transparency and promote the sharing of environmental and social data with our industry peers, we have chosen to use external databases, most of which are publicly accessible:

- The **Open Supply Hub**, an open-source map and database of global apparel facilities
- The **Fair Factories Clearinghouse** for sharing social audit data with other brands
- The wastewater platform of the Zero Discharge of Hazardous Chemicals Foundation (ZDHC) for supplier data on wastewater testing reports (ClearStream reports)
- The **ZDHC Chemicals Gateway** for the use of safe chemicals
- ZDHC-approved chemical inventory platforms: BHive, CleanChain, E3
- RSL database **Green Arrow**
- The China-based NGO IPE for the publication of suppliers' environmental data
- **IPE's Green Supply Chain Map** of environmental performance data of some of our core suppliers in China
- The Higg Index Platform **Worldy**
- The **Fair Labor Association (FLA)** fair compensation dashboard to benchmark factory workers' income towards industry and/or living wage benchmark
- The **Fair Wage Network database**
- ACCORD Bangladesh inspections database: **The Bangladesh Accord on Fire and Building Safety in Bangladesh**
- Worker Complaints – third-party platforms: **MicroBenefits CIQ, Labor Solution - WOVO, Amader Kotha**

We also use our own sustainability data collection tool to record social and environmental performance data from PUMA-owned and operated sites and from the core suppliers that manufacture our products or the material used in our products.

DUE DILIGENCE AND RISK ASSESSMENT

PUMA conducts regular and industry-specific due diligence on human rights and labour, environmental, and integrity risks (listed in T.03) for its own activities and across its supply chain as per the recommendations of the UN Guiding Principles for Business and Human Rights, OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector, and other relevant responsible business conduct standards, such as the German Supply Chain Act. We embed responsible business conduct in our policies, training, and management systems and identify actual and potential harms in our own operations and supply chain.

↗ T.03 HUMAN RIGHTS & LABOUR, ENVIRONMENTAL AND INTEGRITY RISKS

Human Rights & Labour Risks	Environmental Risks	Integrity Risks
Child labor	Greenhouse gas (GHG) emissions	Bribery and corruption
Discrimination	Hazardous chemicals	
Forced labor	Water scarcity	
Occupational health and safety (e.g., worker-related injury and ill health)	Water pollution	
Violations of the right of workers to establish or join a trade union and to bargain collectively	Landuse change	
Non-compliance with minimum wage laws	Waste	
Wages do not meet basic needs of workers and their families	Air emissions	

Due diligence is an ongoing process, to identify, mitigate, and prevent risks and address their existing and potential adverse impacts (e.g. child labour, discrimination, hazardous chemicals, etc.).

As stated in the "Corporate Governance Statement", PUMA has a functioning Compliance Management System (CMS) to systematically prevent, detect and sanction violations in the areas of corruption, money laundering, conflicts of interest, antitrust law and fraud/embezzlement.

In response to the possibility of future crises and/or upcoming regulations, our vendors are recommended to conduct their own due diligence. PUMA's process of assessing the risk of potential harm to people (human rights and labour and environmental risks) includes:

- External sources: NGO reports, media, country indices and country regulation, PUMA partnerships with Fair Labor Association, Better Work, Fashion Charter, ZDHC, AFIRM, etc.
- Internal sources: PUMA social, chemical and environmental audit findings/data analysis, grievances received per country, supply chain risk mapping, number of factories in countries with high risk, per commodity, also including non-core factories, material processing and raw material extraction.

We prioritize risks based on:

- Severity: Scale (how serious the impact is), scope (how many people are or will be affected) and irremediability
- The likelihood of risk occurring based on the operating environment: Conflict zone, weak governance; mismatch between local practices and international standards

Our mitigation measures include the factory monitoring programme, grievance mechanism, supplier scorecard, business integration, goal-setting and internal and external reporting. The effectiveness of our measures is evaluated based on progress and compliance with our policies.

PUMA's policies are published on **our website**, as well as our factory monitoring programmes and standards defined in our Social, Environmental, Occupational Health and Safety and Chemical **Handbooks**.

In 2023, we developed a Civil Society Organisations (CSOs) engagement policy, following Fair Labor Association guidelines and approval. It formalizes PUMA's commitment to engage with CSOs reactively and proactively for information sharing (to understand concerns and to increase transparency about PUMA's works, challenges and progress) and for consultation purposes (to make informed sourcing decisions to not impact people's rights) which can lead to collaboration to address a specific challenge or remediate an issue.

It also defines the criteria below to plan the form and frequency of engagement:
- High-risk and high-production volume countries
- Severity and the likelihood of violations or risks
- Knowledge gaps regarding new or upcoming risks identified through a supply chain risk assessment
- Persistent issues identified through factory monitoring programme or risk assessment
- Concerns raised through PUMA grievance mechanisms and third-party reports

Proactive engagement with CSOs aims to develop and review our sustainability-related goals, policies and standards, assess risks or get input for our double materiality assessment, develop remediation plans and improve access to remedy, inform about PUMA's sustainability performance and open issues and evaluate the effectiveness of our due diligence processes, sustainability programmes and grievance mechanism.

Reactive engagement takes place when a concern is raised to PUMA. PUMA and PUMA's suppliers offer different grievance channels to any worker as well as third parties, including CSOs, to raise their concerns regarding human rights, environmental protection and violations of PUMA's policies: such concerns can be raised through workers' voice platforms, the PUMA hotline and Fair Labor Association third party complaints.

PUMA also adopted ELEVATE intelligence (EiQ), a comprehensive suite of supply chain analytics, to:
- Assess our supply chain risks by geography, commodity and issue
- Complete a risk assessment for suppliers, factories and sites
- Manage risks that are material for each supplier, factory or site

Our 10FOR25 targets are linked directly to the four main sustainability-related risks identified in our due diligence process:
- Potential human rights violations or incidents in our supply chain (Tier 1 and core Tier 2*)
- Potential incidents of environmental pollution in our supply chain (Tier 1 or core Tier 2)
- Potential non-compliance with chemical regulations during production (Tier 1 or core Tier 2)
- Negative effects of climate change (transition risks and physical risks)

The four main sustainability-related risks are reflected in the Risk Management System that PUMA has established to identify and manage material risks or risks that could pose a threat to the company's objectives at an early stage. The Risk Management function conducts formal interviews with selected risk owners (key function management responsible for identifying and addressing the risks) on a semi-annual basis set to identify, evaluate, and report risks. The risk owners of PUMA's Sustainability Department review risks within their area of responsibility and report on the measures implemented to mitigate or reduce the potential impact of sustainability-related risks to the Risk Management function.

* Tier 1 manufacturers of PUMA products; Tier 2 manufacturers of materials and components

To mitigate and prevent sustainability risks, PUMA has set the 10FOR25 targets and implemented a due diligence process. PUMA reports internally and publicly (through annual sustainability reports) on the following activities and progress toward our 10FOR25 targets:

- Conducting regular complete and follow-up social audits based on International Labor Organization standards (including reaudits and capacity building projects) for all Tier 1 and core Tier 2 suppliers.
- Monitoring performance with factory environmental management system via Higg Index Facility Environmental Module (FEM), regular RSL (Restricted Substances List) testing of materials and products, input chemistry control via Manufacturing Restricted Substances List (MRSL) by ZDHC, output control via wastewater tests by independent and accredited laboratories.
- Following the status of new regulations via industry associations such as the Federation of the European Sporting Goods Industry (FESI), or the Policy Hub, and other key partners. A matrix listing PUMA's key partnership initiatives is maintained to track all relevant international and national sustainability organisations, and follow up on legal requirements (e.g. UK Modern Slavery Act, new German Supply Chain Due Diligence Act) in a timely manner.
- Implementation of an approval procedure for sustainability related product claims.
- Conducting stakeholder dialogue with NGOs and other expert organisations.
- Regular updates of PUMA policies and sustainability standards (e.g. Code of Conduct, sustainability handbooks).
- Establishing of a functioning workers' hotline (included in Code of Conduct) and employees' hotline (included in Code of Ethics).
- Enhanced industry-wide collaboration with competitors in terms of human rights and environmental performance measurement tools, standards and certifications (e.g. Facility Environmental Module, Social Labour Convergence Programme, Material Restricted Substances List, Leather Working Group, Forest Stewardship Council).
- Regular internal training (for example e-learning accessible via Workday).

Net risks as outlined in the CSR Directive Implementation Act (§ 315c in relation to § 289c, section 3, number 3 German Commercial Code (HGB)), were not identified in 2023.

Further details on PUMA's overall risk management can be found in the Risk Management section.

In 2023, as part of PUMA's continuous review of Due Diligence policies and processes, we revised our Code of Conduct and will publish it in 2024. We will also revise PUMA FOREVER. BETTER. Sustainability Handbooks in 2024.

The scope of the implementation of the Code, Policies and Handbooks has been expanded, mentioning all PUMA's business partners within and beyond the supply chain, including business partners who represent PUMA (such as consultants and agents), and PUMA's own organisation.

The updates of the Code of Conduct include clarifying definitions regarding the worst forms of child labour and the prohibition of slavery. Provisions were added regarding supply chain traceability, the use of security forces without violating any Human Rights, provision on chemical and waste management in line with International Conventions, as well as unlawful eviction and taking of land. We also emphasize PUMA's commitment to remediation of violations and similar expectations from our business partners; we also added how workers can use PUMA hotline for any grievance.

Two new standards were added to the Code of Conduct:
- No harm when using security forces
- Respect of land rights

To ensure that our suppliers understand the requirements set by PUMA as well as international Due Diligence regulation and standards in the garment and footwear industry, PUMA organised multiple training sessions in 2023 including:

- Meetings with suppliers to share updates on PUMA standards and industry best practices, elaborate on the German Due Diligence Supply Chain Act by industry experts; CNTAC in China and VITAS in Vietnam.
- Training on Accident Prevention and Reporting with factory management, who will support us in achieving the goal of training 100,000 workers in this area.
- Root cause analysis training for strategic suppliers.
- Customised e-learning on Social Standards, to support existing and new suppliers with understanding PUMA's expectations.
- PUMA expectations for suppliers regarding our Code of Ethics.

FASHION REVOLUTION

Fashion Revolution works towards a vision of a fashion industry that conserves and restores the environment and values people over growth and profit. The **Fashion Transparency Index** is an annual review of 250 fashion brands and retailers ranked according to their level of public disclosure on human rights and environmental policies, practices and impacts in their own operations and in their supply chains.

PUMA ranks sixth out of the 250 fashion brands and retailers, our index improved from 58% in 2022 to 66% in 2023, because of our increased public disclosure on social and environmental policies, practices and impacts.

CHRB Corporate Human Rights Benchmark

The **Corporate Human Rights Benchmark** ranks 110 of the world's largest apparel and extractives companies on their corporate human rights performance.

PUMA ranks fourth out of 110 companies and first in the Apparel sector of the World Benchmarking Alliance 2023 Corporate Human Rights Benchmark, with a total score 53.4 of out of 100. We have embedded our policy commitments to respect human rights within our operations by allocating responsibility and resources for the day-to-day management of human rights, providing training on human rights issues, and establishing a global due diligence system to assess, mitigate and evaluate human rights risks and impacts.

KNOWTHECHAIN

KnowTheChain benchmarks how companies address forced labor in corporate global supply chains to inform companies' and investors' decision-making and enable companies to operate more transparent and responsible supply chains.

PUMA ranks second out of 65 companies in KnowTheChain 2023 Apparel & Footwear Benchmark. Compared to 2021, we improved our rank by six places. This is because we disclose the percentage of migrant workers at Tier 1 and core Tier 2 suppliers, recruitment fee remediation across four countries and responsible recruitment training for suppliers. We also increased information disclosure on our human rights risk assessment process. Notably, PUMA has the highest score on the theme of Traceability & Risk Assessment.

HUMAN RIGHTS

TARGET DESCRIPTION:

- Train 100,000 direct and indirect staff on women's empowerment
- Map subcontractors and Tier 2 suppliers
- Two hours of community engagement per FTE globally per year

Relates to United Nations Sustainable Development Goals 3, 5, 8 and 10

KPIs:

- Percentage of worker complaints resolved
- Number of factories with an A, B+, B-, C or D grade
- Number of Tier 2 suppliers and subcontractors included in our risk mapping
- Number of zero-tolerance issues prevailing at year end
- Number of employee hours spent on community engagement (KPI shared with Human Resources)
- Number of workers trained on women's empowerment

PUMA's sustainability policies are aligned with the United Nations' (UN) Declaration of Human Rights, the UN Guiding Principles (UNGPs) on Business and Human Rights, the International Labor Organization's Core Labor Conventions, and the ten principles of the UN Global Compact (UNGC). Observing Human Rights was part of our first Code of Conduct developed in 1993 and has guided our business ethics ever since. It has been the long-standing practice of PUMA to monitor our supply chain and conduct Human Rights due diligence for our suppliers globally, including those in major production hubs, such as Vietnam, Bangladesh and China continuously and rigorously.

HUMAN RIGHTS AT PUMA'S OWN ENTITIES

Guided by our Code of Ethics and Code of Conduct, PUMA's company culture of diversity and inclusion puts Human Rights at the centre of everything we do. Our commitment to employee well-being is also documented in numerous employee awards and top-employer rankings received all over the world.

Our internal programmes to uphold Human Rights include measuring gender, nationality, and age distribution among our colleagues, providing a safe work environment as well as elected worker representatives and collective bargaining agreements at selected larger offices, such as our German headquarters. In December 2023, PUMA appointed a Human Rights Officer to monitor PUMA's risk management system, risk analysis relating to human rights and compliance with Human Rights due diligence regulations. In addition, we worked on a Human Rights Handbook for our own entities globally, to be published in 2024.

All PUMA employees who feel that ethical standards in business may have been compromised can raise their voices. Various channels are in place to report any suspicions and/or observations related to modern slavery or other Human Rights aspects. In practice, all employees can address their requests regarding apparent failures to their line manager. They may also raise the matter with staff representatives, the Legal department, the Internal Audit department, or via a toll-free external **whistleblower platform** available

worldwide. Our Ethics Committees make sure that no action is taken against an employee who, in all good faith, reports a case of failure to comply with an ethical principle of the Code of Ethics, because of having reported the matter. In 2023, to meet its obligations under the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG), PUMA published its **Rules for the Complaint Procedure**.

REFORM INITIATIVE

As REFORM continues through its fifth year of existence, our partnership with The Trevor Project (TTP) continues to drive impact in our communities with a focus on supporting policies and practices that affirm and protect young LGBTQ athletes. In 2021, in partnership with TTP, we sought to build a well-researched and comprehensive training scheme to support equity in sports and promote gender inclusivity. In 2023, we launched the Reform the Locker Room programme, furthering our reach to locker rooms, classrooms, and offices alike.

REFORM was also able to launch a new project and collection, called Icons of Unity. Icons of Unity honors PUMA ambassador and global Icon, Tommie Smith, and amplifies his message of Justice, Dignity, Equality and Peace. As we continue to build out this programme, we look forward to identifying athletes, colleagues, and community leaders who embody this characteristic of Tommie, being more than what is obvious and a beacon for a more united community. We kicked this off with an amazing interview with Tommie and Olympians, Felix Streng and Colin Jackson.

In 2023, we educated and preserved culture and history through our work with BLACK FIVES and its NY RENS 100 collection launched in November with court refurbishments and street dedications. We have been able to advocate for and amplify a message of rebuilding communities in conjunction with our partner Game of Our Lives and football star and PUMA ambassador Oleksandr Zinchenko and his Game4Ukraine charitable celebrity soccer match that raised large amounts of money to support the rebuilding of Ukrainian schools. We supported the match with game balls and training gear for all participants. We also hosted a match viewing event at our Herzo HQ with many of the Ukrainian families that have been relocated during the time of war.

REFORM continues to show up and show out for our broader communities and remains true to our brand vision; "...where all barriers to participation are removed so that everyone who wants to play can play."

More on our Reform Initiative can be found **here**.

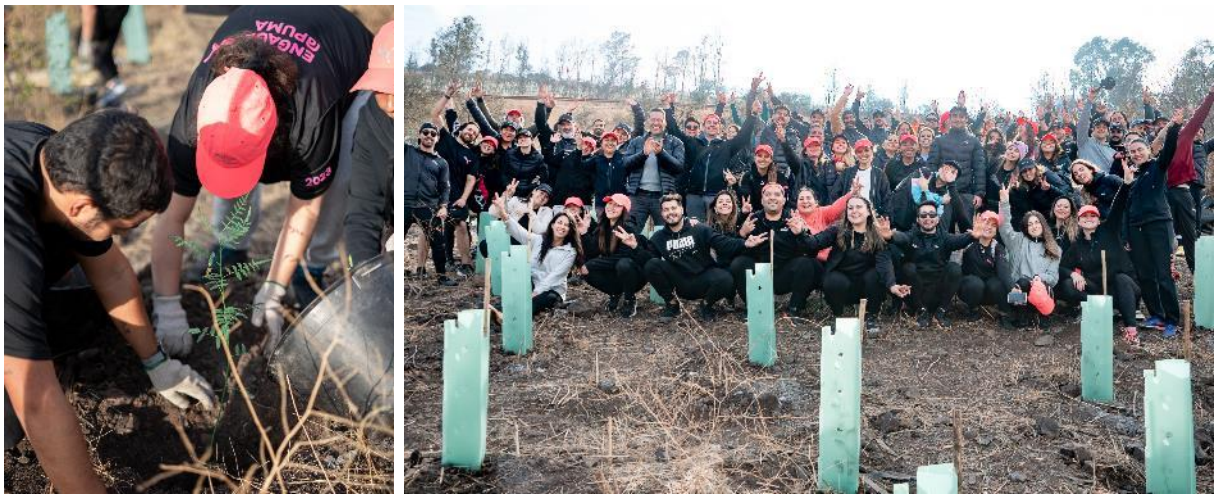
PUMA x BLACK FIVES collection which honours the 100th anniversary of the Harlem Rens
A panel discussion on Gidra, an Asian-American student-led newspaper created to stop the anti-Asian sentiment in 1969

COMMUNITY ENGAGEMENT

Our goal is to reach a total number of hours spent on community engagement equal to twice our annual average FTE (full-time equivalent). We encourage all our employees around the world to participate and record projects and employee engagement on an online platform.

Our Community Engagement Programme has continued to create a positive impact locally by supporting social, health and environmental causes, and we were able to donate 57,000 community hours in 2023. Since 2017, we have now recorded over 200,000 community engagement hours globally.

For more information on PUMA's employee policies and philanthropic donations please refer to the **Our People** section.



Community engagement activities from PUMA Chile: Reforestation in Renca

HUMAN RIGHTS IN THE SUPPLY CHAIN

RESPONSIBLE PURCHASING PRACTICE POLICY

As a responsible business partner for our suppliers, we recognise that our business practices, and our trading terms and conditions can have a significant impact on the organisation at our suppliers' factories. PUMA's Responsible Sourcing Policy aims to reduce potential negative impacts. PUMA's Responsible Purchasing Practice Policy was developed in 2019 to create a framework for guiding decisions and maintaining consistency through eight key principles:

1. Only working with suppliers that have signed a Manufacturing Agreement.
2. Payments to suppliers are made on time and in full. We only deduct payments and impose penalties when it is lawful to do so.
3. Price paid for the product to include reasonable labour costs, such as overtime premium payments, social insurance payments, and costs to comply with environmental standards.
4. Open production capacity must be declared by the supplier based on standard work weeks as per the law of the relevant production country.
5. Seasonal production plans are allocated considering the negotiated capacity with the supplier.
6. Sufficient production lead time must be provided.
7. Suppliers may not subcontract production without authorisation from PUMA. All subcontracting units should respect our Code of Conduct.
8. A minimum notice of six months must be given when ending a partnership or downscaling orders. Longer timeframes will be granted, based on the average production capacities used in the last two to three years, to reduce the impact on workers.

In 2022, 280 PUMA staff and 1,145 supplier participants received Responsible Sourcing Practice training. The training referred to the UN Guiding Principles on Business and Human Rights, to explain the link between the purchasing practices, potential impact on working conditions, and the risk of Human Rights violations.

In 2023, as part of our Due Diligence Policy review, we added a clause on responsible disengagement into our responsible purchasing practices. Following the Fair Labor Association guidelines, PUMA commits to provide a minimum of six months of notice when significantly downscaling orders or terminating a business relationship with suppliers. To mitigate impact on workers' jobs and give suppliers time to find new buyers, a longer timeframe shall be granted, depending on the average production capacities used over the last two to three years.

BETTER BUYING SURVEY

In 2023 we asked 32 strategic Tier 1 suppliers (11 accessories, 12 apparel, and nine footwear suppliers representing 69% of our business volume and 80% of our business value) to participate in the Better Buying survey to collect feedback from our core suppliers on the implementation status of PUMA's responsible purchasing practices. 28 suppliers responded, and the response rate was 90.3%.

Better Buying gathers data from suppliers to provide guidance to brands for improving purchasing practices. Brands voluntarily invite their suppliers to participate. Suppliers rate their brands anonymously according to the five principles of responsible purchasing which focus on the buyer purchasing practices that could have the biggest impact on suppliers' businesses:

1. Visibility: Brands provide enough information about the planned business for suppliers to act
2. Stability: Brands give suppliers steady and predictable business across the year
3. Time: Brands provide enough time for suppliers to complete all processes
4. Financials: Brands use fair financial practices with suppliers
5. Shared Responsibility: Brands play their part in improving supply chain social and environmental sustainability

We benchmarked our 28 suppliers' feedback with more than 800 suppliers' feedback from the 16 brands classified under sporting goods and discussed these results internally to set a clear focus area for improvement. PUMA's overall score slightly increased in 2023, mainly due to the increased score on covering cost for compliant production, accountability for delays, regular forecast updates, and order cancellation percentage. The feedback is described below.

VISIBILITY

Design and development can play a significant role in improving supply chain sustainability. Choices made at this stage have significantly lower financial, social, and environmental impacts. While all our samples are based on a tech pack, tech packs have also been reviewed in 2023 to improve the accuracy of information. PUMA has also provided internal training on the importance of providing accurate information to suppliers. Our purchase order accuracy has improved compared to 2022. Our suppliers recognise our efforts in increasing the use of more sustainable materials, 3D sampling, industry certification, and setting target prices before product development. Our sample hit rate remains strong.

All our suppliers confirmed that we provide them with a business forecast, enabling them to plan the workforce that is needed. In 2023, PUMA discussed its production capacity and the potential impact of forecast inaccuracies on suppliers. We also provided internal training for key business departments involved. PUMA has also been working with its suppliers to ensure their production capacity is accurate and there has been regular feedback on sales forecast to its sales division. Although the overall score has improved for 2023, we have identified the need to better communicate our overall forecasting and planning timelines and processes to our suppliers and improve in-season communication for some product divisions. Given the global macroeconomic situation in 2023, which has led to a change in customers' ordering

behaviour, the gap between the placed and planned capacity results in unutilised capacity and excess material increased according to our suppliers.

STABILITY

We value long term relationships with our suppliers. 40% of our suppliers have been working with PUMA for more than ten years. To help ensure stability, as a principle, we will not cancel orders and accommodate order placement to respond to suppliers' difficulties such as lockdown periods. In the case of order cancellation which remains less than 1% for PUMA, we always pay our suppliers for any liability associated with cancellations. In 2023, 100% of suppliers from Accessories and Footwear reported no order cancellation, while some Apparel suppliers reported cancelled orders.

TIME

A large majority of our suppliers confirmed that we have an agreed time and action calendar for pre-production and production deadlines. In 2022 we received feedback from our suppliers that PUMA missed some deadlines, however through better communication in 2023, our suppliers confirmed an improvement.

FINANCIAL

Most suppliers feel they have favourable financial terms through digital payment, the FOREVER. BETTER. Vendor Financing Programme and through receiving payment for samples and bulk production in a timely manner. PUMA International Trading and the vendors have enabled the digitisation of the supply chain creating transparency, operational efficiency, and reducing complexity. For example, all payments to vendors are automated and paper-free.

We do not apply late penalties to our vendors, and suppliers confirmed we are flexible and accountable for delays. We will strengthen our communication of payment terms to suppliers. We also see opportunities to collaborate with our suppliers to increase their production efficiency related to style allocation, volume, standardisation of fabrics, labelling and packaging processes, etc. We made significant improvements in covering costs for compliant production compared to 2022, but suppliers also reported pressure in cost negotiation in 2023. Our suppliers also recognised our efforts to reduce audit duplication which benefits them in saving cost.

SHARED RESPONSIBILITY

All our suppliers recognise that sustainability is the precondition for doing business with PUMA. However, in 2023, suppliers felt less incentivised to reach the sustainability goals compared to 2022 since we saw a decline in orders in the first half of the year and stabilisation during the second half. The majority of our suppliers acknowledge our effort to enforce our sustainability standards.

FOREVER. BETTER. VENDOR FINANCING PROGRAMME

The programme, established in 2016, allows suppliers with a good or very good compliance rating to benefit from PUMA's high credit rating and preferred interest rates. The programme runs in partnership with IFC, BNP Paribas, HSBC, and Standard Chartered Bank.

At the end of 2023, 72 vendors were registered users (compared to 71 at the end of 2022). The financed volumes in the full year 2023 amounted to $478 million (-$322 million compared to 2022), which reflects the massive interest rate and with this financing cost increases for our suppliers, who chose other sources or tried to avoid external financing.

HUMAN RIGHTS RISK ASSESSMENT

In previous years we have conducted Human Rights risk assessments at corporate and the supply chain level and shared the results in our 2016 and 2017 Annual Reports. In 2021 we commissioned and completed a Human Rights risk assessment, focusing on forced labour management in the supply chain.

In our Handbooks, we request our vendors to conduct due diligence. To increase transparency, we report on the most common audit findings, training, grievances, and mitigation measures as outcome-focused key performance indicators (KPIs) to track the effectiveness of our supplier programmes.

The PUMA hotline is accessible to Civil Society Organisations (CSOs) and external stakeholders, including stakeholders representing vulnerable groups: women, children, migrant workers, indigenous people and national or ethnic, religious, and linguistic minorities. We also extend the scope of our social monitoring programmes to EMEA factories, high-risk countries warehouses, and to some non-core Tier 2 suppliers.

In 2023, we conducted a review of our grievance mechanism, in line with the UNGP criteria for operational-level grievance systems. To do this, we surveyed 14,823 workers at 45 factories in eight countries. The legitimacy of the PUMA hotline was acknowledged by 94% of workers, accessibility confirmed by 80% of participants together with 92% regarding the hotline's availability in a language they understand.

In 2023, we developed a Civil Society Organisations (CSOs) engagement policy to engage with them reactively and proactively. Please refer to the **Due Diligence and Risk Assessment** section of this report for more information.

RISKS

The most salient risks to human rights are forced or bonded labour in the supply chain and, at the farm level, child labour.

Freedom of association
As per **World Governance Indicators** (WGI), PUMA's main sourcing countries have been identified as risk countries on the Voice and Accountability indicator, which measures freedom of association. Social conflict and freedom of association breaches could be a risk due to a lack of social dialogue at factories. The risk could be more upstream in our supply chain when no audit programme is in place or when there is no monitoring programme at the raw material extraction stage. We support our core Tier 1 suppliers to set up effective social dialogue platforms in factories and adopt certification such as Better Cotton and the Forest Stewardship Council to address raw material extraction Human Rights risks.

ILO Freedom of Association Committee has been investigating cases reported by International Trade Unions on allegations of retaliation, anti-union discrimination and dismissals, and the arrest and detention of workers for having participated in strike action, in a context where the legislative framework inadequately ensures the effective recognition of freedom of association, in Bangladesh and Cambodia.

In Bangladesh and Cambodia, there were third-party complaints related to freedom of association (described in the grievance section). As a countermeasure, all our factories in Bangladesh and Cambodia are enrolled in the ILO Better Work programme, which provides advisory services and supports factory management to create a participation committee as a platform for social dialogue.

Discrimination, sexual harassment, and gender-based violence
The **Global Gender Gap Index** measures gender equality in 153 countries by tracking and ranking a range of gender-based gaps across society. East Asia is ranked as medium, while South Asia is ranked lower. While East Asia has been able to reduce educational gender gaps, South Asia is one of the regions where women are the most disadvantaged in the workplace.

Social dialogue can be used as an effective tool to overcome the under-representation of women and promote gender equality at work. We support our core suppliers in setting up effective social dialogue platforms in factories that include women's voices. We also support them in conducting women empowerment training for factory workers.

Health and Safety
South East Asia is prone to natural disasters, disease outbreaks, and health risks related to climate change. In addition, building and fire safety risks have been identified as major risks in the apparel sector, especially in Tier 1 and Tier 2 facilities. One of the World Health Organization's key priorities is to strengthen emergency risk management for sustainable development and to promote health coverage and robust health systems.

We maintain a high focus on the OHS performance of our core Tier 1 and Tier 2 factories through factory injury rate monitoring and OHS risk assessment training.

Wage and benefits, living wage, and working hours
Asian sourcing countries have been rated with low scores by the **ITUC Global Rights Index**.

We support our core Tier 1 factories, with which we have direct business relationships, to provide a fair income for to their workforce, including all legal wages and benefits along with additional components which could increase workers' incomes according to fair wage assessments. We launch fair wage assessments and remediation in collaboration with the Fair Wage Network, for factories which fall short of paying a living wage and continue benchmarking all our core Tier 1 wage data through the Fair Labor Association (FLA) wage dashboard.

We also conduct training on root cause analysis to strengthen working hours management at our core Tier 1 factories, so the level of workers' income depends less on overtime hours workers.

Child and forced labour
As per **World Governance Indicators** (WGI), PUMA's main sourcing countries have been identified as risk countries on Regulatory Quality (RQ) and Rule of Law (RL). The risk could be more upstream in our supply chain when no audit programme is in place or when there is no monitoring programme at the raw material extraction stage. We adopt certification to address raw material extraction and Human Rights risks such as Better Cotton and the Forest Stewardship Council.

In 2021, we conducted a risk assessment on forced labour management through a third party and have prioritised the traceability of our supply chain as a key focus. In addition, PUMA reviewed the severity grading of audit findings according to ILO 11 forced labour indicators to prioritize the remediation process.

RISK ASSESSMENT FOR NEW FACTORIES

EiQ is a risk assessment tool for new and existing suppliers. The EiQ Sentinel service scans online and media sources and provides alerts for supplier controversies relating to labour, health and safety, the environment, business ethics and management systems. Sentinel alerts provide near-real-time monitoring of supply chains from public news and information sources (in English and local languages), including local or international media, NGO reports, government reports, worker allegations and social media platforms. PUMA checks the EIQ Sentinel whenever it onboards a new factory. For China, we also use the IPE database to check if any of the new factories have a record of environmental violations. We would then ensure that factories comply with PUMA standards though a social audit. In 2023, one factory was not onboarded due to two Sentinel alerts related to potential risks of forced labour.

IPE violations were found in three other factories. One factory was onboarded after it improved as per PUMA standards and corrected its excessive daily wastewater discharge. The second factory improved and passed the legally required environmental assessment but could not be onboarded in 2023 since we had not conducted our social audit, it will be done in 2024. The third factory started production before going through the legally required environmental assessment and without the approval of the local authorities; they improved, so these violations were removed from the IPE database, but they could not be onboarded since we had not completed our social audit within 2023.

For PUMA's existing supplier factories, 15 Sentinel cases were found as of September 2023. Eight cases were from factories that had already been deactivated, and thus have no production for PUMA anymore. Five cases were related to insufficient payments, health and safety, and waste management, which were addressed through remediation action and the issues were resolved. The other two cases involve allegations that have not been confirmed by our investigations.

RISK ASSESSMENT FOR EXISTING FACTORIES

In 2021, PUMA adopted ELEVATE intelligence (EiQ), a comprehensive suite of supply chain analytics, to:

- Assess our supply chain risks by country, commodity and issue
- Complete risk assessments for suppliers, factories, and sites
- Manage risks that are material to each supplier, factory or site

In 2023, we uploaded 676 audit results (2021-2022) to the EiQ tool. This tool shows the combined risk level based on geography, product, and audit result. We evaluated the countermeasures we have in place in the factories identified as high-risk facilities in this tool. 28 factories were identified as high-risk mainly due to legal violations such as missing building safety permits, systematic excessive overtime or working hours management. 16 factories are from Tier 1 suppliers, one is a warehouse, and 11 are Tier 2 factories. All of them are under regular social compliance monitoring. 29% (eight) of these factories are under the ILO Better Work Programme which offers a factory assessment and advisory services for remediation, 21% (six) of these factories are covered by Worker Voice mobile app, through which workers can raise their concerns to factory management (such concerns are escalated to PUMA when factories do not respond timeously). This mobile app has also the functions to conduct workers survey and launch e-learnings for workers. We also provided Root Causes Analysis training for 25% (seven) of the factories. One supplier in China has been going through a capacity building programme since 2022 at PUMA's expense to strengthen its management system. In 2023 we saw a significant improvement as per the consultant company Elevate, which we further explained as a case study.

In 2023, 75% (21 out of 28) of factories improved. Measures included obtaining building safety or fire safety certificates, installing sufficient fire safety equipment, and ensuring that emergency exits were unobstructed. Some factories improved working hours management after they joined the Root Cause Analysis training that we provided or paid back insufficient overtime compensation. As a result, these 21 factories are no longer considered as high-risk. The four other factories are still implementing their improvement plan and working to obtain legally mandated certificates and improve working hours management. Three out of four factories have already joined ILO Better Work; for the one factory which is outside of scope of ILO Better Work, we expect them to remedy the critical violations by 2024. The other three factories are to be deactivated.

In 2023, PUMA's Supply Chain Sustainability Team added one full-time staff member in Brazil. We now have local team members in nearly all high-risk sourcing countries to support the implementation of our standards. In Pakistan, with the launch of the Better Work programme, we have registered all factories in scope to mitigate risks. We plan to add one full-time staff member to support Bangladesh and Pakistan in 2024. For the rest of the high-risk countries such as the Philippines, Mexico, or South Africa, we do not have a local team member due to the total number of suppliers being less than ten. For these locations, we work with third-party auditing firms to conduct regular social compliance audits.

Based on all these actions, we aim to mitigate the risks identified through this risk assessment.

WORKERS SURVEY

In 2020, PUMA launched the Worker Survey Programme to get workers' feedback in eight countries and to assess their satisfaction with the factory work environment through a mobile survey app.

PUMA operates multiple worker voice channels. The third-party worker engagement platforms cover 89 suppliers and 201,579 workers. 29 non-strategic factories in three countries (Bangladesh, Vietnam and

China) also used the platforms in 2023. To review the design and efficiency of PUMA's grievance system as per the criteria of the UN Guiding Principles on Business and Human Rights, we collected feedback from factory workers in 2023.

The UN Guiding Principles on Business and Human Rights set the following criteria to assess the effectiveness of non-judicial operational-level grievance mechanisms: legitimacy, accessibility, predictability, equitability, transparency, rights-compatibility, a source of continuous learning, and based on engagement and dialogue. In 2023, to assess our hotline against these criteria, we surveyed 14,823 workers at 45 factories in China, Cambodia, Vietnam, Indonesia, the Philippines, Turkey, Pakistan and Brazil.

- Legitimacy (enabling trust from the hotline users): 94% of workers agreed they can trust the PUMA hotline
- Accessibility (no barrier to access for users): 80% of workers know where to find the PUMA hotline phone numbers and email, and 92% confirmed it is available in a language they understand
- Predictability (users are clear on the procedure): 75% of workers responded that they know what the complaint procedure is and 90% understand their complaint will be investigated
- Transparency (keeping parties informed about progress on the issue): 91% of workers with unresolved complaints (at the time they responded to the survey) said they were aware of the status of their cases

The Rights-compatibility criteria (ensuring that outcomes and remedies accord with internationally recognised human rights) was not evaluated. We shall assess it in the future.

The survey results also showed that workers in Brazilian factories did not know where to find the PUMA hotline, nor did they understand the procedure (only 25% responded positive). As a follow-up action, we will conduct further training for workers in Brazil about our grievance mechanism and translate our video material that explains the PUMA hotline procedure into Portuguese in 2024.

Lastly, to evaluate the effectiveness of remedial action, workers were asked systematically whether their complaints were resolved. Of the 15% of surveyed workers who had used the hotline, 65% said they had filed a complaint, with a complaint resolution rate of 96%.

↗ T.04 HOTLINE WORKER SURVEY - 2023

	China	Cambodia	Vietnam	Indonesia	Philippines	Turkey	Pakistan	Brazil	Global
Can you access a phone in order to call the hotline?	76%	93%	94%	74%	92%	82%	97%	66%	86%
Do you have access to a phone or computer to send a complaint via email?	57%	94%	92%	83%	92%	85%	97%	77%	82%
Can you use Zalo, WeChat, Viber, QQ, Whatsapp etc?	87%	96%	97%	99%	92%	97%	99%	83%	94%
Is the hotline available in a language you understand?	92%	88%	94%	93%	98%	87%	98%	89%	92%

PUMA's hotline processes and complaints' numbers, statuses and outcomes are publicly available for transparency. **Our Rules for the Complaint Procedure** is available for download on **our website** and details about workers and third-party complaints are shared in our Annual Reports. Through regular evaluation of our grievance mechanism, including feedback from factories' workers, we aim to collect information to support continuous improvement of our due diligence and grievance mechanism procedure, in line with these criteria that the mechanism should be a source of continuous learning and based on engagement and

dialogue. For equitability, we are seeking to ensure that complainants can access a network of public and private organisations or services to engage through the PUMA hotline on fair, informed and respectful terms. In 2024, we plan to map local relevant organisations and institutions together with our suppliers, to identify and share contacts of emergency care, psychological support or the judicial system, for any factory worker in need who has raised a complaint.

↗ T.05 WORKER SURVEY 2021 – 2023[1]

Year	Number of Factories	Number of Workers
2021	48	13,557
2022	68	21,526
2023	45	14,823

1 From 2021 onwards we have used Gallup's methodology to define the sample of production workers of each factory, based on a 95% confidence interval and a margin of error of plus or minus 5%.

WOMEN'S EMPOWERMENT

Training women about their rights and empowering them to advance their careers is key to achieving gender equality, where both men and women have equal power and opportunities for education, healthcare, economic participation and personal development.

60% of workers producing PUMA goods are women and 50% of factory managerial positions at our core Tier 1 suppliers are filled by women. PUMA initiatives support suppliers in reviewing existing policies and practices or establishing new ones for women's empowerment. We believe that collaboration within the industry and with NGO experts in women's empowerment is key to avoid duplication and provide the right expertise.

Since 2021, the accumulated participants of sexual harassment prevention training amounts to 222,933 workers, accounting for more than 148,642 training hours.

In 2023, we expanded the e-learning course on Sexual Harassment Prevention at the Workplace via Micro Benefits to 50,478 workers in 37 factories in China and Vietnam. Another 4,418 workers at eight factories in Cambodia and Indonesia completed the Better Work e-learning course on Discrimination and Elimination of Violence and Harassment at Work via the mobile phone app WOVO, covering 51% of employees in these factories.

China's textile and apparel industry employs approximately 20 million people, over 60% of them female, comprising many domestic migrants at the age of marriage, childbirth, or childcare. These workers have limited education in personal development, childbirth and family care, and often must juggle their work at the same time. Therefore, the China National Textile and Apparel Council (CNTAC) has launched the initiative to build Family-Friendly Factories in the Chinese textile and apparel industry. This initiative is supported by UN Women and UNICEF. In 2023, we partnered with CNTAC, piloting the Family-Friendly Factories project at three core Tier 1 factories with 5,566 workers in total.

The programme's objectives are:

- Understand how Chinese textile and apparel companies implement family-friendly policies, as well as their challenges in implementing a gender equality system
- Develop guidance for these companies to promote family-friendly policies at the workplace
- Assist pilot companies in establishing family-friendly mechanisms in line with their existing human resources management system
- Promote and pilot best practices across the industry

In 2023, CNTAC conducted an onsite baseline assessment at three PUMA factories through workers surveys and interviews about their perception of their factory's current policies and practices, and their challenges regarding family care. The project team also trained 207 workers (73% female) on gender equality, family-friendly policies, work-life balance, and parent-child education. The three factories were provided with an improvement plan to review their internal policies. PUMA's Sustainability Team is working closely with them to implement these improvement plans by the end of 2024.

PUMA encourages suppliers to join the ILO Better Work programme. The **Better Work's factory improvement process** includes three integrated services: assessments, follow-up advisory services and 15 training days per year. In 2023, 32 management staff (72% female participants), from 17 factories in Bangladesh, Cambodia, Indonesia and Vietnam joined 19 training sessions on topics including gender equality, sexual harassment and prevention of discrimination and gender.

World Benchmarking Alliance

The World Benchmarking Alliance **(WBA) Gender Benchmark** evaluates 112 of the largest apparel, food and agriculture companies globally on their responsibility to drive and promote gender equality in their entire value chain. In the 2023 Gender Benchmark PUMA ranked eighth out of 112 companies and sixth in the apparel sector with a score of 43.5 out of 100. 2023 was the first time PUMA participated in the Gender Benchmark.

SUPPLIER SCORECARD

In 2023, PUMA conducted calls with 58 core Tier 1 factories to review the social scorecards for each of their factories performance as of end of 2022, which included:

- Audit rating
- Participation in supplementary worker voice tools offered by third parties
- Workers' training on women's empowerment/sexual harassment
- Factory's injury rate compared to PUMA core Tier 1 factories' average rate and 2023 goals
- Factory's average weekly overtime hours vs. PUMA core Tier 1 factories' average
- Factory's fair wage performance compared to living wage benchmark
- Whether the factory has freely elected worker representatives against 2025 goals

During these meetings, we reviewed the scorecard and discussed next steps to address identified gaps. Most suppliers agreed with the scorecard and the action plan to achieve PUMA's 2025 sustainability targets:

- **Worker voice:** 57 out of 58 factories are covered by third-party worker voice platforms (mobile app) and one supplier in Brazil was added to PUMA's 2023 strategic partner list. We discussed launching a third-party worker engagement platform. Some suppliers shared their concerns about the functionality of third-party worker engagement platforms, we are looking into it to further improve or find an alternative.
- **Fair wage:** The discussion was based on the factories 2021 wage data; three factories were suggested to conduct a Fair Wage Assessment as their wage level is below the industry or GLWC benchmark, which was conducted in 2023.
- **Women's empowerment:** Except for our new strategic supplier in Brazil, the rest of our core suppliers provided sexual harassment prevention training to workers after the managerial staff had been trained by PUMA. In 2023, 41 out of 58 factories continued the sexual harassment e-learning via the third-party worker engagement platforms, and three Chinese factories joined a pilot led by CNTAC on promoting gender equity.
- **Worker representation:** During these meetings, we encouraged 20 factories which had not freely elected workers' representatives, to either join the ILO Better Work programme, which help suppliers to set up a Worker-Management Committee or join PUMA's programme when the factory is not under the scope of Better Work. Four of them joined the Better Work programme in 2023 or will join in 2024. In 2023, PUMA's Sustainability Team members in China, Vietnam, Bangladesh and Indonesia had been trained by Timeline Consultancy, a China-based consultancy company, on guiding factories not in scope of the

Better Work programme to have freely elected worker representatives and to build a dialogue mechanism. The 16 factories agreed to join PUMA's Worker Representation Programme.

SOCIAL COMPLIANCE

PUMA's Code of Conduct is an integral part of our supply contracts. All PUMA suppliers sign a legally binding "Declaration of Principles" to comply with the PUMA Code of Conduct. PUMA requires all vendors, their subcontractors, and their suppliers to comply with this Code of Conduct, as well as PUMA's Social and OHS handbooks. These compliance expectations are verified through regular audits. The frequency of audits is based on a factory's previous audit results: A-graded factories are re-audited after 24 months, B+ after 18 months, B- after 12 months and C-graded after six months. Warehouses graded A, B+, B- are re-audited after 24 months, C-grade after 12 months and D after six months. For factories with a D grade, including Better Work Factories, Zero Tolerance (ZT) issues need to be corrected between two and six months. Potential new factories will not be authorised to produce PUMA products until the factory can be rated A or B. Regardless of the factory grade, all issues identified during audits need to be remediated as part of a corrective action plan.

Since 1999, all direct PUMA factories (Tier 1) have been frequently audited for compliance with the ILO Core Conventions and basic environmental standards. Each year we collect between 300 and 500 audits or assessment reports issued through PUMA's compliance programme, the ILO Better Work Programme, our industry peers' compliance programmes or independent experts accredited by the Social and Labour Convergence Programme (SLCP). We have also included our most relevant material and component suppliers (Tier 2) and key priority warehouses in our audit programme. Through collaborative efforts with the sourcing team, we mapped more than 200 non-core Tier 2 suppliers in 2022. While one-third use FEM (Facility Environmental Module) for other brands, only 13 have had a social audit. We converted these audit reports in our grading system. In 2023, we reminded all suppliers that the use of undeclared sub-contractors is a Zero Tolerance issue, as per PUMA standards. We asked them to self-declare their Tier 1 subcontractors used for PUMA production. 66 Tier 1 subcontractors were declared, 26 (19 for the first time) had an audit report that we converted into PUMA's grading system.

In 2023, 454 Tier 1 suppliers, 92 Tier 2 suppliers and three warehouses were audited. 581 audit reports from these 549 factories were collected to safeguard workers' rights to more than half a million workers (656,473).

All PUMA suppliers are required to display our Code of Conduct in factories producing PUMA products, materials or components. This contains the contact details of the PUMA Sustainability Team as a whistle-blower hotline. The number of grievances received and solved, as well as the most frequent type of grievances are shared in this report.

Furthermore, PUMA is a member of the Fair Labor Association, which regularly audits and accredits PUMA's compliance programme for compliance with the **Fair Labor Association**'s Code of Conduct. This ensures that PUMA has the systems and procedures in place to successfully uphold fair labour standards throughout its supply chains and mitigate and remediate violations. As an FLA member, PUMA has agreed to subject our supply chain to independent assessments and monitoring as part of an organisational commitment to upholding fair labour standards through transparency. FLA publishes the results of these assessments to encourage an open and honest dialogue about the conditions that workers face, ensure PUMA's accountability, and help consumers make more informed decisions about the products they buy. View the public assessment results here: **PUMA, SE – Fair Labor Association.**

A comprehensive explanation of our compliance programme for suppliers (including grievance mechanisms and case studies) can be found in our **Sustainability Handbook for Social Standards**. Our Social Handbook explains the procedure for factory monitoring programmes (section 3) and our standards. This handbook is reviewed on a regular basis and our suppliers receive regular training on our standards and monitoring process. We launched the e-learning via Elevate's EiQ Learning platform in April 2023. All suppliers were

invited to complete the training course. 1,035 participants from 557 factories passed the e-learning in 2023, representing 85% of PUMA's active factories.

PUMA's supplier factory list is disclosed on our **website**. It includes details such as the factory name, address, product category, headcount range, the percentage of female workers, percentage of foreign migrant workers and freely elected worker representation. PUMA also publishes its factory list in the **Open Supply Hub platform**.

AUDIT PROCESS

Our audit starts with briefing the factory management and worker or union representatives on PUMA standards, the audit process and its scope. In 2023, 94% of the audits conducted included a trade union representative or workers' representative during the audit's opening and closing meetings (when closing meetings take place during factory working hours).

We have a team of compliance experts in all our major sourcing regions who regularly visit our core manufacturing partners. We work with external compliance auditors and with the ILO's Better Work Programme. Each PUMA supplier factory must undergo a regular compliance audit every six to 24 months based on their audit rating and all issues identified need to be remedied as part of a corrective action plan.

Interviews with workers, workers' representatives or union representatives are crucial for understanding workers' perspectives on workplace standards, the atmosphere at factories and protecting vulnerable workers from any work that is likely to cause harm. All interviews with workers are conducted on-site (no offsite interviews).

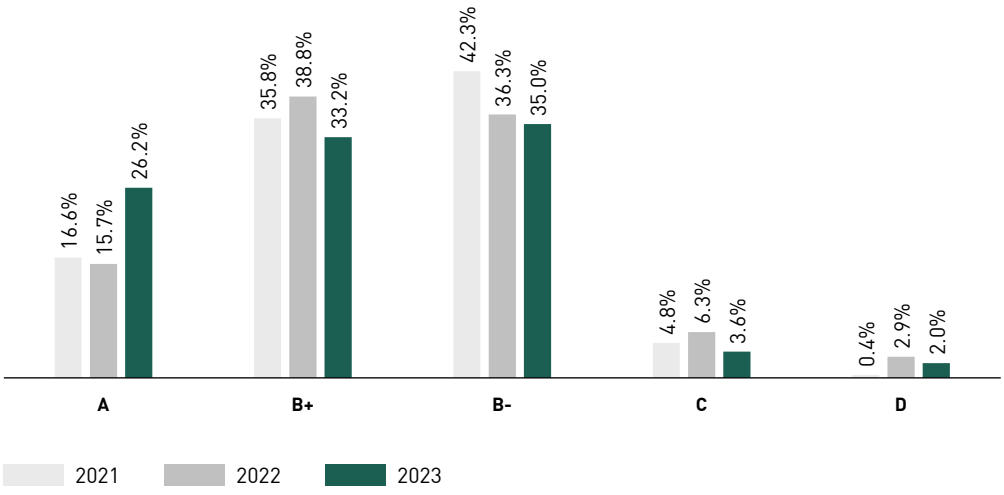
Around 79% of active factories were audited in 2023. Factories not audited in 2023 either had an audit that was still valid because of their grading, were waiting for Better Work assessment or were located in Ukraine.

To avoid duplication and prevent auditing fatigue, in 2023, we increased the percentage of shared assessments to 67% (59% in 2022). We will further increase our use of SLCP-based assessments to 350 factories in 2024. We believe that SLCP is an ideal tool for building long-term relationships with suppliers and supporting them to take ownership of their social and labour data. PUMA is a member of the ILO **Better Work Programme** and uses Better Work assessment reports in lieu of the PUMA compliance programme. PUMA also uses FLA-accredited brands' reports as well as some other brands' audit reports in lieu of the PUMA compliance programme. We aim to use external reports converted to PUMA standards for up to 80% of our factories by the end of 2025.

↗ T.06 AUDIT RESULTS 2021 – 2023

	2023			2022			2021		
	T1	**T2**	**Warehouse**	**T1**	**T2**	**Warehouse**	**T1**	**T2**	**Warehouse**
A (Pass)	120	24		63	17		75	6	
B+ (Pass)	154	27	1	157	41		144	23	2
B- (Pass)	152	38	2	144	39	2	155	46	1
C (Fail)	18	2		19	11	1	16	7	
D (Fail)	10	1		9	4	3	2		
Total Active+Inactive audited factories	454	92	3	392	112	6	392	82	3
Total active factories as of Dec 31st, 2023	564	120	7	516	128	10	445	99	6
Number of employees	572,541	81,756	2,176	546,286	82,070	2,229			
Audit coverage %	80%	77%	43%	76%	88%	60%	88%	83%	50%
Total active+inactive audited factories			**549**			**510**			**477**
Pass/Fail %	94/6	97/3	100	93/7	87/13	33/67	95/5	91/9	100

↗ G.07 AUDIT RESULTS 2021 – 2023[1]



1 Total factories audited: 477 in 2021; 510 in 2022; 549 in 2023

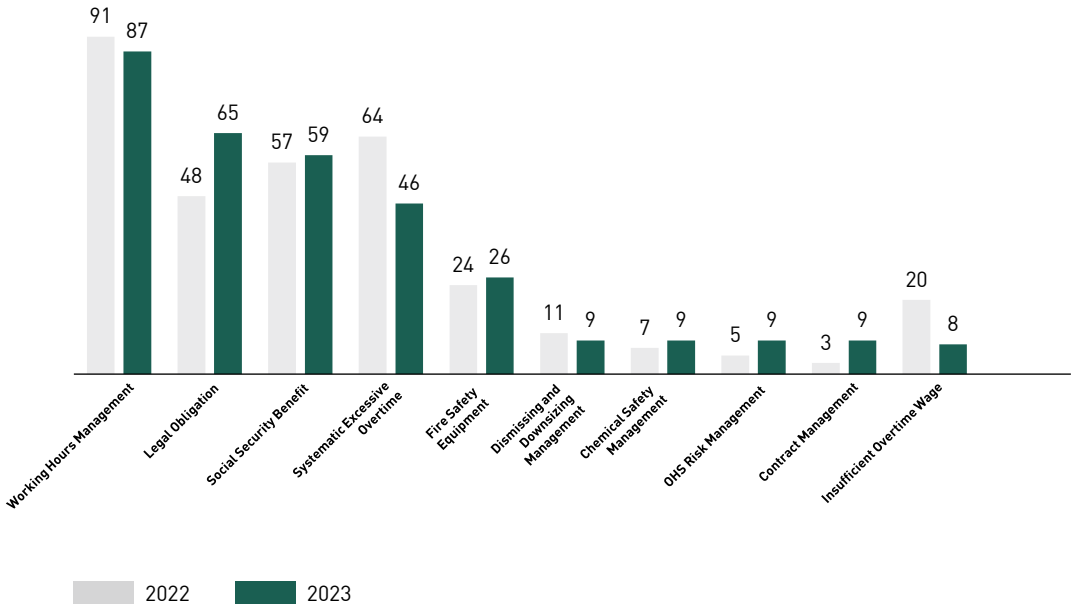
AUDIT RESULTS AND FINDINGS

In 2023, we continued following up and training the factories with low performance; as a result, 67 factories were upgraded to A or B+. 144 factories were audited for the first time in 2023 as per our strategy to increase local-for-local production and to scale up our social monitoring programme to non-core Tier 2 suppliers (11) and Tier 1 sub-contractors (19).

In total, 36 factories failed the audit, (31 Tier 1, five Tier 2); 14 were deactivated due to low performance. Five were re-audited in 2023 and passed the audit; 17 factories will be re-audited in 2024 since they have six months to improve. 19 out of 36 were new factories, 12 factories were not onboarded so we did not enter into any business relationship with them, four were re-audited and improved to a passing grade, the three other factories (two non-core Tier 2, one retail furniture supplier) were audited for the first time in 2023 as we expanded our audit scope; they all committed to improve and they will be re-audited in 2024.

Out of the 11 factories graded D in 2023, seven factories were deactivated. Four are still active as at the end of 2023, as progress is on-going. Two out of these four D-graded factories had Zero Tolerance issues on transparency and payment below minimum wage which were uncovered in late 2023. They corrected these issues within 2023, as one paid back minimum wages. The other factory stopped subcontracting home workers, recruited workers and communicated their policy change to all managerial staff and workers; several critical issues are still under remediation and should be corrected in 2024. For the other two D-graded factories, since the factory management submitted reliable corrective action plans, we will follow up on the remediation by mid-2024.

↗ G.08 2022-2023 NUMBER OF MOST FREQUENT FINDINGS[1-2]



1 Top 10 findings in 2023 active factories only excluding newly audited factories in 2022 and 2023
2 Including converted reports

G.08 shows the 10 most frequent audit findings from PUMA's audit programme, including both own and external converted reports.

Initial assessments are excluded from this graph. 144 audits were initial assessments (meaning no audit was conducted previously) in 2023, 25% of the total number of audits performed over the course of the year. These suppliers are not yet familiar with our standards. In 2023, we provided an e-learning on our social

standards, which helped newly onboarded suppliers to better understand our expectations. As a result, the pass rate of newly onboarded suppliers in 2023 was 4% higher than in 2022 (2023: 87%; 2022: 83%).

Working hours management: In 2022 we provided working hours management training for all Tier 1 factories. A root cause analysis workshop was held with selected core suppliers in both 2022 and 2023 to explore opportunities for improvement. Factory management reviewed and strengthened their policy and working hours monitoring system. They gained a deep understanding of how to conduct a root cause analysis. We developed an action plan to address prioritised root causes of overtime hours. We noticed improvements as there was a decrease in the number of audit findings in systematic excessive overtime (reduced by 4.6%), overtime compensation (reduced by 3.2%), and working hours management (reduced by 0.6%). We notice a decrease in the average overtime hours at our core Tier 1 factories compared to 2022 from 7.7 to 5.3 hours in 2023, but it can be due to a decrease of our order book due to 2023 global macroeconomic situation, which led to a change in customers' ordering behaviour.

Wages and overtime: Among issues related to wages and/or overtime, 31% of the corrective actions were implemented and these issues were resolved in 2023, which is 20% higher than the 11% rate in 2022. We expect more progress in 2024 as 31% of audits were conducted at the end of 2023, these factories involved will receive a follow-up audit in 2024 to validate their improvements.

Social security: 100% of workers are covered under social security among all our core Tier 1 suppliers, except in China where this is the case for 80.4% of workers. We plan to further explore how to support suppliers to remedy those issues via in-person workshops in 2024. Improving working hours management, following up with suppliers to obtain legal permits, and increasing social security coverage will continue to be a focus of our efforts.

Transparency: Four transparency issues were found in 2023. One new factory with one transparency issue along with other violations such as insufficient benefits and several OHS findings was not onboarded as a PUMA supplier; two factories with one transparency issue each provided consistent records for review after we emphasised PUMA's zero tolerance policy on transparency. These records were verified by PUMA. One transparency issue in one factory detected in late 2023 remains open; we will follow up in early 2024.

Freedom of association: The four open issues related to Freedom of association identified in 2022 were all closed through follow-up with the management or under the Better Work programme. Five audit findings related to Freedom of Association breaches were identified in 2023, such as the dismissal or poor treatment of union members and delayed union elections. As of today, three issues were closed; one is still open as there is an on-going mediation process between the management and trade union workers; the other issue remains open, and concerns the factory HR manager taking dual leadership roles in both management and union. This factory is working with Better Work Vietnam for remediation.

Women's rights: PUMA is committed to respecting women's rights as per the Convention on the Elimination of Discrimination Against Women and expects suppliers to commit to and respect women's rights. In this context, we carefully monitor working conditions for women. In 2023, we identified 38 women-related audit findings about missing benefits for nursing workers, unadopted conditions for pregnant workers or toilets not maintained in clean and sanitary conditions. 15 of them were closed through follow-up with the factories or via the Better Work programme, three findings will not be followed-up on because the factories have been deactivated, 20 are still under remediation and are being followed-up. One violation was related to unvoluntary overtime and has been corrected as per a Better Work progress report.

Freedom of movement: One audit finding was identified related to restricted freedom of movement. As a result, the factory management issued warning letters to all relevant supervisors and conducted training to avoid similar situations in future. We will verify these actions onsite in 2024. No case was found related to workers' passports nor other identity and personal documents being retained.

Wage payments: We identified 16 violations regarding delayed wage payments, 12 of them were closed; two findings will not be followed-up because the factories were deactivated; for the two open findings, one factory is working with Better Work on remediation, and another factory took appropriate actions so no wage payments will be delayed. We will verify that proper actions were taken on-site in 2024.

Beyond auditing, we track social key performance indicators such as average payments vs. minimum wage payments, overtime hours or coverage by collective bargaining agreements. This data is reported under the Fair Income target section.

SUPPLIER TRAINING

To ensure that our suppliers understand the requirements set by PUMA as well as international due diligence regulation and standards in the garment and footwear industry, PUMA organised multiple training sessions in 2023, including:

- In-person or virtual suppliers round tables to share updates on PUMA standards and industry best practices, elaborate on the German Due Diligence Supply Chain Act by industry experts; CNTAC in China and VITAS in Vietnam.
- Training factory management on Accident Prevention and Reporting, who will then support us to achieve the goal of training 100,000 workers on this subject.
- Root cause analysis training for strategic suppliers, so that they can develop corrective actions to resolve their audit findings by addressing their root causes.
- Customised e-learning on Social Standards, to help suppliers, especially those newly onboarded, to better understand PUMA's expectations.
- PUMA's expectations to suppliers regarding our Code of Ethics.

We launched the e-learning via Elevate's EiQ Learn platform in April 2023, and all suppliers were invited to complete the training. 1,035 participants from 557 factories passed the e-learning in 2023, representing 85% of PUMA's active factories. We plan to add this e-learning to PUMA's website, which will allow users, new factories and workers, to access the course at any time.

↗ T.07 SUPPLIER TRAINING

Meeting	Topics	Number of factories	% of suppliers trained*	Number of participants
Supplier in-person round table or virtual meetings	Sustainability updates, best practices sharing, German Supply Chain Act. etc.	Average. 532 per round (2 rounds)	81%	Average. 1,122 per round (2 rounds)
Code of Ethics**		536	82%	1,230
OHS Accident Prevention and Reporting training	Training of Trainer to core Tier 1 supplier management on what and how to do OHS Accident Prevention and Reporting	102	16%	290
Root Cause Analysis training	In depth review of root cause analysis methodology to new core Tier 1 and core Tier 2 factories	71	11%	169
PUMA Social Standards e-learning	PUMA social standard handbook e-learning course via EiQ Learn platform to active factories' management	557	85%	1,035

* % of factories joined the training based on total 656 factories. The 656 factories include PUMA core Tier 1 and Tier 2, non-core Tier 1, stichd factories and licensee factories.

** Included to second supplier in-person round table or virtual meetings.

CASE STUDIES

Capacity Building in China
With Elevate as a partner, a one-year capacity building programme was carried out to help the supplier and its factory staff to identify key gaps in the factory's management system and provide them with a toolkit and expertise to drive sustainability-related improvements. Through top management commitment, training and capacity building, regular review of metrics and impact assessments, the factory understood the importance of being transparent with PUMA; established a proper grievance mechanism, established an effective working time recording system; started to use internal inspection tools to manage CSR performance independently and corrected most (91.7%) of the EHS findings.

To further improve it was recommended that the factory should enhance compensation and benefits payment systems, conduct follow-up investigations of workers' suggestions and have a proper mechanism to answer these suggestions.

GRIEVANCE CHANNELS

PUMA works towards providing access to functioning grievance channels throughout its supply chain. Where we do not have direct operations, we seek out partners who can run such complaints mechanisms, according to the UN Guiding Principles. At the cotton farm level, the **Better Cotton** Grievance procedure provides a system for anyone, including third parties, who engages with its activities, people or programmes to raise a complaint relating to any aspect of Better Cotton and its activities.

We operate multiple worker voice channels to reach more than half a million workers at our Tier 1 and core Tier 2 factories. If workers are not satisfied with the responses offered by the factories via their respective internal grievance system, we encourage them to use the PUMA hotline to raise complaints or request consultations. Hotline contact details are published on our Code of Conduct posters, displayed at every audited factory globally. We also use WeChat, Zalo, Facebook and other social media channels to connect with workers and have established more formalised compliance and human resources apps at selected core suppliers.

The third-party worker engagement platforms cover 89 factories (201,579 workers), which represents more than 80% of our production volume. In 2023, 1,544 feedback messages were received through the MicroBenefits and the WOVO platforms in China, Indonesia, Pakistan, Philippines, Turkey, Cambodia and Vietnam, as well as the Amader Kotha Helpline in Bangladesh. Of the 1,544 messages, 41 cases were escalated to PUMA as the factory did not respond within the 48-hour timeline. PUMA engaged with the factories' management to address workers' concerns. All other concerns not escalated to PUMA were handled and resolved directly by the suppliers.

In 2023, we engaged with a local hotline, Hamari Awaz who will provide all workers in factories producing for PUMA in Pakistan with access to a local hotline in early 2024.

In 2023, 107 workers' concerns were raised through PUMA's hotline across eight countries. Together with our suppliers, our team was able to resolve all these cases.

In 2023, to meet its obligations under the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG), PUMA published its **Rules for the Complaint Procedure**. PUMA's own employees and the employees of PUMA's business partners can submit complaints in connection with human rights or environmental risks and violations, as well as violations of PUMA policies via the following channels:

- PUMA's electronic whistleblowing **platform**
- Telephone numbers of the PUMA Sustainability Team ("PUMA Hotline")
- Third-party platforms made available to factory workers by the factories

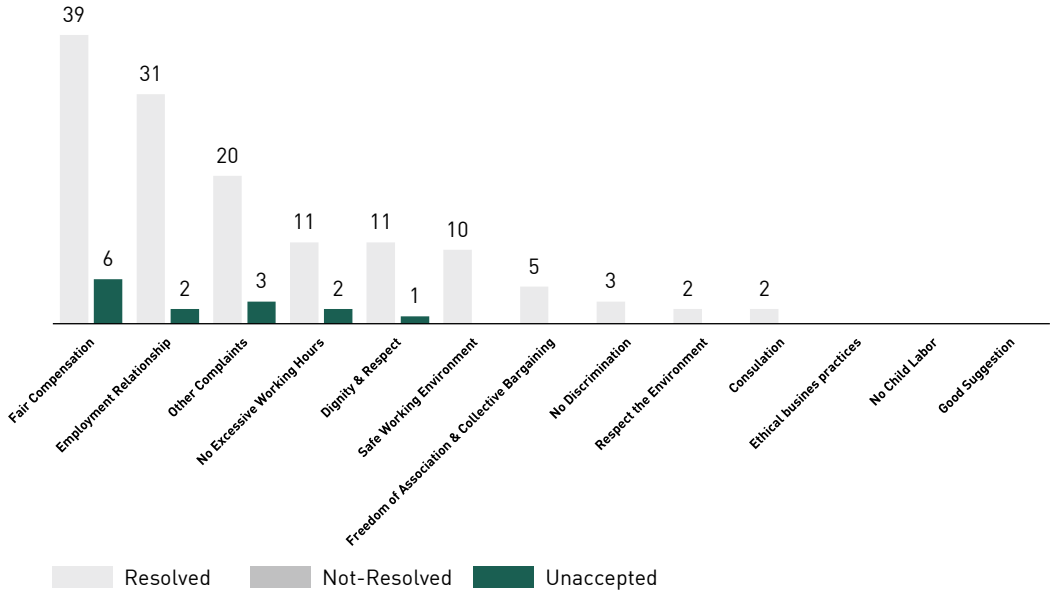
Complaints may be made anonymously and all information regarding the complaint is treated as strictly confidential and only shared on a need-to-know basis or if required by law. All complaints received are acknowledged within seven days and PUMA shall conduct a comprehensive investigation without delay. PUMA will also share the outcome of the investigation with the party making the complaint.

PUMA shall review the effectiveness of its complaint procedure at least once a year, or on an adhoc basis if PUMA expects a significant change or increase in risk exposure in PUMA's own operations and at PUMA's business partners. We aim to translate the Rules for the Complaint Procedure into 40 languages in 2024 to ensure it is accessible for end users in PUMA's supply chain.

↗ T.08 WORKERS' COMPLAINTS 2020 – 2023

Workers' complaints	2023	2022	2021	2020
Total received – external channels (third-party platforms)	1,544	2,006	3,132	1,021
Total received – PUMA Hotline	107	159	223	101
Total confirmed- PUMA Hotline and third-party platforms	1,443	1,877	3,165	984
Total received – PUMA Hotline and escalated to PUMA via third-party platforms	148	173	262	127
Resolved - PUMA Hotline and escalated to PUMA via third-party platforms	148	172	261	126
Not resolved - PUMA Hotline and escalated to PUMA via third-party platforms	0	1	1	1
Resolved (%)	100%	99.4%	99.6%	99.2%

↗ G.09 NUMBER OF MOST FREQUENT GRIEVANCES RAISED IN 2023 THROUGH PUMA HOTLINE AND THROUGH THIRD-PARTY PLATFORMS ESCALATED TO PUMA



WORKER COMPLAINTS

The most frequent areas of concern raised by workers remain as fair compensation, their employment relationship, and excessive working hours. Most workers' concerns about wages and benefits are mainly due to their misunderstanding of wage and benefit calculations. We asked factories to proactively talk to and train workers on wage and benefits' calculation methods. Regarding the employment relationship topic, many cases are about workers wishing to resign without following the legally required notice period. We asked factory management to discuss solutions with their employees.

In any country, when workers complain about working during public holidays or overtime hours, PUMA would engage with factory management, to adjust the production schedule and to make sure overtime is voluntary and properly communicated with workers. Furthermore, PUMA provided training to these factories on working hours management, and overtime root cause analysis to prevent excessive overtime.

Below is a case study of the PUMA Hotline, which explains how we followed-up with our supplier to close the single remaining open case of 2022.

CASE STUDIES

PUMA Hotline

A worker from a footwear factory in Vietnam called the PUMA Hotline in September 2022 regarding the subsidies sponsored by the government according to the Resolution No. 68/NQ-CP dated on July 1st, 2021. Under this regulation, employees who were under contract suspension or termination, or unpaid leave between May 1st, 2021 and December 31st 2021, and pregnant or taking care of children under six years old are entitled to one of government subsidies. The complainant submitted all the necessary documents to the factory to apply for this government subsidy but did not receive any updates.

PUMA immediately contacted the factory. The factory explained that due to being busy with Covid prevention measures and high levels of absenteeism in January 2022, they missed the deadline to submit the documents to the local authority. In total 2,032 workers failed to receive a total amount of about $115,000. Despite the factory's efforts to follow-up with the local authority for the payment, there was no positive response.

PUMA encouraged the factory to discuss with the Trade Union representatives to find a solution. In July 2023, the Trade Union and the factory reached a consensus so the factory would pay 70% of the subsidy, $78,388 to make up for the unpaid subsidy. PUMA verified that an instalment of about $77,181 were paid to workers in 2023. A few workers could not be paid ($1,207) as they had left the factory. We are still engaged with the factory management regarding the remaining 30%.

THIRD PARTY COMPLAINTS

We continued following-up on the six open third-party complaints in 2022. Five related to freedom of association were resolved through active engagement with factories, union and other stakeholders, with union representatives reinstated or compensated in agreement with the unions involved. One of these five cases was settled in collaboration with the Fair Labor Association and other brands, more details can be found in case study below. Another complaint is about workers' wages in Mauritius, which was followed-up under the umbrella of the Fair Labor Association and in collaboration with other brands: migrant workers in Mauritius received less than a minimum wage after the dormitory fees were deducted from their salary. Based on the inspection report of local labor authority the practice is legal. In 2024 we will continuously engage with the FLA and other stakeholders to find a collective solution.

In 2023, we received 15 third-party complaints from external organisations, 11 of which have been resolved.

Nine cases were related to freedom of association breaches, eight out of these nine cases were resolved through active engagement with factories, unions and other stakeholders. The union representatives were either reinstated or compensated in agreement with the unions involved. One case is still going through the mediation process between management and the trade union.

Three cases involved wage and benefits issues; one of them is the request from the Bangladesh Union Federation to provide support on their minimum wage demands. Upon receipt, PUMA actively engaged with ILO Better Work and the Fair Labor Association. We published our **Position** on our website, and co-signed a letter to the prime minister with other brands, through Fair Labor Association in November, to support trade unions. Another two wage and benefits cases are still under investigation.

Two cases relate to NGO reports on working conditions for supply chain workers in Pakistan and Cambodia. For both reports we engaged with ILO Better Work and the reporters. Details are provided under Pakistan and Cambodia paragraphs below.

In May 2023, a trade union requested the dismissal of two managers at a factory in Cambodia because they thought they were responsible for the reduction of orders, among other concerns. The management and union had several meetings to discuss the concerns. The management accepted all the trade union's concerns and took action, except for the dismissal of the two factory managers, which the trade union agreed to retract.

Pakistan
In 2023, Labour Behind the Label published **a Report** on labour rights in Pakistan regarding issues such as no payment of living wage, no employment contract, leave being denied or unpaid, child labour, no social security, harassment, health and safety issues, fire safety risks and freedom of association breaches.

PUMA has investigated the details of the report and engaged with the reporters to understand the methodology used. The report relates to factories located in Karachi, Faisalabad, and Lahore. While PUMA does not have a business relationship with any suppliers in these regions, our subsidiary stichd, does have a business relationship with four factories in this region, two of which are included in the report.

Three out of the four factories in the mentioned areas were audited in 2023, while one factory was audited in 2021 with a rating still valid in 2023. As a follow-up in 2023, PUMA conducted a full unannounced assessment of all four factories through a different third-party company. As a result, three of the factories were downgraded. We are closely following up on progress to address these newly identified violations and all factories producing PUMA products that fall within the scope of the Better Work programme are now enrolled in the Better Work programme. Additionally, all workers of factories producing for PUMA in Pakistan will have access to a local hotline, Hamari Awaz.

Better Work Pakistan will also provide a social dialogue programme, as well as leadership capacity building initiatives and training for female workers. Other services will include the ILO's occupational health and safety approaches, a factory improvement toolkit and productivity focused training. Additionally, PUMA signed the ACCORD Pakistan in March 2023 for all factories producing PUMA and stichd products.

Cambodia
In 2022 we received five complaints concerning three Cambodian factories, about potential breach of freedom of association rights. Three were resolved in 2022 and two in early 2023. We worked to find the best solution related to these concerns, facilitating mediation meetings between workers' representatives and factory management, partnering with Better Work Factories Cambodia and/or with other brands producing in the same factories. It took three to five months to solve these complaints.

Despite all our efforts, we received five complaints about freedom of association from Cambodia in 2023. Four cases were resolved through open dialogue and facilitated mediation meetings between factories and unions. One case is still under mediation or investigation.

We continued to work with Better Factories Cambodia (BFC) and hosted a training series from April to August 2023 for all Cambodian factories producing PUMA products. 183 participants from 27 factories' management teams, shop stewards and union representatives attended the training. As a lesson learned from training conducted in 2021, we added one exclusive session for factory decision-makers in Chinese in addition to a session conducted in Khmer for workers representatives and trade union leaders.

The aim of the training was to provide participants with a better understanding of:
- Rights and obligations of the employer, unions and worker representatives
- Managing communication and employment contract termination such as: resignation, dismissal, and retrenchment.

As per the BFC feedback, as result of the training participants confirmed they gained a better understanding about Freedom of Association and their roles and responsibilities. All 27 factories submitted a Corrective Action Plan after the training. We will verify the implementation of each action plan in early 2024 according to the five KPIs established by BFC. They are described below:

1. Conduct regular meetings between the employer, union and shop stewards to raise and address any concerns in the workplace on weekly/biweekly/monthly basis.
2. Develop/review a Freedom of Association (FoA) policy in consultation with the unions and shop stewards and implement this policy accordingly.
3. Develop/review a Grievance Handling policy in consultation with the unions and shop stewards and implement this policy accordingly.
4. Develop/review a policy for Employment Contract Termination in consultation with the unions and shop stewards and implement this policy accordingly.
5. Provide internal/external training to more workers on relevant topics such as the roles and responsibilities of the employers, unions and shop stewards.

In September 2023, the NGO Action Aid published an **investigative report** alleging that garment factories in Cambodia, supplying apparel and footwear to companies (including PUMA), reduced monthly wages compared to 2020 levels and failed to pay sufficient severance when the factories closed due to the COVID-19 lockdown. The report, which interviewed 308 garment workers in 15 factories, also claimed that workers were unable to afford necessities even after the COVID-19 lockdown restrictions were lifted due to lower wages and fewer overtime hours, while overtime pay became a systemic dependency.

Following the report, PUMA engaged with the Clean Clothes Campaign (CCC) and Action Aid to understand the methodology behind the allegations that were made. For PUMA, the allegations relate to six of PUMA's suppliers, two of which PUMA had ended the business relationship with by mutual agreement in 2021. After further investigation, PUMA did not identify any wage gap as per the government's instructions during the lockdown period in the remaining four factories. Although "no work, no pay" directives were in effect, PUMA ensured that workers would receive a regular income during 2021 lockdown through regular communication with our suppliers in collaboration with our sourcing team.

Between 2019 and 2022, Cambodia represented around 13% of PUMA's total sourcing volume. In 2020 and 2021, PUMA focused on keeping suppliers in business and safeguarding workers' health, employment, and income through several measures including: minimizing order cancellations (0.35% of orders were cancelled in 2020) and expanding our PUMA Vendor Financing Programme, with an increase in suppliers' participation from 21% in 2019 to 30% in 2020. As a responsible business partner for our suppliers, PUMA set up a responsible purchasing practices policy and engaged with Better Buying, an independent non-profit organisation, to collect feedback from our core suppliers related to our purchasing practices. We reported the key findings of the Better Buying survey in **this report**.

↗ CASE STUDIES

Indonesia

On July 7th, 2023, PUMA received complaints from a union related to union staff members at one of PUMA's footwear suppliers who were terminated based on not passing their probation period. The union mentioned that the termination was considered illegal since it was without prior notice and no evaluation was performed by a respective supervisor and section manager. The union believed that this happened due to their union membership. The union leaders asked PUMA to support the reinstatement of the three workers. On July 13th, 2023, PUMA investigated and interviewed the factory management and union representatives. PUMA found that the termination of the three union members was not legal since there was no clear performance assessment from the respective of the section heads. This was explained to factory management who agreed to re-instate the three workers to the same position with the same wage. No wages were deducted for the period when the workers were laid off. The union leader acknowledged PUMA's engagement in this case and recognised our commitment to respect freedom of association.

Madagascar

In June 2022, PUMA received a request from IndustriALL's Sub-Saharan Africa regional office to support one of their trade union affiliates called SEMPIZOF in Madagascar. According to IndustriAll, about 350 machinists went on strike in a factory producing for PUMA and other brands from May 18th to 25th, 2022 to protest on wages and unfair skills' assessments for experienced workers. The strikers also denounced sexual harassment against female workers and bribery during recruitment. SEMPIZOF approached the Labour Inspectorate and Labour Tribunal with another IndustriALL affiliate SVS to request the reinstatement of 50 workers (dismissed during the strike) and respect of workers' rights. We immediately followed up with the supplier, who confirmed the unrest of 345 workers (out of 1,550), the dismissal of 58 workers, and their willingness to collaborate for remediation. The four brands including PUMA producing in this factory had several meetings on collaborative actions and reached out to the Fair Labor Association (FLA) for support.

In July 2022, during a first call with the FLA, the brands agreed to find an independent third party to conduct an in-depth investigation. The FLA interviewed several candidates and commissioned an independent third-party The Labour Hive in November 2022. It completed an investigation and provided a detailed report with suggested actions in February 2023. The report includes a thorough analysis of all allegations. The factory immediately suspended the manager related to sexual harassment allegations and dismissed him after the investigation. The investigation did not identify issues related to overtime, short-term contracts, unfair dismissals because of trade union activities nor bribery at recruitment. The FLA published the results of **the investigation report**. Brands studied the report and agreed on an action plan with the supplier in May 2023. During a follow-up verification of the remedial action plan in November 2023, it was confirmed and verified by The Labor Hive that factory management had engaged with various stakeholders such as local authorities, Better Work, trade union (FISEMA), and worker reps to take corrective actions.

Various projects and programmes have been implemented, and improvements such as an increased meal allowance, adjusted salary as per government decree, regulating probation period for production workers, and removal of the dismissed workers from the blacklist (so that they can find jobs in other factories) were made. In partnership with ILO Better Work, the factory arranged several trainings on Freedom of Association, Harassment and Abuse, Compensation and Benefits and Hours of Work. Further improvements on workplace dialogue, workers' satisfaction surveys, training effectiveness, renewal of workers' representation election, and the implementation of a workers' performance evaluation system are still on-going and aim to be completed by August 2024.

ZERO TOLERANCE ISSUES

All issues identified during our auditing and hotline activities are classified as zero tolerance issues (such as child labour or forced labour), critical issues or other issues in our **Sustainability Handbooks**.

Zero tolerance issues lead to the immediate failure of an audit. If these issues are reported for a new factory, the factory will not be allowed to produce PUMA goods. Established suppliers must remedy all zero tolerance issues immediately by conducting a root cause analysis and implementing preventive measures to prevent the issue reoccurring. As a last resort, a business relationship can be terminated if the factory fails to cooperate. Other issues are also followed up on by our Compliance team.

In 2023, we identified 19 zero tolerance issues and were able to remedy eight on workers' compensation in line with legal requirements, lack of transparency and wastewater discharge. Two zero tolerance issues remain open. One was related to a South Africa-based factory producing furniture for our retail stores paying 94% of the minimum wage, as they were granted an exemption by local authorities. After meeting the factory management, they committed to pay the full minimum wage from July 2024. Another example is a factory in Pakistan which was found to have transparency issues during an unannounced audit in late 2023 conducted after the publication of a **Report** from Labour Behind the Label. The factory committed to improve and joined the Better Work programme in December 2023. We informed Better Work about this case and intend to resolve this issue during its first assessment. Nine factories were not onboarded or were deactivated in 2023. The increase in zero tolerance issues is due to the increased number of factories audited in 2023.

↗ T.09 ZERO TOLERANCE ISSUES (ZTIS)

Country	2023	2022	2021
India	5	3	
Bangladesh		3	2
Cambodia	2	1	2
Vietnam	2	2	
Canada	3		
Pakistan	2		
South Africa	2		
Brazil	1		
China	1		
Egypt	1		
Malaysia		1	
Philippines		1	
Spain		1	
Grand total	**19**	**12**	**4**

FREEDOM OF ASSOCIATION PROTOCOL IN INDONESIA

To ensure workers' voices are heard, we want to foster Freedom of Association (FoA) and signed the Indonesia FoA Protocol.

The main objectives of the Freedom of Association Protocol are:

- Eliminate the practice of union busting in the factory and to foster healthy industrial relationships
- Factory management and union leaders can identify violations and challenges around FoA that arise in the factory and are able to discuss solutions together
- Avoid victimisation of union representatives and members when disputes arise between union members and management
- Set up fair rules for the implementation of FoA by having a joint understanding and commitment between workers and the factory management
- To have extra layer of rules and regulations related to FoA practice that is not regulated in Law No. 21/2000

As of end of 2023, seven Tier 1 factories have agreed to apply the FoA Protocol with 13 unions. Two factories are planning to sign up in 2024, while the remaining ten Tier 1 suppliers either do not have a union or their union is not a member of FoA Protocol. As of end of 2023, no FoA case within PUMA suppliers has been escalated to the FoA Protocol national committee. FoA cases are mainly resolved internally at a factory level without PUMA's involvement.

WAGE ISSUE IN KARNATAKA

On February 19, 2020, the state government of Karnataka increased the Variable Dearness Allowance (VDA), requiring manufacturers to pay workers Rs. 417.56/month as a component of their wages, from April 2020 onwards. The VDA is calculated based on the increase or decrease in the consumer price index (CPI) to help employees in the public and private sector to cope with the rising cost of living due to inflation.

The Karnataka labour department deferred the payment of VDA (as per the VDA Hike Order) until March 2021 due to the financial hardships caused to employers during COVID-19. Two unions challenged the deferral order and filed two petitions in August 2020. On September 11, 2020, the Karnataka High Court announced that the Labor Department's postponement of the wage increase was illegal as per Section 26(2) of the Minimum Wages Act. This means that non-payment could be seen as being in contempt of such a court order. In practice, factories paid Rs. 622.44/month VDA to workers from April 2021, but they did not pay Rs. 417.56/month to workers from March 2020.

We have actively been working with our sourcing and suppliers in the region, informing our three suppliers that PUMA expects suppliers to pay the incremental minimum wages (considering both the 2020 and 2021 VDA adjustment), including arrears to both existing and former workers. We aligned our expectations of suppliers with the Worker Rights Consortium and kept informing them on our progress. In 2023, $ 484,928 was paid to 13,687 workers, including both existing and former workers. We verified payment on-site, except for one factory onboarded in April 2023, where a visit is scheduled in early 2024.

FAIR INCOME

TARGET DESCRIPTION:

- Make sure all PUMA employees are paid a living wage
- Carry out fair wage assessments including mapping a specific wage ladder for top five sourcing countries to help improve their wage levels and practices
- Ensure bank transfer payment to workers at all core suppliers by 2022
- Ensure effective and freely elected worker representation at all core Tier 1 suppliers

Relates to United Nations Sustainable Development Goals 1, 2 and 10

KPIs:

- Percentage of average wages compared to minimum wage
- Percentage of workers with permanent contracts
- Percentage of workers with social insurance coverage
- Percentage of workers paid via bank transfer
- Percentage of factories with freely elected worker representation
- Percentage of factories with collective bargaining agreements
- Number of countries with fair wage assessments over the last five years

For the definition of fair wages, PUMA follows the requirements for compensation set out in the **Code of Conduct** published by FLA. **The Fair Wage Network** conducts wage assessments and evaluates the wage systems of selected factories across 12 dimensions, focusing on five major areas: legal compliance, wage levels, wage adjustments, pay systems and social dialogue and communication. It also assesses the priority the wage policy takes within the company's Human Resources policy and its Sustainability Strategy (considered as a thirteenth cross-cutting dimension).

FAIR WAGES AT PUMA'S OWN ENTITIES

The increasing cost of living is an emerging risk for PUMA. In 2021, we purchased a license for the living wage database of the Fair Wage Network. In 2021 and 2022, we used this database to check that a living wage was being paid to all PUMA employees globally. In 2022, our global leadership team implemented performance indicators - tied to bonuses - related to ensuring PUMA employees earned a living wage. The results of this internal assessment show that in 2022 all regular PUMA employees globally who were working full time were paid according to living wage thresholds at the regional/city level or above the Living Wage National Adjusted Mean as defined by the Fair Wage Network. This was also the case for 2023. See **Our People** section for further details.

FAIR WAGES IN THE SUPPLY CHAIN

As part of our efforts to ensure fair wage practices at the factories of our suppliers, we have defined the failure to make a full payment of at least the minimum wage as a zero-tolerance issue. This means that to be taken on as or to remain an active PUMA supplier, a company must pay minimum wages in full compliance with local regulations. 99.97% of workers in 2023 were paid at least minimum wage. Provisions

around the payment of overtime hours and social insurance are also clearly articulated in PUMA's Code of Conduct and are scrutinised regularly as part of our Compliance Audit Programme. The performance of PUMA's suppliers in other Fair Wage dimensions is also assessed through fieldwork assessment surveys (among both the workers and management) carried out by the Fair Wage Network.

DIGITAL PAYMENT

In 2023, 100% of our core factories paid 224,444 employees digitally. We are further expanding the digital mapping to all Pakistan factories, where 1,742 employees from four suppliers are not yet paid digitally. We will follow up in 2024.

FAIR COMPENSATION DASHBOARD

We have collected wage data annually from our core Tier 1 factories for several years. We use this data to report S-KPIs (see table T. 12). In 2022, we used the FLA's Fair Compensation Dashboard* to analyze 2021 wage data for 59 strategic Tier 1 factories, and 2022 wage data for 60 strategic Tier 1 factories in 2023. We use the Dashboard to compare aggregated and anonymised data from industry peers and, where available, against living wage estimates of the Global Living Wage Coalition (GLWC), developed by the Anker Research Institute**. Where GLWC estimates are not available, namely in Indonesia, we used 2022 Fair Wage Network benchmarks***.

Graph G.10 shows the results of our benchmarking for 60 core Tier 1 factories in local currency, covering wages in 2022. This data covers approximately 75% of PUMA's global production volume for 145,834 workers employed under those suppliers. 32 factories paid a living wage to 83,089 workers in Cambodia, China, Pakistan and Vietnam, covering 45% of PUMA's global production volume. Those 83,089 workers represent 13% of our total supply chain workforce.

Below is our analysis of the results:

- All of our five strategic factories in Cambodia, one out of two strategic factories in Pakistan, 13 out of 18 strategic factories in China and 13 out of 20 strategic factories in Vietnam pay, on average, a living wage as set by the Global Living Wage Coalition. For Vietnam, as the GLWC provided a breakdown of the living wage benchmark into four different levels instead of two previously, seven Vietnam factories out of 20 fell below GLWC benchmarks. These seven factories now have a higher living wage level to reach.
- One supplier in the Philippines, which is below GLWC benchmark, will go through a Fair Wage Assessment in 2024.
- In Indonesia, all strategic factories went through Fair Wage Assessments or Remediations. One of the factories received the Fair Wage Certificate. At two factories re-assessed after remediation, we saw improvements in their scores on the 12 Fair Wage Dimensions, especially on prevailing wage, real wages, communication and social dialogue. These actions were taken between 2022 and 2023, which explains why there is a wage gap towards a living wage. We will keep following the remediation actions of these four core factories in Indonesia.

* Industry average wage data from the FLA Fair Compensation Dashboard from November 2020 and October 2021. Users of the FLA's Fair Compensation Dashboard have access to live anonymised monthly average net wage calculations based on all wage data uploaded per country and year. Averages are updated as wage data is uploaded into the dashboard and includes the Net Wage = Basic (Contracted) Wage + Cash Benefits + In-Kind Benefits – Mandatory Taxes and Legal Deductions. Payment of overtime is excluded.

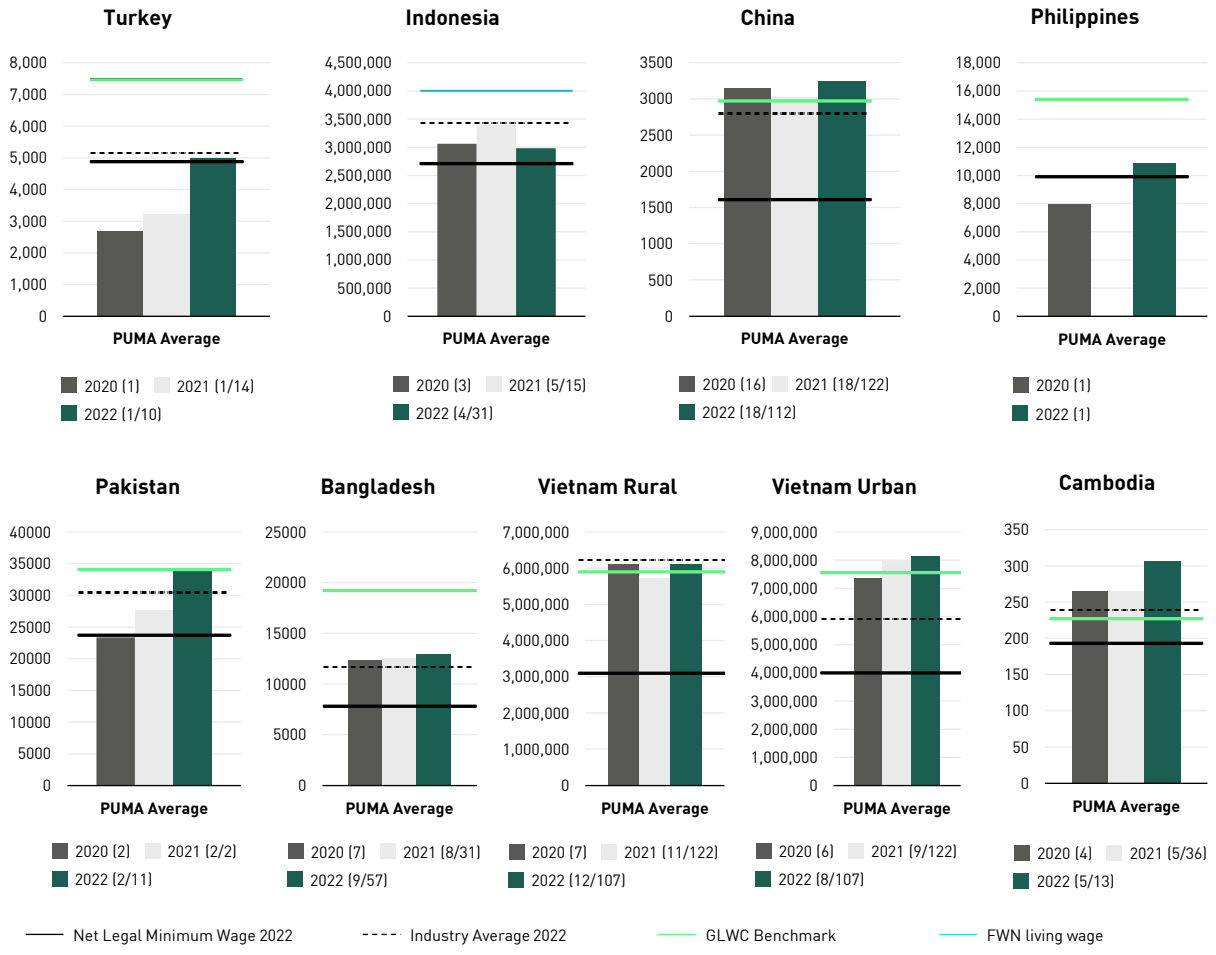
** Global Living Wage Coalition: The GLWC estimates and reference values are developed by the Anker Research Institute. The methodology for these estimates uphold the definition of the living wage, which includes the standard remuneration received by a worker for a workweek, in a particular place, to afford a decent standard of living for the worker and his/her family. Elements of a decent standard of living include food, water, housing, education, healthcare, transportation, clothing and other essential needs, including provision for unexpected events.

***Fair Wage Network methodology: It takes into account the minimum living wage necessary for a worker to cover his/her family's basic needs considering multiple income earners in the family (the necessary family budget being covered by the sum of income earners). FWN also proposes a more ambitious living wage threshold that would consider one income earner and not multiple income earners. PUMA used multiple income earners thresholds in our fair wage analysis.

- The Turkey factory's net pay has increased by 55% compared to 2021 due to the high inflation. We plan to enroll this factory for a Fair Wage assessment in 2024 to evaluate its wage system, so the factory can set up an action plan and workers' income can increase.
- One supplier in Pakistan reached the Global Living Wage Coalition Benchmark. Another supplier reached 97% of the GLWC benchmark. We will launch Fair Wage Remediation with the latter in 2024.
- Wage payments in Bangladesh, despite being above industry average, fell well short of the Global Living Wage Coalition Benchmark and reached 67% of the Global Living Wage Coalition Benchmark in 2022; (70% in 2021, 69% in 2020).

In 2023, we conducted Fair Wage Assessments with ten factories in Bangladesh, Pakistan, Indonesia, Cambodia and China, including seven re-assessments at factories in Bangladesh, Cambodia, Pakistan and Indonesia and three first-time assessments at two suppliers in China and one in Bangladesh.

↗ G.10 FLA FAIR COMPENSATION DASHBOARD 2020 – 2022



FAIR WAGE ASSESSMENT

Since 2018, we have asked Fair Wage Network (FWN) to conduct fair wage assessments at our core factories based in Bangladesh (2018), Cambodia (2019), Cambodia and Indonesia (2021), Bangladesh, Vietnam, Pakistan (2022), and China (2023) at 27 factories in total. Six factories obtained a Fair Wage Certificate, meaning that across the 13 dimensions of Fair Wage, wage and overtime payment, communication, and social dialogue for example, factories received at least 280 points out of 400 with no more than two dimensions below a 40% score, and workers are paid above the Fair Wage Network Living Wage threshold.

A positive outcome is that factories are strong in some institutional elements such as wage grids, monitoring the wages' cost progression within the total production cost (including involving worker representatives to discuss and negotiate wage related issues and paying wages above competitors' rates and above companies from other sectors located in the same area. However, similar developments were not always reported on in collective agreements, which have rarely been signed at the factory level, and monitoring process for moving towards the payment of a living wage. These insights still provide valuable information for follow-up and remediation in these factories. Worker satisfaction with wages and working conditions was found to be relatively good, with most workers being either 'fully' or 'partly' satisfied with their wages and working conditions. At one supplier, however, it was found that nearly half of the workforce were not satisfied with the working conditions, we will follow up on this in 2024.

In 2023, out of 10 factories that went through a fair wage assessment, six were re-assessed after a nearly one-year remediation phase with the support of Fair Wage Network (three in Bangladesh, one in Cambodia and two in Indonesia). All six factories improved significantly in communication and social dialogue, wage structure and also competitiveness. Under the Fair Wage Network Remediation Framework, social dialogue activities took place at those six factories and the wage structure was jointly reviewed as a result. Although wage adjustment mechanisms were improved, there is still room for improvement as regards the living wage. At the three factories assessed for the first time, we will work with the Fair Wage Network to further improve their wage strategy and pay systems. One factory in Pakistan was re-assessed as they previously had reached the GLWC living wage threshold. The factory has not yet received fair wage certification although its score has improved.

The Fair Wage Remediation programme provides a remediation plan to factories based on their individual assessments, and guides factories in setting up a Fair Wage Implementation Committee (consisting of workers and management representatives). The Committee is trained by the Fair Wage Network, on fair wage dimensions, wage grid, and how to a conduct living wage survey. The committee is responsible -under FWN guidance- for implementing the remediation plan.

In Indonesia, both factories under the remediation programme opened a dialogue channel with trade unions to negotiate the pay systems. One supplier included a seniority bonus into its basic wage, 90% of workers had a 0.46%-1.15% wage increase since January 2023; the factory also provided 14% to 28% as skill bonuses to workers having the ability to operate more than one machine. Another supplier pays workers higher than the legal requirement, providing a seniority bonus of 0.42%-0.48% of the minimum wage to workers who have worked more than one year, and providing a skill bonus that ranges from 0.65% to 16.34% of the minimum wage. All of these measures improve not only the fairness but also the efficiency of pay systems.

In Bangladesh, all three suppliers developed training modules and trained almost 100% of the workers using a skills matrix for all the designations. This ensures that workers' wages increase in step with human capital developments (people skill development, working experience, creativity, strengths and attributes) and that the promotion system is fair and transparent. Training programmes were also provided to both management and workers on their roles and responsibilities based on the skills matrix and its connection to wage increases. Suppliers also looked at the gap between workers' gross income and the living wage, and took initiative to minimize this gap. For example, one supplier introduced a fair price shop on the premises of the factory, so that the workers get the daily products they need at an affordable price, allowing workers to keep part of their wages for other needs. As a result of actions taken by our suppliers, we witnessed an improved dialogue between workers and factory management on the topic of wages. Workers, in one of three factories, formed a Trade Union during the remediation, so workers will be able to better coordinate their workforce concerns through this platform. We got to understand that the management of this particular supplier was highly supportive of the Trade Union's creation, and it was found that their concerned parties are currently engaged in a congenial relationship.

In Cambodia, with the involvement of the Fair Wage Implementation Committee, the factory that started its remediation programme in mid-2022, reviewed its wage structure by creating more bonuses such as productivity bonuses and multi-skill bonuses. All of these are contributing to an almost 6% wage increase on average for about 3% (122) of qualified workers. This helped the factory to stabilize its workforce, with a 14.8% reduction of annual staff turnover in 2022 and a further 68.5% reduction in 2023.

↗ CASE STUDY

Bangladesh

A factory in Bangladesh was assessed by Fair Wage Network team in 2018 to evaluate its wage practices. The factory could not be certified, joined the Fair Wage Remediation Programme in 2022 and was re-assessed at the end of the programme in 2023. The company has developed a rather comprehensive wage policy.

One of the major improvements was in 'Communication and social dialogue'. A committee, consisting of an equal number of representatives from management and workers, was formed to implement a remediation plan. The workers' representatives on the committee were engaged in the decision-making process while developing and implementing the skills matrix, performance evaluation processes, for example. A robust communication strategy was set, ensuring that employees are well-informed about their wage levels and pay structures. The company set up a social dialogue policy, allowing representatives of workers to be involved in discussions and negotiations on wage matters. The intention is for these negotiations to lead to regular talks on wage issues and the possible endorsement of a collective agreement in future. The improved labour relations led to a 0.5% reduction in the staff turnover rate.

In March 2023, while the remediation programme was underway, the workers at the factory created a Trade Union. This action suggests that the workers recognise the potential benefits of having a collective organisation to represent their interests. By establishing the Trade Union, the workers have created a structured platform that allows them to collaborate more effectively on matters of collective concern. Currently, approximately half of the workers of the factory are members of that Trade Union. The factory is working with Better Work Bangladesh, who provide training for both management and union members on their roles and responsibilities under the Labor Law.

GENDER PAY GAP

For the first time in 2023, we collected wage data by gender. There is no wage gap between female and male workers on a global average. We notice a difference of a few cents of Euros per hour in Pakistan, China, Cambodia and Turkey, mainly because factories are paying higher wages for working positions, such as polishing, or in warehouses that require the use of chemicals or heavy lifting and are positions predominantly filled by male workers.

↗ T.10 GENDER PAY GAP[1-2]

2023	SOUTH ASIA					SOUTHEAST ASIA		EMEA	2023
Social KPI	**Bangladesh**	**Pakistan**	**China**	**Cambodia**	**Indonesia**	**Philippines**	**Vietnam**	**Turkey**	**Average**
Hourly average gross wage excluding overtime and bonuses (%) (female-male)*	0.0	-0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Hourly average gross wage including overtime and bonuses (%) (female-male)*	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0
Number of factories	8	2	18	5	4	1	18	1	57

* New KPI

1 Data received from 57 PUMA core suppliers representing 72.1% of 2023 production volume, 72.4% of 2023 production value; reporting period for data collection: January 2023 – October 2023 (November and December 2023 were calculated based on the estimation method)

2 Wage gap calculation – Average of total female workers' hourly gross wage – Average of total male workers' hourly gross wage

RECRUITMENT FEES

PUMA signed the Fair Labor Association/American Apparel and Footwear Association Commitment to Responsible Recruitment in 2018. Since then, we have been actively involved with suppliers, industry peers and the UN's International Organization for Migration (IOM) to ensure that the labour rights of foreign and migrant workers are upheld in our supply chain.

We map on a yearly basis if our factories employ foreign migrant workers and how much workers paid in recruitment fees. We then engage with our sourcing leaders, supplier top management, and in some cases other brands the supplier produces for, to come up with an agreement on a timeline to pay migrant workers back. The back payment could in certain cases be made in different instalments and not a lump sum to not disturb the factory as not all workers are entitled to this payment – an issue which could lead to misunderstandings between workers.

Through the efforts of multi-stakeholder engagements, factories paid back more than $100,000 to 255 foreign migrant workers at six factories in Japan, South Korea, China (Taiwan) and Thailand in 2022. PUMA has used e-learning from the International Organization for Migration in employer guidelines to train 36 factories from Mauritius, China (Taiwan), South Korea, Thailand and Japan in 2022. In 2023, we kept monitoring factories' recruitment practices.

In May 2023, we found that eight foreign migrant workers had paid recruitment fees before starting to work at three factories (two core Tier 2, one non-core Tier 2) in Taiwan; through communication with factories and support from our sourcing team, over $16,000 in total was paid back to these workers.

During an audit at one South Korea factory, we found that one worker had paid $370 for a flight ticket from their home country to South Korea. The factory immediately reimbursed this worker after the audit.

During audits conducted at the end of 2023, we found that 12 migrant workers had paid a total of approximately $33,000 before they started to work at three factories in Japan. Two factories agreed to pay back a total of $23,109 to nine migrant workers in January 2024; we will terminate our business relationship with the third factory which refused to reimburse workers since it is in breach of PUMA's standards. We will phase out this supplier by June 2025, so that they have sufficient time to find another customer to replace PUMA's business and to avoid impacting workers' employment.

In 2023, the IOM trained PUMA's Sustainability Team in the following areas:

- How fair and ethical recruitment due diligence can help prevent and mitigate adverse human and labour rights for migrant workers.
- Practical knowledge on how to apply Ethical Recruitment Due Diligence Tools, particularly the supplier Self-Assessment Checklist, Corrective Action Plan, and the Interview Questionnaire for Migrant Workers.
- Features and functions of the Ethical Recruitment Due Diligence tools as a trainer.

In 2024, the IOM will further support PUMA to develop suppliers' guidelines regarding responsible migrant workers recruitment and working conditions. These will be included into our Social Standards and translated into all relevant languages. PUMA's Sustainability Team will train our suppliers who employ foreign migrants on these new requirements.

↗ T.11 FAIR INCOME TARGET STATUS

Sub-targets	2023	Baseline 2020	Target 2025
Digital payment (% of core Tier 1 and Tier 2 suppliers)	100%	90%	100%
% of workers that are receiving wage payments digitally	100%	*	100%
Percentage of core Tier 1 supplier facilities that have trade unions or freely elected worker representation (core Tier 1)	66%	33%	100%
Fair wage assessments (Mapping of a specific wage ladder for top five sourcing countries)	5 out of 5	2 out of 5	5 out of 5

* No baseline in 2020

2022-2023 PUMA PLWF REPORT: LEADING

The Platform Living Wage Financials (PLWF) is a coalition of 20 financial institutions that engage and encourage investee companies to enable living wages and incomes in their global supply chains. The **2022-2023 PLWF report** presents the annual assessments of investee companies on living wage and responsible purchasing practices. In 2023, PUMA was the only company that reached the Leading category for its work on fair income, out of 31 companies from the Garment and Footwear sector.

SUPPORTING LEGAL MINIMUM WAGE INCREASE IN BANGLADESH

In 2023, PUMA received a letter from four Bangladeshi Unions calling for support for minimum wage to increase, through social dialogue, and by making a long-term commitment to continue sourcing from Bangladesh.

PUMA answered through a **public statement** recognizing that the current legal minimum wage in the Ready-Made Garment sector is significantly below a living wage. In this statement, we share PUMA's standards regarding legal minimum wage, overtime and social insurance payment-related issues, as well as our continuous monitoring and methodology, regarding living wage benchmarks and assessments. We reiterated the importance of freedom of association and collective bargaining as a key means through which employers, their organisations and trade unions can establish fair wages and working conditions. We also supported the FLA's letter shared in August 2023, which appeals to the Chairman of the Minimum Wage Board to champion local union demands for increases in the minimum wage.

In October 2023, PUMA also joined other FLA-affiliated brands to ask the government to consider that the minimum wage consultations should be made in an environment to support dialogue with relevant stakeholders and Unions, seek to raise the minimum wage to a level that is sufficient to cover workers' basic needs and some discretionary income and takes into account inflationary pressures, while ensuring

that the minimum wage is reviewed annually. Signatory brands are AEO, Inc. Abercrombie & Fitch, adidas, Amer Sports, Burton, Gap Inc., Hugo Boss AG, KMD Brands, Levi Strauss & Co., lululemon, Patagonia, PUMA SE, PVH Corp, SanMar and Under Armour.

In both letters, PUMA shared its commitment to implement Responsible Purchasing Practices to support negotiations and wage increases and to continue sourcing in Bangladesh.

WORKER REPRESENTATIVES PROJECT

Effective social dialogue and sound industrial relations are key components of achieving decent work. Ensuring effective and freely elected worker representation in all core Tier 1 suppliers is among our 10FOR25 Sustainability Targets. PUMA encouraged our suppliers to join the ILO Better Work Programme, which coaches the factory management to create or work with an existing bipartite or worker/management committee to discuss and resolve workplace issues on an ongoing basis.

For factories that are not part of the Better Work programme, we partnered with Timeline Consultancy, a China-based consultant experienced on improving worker-management cooperation, who trained PUMA's Sustainability Team in 2022 and 2023. Our PUMA Sustainability Team gained the ability to independently promote the establishment of an effective Worker Representative Committee and to evaluate its effectiveness.

Since 2022, 12 factories in China have established a Worker Representative Committee. 358 worker representatives were freely elected by production workers, 59% of which are female workers. For a better understanding of the worker-management dialogue mechanism, 380 representatives of factory management were trained by PUMA's Sustainability Team on the Significance of Dialogue and Worker Representation before the worker representative election. After the election, all these factory management and worker representatives were trained on their roles and responsibilities, rights and obligations, how to conduct adequate information sharing and how to establish a dialogue mechanism, which enables open dialogue between factory management and worker representatives.

In 2023, we expanded the programme to include two Vietnamese factories and one factory in Indonesia: worker representative elections will be held in three factories in 2024.

SOCIAL-KPIS

On average, our core suppliers paid basic wages that exceed minimum wage levels by 12.7% in 2023. When adding overtime and bonus payments, our core suppliers pay 62.7% above minimum wage. In view of the global macroeconomic situation, which has led to a change in customers' ordering behaviour, we saw a decline in the order book in the first half of 2023 and stabilisation during the second half of 2023; as a result, overtime working hours decreased on average by 2.4 hours per week compared with 2022, which explains why the percentage of gross wages (including overtime and bonuses) above minimum wage decreased compared with 2022. At the same time, in 2023, the minimum wage increased over a 12-month average by 104% in Turkey, by 11% in Pakistan, by 2% in Indonesia, by 4% in the Philippines, by 3% in Cambodia and 0.3% in China. For Bangladesh the new minimum wage came into effect on the first of December 2023, and increased by 56%.

100% of workers are covered by social insurance in all countries except for China where 80.4% are covered: this represents a 4.4% increase compared to 2022 due to factories making an effort to explain the benefits of the programme and convincing workers to join social insurance schemes. The total average coverage with social insurance increased from 97% to 97.5%.

In 2023, 32.3% workers are covered by a collective bargaining agreement (in 2022 34.4%). This number decreased as one of our suppliers in Indonesia with a CBA dropped off our core supplier list.

The percentage of women in managerial positions increased slightly to 50.4% (in 2022 49.1%) as some factories reached their goals of increasing the number of females in managerial roles.

The percentage of permanent workers increased from 74.2% to 76.7% on average, mainly due to labour law changes in Cambodia, under which more workers get an Undetermined Duration Contract (UDC), after completing a two-year Fixed Duration Contract (FDC). In addition, since there was a decrease in orders during the first half of 2023, factory management teams recruited fewer temporary workers.

The turnover rate decreased due to factories implementing worker retention programmes. However, in countries such as Pakistan, Indonesia and Turkey turnover rates increased due to downsizing business or workers entering into retirement.

The average injury rate was reduced to 0.2% (0.3% in 2022). We followed up on action plan implementation after various OHS trainings, such as Accident Prevention and Reporting training, conducted by PUMA since 2021. In view of the 2023 global macroeconomic situation, which led to a change in customers' ordering behaviour, we saw a decline in the order book in the first half of 2023 and stabilisation during the second half. This led to a downturn in working hours, fewer temporary workers being recruited and potentially fewer risks of injury. This could also explain why the injury rate decreased this year.

↗ T.12 SOCIAL KPIS PUMA CORE TIER 1 FACTORIES 2020-2023[1-3]

2023	SOUTH ASIA		SOUTHEAST ASIA					EMEA	2023	2022	2021	2020
Social KPI	**Bangladesh**	**Pakistan**	**China**	**Cambodia**	**Indonesia**	**Philippines**	**Vietnam**	**Turkey**	**Average**			
Gross wage paid above minimum wage excluding overtime and bonuses (%)	23.6	33.2	5.9	6.1	1.3	0.0	31.4	0.4	12.7	13.4	14.5	13.0
Gross wage paid above minimum wage including overtime and bonuses (%)	58.6	38.9	166.6	63.3	38.3	18.0	93.3	24.9	62.7	71.0	80.2	54.7
Workers covered by social insurance (%)	100.0	100.0	80.4	100.0	100.0	100.0	100.0	100.0	97.5	97.0	95.1	95.6
Overtime (hours per week)	6.0	0.3	13.5	4.9	4.5	6.0	3.5	3.8	5.3	7.7	8.3	5.4
Workers covered by a collective bargainning agreement	0.0	0.0	93.3	40.0	25.0	0.0	100.0	0.0	32.3	34.4	37.2	26.9
Female managerial position (%)	7.4	7.7	56.3	64.6	73.8	76.9	71.2	45.3	50.4	49.1	NA	NA
Female workers (%)	42.0	9.7	61.6	83.1	82.8	63.9	76.2	58.5	59.7	60.0	59.5	58.8
Permanent workers (%)	100.0	100.0	28.6	62.7	99.2	77.2	45.6	100.0	76.7	74.2	75.5	74.4
Annual turnover rate (%)	27.3	32.9	52.8	41.9	26.5	15.1	39.9	34.8	33.9	35.6	34.0	29.9
Injury rate (%)	0.3	0.0	0.4	0.3	0.3	0.0	0.1	0.5	0.2	0.3	0.3	0.4
Hourly average gross wage excluding overtime and bonuses (%) (Female-Male)*	0.0	-0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0			
Hourly average gross wage including overtime and bonuses (%) (Female-Male)*	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0			
Number of factories	8	2	18	5	4	1	18	1	57	65	63	58

* New KPI

1 Data received from 57 PUMA core suppliers representing 72.1% of 2023 production volume, 72.4% of 2023 production value; reporting period for data collection: January 2023 – October 2023 (November and December 2023 were calculated based on the estimation method)

2 Injury rate calculation – Number of OSHA Recordable cases X 200,000 / Number of Employee Labor hours worked

3 Wage gap calculation – Average of total female workers' hourly gross wage – Average of total male workers' hourly gross wage

HEALTH AND SAFETY

TARGET DESCRIPTION:

- Zero fatal accidents
- Reduce accident rate to 0.5 at PUMA and at suppliers
- Building safety operational in high-risk countries*

Relates to United Nations Sustainable Development Goal 3

EXAMPLES OF THE 10FOR25 ACTION PLAN:

- Expand building safety projects to include Indonesia
- Ensure professional risk assessments are conducted regularly

KPIs:

- Number of fatal accidents at Tier 1 and core Tier 2 factories
- Average injury rate at PUMA
- Average injury rate at core Tier 1 suppliers
- Number of factories subject to our Building Safety Assessment Programme

Ensuring safe working conditions for our own employees and hundreds of thousands of indirect employees at our manufacturing partners is an ethical imperative. In 2015, we set a target of zero fatal accidents and aimed to reduce the number of work-related accidents. In 2021, we revised our Supplier OHS handbook, requiring our manufacturing partners to conduct an OHS risk assessment. We also published the PUMA OHS Policy for our own employees. Our health and safety targets are linked to the bonuses of our global leadership team.

HEALTH AND SAFETY AT PUMA'S OWN ENTITIES

At our headquarters, we operate an occupational Health and Safety Committee, that oversees our health and safety management system. The Committee includes a specialised labour physician, a health and safety technician and employee representatives. In 2023, we certified our OHS management system according to ISO 45001 at the headquarters level.

To ensure a global implementation of our health and safety policy, our larger subsidiaries have their own health and safety committees or experts in place. For more than ten years, we have been able to record zero fatal accidents at our own entities globally. We have also kept the lost time injury rate below 0.5 since 2019, meaning that per 100 full-time employees, less than 0.5 accidents were recorded, in line with our targets.

* High-risk countries are defined by the building safety index which is based on instances of non-compliance associated with building approval, multi-tenant building, structural integrity, ventilation/ heating, and warehouses.

In 2023, this target was supported by continuing our Occupational Health and Safety e-learning. Over 80% of PUMA staff members globally participated in health and safety training to prevent injuries or work-related negative health effects.

In addition, we offer sports facilities, canteens with balanced food and work-life balance courses at our major offices globally. For more information on employee wellbeing please refer to the **Our People** section of this report.

HEALTH AND SAFETY IN THE SUPPLY CHAIN

Apart from our ongoing auditing programme that includes occupational health and safety assessments, we implement our Building Safety Assessment Programme in countries where we have identified risks. We also set up professional risk assessments at all our major manufacturing partners. Despite these preventive measures, unfortunately, a work-related accident resulted in the death of an employee in one of our suppliers' factories in India in 2023. We will keep our focus on Occupational Health Safety accident prevention.

SUPPLIER TRAINING ON OHS RISK ASSESSMENT

In 2021, we updated our OHS Handbook to guide the OHS risk assessment processes and tools for the factory management and OHS person in charge.

PUMA provided training to core Tier 1 and Tier 2 suppliers on how to conduct Occupational Health and Safety (OHS) risk assessments in 2021 and 2022. We followed up on progress with an on-site visit by a third-party auditing company.

In 2023, among the trained factories, we noticed fewer violations related to Chemical Safety Management (-3%), and Electrical and Mechanical Safety Management (-2%) compared to 2022. However, we noticed more violations related to noise pollution. We will explore how to improve together with suppliers in 2024.

In 2023, the PUMA Sustainability Team developed accident prevention and reporting training based on the ITC-ILO material and provided Train-the-Trainer sessions to 266 managerial staff at 102 factories (core Tier 1 suppliers and all factories in India and Sri Lanka). Trained factory managers provided this training to 115,588 workers in 59 factories. Training hours were 117,695 in total. Some of the factory managers received the training in late 2023, we will follow up on their workers' training in 2024.

4,364 workers from eight factories in Cambodia and Indonesia completed the Better Work e-learning course on Occupational Safety and Health via the WOVO mobile app, covering 51% of the employees in these factories.

BUILDING SAFETY ASSESSMENT AND RISK ASSESSMENT

A safe workplace is a top priority at PUMA and we continuously carry out building safety inspections among high-risk factories in our supply chain. From 2015 to the end of 2023, our Building Safety Assessment Programme covered Bangladesh, India, Indonesia and Pakistan.

↗ T.13 BUILDING SAFETY ASSESSMENT PROGRAMME

Country	Number of factories	Comments
Bangladesh	21	Part of our ongoing membership of the Bangladesh Accord
India	6	In partnership with AsiaInspection or Elevate
Indonesia	5	In partnership with AsiaInspection
Pakistan	3	In partnership with Elevate

In 2023, we used EIQ to map all sourcing countries where building safety is considered as high risk. As a result, two factories in Indonesia and four factories in India were identified as high-risk. The four factories in India already went through a Building, Electrical and Fire Safety Assessment (BEFS) in 2022, conducted by ELEVATE. A similar assessment was conducted in the two Indonesian factories in 2023. Through active engagement with these four suppliers in India, 69% of the findings had been remediated by the end of 2023. We will keep following up to ensure all findings are taken care of.

Five factories went through building safety inspections in Indonesia, two in 2023 and three in 2018. We continued following up on remediation at the three factories. Two factories obtained building safety certificates issued by the government, and one will be certified in early 2024.

↗ CASE STUDIES

Building Safety in India

A factory under the largest footwear supplier in India, underwent the Building, Electrical and Fire Safety Assessment by a third-party inspection firm, Elevate, in 2022, as well as a follow-up inspection in 2023.

75 findings were identified at the initial assessment, 22 of them categorised as Major Issues. PUMA conducted an onsite follow-up with factory management, who then agreed to engage with experts to conduct feasibility studies and implement corrective actions. Over $41,000 was invested to install fire-fighting equipment, strengthen the building structure, do panel modifications, etc. As a result, 92% of findings had been corrected during the follow-up inspection in September 2023. The rest of the findings require more time to remediate. PUMA will follow up with the supplier in 2024.

ACCORD

As part of its continued commitment to the ACCORD international programme, PUMA signed the Pakistan ACCORD in early March 2023. Seven supplier factories joined the programme, including two of the three factories that were previously assessed by ELEVATE and other third parties. Another factory in scope of this programme was on-boarded in mid-2023, we are now applying for this factory to join the ACCORD.

Two factories are not under the scope of Pakistan ACCORD programme, as these are not textile product manufacturers. One of these factories was on-boarded in the last quarter of 2022 and will go through an assessment in 2024. The second factory went through a Building, Electrical and Fire Safety Assessment (BEFS) conducted by ELEVATE in 2017 and 2021. Since then, the factory management has hired a professional third party to support the remediation of the open findings. In 2024, this factory will be re-assessed to measure progress.

Our factories in the ACCORD in Bangladesh have a completion rate (initial findings) of 94%, whereas the average rate of all factories in the RSC programme is 91%. Eight (out of 21 ACCORD active) factories achieved 100% remediation of the initial findings. Another seven factories achieved 90%-98% remediation of

the initial findings. Six out of 21 factories were at low completion rates (0%-89%): two did not receive a follow up inspection by ACCORD in 2023, two were newly onboarded to ACCORD, and two were delayed in remediation of the findings. We will keep working with those factories on ACCORD remediation plan in 2024.

ACCIDENTS

In 2023, we unfortunately reported an employee death resulting from a work-related incident at one of our suppliers' factories in India. An electrician fell from the factory's roof, as neither a secured ladder was used nor a harness rope was installed. After 55 days of hospitalisation, the worker's health deteriorated, leading to his death. The factory paid all medical expenses and the legal compensation, as well as an additional lump sum to the worker's family. An investigation and Hazard Risk Assessment were conducted by an independent expert. Following this assessment, safety equipment including a harness hook was installed on the rooftop, staff training on hazards and risks was provided and enhanced monitoring of potential unsafe conditions was implemented to prevent similar accidents. We deeply regret this tragic accident which caused the loss of this employee's life.

INJURIES

The average injury rate was reduced to 0.2%. We followed up on factories' action plan implementation after various OHS trainings, such as Accident Prevention and Reporting training, conducted by PUMA since 2021. Given 2023's global macroeconomic situation, which led to a change in customers' ordering behavior, we saw a decline in the order book in the first half of the year and stabilisation in the second half. This led to fewer working hours, and fewer temporary workers recruitment, meaning less risks for injury, this could also explain why the injury rate decreased this year.

↗ T.14 INJURY RATES AT CORE SUPPLIERS

Country	2023	2022	2021	2020
Bangladesh	0.3	0.6	0.5	0.4
Cambodia	0.3	0.4	0.3	0.2
China	0.4	0.3	0.3	0.6
Indonesia	0.3	0.2	0.2	0.2
Vietnam	0.1	0.1	0.1	0.2
Average*	0.3	0.3	0.3	0.4
Fatal accidents**	1	2	0	0

* Average of the five countries included in this table. Global average injury rate for PUMA's core suppliers in 2023 was 0.2.
** Including non-core suppliers.

BANGLADESH EMPLOYMENT INJURY SCHEME PILOT

Despite significant progress on the way towards decent and safe working conditions in the ready-made garment industry in Bangladesh, it lacks a comprehensive Employment Injury Scheme (EIS) in accordance with international standards as defined in the ILO Employment Injury Benefits Convention. To mitigate that gap the Bangladesh Government initiated a pilot programme to provide income replacements for the permanently disabled and the dependents of deceased workers. The ILO and GIZ collaborated in the project and agreed on the implementation as well as the transition to a permanent EIS after three to five years.

The EIS provides periodic payments/pensions as top-ups to the lump-sum payments of the Central Fund, rendering the level of benefits compatible with ILO Convention No. 121. These payments are financed by international brands.

PUMA signed the voluntary pledge for the Employment Injury Scheme pilot in Bangladesh to contribute to safeguarding decent living conditions for victims and their families. PUMA joined in early 2023, together with seven other brands. We are actively engaged with the project not only by providing financial support, but also by providing feedback for learning.

According to **EIS data** on 31 December 2023, the pilot has responded to 13 death cases. The EIS committee has disbursed a total of 932,766 BDT, equivalent to 5,241 BDT as a monthly compensation, directly to the family members affected by this tragedy. The pilot has responded to eight permanent disability cases, with a total estimated lifelong benefit of 5,837,724 BDT.

As per EIS policy, factory and workers are kept anonymous, so we have no way to know if the families of the two workers who passed away as reported in our **2022 Annual Report**, have received such a benefit.

ENVIRONMENT

The purpose of our environmental efforts is to ensure that PUMA and its suppliers are in full environmental compliance and that any negative impact on the environment is minimised. Over the last ten years, PUMA has not incurred any environmental violations or fines known to us. Ultimately, we are aiming for a positive environmental impact of PUMA and our supply chain on the environment.

ENVIRONMENTAL MANAGEMENT AT PUMA'S OWN ENTITIES

We conduct energy efficiency audits every four years at our own entities. In 2023, we commissioned 19 audits at PUMA offices, stores and warehouses in Germany, the Netherlands, France, Spain and Sweden. Compulsory in the European Union, these audits help us to identify energy-saving opportunities at our offices, stores and warehouses and roll them out globally. In 2023, for example, we replaced some lights at our headquarters with more energy-efficient LED lights.

In 2022 we achieved the ISO 14001 Environmental Management certification for our headquarters and published a stand-alone environmental policy. We also compiled and published an environmental handbook specific to our own offices, stores and distribution centres. We continued our global data collection and management processes for our own entities and set up a quarterly subsidiaries call for peer learning and good practice sharing. These calls are also used to re-emphasize our Sustainability Strategy and goals with our PUMA countries worldwide. The progress towards those goals is reported in this report.

ENVIRONMENTAL MANAGEMENT IN THE SUPPLY CHAIN

ENVIRONMENTAL RISK ASSESSMENT

In 2023, we developed a Civil Society Organisations (CSOs) engagement policy to engage with them reactively and proactively. Please refer to the **Due Diligence and Risk Assessment** section of this report.

In 2023, we conducted an environmental risk assessment using EiQ platform by Elevate. EiQ is a data-driven supply chain ESG due diligence platform used by businesses to enhance Environmental, Social, and Governance (ESG) risk management. We focused on two risk areas; firstly, environmental country risk exposure for supply chain and secondly environmental material risk exposure.

COUNTRY RISK EXPOSURE

We evaluated the environmental risk profile of our key sourcing countries. In 2023, the six most important sourcing countries, comprising 90% of the total volume, are located in Asia. China is the biggest production country in 2023 with a total of 30%, followed by Vietnam is the second biggest production country with 26%, Cambodia with 13%, Bangladesh, which focuses on apparel, at 12%, Indonesia with 5% and India – only serving the local market at 3%.

The parameters for the country risk include indexes such as air emission, environmental management, waste management, environment permits and wastewater violations. The supply chain risk environmental profile indicates that Indonesia and the Philippines are extreme-risk countries, whereas other key sourcing countries like Vietnam, China, Bangladesh, India and Cambodia are high-risk countries. Taiwan is a medium-risk country from supply chain environment risk. For environmental permits violations, Indonesia and Bangladesh are indicated as extreme-risk countries.

The risks mitigation measures in place for extreme-risk and high-risk countries, excluding India include; factory performance evaluation through Higg FEM verification, chemical management following ZDHC guidelines, compliance to ZDHC Wastewater Guidelines and core factories' participation in cleaner

production programmes, capacity building training programmes, supplier scorecard with E-KPIs followed by meetings with these core suppliers.

Publicly disclosed goals on reduction in water consumption, reduction in production waste to landfill and increased use of renewable energy help to track the performance of core suppliers and hence help to mitigate environmental risks. In China, the country with the largest sourcing volume in 2023, our suppliers have been disclosing their environmental performance data on The Institute of Public & Environmental Affairs (IPE) platform.

India production is only serving the local Indian market, and we have prioritised compliance with our Zero Tolerance Issues. We have not yet launched mitigation measures such as Higg FEM verification, chemical management following ZDHC guidelines, and compliance to ZDHC Wastewater Guidelines to all factories. We will gradually enroll these factories in these programmes in the coming years. In 2024, we will strengthen our existing measures to improve the environmental performance of supplier factories. We will focus on the transition to Higg FEM 4.0 which is a more exhaustive evaluation. It will help factories to further improve their performance and in turn help PUMA to manage its environmental risks. We plan to discuss the results of this risk assessment with our sourcing teams for business consideration.

MATERIAL RISK

We evaluated the environmental risk of our key materials such as cotton, polyester, leather & rubber. The environmental risk covers water use, non-GHG air pollutants, terrestrial ecosystem use, soil pollutants, solid waste and water pollutants. The results indicate that material environment risk is highest for natural rubber, followed by synthetic rubber and leather. Polyester has the lowest environmental risk. Furthermore, we mapped our sourcing share by country of these materials.

Cotton: In 2023, we sourced 63% of cotton from the USA, followed by Brazil (15%), Australia (8%) and India (4%). The USA is a high-risk country while Brazil and India are extreme-risk countries; Australia is a medium-risk country. The risks are water use, air pollution and biodiversity and ecosystem.

We have required our suppliers to source only cotton grown in farms that are licensed as having good farming and human rights standards (BCI), or recycled cotton from factories that are either Global Recycled Standard (GRS) or Recycled Claim Standard (RCS) certified by 2025.

PUMA is taking steps to mitigate some of the environmental risks associated with cotton sourcing which includes the adoption of BCI cotton, increased usage of recycled cotton, innovation to increase the share of recycled cotton in our products, conducting Life Cycle Assessments of products and materials to evaluate the environmental impact in lifecycle stages and engaging with the industry such as Textile Exchange to stay informed on industry best practices.

We collect material data consumption on an annual basis along with the country of origin and require our suppliers to keep all the supportive documentation available. We have also established an on-going due diligence programme with our partner laboratory in Germany where we regularly test samples of cotton-finished garments before shipment. This further strengthens traceability and control across our supply chain, from the raw material to the finished products.

Through our partnership with Better Cotton, we support farmers in developing a better understanding of Integrated Pest Management and phasing out the use of Highly Hazardous Pesticides (this helps to address improper disposal of used agrochemical containers which can contaminate air, soil, water and local ecosystems), to use water responsibly, to better protect the soil and to conserve and enhance biodiversity on their land. Better Cotton has set up goals to reduce greenhouse gas emissions by 50% per ton of Better Cotton lint produced by the end of the decade, ensure 100% of Better Cotton Farmers have improved the health of their soil and reduce the use and risk of synthetic pesticides by at least 50%.

In 2023, the share of BCI cotton was 90.3% and recycled cotton was 8.6% of total cotton sourced by PUMA.

Polyester: We sourced 79% of our polyester from China in 2023, followed by Taiwan at 9.2% and Vietnam at 7.4%. China is a high-risk country. Risk profiles for polyester from Vietnam and Taiwan are not available on the EIQ platform. High-risks are air pollution, water use and solid waste.

We have required our suppliers to source only polyester-certified by Bluesign/Oekotex, or recycled polyester from factories that are either Global Recycled Standard (GRS) or Recycled Claim Standard (RCS) certified by 2025. PUMA has joined the Textile Exchange polyester challenge since our 2025 goal of 75% recycled polyester is aligned with this challenge. We engage our core fabric manufacturing plants in energy efficiency programmes and support them to the transition to 25% renewable energy processing in 2025. We monitor and report chemical discharges, and work to eliminate pollutant chemicals.

In 2023, we sourced bio-based, high-performance polyester fibre known as Sorona, to up to 0.11% of our total polyester consumption. Sorona contains over 20% bio-based carbon content, which helps to reduce environmental impact, while maintaining quality and performance. Sorona is produced via a fermentation process that utilizes corn sugar as the main ingredient.

In 2023, 61.8% of the polyester used in our products was recycled, 23.3% certified by Bluesign/Oekotex and 0.11% biobased.

Leather: In 2023, we sourced, 61% of our leather from the USA, followed by Argentina 27%, Australia 6% and Brazil 5%. The USA, Brazil and Argentina are high-risk countries, while Australia is a medium-risk country. High risks are air pollution, water use and impact on ecosystem.

PUMA is taking several steps to mitigate environmental risks associated with leather sourcing. These include sourcing leather from Leather Working Group-rated tanneries, committing for sourcing deforestation-free bovine leather, and focusing on innovation for the development of recycled and other bio-based alternatives. We engage with Fashion Pact, Textile Exchange and the Leather Working Group (LWG) to remain updated about industry best practices.

We have committed to sourcing all the bovine leather used in our products from verified deforestation-free supply chains by 2030 or earlier. We have signed up for the **Deforestation-Free Call to Action for Leather**, launched by global non-profits Textile Exchange and LWG.

99.7% of the leather that PUMA sourced in 2023 is from Leather Working Group-certified tanneries. This means that the leather used in PUMA products comes from manufacturers who are working to implement industry good practice standards of environmental management and traceability. PUMA currently monitors its LWG medal-rated tanneries' upstream traceability performance.

Around 76% of the leather used at PUMA is Suede, a byproduct of the full-grain leather business. The challenge faced currently by PUMA and others in the industry is that most suede tanneries work with agents and intermediaries alongside direct tanneries, to guarantee a stable supply which creates a challenge to have full traceability at the cattle ranch level.

Our innovation team has worked to address the technological limitations of a shoe designed for composting and launched the RE:SUEDE experiment. The upper of the RE:SUEDE is made of Zeology tanned suede.

Synthetic Rubber: We sourced, 74% of our synthetic rubber from China, followed by Vietnam 14% and South Korea 4%. China and South Korea are high-risk countries. The risk profile for synthetic rubber from Vietnam is not available on the EiQ platform. High risks are greenhouse gas emissions, water use and solid waste.

We have not yet mapped the manufacturing plants supplying synthetic rubber to our outsole manufacturers. As part of our 10FOR25 targets, we work on developing recycled materials as alternatives to rubber. In 2023, 5% of synthetic rubber was recycled. We engage our strategic outsole suppliers in Higg FEM (environmental

performance tool measurement of which includes energy use and greenhouse gas emissions, water use, wastewater, emissions to air and waste management) and work with them to eliminate pollutant chemicals.

Natural Rubber: In 2023, we sourced 29% of natural rubber from Vietnam, followed by Brazil 25%, Pakistan 13%, and Thailand 5%. Vietnam is categorised as an extreme-risk country. Risk profiles for natural rubber from Brazil, Pakistan and Thailand are not available on the EiQ platform. High risks are mainly water use and impact on the ecosystem.

In 2023, only 2% of the rubber used in our products was natural rubber. We aim in the future to only source FSC-certified rubber. The FSC certification includes standards to maintain, conserve, and/or restore the ecosystem and environmental values of managed forests and also avoid, repair, or mitigate negative environmental impacts.

SUPPLIER ENVIRONMENTAL SCORECARD

In 2023, we developed environmental performance scorecards for core supplier factories to visualize their progress towards our 10FOR25 targets and 2022 goals. During one-to-one meetings, we explained the need for setting Science Based Targets to 21 selected suppliers, we reviewed the 2022 Environmental KPIs (E-KPIs) for 60 suppliers and discussed their 2023 plans; the need for participation in cleaner production and renewable energy programmes for some factories was also discussed. Environmental KPIs include Higg FEM score, FEM chemical module score, MRSL conformance rate, wastewater test results, percentage of renewable energy usage, greenhouse gas emission per product or volume of material, percentage of water consumption reduction (per product or volume of material), percentage of production waste sent to landfill (per product or volume of material).

These meetings were useful for understanding the challenges of our suppliers and for prioritizing our actions to support them. Key meetings outcomes:

- **Alignment on setting Science-Based Targets (SBT):** In summer 2023, 20 out of 21 selected suppliers agreed to set climate goals based on SBT methodology. In these meetings, we followed up our suppliers decision to set up SBT. In October 2023, in partnership with Guidehouse, we launched a capacity development programme for eight suppliers called Leadership on Climate Transition (LoCT), to support suppliers in this journey. In 2024, this programme will be expanded to other suppliers who do not have sufficient in-house or external expertise.
- **Enrolment in cleaner production programmes:** Factories were nominated to participate in Cleaner Production programmes based on their performance through E-KPIs and the expertise of their team members. In August 2023, Clean by Design (CbD) program phase three was launched in the China and Taiwan region for seven factories. A new programme called Resource Efficiency (REF) in partnership with ENERTEAM was started in Vietnam in August 2023 for four factories. The Cambodia Decarbonization Programme (CaDP) with IFC will be launched in early 2024 for four factories in Cambodia.
- **Enrolment in renewable energy programmess:** Suppliers shared their plans to complete feasibility studies or install rooftop solar systems. In the absence of adequate rooftop solar capacity, RECs purchases were discussed. The suppliers also highlighted their challenges. Subsequently, GIZ-PDP programme phase II was rolled out in Cambodia in February 2023 for one factory and in Vietnam in March 2023 for four factories to support rooftop solar installation.
- **Phase-out of coal-fired boilers:** We discussed this challenging goal with the relevant suppliers to align on a phase-out plan. Suppliers raised their concerns about the unstable availability of biomass, the absence of sustainable biomass guidelines, and the increased cost of natural gas. We will bring these challenges to the Fashion Charter working group to find solutions to address them.
- **Higg FEM Performance:** Discussions focused on FEM (Facility Environmental Module) score. We also acknowledged improvements made by factories with an increased score in 2022 (2021 FEM score). We aligned on the need for additional training and/or support, such as one-to-one support for low performing factories to improve their score. 210 factories in total were provided training on Higg FEM in

2023. As a result, the average 2022 FEM score of core factories improved to 69% from 61% (2021 FEM score).

- **Chemical Management:** we focused on the factories with low compliance with MRSL standards and ZDHC Wastewater Guidelines. We aligned with factories on the need to bring in chemical suppliers disclosing their chemicals to the ZDHC gateway, a platform used to upload factory chemicals inventory lists and measure their MRSL conformance rate. In February 2023, we invited chemical suppliers to join the training session on ZDHC MRSL conformance. We also worked with some key chemical suppliers to support them in complying with ZDHC MRSL standards. As a result of the efforts, the MRSL conformance rate has increased from 68% in 2022 to 71% in 2023, and the average Higg FEM Chemical module score improved from 39% in 2022 to 51% in 2023. For factories with low ZDHC Wastewater pass rate tests, we discussed their corrective action plans. In 2024, we will continue to engage them to get more chemicals to comply with ZDHC MRSL.

FACTORY ENVIRONMENTAL PERFORMANCE MONITORING

Social compliance audits: For suppliers, our PUMA social compliance audits (detailed in the **Human Rights** section) contain a dedicated section on environmental and chemical compliance. For example, during each audit, we inspect environmental permits, waste management and effluent treatment plants. In general, PUMA social compliance audits are used for onboarding new factories.

Monitoring tools: For monitoring the environmental performance of suppliers, PUMA has used an industry-wide tool, the Higg Index Facility Environmental Module (FEM) 3.0. PUMA requires an annual external verification of the self-assessment FEM modules. This external verification may be completed by approved verifiers from PUMA's internal team, other credited brands, or third-party organisations on the approved list from SAC. 100% of verification inspections are announced.

PUMA's Environmental Performance Rating System is based on the ratings developed from the factories' Higg FEM score verified by SAC-approved verifiers: A, B+, B-, C and D. The minimum passing grade from the environmental perspective is 40% (i.e., only A, B+ and B- ratings are passing grades) and C and D are failure ratings. This rating system was presented to suppliers in 2022 and implemented gradually during 2022 and 2023. Our environmental handbook has been updated accordingly. This rating system was included in our vendor supplier scorecard along with social and chemical ratings.

↗ T.15 NUMBER OF CORE FACTORIES WITH FACILITY ENVIRONMENT MODULE (FEM) VERIFIED SCORE[1]

	2023			2022		
Number of factories with FEM verified score	**Core T1**	**Core T2**	**Core L&P**	**Core T1**	**Core T2**	**Core L&P**
A	14	12	3	8	10	2
B+	34	33	8	25	25	1
B-	9	11	2	30	22	7
C	1	3	0	2	8	2
D	1	0	0	0	0	0
Total	**59**	**59**	**13**	**65**	**65**	**12**
Number of factories	131			142		

* L&P: Labeling and packaging
1 Excluding stichd and PUMA United

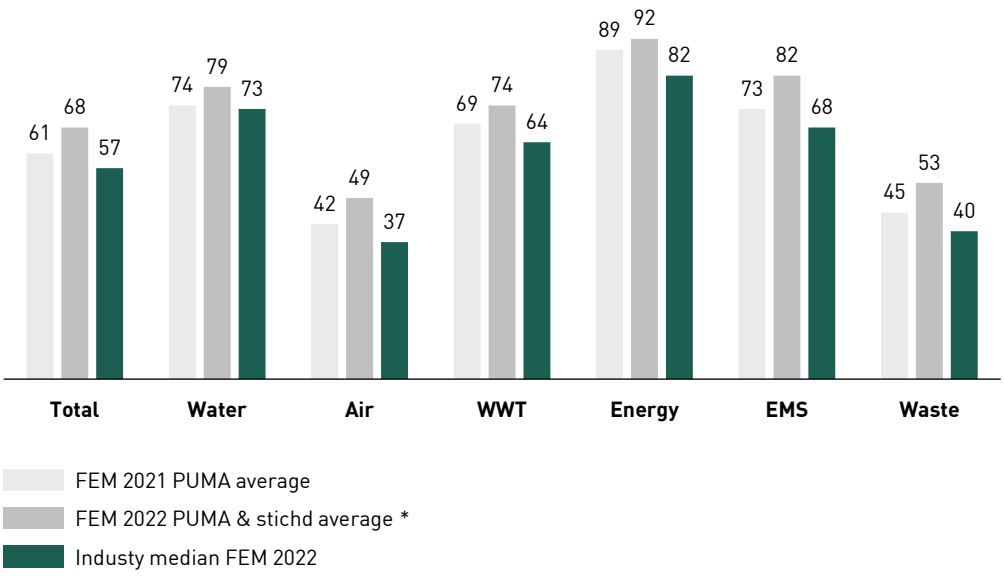
↗ T.16 NUMBER OF STICHD FACTORIES WITH FACILITY ENVIRONMENT MODULE (FEM) VERIFIED SCORE

No. of factories with FEM verified score	stichd 2023 (FEM2022) Core T1*
A	5
B+	15
B-	7
C	2
D	0
Total	29

* stichd has 32 core Tier 1 factories of which 30 have completed verification. One core factory is a common factory between PUMA and stichd and hence counted once under PUMA

Further data on the environmental performance of PUMA and our suppliers can be found in the **Climate** and **Environmental Key Performance Data** sections.

↗ G.11 AGGREGATED VERIFIED FEM SCORE FOR PUMA FACTORIES BENCHMARKED WITH INDUSTRY[1-3]



* Verification in 2023 is for FEM2022; Verification in 2022 is for FEM2021
1 FEM 2022 PUMA and stichd average: 160 factories
2 FEM 2021 PUMA average: 142 factories
3 Industry median FEM (6,980 factories): Filters used: Industry sector: Apparel; Footwear; Accessories (includes handbags, jewellery, belts, and similar products) and Facility Type: Final Product Assembly; Printing, Product Dyeing and Laundering; Material Production (textile, rubber, foam, insulation, pliable materials); Packaging Production

The Higg FEM assesses:

- Environmental Management Systems
- Energy use and greenhouse gas emissions
- Water use
- Wastewater
- Emissions to air (if applicable)
- Waste management
- Chemical management (FEM chemical module is explained under the **Chemicals** section of this report)

Since 2020, we have communicated to our core factories our expectation for them to improve their score by setting up annual goals and using our new grading system. In 2021, 2022 and 2023 we facilitated training sessions conducted by FEM experts. This training was compulsory for low-performance factories and for those not familiar with this industry tool to attend. We closely monitor the factories to ensure completion of the verification of their self-assessment.

Throughout 2023, we continued to provide customised training sessions by FEM experts for our existing core Tier 1 and Tier 2, as well as non-core Tier 1 suppliers. The training focused on how to improve the Higg FEM score on low-performing areas for each region. We also facilitated entry-level training sessions for factories new to the Higg FEM tool. These trainings have helped our suppliers improve their environmental performance as is visible from the improved average FEM score for PUMA and stichd factories moving from 61% in 2022 up to 68% in 2023. We also facilitated for our suppliers to attend webinars and workshops on Higg FEM 4.0 to be launched in 2024, organised by SAC. In Vietnam, we facilitated for 61 factories to join the training programme, To The Finish Line (TFL) initiative, from GIZ for building capacity to transition to Higg FEM 4.0. The TFL initiative online sessions explained the changes made in this new tool and how to answer new questions. 26 core factories from six countries participated in a Higg FEM 4.0 pilot initiated by SAC, after which our suppliers provided valuable feedback to SAC on the new version of Higg FEM.

In 2023, all 131 PUMA core Tier 1 and Tier 2 factories completed the verification of their FEM self-assessment. We have set a target to achieve an annual 10% increase of the average verified score from 2021 (the goal was to reach 64% FEM score in 2023). We exceeded this target by achieving an average FEM score of 69%. Improvements are visible in all the sections of Higg FEM as compared to the previous year. PUMA's average FEM score is higher than the industry median in each section. In 2023, we included our group company stichd's core Tier 1 Higg FEM score. The combined average of PUMA and stichd also exceeded by achieving the target with an average score of 68%.

The number of C-rated PUMA factories came down from 12 in 2022 to four in 2023. However, one factory in Brazil which is a new core factory and new to FEM received a D rating. We will provide additional training and support to improve their performance next year.

In 2023, we continued to closely track factories to ensure the timely completion of their verifications. We saw the positive impact of our continued efforts to scale up cleaner production and renewable energy projects, climate action training, chemical projects, chemical management training and wastewater treatment training on the FEM scores of factories that had joined these programmes. For 2024 we have shared a goal of an average FEM score of 71% with our PUMA core suppliers, which needs to be reviewed as the Higg FEM will be going through a transition to Higg FEM 4.0.

Overall, our core factories have a score above 70% on wastewater, water, energy and GHG emissions, and environment management systems. We see topics like chemicals, air and waste as a key focus. In 2021, we conducted a risk assessment for chemical and waste and identified actions to be taken in the coming years. PUMA, as one of the signatory brands under ZDHC, follows up closely on the development and the progress of ZDHC air emission standards and guidelines and will apply them in the supply chain as applicable, once details are available. In 2023, we joined the ZDHC air emission pilot which we report in the **Water and Air** section of this report.

↗ T.17 NUMBER OF NON -CORE FACTORIES WITH FACILITY ENVIRONMENT MODULE (FEM) VERIFIED SCORE

No. of factories with FEM verified score	2023 (FEM2022) verified Non Core T1*
A	18
B+	36
B-	36
C	15
D	4
Total	109

* Scope for non-core FEM assessment includes only PUMA factories. Does not include stichd non-core factories.

In 2022, we rolled out FEM/Facility Environmental Foundation (FEP) which is a lighter version of FEM, to non-core factories in our top three sourcing countries (Vietnam, China and Bangladesh) and to the factories which are participating in the PUMA Vendor Financing Programme. As a continuation, in 2023 we rolled out FEM/FEP to 154 of our non-core factories. The purpose is to also create a supplier scorecard for our non-core factories.

Out of 154 factories, 141 completed the self-assessment. Out of these 141 factories, 116 factories used the FEM tool, and 109 had their score verified by third party. 25 factories used the FEP tool, and 21 have completed the verification. Most of our non-core facilities that had a verified FEM achieved an A or B rating, while 15 factories got a C rating and four factories recorded a D rating. We will work with these C- and D-rated factories to improve their performance by providing training and support in 2024.

Further data on the environmental performance of PUMA and our suppliers can be found in the **Climate** and **Environmental Key Performance Data** sections.

SUPPLIER TRAINING

32% of supplier factories out of the total (656 factories) were provided with Higg FEM training. Currently we are providing training to core Tier 1 and Tier 2, for which we set goals to increase their FEM score and non-core Tier 1 factories for which we just required the use of FEM/FEP tool to measure their environmental performance (in additional to their social performance) in 2023. We will expand the roll-out of the FEM/FEP tool to licensee factories in the future and will include FEM training for stichd factories in 2024.

The Finish Line (TFL) training by GIZ for Higg FEM 4.0 was only available in Vietnam and hence the percentage of total supplier factories covered is only 9%.

Similarly, the percentage of factories coverage is only 15% for sustainable material certification training, as we currently only invite PUMA Tier 1 and core Tier 2 factories supplying recycled and other sustainable materials/products. We need to expand the scope of this training to include all suppliers in the future to raise awareness of recycled and other sustainable materials, as we aim at increasing the use of more sustainable materials in our products.

↗ T.18 SUPPLIER TRAINING

Training	Training Scope	Topics	Number of factories	Number of participants	% factories which joined
Supplier meetings	All core and non-core factories	Sustainability updates, best practices sharing, etc.	559 average per round (2 rounds)	1,048 average per round (2 rounds)	85%* average per round (2 rounds)
Higg FEM training	PUMA core and non-core Tier 1 factories	Guiding existing factories to improve Higg FEM score and new factories to understand how to complete the Higg FEM/FEP module correctly	210	600	32%*
To The Finish Line (TFL) - GIZ	PUMA core and non-core factories in Vietnam	Developing understanding about changes in Higg FEM 4.0 and helping factories to transition into new standard	61	294	9%*
Sustainable Material (TE, GRS/RCS, RWS)	PUMA Tier 1 and Tier 2 factories supplying recycled and other sustainable materials and products	Guiding suppliers how to apply for relevant certification	96	198	15%*
E-KPIs collection training	Core Tier 1 and Tier 2 factories in Enablon scope	For core factories how to correctly fill in the environmental data	75	188	77%**

* % of factories joined the training based on total 656 factories. The 656 factories include PUMA core Tier 1 and Tier 2, non-core Tier 1, stichd factories and licensee factories.
** % of factories joined the E-KPI training, based on a total of 98 factories which are in scope to submit E-KPIs.

↗ CASE STUDIES

Improvement in HIGG FEM Verified score

Being a longtime partner to PUMA, Royal Footwear Group is producing PUMA products at three factories in Vietnam (Dai Loc Shoes, Sao Viet & Thien Loc Shoes). These three factories actively participated in different trainings on all sections of Higg FEM provided by PUMA and its training partner GIZ, and engaged in active consultation with PUMA's Sustainability Team on its Performance Improvement Plan. As a result, these three factories significantly improved their verified Higg FEM total scores as compared to last year. Dai Loc increased its total verified score from 56% to 76%, Sao Viet from 40% to 77%, and Thien Loc from 46% to 75%. Significant improvements were made in sections like Environmental Management System, Chemical Management and Air Emissions.

THE INSTITUTE OF PUBLIC & ENVIRONMENTAL AFFAIRS (IPE) IN CHINA

PUMA is actively engaged with The Institute of Public & Environmental Affairs (IPE) which is a non-profit environmental research organisation based in Beijing, China. IPE is involved in collecting, arranging and analyzing government and corporate environmental information to build a database of environmental information. IPE has developed a database called Blue Map and an online platform called BlueEcochain and both are interconnected. Powered by IPE's Blue Map Database and AI technology, Blue EcoChain platform provides an efficient means of supply chain oversight for environmental risks in China. Blue EcoChain enables PUMA to track its suppliers in China for environmental compliance at scale, and sends automated

updates on regulatory violations and environmental remediation, as well as carbon emission and pollutant data disclosure continuously on a large scale.

Since 2013, PUMA has used IPE's Blue Map database to screen its China supply chain and pre-screen its potential new factories for any legal environmental violation and requires suppliers to improve on their environmental performance. PUMA also discloses its local supplier list via the IPE supply chain map platform. In these years, PUMA engaged and influenced its Tier 1 factories in China and their upstream suppliers, e.g. core Tier 2 and selected Tier 3 suppliers, chemical suppliers, centralised wastewater treatment plants, solid waste contractors, logistics partners, etc. to join "Blue EcoChain" to monitor and disclose their own environmental performance. These disclosures include their Pollutant Release and Transfer Register (PRTR) data, carbon emissions, targets for carbon emissions, and water consumption reduction. PUMA worked with its core Tier 1 and Tier 2 factories to reduce their greenhouse gas emissions and encourage them to disclose their action taken and progress made on the IPE platform.

Through the Blue EcoChain platform and engagement with IPE, PUMA influenced its Tier 1 suppliers and their upstream suppliers to promptly issue public explanations regarding the reason for any environmental violations and encouraged them to adopt corrective actions and track their implementation. This supports PUMA Tier 1 factories in China to engage with their upstream suppliers for better practices and promote transparency.

Since 2021, PUMA published its actions annually on the **Brand Stories** IPE webpage to communicate to the public in China about PUMA's activities related to environmental protection.

2023 PUMA CITI & CATI RATINGS

PUMA participated in the first CITI (Corporate Information Transparency Index) campaign in 2014 and first CATI (The Corporate Climate Action Transparency Index) campaign in 2018 to score and rank PUMA's environmental management and climate action.

In 2023, PUMA jumped seven places compared to 2022 and was ranked number five in CITI out of 742 brands. In the CITI 2023 rating, PUMA did well in responsiveness to inquiries and engagement with IPE, supply chain transparency, environmental compliance and corrective actions for any violations, energy conservation and GHG emission reduction. PUMA's strength is also in publicly disclosed targets on low carbon and recycled products.

PUMA also jumped four places to be ranked number two in CATI out of 1,504 brands. In this rating, PUMA climate governance such as policy and board accountability, Scope 1, 2 and 3 emissions and progress disclosure and targets, as well as product carbon footprint disclosure and disclosures on decarbonisation actions of our value chain was evaluated as strong areas by IPE. Disclosure of climate action by affiliated companies, such as the PUMA subsidiary in China, was identified as a major improvement area. Other improvement areas include the disclosure of our performance against PUMA's net-zero target and our action to decarbonize our own operations such as PUMA offices, stores and warehouses.

The details on our climate actions are provided in the **Climate** section of this report.

CLIMATE

10FOR25 TARGETS

- Align PUMA's CO_2 emissions target with a 1.5-degree scenario (that is, what is required to limit global warming to 1.5 degrees)
- Move 100% of PUMA's own entities to renewable electricity
- Expand the use of renewable energy at PUMA's core suppliers to 25%

TARGET DESCRIPTION:

Old science-based CO_2 emission target from 2019 aligned to well below 2 degrees:
- Reduce greenhouse gas emissions from PUMA's own entities (Scope 1 and 2) by 35% by 2030 compared to the 2017 baseline (absolute reduction)
- Reduce emissions from PUMA's supply chain (Scope 3: Purchased goods and services) by 60% relative to sales

New and 1.5 degree aligned science-based CO_2 emission reduction target (approved 2023):
- Reduce absolute Scope 1 and 2 greenhouse gas emissions by 90% by 2030 from a 2017 base year
- Continue active annual sourcing of 100% renewable electricity through 2030
- Reduce absolute greenhouse gas emissions from purchased goods and services and upstream transportation and distribution by 33% by 2030 from a 2017 base year*

* Target boundary includes land-related emissions and removals from bioenergy feedstocks

Relates to United Nations Sustainable Development Goals 7 and 13

EXAMPLES OF THE 10FOR25 ACTION PLAN:

- Work with industry peers on climate action through the Fashion Industry Charter for Climate Action and the Fashion Pact
- Join industry-level energy efficiency programmes for suppliers in our top five sourcing regions
- Join industry-level programmes for renewable energy in our top five sourcing regions
- Replace all coal-fired boilers at PUMA's core suppliers
- Reduce emissions from the transport of goods by transitioning to more carbon-efficient modes of transport
- Gradually transition to materials with a lower carbon footprint such as recycled polyester
- Switch all PUMA offices, stores and warehouses to renewable electricity tariffs or renewable energy attribute certificates
- Gradually move PUMA's fleet vehicles to alternative engines (electric or hydrogen)

KPIs:

- Direct CO_2 emissions from own entities (Scope 1*)
- Indirect CO_2 emissions from own entities (Scope 2*)
- Indirect CO_2 emissions from manufacturing, business travel and transport of goods (Scope 3*)
- Percentage of core suppliers covered by energy efficiency programmes
- Percentage of core suppliers covered by renewable energy programmes
- Percentage of core suppliers with coal-fired boilers (Tier 1 and Tier 2)

* The GHG Protocol Corporate Standard classifies a company's GHG emissions into three scopes:
- Scope 1: Direct GHG emissions from sources that are owned or controlled by the company (offices, stores, warehouses) e.g. office building heating, car fleet emissions.
- Scope 2: Indirect GHG emissions from the generation of purchased electricity, steam and heating/cooling consumed by the company
- Scope 3: All other indirect emissions not covered in Scope 2, such as extraction and production of purchased materials; transportation of purchased goods and use of sold products and services, business travel, employee commuting, etc.

During the UN Climate Conference in Paris in 2015, PUMA agreed to set a science-based CO_2 emissions target. In 2018 PUMA co-founded the Fashion Industry Charter for Climate Action, an industry-wide coalition that aims to align the fashion industry's emissions with the targets included in the Paris Agreement. One year later, PUMA agreed and published its first science-based emission target (SBT), which was aligned to a well below 2-degree emission scenario with the **SBT Coalition** and joined the Fashion Pact, which also includes a climate action commitment.

With an 85% reduction of own emissions (market-based, incl. the purchase of RECs) and a 65% reduction of supply chain emissions relative to sales, we achieved our first science-based greenhouse gas reduction target in 2023, seven years ahead of the target year 2030.

In 2022, we already prepared an updated and more ambitious science-based greenhouse gas reduction target and aligned the target with a 1.5-degree scenario. We also published a net zero target for 2050 and added a 100% renewable electricity target to our SBT proposal since we already committed to net zero GHG emissions and 100% renewable electricity as part of our Fashion Industry Charter for Climate Action engagement. Our updated science-based target was formally submitted to and approved by the SBTi in 2023.

With a 90% absolute reduction target for PUMA's own operations by 2030, the new target sets a much higher ambition level for Scope 1 and 2 emissions, after the first target of 35% reduction had already been achieved in 2020, mainly through the purchase of renewable energy and renewable energy attribute certificates. The SBTi has classified PUMA Scope 1 and 2 targets as in line with a 1.5-degree trajectory.

For Scope 3 emissions, the new 2030 target marks the transition from a target relative to sales (-60%) to an absolute reduction target of 33%. Given PUMA's strong growth rates, the new target could even be considered more ambitious.

TRANSITION PLAN TOWARD OUR 2030 SCIENCE-BASED GHG REDUCTION TARGET

During the year 2023, PUMA also developed and published its first **climate transition plan**. The plan lists the planned actions and investments toward hitting our 2030 climate targets.

In 2023, PUMA's Chief Sourcing Officer joined Zero 100, a membership-based research and intelligence organisation, to accelerate progress on Digital Supply Chain Transformation and the path to zero carbon emissions. Forward-thinking Chief Operations and Supply Chain Officers of international companies partner up, sharing a common purpose – to harness new technology to re-invent the production, distribution and consumption of physical goods around the world.

PUMA CDP CLIMATE SCORE: A

The **Carbon Disclosure Project** (CDP) is an investor-led coalition that ranks global companies and cities for their climate strategies and disclosure. PUMA has been a long-term participant in the CDP, and we make our responses to the CDP questionnaire publicly available via the CDP website. In 2022, for the first time in PUMA's history, we received an A score for our climate disclosure with CDP for the reporting year 2021. Until the end of January 2024, we retained our A score.

↗ G.12 PUMA CDP CLIMATE SCORES

C	B-	B	B	A-	A	A
2017	2018	2019	2020	2021	2022	2023

↗ G.13 2022 CDP INDUSTRY AND GEOGRAPHICAL AVERAGE

Average Performance

B	B	C
Textiles & Fabric	Europe	Global Average

PUMA's rating is better than the average performance of the sector (textile and fabric goods) with an average rating of B. The overall global average rating stands at C.

Over the last two years, we have made significant improvements in value chain engagement, Scope 3 emissions, risk management processes and risk disclosure, leading to the highest possible rating of A. Our score increased as a result of a host of initiatives taken, including facilitating climate training programmes for our suppliers, the participation of our suppliers in industry-wide resource efficiency and renewable energy programmes, participation in Higg FEM, the recalculation of Scope 3 emissions, in line with the greenhouse gas protocol, life cycle assessments (LCA) for our products, the preparation of a climate roadmap for 2030 and a risk assessment.

For more information, please visit the PUMA sustainability **website** or the **CDP website**.

CLIMATE ROADMAP AND RISK ASSESSMENT

In 2021 we developed a climate roadmap and conducted a risk assessment using our risk assessment methodology. This roadmap laid the foundation for our climate transition plan, which was published in 2023. We see a regulatory landscape with unfavourable policies for renewables in some countries as a high risk. Furthermore, unstable business in our industry overall can restrain suppliers from investing in technologies and upgrading their facilities with low-carbon machinery.

Below are some key focus areas for the coming years. Some actions taken since 2021 and continued in 2023 are covered in this report.

- **Raise awareness:** We realised that suppliers need specific training to achieve the ambitious renewable energy targets and that challenges vary from region to region. We facilitated certain training programmes in partnership with industry experts as per the needs of suppliers, such as the possibility of purchasing renewable energy certificates in various regions. In 2023, we launched a new capacity development programme, called Supplier Leadership on Climate Transition (LOCT), to enable selected suppliers to set and achieve Science Based Targets. Our suppliers continued to attend the GIZ Climate Training programme at their own pace in 2023. The details of these training sessions are provided in the table in "Climate Training 2023".
- **Knowledge of impact:** In 2023, we continued to conduct Life Cycle Assessments (LCA) for two top-selling products. We also conducted a comparative LCA of three types of polyester team sports jerseys to evaluate the environmental impacts of virgin polyester, recycled polyester made from PET bottles and recycled polyester made from recycled post-consumer waste and PET bottles. We also conducted a comparative LCA study of the environmental impacts of virgin cotton and blended cotton (75% virgin and 25% recycled). We intend to use the outcomes of these LCA studies to increase internal awareness and improve the products' carbon footprint by increasing the use of low-carbon materials, improving resource efficiency, optimizing energy use, promoting renewable energy in the value chain and enhancing the circularity of our products. LCA results are reported in the **Products** section of this report.

- **Internal action:** We reviewed factories' performance scorecards in 2023 based on their Higg FEM overall score and chemical score with our sourcing leaders. We also discussed with suppliers about their performance through one-to-one meetings and aligned on the next steps. We initiated a pilot to test a data platform, which will help us to measure progress more frequently. We will keep our focus on increasing the use of recycled materials in our products and explore opportunities to use more biosynthetic materials. In 2023, PUMA upgraded its near-term science-based emissions reduction target which includes our Scope 1 and Scope 2 emission targets in line with a 1.5-degree Celsius trajectory. We continue to enroll more factories in cleaner production programmes and renewable energy programmes. In 2023, the number of core factories with coal-fired boilers reduced from 21 in 2022 to 17 due to our business priorities that implied the revision of our core factory list. Two factories out of 17 have successfully phased out coal and 11 factories have partially replaced coal. The remaining four factories completed a feasibility study and will initiate replacement in 2024. We remain committed to phasing out coal from our core supply chain.
- **Collaboration and partnership:** We will keep our active engagement in the Fashion Charter to drive collaboration on climate actions and influence policymakers to enable access to affordable renewable energy. In 2023, we participated in a dialogue event organised by UN Fashion Charter with Bangladesh policymakers on renewable energy policy.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

Climate change has been a focus area for PUMA since the publication of the first Environmental Profit and Loss Account in 2011. As a long-term and A-ranked respondent of the investor-led CDP questionnaire and a founding member of the UN Fashion Industry Charter for Climate Action, PUMA has shown its commitment to combatting climate change. Subsequently, we recognise the importance of disclosing climate-related risks and opportunities in line with the recommendations of the TCFD, which are now being transitioned into the IFRS standards.

The success of our business over the long term will depend on the social and environmental sustainability of our operations, the resilience of our supply chain and our ability to manage the potential impact of climate change on our business model and performance.

Through the implementation of the recommendations set by the TCFD, we summarize the actions PUMA has taken to review its key climate-related risks and opportunities, and the potential impacts on its business and strategy.

GOVERNANCE

The PUMA Board of Management takes overall accountability for the management of all risks and opportunities, including climate change. PUMA's CEO is responsible for the overall oversight of the group's strategy, including the Sustainability Strategy. This includes climate-related targets as stated in PUMA's 10FOR25 sustainability targets. Besides the oversight of the CEO, PUMA's Chief Sourcing Officer (CSO) oversees all sustainability-related topics at PUMA, including climate change, at the management board level. Responsibilities of the CSO include approving new climate-related targets, strategies and initiatives. Sustainability falls under the scope of the CSO because the vast majority of the environmental impact of PUMA's activity is generated during the manufacturing of our products, which are sourced from independent third-party vendors. Therefore, to reduce our climate impact, our Sustainability Strategy needs to be driven through our supply chain into our vendors' factories and into the components we procure. Responsibility for these two activities lies with the CSO.

The Supervisory Board Sustainability Committee is handling sustainability at a Supervisory Board level. The Management Board receives updates on sustainability-related matters quarterly, including those related to climate change. The CSO has a monthly meeting with the sustainability leads for corporate and supply chain sustainability in which climate and all other sustainability-related topics are governed. The Executive Sustainability Committee meets twice a year to discuss and govern cross-functional sustainability-related

topics, like the sustainability bonus targets. It is comprised of all functional heads of the company, such as People & Organisation, Sourcing, Finance, IT, Marketing, Risk Management, Investor Relations, Retail, Logistics and Legal Affairs. Sustainability at a product level is governed in a cross-functional business units call, where updates on PUMA's more sustainable product strategy are shared and discussed monthly. To engage with PUMA's worldwide subsidiaries on climate change and other sustainability-related topics, the corporate sustainability department organises a quarterly call in which the nominated sustainability leads for each PUMA subsidiary take part.

All PUMA leaders globally – from CEO to Team Head level – have clearly defined sustainability targets as part of their annual performance bonus. These targets are aligned with PUMA's FOREVER. BETTER. Sustainability Strategy and focus on our 10FOR25 target areas, including climate change. Climate-related bonus targets include a reduction in air freight to 0.5% as well as a gradual shift of PUMA's car fleet to zero or low-emission vehicles. Targets on recycled polyester also support our Scope 3 GHG reduction. The targets cover 10% of the overall bonus for members of the Management Board and 5% for other leaders globally., with climate-related targets accounting for 2,5% and 1.25% respectively.

Our sustainability governance structure is referenced in the **Sustainability Organisation and Governance Structure** section.

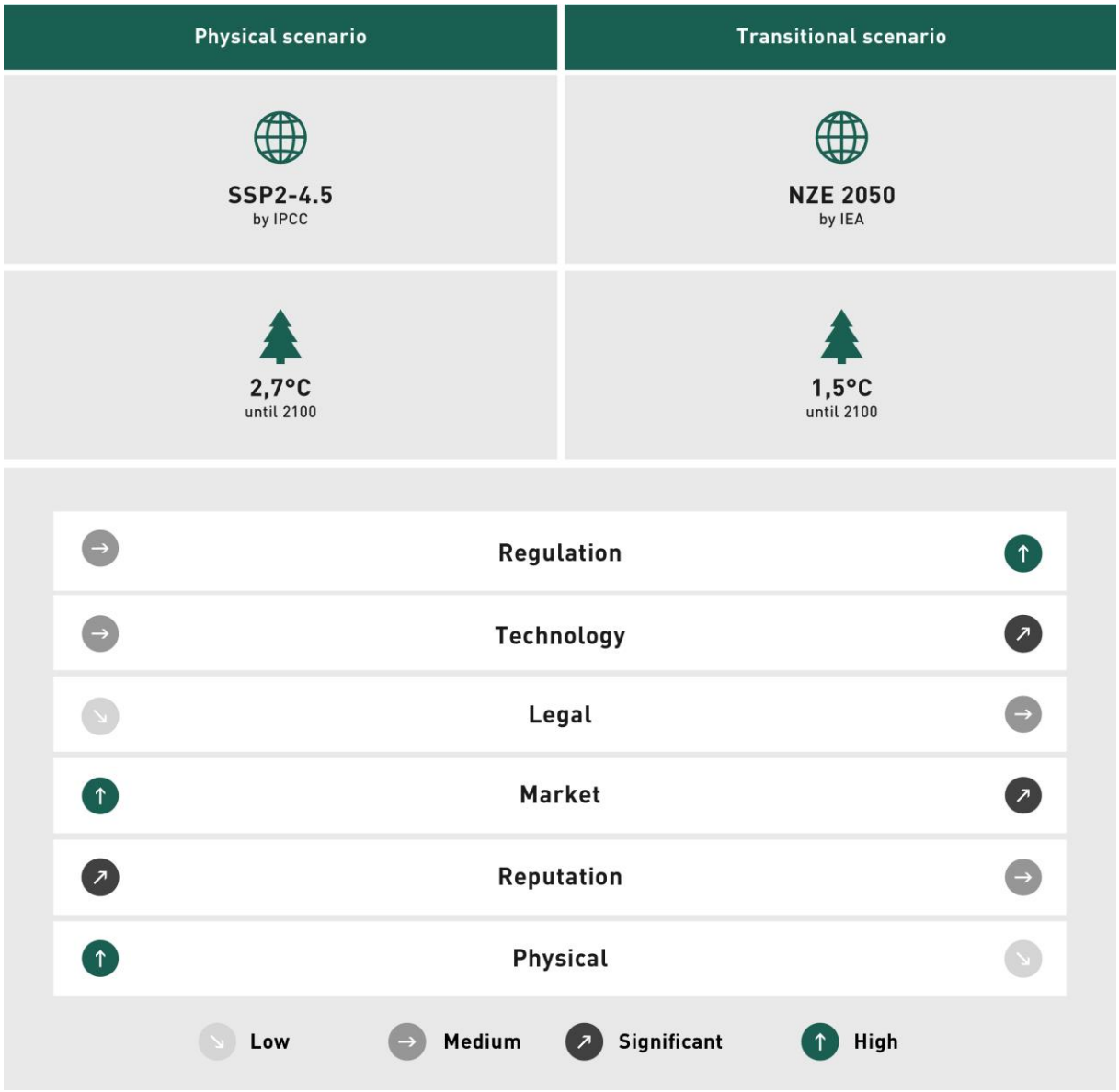
STRATEGY AND RISK MANAGEMENT

PUMA has analysed risks and opportunities related to climate change for over 10 years and identified climate change as a material risk to PUMA during its last materiality analyses conducted in 2018 and 2023. Climate Change has the potential to impact PUMA's business in the short (0-2 years), medium (2-5 years) and long term (5-10 years). The climate-related risks can be grouped into physical risks and transitional risks. Physical risks for PUMA include extreme weather events, such as flooding or heat waves, or water scarcity, which can influence raw material availability. Transitional risks include all risks related to the transition to a low-carbon economy, such as changing consumer preferences, policies and regulations, such as carbon taxes or rising energy prices.

The process for assessing, identifying and managing climate-related risks is the same for all principal risks and is described in the **Risk Management** section. All risks are monitored and reported regularly throughout the year by the risk owners, who are the managers of the functional areas and the managing directors of the subsidiaries. The risk owners are also responsible for the operational management of the identified risks. For example, climate risks concerning manufacturing in the supply chain are managed by PUMA's Supply Chain Sustainability team.

To identify the impact of potential climate-related risks, a scenario-based analysis of climate-related risks was commenced in 2022 (see G.16). The analysis is in line with TCFD recommendations by taking into consideration two different climate-related scenarios: first, to analyse transitional risks, the Net Zero Emissions by 2050 Scenario (NZE) developed by the IEA was considered. This scenario represents the development of a low-carbon economy in line with global warming of 2°C or lower. It was also used to develop our 1.5°C aligned science-based target, which was submitted at the beginning of 2023. Second, the impact of physical risks was assessed using the SSP2 – RCP4.5 scenario. This scenario relies on the Representative Concentration Pathways (RCPs) and Shared Socioeconomic Pathways (SSPs) published by the IPCC and reflects the development of greenhouse gas emissions under current government policies, resulting in warming of about 2.7°C by 2100 (per Climate Action Tracker). The different risk categories shown in G.16 are taken from our CDP 2023 response.

↗ G.14 SCENARIO-BASED RISK ANALYSIS ALIGNED WITH TCFD RECOMMENDATIONS



Climate-related risks and opportunities have influenced PUMA's strategy in multiple areas. The demand for more sustainable products has influenced our product portfolio and sourcing practices to shift towards recycled and/or certified materials. On the supply chain side, PUMA invests in supplier programmes focused on energy efficiency and renewable energy to reduce the carbon footprint of its manufacturing process. PUMA is investigating and investing further in more sustainable material options, such as biodegradable or recyclable materials. Additionally, PUMA operates its Circular Lab, under which it collaborates with innovation partners on different pilot projects, such as a garment-to-garment recycling process and a biodegradable shoe. Within its own operations, PUMA reduces its carbon footprint by sourcing 100% renewable electricity since 2020 and by gradually shifting its car fleet to low- and zero-emissions vehicles.

Climate-related issues also had an impact on PUMA's financial planning. Direct costs have been influenced by ESG-linked supplier financing programmes that have been in place since 2016. The programme provides access for PUMA suppliers to external financing resources with favourable financing conditions. Additionally, as part of the EU Taxonomy Regulations, PUMA is required to report on capital expenditures that lead to greenhouse gas reductions. PUMA's sales are currently not eligible under the EU Taxonomy Regulation due to the nature of PUMA's business (sale of footwear and apparel). In 2023, PUMA identified

investments in zero-emissions vehicles and infrastructure such as charging stations as well as solar PV installations to be aligned with Taxonomy criteria. The overall Taxonomy-aligned investment amounts to EUR 910,000. Further information on the EU Taxonomy can be found in the **Reporting in Accordance with the EU Taxonomy Regulation** section. Sustainability also influences PUMA's access to capital as it becomes an increasingly important topic for attracting equity and investors. In 2023, PUMA received an AAA rating from MSCI for its sustainability efforts. PUMA is also listed in the FTSE4Good Index. Our Investor Relations and Sustainability teams are in an ongoing dialogue with investors on ESG topics. PUMA maintains a revolving credit facility and two promissory notes, which are linked to the achievements of five ESG targets as defined within our 10FOR25 ESG framework. The targets relate to the sourcing of renewable electricity (climate), sourcing of materials from certified sources (biodiversity), reduction of water consumption at core suppliers (water and air), elimination of plastic bags in stores (plastics and the oceans) and community engagement (human rights).

The results of our scenario analysis are used to ensure the necessary mitigating controls are in place, support PUMA's risk management activities and inform future business strategies. We will update our scenario modeling as more climate data becomes available and regularly reframe the risks and opportunities to PUMA presented by climate change.

METRICS AND TARGETS

PUMA has been measuring and reporting environmental key indicators for its own operations and its T1 and T2 suppliers for many years, including energy consumption, carbon emissions, water consumption and waste management. These are part of the Sustainability section of its Annual Report, which is published annually and audited by a third party.

PUMA aligns its reporting on climate-related metrics with recognised standards, including the GHG Protocol. In addition, our 10FOR25 sustainability targets include absolute carbon reductions, renewable energy procurement and manufacturing of more sustainable products. Further information on our environmental KPIs can be found in the **Environmental Key Performance Data** section and throughout this report.

Sourcing 100% renewable electricity for all PUMA entities from 2020 is one of the milestones of PUMA's climate change mitigation efforts. For its suppliers, PUMA has a target of sourcing 25% renewable energy by 2025 (2023: 22.1%). During 2023, our 1.5 degree aligned near-term SBT was approved by the Science Based Target Initiative: reducing absolute Scope 1 and 2 GHG emissions by 90% (market-based*, including the purchase of RECs) by 2030 and reducing absolute Scope 3 GHG emissions by 33% by 2030, both from a 2017 baseline year.

- Scope 1 and 2 targets focus on GHG emissions from our direct operations (including electricity and gas consumption at our stores, offices, internal manufacturing and distribution centres)
- Scope 3 targets relate to indirect GHG emissions in our extended supply chain and the transportation of finished goods

By the end of 2023, PUMA had already reduced its combined Scope 1 and 2 emissions by 85% and its Scope 3 emissions from purchased goods and services and transportation by 28%. Our efforts in sourcing more sustainable materials led to 99.2% cotton, 99,7% leather and 85% polyester coming from recycled or certified sources and eight out of ten products being more sustainable in line with our internal definition. We also reduced our GHG emissions from materials by 50%.

* A market-based method reflects emissions from electricity that companies have purposefully chosen. It derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims.

As part of its commitment to the UN convened Fashion Industry Charter for Climate Action, and according to PUMA's Environmental Handbook, PUMA declared its ambitions to meet a net zero 2050 goal. PUMA recognises that meeting its climate-related targets is dependent on collective action and focus. Improving the market conditions for clean energy supply, such as the rate of installation of renewable electricity in many countries, reducing costs and the availability of power purchase agreements (PPAs) will help shift the rate of decarbonisation at scale. PUMA believes it has a role to play in helping to shape the policy and regulations required and is working collaboratively with partners, suppliers and other organisations to achieve its ambition, including the United Nations Global Compact, the UN Fashion Industry Charter for Climate Action, the Fashion Pact and Stiftung Klimawirtschaft. PUMA met with representatives of the delegations of Bangladesh, Indonesia and Vietnam during the UN COP 28 climate conference to promote the further expansion of renewable energy in those countries.

SCOPE 1 EMISSIONS

Our own direct CO_2 emissions (Scope 1) are mainly caused by emissions from our PUMA car fleet and airplane, as well as emissions from the heating of buildings. We are tackling the emissions from our car fleet by gradually transitioning to zero-emission vehicles in those countries where the charging infrastructure is mature enough to support the transition. Starting in 2023, only electric vehicles are allowed as new additions to our car fleet in the region of Germany, Austria and Switzerland, which includes our Headquarters and 242 cars. At the end of 2023, 319 out of 905 cars (35%) globally were already low or zero - emission battery electric or hydrogen fuel cell cars, in line with our bonus target of hitting 30%.

We also significantly expanded the charging infrastructure at our headquarters and selected other offices and now have over 75 charging stations in operation, including twelve public charging stations at our headquarters stores that can be used by employees, business partners and customers free of charge.

For the heating of buildings, we use natural gas in 8% of buildings globally and plan to transition these buildings to biogas or other renewable heat sources over time. Many PUMA buildings globally already use (renewable) electricity for heating.

Overall we were able to reduce our Scope 1 GHG emissions by 17% between 2017 and 2023, and plan to reduce these emissions further by 2025.

SCOPE 2 EMISSIONS

PUMA's indirect GHG emissions (Scope 2) are caused by the electricity used for running our offices, stores and warehouses, including the charging of electric cars, as well as thermal energy used from district heating.

All of our offices, stores and warehouses have used renewable electricity via green electricity tariffs or renewable energy attribute certificates since 2020. This has led to a significant reduction of our Scope 2 emissions (market-based). In addition, the closure of our stores in Russia, which were mostly heated by district heating, contributed further to the reduction of Scope 2 emissions. At our headquarters, which is by far the largest consumer of district heat among all PUMA entities, the district heat is created in co-generation with electricity and by using over 50% biogas. In total, we were able to reduce our Scope 2 emissions by 99% (market-based, incl. the purchase of RECs) since 2017.

Further actions to reduce PUMA's own greenhouse gas emissions include the use of energy-efficient heat pumps at our headquarters, frequent energy efficiency audits at our stores, a free public transport ticket for employees, job-bike-leasing and a meat-free Monday at canteens.

↗ T.19 SCOPE 1 AND SCOPE 2 CO_2e EMISSIONS FROM PUMA[1-4]

CO_2e Emissions1-8 (t)	2023	2022	2021	2020	2019	2017	% Change 2023/2022	% Change 2023/2017
Scope 1 – Direct CO_2e-Emissions Fossil fuels*	**6,403**	**6,206**	**4,456**	**4,179**	**6,326**	**7,678**	**3%**	**-17%**
Vehicle Fleet	2,639	2,264	2,008	1,985	3,618	4,134	17%	-36%
Heating	1,336	1,536	2,039	2,194	2,708	3,545	-13%	-62%
Air Plane*	2,428	2,405	410	689	2,359	-	1%	
Scope 2 – Indirect CO_2e Emissions (location-based)	**41,679**	**35,528**	**32,545**	**29,839**	**40,986**	**40,029**	**17%**	**4%**
Scope 2 – Indirect CO_2e Emissions (market-based)	**530**	**643**	**1,458**	**1,078**	**11,533**	**40,029**	**-18%**	**-99%**
Electricity (location-based)	41,149	34,885	31,087	28,761	39,282	38,914	18%	6%
Electricity (market-based)	-	-	-	-	9,828	38,914		-100%
District heating	530	643	1,458	1,078	1,705	1,115	-18%	-52%
Total Scope 1-2 (location-based)	**48,082**	**41,734**	**37,001**	**34,018**	**47,312**	**47,707**	**15%**	**1%**
Total Scope 1-2 (market-based)	**6,933**	**6,849**	**5,914**	**5,257**	**17,859**	**47,707**	**1%**	**-85%**
Scope 1-2 Relative to Sales (t CO_2e per € million sales) (location-based)	5.6	4.9	5.4	6.5	8.6	11.5	13%	-51%
Scope 1-2 Relative to Sales (t CO_2e per € million sales) (market-based)	0.8	0.8	0.9	1.0	3.2	11.5	0%	-93%

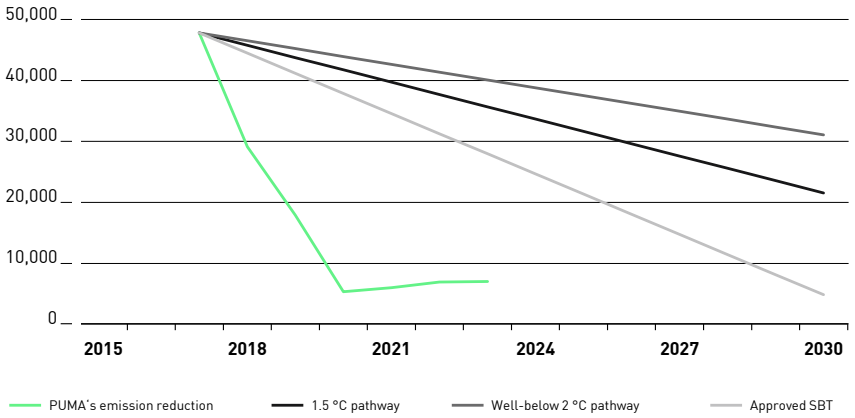
* In 2022, Scope 3 Upstream Leased Assets was restructured. Previously, this category included the emissions from PUMA Air Plane and well-to-tank emissions from PUMA Vehicle Fleet. Now, in line with GHG Protocol, emissions from PUMA Air Plane are included in Scope 1, well-to-tank emissions from PUMA Vehicle Fleet are included in Scope 3 Fuel- and energy-related activities and Scope 3 Upstream Leased assets includes the emissions from warehouses in PUMA's value chain that are operated by a third party.

** A location-based method reflects the average emissions intensity of grids on which energy consumption occurs.

*** A market-based method reflects emissions from electricity that companies have purposefully chosen. It derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims. PUMA has purchased such Energy Attribute Certificates in 2023.

1. PUMA's greenhouse gas reporting is in line with the GHG Protocol International Accounting Standard. Fugitive emissions (emissions from unintentional releases or leaks) are not included in Scope 1 emissions.
2. Methodological changes over the last three years have influenced results. In 2020 updated emission factors were applied and the consolidated structure changed due to full alignment with the GHG Protocol.
3. The consolidation scope follows the operational control approach, including PUMA-owned or operated offices, warehouses, stores and own industrial sites (Argentina).
4. PUMA applied emission factors from internationally recognised sources, such as the International Energy Agency (IEA) (2019) and DEFRA conversion factors (2020).

↗ G.15 AGREED EMISSION TARGETS (SCOPE 1 AND 2*) (T CO_2e) 2023



* Including renewable energy attribute certificates

↗ T.20 E-KPIS PUMA – ENERGY[1-3]

Energy (MWh)	2023	2022	2021	2020	2019	2017	% Change 2023/2022	% Change 2023/2017
Total energy from electricity	**87,267**	**75,269**	**67,866**	**61,365**	**61,499**	**64,119**	**16%**	**36%**
Non-renewable electricity consumption	0	0	0	0	12,683	52,508	-	-100%
Electricity consumption from renewable sources (green tariffs and on-site photovoltaic)	16,032	15,697	13,749	10,839	11,547	11,611	2%	38%
Percentage of renewable electricity consumption (excluding EACs)	18%	21%	20%	18%	16%	18%		
Electricity consumption guaranteed with EACs	71,235	59,572	54,117	50,526	37,269	0	20%	-
Percentage of renewable electricity consumption (including EACs)	100%	100%	100%	100%	79%	18%		
Total energy from non-renewable fuels (oil, natural gas, etc.)	6,555	7,541	10,006	10,739	10,975	14,430	-13%	-55%
Total energy from district heating	4,828	5,483	10,795	6,247	7,915	5,155	-12%	-6%
Total energy consumption (PUMA own entities)	**98,651**	**88,462**	**88,666**	**78,350**	**80,389**	**83,704**	**12%**	**18%**

1 Figures include PUMA owned or operated offices, warehouses and stores. Includes our own production sites in Argentina. All other production is outsourced to independent supplier factories, some warehouse operations are outsourced to independent logistics providers. Franchised stores are excluded.
2 Data includes extrapolations or estimates where no real data could be provided.
3 Methodological changes over the last three years have influenced results.

SCOPE 3 EMISSIONS

↗ T.21 PUMA'S SCOPE 3 CO_2E EMISSIONS FROM SELECTED VALUE CHAIN ACTIVITIES[1-6]

CO_2e emissions (t)	2023	2022	2021	2020	2019	2017	% Change 2023/2022	% Change 2023/2017
Scope 3 – Indirect CO_2e Emissions from corporate value chain	**1,089,971**	**1,430,690**	**1,355,633**	**1,486,324**	**1,762,087**	**1,502,162**	**-24%**	**-27%**
Purchased goods and services*	991,864	1,278,758	1,242,468	1,389,335	1,631,904	1,409,265	-22%	-30%
Fuel- and energy-related activities**	4,736	4,220	3,700	3,463	3,712	7,433	12%	-36%
Upstream transportation and distribution	70,412	127,474	106,983	91,775	107,744	71,070	-45%	-1%
Inbound	47,812	99,724	85,622	67,842	98,386	64,076	-52%	-25%
Outbound***	22,600	27,750	21,361	23,933	9,358	6,994	-19%	223%
Business travel	11,499	9,439	2,482	1,751	18,727	14,394	22%	-20%
Upstream leased assets**	11,460	10,799					6%	-
Total Scope 1-3 (market-based)	**1,096,904**	**1,437,609**	**1,362,482**	**1,492,238**	**1,767,344**	**1,549,869**	**-24%**	**-29%**
Annual Sales PUMA (in € million)	8,602	8,465	6,805	5,234	5,502	4,136	2%	108%
Total Scope 1-3 Relative to Sales (t CO_2e per € million sales) (market-based)	127.5	169.8	200.2	285.1	321.2	374.7	-25%	-66%
Total Scope 3 Relative to Sales (t CO_2e per € million sales)	126.7	169.0	199.2	284.0	320.3	363.2	-25%	-65%

* The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

** In 2022, Scope 3 Upstream Leased Assets was restructured. Previously, this category included the emissions from PUMA Air Plane and well-to-tank emissions from PUMA Vehicle Fleet. Now, in line with GHG Protocol, emissions from PUMA Air Plane are included in Scope 1, well-to-tank emissions from PUMA Vehicle Fleet are included in Scope 3 Fuel- and energy-related activities and Scope 3 Upstream Leased assets includes the emissions from warehouses in PUMA's value chain that are operated by a third party.

*** In 2020, upstream outbound values were adjusted to fully cover the e-commerce business and exclude B2B express volumes.

1. PUMA's greenhouse gas reporting is in line with the GHG Protocol International Accounting Standard. Fugitive emissions (emissions from unintentional releases or leaks) are not included in Scope 1 emissions.
2. Methodological changes over the last three years have influenced results. In 2020 updated emission factors were applied and the consolidated structure changed due to full alignment with the GHG Protocol.
3. The consolidation scope follows the operational control approach, including PUMA-owned or operated offices, warehouses, stores and own industrial sites (Argentina).
4. Outsourced Tier 1 production is accounted for in the Scope 3 emissions under purchased goods and services, covering CO_2 emissions from all three product divisions (Accessories, Apparel and Footwear).
5. PUMA applied emission factors from internationally recognised sources, such as the International Energy Agency (IEA) (2019) and DEFRA conversion factors (2020).

6. For sea freight transportation, PUMA follows the recommendation and new methodology of the Clean Cargo Working Group that has transitioned from the use of tank-to-wheel (TTW) CO_2 to well-to-wheel (WTW) CO_2-equivalent emission factors for all fuels.

GREENHOUSE GAS EMISSIONS FROM PURCHASED GOODS AND SERVICES

PUMA is determined to reduce its carbon emissions, water usage, waste and air pollution at its offices and in its supply chain. For materials, PUMA strives to use more sustainable materials, such as cotton, polyester, leather and cardboard.

The purpose of PUMA's environmental efforts is to ensure that its suppliers are in full environmental compliance and any negative impact on the environment is reduced. Ultimately, our goal is to achieve a positive environmental impact. We ask all of our core suppliers to complete the Facilities Environmental Module developed by the SAC.

For climate, PUMA's 10FOR25 action plan includes steps such as:

- Work with industry peers on climate action through the **Fashion Industry Charter for Climate Action** and the Fashion Pact.
- Joining industry-level energy efficiency programmes for suppliers in our top five sourcing regions.
- Joining industry-level programmes for renewable energy in our top five sourcing regions.
- Replacing all coal-fired boilers at PUMA's core suppliers.
- Gradually transitioning to materials with a lower carbon footprint, such as recycled polyester.

To reduce the emissions from the production of our PUMA products, we worked with our suppliers on programmes ranging from energy efficiency to installing on-site solar photovoltaic power plants to generate renewable energy.

The reduction of our Scope 3 emissions at the factory level is complemented by using more sustainable (less carbon-intensive) raw materials. In 2023, we used 85% more sustainable polyester, of which 61.8% was recycled polyester; 99.2% more sustainable cotton, mainly from the Better Cotton Initiative (BCI) and 99.7% leather from Leather Working Group medal-rated tanneries. In addition, 99.4% of our paper and cardboard packaging was recycled or FSC-certified paper. By 2025 we aim to use 75% recycled polyester and 100% recycled and/or certified paper and cardboard.

Supplier Training and Programme

In 2021, PUMA joined hands with other brands and key suppliers under the UN-led Fashion Industry Charter for Climate Action to develop a standard training programme on climate action for apparel and footwear suppliers in Asia, in partnership with GIZ. This online training programme provides foundational knowledge for suppliers on global decarbonisation efforts, GHG emissions accounting, climate target-setting methodology and solutions to reduce emissions and achieve these targets. The training is available in English and other local languages such as Khmer, Mandarin, Bengali and Vietnamese. We encouraged our suppliers to participate in this training, available free of charge.

The training provides foundational knowledge to suppliers on:

- Understanding global decarbonisation efforts
- How to account for GHG emissions
- How to implement available energy solutions to reduce emissions

In 2023, we continued to encourage factories to join the GIZ's Climate Action Training. 57 participants from 42 factories completed the course and attempted the final exam. 100% of the participants successfully passed the exam and obtained the certificate from GIZ, with an average score of 75%. Since 2021, 933 participants from 284 factories have completed this course.

In 2023, we provided training to our suppliers on Science Based Target setting, renewable energy procurement through RECs, carbon trading and energy efficiency. This climate-related training helped to accelerate the implementation of rooftop solar projects, increase the purchase of renewable energy attribute certificates and initiate coal phase-out measures. The progress made in these areas are described in this report.

In 2023, we approached 21 selected supplier groups representing 40-50% of our business volume to suggest that they set Science-Based Targets at a company level (covering all of their factories, including the ones not producing for PUMA). In March 2023, 19 out of these 21 suppliers agreed to set up SBT; one supplier declined, and one supplier already had an approved target. In October 2023, we engaged with Guidehouse to launch the Supplier Leadership On Climate Transition (LOCT) capacity development programme. The programme provides a web-based platform to learn and implement a step-by-step approach for setting Science Based Targets and guidance on how to achieve those targets. Nine suppliers registered to join this programme in 2023. However, only eight suppliers joined, since one supplier selected a training available only after a supplier has set SBT. This supplier will join the programme in 2024. We expect more suppliers to join in early 2024. We do not expect all 20 suppliers to join this programme, since some suppliers have the required expertise in-house or are already engaged with a consultant to support them.

The renewable energy procurement training conducted by Monsson Carbon for Vietnam, Cambodia, Indonesia and the Philippines focused on how to procure energy attribute certificates such as iRECs, while the training conducted by Envision in China and Taiwan focused on iREC procurement and other green energy procurement schemes available in the region like green electricity consumption certificate (GECC). The percentage of training participation for factories in renewable energy procurement is 53%; as it was a refresher training in 2023, the supplier factories which have already purchased iRECs, or other forms of green energy certificates did not join.

In 2023, a training on carbon trading provided by IMPAQ (a third party organisation) was only relevant for textile/fabric core Tier 2 factories located in mainland China. However, all core Tier 1 and Tier 2 factories located in China and Taiwan regions were invited to attend for awareness about regulatory requirements in the area. As per these requirements, heavy industries in Guangdong province with greenhouse gas emissions of more than 10,000 tons per year or energy consumption of at least 5,000 tons of standard coal per year are required to be included in a carbon trading scheme. Although the textile sector is one of the potential sectors to be included, this regulation is still not enforced for the textile sector. Because of this, 53% of core Tier 2 textile factories invited attended this training, whereas only 44% of non-textile core Tier 2 factories joined this session. However, 76% core Tier 1 factories joined this training due to better engagement with them. In total, 59% of factories invited attended this training. If the scope of these regulatory requirements expands to other product divisions, we will continue to provide this training in the future.

For the German Training Week on Energy Efficiency programme, organised by GIZ in Vietnam, PUMA was allocated only eight slots, and eight core factories joined the programme. Hence, the percentage of core factories which participated relative to the total number of core factories in Vietnam (47) is only 17%.

↗ T.22 SUPPLIER TRAINING

Training Topic	Scope	Country	Trainer	Number of suppliers	Number of factories	Number of participants	% factories trained*
Science Based Target networking sessions	Suppliers selected for SBT	Global	Guidehouse/ CDP/ UNFCCC	21	48	215	100%
LOCT program	Suppliers selected for SBT	Global	Guidehouse	8	24	23	50%
Renewable Energy Procurement - iREC training/ Green Energy	All core factories	Vietnam, China, Cambodia, Indonesia, Philippines, Taiwan	Monsoon Carbon/ Envision	36	52	94	53%
Carbon Trading Basic Introduction (for textile industry in China)	All core factories	China, Taiwan	IMPAQ	27	34	48	59%
German Training Week – Energy Efficiency	Selected core factories	Vietnam	GIZ	8	8	8	17%

* % of factories trained, calculated based on the total the factories in the scope for each subject matter training

To improve the awareness level of PUMA employees, we developed a foundational e-learning training module on climate action for all employees which is expected to be rolled out in the first half of 2024. In 2023, we launched phase 3 of Clean by Design (CbD) in the China-Taiwan region in partnership with Apparel Impact Institute (Aii) at two core Tier 1 and five core Tier 2 factories. We also kicked off a new resource efficiency programme called REF Programme at four core Tier 1 factories in Vietnam in partnership with ENERTEAM. In early 2024, we will launch an IFC cleaner production programme, called Decarbonization programme (CaDP) in Cambodia at three core Tier 1 and 1 core Tier 2 factories.

In addition to this, four Tier 1 and three Tier 2 factories participated in various rooftop solar projects in 2023.

The macroeconomic situation and overall uncertainty in the trade remained challenging during the first half of 2023. Recession fears in various markets, persistent high inflation and elevated interest rates led to muted consumer sentiment and volatile demand in retail. In addition, elevated inventory levels in the market contributed to a slower sell-in to the Wholesale channel. This created less demand from the markets, and we had to adjust our orders accordingly. This explains why we did not launch Renewable Energy programmes in 2023 to cover 76% sourcing volume of Tier 1, 75% sourcing volume of Tier 2, and cleaner production programme to cover 74% sourcing volume of Tier 1 and 75% sourcing volume of Tier 2, as reported in our 2022 annual report.

The values below represent annual savings from completed and ongoing projects (PaCT programme in Bangladesh, CbD programme in China, Indonesia, Vietnam) from 2019 until the end of 2023:

- Greenhouse gas reduction: 90,182 tCO_2e per year
- Renewable energy: 247 MWp of RE capacity (including offsite wind) added in 2021, 2022 and 2023
- Water saving: 2,401,002 m^3 per year
- Energy saving: 177,168 MWh per year

↗ T.23 SUPPLIER CLIMATE ACTION PROGRAMMES

Cleaner Production programmes

Country	Program/Partner	Scope	Number of factories*	% Sourcing volume (globally)
China-Taiwan	Clean-by-Design (CbD)/aii	Energy and water efficiency	T1: 3 T2: 16	
	Low Carbon Manufacturing Program (LCMP)/WWF	Energy and water efficiency	T1: 7	2023 Tier 1: 70% Tier 2: 56%
Bangladesh	Partnership for Cleaner Textile (PaCT)/IFC	Energy and water efficiency	T1: 6 T2: 4	
Vietnam - Cambodia	Clean-by-Design (CbD)/aii, FABRIC/GIZ	Energy and water efficiency, Coal phase-out	T1: 8 T2: 2	
	MSMA	Energy and water efficiency	T1: 6 T2: 3	To be Enrolled 2024 Tier 1: 71% Tier 2: 62%
	Greening Textile Program	Energy and water efficiency	T2: 2	
Indonesia	Clean-by-Design (CbD)/aii	Energy and water efficiency	T1: 3	
Mexico**	Sustainable energy for all	Energy efficiency	T1; 2	
Total			**T1: 35** **T2: 27**	

* The number of factories represents completed and ongoing projects from 2019 until the end of 2023
** Non-core factories

↗ T.24 RENEWABLE ENERGY PROGRAMMES

Country	Programme/Partner	Scope	Number of factories*	% Sourcing volume (globally)
Vietnam/ Cambodia	Project Development Programme (PDP)/ GIZ	Rooftop Solar	T1: 7 T2: 2	
	Self-initiative by factories	Rooftop Solar	T1: 5 T2: 8	
	Self-initiative by factories	iREC/DPPA pilot	T1: 4 T2: 3	
China-Taiwan	Self-initiative by factories	Rooftop Solar	T1: 7 T2: 9	
		Offsite wind, DPPA, iREC	T1: 11 T2: 9	2023 Tier 1: 65% Tier 2: 60%
Bangladesh	Partnership for Cleaner Textile (PaCT)/IFC	Rooftop Solar	T1: 2 T2: 1	
	Self-initiative by factories	Rooftop Solar	T1: 2 T2: 2	
	Project Development Programme (PDP)/ GIZ	Rooftop Solar	T1: 3	To be enrolled in 2024 Tier 1: 71% Tier 2: 73%
Indonesia	Clean-by-Design(CbD)/aii	Rooftop Solar/ TIGR	T1: 3	
Pakistan	Project Development Programme (PDP)/ GIZ	Rooftop Solar	T1: 2	
Other (Argentina, Brazil, Mauritius, Philippines, Turkey)		iREC, Geothermal	T1: 3 T2: 1	
Total			**T1: 49** **T2: 35**	

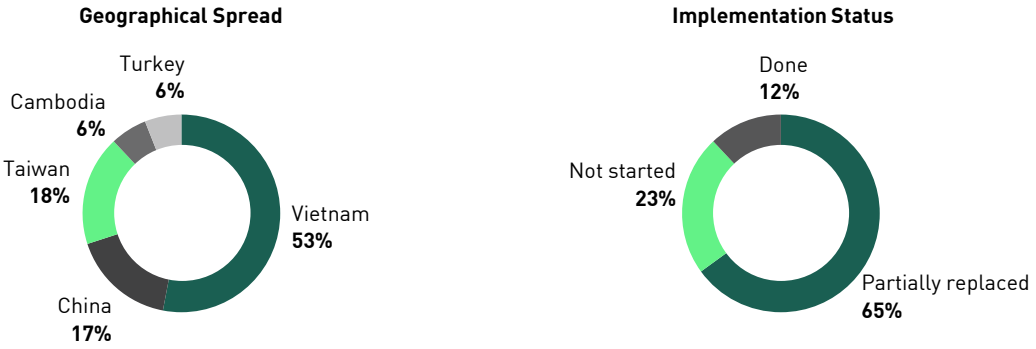
* The number of factories represents completed and ongoing projects from 2019 until the end of 2023

Rooftop solar panels from our suppliers in Bangladesh and Vietnam

Coal-Fired Boiler Phase-Out

We are committed to phasing out coal-fired boilers from our supply chain, mainly from the core Tier 1 and Tier 2 suppliers, by 2025. In 2022, we mapped our core suppliers and found that 21 of them have coal-fired boilers. In 2023, the number of core factories with coal fired boilers reduced to 17 due to revisions in the core factory list, out of which two factories have successfully phased out coal and 11 factories have partially replaced coal. In 2024, we plan to engage with remaining four factories which have not yet initiated the transition. We also plan to continue our tracking of factories which are under transition.

↗ G.16 COAL-FIRED BOILER PHASE OUT STATUS



In 2022 PUMA joined the Coal Phase Out Action Group under the UN's Fashion Charter, with an objective to collaborate with other brands to expedite the phase-out of coal in our supply chain. We included a coal-fired boiler question in our on-boarding checklist for new factories in July 2022, to avoid on-boarding such factories with coal-fired boiler.

As a first step the brands have mapped their supply chain to identify supplier factories with coal fired boilers, and also identified the overlapping suppliers to prioritize these factories. GIZ joined this programme as an implementation partner and offered a coal phase-out pilot in Vietnam. This programme has a 10-step approach to realize coal phase out. Currently we are exploring options to partner with other brands to test the programme in our supply chain.

↗ CASE STUDY

Coal phase-out

In 2023, Chen Tai (Vietnam) Woven Tapes Enterprise Co., Ltd. successfully phased out the use of coal for its boiler by switching to rice husk biomass. Not only did this transition allow the facility to reduce their GHG emissions by 2,600 tCO_2e, it also helped the facility to save 20% in fuel costs.

Supplier Climate Targets

Science based targets are ambitious and difficult to achieve. Only large suppliers with capacity and top management commitment will be able to succeed. Those suppliers are identified through a readiness survey, climate investment study, long term business potential and in alignment with sourcing leaders. For the remaining suppliers, we plan to implement a simplified target setting system and hence an in-house tool is being developed for these suppliers.

In 2021, we developed two training modules for our core suppliers with the objective of driving climate target setting. One module focuses on the group of suppliers that need to establish science-based targets, and the other is aimed at the group of suppliers that needs to establish climate targets based on a simplified tool developed in-house.

In continuation of efforts made in 2021 regarding SBT for key suppliers, we conducted a climate investment survey for our top 20 suppliers and evaluated long-term business potential with them in alignment with our sourcing leaders. We evaluated their readiness level to set a SBT in future.

In 2023, we approached 21 selected supplier groups representing 40-50% of our business volume, to suggest them to set Science-Based Targets on company level (covering all of their factories including the ones not producing for PUMA). In March 2023 we kicked it off through a meeting, to go in detail through SBT process with the help of CDP. 19 out of these 21 suppliers agreed to set up SBT, one supplier declined, and one supplier already had an approved target. To encourage peer learning and to learn from industry experts we launched regular networking sessions on SBT. So far, we have completed two this year after the kickoff meeting in March. One supplier has already an SBT approved by SBTi, one has science-aligned targets (Scope 1 and 2) approved by World Resources Institute (WRI), nine suppliers are in process of getting SBT approved.

Supplier Leadership On Climate Transition (LOCT) Programme
In October 2023, we engaged with Guidehouse to launch a capacity development programme called Supplier Leadership On Climate Transition (LOCT). The programme provides a web-based platform to learn and implement a step-by-step approach for setting Science Based Targets and guidance on how to achieve those targets. So far, nine suppliers registered to join this programme in fall 2023. However, only eight suppliers joined, since one supplier selected a training available only after a supplier has set a SBT. This supplier will join the programme in 2024. We expect some other suppliers to join in early 2024.

↗ CASE STUDIES

Resource efficiency

TST Group, which is one of our dyed fabrics suppliers, has implemented an innovative low-carbon coloration process, at its dyeing mills located in China and Cambodia. The supplier has installed advanced dyeing machines such as low liquor ratio dyeing machines, which require much less water than conventional dyeing machines. The factories also switched from batch to continuous pretreatment (preparation of fabric for dyeing) and continuous after-treatment (finishing of fabric) which are more efficient processes and hence consume less energy and water. These initiatives are estimated to reduce water usage by 70% and carbon footprint by 60% as compared to the conventional dyeing process in China. In Cambodia, it is estimated to reduce water usage by 40% and carbon footprint by 45% compared to the conventional process. TST has also gone for cold pad batch dyeing machines in its Chinese factory, which dye fabric in a cold condition, rather than in a heated condition in the conventional dyeing process. This technology, along with continuous pre-treatment and continuous after-treatment, is estimated to reduce water consumption by 75%, carbon footprint by 55% and chemical consumption by 90% compared to conventional dyeing process. The environmental benefit of these initiatives can be evidenced from water and energy data we collected. TST China's GHG emissions are 54% lower, and the water consumption is 16% less than PUMA suppliers' average for textile mills. TST Cambodia's GHG emissions are 50% lower and the water consumption is 10% less than PUMA suppliers' average for the textile mills.

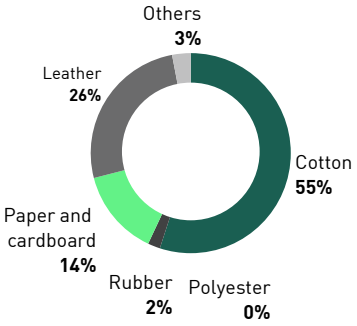
Solar PV

The Urmi Group, a renowned group of companies based in Bangladesh, has committed to reducing the greenhouse gas emissions from its business operations by 52.6% (intensity) by 2027 compared to the baseline year 2017. Therefore, Fakhruddin Textile Mills Ltd., one of the largest textile manufacturing units of the Urmi Group, installed roof-top solar panels in April 2022 and started to add renewable energy with a full design capacity of 2.5 MWp. As a result, solar PV is contributing to increasing the share of renewable energy and lessening GHG emissions into the atmosphere. In 2023, renewable electricity consumption accounted for 10% of the total electricity consumption (purchased & captive) of the factory. At the same time, the factory lowered its emissions by 1,216 tCO_2e of greenhouse gas annually.

Forest, Land and Agriculture (FLAG) emissions estimation

As required by the Science Based Target Initiative (SBTi), in 2023 we undertook a study to estimate the greenhouse gas emissions from the Forest, Land and Agriculture (FLAG) sector of our supply chain. The SBT requirement states that we need to set a target for FLAG emissions, if the FLAG-related emissions total 20% or more of our Scope 1, 2 and 3 emissions. PUMA engaged leading sustainability consultant Sphera to assess the FLAG footprint of our materials; the assessment indicates that FLAG emissions constitute 3% of the total emissions in 2022 and 4% in the baseline of 2017. Thus, there is no requirement for PUMA to set separate FLAG targets under SBT. Out of the total FLAG emissions cotton accounts for 55% of emissions followed by leather which contributes 26%.

↗ G.17 FLAG EMISSIONS



↗ T.25 FLAG EMISSIONS

	2022	2017
Total PUMA GHG emissions (Scope 1, 2 & 3)*	1,975,535	1,836,272
Total FLAG emissions	66,324	74,408
FLAG emissions % of total Scope 1, 2 & 3	3%	4%

* Emissions data contain further Scope 3 categories, e.g. the product use phase, which was not taken into account in the further Scope 3 considerations of this report, as PUMA has no influence on it

Scope 3 Category 1 Emissions

In 2023, we continued our assessment of Scope 3 emissions that come from PUMA's indirect business activities, mainly in the supply chain, by lifecycle expert company Sphera in line with the Greenhouse Gas Protocol.

As in 2022, they conducted a comprehensive assessment of our supply chain emissions beyond Tier 1 manufacturing, including Tier 2 manufacturing of fabrics and components, estimated emissions from Tier 3 suppliers and material production using emission factors from their LCA database known as the GaBi database.

↗ T.26 PUMA'S SCOPE 3 CATEGORY-1 CO_2E EMISSIONS FROM SELECTED VALUE CHAIN ACTIVITIES[1]

Scope 3 Emissions (Category -1)	2023	2022	2021	2020	2019	2018	2017 (Baseline)	% Change 2017/2023
Absolute GHG emissions (tCO_2 eq)	991,864	1,278,758	1,242,468	1,389,335	1,631,904	1,484,935	1,409,265	-30%

1 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.
Note: Scope 3 category 1 estimation includes GHG emissions associated with goods and services purchased by PUMA from

its suppliers related to PUMA products and associated packaging. This excludes emissions associated with other goods and services acquired by PUMA offices, stores and warehouses.

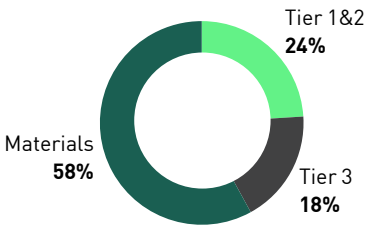
We can see that our absolute Scope 3 emissions from the purchased goods and services category have decreased by 30% from 2017 to 2023, while material consumption has in increased by 10% during the same period.

In view of the global macroeconomic situation, which has led to a change in customers' ordering behaviour, and the normalisation of the supply chain, we saw a decline in the order book in the first half of the year and stabilisation during the second half, with a return to the pre-pandemic ordering practices. Therefore, we actively adjusted sourcing activities respectively and continued to provide transparency to our sourcing partners so they can adjust their capacities accordingly. This explains why material consumption and energy consumption decreased compared with 2022. This contributed to our absolute greenhouse gas emission reduction, alongside energy efficiency improvements and the increased use of renewable electricity at a factory level, as well as the usage of more sustainable materials.

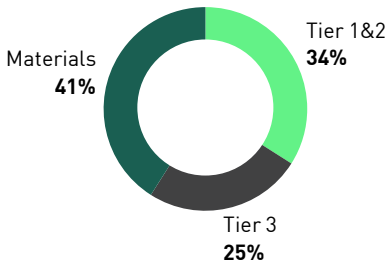
Scope 3 Category 1 emissions mainly originate from two sources; the raw materials and the energy consumed by our core Tier 1, Tier 2, Tier 3 (production of raw material) suppliers to produce finished materials and components as well as finished goods. A breakdown of total GHG emissions by source is presented below.

↗ G.18 GHG EMISSIONS BY SOURCE

Scope 3.1 Emissions (2017)



Scope 3.1 Emissions (2023)



Carbon footprint at a supply chain level

Looking deeper into the emissions from our supply chain, we see that absolute GHG emissions from Tier 1 and Tier 2 suppliers were 3% lower in 2023 than in 2017. 65% of greenhouse gas emissions are coming from Tier 2 factories while 35% of emissions are contributed by Tier 1 factories. Drilling down into product divisions, we can see that the Tier 2 textile/fabric mills contribute a maximum of 61% followed by Tier 1 footwear factories with 26%. This is mainly due to the higher energy footprint of Tier 2 textile wet processing units. Further analysis indicates that absolute emissions from Textile Tier 2 factories have increased by 18% while the production of textile/fabric for PUMA factories has increased by 23% in 2023 as compared to 2017. The absolute emissions from Footwear Tier 1 factories have reduced by 17% in 2023 as compared to 2017, while the PUMA production from Tier 1 Footwear factories has increased by 31%. This was achieved due to the participation of these factories in cleaner production, renewable energy programmes and the purchase of iRECs.

Absolute GHG emissions from Tier 3 suppliers in 2023 saw a marginal increase of 0.3% compared to 2017. A closer look at the data indicates that this marginal increase in absolute emissions from Tier 3 suppliers is mainly due to a rise in the consumption of polyester and polyurethane during this period. Polyester and

polyurethane together increased by 27% in 2023 as compared to 2017; this was mainly due to an increase in sourcing volume but also because our material data quality and accuracy has improved since 2021.

We see opportunities to further scale up cleaner production and renewable energy programmes to more Tier 1 and Tier 2 suppliers, and also to launch them at some of the spinners (Tier 3).

In 2023, we mapped our core Tier 3 spinning mills for the Apparel division through our core Tier 1 and Tier 2 suppliers. We could identify 20 spinning mills. We collected yarn volume supply for PUMA production in 2022 for 19 mills. These 19 factories represented 25.8% of our total volume of yarns sourced in 2022. The objective was to engage these factories to collect primary energy data from Tier 3 suppliers to calculate greenhouse gas Scope 3 emissions rather than estimating the emissions from Tier 3 factories by using raw material data and subsequently to engage them on cleaner production and renewable energy programmes. We provided training to these Tier 3 suppliers on energy data questionnaires and asked them to provide the data. However, we faced many challenges, including a lack of willingness on the part of these Tier 3 suppliers to provide energy data and supporting documents.

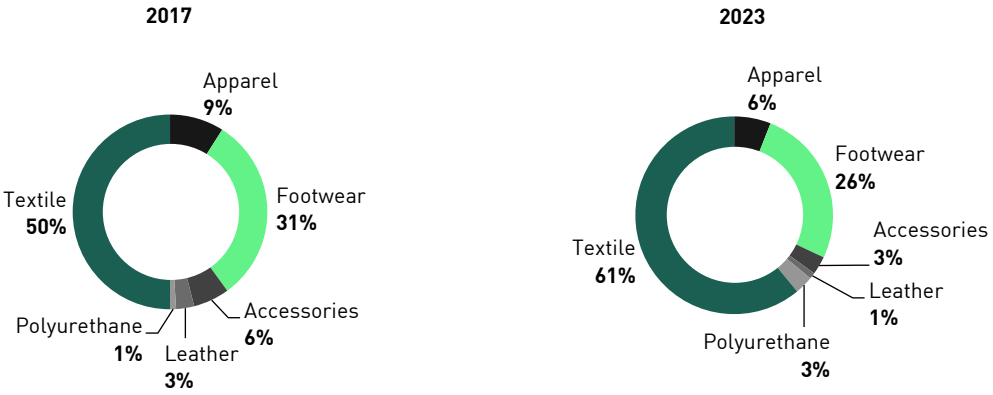
Only eight factories submitted data. Out of these eight factories only three factories' data could be validated. The remaining five factories did not provide supporting documents. In coming years, we will continue to encourage these suppliers to submit their data. The 2023 Tier 3 emissions are estimated by Sphera using its GaBi database.

↗ T.27 GHG EMISSIONS BY SUPPLIERS[1]

	2023	2022	2021	2020	2019	2018	2017 (Baseline)	% Change 2022/2023	% Change 2017/2023
Absolute GHG emissions from Tier 1 and Tier 2 suppliers (t CO_2e)	345,361	423,762	358,508	297,573	371,420	382,043	345,361	-21%	-3%
Tier 3 suppliers (t CO_2e)	252,251	305,869	284,215	223,909	258,425	193,193	252,251	-17%	0.3%

1 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.
Note: Tier 1 & Tier 2 emissions are estimated based on actual energy consumption collected from core Tier 1 and Tier 2 factories and extrapolated to cover all Tier 1 and Tier 2 supplier factories. Tier 3 emissions are estimated by Sphera by using its GaBi database.

↗ G.19 GHG CONTRIBUTION BY PRODUCT DIVISION[1-2]



1 Tier 1: Apparel, Footwear & Accessories factories
2 Tier 2: Leather, textile, polyurethane factories

PROPORTION OF PRODUCTION POWERED BY COAL

Out of the various product divisions, currently coal is only used in leather and textile production. For leather, around 24% of PUMA production is powered by coal, of which 7.6% in China and 17.0% in Vietnam. For textile, around 43% of PUMA production is powered by coal. Vietnam contributes the most with 31.8%; the remaining percentage is shared between Cambodia, China, Taiwan and Turkey. Aligning with PUMA strategies, all suppliers that are still using coal for their production have set targets and plan to phase out coal.

↗ T.28 PERCENTAGE OF PRODUCTION POWERED BY COAL (CORE TIER 2)[1]

	China	Vietnam				Total
Tier 2 - Leather*	7.6%	17.0%				24.6%

	Cambodia	China	Taiwan	Turkey	Vietnam	Total
Tier 2 Textile**	3.6%	1.7%	2.3%	3.8%	31.8%	43.2%

* Core Tier 2 Leather: 5 factories
** Core Tier 2 Textile: 32 factories
1 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

Carbon Footprint At A Raw Material Level

Absolute GHG emissions from raw material consumption fell by 50% even as total material consumption increased by 10% since 2017. This was achieved due to our continuous endeavour to shift towards more sustainable materials and other measures. More sustainable cotton and polyester increased from 40% and 47% in 2017 to 99.2% and 85% respectively in 2023. In view of the global macroeconomic situation, which has led to a change in customers' ordering behaviour, and the normalisation of the supply chain, we saw a

decline in the order book in the first half of the year and stabilisation during the second half. This explains why material consumption decreased compared with 2022.

↗ T.29 GHG EMISSIONS FROM MATERIALS[1]

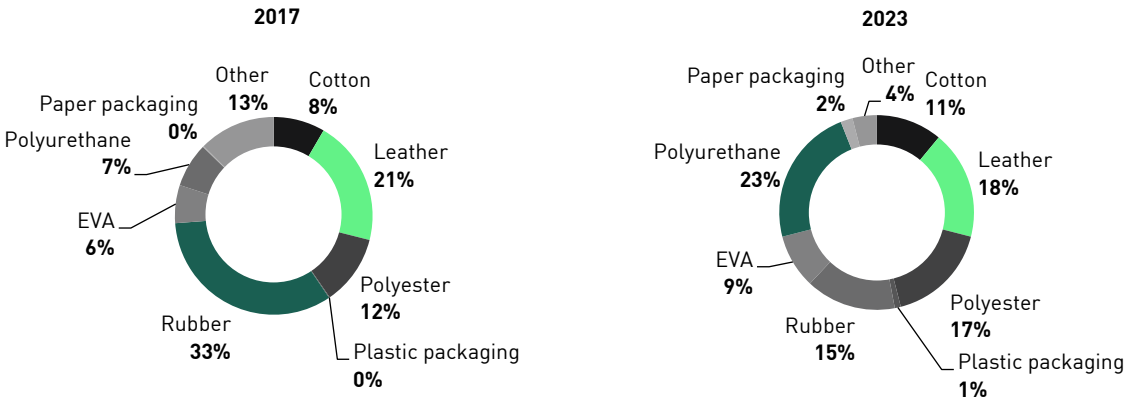
	2023	2022	2021	2020	2019	2018	2017 (Baseline)	% Change 2022/2023	% Change 2017/2023
Total raw materials (t)	174,390	200,514	187,101	195,039	200,936	179,995	158,509	-13%	10%
GHG emission from materials (tCO_2e)	404,822	549,127	599,849	867,853	1,002,059	549,127	811,654	-26%	-50%

1 Assumptions: During the Scope 3 assessment, it was observed that material data collection has improved over time and that, since 2021, we have been able to capture the material data comprehensively. For example, 2017, material data was not available for all types of materials and some material data were incomplete. In the absence of comprehensive raw material data for 2017, material data was extrapolated from 2020. Furthermore, we observed that the polyester consumption data for footwear was exceptionally high for 2020 and possibly erroneously overestimated. Therefore, the polyester data for footwear for 2017 and 2020 was extrapolated from 2019 data.

A breakdown analysis as shown in the following chart indicates that polyurethane (23%) contributes the most, followed by leather (18%) and polyester (17%). The share of rubber has significantly reduced from 33% in 2017 to 15% in 2023, mainly due to a reduction in rubber consumption during the same period, while the share of polyurethane has significantly increased from 7% in 2017 to 23% in 2023, and polyester's share has increased from 12% to 17% mainly due to significant increase in polyurethane and polyester consumption during the same period. The share of leather has fallen from 21% in 2017 to 18% in in 2023. This is due to a combination of strategies to replace leather with polyurethane and textile and the improved capture of leather data in 2023, as we collected suede leather and grain leather data separately and suede leather has a lower carbon footprint than full grain leather.

The analysis for 2023 indicates that we need to focus more on sustainable alternatives for polyurethane, polyester, leather and synthetic rubber.

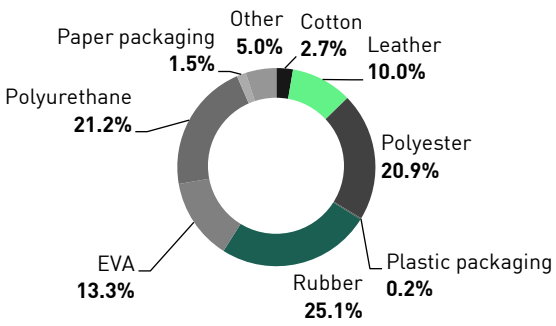
↗ G.20 GHG CONTRIBUTIONS BY MATERIALS[1-2]



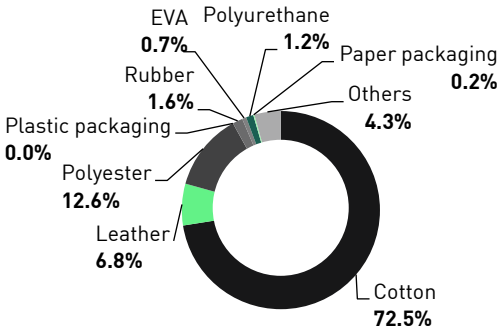
1 Other include: acrylic, linen, lycra, metals, adhesives, etc.
2 Leather is natural leather while polyurethane is imitation leather, also known as synthetic leather

↗ G.21 ENERGY AND WATER CONSUMPTION AT RAW MATERIAL LEVEL

Energy Consumption (GJ)



Water Consumption (m³)



↗ T.30 ENERGY AND WATER CONSUMPTION AT RAW MATERIAL LEVEL

Material wise analysis	Water Consumption (m3)	Energy Consumption (GJ)
Cotton	30,115,148	255,981
Leather	2,824,342	935,920
Polyester	5,253,305	1,950,459
Plastic packaging	7,520	18,543
Rubber	684,179	2,338,201
EVA	282,703	1,239,101
Polyurethane	495,391	1,977,494
Paper packaging	77,727	143,537
Others	1,793,769	469,798

In 2023, we evaluated the energy and water footprint at a raw material level. The results indicates that the energy footprint of rubber is the highest (25.1%) followed by polyurethane (21.2%) and polyester (20.9%). When it comes to water cotton has the highest share (72.5%) followed by polyester (12.6%). We intend to use this analysis for material selection purposes to reduce the energy and water footprint of our products.

Renewable Energy

In line with our 10FOR25 target to achieve a 25% share of renewable energy for core Tier 1 and Tier 2 suppliers, we have set a goal of 15% renewable energy share for 2023. The share of renewable energy consumption by Tier 1 suppliers increased from 11.3% in 2022 to 23.1% in 2023 and Tier 2 suppliers increased from 10.8% in 2022 to 21.7% in 2023. The increase in both tiers therefore has helped PUMA to reach an overall share of renewable energy of 22.1% in 2023, greatly exceeding our target. This was mainly achieved due to the participation of the core suppliers in renewable energy projects, followed by the installation of rooftop solar facilities, switching from coal to biomass and the purchase of energy attribute certificates by both core Tier 1 and Tier 2 suppliers.

↗ T.31 E-KPIS PUMA TIER 1 & TIER 2 PRODUCTION - ENERGY[1]

Energy (MWh)	2023	2022	2021	2020	2019	2018	2017	% Change 2020/2023
PUMA production (Core Tier 1)*								
Non-renewable energy consumption from PUMA production (Core Tier 1)	201,553	292,459	331,199	221,641	246,160	195,866	194,881	-9.1%
Renewable energy consumption from PUMA production (Core Tier 1)	60,662	37,322	17,763	3,013			294	1,913.0%
Percentage of renewable energy consumption from PUMA production (Core Tier 1)	23.1%	11.3%	5.0%	1.0%			0.2%	1,625.0%
PUMA production (Core Tier 2)**								
Non-renewable energy consumption from PUMA production (Core Tier 2)	611,238	744,940	795,673	607,310			586,986	0.6%
Renewable energy consumption from PUMA production (Core Tier 2)	169,655	90,333	39,317	3,393			524	4,901.0%
Percentage of renewable energy consumption from PUMA production (Core Tier 2)	21.7%	10.8%	5.0%	0.6%			0.1%	3,811.0%
PUMA production (Core Tier 1 and 2)								
Non-renewable energy consumption from PUMA production (Core Tier 1 and 2)	812,792	1,037,399	1,126,872	828,951	246,160	195,866	781,867	-1.9%
Renewable energy consumption from PUMA production (Core Tier 1 and 2)	230,317	127,655	57,080	6,406	-		818	3,496.0%
Percentage of renewable energy consumption from PUMA production (Core Tier 1 and 2)	22.1%	11.0%	4.8%	0.8%			0.1%	2,779.0%

* Core Tier 1 supplier factories Apparel, Footwear and Accessories (62 factories))
** Core Tier 2 supplier factories Leather, PU and Textiles (40 factories)
1 Data includes extrapolations or estimations where no real data could be provided. The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

Renewable electricity

The share of renewable electricity sourcing by Tier 1 and Tier 2 suppliers has increased from 0.35% in 2017 to 27.4% in 2023. Looking at the Tiers in the value chain, the share of renewable electricity has increased from 0.18% in 2017 to 18.0% in 2023 by Tier 1 suppliers, while it has increased from 0.74% to a significant 47.2% for Tier 2 suppliers during the same period including the purchase of RECs by suppliers.

This progress is achieved due to publicly disclosed 2025 goals on renewable energy, one-to-one follow-up meetings with the suppliers, the participation of factories in renewable energy programmes which led to the installation of roof-top solar PV and the purchase of RECs. Support from the Sourcing department has played a major role in engaging with our core suppliers.

↗ T.32 SHARE OF RENEWABLE ELECTRICITY AS COMPARED TO GRID ELECTRICITY[1-3]

Electricity (kWh)	2023	2022	2021	2020	2017 (Baseline)	% Change 2022/2023	% Change 2017/2023
Total renewable electricity	91,246,157	64,624,534	14,494,042	3,588,937	817,644	41%	11060%
Total grid electricity	241,651,096	333,408,508	324,910,084	252,665,750	234,323,351	-28%	3%
Share of renewable electricity	27.4%	16.24%	4.30%	1.40%	0.35%	69%	7783%
T-1 renewable electricity	40,660,939	13,695,766	11,149,103	1,999,458	298,283	197%	13532%
T-1 grid electricity	185,115,917	266,321,305	218,804,548	169,593,745	164,904,224	-30%	12%
Share of renewable electricity (T-1)	18.0%	4.89%	4.80%	1.17%	0.18%	268%	9874%
T-2 renewable electricity	50,585,218	50,928,768	3,344,939	1,589,479	519,361	-1%	9640%
T-2 grid electricity	56,535,179	67,087,203	106,105,536	83,072,005	69,419,127	-16%	-19%
Share of renewable electricity (T-2)	47.2%	43.15%	3.10%	1.88%	0.74%	9%	6259%

1 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.
2 The total electricity does not include captive electricity generation from fossil fuels such as Natural Gas, Diesel etc.
3 The renewable energy includes iREC certificates purchased by core leather, polyurethane, textile factories in the year 2023, but excludes renewable energy sourced by the Tier 2 core factories e.g., packaging and labelling, trims, footwear bottom and knitted uppers.

Policy Advocacy

As a part of Policy Engagement working group under Fashion Industry Charter for Climate Action. In 2023, the UNFCCC organised a policy dialogue event with stakeholders in Bangladesh. The purpose of this policy dialogue was to initiate an inclusive but focused discussion among key stakeholders in the fashion sector about how to jointly effect the required changes, identify actions that can be taken in the near-term future to accelerate renewable energy, support scaling renewable energy solutions, and connect existing efforts on the ground with best practice case studies.

PUMA participated in this policy dialogue event on February 27th, 2023, along with other brands. The key outcomes were:

- The government of Bangladesh remains committed to accelerating transition to renewables.
- Discussions were focused on exploring direct Power Purchase Agreements (PPAs) as a solution for transiting to renewable energy in Bangladesh.
- The need for fiscal and tax incentives, including upgrade of tariffs were identified as key required policy interventions.
- Opportunities to identify financing for renewable energy were another key aspect which needs to be explore.

GREENHOUSE GAS EMISSIONS FROM THE TRANSPORT OF GOODS

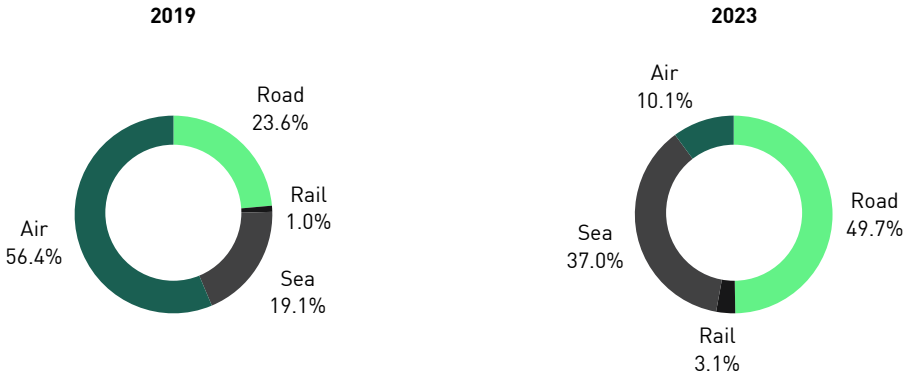
PUMA's Logistics Team has been working on reducing greenhouse gas emissions from the transport of goods for several years. Key measures include the optimisation of container loads, as well as reducing airfreight to an absolute minimum. Air freight reduction is also part of PUMA's annual bonus targets.

2023 brought progress in several areas:

- We managed to further reduce our airfreight ratio to 0.3%, meaning that only 0.3% of all PUMA goods (by unit) are transported by air. This is a significant reduction compared to 2019 (before the COVID-19 pandemic) where the value was close to 3%.
- Together with our main logistics service provider Maersk, we've integrated biofuels into our marine shipments as part of Maersk's eco-friendly shipping initiative. Since February 2023, the utilisation of biofuels for transporting goods from our manufacturing sites to the European market has resulted in an impressive 84.6% reduction in GHG emissions along these routes.
- Our logistics team in the USA was able to expand the use of electric trucks from one to three trucks for the transport of PUMA goods between the port in Los Angeles and the warehouse in Torrance. We anticipate that more electric trucks will follow in other countries over the next years.

An electric truck operates at PUMA's warehouse in California, USA

↗ G.22 SHARE OF GHG EMISSIONS BY TRANSPORT MODE IN 2019 AND 2023



↗ T.33 CO_2e EMISSIONS PER TRANSPORT MODE

CO_2e emissions (t)	2023	2022	2021	2019
Road freight	33,665	48,345	38,815	24,522
Rail freight	2,103	675	3,153	1,013
Sea freight	25,070	45,891	44,698	19,830
Air freight	6,864	29,751	17,731	58,651

The graph and table above illustrate the relative downturn in the use of air freight compared to other modes of transport. Our airfreight reduction target helped us reduce the share of emissions from airfreight from 56.4% in 2019 to 10.1% in 2023.

CHEMICALS

TARGET DESCRIPTION:

- 100% of all PUMA products are safe to use
- Maintain RSL compliance rate above 90%
- Reduce organic solvent usage to under 10 gr/pair

Relates to Sustainable United Nations Development Goals 3 and 6

KPIs:

- RSL compliance rate per product division (as a percentage)
- Percentage of core suppliers with chemicals inventory and MRSL conformance report (ZDHC InCheck reports)
- Suppliers' chemical performance (verified FEM scores under chemical management section)
- VOCs used in footwear production (VOC index for shoes)

PUMA follows the precautionary principle and takes measures to prevent harm to human health and the environment from its products and operations.

All the materials used in PUMA products are subject to our Restricted Substance List (RSL) Testing Programme to ensure compliance with global chemical regulations. Rather than applying internal testing standards for our tests, we rely on the AFIRM Group's Product RSL and on the Manufacturing RSL developed by the Zero Discharge of Hazardous Chemicals Foundation (ZDHC).

In 2021, we updated our target to RSL compliance rate above 90% considering the potential use of new chemicals in the new material development and innovation. No material with a failed RSL test can be used for PUMA products until the failure has been corrected and the material has successfully passed the test. In this way, we mitigate the risk of product-level RSL failures. We will still track our RSL failure rates to identify improvement opportunities and to prevent such failures from occurring in future.

At the manufacturing level, as part of our Zero Discharge of Hazardous Chemicals commitment, we continued to ban the intentional use of priority chemical groups classified as particularly hazardous under ZDHC standards. This phase-out was supported by the widespread use of bluesign® and OEKO-TEX®-certified materials. There was no intentional use of the priority chemical groups. Poly- and per-fluorinated chemicals (PFCs) were used until 2017 for water-repellent finishes on apparel and footwear products. In 2021 we started using Gore-Tex bluesign®-certified membranes and finishes again, which are either completely PFC-free or free from PFCs of environmental concern. In February 2017, Gore announced the "Goal and Roadmap for Eliminating PFCs of Environmental Concern (PFCEC)" from the lifecycle of its consumer fabric products following discussions with Greenpeace. Gore Fabrics Division is still fully committed to the PFCEC-free goals for its consumer products and is now on track to transition most of its portfolio by the end of 2025.

Our phase-out of hazardous substances is also reflected in the results of wastewater tests performed by our wet-processing suppliers. The tests show compliance levels of 98% among the 20 MRSL parameters listed in the ZDHC MRSL. Most parameters show compliance rates of 100% or close to 100%. Some MRSL

chemicals were still found in certain samples because we share production lines with other brands and retailers. Please see our **Water and Air** section for further details.

A total of 283 ZDHC Gateway accounts are connected with PUMA: 45 are core Tier 1 and 64 core Tier 2 factories and the remaining are non-core factories. These factories are part of different ZDHC programmes, depending on what applies to them: InCheck reports for MRSL conformance, ClearStream reports for wastewater conformance, and the Supplier To Zero programme for chemical management.

CHEMICAL RISK ASSESSMENT AND NEXT STEPS

In 2021, we conducted a risk assessment using our risk assessment methodology. We used the Higg FEM chemical management 2020 for our core suppliers and engaged with AFIRM and ZDHC foundation to review our risk assessment.

We see a high level of risk in upcoming regulatory requirements. We will keep our engagement with AFIRM and FESI as a platform to engage with policymakers in different regions and countries such as EU and the USA, so that standards are achievable by the industry.

PUMA has a long-lasting programme to ensure compliance with industry standards.

We will keep using the China IPE database to screen any environmental violations by factories located in China producing PUMA products or materials. We will keep monitoring compliance with ZDHC Wastewater Guidelines, ZDHC MRSL and AFIRM RSL.

We organised MRSL conformance training for PUMA Tier 1 and Tier 2 suppliers and also invited chemicals suppliers to engage on MRSL conformance engagement. In 2023 we initiated in-check report verification by an authorised third party to ensure the credibility and reliability of MRSL conformance data.

The details of compliance with ZDHC Wastewater Guidelines, ZDHC MRSL, and Higg FEM chemical management are described in this report.

2022 PUMA BRANDS TO ZERO – PROGRESSIVE LEVEL

We reached the Progressive Level for the Brands to Zero Assessment 2023. Brands to Zero is ZDHC's leader programme for contributor brands. ZDHC developed the questionnaire and scoring methodology to assess the brands.

All participating contributors in the leader programmes are graded into three performance levels Foundational, Progressive, and Aspirational. Our rating dropped from aspirational level in 2022 to progressive level in 2023, due to changes in the rating criteria. Higher weightage is allocated to business decisions linked to chemical management performance. Though at PUMA, we have a procedure in place to link business decisions with factories' chemical performance, we have not had such a case. We launched a factory scorecard that includes chemical performance in 2021, so far factories have improved their performance year after year.

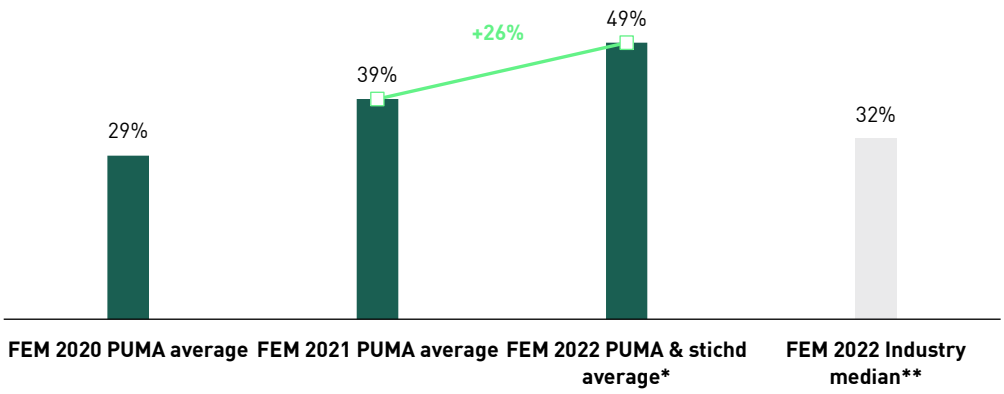
In the 2023 Brands to Zero Assessment, we achieved a 100% score for five out of ten performance areas such as Commitment, Internal Enablement, Supply Chain Engagement, ZDHC Gateway Chemical Module, and ZDHC Wastewater Guidelines, as a result of our strong commitment to enhancing sustainable chemical management in our supply chain.

FEM CHEMICAL MODULE

PUMA has moved from individual brand chemical and environmental audits to using industry-wide tools, such as the Higg Index Facility Environmental Module (FEM) 3.0. PUMA requires an annual external verification of the self-assessment FEM modules (verification visits are announced). This external verification may be completed by approved verifiers from PUMA's internal team, other brands, or third-party organisations on the approved list from SAC. The FEM Chemical Management Section measures factory performance from inventory and purchasing through production, storage, and waste. PUMA's Chemical Performance Rating System is based on the ratings developed from the factories' verified Higg FEM scores under the chemical management section as verified by SAC-approved verifiers: A, B+, B-, C and D. The minimum passing grade from a Chemicals perspective is 40% (i.e., only A, B+ and B- ratings are a passing score) and C and D are failure ratings. This rating system was presented during meetings of suppliers and sourcing teams in 2021 and was implemented gradually during 2022 and 2023. Our Chemicals handbook has been updated accordingly. The rating system was included in vendor supplier scorecards along with social and environmental ratings.

The table shows the aggregated verified FEM 2022 chemical module scores (median) for PUMA core factories with industry benchmarking. Compared to the industry, the overall verified FEM score for our factories is higher than the industry median score.

↗ G.23 AGGREGATED VERIFIED FEM CHEMICAL SCORE FOR PUMA FACTORIES BENCHMARKED WITH INDUSTRY[1]



* FEM 2022 PUMA and Stichd average: 160 factories; FEM 2021 PUMA average: 142 factories; stichd has 32 core Tier 1 factories of which 30 have completed verification. One core factory is a shared factory between PUMA and stichd and hence counted once under PUMA

** Industry median FEM (6,980 factories): Filters used: Industry sector: Apparel; Footwear; Accessories (includes handbags, jewelry, belts, and similar products) and Facility Type: Final Product Assembly; Printing, Product Dyeing and Laundering; Material Production (textile, rubber, foam, insulation, pliable materials); Packaging Production

1 Verification in 2023 is for FEM2022; Verification in 2022 is for FEM2021

In 2023, PUMA continued to use the Higg Facility Environmental Module (FEM), an industry tool, to measure chemical management performance through the Higg FEM Chemical Management Module, which tracks purchasing and inventory management, production, storage, and waste locations. This tool is also used to measure Chemical Management performance for stichd core factories.

In 2022, we communicated our expectation to the PUMA core factories that they improve their verified FEM Chemical Management score to 46% in 2023. We exceeded this goal with a FEM Chemical Management score for PUMA of 51%. The combined average of PUMA and stichd's chemical module score also exceeded by achieving the target with an average score of 49%. The industry median score is 32%.

During 2023, we continued to engage with our PUMA core Tier 1 and Tier 2 factories in capacity-building activities and projects in chemical management, for factories with a low Higg FEM Chemical Module score. We worked together with industry expert groups like ZDHC, AFIRM as well and ZDHC-approved laboratories to organise training webinars and develop training videos in local languages.

PUMA also continued to join the Chemical Management Improvement (CMI) Programme of GIZ to improve the factories' performance. We collaborated with other brands to nominate participating factories in Vietnam for a tutor-assisted and onsite consultancy programme. For other countries, the factories were invited to join online training on chemical management developed by GIZ.

The improvement in the MRSL conformance rate also contributed to an increase in Higg FEM Chemical Management score.

In 2024, we will continue to engage with our core Tier 1 and Tier 2 factories in capacity-building activities and projects in chemical management. We will organise customised training sessions by SAC-authorised trainers. The training sessions will focus on Higg FEM 4.0, such as key updates and their relevant impact on their facility for a smooth transition to the new version.

SUPPLIER TRAINING

A series of training sessions were conducted in 2023, covering chemical management in input, process and output phases, in collaboration with ZDHC, accredited third-party laboratories and external consultants.

ZDHC SUPPLIER TO ZERO ASSESSMENT

In 2023, our factories participated in the ZDHC Supplier To Zero programme, a ZDHC Chemical Management System (CMS) Framework that contains a chemical management checklist to help factories identify opportunities to improve their chemical performance. 77 core Tier 1 and core Tier 2 factories completed the ZDHC Supplier To Zero assessment. Almost all of them completed their assessment at the end of 2023 and we will monitor their improvement in 2024. As a result of this programme, the average Higg FEM Chemical Management score of the 58 factories which participated in this programme in 2022, improved from 36% in 2022 to 55% in 2023.

CHEMICAL MANAGEMENT IMPROVEMENT (CMI)

Chemical Management Improvement (CMI) training course is an initiative by GIZ. The purpose is to develop the knowledge and capacity of the team in charge of chemicals at factories. In 2023, 40 participants from 23 core factories completed and passed the course.

In Vietnam, the training aims to develop a sound knowledge of the responsible management of chemicals, improving capacities for the corporate environment, safety and health, and resource management in relevant industries. Four core factories in Vietnam joined this programme and received onsite consulting from Chemical Management Advisors (CMA) assigned by GIZ, such as Leadership and Sustainability consultancy company. After the consulting, the factories were requested to submit an Action Plan to improve chemical management, CMA will review this and provide recommendations. 24 participants from these four factories joined and completed this programme in 2023. 100% of participating factories worked on improvement plans after these training sessions.

↗ T.34 SUPPLIER TRAINING

Virtual training	Training scope	Topics	Number of participants	Number of factories	% of factories which joined*
MRSL (jointly organised with a ZDHC-approved laboratory) Conducted 3 sessions in 3 different languages	Core Tier 1 and core Tier 2 in MRSL scope	• ZDHC MRSL V3.1 and ZDHC MRSL Conformance Guidance V2.0 • How to improve MRSL conformance rate	258	98	92%
Chemical Inventory Management/Bhive (jointly organised with a ZDHC-approved solution provider) Conducted 4 sessions in 4 different languages	Remaining core factories in MRSL scope don't have InCheck Report	• PUMA Chemical Management Programme • Chemical Inventory Management / Bhive InCheck report introduction	22	11	92%
ZDHC InCheck verification (jointly organised with a ZDHC-approved solution provider and a ZDHC-approved laboratory) Conducted 3 sessions in 3 different languages	Core Tier 1 and core Tier 2 in MRSL scope	• ZDHC MRSL/InCheck report • ZDHC verified InCheck level 1 & PUMA InCheck Verification requirement	168	96	91%
RSL (Jointly organised with accredited third-party laboratory)	All Tier 1 and Tier 2	RSL standard and testing matrix update and implementation	452	Approx. 160	24%

* % of factories joined the training, calculated based on the total the factories in the scope for each subject matter training

In 2023, Chemical Management training sessions covered MRSL conformance and factory chemical management. Ten training sessions were conducted in four different languages. More than 200 factories and nearly 450 participants were invited. More than 90% of participants were satisfied with the training.

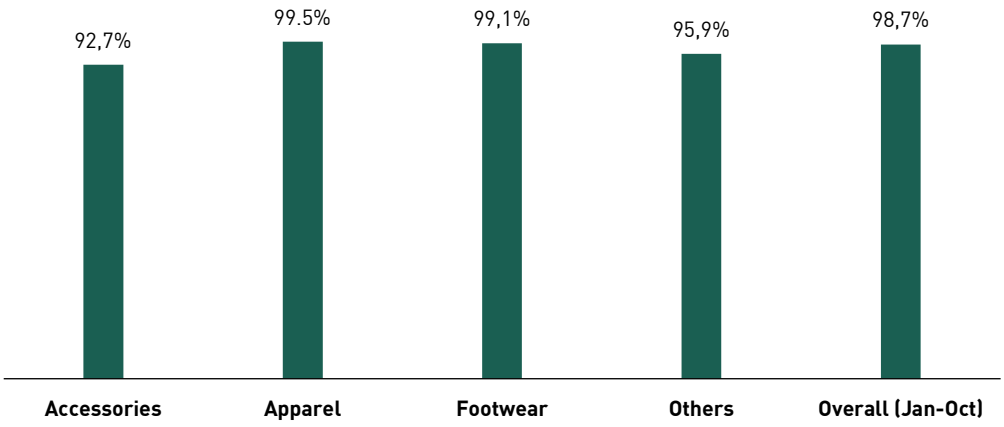
These training programmes helped our suppliers to improve their understanding of PUMA and industry requirements and to improve the effectiveness of their Chemical Management Systems. After the training, the core factories with low MRSL conformance rates developed an Action Plan to improve MRSL conformance. We received and reviewed Action Plans from 13 factories to facilitate their implementation.

We also encouraged the suppliers' chemical management teams to attend training courses under ZDHC Academy as conducted by ZDHC-approved service providers. Examples of the training courses that PUMA suppliers attended include ZDHC Chemical Management System (CMS) and Technical Industry Guide (TIG) training.

RESTRICTED SUBSTANCE LIST (RSL)

Between January and October 2023, we received 6,130 RSL tests and material certification submissions with an overall RSL compliance rate maintained above 98%. Materials found to be non-compliant with PUMA RSL cannot be used for PUMA products and suppliers need to arrange corrective actions, remediation and retest the materials. This is to ensure that PUMA products are compliant with our RSL requirements.

↗ G.24 RSL COMPLIANCE RATE BY DIVISION 2023 (JAN-OCT) (%)



↗ T.35 RSL TEST STATISTICS 2020-2023 (JAN-OCT)

	2023 (Jan-Oct)		2022		2021		2020	
Product division	**No. of test submission**	**Compliance rate (%)**	**No. of test submission**	**Compliance rate (%)**	**No. of test submission**	**Compliance rate (%)**	**No. of test submission**	**Compliance rate (%)**
Footwear	4,622	99.1	5,350	98.6	5,847	98.8	5,117	99.3
Apparel	1,018	99.5	1,499	99.3	1,467	99.0	1,318	98.9
Accessories	441	92.7	846	96.5	737	94.4	878	96.8
Others	49	95.9	156	96.2	133	97.7	152	91.4
Total	**6,130**	**98.7**	**7,851**	**98.5**	**8,184**	**98.4**	**7,465**	**98.8**

RANDOM TESTING

PUMA performs due diligence random RSL tests on high-risk materials of finished products. By October 2023, we had tested 130 materials in nine finished products across footwear, apparel and accessories from different suppliers in different sourcing regions, and the pass rate was 99% as of October 2023.

All tested products are compliant with the legal requirements. The supplier took follow-up action to improve the failed component found.

MANUFACTURING RESTRICTED SUBSTANCE LIST (MRSL)

Regarding MRSL conformance, we use ZDHC MRSL, an industry standard adopted by many brands/retailers at the supplier level. Out of 131 core factories, 25 factories do not use chemicals during the manufacturing process and therefore are out of the scope of MRSL.

In 2023, 96 of our core factories used either BHive, CleanChain, or E3 tools to track MRSL compliance. 86% of Tier 1 factories and 94% of Tier 2 factories under the scope of our MRSL programme have an InCheck Report, issued by ZDHC-approved solution providers to track MRSL compliance. These are the chemical management platforms used to manage chemical inventory and generate Performance InCheck Reports, which provide a summary of the MRSL conformance of the factory's chemical inventory.

↗ T.36 MRSL STATUS*

	Number of factories		
	In MRSL scope	**With Chemical Inventory List**	**With Incheck Report**
Core Tier 1	43	37	37
Core Tier 2	63	59	59
Total	**106**	**96**	**96**

* The data is based on the Aug/Sep/Oct InCheck Report and only includes factories with a complete Chemical Inventory List (CIL)

The **BHive** app uses OCR technology to allow manufacturing facilities to take smartphone photos of chemical product labels, generate a full and accurate chemical inventory, and quickly identify which chemical products meet MRSL requirements used by many brands and retailers. Facilities can then see which chemicals they should keep using and which they should phase out.

↗ CASE STUDIES

Gold Emperor Group is a footwear manufacturer in China that developed an Action Plan to improve MRSL conformance in 2023. They analysed the MRSL conformance rate, based on the January to July 2023 InCheck reports to make a list of the top Non-conformance Chemicals. Then they engaged with the concerned chemical suppliers to request that they register in ZDHC Gateway platform and submit the evidence that their chemicals comply with ZDHC MRSL (at least level 1) on this platform. The factory improved its MRSL conformance rate from 31% in 2022 to 92% in 2023. This conformance rate is very high compared to PUMA's average MRSL conformance rate of 71%.

Active Creation under DSC group is an insole factory in Vietnam that joined the Chemical Management Improvement (CMI) programme of GIZ to improve its Chemical Management performance. Under this programme, the factory completed training courses on chemical management systems through an online platform. As part of this programme, a Chemical Management Advisor visited the factory and prepared a Performance Improvement Plan. As a result, this factory has significantly improved its verified Higg FEM Chemical Management scores from 18% in 2022 to 60% in 2023.

↗ T.37 MRSL CONFORMANCE

No. factory have InCheck report	96
No. factory has achieved MRSL target	59
% factory has achieved MRSL target	61%
Average MRSL conformance rate	71%

Based on a baseline of 45% in 2021, we set a goal of 70% MRSL conformance in 2023 for all factories with an InCheck report. We exceeded the 2023 Goal with an average MRSL conformance rate of 71% for 96 factories with an InCheck report. 59 out of 96 core factories reached a conformance rate higher than 70% MRSL conformance by weight. 37 factories did not reach 70% MRSL conformance rate.

In 2024, we will strive for all core factories to have an InCheck report. We will organise customised training sessions together with ZDHC and ZDHC-approved third-party laboratories, to improve MRSL conformance rate for the factories. 2024's MRSL conformance goal is 80% for all factories with an InCheck report.

In 2023, we worked with ZDHC-approved verifiers to conduct a verification of InCheck. The Verified InCheck is an on-site review to establish credibility and trust in the chemical inventory that was used by the supplier to generate their Performance InCheck Reports. The verification is done by a ZDHC-approved third-party or second-party (brand representative) verifier who conduct "spot check" verification of specific parameters. To pass the verification ≥ 80% of the spot check parameters need to be validated, then the factory gets a passed Verified InCheck checkmark on their ZDHC Gateway account. Out of 96 core factories with InCheck report, 79 went through the verification process. 75 obtained a passed verified InCheck report. The four factories with a failed InCheck verification (less than 80% validation rate) were required to conduct a Root Cause Analysis, create a Corrective Action Plan and re-verify after at least three months. We will follow up on the implementation of their action plan and will re-verify in 2024.

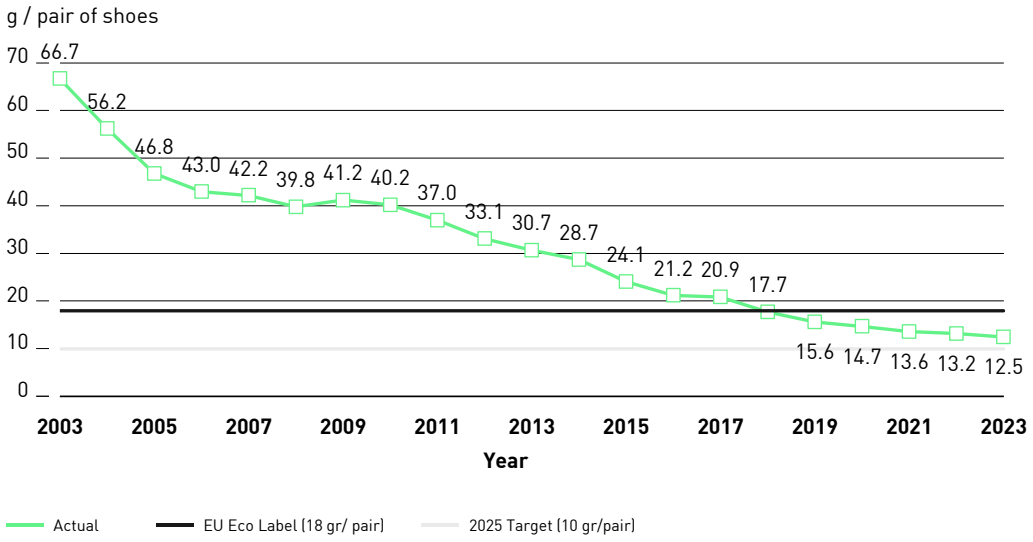
Besides using a chemical inventory to control input chemistry, we also use wastewater tests conducted by accredited independent laboratories to ensure no harmful chemicals are released through the wastewater of our manufacturer's facilities with wet processing. The results of these tests show a compliance rate of over 90% for each parameter, with most parameters scoring 99 or 100% compliance.

More details on wastewater testing are provided in the **Water and Air** section of this report.

VOLATILE ORGANIC COMPOUNDS

With much collaborative effort, we continue to edge closer toward our 2025 target of limiting volatile organic compounds (VOC) emissions to 10 g per pair of footwear produced. Although we faced certain supply chain difficulties in 2023, including the increased bonding requirements for our fast-growing performance categories, we have again managed to reduce our VOC and for 2023 we are reporting 12.5 g per pair. Looking towards 2025, we remain confident of achieving our 2025 target, through the increased use of water-based adhesives, as well as further innovations within our adhesive suppliers.

↗ G.25 VOC INDEX DEVELOPMENT OVER TIME[1]



1 Since 2019 figure-based for core suppliers in alignment with the general reporting scope.

WATER AND AIR

TARGET DESCRIPTION:

- Industry good practice for effluent treatment is met by 90% of core PUMA suppliers with wet-processing facilities
- Industry good practice for air emissions is met by 90% of core PUMA suppliers with significant emissions
- Reduce water consumption at PUMA core suppliers per pair or piece by 15% (based on 2020 baseline)

Relates to United Nations Sustainable Development Goals 6, 14 and 15

EXAMPLES OF THE 10FOR25 ACTION PLAN:

- Ensure regular wastewater testing at relevant suppliers
- Ensure regular air-quality assessments at relevant suppliers
- Support the development of an industry-wide air quality standard

KPIs:

- Percentage of core suppliers meeting good practice standards for wastewater
- Percentage of core suppliers meeting good practice standards for air emissions
- Percentage of water saved per pair/piece

WATER ROADMAP AND RISK ASSESSMENT

In 2021 we developed a water roadmap and conducted a risk assessment using our risk assessment methodology.

WATER ROAD MAP

Below are some key focus areas for the coming years. The measures below are a continuation of the ones started in 2021.

- **Raise awareness:** As a part of Higg FEM training, we provided training to suppliers on how to improve their score in water and wastewater sections. The cleaner production programmes like Clean by Design (CbD), and PaCT provided support to suppliers to help them reduce water consumption in selected core factories. The targets on water consumption reduction and ZDHC wastewater compliance rate were communicated to the suppliers during supplier meetings. We also reviewed these KPIs in one-to-one meetings with our core suppliers.
- **Knowledge of impact:** We continued our Life Cycle Assessment (LCA) journey for our top selling products. In 2023 we conducted LCA of three types of sports jerseys made of virgin polyester, PET recycled polyester and RE:FIBRE polyester. We also completed an LCA to compare cotton fabric with a 75/25 blend of virgin and recycled cotton. LCA results are reported under the **Products** section of this report. As a part of Higg FEM self-assessment the core suppliers and selected noncore suppliers have conducted water risk assessments by using either the **WRI Aqueduct Tool** or the **WWF Water Risk Filter**. In 2023, we conducted a waste governance mapping for our top three sourcing countries, summarised their water policy landscape and mapped key local stakeholders. We also conducted a water risk assessment for our wet processing core factories.

- **Internal action:** Our Material and Development teams continued to launch products with a reduced water footprint. We created a Microsoft excel tool for internal decision making which compares the environmental impact of alternative materials. Our suppliers improved their efforts to recycle treated wastewater, process optimisation, implement rainwater collection etc. to reduce the water footprint in the supply chain. Some of the case studies are presented in this report.
- **Collaboration and partnership:** We continue to participate in industry-wide cleaner production projects, which include water efficiency measures.

WATER RISK ASSESSMENT

WATER RISK ASSESSMENT AT OUR OWN OPERATIONS

In 2022 we added a water risk mapping for our PUMA sites (offices, stores and logistic centres) globally. Using the WWF Water Risk Filter, we identified 164 sites in areas of water scarcity. For the sites, we identified the water consumption and compared it to the water consumption of similar sites (offices, stores and warehouses separately assessed). We also published an environmental handbook for our entities with recommendations for water-saving measures. In 2023 we followed up with the identified sites and asked for planned or implemented actions on water savings.

At our headquarters in Herzogenaurach, we collect rainwater on our property and use it in the office and the surrounding green area. This helps us reduce our freshwater consumption and water costs.

Most of the other PUMA-operated sites globally are rented and both, rented as well as non-rented, none of the sites use water for industrial processes. Therefore, our ability to reduce water consumption at our sites is limited to using water-efficient kitchen equipment and sanitary facilities.

WATER RISK ASSESSMENT IN THE SUPPLY CHAIN

DETOX.Live is a public disclosure platform operated by ZDHC that provides an overview of suppliers and their input and output control performance, including facility wastewater performance according to ZDHC Wastewater Guidelines. Factory performance, after uploading the test data to ZDHC Gateway Wastewater Module, is shown in three different colour codes on the public DETOX.Live map: green – facility meets the ZDHC requirements, red - facility does not meet requirements, and orange - facility does not meet the requirements but a CAP (Corrective Action Plan) was submitted.

We will use the DETOX.Live platform to check the wastewater performance of new factories that have not connected with PUMA on the ZDHC Gateway. We can know whether new factories have implemented ZDHC Wastewater Guidelines, and what their wastewater performance is like.

PUMA has also adopted ELEVATE intelligence (EiQ), a comprehensive suite of supply chain analytics, to:
- Assess our supply chain risks by geography, commodity and issue.
- Complete a risk assessment for suppliers, factories and sites.
- Manage risks that are material for each supplier, factory or site.

In 2023, we conducted a water risk assessment for 62 wet processing core Tier 1 and Tier 2 factories located in six sourcing countries: Vietnam, China, Bangladesh, Taiwan, Cambodia, Turkey and Indonesia. We used the WWF Risk Filter and WRI Aqueduct. With the WWF Risk Filter, we assessed basin risk covering water scarcity, water quality and regulatory risk. With WRI Aqueduct, we assessed physical risk quantity and quality, as regulatory and reputational risks.

We identified which factories are located in high and very/extremely high-risk areas. Then we looked at their water KPIs, ZDHC wastewater standards conformance, MRSL compliance rate and their water consumption reduction initiatives to mitigate water risks.

Out of 62 wet processing factories, 50 have a high and extremely high-water risk level as per the WRI Aqueduct. Out of these 50 high and extremely high-water risk level factories, 26 have a FEM 2022 water module score higher than PUMA average, 31 factories have MRSL conformance rate higher than the PUMA goal, 35 factories comply with ZDHC wastewater compliance, 15 have water KPIs above PUMA average and 13 factories have wastewater recycling practices. In the coming years, we plan to work with high and extremely high-risk factories that do not have adequate risk mitigation measures in place. These activities will include providing training and support in terms of improving MRSL conformance, corrective action plans for ZDHC wastewater failures, improving Higg FEM water module score, enrolment in resource efficiency programmes where possible, raising awareness of wastewater recycling and implementing water reduction initiatives.

WATER GOVERNANCE

In 2023, we conducted a water governance mapping for our top three sourcing countries, namely Vietnam, China and Bangladesh. We looked at the water policy landscape and identified key stakeholders. Challenges and opportunities in water and wastewater management were also identified for each of the regions. We found that water, wastewater policy and regulations are evolving with stringent requirements being introduced progressively. We also see that interesting water projects are being undertaken in these countries on water reduction and water recycling.

Vietnam has a national strategy on water, regulations on water security, water protection and development. The five countries (Vietnam included) under the Mekong River Commission promote and coordinate the sustainable management and development of water, for the mutual benefit of these countries and their citizens' well-being through a 2030 strategy. In addition, Vietnam has a national 2030 Water Resource Strategy with a view to 2045. There are some fiscal incentives in place, such as tax reduction or exemption schemes for the effective use of water. There are resource efficiency programmes such as FABRIC programme by GIZ, HSBC water programme, Clean by design by Aii and WWF's Greater Mekong Delta, Vietnam improvement programme by IFC, and Race to Top by IDH. There is a need for more public-private partnership projects to develop further competence for green business or to encourage green production. There is also a legislation gap related to groundwater withdrawal.

China has an elaborate regulation on water and wastewater. In 2019, the country introduced the Developed National Water Conservation Plan. The fourteenth five-year plan released in 2022 focuses on national water security over the next 100 years, to target flood control and drought relief, utilisation of water resources, optimal allocation of water resources to prevent uneven water distribution and aquatic ecology protection.

Water/resource efficiency improvement programmes launched in China include WWF's water stewardship programme, GIZ's FABRIC programme, and the Clean by Design programme by Apparel Impact Initiative. The Institute of Public & Environmental Affairs (IPE) publishes a Water Map, to visualise China's ground water and drinking water source quality over the years.

China is still having critical issues with the unbalanced distribution of water resources which leads to water stress in specific areas, especially the east of the country where industries are blooming, and the population is rapidly growing.

Bangladesh's latest regulation on water was introduced in 2013 and introduces amendments and new regulations to promote water conservation in the country. Legal frameworks need to be consistent and integrated, and account for all major water impacts and risks within Bangladesh. Falling groundwater tables combined with the projected increased water abstraction rates are likely to threaten industrial production. The cost of developing alternative water sources is substantial and could hinder growth. The country is prone to flooding with a very high-risk rating by the WWF Risk Filter. Water Partnership for Cleaner Textile (PaCT) by IFC and Sweden Textile Water Initiative (STWI) by Stockholm International Water Institute are a few successful resource/water efficiency improvement programmes implemented in the country.

We mapped our core factories in these three countries to evaluate the risks and determine if mitigation measures through our water-related goals and the factories' own initiative address these risks.

In coming years, we will engage with relevant stakeholders to promote water conservation and recycling in these key sourcing countries.

LCA WATER DATA

In 2023, we did an analysis of Life Cycle Assessment (LCA) studies conducted during 2021 to 2023 with a focus on water footprint*. The objective was to come up with an actionable framework for material selection that would reduce our water footprint. Six footwear products, five apparel products, one accessory product** and three types of cotton fabrics were analysed. The outcome is summarised below.

Among the three product divisions, the water footprint of apparel products was the highest, followed by footwear and accessories.

Apparel: We found out that the consumer use phase of apparel products has the highest impact on the total water footprint (44 to 81% of total lifecycle water footprint), which is due to consumers washing garments at home. Since the use phase impact is not under our control, we excluded it from our water footprint analysis. We observed that the fabric dyeing process at Tier 2 factories has a larger water footprint (8 to 29% of the total lifecycle water footprint excluding the use phase) as compared to other manufacturing processes such as spinning, knitting, garment manufacturing and packaging. It was found that the water footprint of cotton is larger than that of polyester material. This is mainly due to the water consumption during cotton cultivation. This also explains why recycled cotton has a smaller water footprint than virgin cotton. From a water impact perspective, recycled polyester appears to be the best option. The analysis indicates that selecting materials with less water impact such as recycled cotton and polyester and materials made of Better Cotton fibre helps to reduce our water footprint. Better Cotton helps farmers to use water in a way that is environmentally sustainable, economically beneficial and socially equitable. This water stewardship approach can improve crop yields, strengthen resilience to climate change, minimise negative impacts on water quality and enable fair water access for all users in a catchment area. The analysis also indicates that we should focus on improving the water efficiency of the dyeing mills. This could include the installation of low-water ratio dyeing machines, waterless dyeing machines and recycling of wastewater.

Footwear: The Life Cycle Assessment (LCA) of footwear highlights the various environmental implications connected with various materials and phases of manufacture. Notably, Ethyl Vinyl Acetate (EVA) which is generally used as a midsole, appears to be a low water footprint substance, providing a better option. Polyurethane (PU), leather, and natural rubber, on the other hand, have larger water footprints. This calls for our innovation and material team to focus on having more recycled materials such as recycled polyester, recycled PU, recycled rubber and recycled EVA. We mainly source leather from tanneries which are LWG certified. In 2021 LWG released a new version of the LWG audit standard, bringing major changes to how they assess leather manufacturers, this will help to further reduce the water footprint of leather footwear products.

* Water Footprint is expressed in terms of blue water consumption (BWC), which means freshwater consumption sourced from surface and ground water

** Since there is only one accessory product for which the LCA was conducted so far, there was not enough data to compare among accessories materials and reach a conclusion. Hence, the analysis on accessory materials was excluded from the above description.

MRSL WASTEWATER TESTING

Since 2015 we have increased the number of wastewater tests from 33 to 153 factories and in 2023 we received 276 Wastewater test reports. 97% of all factories with wet-processing facilities (157 factories have wet processes) have been covered by tests, and tests show that all these factories have at least a 90% compliance rate with the ZDHC Wastewater Guidelines (Foundational level). ZDHC has created a three-level approach to the limits for heavy metals and conventional parameters to promote continuous improvement. The limits get more stringent as they move from Foundational, Progressive to Aspirational levels.

All 153 suppliers have a ZDHC ClearStream report. ClearStream report, an easy-to-read facility performance report of ZDHC wastewater conformance, is automatically generated on the ZDHC gateway platform. To obtain a ZDHC ClearStream report, the factories must conduct wastewater testing following the ZDHC Wastewater Guidelines at one of ZDHC Accepted Laboratories, and all test results must be uploaded to the ZDHC Gateway Platform by the laboratory.

Out of 153 factories, 117 factories are fully compliant with all ZDHC Wastewater Guidelines requirements. Where a wastewater test failed, we helped factories to conduct a root cause analysis and create corrective actions for wastewater and sludge, using the industry standard template. In 2023, we followed up with those factories that failed to fully comply with the Wastewater Guidelines, and received ten corrective action plans. We will continue to follow up through 2024 to obtain corrective action plans and we will evaluate further measures that need to be taken. We will also follow up on their implementation through wastewater testing in 2024.

In 2023 we partnered with an accredited third-party laboratory to organise training on chemical management and wastewater conformance, as well as root cause analysis and corrective actions for non-conformance. Case studies of conventional parameter failures have been presented in the training.

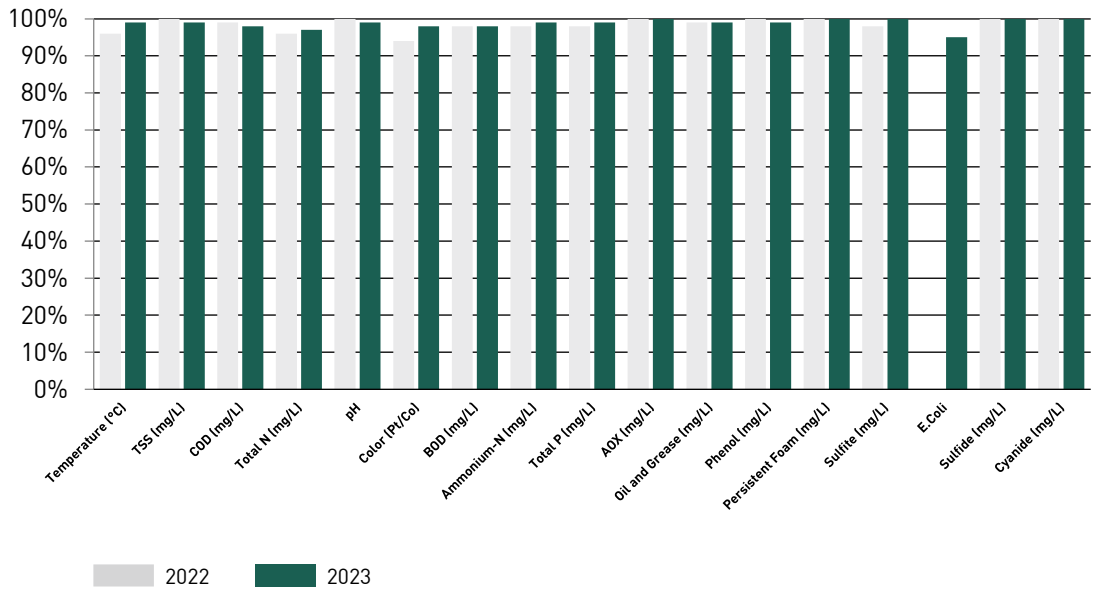
The overall compliance rate for each category is:

- Conventional wastewater parameters: 99%
- Heavy metals: 99%
- Restricted chemicals (MRSL): 98%

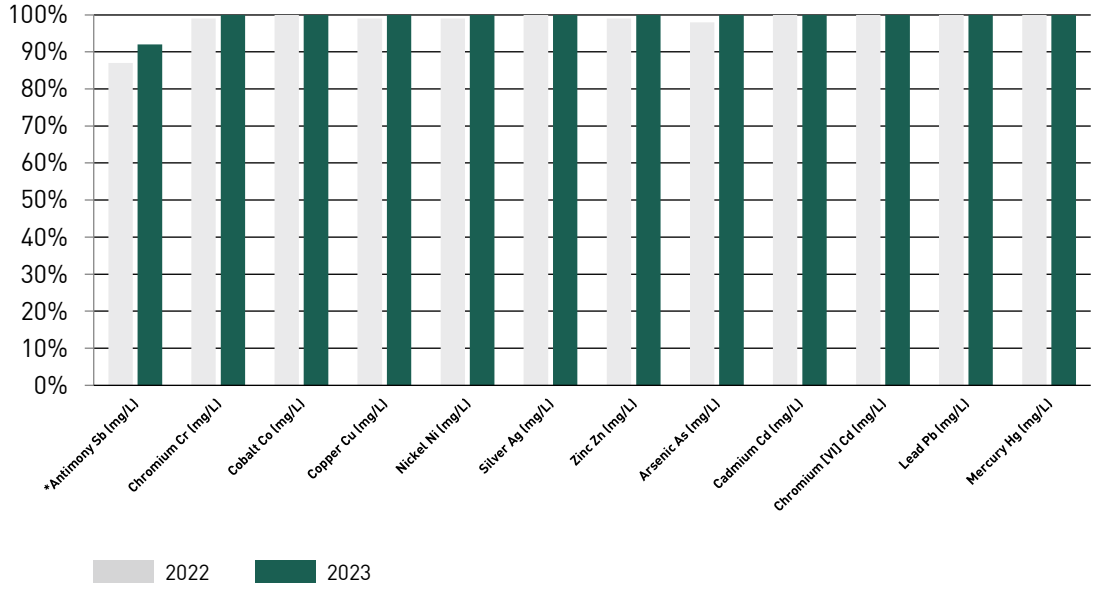
The overall compliance rate for conventional parameters increased by 1% in 2023 as compared to 2022, the compliance rate for heavy metals was maintained at 99%, and the compliance rate for restricted chemicals has fallen by 1%. The reason for the lower compliance rate for restricted chemicals this year is that 50% of the factories do not comply with new substances listed in ZDHC Wastewater Guidelines Version 2.1, which is a new version that came into effect in 2023.

The conventional wastewater parameters, apply only to suppliers which discharge their wastewater directly into natural water bodies. Test results show over 90% compliance with the ZDHC Wastewater Guidelines (Foundational level). For heavy metals and restricted substances, the test results also show over 90% compliance for each parameter with the ZDHC Wastewater Guidelines. This means we have achieved our wastewater quality target as a part of our 10FOR25 sustainability goals.

↗ G.26 PERFORMANCE AGAINST ZDHC WASTEWATER QUALITY GUIDELINE – CONVENTIONAL PARAMETERS

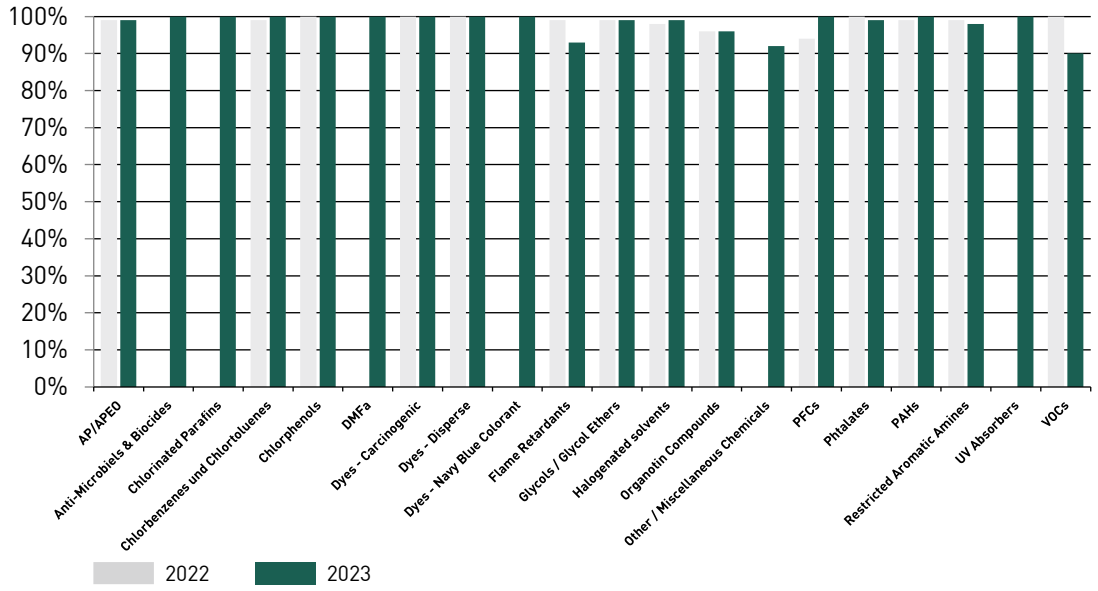


↗ G.27 PERFORMANCE AGAINST ZDHC WASTEWATER QUALITY GUIDELINE – HEAVY METALS



* Antimony is subject to an exemption for mills that produce or dye polyester fabric because the antimony is used as a catalyst for polyester production and it is natural to have antimony in the wastewater. This is acceptable as per ZDHC Guidelines.

↗ G.28 PERFORMANCE AGAINST ZDHC WASTEWATER QUALITY GUIDELINE – RESTRICTED CHEMICALS



SUPPLIER TRAINING

To help our suppliers better understand the requirements set by PUMA and the industry, we trained suppliers in standards, guidelines, tools as well as methodology for nonconformance investigation and remediation. Case studies of restricted chemicals and heavy metal parameter failures were used in the training.

↗ T.38 SUPPLIER TRAINING

Virtual Training	Training scope	Topics	Number of factories	Number of participants	% factories trained*
ZDHC Wastewater and Root Cause Analysis & Corrective Actions Conducted 4 sessions in 3 different languages	All Tier 1 and core Tier 2 with wet processing	ZDHC WW guidelines V 2.0 and implementation Root Cause Analysis & Corrective Actions for Non-conformance Wastewater	95	182	61%

* % of factories joined the training, based on the total number of factories in the scope for this training. 61% of factories participated in the training as some of the factories are aware of these requirements and methodologies and hence did not join the training.

In 2023, we partnered with an accredited third-party laboratory to organise a "Chemical Management on Wastewater Conformance Updates Training and Root Cause Analysis/Corrective Actions" for suppliers not conformant with the ZDHC Wastewater. Case studies of conventional parameter failures were used in the training.

A total of four training sessions were conducted in three different languages. More than 180 participants from 95 factories joined. More than 90% of participants were satisfied with the training arrangement and content.

The training helped the factories' participants to understand the new ZDHC Wastewater Guidelines, along with implications and impacts on their facility of the key updates. It also clarified how to conduct a Wastewater Root Cause Analysis and take Corrective Actions in the event of a non-compliant test result.

After the training, the factories which were not compliant with the ZDHC Wastewater Guidelines, were required to conduct a Wastewater Root Cause Analysis and provide Corrective Actions. We received ten Corrective Action Plans from ten factories. We will follow up on their implementation through wastewater testing in 2024.

In addition, we encouraged suppliers' chemical management teams to attend in-depth training courses as part of the ZDHC Academy, which is conducted by ZDHC-approved service providers.

WATER SAVING

In 2023, we expanded the participation of our core Tier 1 and Tier 2 suppliers in cleaner production programmes to improve energy and water efficiency.

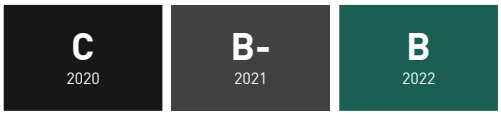
Below are the annual savings from completed and ongoing projects between 2019 and the end of 2023:

- Greenhouse gas reduction: 90,182 tCO_2e per year
- Renewable energy: 247 MWp of RE capacity (including offsite wind) added in 2021, 2022 and 2023
- Water saving: 2,401,002 m^3 per year
- Energy saving: 177,168 MWh per year

Apart from our 10FOR25 targets, we have set a target to reduce water consumption by 15% per unit of products manufactured in 2025 compared to the 2020 baseline.

For further data on water consumption, please refer to the **Environmental Key Performance Data** section of this report.

↗ G.29 PUMA CDP WATER SCORE



PUMA's CDP water score improved from B- in 2021 to B in 2022. Until the end of January, 2024 we retained our B score. For more information, please visit the **CDP** website.

↗ CASE STUDY

Water reduction at two suppliers

Tai Hing Zipper, introduced an innovative wastewater treatment and recycling plant for its dying system in 2022 with an investment of $800,000. This advanced biological treatment along with a water recycling plant, helps in conserving 90% of water for every kilogram of fabric. From its early stage of implementation to the present, water usage and wastewater output have been significantly optimised. Previously, consuming 100 m^3 of water per day in the dyeing workshop, the factory has progressively reduced its water consumption to an average of 10 m^3 per day for the same production volume. The factory has adopted an innovative technology called the A/O process for the treatment of wastewater generated from its dyeing operation. This allows for the recycling of the treated wastewater back into the dyeing process. The factory has also installed a chemical index monitor to facilitate the monitoring of the treated wastewater quality.

SQUARE Fashions Limited (SFL), a vertically integrated readymade garments manufacturing company has placed significant emphasis on sustainability and environmental responsibility. To further enhance these goals, SFL implemented various measures in 2023 to reduce its impact on water. These include the installation of a water reclamation plant, rainwater harvesting systems, reuse of steam condensate water, process optimisation, reuse of machine cooling water and raising awareness amongst employees. These initiatives resulted in a reduction of 36.3% as compared to 2022 in groundwater consumption. This accounts for an absolute annual saving of 1,128,755 m^3 and a financial savings of 10 million BDT ($97,785) in 2023.

↗ T.39 E-KPIS – WATER[1-6]

Water	2023	2022	2021	2020	2019	2018	Change 2020/2023
Total Water from own operations (m^3)	142,565	147,227	116,829	96,569	89,767	95,291	47.6%
Public network consumption (m^3)	137,651	143,332	116,829	96,569	89,767	95,291	42.5%
Rainwater consumption (m^3)	4,914	3,895					
Total Water from PUMA production (core Tier 1&2) (k m^3)	7,322	8,507	8,475	7,128	2,572	2,030	2.7%
Total Water from PUMA production (Tier 1) (k m^3)	2,157	2,551	2,706	2,332	2,572	2,030	-7.5%
Total Water from PUMA production (Tier 2) (k m^3)	5,164	5,956	5,769	4,796			7.7%

1 Figures include PUMA owned or operated offices, warehouses and stores. Includes our own production sites in Argentina. All other production is outsourced to independent supplier factories, some warehouse operations are outsourced to independent logistics providers. Franchised stores are excluded.
2 Data includes extrapolations or estimations where no real data could be provided
3 Methodological changes over the last three years have influenced results
4 PUMA Production (Tier 1) includes core Tier 1 supplier factories, Apparel, Footwear & Accessories (54 factories)
5 PUMA Production (core Tier 2) includes core Tier 2 supplier factories, Leather, PU & Textiles (40 factories)
6 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

Although we do not have any goal for absolute reduction in water consumption from our core suppliers, we continue to track their water consumption. In 2023, the absolute water consumption has decreased by 7.5% for Tier 1 suppliers, as compared to the baseline of 2020. This is achieved due to a decrease in production volume for apparel by 15% and an improvement in water usage efficiency per pair of footwear by 21.5% during the same period.

For Tier 2 suppliers, absolute water consumption has increased by 7.7% compared to the baseline of 2020, despite a significant increase in production volume in all Tier 2 divisions (12% for textiles, 7.3% for leather, and 171% for PU). It is worth noting that water usage efficiency at textile production, the highest contributor to water usage, has improved by 4.9% (from 103 to 98.3 m^3/ton of fabric), due to the water-saving measures taken by the suppliers including the installation of water recycling plants by some suppliers towards end of 2022. The increased usage of recycled materials such as recycled cotton and recycled polyester has also contributed to less water consumption.

AIR EMISSION

AIR EMISSION AT OUR OWN OPERATIONS

In terms of air emissions, there are no significant air emissions to report from our own sites. We have outsourced all manufacturing to external manufacturing partners and at our largest sites globally we do not have any industrial processes which could create air emissions. The only exception is our own manufacturing site in Argentina, which is covered by our supply chain efforts listed below.

For our largest site, our global headquarters, we use district heating and heat pumps for heating, resulting in zero direct air emissions from the building. This fact was confirmed during our ISO 14001 certification audit in 2022.

AIR EMISSION IN OUR SUPPLY CHAIN

Since the publication of the ZDHC Air Emission Guidelines was still not been finalised in 2023, we decided to internally monitor our core supply chain's performance regarding air emissions. We designed a set of questionnaires to gather the relevant air emission compliance information for our 131 core factories (Tier 1 and Tier 2), towards local regulations (samples are selected by the factories and tested towards the requirements provided by the local environmental authorities).

The result shows that 100% of the core factories sampled were compliant with the local regulation for air emission in 2023.

ZDHC AIR EMISSION GUIDELINES PILOT

In 2023, ZDHC circulated a draft air emission guideline V1.0 to the Air Emissions Task Team for review. We tested the draft guideline in our supply chain through a pilot study. The objective was to evaluate suppliers' readiness to comply with ZDHC draft guidelines and to provide feedback for review by the Task Team.

We partnered with a third-party laboratory, Eurofins MTS, to collect chemical samples and conduct tests from six factories in Vietnam and two factories in China, out of which four are footwear factories and four are apparel factories. The tests include the measurement of total VOCs (TVOCs) and calculate the Potential to Emit (PTE), using the methodology referenced in the draft guidelines. We will share this data with ZDHC to help establish the Foundational limit value for TVOCs in the guidelines. We also tested Hazardous Air Pollutants/Toxic Air Pollutants (HAP/TAP). Out of 833 collected chemical samples, we detected HAP/TAP in 132 samples accounting for around 15.8% of total samples. Further breakdown indicates 13.2% of samples are from footwear factories and 2.6% are from apparel factories. However, these factories have a high MRSL conformance rate which is verified by a third party and they provide appropriate personal protective equipment to their workers. ZHDC has not yet specified any limits for these air pollutants in the draft guidelines.

We also collected air emission samples from three factories (one apparel Tier 2, one footwear Tier 1, one footwear Tier 2) to test the air pollutants. Tests included air pollutants from point sources i.e. combustion of fuels and fugitive emissions from the production processes as per the draft guideline. The draft guidelines do not yet specify any limits for World Health Organization (WHO) pollutants like Particulate Matter (PM), Nitrous Oxides (NOx) Sulphur Oxides (SOx), and Ozone and globally regulated air pollutants like Carbon Monoxide (CO) and Volatile Organic Compounds (VOCs); they will be incorporated into future updates to the guidelines. In the absence of ZDHC limits, these results were compared with local regulation limits wherever available, and the test results show 100% compliance.

We will communicate the test results with the factories and work to identify the root causes of test results with high values. We will also discuss our results with ZDHC to find solutions on how to address high values, particularly for TVOCs in footwear factories.

Note: Since we are following Greenhouse Gas protocol for Greenhouse gas estimation, the calculation of greenhouse gas was excluded from the scope of this pilot study.

PLASTICS AND THE OCEANS

Target description:

- Support initiative and scientific research on microfibres, work with core suppliers to reduce microfibre release
- Research biodegradable polyester for use in PUMA products
- Eliminate plastic bags from PUMA stores and review the impact of hangers and fixtures

Relates to United Nations Sustainable Development Goals 3, 14 and 15

KPIs:

- Tons of plastic bags used in PUMA stores
- Percentage of PUMA offices that have eliminated single-use plastic
- Percentage of plastic packaging recycled

Plastic pollution in our oceans is one of the most urgent challenges to sustainability of our time. As a company that uses polymers for most of its products, we have a special responsibility to work on this issue. Avoiding plastic pollution is one of the three pillars of the Fashion Pact, of which PUMA is a founding member. Also, several countries and regions have formed initiatives to ban certain types of single-use plastics or plastic bags.

Therefore, we have added Plastics and the Oceans to our 10FOR25 Sustainability Strategy as well as our sustainability bonus targets.

↗ T.40 ELIMINATION OF SINGLE USE PLASTICS

Sub-targets	2021	2022	2023	Target 2025
Plastic consumer shopping bags (stores, tons)	189	99	0	0
Plastic consumer shopping bags recycled content (%)	80%	80%	NA	Zero plastic bags
Plastic hangers used in stores (stores, tons)	134	160	176	Switch to recycled content or wood
Plastic hangers with 100% recycled content (%)	97%	99.9%	99.9%	100%
Primary and transit* plastic packaging (tons)**	558	2,297	3,057	Switch to recycled content or paper
Primary and transit* plastic packaging with recycled content (%) **	100%	99.6%	99.5%	100%
Offices that have eliminated single-use plastic cups and cutlery (%)	88%	91%	92%	100%

* Transit packaging from factory to warehouse
** 2023 full year data is proliferated based on actual Q1-Q3 data and 2022 record.

Plastic shopping bags and single-use plastics aggravate the problem of plastic pollution significantly. By eliminating them from our stores and office environment, we have set a positive example for our consumers and colleagues and at the same time reduced our use of plastics by several hundred tons per year.

In recent years we switched our shopping bags to FSC-certified paper bags.

Our stores ordered 430 tons of consumer-facing polyethylene bags in 2019 and 400 tons in 2020. In 2021 our stores ordered 189 tons. Finally, in 2022 our stores ordered 99 tons of consumer-facing plastic bags. As of January 1st, 2023, we have replaced all polyethylene bags for consumer use with paper bags or durable multi-use bags for sale in our owned and operated PUMA stores.

At the same time, we switched other plastic items in our retail stores, such as hangers and shoe fixtures, to recycled polymers or FSC-certified wood. We also started working on more environmentally friendly solutions for our B2B product packaging for apparel and accessories, which is also based on polyethylene bags. As a result of these efforts, we switched our transit packaging B2B plastic bags to 100% recycled content and also optimised the thickness to save on weight. Our labeling and packaging team is investing time and resources in exploring environmentally optimised packaging solutions. For example, we piloted transit bags made from paper in the USA. In 2023 we rolled out transit bags made from FSC-certified paper for selected products.

According to our zero plastic target for primary product packaging, we also switched most B2C plastic primary packaging to paper. For the few remaining plastic items like hangtag strings, we worked on non-plastic or recycled plastic alternatives. At our offices, we have challenged our catering partners and employees to avoid single-use plastics such as coffee cups, lids, stirring sticks, cutlery or straws. In 2021 88% of our offices globally had already eliminated single-use plastic cups and cutlery. This figure increased slightly to 91% in 2022 and 92% in 2023.

FSC certified packaging for apparel products

On a product level we finished the pilot experiment of a compostable version of our most iconic sneaker, the PUMA SUEDE. The pilot included the use of a fully biodegradable outsole made from thermoplastic polyurethane (TPU). For more information on RE:SUEDE, please refer to the **Circularity** section of this report.

MICROFIBRES

All types of fibres have a propensity to shed to some extent, and understanding the full impacts of their physical and toxicological presence is a growing area of research therefore we must not limit our focus to synthetic materials.

Led by science, **The Microfibre Consortium** (TMC) seeks to understand both the drivers of fibre fragmentation and, through external sources of research, the impacts on human health and ecosystems, such that we can collectively take the right actions to mitigate negative impacts. PUMA joined The Microfibre Consortium (TMC) as one of the signatory members to understand and address the environmental concerns surrounding fibre fragments (microfibre) as generated from natural and synthetic clothing during manufacture and the consumer use phase in the industry.

In 2023, we continued with microfibre shedding tests to measure microfibre release from our polyester products during washing. We conducted 12 tests on selected 100% polyester fabrics following the TMC test method to quantify fibre loss from fabrics that reflect that found in domestic laundering, during the initial washing cycle. Fibre release results are expressed as a percentage of mass. The tests results indicate that microfibre loss from PUMA's fabrics is lower than the average microfibre loss available on the Microfibre Data Portal. Specifically, PUMA's average 0.0579%, compared to the TMC database average of 0.0587%. For related definitions, please visit **Static**.

We have received feedback from TMC regarding the shedding data, and we understand that analysing it is complex and ongoing. So far, there is not a clear trend showing which yarn or structure type sheds more among the signatories. TMC has requested more data entries, and we will continue to participate in and support this study as an industry.

In October 2023, PUMA joined a field trip to King's College London with 40 other delegates. TMC teamed up with specialist test instrument manufacturer James Heal to hold the first public demonstration of the TMC Test Method for fibre fragmentation from fabric.

PUMA remains committed to the TMC 2030 roadmap released in September 2021. PUMA has pledged to support this roadmap and its objectives, including increasing the understanding of fibre fragmentation through research, implementing mitigation strategies once they become available in the industry, and contributing to progress through active participation in task teams with a goal of global implementation.

CIRCULARITY

TARGET DESCRIPTION:

- Set up or join product take-back schemes in major markets
- Reduce production waste to landfills by at least 50% (shared target)
- Develop recycled materials as alternatives to leather, rubber, cotton and polyurethane (shared targets)

Relates to United Nations Sustainable Development Goals 9, 12, 14 and 15

KPIs:

- Percentage of major markets with take-back scheme
- Amount of waste sent to landfills
- Percentage of recycled polyester, cotton, leather, rubber and polyurethane

We are aware that the linear business model currently applied in our industry is far from the ideal concept of a circular economy. The growing amount of textile waste sent to landfills is an emerging risk. Rethinking the way we produce and moving towards a more circular business model is one of the priorities of our Sustainability Strategy over the coming years.

We begin our journey with product design. Building on our Circular Design training with Circular Economy, we rolled out an e-learning tool on circularity for all PUMA colleagues globally. Based on the PUMA identity and our material toolboxes we identified circular design approaches around the longevity and cyclability of our products. The e-learning covers our **Circularity Policy**, as well as our circular design guidelines.

During 2023, our largest business units held circularity workshops in which the options for transitioning iconic PUMA products into more circular products were discussed.

CIRCULARITY INNOVATION

In 2021 we launched PUMA Circular Lab, our platform for speaking and learning about circularity together with our customers. The first project was the RE:SUEDE, an experiment for a biodegradable shoe, made with chrome-free Zeology Leather, hemp, cotton and a biodegradable TPE sole. It launched in 2022 with a first batch of 500 pairs. The shoes were worn for six months by participants and then sent back to PUMA. In December 2022 over 400 pairs of RE:SUEDEs were sent to an industrial composting facility in the Netherlands, where they were prepared for the composting trial that was completed in 2023. The **composting results** were made public so that anyone interested in compostable footwear can use our lessons learned.

In apparel, we expanded our textile-to-textile recycling programme, which we renamed from RE:JERSEY to RE:FIBRE. The initiative enables the recycling of fabric waste, as well as worn or unsellable polyester items (for example unsellable polyester items due to expired licensing contracts) through an innovative chemical recycling process into new textile items. We continue to partner with several teams for this project: Manchester United, AC Milan, Olympique de Marseille and Borussia Dortmund as well as the Swiss Football Federation. We collect used polyester products at the clubs' fan shops and our own PUMA store in Herzogenaurach. These products are sorted, and – where possible – enter the recycling stream to make new polyester products.

RE:FIBRE activations with BVB, Manchester City and AC Milan

During the Women's Football World Cup in Australia, the Switzerland team played in jerseys made from fibre-to-fibre recycled polyester. For 2024 we plan a further and significant extension of the RE:FIBRE programme to cover the jerseys of all major football clubs and federations, scaling up the programme to over 1 million produced items.

Swiss national women's football RE:FIBRE jerseys

In addition to our existing RE:FIBRE initiative on recycled polyester, we started looking into innovative processes of cotton recycling, such as using 100% (pre-consumer) recycled cotton in selected products and the opportunity to recycle cotton waste into viscose-like materials.

RECYCLED MATERIALS USAGE

We encourage all our suppliers to reuse and recycle the fabric waste they are creating for PUMA production, either through applications outside of our industry or ideally, by recycling offcuts into new polyester or cotton yarns.

We have set circularity targets, for example, scaling up the use of recycled polyester and using recycled alternatives to leather, rubber and polyurethane (PU), the materials we use most frequently after cotton and polyester. Our material toolboxes include recycled material options for all these materials. In 2023, we also

started looking at the potential of using secondary raw materials from innovative footwear separation technologies.

In 2023, we delivered a million pieces of our downtown collection, made with at least 20% recycled cotton.

The percentage of recycled polyester increased for all product divisions from 14% in 2020 to almost 62% in 2023. The percentage of recycled cotton for our apparel products increased from 0.6% in 2020 to 8.6% in 2023, and for footwear, it increased from 0.5% to 1.6%.

PRE AND POST-CONSUMER WASTE IN THE SUPPLY CHAIN

Around 77% of pre-consumer waste was either reused or recycled by our core Tier 1 suppliers and around 94% of waste was either reused or recycled by our core Tier 2 suppliers in 2023. Compared to 2022, we observed an increase of 20% in reused/recycled waste for core Tier 1 and an increase of around 4% for core Tier 2. This increase is mainly due to the adoption of better waste disposal practices by our suppliers to divert waste from landfills. For textile and fabric waste, 7.2% of waste was sent to incineration by core Tier 1 factories while core Tier 2 factories sent only 1% of waste to incineration.

↗ T.41 PRE AND POST-CONSUMER WASTE[1]

Volume of recycled leather, from production waste	1.5 tons
Volume of recycled cotton, from production waste	2,901 tons
Volume of recycled polyester, from post & pre-consumer waste	27,042 tons
Volume of recycled nylon, from post-consumer waste	168 tons

	Core T1*	**Core T2****
Quantity of pre-consumer waste generated annually	37,379 tons	208,489 tons
% of pre-consumer waste sent to reuse or recycling	76.9%	94.3%
% of textiles and fabric destroyed (sent to incineration)	7.2%	1.0%

* Core Tier 1 Supplier factories Apparel, Footwear & Accessories (54 factories)
** Core Tier 2 Supplier factories Leather, PU and Textiles (40 factories)
1 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

↗ T.42 FABRIC WASTE[1-4]

	Year	Total Fabric Waste in Tons	Reuse & Recycle (Tons)	Reuse & Recycle (%)	Incineration (Tons)	Incineration (%)	Landfill (Tons)	Landfill (%)
Footwear core Tier 1	2023	5,681.2	2,503.1	44 %	2,486.7	44 %	691.4	12 %
	2022	6,554.4	2,348.0	36 %	4,184.2	64 %	22.3	0 %
Apparel core Tier 1	2023	6,245.5	6,222.2	100 %	23.4	0 %	-	0 %
	2022	8.3	8,145.0	98 %	179.0	2 %	-	0 %
Accessories core Tier 1	2023	231.6	231.5	100 %	0.1	0 %	-	0 %
	2022	990.6	236.4	24 %	0.1	0 %	754.3	76 %
Textile core Tier 2	2023	1,933.9	1,838.7	95 %	95.3	5 %	-	0 %
	2022	2,073.8	2,056.0	99 %	17.9	1 %	-	0 %
Synthetic Leather (PU) core Tier 2*	2023	170.3	88.2	52 %	82.1	48 %	-	0 %
	2022	182.8	181.1	99 %	1.7	1 %	-	0 %
Total	**2023**	**14,262.5**	**10,883.7**	**76 %**	**2,687.5**	**19 %**	**691.4**	**5 %**
	2022	**18,126.1**	**12,966.5**	**72 %**	**4,382.9**	**24 %**	**776.6**	**4 %**

* Fabric waste originated from PU coated material with fabric backing (PU on top + fabric at bottom)
1 Data includes extrapolations or estimations where no real data could be provided
2 PUMA Production (Tier 1) includes core Tier 1 supplier factories, Apparel, Footwear & Accessories (54 factories)
3 PUMA Production (core Tier 2) includes core Tier 2 supplier factories, Leather, PU & Textiles (40 factories)
4 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

Except for Footwear production that still has fabric waste sent to landfills, 100% fabric waste from Apparel, Accessory, Textile, and Synthetic production was diverted from landfills. Compared to 2022, we observed an increase in reuse and recycle proportion and a decrease in incineration proportion while disposal in landfill percentage remains stable. This change was due to the adoption of better waste disposal practices and reflects a gradual shift towards a circular approach by our suppliers.

In 2023, 95% of fabric waste resulting from PUMA production was diverted from landfill. This is evident as 76% of total fabric waste was either reused or recycled and 19% was sent to incineration. Only 5% of total fabric waste ended up in landfills.

TAKE-BACK SCHEMES

To demonstrate our responsibility as a producer and to secure options for more circular material flows in the future, we have set a target to join or offer take-back schemes in all our major markets by 2025.

In 2023 we introduced a new take-back scheme in Switzerland, piloted take-back bins in selected stores in Argentina and China and expanded our existing take-back scheme in the USA into the category of apparel. These new expansions complement our existing take-back schemes in Australia, Hong Kong, the USA and the clubs taking part in the RE:FIBRE project. Our colleagues at PUMA North America continued to work with Soles for Souls and collected 4,348 kg of used shoes, an initiative where shoes can be donated for reuse in support of a charitable cause. Our colleagues in Australia were able to collect 3,900 kg of used products.

Since September 2019 PUMA customers in Hong Kong have been able to put their used sportswear to good use and support disadvantaged communities across the world, as we teamed up with the non-profit organisation, Crossroads Foundation. Hong Kong customers can donate used garments of all brands at PUMA recycling bins, which have been set up in four selected stores. During 2023, 1,442 kg of used products were collected. At our German headquarters we collected 385 kg of products through our take-back scheme, which means that in total we collected over 10 tons of products for recycling or donation with our take-back schemes globally for the first time. For 2024, we plan to expand our coverage of take-back schemes further, for example in India and Germany.

SWAP SHOPS

SWAP shops are a free and local exchange where people can pass on things they no longer want, in exchange for something they need. It helps people refresh their wardrobe without having to shop for something new. Products get a new chance to be worn again and it promotes sustainability in a fun way. In 2023 the fourth PUMA SWAP Shop was held in Hong Kong to promote a "recycle and reuse" culture. It was a public event to swap clothes and accessories. More than 460 guests joined and more than 2,320 items were given away (more than four items per guest). 67 boxes of garments (1,013 kg) were donated to two NGOs: Crossroads and Redress. Another SWAP Shop took place for the second time at our Headquarters in Germany for our own employees. Over 400 items were swapped and the remaining ones were donated to our employees' charity organisation, Charity Cat. PUMA North America organised its first SWAP shop and had a very positive response from over 130 employees swapping more than 1,000 articles.

SWAP Shop in PUMA North America

PRODUCT CARE GUIDELINES

In 2023 we initiated the publication of **care and repair guidelines for consumers** to help keep their products in good condition for a longer time. We focus on the most common reasons why people end up throwing away their sportswear and offer easy tips to treat these problems. We promote natural ways to treat stains and odours as well as conscious washing and drying practices to reduce user-phase impact.

UNSELLABLE PRODUCTS

We are aware that due to contractual restrictions, a certain number of unsold products must be occasionally discarded, for example when a license contract with a partner club expires. We have a process in place to ensure that this happens to PUMA products only in exceptional circumstances. Our production forecasts are as accurate as possible to actively prevent high product inventories and their intrinsic management costs. Unsold seasonal products are placed through different channels until they are sold. Returned products that have not been worn are placed on sale again. Returned products with small defects but in good condition are donated and only returned products that are very worn or severely damaged need to be discarded. No new product should be destroyed without the explicit demand of an expiring licensing partner nor a new product shall be destroyed as a solution for inventory management. We have created a reporting structure to identify with accuracy the quantity and reasons for such cases. In 2023, the amount of disposed articles was equivalent to 0.25% of our total material consumption. These products were sent to a recycling facility (where available). In countries where such recycling facilities do not exist, the products were shredded.

WASTE ROADMAP AND RISK ASSESSMENT

In 2021 we developed a waste reduction roadmap and conducted a risk assessment.

WASTE AT OUR OWN OPERATIONS

At our own operations, the most significant fractions of waste are paper and cardboard (notably from outer carton boxes, shoe boxes and office paper usage), poly bags used for transport product packaging and household waste such as organic waste from our canteens. Since we do not operate any industrial manufacturing facilities (with one exception in Argentina), the amount of hazardous waste created in PUMA's own operations is very low at 36 tons. The 36 tons originate from our factory in Argentina (26 tons) and the exchange of old lighting systems to LED at the PUMA headquarters (9 tons). All hazardous waste is handled strictly in line with hazardous waste regulations.

During 2023, we reminded our PUMA subsidiaries to engage in waste separation and recycling. Consequently, we could increase the rate of recycled waste from 44% in 2019 to 64% in 2023.

WASTE IN THE SUPPLY CHAIN

For our supply chain, the waste data published in our report includes material waste, along with factory and office operational waste: cardboard, paper, plastic, light bulbs, etc. to ensure a comprehensive scope for the waste generated on production sites. We see plastics, chemicals, oil lubricant waste and e-waste as high risk. To prioritize our actions, we analysed waste data collected in 2020 and the Higg FEM waste management score of our core factories.

Below are the key focus areas for the coming years. Some actions were taken in 2023 and are covered below.

- **Raise awareness:** As a part of Higg FEM training, we have provided training to 210 suppliers factories on how to improve their score in waste management. As a result of these trainings, the average Higg FEM score for the waste module increased from 45% in 2022 to 53% in 2023, which was higher than the industry median of 40% in 2023. The target for reducing the amount of production waste going to landfills was communicated to the suppliers during the supplier meetings. We also conducted one-to-one meetings with our core suppliers to review their waste KPIs.

- **Knowledge of impact:** Some of our apparel suppliers have initiated the recycling of pre-consumer cutting waste back into the spinning process. In 2023, we completed a Life Cycle Assessment to compare virgin cotton fabric with 75/25 blend of virgin and recycled cotton from cotton waste. The details of this LCA study are provided in the **Product** section. In 2023, we mapped a waste governance for our top three sourcing countries, summarised their waste policy landscape and identified key stakeholders.
- **Internal action:** In last three years i.e., starting in 2021 we focused on better data collection on waste from supplier's facilities, and we observed that factories have started reporting comprehensive data on waste.
- **Collaboration and partnership:** In 2022, we participated in a project named Closed Loop 2 Balance (CL2B) in Vietnam, for which the final report was published in 2023. The Global Fashion Agenda and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) launched **The Circular Fashion Partnership**: a cross-sectoral initiative to support the development of effective circular fashion systems in textile, garment and footwear manufacturing regions, by capturing and recycling post-industrial fashion waste. This project is currently active in Bangladesh and Cambodia and is to be launched in Vietnam in 2024. We have had several internal discussions and communication with GFA and GIZ about this project in Vietnam. We will scale up our textile recycling innovation, **RE:FIBRE**, replacing recycled polyester with RE:FIBRE technology in all PUMA football Club and Federation replica jerseys from 2024 onwards. We also showed that we can successfully turn an experimental version of our classic SUEDE sneaker into compost under certain tailor-made industrial conditions, as we published the results of our two year-long **RE:SUEDE** experiment.

WASTE GOVERNANCE

In 2023, we conducted a waste governance mapping process for our top three sourcing countries, Vietnam, China and Bangladesh. We looked at the waste policy landscape and identified key stakeholders. Challenges and opportunities in waste management were also identified for each region. We found that the waste regulations are evolving with stringent requirements progressively. We also found that interesting projects are being undertaken in these countries on waste tracking, waste recycling/circularity etc.

Vietnam - Waste regulation in Vietnam has been evolving since 2005, with stringent requirements being added progressively. Vietnam committed to address marine plastic waste, with a goal of eliminating plastic waste from both land and ocean-based sources by 2030. In addition, Vietnam has legal requirements for waste management, which includes the management of domestic solid waste, hazardous waste, and normal industrial solid waste. Specifically, enterprises are obliged to adopt resource- and energy-efficient solutions, use environmentally-friendly raw materials, fuels, and materials, apply cleaner production technologies and programmes, and implement measures to minimize waste generation (Environmental Protection Law, Chapter VI, Section 2, Article 72).

Limited waste segregation at source, inadequate infrastructure for recycling, a lack of adequate data, access to financing, a lack of public awareness, and a lack of market for recyclables were identified as key challenges for waste management in Vietnam.

The Global Fashion Agenda and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) have launched **The Circular Fashion Partnership:** a cross-sectoral initiative to support the development of effective circular fashion systems in textile, garment and footwear manufacturing regions, by capturing and recycling post-industrial fashion waste. This project will be launched in Vietnam in 2024. Through this project, we see opportunities to address the current challenges in collaboration with other brands, manufacturers, collectors, sorters and textile recyclers to segregate, digitally trace and recycle textile waste into the highest possible value output, ultimately being new products.

China introduced a regulation to promote the circular economy back in 2004. The country has a specific regulation to ban the import of waste, which involves penalties for violations such as the illegal dumping of waste. China also has a policy on textile waste recycling, which aims to achieve a 25% recycling rate for textiles waste by 2025 and 30% by 2030. It has also set specific targets to produce recycled fibres derived from 2 million tons of waste textiles by 2025 and 3 million tons by 2030. China provides fiscal incentives for suppliers under the Environmental Protection Tax Law in which tax on hazardous waste is determined based on the generation quantity and hence provides an opportunity for suppliers to save costs by adopting the 3R Principles (Reduce, Reuse Recycle). We see opportunities to engage with key local stakeholders to improve factories waste management.

Bangladesh introduced specific regulation on the circular economy in 2022. The country has a goal to achieve recycling of plastic waste by 80% by 2030, cut single-use of plastic by 90% by 2026, reduce generation of plastic waste by 30% by 2030 and reduce virgin material consumption by 50% by 2030.

PUMA suppliers' have developed cotton pre-consumer textile waste recycling. We increased the use of recycled cotton from 3.6% of total cotton volume in 2022 to 8.6% in 2023.

The Circular Fashion Partnership has been active in Bangladesh since 2021. Key partners in this project are actively engaging with the Bangladeshi government to formalize the informal waste management sector. This includes introducing incentives and tax deductions to incentivize manufacturers to embrace recycling practices and establishing a comprehensive national policy for the sustainable management of post-production fashion waste. Through this policy advocacy work, we see opportunities to further increase the use of recycled cotton in future.

↗ CASE STUDY

Zero waste to landfill

Adhering to the three principles of "Reduction, Recycling, Detoxification", TST Group, is steadily moving towards the target of "Zero Landfill". TST has two facilities supplying to PUMA, one in China and the other one in Cambodia. TST has implemented processes for waste reduction such as energy recovery from sludge through Chip Mong INSEE Cement Corporation in Cambodia, using coal ash from boiler upcycling to produce bricks in Cambodia, reuse of fabric waste as mop and sending chemical drums back to chemical suppliers for refilling in both the China and Cambodia facilities. Through these initiatives along with strict classification and storage of waste, as well as cooperation with qualified third-party waste treatment companies, TST Group has achieved a 99% waste diversion rate of a total amount of 7,398 tons production waste generated annually from landfill.

↗ T.43 E-KPIS – WASTE[1-6]

Waste (t)	2023	2022	2021	2020	2019	2018	2017	Change 2022/2023	Change 2020/2023
Total waste from own operations	5,595	4,991	5,215	3,949*	3,644*	4,877	5,293	12%	42%
Recycled waste	3,598	3,007	2,220	1,436*	1,603*	2,282	3,419	20%	151%
Share of recycled waste	64%	60%	43%	36%	44%	47%	65%		78%
Total waste from PUMA production (core Tier 1 and 2)	38,594	53,667	42,495	29,466	24,205	16,682	31,824	-28%	31%
Share of production waste to landfill (core Tier 1 and 2)	4.6%	9.7%	10.0%	13.5%					-66%
Total waste from PUMA production (Tier 1)	21,861	34,642	33,806	23,498	24,205	16,682	14,686	-37%	-7%
Share of production waste to landfills (Tier 1)	4.6%	12.9%	10.3%	9.5%					-51%
Total waste from PUMA production (core Tier 2)	16,733	19,025	8,689	5,968			17,138	-12%	180%
Share of production waste to landfills (core Tier 2)	4.7%	4.0%	9.1%	17.6%					-73%

* Waste data for PUMA's own entities in 2019 and 2020 recalculated due to underreporting in these years

1 Figures include PUMA owned or operated offices, warehouses and stores. Includes our own production sites in Argentina. All other production is outsourced to independent supplier factories, some warehouse operations are outsourced to independent logistics providers. Franchised stores are excluded.

2 Data includes extrapolations or estimations where no real data could be provided

3 Methodological changes over the last three years have influenced results

4 PUMA Production (Tier 1) includes core Tier 1 supplier factories, Apparel, Footwear & Accessories (54 factories)

5 PUMA Production (core Tier 2) includes core Tier 2 supplier factories, Leather, PU & Textiles (40 factories)

6 The values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

Similar to water, even though we do not have any goal for absolute reduction in waste generation for our core suppliers, we continue to track them. It is also observed that only 0.5% of waste (material waste but also other factory wastes like boiler ash, sludge from wastewater treatment plants etc.) end up in landfills for apparel suppliers and 6.8% for footwear suppliers.

We can see that there has been a 7% decrease in production waste for Tier 1 suppliers and 180% increase for Tier 2 suppliers from 2020. The high percentage increase in Tier 2 suppliers is mainly due to the improvement in waste data captured by the suppliers. Certain wastes such as residual ash from coal and biomass boilers that were not captured by the Tier 2 suppliers before are now being included. At the same time, the production volume has increased by 12% for textiles and 171% for synthetic leather. 76.3% of the production waste are reused or recycled, 18.8% are incinerated and 4.8% are sent to landfill.

Regarding production waste sent to landfill, both core Tier 1 and Tier 2 suppliers have succeeded in reducing their landfill percentage compared to 2020 baseline. In 2023, Tier 1 and Tier 2 suppliers have achieved a reduction of 51% and 73% reduction respectively from the baseline and thus exceeded the PUMA goal of 50% reduction by 2025. This was achieved due to better waste management practices adopted by the suppliers and more accurate tracking and reporting of waste data.

PRODUCTS

TARGET DESCRIPTION:

- 90% of PUMA Apparel and Accessories products contain >50% recycled or certified material
- 90% of our Footwear contains at least one component made of recycled or certified material
- Increase use of recycled polyester (Apparel and Accessories) to 75% by 2025

Relates to United Nations Sustainable Development Goal 12

KPIs:

- Percentage of Apparel and Accessories with 50% recycled or certified material
- Percentage of Footwear with at least one recycled or certified component
- Percentage of recycled polyester used in Apparel and Accessories

The PUMA Environmental Profit and Loss Account (EP&L) attributes more than 50% of our environmental impact to material and raw material production. Against this background, we have decided to prioritize the large-scale use of certified or recycled raw materials. In our 10FOR25 strategy, we have set 100% targets for the raw materials of cotton, polyester, leather, and cardboard.

In addition to measuring the use of recycled or certified materials, we also determine the percentage of all products made of such materials. As defined in our PUMA Sustainability Index, or S-Index, S-Index-approved apparel or accessories products contain at least 50% certified or recycled materials by weight. For footwear, we currently measure S-Index conformance by including one or more main components* made from certified or recycled materials.

In 2021 we rolled out an e-learning toolkit on our PUMA S-Index for the PUMA family. The training allows designers, developers, and product managers to understand which materials qualify as more sustainable, how the PUMA S-Index is calculated, and which certifications need to be in place to externally communicate on a product level.

In 2023, 85% of our product by volume met our S-Index definition. We are on track to meet our goals of 90% for 2025.

* Main component in the upper includes the visible upper and its components, linings, sockliner, and strobel as the only non-visible component. They can be made of textile, leather, synthetic (PU) or TPU. It excludes trims such as eyelets, laces, counters, decorations, etc. Main components in the bottom includes outsoles, midsoles, and insoles. They can be made of Rubber, PU, TPU, EVA. It excludes trims and decorations.

↗ T.44 CERTIFIED OR RECYCLED PRODUCTS

Product Category	Styles 2023	Volume 2023	Target 2025
Apparel with at least 50 % certified or recycled material	77 %	87 %	90 %
Accessories with at least 50 % certified or recycled material	20 %	40 %*	90 %
Footwear with at least one certified or recycled component	89 %	93 %	90 %
Total	**75 %**	**85 %**	**90 %**

* Excluding products from stichd; for further details on the reporting scope please refer to the Scope of the Report section.

In 2023 we continued to develop and design our collections and individual styles using recycled materials. Highlights include the use of our RE:FIBRE technology in our Teamsport jerseys. The jerseys made with RE:FIBRE are made from at least 95% of recycled textile waste and other used materials made of polyester. We also continued our Downtown collection from Sportstyle and accessories. The different styles in Downtown are made using 20-30% recycled cotton, while the accessories are made from at least 20% recycled content. Another highlight includes the scaling of our Caven shoe, which is made with at least 20% recycled materials in the upper and at least 10% recycled materials in the bottom. Our Downtown collection exceeded 1 million pieces in 2023 and we produced 3 million Caven shoes for the Spring Summer and Autumn Winter collections in 2023 combined.

PUMA Caven contains at least 20% recycled content in the upper and 10% recycled content in bottom of the shoe.

PRODUCT LIFE CYCLE ASSESSMENT

We continued the Life Cycle Assessment (LCA) studies of our product portfolios in 2023. The outcomes of an LCA act as a quantifiable measure of our efforts towards embedding sustainability in our products by exploring ways to make our product value chains safer, cleaner and more sustainable. It also encourages innovation in our products and processes so that we can meet increasing social and business expectations regarding sustainability and transparency. Sphera, a leading consulting organisation in the field of LCA, conducted LCA studies to consider all of the elements of the life cycle, from the overall manufacturing including supply of material and energy carriers through to the end of life, when analysing the environmental performance of the products. The LCAs were performed as per ISO 14040 and ISO 14044 requirements. A third-party critical review panel was commissioned to peer review the work and ensure compliance with the mentioned standards.

LCA OF TWO PRODUCTS

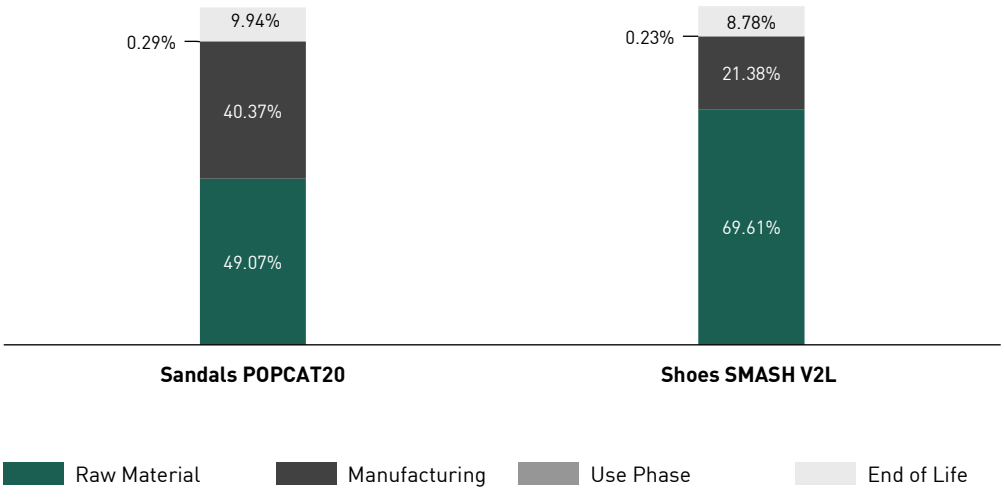
We completed a screening LCA study for two of our top products, the PUMA POPCAT 20 sandals, and the PUMA Smash v2L shoes, to map the environmental footprint of these products across their entire value chains (cradle to grave), excluding the consumer use phase. This helped us to understand the hotspots in the value chain (the maximum impacts in terms of climate, energy and water), and to identify sustainable options in various phases to improve the product's environmental footprint.

Sandal PUMA POPCAT 20, gross weight 0.381 kg/pair

Shoe PUMA SMASH V2 L, gross weight 0.955 kg/pair

The results of the analysis can be summarised as follows:

↗ G.30 GLOBAL WARMING POTENTIAL

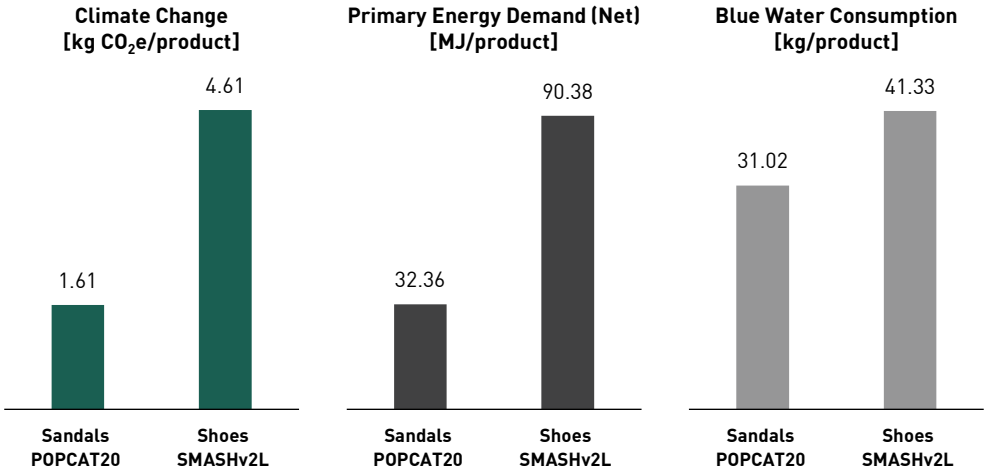


For the POPCAT20 sandals, the global warming potential (GWP) in kg CO_2e was mainly influenced by raw materials which include polyester fabric, chemicals etc. (49.07%), manufacturing energy (40.37%) and End of Life (9.94%). Ethylene Vinyl Acetate (EVA) and PU Synthetic are the major contributing materials.

For the SMASHv2L shoes, the global warming potential (GWP in kg CO_2e) was mainly influenced by materials which include body material, parts and components (69.61%), manufacturing energy (21.38%), and end-of-life (8.78%). Polyester fabric and rubber are the major contributing materials.

Footwear usually does not require extensive cleaning during its lifetime, and hence the impact of the consumer use phase is negligible. Therefore, the GHG emissions of the use phase from both of the footwear is not considered. However, the end-of-life phase includes reuse, recycling, incineration, and landfilling based on European scenarios, which contributes to GWP impacts of 9.94% for the POPCAT20 sandals and 8.78% for the SMASHv2L shoes.

↗ G.31 PRODUCT ENVIRONMENTAL FOOTPRINT[1-2]



1 Primary energy is the energy that is harvested directly from natural resources: coal, oil, natural gas and uranium.
2 Blue water is water that has been sourced from surface or groundwater resources and is either evaporated or incorporated into a product.

For the POPCAT20 sandals, the total global warming potential is 1.61 kg CO_2e. The total primary energy demand is 32.36 MJ with major contributions from ethylene vinyl acetate (EVA) (60.60%) and PU Synthetic (11.48%). The total blue water consumption is 31.02 kg with major contributions from the raw material PU Synthetic blend (51.85%) which contains 52% recycled polyester and 48% polyurethane. The remaining contribution comes from other materials, chemicals, electricity and fuel consumption.

For the SMASHv2L shoes, the total global warming potential is 4.61 kg CO_2e. The total primary energy demand is 90.38 MJ with major contributions from the polyester fabric (30.04%) and rubber (22.04%). The total blue water consumption is 41.33 kg with major contributions from PU-coated leather (33.41%).

POPCAT 20 sandals have a significantly smaller (65%) carbon footprint than SMASH v2L shoes. One reason for this is the lower net weight of POPCAT 20, which is 60% lower. Looking at the carbon footprint of materials, in the case of POPCAT 20, 64.5% of climate impact comes from the Ethylene Vinyl Acetate (EVA) while for Smash V2L, the majority of the impact comes from polyester and rubber, which accounts for 65.4% of the carbon footprint of the raw material of the product. This indicates that low-carbon material such as EVA has also contributed to the lower carbon footprint of POPCAT 20. Looking at energy consumption during

production, POPCAT 20 consumed 52% less electricity than SMASH v2L. This can be attributed to the lower net weight and the simplicity of the POPCAT 20 product design.

Though the SMASH v2L has a larger carbon footprint than the POPCAT 20, it is much smaller (4.61 kg CO_2e) when compared to previously conducted LCAs of footwear products in 2021 i.e. the Future Rider Play on (9.49 kg CO_2e) and Velocity Nitro (7.6 kg CO_2e). Both the Future Rider Play on and Velocity Nitro have a lower net weight of 0.78 kg and 0.72 kg as compared to the SMASH v2L which has a net weight of 0.955 kg/pair. The SMASH v2L is made of recycled materials such as recycled polyester, recycled PU, and recycled rubber along with recycled packaging materials and the quantity of leather used is much lower, which explains the lower carbon footprint when compared to the Rider Play on and Velocity Nitro.

The key takeaways from the LCA study are, to make future footwear products lighter, increase the usage of low-impact materials such as recycled polyester or recycled PU and reduce the use of high-impact materials such as virgin PU and virgin polyester. The supply chain for footwear products is complex and involves multiple stages such as raw material extraction, processing, finishing, assembly, distribution and end of life. The LCA study is used to understand the value chain environmental impacts of our products.

PUMA intends to use the outcomes of the study to raise internal awareness and improve the product's environmental footprint by increasing the use of more sustainable materials (recycled or biosynthetic), improving resource efficiency, optimizing energy use, promoting renewable energy in the value chain, and enhancing the circularity of our products.

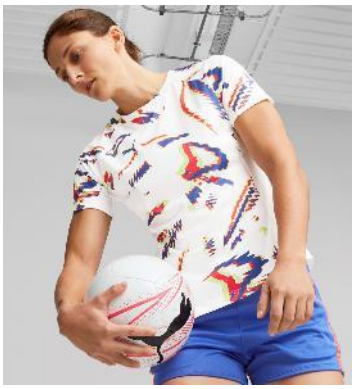
COMPARATIVE LCA VIRGIN POLYESTER VS. PET RECYCLED POLYESTER VS. RE:FIBRE POLYESTER PRODUCTS

In 2023, PUMA engaged Sphera, Inc. to conduct a comparative Life Cycle Assessment (LCA) of three types of sports jerseys made from virgin polyester, PET recycled polyester and RE:FIBRE, in our Turkey supply chain. The RE:FIBRE process uses mainly polyester material from factory offcuts, faulty goods and used clothes. PET recycled polyester comes from PET plastic bottles.

The LCAs were performed using the "cradle to grave" approach. The objective was to quantify the environmental impacts associated with the production of these three types of jerseys using the LCA approach. The products studied were:

Virgin polyester jersey
Net weight 1.316 kg
(100% Virgin Polyester)

PET recycled polyester jersey
Net weight 0.964 kg
(88% Mechanically Recycled Polyester and 12% Virgin Polyester)



RE:FIBRE polyester jersey
Net weight 0.904 kg
(57% Chemically Recycled Polyester, 34% Mechanically Recycled Polyester, and 9% Virgin Polyester)

The scope of this study includes raw material sourcing and extraction, transportation of raw materials to the manufacturing location, manufacturing of the jersey products, product distribution, product use phase and end of life (EoL) of product and packaging.

The LCA study indicates that per kg, the PET recycled polyester jersey has the smallest carbon footprint (13.19% lower as compared to virgin polyester jersey) among the three products compared in the study. Whereas, per kg, the RE:FIBRE polyester jersey has a 7.31% lower Global Warming Potential (GWP) impact when compared to the virgin polyester jersey. The RE:FIBRE polyester jersey has 57% chemically recycled fibre which has a higher GWP impact as compared to mechanically recycled fibre but a lower one than virgin recycled fibre.

The total primary energy demand also exhibits a similar trend, due to same factor as the carbon footprint. The PET recycled polyester jersey and RE:FIBRE Polyester Jersey are 16.15% and 12.13% lower respectively per kg than the virgin polyester jersey.

The LCA study also indicates that, the water consumption per kg of PET recycled polyester jersey and RE:FIBRE polyester jersey is 1.10% and 2.82% higher than per kg value of the virgin polyester jersey.

Although textile-to-textile technology currently has a larger environmental footprint than mechanical recycling, through the RE:FIBRE programme, PUMA is keen to address the challenge of textile waste via a long-term solution for recycling. The technology also looks to diversify the fashion industry's main source of recycled polyester in garments to make it less reliant on clear plastic bottles. We also believe that this technology has room to become more energy efficient in future.

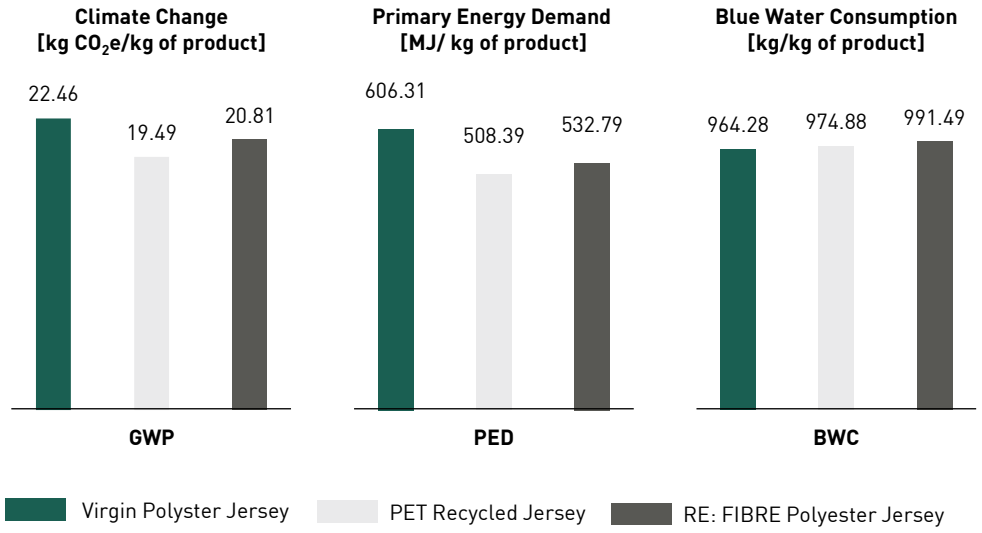
Managing waste has become a necessity, which is why PUMA is ramping up its investment into resource-efficient manufacturing processes in a move to reduce textile waste. Textile waste build-up in landfills is an environmental risk. Rethinking the way we produce and moving towards a more circular business model is one of the main priorities of our Sustainability Strategy.

To help make the technical process of RE:FIBRE more digestible for the everyday consumer who wants to know more, PUMA has created a RE:FIBRE process explainer video, which can be accessed **here**.

The four-step process of RE:FIBRE:

- Collect and Sort: collecting and sorting textile waste and other previously wasteful materials.
- Shred and Mix: shredding and mixing the collected materials
- Dissolve, Filter and Polymerize: Dissolving the shredded polyester and removing dyes through a chemical recycling process.
- Melt, Spin, Knit and Sew: The melting makes the newly produced polymers ready to be spun and sewn into shape to create good as new RE:FIBRE fabric which can be recycled again and again.

↗ G.32 ENVIRONMENTAL FOOTPRINT OF POLYESTER JERSEYS[1-2]



1 Primary energy is the energy that is harvested directly from natural resources: coal, oil, natural gas and uranium.
2 Blue water is water that has been sourced from surface or groundwater resources and is either evaporated or incorporated into a product.

COMPARATIVE LCA OF 3 TYPES OF COTTON FABRIC

PUMA engaged Sphera to conduct a comparative Life Cycle Assessment (LCA) of one kilogramm of 100% virgin piece dyed cotton fabric, 75/25 virgin/undyed recycled piece dyed cotton fabric and 75/25 virgin/coloured recycled piece dyed cotton fabric.

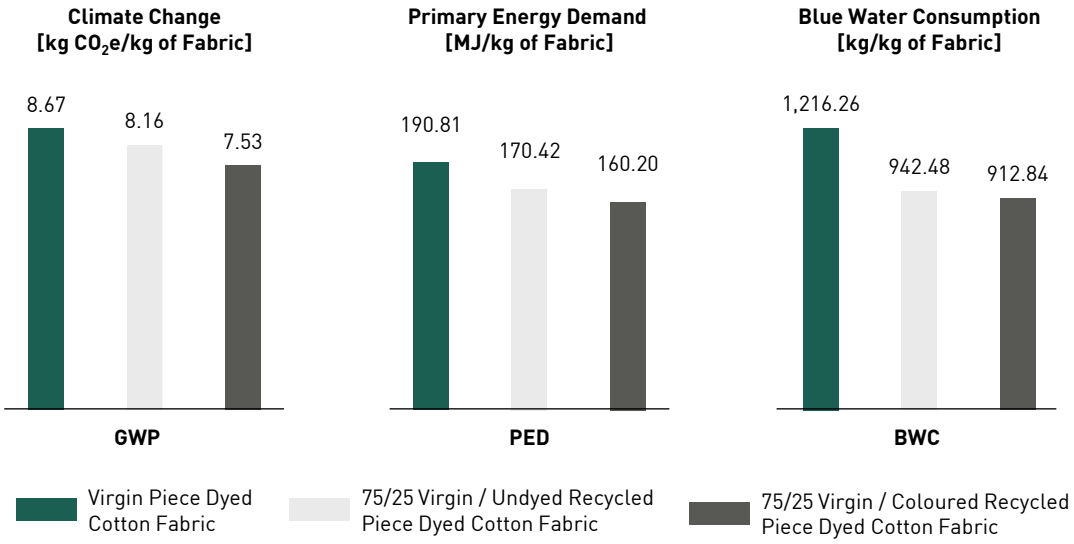
Piece dyed fabric is fabric made of grey yarns which are dyed, and is different to yarn dyed fabric: a fabric that is knitted using dyed yarn.

LCAs are performed using the "cradle to gate" approach. Since this is the "cradle to gate" approach, consumer use phase and fabric end-of-life impacts for the cotton fibre products were not considered in this LCA study.

The main objective of the study is to quantify the environmental impacts associated with the production of these fabrics across various life cycle stages of the manufacturing process, including the supply of raw materials and energy carriers. The primary data considered for the study was collected from three PUMA suppliers stretched across two regions, Bangladesh (two factories) and Turkey (one factory). The data collected includes data for all the production processes such as collection and pre-processing, yarn spinning, knitting and inspection, pre-treatment, dyeing, compacting and drying.

The LCA study indicates that for one kg of 75/25 virgin/undyed recycled piece dyed cotton fabric, the carbon footprint is 5.83% smaller compared to the 100% virgin piece dyed cotton fabric. This change was mainly influenced by the inclusion of 25% undyed recycled cotton material. For 1 kg of 75/25 virgin/coloured recycled piece dyed cotton fabric, the carbon footprint was smaller by 13% when compared to the 100% virgin piece dyed cotton fabric. This change was mainly influenced by the inclusion of 25% coloured recycled piece dyed cotton fabric. When comparing these three fabrics, the environmental impacts of 75/25 virgin/coloured recycled piece dyed cotton fabric were found to be the lowest. This is due to the usage of 25% recycled yarn which is recovered from a coloured fabric and hence requires fewer chemicals and less energy during the dyeing process.

↗ G.33 ENVIRONMENTAL FOOTPRINT OF COTTON FABRICS



Additionally, it was found that the most significant carbon footprint impact is related to the conventional dyeing of fabric followed by the impacts of cotton cultivation and yarn spinning. Primary energy demand is largely driven by the cultivation of cotton, followed by conventional dyeing of fabric. Water consumption is largely driven by cotton cultivation followed by conventional dyeing, compacting and drying processes.

In the study, we also evaluated the environmental impacts of different types of dyeing technologies such as conventional and Pad-Steam dyeing processes for the three types of fabrics. The Pad-Steam process is a textile finishing technique used to apply chemicals or dyes to fabric. It is a combination of two steps: padding and steaming. This process is employed to achieve uniform coloration, improved fabric properties, and enhanced performance characteristics. This study was conducted at a factory located in Turkey that uses both technologies. Conventional dyeing for knitted products is typically a batch process in which the fabric is loaded along with water, chemical and dyestuffs and processed for a fixed number of hours based on the type of fabric. Whereas, Pad-Steam dyeing is a continuous dyeing process, in which the fabric is dyed by immersing the fabric in the dye solution for a few seconds, immediately pressed through a roller and then steamed. Pad-Steam dyeing is more resource-efficient as compared to conventional dyeing. This was further corroborated by our LCA study. Pad-Steam dyeing was found to have a smaller environmental footprint than conventional dyeing. It was observed that the Pad-Steam dyeing process has 81.9% less energy and 80.5% less water consumption as compared to the conventional dyeing process.

It was found that Pad-Steam dyeing for 100% virgin piece dyed cotton fabric has a 34.8% smaller carbon footprint as compared to conventional dyeing. The corresponding figure for 75/25 virgin/undyed recycled piece dyed cotton fabric was 36.9% and 25.02% for 75/25 virgin/coloured recycled piece dyed cotton fabric. Similar trends were also observed for primary energy demand and water consumption.

The LCA study clearly indicates that the inclusion of recycled cotton fabrics has a smaller environmental footprint and hence is to be promoted for future product development. However, there are currently technological limitations surrounding increasing recycled cotton to more than 25% in a cotton fabric mix. This calls for a focus on future innovation in this area. Furthermore, our suppliers could adopt better dyeing technologies such as the Pad-Steam dyeing process which has a smaller environmental footprint.

MATERIAL ORIGIN

Mapping and assessing risk and impact practices in the lower tiers of the supply chain helps us to identify opportunities for improvement.

COTTON

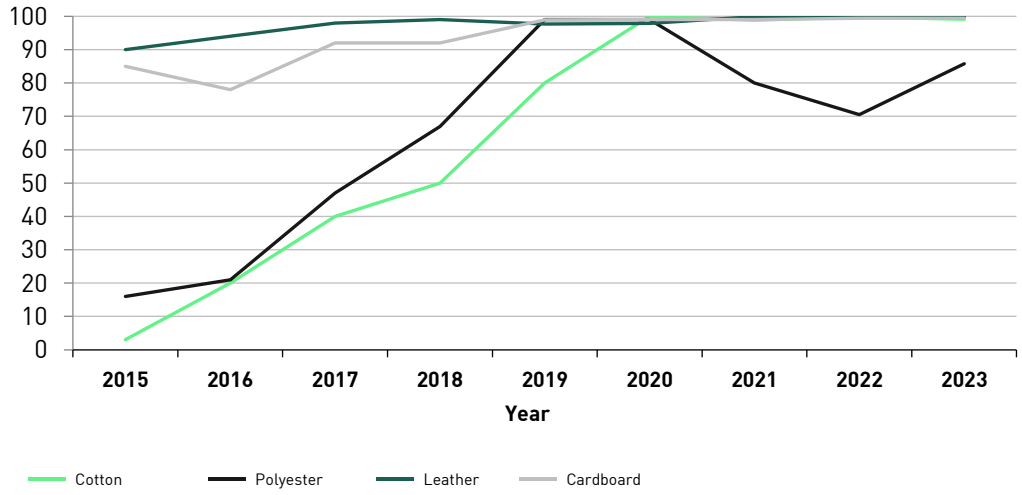
In 2023, we sourced approximately 34,000 tons of cotton. To reach our 100% targets for certified or recycled cotton, we require our suppliers to only source cotton from farms that are licensed or certified as having good farming and human rights standards, or recycled cotton. 96% of the cotton used in PUMA products comes from the USA, Brazil, Australia, India, Bangladesh, Vietnam, Indonesia and Turkey.

LEATHER

In 2023, we sourced approximately 3,500 tons of bovine leather. We are working on improving the traceability of the leather we use by recording the traceability score of our leather manufacturers certified by the Leather Working Group. The leather used in PUMA footwear mainly comes from the USA (61%), Argentina (27%), Australia (6%) and Brazil (5%). We also monitor our LWG (Leather Working Group) medal-rated tanneries' traceability performance. Most suede tanneries work with agents and intermediaries besides direct tanneries to guarantee a stable sourcing supply. Suede is a byproduct of the full-grain leather business. This creates a challenge to full traceability. This explains why our suede leather LWG tanneries have a worse traceability performance than full-grain LWG tanneries. We aim to increase all of our LWG medal-rated tanneries' traceability performance over time.

MATERIAL CONSUMPTION DATA

↗ G.34 CERTIFIED OR RECYCLED MATERIALS DEVELOPMENT[1-2]



1 Cotton and polyester including apparel and accessories material (including trims)
2 Proliferation for 2023 based on actual data in January - September 2023 and previous data October - December 2022

As in previous years, a significant percentage of our materials can be attributed to cotton either from the Better Cotton Initiative, recycled or organic cotton, to polyester that is either bluesign® or OEKO-TEX®-certified, recycled or bio-based polyester, and to leather sourced from Leather Working Group (LWG)-certified tanneries or recycled leather. In addition, we only use down feathers certified by the Responsible Down Standard and 84% of our man-made cellulosic (MMCF) is made by green shirt-rated MMCF suppliers with a proven track record on sustainability based on the Hot Button report from the NGO Canopy.

Therefore, more than 87% of our apparel, 40% of our accessories and 93% of our footwear products are already classified in line with the definition in our PUMA Sustainability Index.

Coverage and calculations are more complex for footwear because all of our shoes are made from several components. The main materials we use are polyester, polyurethane, rubber, leather and nylon. In line with our earlier targets, we have achieved 99.7% coverage of leather sourced from LWG-certified tanneries.

In 2023, 99.2% of the cotton used came from certified or recycled sources, as did 85% of our polyester.

We hardly used wool in 2023 (6,566 kg). Nevertheless, we see an increased number of factories certified in line with the Responsible Wool Standard (RWS). We organised a RWS training for our in-scope suppliers in June 2023, and the positive results were shown by the six RWS-certified factories in our supply chain. We aim to reach 100% certified wool in 2025.

↗ T.45 DEVELOPMENT OF CERTIFIED OR RECYCLED MATERIAL USAGE*

Cotton	**Apparel**	**Accessories**	**Footwear**	**Total**
Better Cotton	90.6%	23.2%	8.0%	90.3%
Recycled	8.6%	16.7%	1.6%	8.6%
Organic	0.3%	0.3%		0.3%
Conventional	0.6%	59.7%	90.5%	0.9%

Polyester	**Apparel**	**Accessories**	**Footwear**	**Total**
Recycled	68.4%	29.3%	56.5%	61.8%
Oekotex® / bluesign®	30.3%	54.5%	8.1%	23.3%
Sorona®	0.1%		0.2%	0.1%
Conventional	1.2%	16.2%	35.2%	14.8%

Manmade cellulosics	**Apparel**	**Accessories**	**Footwear**	**Total**
Green Shirt-rated fiber producers**	82.4%			72.7%
Ecovero®	12.7%		0.7%	11.3%
Conventional	4.9%	100.0%	99.3%	16.0%

Polyamide (nylon)	**Apparel**	**Accessories**	**Footwear**	**Total**
Recycled	26.4%	60.2%	2.0%	19.3%
Oekotex® / bluesign®	70.8%	38.2%	13.9%	46.9%
Conventional	2.8%	1.6%	84.2%	33.8%

Leather	Apparel	Accessories	Footwear	Total
LWG medal-rated tannery			99.96%	99.7%
Recycled			0.04%	0.04%
Conventional		100.0%		0.22%

Rubber	Apparel	Accessories	Footwear	Total
Synthetic	34.7%	52.6%	93.9%	93.0%
Natural	65.3%	32.5%	1.2%	1.9%
Recycled		15.0%	4.9%	5.1%

PU	Apparel	Accessories	Footwear	Total
Recycled	2.4%	1.5%	2.4%	2.4%
Oekotex® / bluesign®	93.4%			0.8%
Water-based		0.02%	1.1%	1.0%
Bio-based			0.4%	0.4%
Conventional	4.3%	98.48%	96.1%	95.4%

Down	Apparel	Accessories	Footwear	Total
RDS certified	100%			100%

* Figures include trims and exclude licensee production as well as production from stichd. For further details on the reporting scope, please refer to the Scope of the Report section.

** Green Shirt-rated fiber producers, as set by the annual Canopy Hot Button report, encourage existing fiber suppliers to commit to CanopyStyle and a Canopy Audit.

↗ T.46 CERTIFIED OR RECYCLED MATERIALS BY PRODUCT DIVISION*

	2023	2025 target
Apparel		
Certified or recycled cotton	99.4%	100%
Certified or recycled polyester	98.8%	100%
Certified or recycled MMCF	95.1%	100%
Certified or recycled PU	95.7%	NA
Accessories		
Certified or recycled cotton	40.3%	100%
Certified or recycled polyester	83.8%	100%
Certified or recycled MMCF	0.0%	100%
Certified or recycled leather	0.0%	100%
Certified or recycled PU	1.5%	NA

Footwear		
Certified or recycled cotton	9.5 %	100 %
Certified or recycled polyester	64.8 %	100 %
Certified or recycled MMCF	0.7 %	100 %
Certified or recycled leather	100 %	100 %
Certified or recycled PU	3.9 %	NA
L&P paper/cardboard products**		
Recycled and/or FSC-certified	99.4 %	100 %

* Figures include trims and exclude licensee production as well as production from stichd. For further details on the reporting scope, please refer to the Scope of the Report section.
** Including outer cardboard boxes, which were excluded in previous years.

In 2023, the total number of GRS/RCS certified factories has increased to 159 from 145 in 2022. This indicates a higher uptake of recycled material due to the launch of more sustainable products in our product mix. In 2023, we saw an increased number of factories certified by the Responsible Wool Standard.

↗ T.47 NUMBER OF FACTORIES WITH CERTIFICATION[1]

Number of factories certified	GRS/RCS	GOTS	OCS	RDS	RWS	LWG
Apparel & Accessories Tier 1 and Tier 2	128	30	23	6	6	NA
Footwear Tier 1 and Tier 2	31	0	1	NA	1	NA
						32 Gold
Leather Tanneries						4 Silver

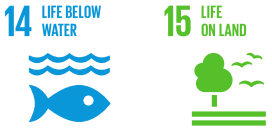
1 GRS: Global Recycling Standard, RCS: Recycled Claim Standard, OCS: Organic Content Standard; GOTS: Global Organic Content Standard; RDS: Responsible Down Standard, RWS: Responsible Wool Standard, LWG: Leather Working Group.

BIODIVERSITY

TARGET DESCRIPTION:

- Support the industry in setting a science-based target for biodiversity
- 100% cotton, leather and down procured from certified sources (shared target)
- Zero use of exotic skins and hides

Relates to United Nations Sustainable Development Goals 14 and 15



The world's biodiversity experts agreed to conserve 30% of the world's land and oceans by 2030. Biodiversity is also inextricably linked to climate change.

Consequently, we have dedicated one of our 10FOR25 sustainability target areas to biodiversity. Most of PUMA's biodiversity impact is based in the supply chain, particularly to the usage of agricultural raw materials. However, we also include biodiversity checks in our annual environmental data collection for our own offices, stores and warehouses around the globe.

BIODIVERSITY POLICY

As part of the Fashion Pact, we are committed to supporting the development of science-based targets related to biodiversity.

In 2021 we published the PUMA biodiversity policy and animal welfare policy- signed off by our Board of Management- to create a framework for our approach to biodiversity and animal welfare. These policies are available for download on our **website**.

This includes our commitments:

- as a supporting partner of the CanopyStyle initiative, to only source our viscose from Green Shirt-rated suppliers in order to protect endangered forests and species.
- to source the leather used in PUMA products solely from manufacturers who implement industry best practice standards of environmental management and traceability, such as the leather working group.
- to source all our paper and paper-based packaging from recycled sources and/or Forest Stewardship Council-certified sources. PUMA acted as a partner of Canopy's Pack4Good initiative to collectively reduce any risk of sourcing from ancient and endangered forests by 2022 and promoting next-generation solutions.

At PUMA we care for the welfare of animals. We do not use animal products which originate from animals that have been treated inhumanely. Therefore, we aim to implement high welfare and traceability standards and have published an Animal Welfare Policy. PUMA consults animal protection organisations on a regular basis to review our policies and actions. As a sign of our commitment to animal welfare, we joined the Fur Free Retailer programme and phased out the use of kangaroo leather in 2023.

BIODIVERSITY IN OUR OWN OPERATION

We checked via our annual environmental reporting campaign and confirmed that none of our PUMA sites are located within a protected area. We have identified one site in South Africa, as being located next to a protected area, which holds a rare species of the plant, Renosterveld Finbos. This site is an office location, and is fenced off from the protected area, so any negative impact on these plants can be ruled out.

There are green roofs which offer additional habitats for insects as well as wildflower meadows and beehives on our headquarters in Herzogenaurach, as well as on our (outsourced) German central logistics centre.

BIODIVERSITY IN OUR SUPPLY CHAIN

Many species, including plants, animals, bacteria and fungi are being threatened with extinction due to human activities such as deforestation, putting Earth's biodiversity at risk. Apparel supply chains are directly linked to soil degradation, conversion of natural ecosystems and waterway pollution. Two-thirds of apparel shoppers say that limiting the impact on climate change is now more important to them now than before COVID-19 (McKinsey: Biodiversity – The next frontier in sustainable fashion).

PUMA is a signatory to the Fashion Pact, a global initiative of companies in the fashion and textile industry (ready-to-wear, sport, lifestyle and luxury), all committed to a common core of key environmental goals in three areas mitigating global warming, restoring biodiversity and protecting the oceans.

Biodiversity loss and climate change are interdependent and mutually reinforcing. For example, protecting forests could help reduce greenhouse gas emissions. In turn, the rise of global temperatures increases the risk of species becoming extinct. In 2019 PUMA published its science-based emissions target (SBT) with the SBT Coalition and joined the Fashion Pact. In 2023 an updated and 1.5 degree aligned science-based emissions target was approved for Scope 1 and 2 by SBT Coalition.

Please see the **Climate** section of this report to find out about our climate action and progress.

↗ T.48 SUSTAINABLY SOURCED NATURAL MATERIALS

Sub-targets	2023*	2022*	2021	Target 2025
Science Based Target (SBT)	Fund Biodiversity Landscape Report	Fund Biodiversity Landscape Report	Joined Fashion Pact activities on biodiversity	SBT set
Cotton (BCI** and/or recycled)	99.2%	99.9%	99%	100%
Leather (LWG-certified tanneries)	99.7%	100%	99.9%	100%
Down (RDS-certified)	100%	100%	100%	100%
Sustainably sourced viscose / MMCF	84%	97%	38%	100%
Cardboard and paper (FSC and/or recycled)	99.4%***	99.4%***	99% (product packaging supply chain)	100%

* Including trims and excluding licensee production

** Better Cotton Initiative (BCI) principle: Biodiversity and Land Use is one of the seven Better Cotton Principles and Criteria. Management practices address identifying and mapping biodiversity resources, identifying and restoring degraded areas, enhancing populations of beneficial insects, ensuring crop rotation and protecting riparian areas.

*** Including outer cardboard

Most of the negative impact on biodiversity comes from three stages in the value chain – raw material production, material preparation and processing, and end of life.

To mitigate the risk of biodiversity loss due to the production process, we address environmental pollution risk through our targets and supplier programmes related to climate, chemicals, water and air.

In 2021 we developed roadmaps for water and waste, which can be found in the **Water and Air**, and **Circularity** sections of this report. In 2022 we developed a biodiversity roadmap using the Fashion Pact Biodiversity Strategy Tool Navigator that is in line with SBTN recommendations.

At cotton farming level, Regenerative Agriculture practices aim to reduce the impact of production on soils and promotes soil health by restoring the soil's organic carbon. Through our partnership with Better Cotton, we support regenerative cotton farming practices. BCI farmers have to follow these two principles, among others:

- Care for the health of soil: This principle requires farmers to develop a Soil Management Plan. The plan should include practices that contribute to maintaining and enhancing soil structure and soil fertility, and continuously improving nutrient cycling.
- Enhance biodiversity and use land responsibly: This principle requires Better Cotton farmers to adopt a Biodiversity Management Plan to conserve biodiversity on and around their farm. This plan includes regenerative farming practices such as ensuring crop rotation, which helps with soil regeneration.

BIODIVERSITY ROADMAP

Scope: Cotton, Leather, Rubber, Paper, MMCF, Synthetics, Wool

Below are some key focus areas for the coming years. Some measures were implemented in 2022 and 2023 and are covered in this report.

- **Raise awareness:** We see the need to raise awareness internally and will be developing an e-learning on biodiversity for our staff. We also see the need to increase the awareness of our consumers. We aim to maintain transparency to keep a strong relationship with stakeholders while providing information about biodiversity actions. In 2022, PUMA sponsored the Biodiversity Landscape Analysis Report as an opportunity to foster collaboration and knowledge-sharing in biodiversity. Together with Textile Exchange, Conservation International and the Fashion Pact, the **Biodiversity Landscape Analysis Report** aims to provide a common reference point on the topic of biodiversity in the textile industry, and to offer concrete pathways for brands and retailers to deepen their engagement. The report, which was published in 2023 intends to help companies of all sizes and maturities to begin or continue their biodiversity journey.
- **Knowledge of impact:** We will explore traceability tools and conduct impact assessments, starting with leather and rubber. We collect material and packaging consumption data on an annual basis for the country of origin. For example, only a small percentage of the total leather used in PUMA products originates from South America, where deforestation is occurring at a rapid pace. Our EP&L identifies how the environmental impact is distributed along our value chain, for example, land use change per country, material type and tier level. The potential financial impact on land use was estimated to be approximately € 100 million in our 2023 EP&L.
- **Internal action:** We will define a KPI to be included in a supplier scorecard (environmental and chemical) and set biodiversity targets as well as traceability targets, starting with leather. We set goals to reach 100% cotton, leather, viscose, paper packaging and down-procured from certified sources in 2025. Both cotton farming and cattle ranching require extensive land use and are known to reduce biodiversity, 99.2% of cotton used in PUMA products is BCI or recycled cotton. 99.7% of the leather used in our footwear is sourced from Leather Working Group (LWG) medal-rated tanneries. Leather traceability is a first step towards reducing deforestation. We monitor our LWG medal-rated tanneries' traceability performance and have joined the LWG Traceability working group. We partner with the NGO, Canopy, a Canadian non-profit organisation with the mission to protect the world's forests, species and climate, and to help advance indigenous communities' rights. We aim to ensure that our sourcing of man-made cellulosic materials (such as viscose) as well as paper and cardboard, does not contribute to deforestation. 99.4% of our paper packaging is either recycled and/or FSC-certified. We commit to sourcing

100% of our viscose from suppliers committed to reducing the risk of sourcing from ancient and endangered forests. In 2023, 84% of viscose was sourced from Green Shirt-rated suppliers. We hardly used wool (6,566 kg in 2023), but we have initiated Responsible Wool Standards certification. We aim to reach 100% certified responsible wool by 2025.

- **Collaboration and partnership:** PUMA joined the Fashion Pact, a global coalition of companies in the fashion and textile industry that is committed to stopping global warming, restoring biodiversity and protecting the oceans. PUMA joined the Fashion Charter, and committed to sourcing 100% of priority materials as preferred materials by 2030 (material for which no natural ecosystems are converted or deforested). In 2021 we engaged with Canopy, who helped us develop our policy on forest protection. We also engaged with Canopy's initiatives: CanopyStyle and Pack4good. Through these initiatives, we started investigating the next generation of raw materials with a focus on biobased materials, such as wheat straw, as a partial substitute for paper in our shopping paper bags.

BIODIVERSITY RISK ASSESSMENT

In 2023, we conducted a biodiversity risk assessment for our key raw materials such as cotton, polyester and leather. For cotton and polyester, we used the Materials Impact Explorer tool provided by Textile Exchange. For leather, we used the Biodiversity Risk and Impact Dashboard of Fashion Pact. PUMA is currently taking steps to mitigate biodiversity risks and address environmental pollution risks through our targets and supplier programmes related to the climate, chemicals, water and air.

We evaluated the environmental risk of rubber using the EiQ platform from Elevate. EiQ is a data-driven supply chain Environmental, Social, and Governance (ESG) due diligence platform used by businesses to enhance ESG risk management. The environmental risk encompasses water use, non-GHG air pollutants, terrestrial ecosystem use, soil pollutants, solid waste and water pollutants. We also mapped our sourcing of these materials by country.

For cotton and polyester, we mapped our material consumption by country of origin using the Materials Impact Explorer tool to evaluate the potential impact on biodiversity in terms of changes in the state of nature (quality or quantity) which may result in changes to the capacity of nature to sustain social and economic functions. We also evaluated the risk of dependency in terms of environmental assets and ecosystem services that an organisation relies on to function. The dependency risk rating for recycled cotton and recycled polyester is not applicable as per the tool used. The outcome of the assessment is summarised below. The risk profile of a few countries from which PUMA is sourcing cotton and polyester is not available in the tool. However, such countries represent less than 5% of our sourcing volume for cotton and 13% for polyester.

As a next step, we will look at a collaborative approach and join programmes with third-party initiatives to understand governance challenges.

Cotton: In 2023, we sourced 63% of cotton from the USA, followed by Brazil (15%) and Australia (8%). These three countries have high a risk rating for potential impact. 4% of cotton is sourced from India which a very high-risk country.

In terms of dependency risk, the USA, Brazil and Australia are categorised as high-risk countries, whereas India is categorised as a very high-risk country.

We have required our suppliers to source only cotton grown in farms that are licensed as having good farming and human rights standards or recycled cotton from factories that are either Global Recycled Standard (GRS) or Recycled Claim Standard (RCS) certified in 2025.

PUMA is taking steps to mitigate the biodiversity risks associated with the cotton sourcing. These include the adoption of BCI cotton, increased usage of recycled cotton, focusing on innovation to increase the share of recycled cotton in our products, conducting Life Cycle Assessment of products and materials to evaluate

environmental impact in different lifecycle stages and engaging with textile exchange to stay informed on industry best practices.

We collect material consumption data on an annual basis along with the country of origin and require our suppliers to keep all the supportive documentation at disposal. We have also established an on-going due diligence programme with our partner laboratory in Germany where we regularly test samples of cotton finished garments before shipment. This further strengthens traceability and control across our supply chain, from the raw material to the finished products.

Through our partnership with Better Cotton, we support regenerative cotton farming practices. Better Cotton Soil Health principles require farmers to develop a Soil Management Plan. The plan should include practices that contribute to maintaining and enhancing soil structure and soil fertility, and continuously improving nutrient cycling.

Better Cotton Biodiversity principles require Better Cotton farmers to adopt a Biodiversity Management Plan to conserve biodiversity on and around their farms. This Plan includes regenerative farming practices such as ensuring crop rotation, which helps with soil regeneration. Biodiversity loss and climate change are interdependent and mutually reinforcing. Protecting forests, for example, could help reduce greenhouse gas emissions.

Through our partnership with Better Cotton, we also support cotton farmer producers for climate-friendly practices, Better Cotton has set the goal of reducing greenhouse gas emissions by 50% per ton of Better Cotton lint produced by the end of the decade.

In 2023, the share of BCI cotton was 90% and recycled cotton made up 8.6% of all cotton sourced by PUMA.

Polyester: We sourced 79% of our polyester from China in 2023, followed by Taiwan 9.2% and Vietnam 7.4%. We sourced both virgin polyester and recycled polyester from China, whereas we sourced only recycled polyester from Taiwan and Vietnam. China has a very high-risk rating in terms of the potential impact of virgin polyester. Recycled polyester is rated as medium risk irrespective of country of origin by the Textile Exchange tool.

In terms of risk related to dependency, China, Turkey, South Korea, Japan and Indonesia are rated as very high-risk countries for virgin polyester whereas the USA and Germany are considered as high-risk countries. However, apart from China, we source a negligible volume (around 1%) from high, and very high-risk countries.

We have required our suppliers to source only polyester-certified to Bluesign/ Oekotex, or recycled polyester from factories that are either Global Recycled Standard (GRS) or Recycled Claim Standard (RCS) certified in 2025. PUMA has joined the Textile Exchange polyester challenge, since our 2025 goal of 75% recycled polyester is aligned with this challenge. While most of our recycled polyester to date has been made from PET bottles, PUMA launched the innovative RE:FIBRE programme, and can repurpose collected textile waste and other used materials to create new textiles. We engaged our core fabric manufacturing plants in energy efficiency programmes and are helping them to transition to 25% renewable energy processing in 2025. We monitor and report chemical discharges, and work to eliminate pollutant chemicals.

In 2023, we sourced a bio-based, high-performance polyester fibre known as Sorona, which constitutes 0.11% of our total polyester consumption. Sorona contains over 20% bio-based carbon, which helps reduce the environmental impact without sacrificing quality and performance. Sorona is produced using a fermentation process which utilizes corn sugar as the main ingredient.

Leather: The Fashion Pact Dashboard allows us to assess overall risk in terms of biodiversity loss and land use area. However, biodiversity risk specific to leather usage by a brand or company cannot be evaluated by using this dashboard. We plan to explore a more specific tool for leather in future.

In 2023, we sourced 61% of our leather from the USA, followed by Argentina (27%), Australia (6%) and Brazil (5%). The risk assessment indicates that the USA has a risk rating of very high for land use impact and high risk for biodiversity loss, while Argentina has a very high-risk rating for land use impact and a medium risk rating for biodiversity loss. Australia has a medium-risk rating for both impact categories while Brazil has very high-risk rating for both impact areas.

PUMA is taking several steps to mitigate the biodiversity risks associated with leather sourcing. These include sourcing leather from LWG-rated tanneries, setting goals for sourcing deforestation-free leather, and focusing on innovation in the development of recycled and other bio-based alternatives. We engage with Fashion Pact, Textile Exchange and the Leather Working Group to remain updated about industry best practices.

We have committed to sourcing all the bovine leather used in our products from verified **deforestation-free supply chains** by 2030 or earlier launched by global non-profits Textile Exchange and the Leather Working Group. The initiative aims to create equitable, transparent, and deforestation-free leather supply chains. The cross-sector initiative is aimed at galvanizing brands into action to end the deforestation and conversion of natural ecosystems linked to leather sourcing. In doing so, it looks to protect wildlife habitats and biodiversity, preserve carbon stocks to mitigate climate change, and protect human rights.

Close to 100% of the leather that PUMA currently sources comes from Leather Working Group-certified tanneries. This means that the leather used in PUMA products comes from manufacturers who are working to implement industry best practices of environmental management and traceability. PUMA currently monitors its LWG medal-rated tanneries' upstream traceability performance.

However, around 76% of the leather used at PUMA is suede, a byproduct of the full-grain leather business. The challenge faced currently by PUMA and others in the industry is that most suede tanneries work with agents and intermediaries alongside direct tanneries, to guarantee a stable supply which creates a challenge to have full traceability at the cattle ranch level.

Our innovation team has worked to address the technological limitations of a shoe designed for composting and launched the RE:SUEDE experiment. In 2022, 500 participants were asked to wear their RE:SUEDEs for six months before returning them to PUMA for the next stage of the experiment. A total of 412 pairs of worn RE:SUEDEs were returned to PUMA and sent to our industrial composting partner Valor Composting – a family business that takes a different approach to waste. We discovered that it is possible to turn the RE:SUEDE into Grade A compost under specific industrial conditions provided by Ortessa. RE:SUEDE is mainly made up of zeolite-tanned suede leather, hemp fibres, biodegradable TPE and organic cotton. The zeolite tanning process is an innovative approach to in tanning chemicals, which use mineral zeolite and is free from toxic substances such as chrome, heavy metal and aldehyde. We will continue to innovate with our partners to determine the infrastructure and technologies needed to make the process viable for a commercial version of the RE:SUEDE, including a take-back scheme, in 2024.

Synthetic Rubber: We sourced, 74% of our synthetic rubber from China, followed by Vietnam 14% and South Korea 4%. China and South Korea are high-risk countries, while the risk profile for synthetic rubber from Vietnam is not available on the EiQ platform. High risks are Greenhouse Gas emissions, water use and solid waste.

We have not yet mapped the manufacturing plants supplying synthetic rubber to our outsole manufacturers. As part of our 10FOR25, we work on developing recycled materials as alternatives to rubber. In 2023, 5% of synthetic rubber was recycled. We engage our strategic outsole suppliers in Higg FEM (environmental performance tool measurement which includes energy use and greenhouse gas emissions, water use, wastewater, emissions to air and waste management) and work with them to eliminate pollutant chemicals.

Natural Rubber: In 2023, we sourced 29% of natural rubber from Vietnam, followed by Brazil 25%, Pakistan 13%, and Thailand 5%. Vietnam is categorised as an extreme risk country, while risk profiles for natural rubber from Brazil, Pakistan and Thailand are not available on the EiQ platform**.** The main high risks are water use and impact on ecosystem. In 2023, only 2% of the rubber used in our products was natural rubber. We aim in future to only source FSC certified rubber. FSC certification include adopting standards to maintain, conserve, and/or restore the ecosystem and environmental values of managed forests and avoid, repair, or mitigate negative environmental impacts.

↗ G.35 PUMA CDP FOREST SCORE

PUMA's CDP Forestry score improved from C in 2021 to B- in 2022. Until the end of January, 2024, we retained our B-score. PUMA's rating is better than the average performance of the sector (textile and fabric goods) which has an average rating of C. The overall global average rating stands at C. For more information, please visit the **CDP** website.

↗ T.49 E-KPIS - PAPER[1-4]

Paper (tons)	2023	2022	2021	2020	2019	2017	% Change 2023/2022	% Change 2023/2017
Paper and cardboard consumption PUMA*	**5,374**	**5,021**	**4,152**	**2,638**	**2,281**	**2,756**	**7%**	**95%**
Certified or recycled paper and cardboard consumption PUMA	4,911	4,393	3,306	1,848	1,818	2,025	12%	143%
Percentage of certified or recycled paper consumption	91%	87%	80%	70%	80%	74%		
Paper and cardboard consumption from PUMA production (shoe boxes, hangtags)	**25,602****	**30,656****	**19,670****	**18,538**	**14,863**	**14,129**	**-16.5%**	**81.2%**
Percentage of certified or recycled paper and cardboard consumption from PUMA production	99%**	99%**	88%**	99%	100%	n/a		

* Including paper bags, office paper and cardboard consumption
** Including outer cardboard boxes
1 PUMA figures include PUMA owned or operated offices, warehouses and stores. Includes our own production sites in Argentina. All other production is outsourced to independent supplier factories, some warehouse operations are outsourced to independent logistics providers. Franchised stores are excluded.
2 PUMA production figures include core Tier 1 supplier factories, Apparel, Footwear & Accessories (54 factories) and core Tier 2 supplier factories, Leather, PU and Textiles (40 factories).
3 Data includes extrapolations or estimates where no real data could be provided.
4 Methodological changes over the last three years have influenced results.

ENVIRONMENTAL KEY PERFORMANCE DATA

Γ

The PUMA Environmental Profit and Loss Account, or EP&L, calculates the environmental impact of PUMA's activities in financial terms across six categories from raw material production to the PUMA store. While the EP&L is not a precise measurement tool, it helps to show the categories and stages of the value chain in which the impact is greatest and therefore gives a good indication of where we should focus our efforts.

The EP&L methodology, was developed in 2011 by PWC and Truecost, and later refined by Kering with the help of PWC. It mainly relies on material input and spending data.

Over the last years, we have added primary data for our Tier 1 and Tier 2 suppliers and developed specific EP&L emission factors for major materials used, such as Better Cotton.

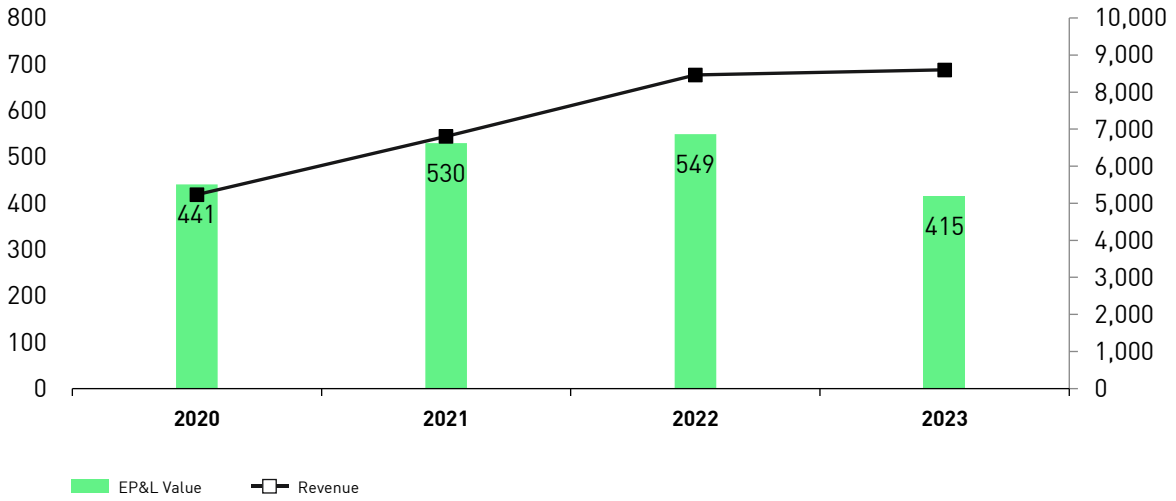
However, we are still in the process of fully aligning our EP&L methodology for Tiers 3 and 4 with internal and external standards. As a result, the table below differs from our Scope 3 emission calculation in the **Climate** section and also results in a high water value for Tier 3 due to some wet processing for leather and polyester being attributed to Tier 3.

We will continue to work on the alignment of methodologies to strengthen the EP&L as a valuable risk assessment and information tool.

↗ G.36 EP&L RESULTS 2023

		Tier 0 Own operations	Tier 1 Product manufacturing	Tier 2 Component manufacturing	Tier 3 Raw material processing	Tier 4 Raw material production
		2%	9%	14%	28%	48%
Air pollution	10%					
GHG emission	33%					
Land use	21%					
Waste	4%					
Water use	11%					
Water pollution	22%					
Total	100%	EP&L Value 2023: € 415 million				

↗ G.37 EP&L TREND 2020 – 2023



From our EP&L results, we can conclude that the production (48%) and processing of raw materials (28%) is responsible for the vast majority of the environmental impact from a process point of view, while greenhouse gas emissions (33%), water pollution (22%) and land use (21%) are responsible for over half of all environmental impact measured by the EP&L in terms of impact categories.

This confirms our strategy of transitioning to the use of low-impact materials at scale, while focusing on the reduction of greenhouse gas emissions across our supply chain.

The EP&L trend over the last years shows that the EP&L value is growing slower than sales. This means that while the overall impact was growing, we were able to reduce the EP&L value relative to sales. In 2023, we achieved an absolute reduction.
L

PRODUCT/MATERIAL-RELATED E-KPIS

We have been measuring the average environmental key performance indicators (E-KPIs) from Textile and Leather manufacturing (Tier 2) and Apparel and Footwear manufacturing (Tier 1) since 2017.

In 2023, the Greenhouse Gas emissions KPIs reduced across the product divisions, both Tier 1 and Tier 2, except for the footwear division, where it almost remained stable (increase by 0.2%) as compared to 2020. CO_2 emissions per piece of garment reduced by 23.2%; per square metre of leather produced, CO_2 emissions have reduced by 40.7% and per ton of textile produced, CO_2 emissions reduced by 9.2%. This was mainly achieved due to various climate actions initiated as described in the report. The participation of core suppliers in cleaner production and renewable energy programmes, installation of rooftop solar projects, switching from coal to biomass, and the purchase of RECs are the main contributor for these reductions achieved in Greenhouse Gas emissions.

In 2023, water consumption per pair/square metre reduced for footwear by 21.5% and 4.9% for textile as compared to the baseline of 2020 mainly due to the implementation of water efficiency measures including water recycling plants by a few textile mills towards the end of 2022.

However, the water KPI increased for apparel by 9.4%, and for leather by 11.7%. For apparel, production reduced by 15% as compared to 2020 (which is 33% reduction from 2022). Most of the apparel factories use water for domestic purposes and hence water consumption depends on the number of workers. In 2023, the market environment and increased inventory levels resulted in a need for more cautious procurement from

our suppliers, so the number of workers in core apparel factories decreased by 9% and production fell by 15% resulting in higher water consumption per piece of apparel as compared to 2020.

Out of five leather factories, two were new core factories and have not participated in resource efficiency programmes. One of the tanneries in China has relatively high water consumption as they process raw hide in-house, whereas other leather tanneries process wet blue leather (tanned leather, but not dried, dyed nor finished). Also, one tannery in Vietnam started tracking and reporting rainwater usage in 2023.

In 2023, production waste to landfills decreased by 87.4% for apparel and by 64.7% for the footwear division as compared to the 2020 baseline. This is mainly due to the adoption of better waste disposal practices by our suppliers and being able to achieve diversion from landfill. We also observed that factories were able to track and report waste data more accurately.

↗ T.50 FOOTWEAR E-KPI RESULTS (TIER 1)

Value	2023	2022	2021	2020	2019	2018	2017	Change 2020-2023	Number of suppliers
Energy/pair (kWh)	1.63	1.36	1.41	1.31	1.30	1.25	1.40	24.8%	21
CO_2/pair (kg)	0.75	0.7	0.68	0.74	0.96	0.93	1.00	0.2%	
Water/pair (L)	11.8	9.6	11.9	15.1	15.2	12.3	14.5	-21.5%	
Waste/pair (g)	122	134	141	145	127	109	116	-15.6%	
Waste to landfills/pair (g)	8.36	12.3	19.0	23.7	-	-	-	-64.7%	

↗ T.51 APPAREL E-KPI RESULTS (TIER 1)

Value	2023	2022	2021	2020	2019	2018	2017	Change 2020-2023	Number of factories
Energy/piece (kWh)	0.58	0.52	0.55	0.56	0.57	0.57	0.72	4.5%	19
CO_2/piece (kg)	0.17	0.19	0.20	0.22	0.24	0.26	0.31	-23.2%	
Water/piece (l)	5.03	3.83	4.23	4.60	4.39	4.20	7.58	9.4%	
Waste/piece (g)	60.7	58.2	62.3	54.3	56.3	46.5	44.0	11.8%	
Waste to landfills/piece (g)	0.33	2.66	2.40	2.64	-	-	-	-87.4%	

↗ T.52 LEATHER E-KPI RESULTS (TIER 2)

Value	2023	2022	2021	2020	2019	2018	2017	Change 2020-2023	Number of factories
Energy/SqM (kWh)	7.37	7.55	6.46	7.05	8.19	8.65	9.10	4.5%	5
CO_2/SqM (kg)	1.61	2.34	1.89	2.72	3.21	3.16	3.39	-40.7%	
Water/SqM (L)	76.4	56.9	60.9	68.3	74.7	90.20	91.80	11.7%	
Waste/SqM (kg)	0.67	0.60	0.50	0.68	0.78	0.85	1.56	-1.4%	

↗ T.53 TEXTILES E-KPI RESULTS (TIER 2)

Value	2023	2022	2021	2020	2019	2018	2017	Change 2020-2023	Number of factories
Energy/ton (kWh)	14,320	13,122	13,394	13,049	12,636	13,387	13,679	9.7%	32
CO_2/ton (T)	4.06	4.54	4.58	4.47	4.37	4.45	4.45	-9.2%	
Water/ton (m3)	98.3	98.5	98.7	103	106	123	119	-4.9%	
Waste/ton (kg)	276	289	121	78.9	62.1	70.6	300	250.0%	

For tables on E-KPI results, the values for November and December 2023 were estimated by employing the Exponential Smoothing (ETS) algorithm in Microsoft Excel, utilizing data from January to October of 2023. This approach was chosen after comparing it to alternative methods, considering its performance against actual historical data, specifically in terms of deviation from the actual values in percentage terms. The ETS method displayed both higher accuracy and higher precision compared to other methods, such as averaging the last 10/12 months or multiplying the estimated production by the average KPI (per production unit) from the 12 months of data spanning from November 2021 to October 2022.

REPORTING IN ACCORDANCE WITH THE EU TAXONOMY REGULATION

TAXONOMY OBJECTIVES

The Taxonomy Regulation (EU) 2020/852 (in the following "the Taxonomy") entered into force on 22 June 2020. The purpose of this regulation is to provide a definition of what constitutes a sustainable economic activity and to redirect capital flows into companies that are aligning their business models towards such sustainable economic activities. To achieve this goal, companies must report on the proportion of "environmentally sustainable" revenues, investments (capital expenditure) and operating expenses.

The focus of the Taxonomy lies on 6 environmental objectives:

- Climate change mitigation
- Climate change adaptation
- Sustainability and protection of water and marine resources
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems
- Transition to a circular economy

The Taxonomy has identified eligible economic activities that substantially contribute to each of these environmental objectives. Linked to these eligible activities are technical screening criteria as well as do no significant harm criteria and minimum safeguards that define whether the activity is considered sustainable or not (aligned).

Delegated Regulation (EU) 2021/2178 as of July 6, 2021 on the climate objectives (climate change mitigation (Annex I) and climate change adaptation (Annex II)) ("the Climate Delegated Act"), was published in the Official Journal on December 9, 2021 and entered into force on January 1, 2022 ((EU) 2021/2139). Further delegated acts for the remaining objectives were published in 2023, namely EU 2022/1214 (Complementary Climate DA), EU 2023/2485 (amending EU 2021/2139), EU 2023/2486 (targets three to six), C(2023)3850 (Amended Climate DA) and C(2023)3851 Environmental DA (targets three to six).

DISCLOSURE REQUIREMENTS FOR NON-FINANCIAL UNDERTAKINGS

According to Article 2 of the Climate Delegated Act and Article 8 of the Taxonomy any undertaking subject to the Non-Financial Reporting Directive (NFRD) must provide information on "environmentally sustainable" revenues, investments (capital expenditure) and operating expenses (OpEx).

According to Article 10 of the Climate Delegated Act undertakings must disclose the proportion of Taxonomy-eligible and Taxonomy non-eligible economic activities in their total turnover, capital expenditure and operational expenditure. The eligibility of an activity implies that an activity is included in the Climate Delegated Act. Whether an activity is Taxonomy-eligible or not says nothing about the sustainability of that activity. Being Taxonomy-eligible is merely an indication that a certain activity makes a substantial contribution to one of the six environmental objectives of the Taxonomy. From January 1, 2023, the disclosure must also include information on taxonomy alignment, meaning only activities that are included in the "environmentally sustainable share" of the three performance indicators. An economic activity is environmentally sustainable if it:

- makes a significant contribution to the achievement of one or more environmental goals (significant contribution, SC)

- does not result in significant harm to one of more of the environmental objectives (do no significant harm, DNSH)
- is carried out in compliance with a defined minimum level of protection (minimum safeguards, MS) and complies with technical screening criteria (TSC) of Annex I and Annex II.

TAXONOMY-ELIGIBILITY OF PUMA'S ECONOMIC ACTIVITIES IN RESPECT TO THE ENVIRONMENTAL OBJECTIVES OF THE EU TAXONOMY

The technical screening criteria in Annex I and Annex II of Delegated Regulation (EU) 2021/2139 of June 4, 2021 for the first two environmental objectives, namely climate change mitigation and climate change adaptation, do not list any business activities that are linked to the production and sale of footwear, apparel and accessories. This means that PUMA's business activities so far do not qualify as contributing substantially to climate change mitigation or climate change adaptation.

Further technical screening criteria were published as Annexes I, III and IV of Delegated Regulation (EU) 2023/2486 (supplementing EU 2020/852) of June 27, 2023, for the remaining environmental objectives, namely sustainable use and protection of water and marine resources, pollution prevention and control as well as restoration of biodiversity and ecosystems. Likewise, these do not list any business activities that are linked to the production and sale of footwear, apparel and accessories.

For the remaining environmental objective published as Annex II, the transition to a circular economy, activities related to apparel are listed, but are limited to sales generated by services such as repair, remanufacturing or refurbishment, preparation for reuse, sale of second-hand goods, or product as a service business models, none of which are not part of PUMA current revenue generating activities.

As mentioned in the Circularity section of this report, PUMA and its partners are piloting fibre to fibre recycling technology and take-back systems. However, those activities have not generated any significant Taxonomy-eligible or aligned sales under the definition of Annex II and had a project status in 2023.

Therefore, PUMA's business activities in this regard are not considered Taxonomy-eligible (so far). Since PUMA does not have any economic activities related to nuclear power or power generation from gas, PUMA will not report the related standard forms from the Delegated Act (EU 2022/1214).

ELIGIBLE CAPITAL EXPENDITURE

PUMA understands that the Taxonomy and the Climate Delegated Act as well as the Environmental Delegated Act including its Annexes nonetheless requires non-financial undertakings with non-Taxonomy eligible economic activities to report on the part of the capital expenditure related to the purchase of output from Taxonomy-aligned economic activities and individual measures enabling target activities to become low-carbon or to lead to greenhouse gas reductions.

In this regard PUMA reviewed so-called cross-cutting activities that are not directly related to PUMA's primary business activity and are not revenue-generating for PUMA but still are of relevance to support PUMA's sustainability efforts. Taxonomy-eligible capital expenditure could be identified with regard to "Transport" and "Real Estate Activities".

The key figures are determined based on Delegated Regulations (EU) 2020/852, 2021/2139 and 2021/2178 as well as 2023/2385 and 2023/2086 in conjunction with the accounting policies to be applied to the consolidated financial statements. To avoid double counting, expenditure has been allocated to only one economic activity.

In 2023 PUMA made investments in several buildings, including:

- A new solar PV station in Germany (planned completion in 2024)
- New charging stations in Germany
- Office space in Argentina

The technical screening criteria of Annexes I and II define a taxonomy-aligned investment in buildings only for those buildings that are ranked among the top 15% of their regional building stock in terms of Primary Energy Demand (PED).

Since there is no precise definition of this 15%, for example in terms of area covered or primary energy demand per m^2, and as the rental of buildings is not material to PUMA's business performance in terms of CO_2 emissions, we have decided to report the Taxonomy-aligned investment in buildings for 2023 as zero.

This does not mean that PUMA is not investing in lowering CO_2 emissions from its own entities. As described in the **Climate** section of this report, our Scope 1 and 2 emissions have been reduced by 85% compared to our baseline in 2017, mainly through green electricity tariffs or renewable energy attribute certificates.

In 2023 PUMA also invested in charging stations for electric cars, which do fall under the taxonomy alignment criteria for climate mitigation. The total investment in these charging stations was 241 TEUR (2022: 79 TEUR).

Furthermore, PUMA started to invest in additional solar PV capacity at its headquarters in Germany. The investment in 2023 came to 262 TEUR (no investment in 2022).

As part of PUMA's 10FOR25 sustainability targets, PUMA is transitioning its car fleet to more sustainable transport vehicles. Therefore, in 2023 PUMA invested in the lease of 92 low or zero emission vehicles (2022: 64 vehicles).

Unlike buildings, the technical screening criteria for CO_2 emissions for taxonomy alignments are clearly defined as below 50 g CO_2/km.

We can confirm that 92 cars added to our car fleet are Taxonomy-aligned with the technical screening criteria based on their CO_2 emission footprint, equalling an investment of over 2,000 TEUR (2022: 1,521 TEUR)

Considering the do-no-significant harm criteria of tires for passenger cars, not all those cars can be considered as fully Taxonomy-aligned, as many of the standard tires used for our new electric cars from Tesla, Volkswagen, Hyundai, Mercedes and BMW do not fulfil the criteria for noise emissions. As a result the reported Taxonomy-aligned investment in vehicles for the year 2023 is 408 TEUR (2022: 372 TEUR).

The total capital expenditure (IAS 16, 38 and IFRS 16) of the PUMA Group amounts to 599,874 TEUR for the year 2023 (2022: 669,382 TEUR). The eligible capital expenditure related to "Transport" amounts to 7,930 TEUR (2022: 5,427 TEUR) and the amount related to"Real Estate Activities /Other" is 336,500 TEUR (2022:376,996 TEUR). The Taxonomy-aligned capital expenditure from investment in solar PV, low or zero emission cars and charging stations for electric cars was 910 TEUR (2022: 372 TEUR).

ELIGIBLE OPERATIONAL EXPENDITURE

PUMA understands that the Taxonomy and the Disclosure Delegated Regulation (EU 21/2178) nonetheless asks non-financial undertakings with non- Taxonomy eligible activities to report on the part of the operational expenditure related to the purchase of output from Taxonomy-aligned economic activities and individual measures enabling the target activities to become low-carbon or to lead to greenhouse gas reductions.

Due to the nature of our business model, which is the design, development, marketing and sale of footwear, apparel and accessories, the eligible operational expenditure is not material in the context of the environmental objectives of the Taxonomy, therefore the numerator of our taxonomy-eligible operational expenditure is zero.

For the denominator, Article 2, Section 1.1.3.1. of Annex 1 the Climate Delegated Act asks for reporting on the total operational expenditure derived from the categories "research and development, building renovation measures, short-term lease, maintenance and repair and any other direct expenditures related to the day-to-day servicing of assets of property, plant and equipment by the undertaking or third party to whom activities are outsourced that are necessary to ensure the continued and effective functioning of such asset." The total operational expenditure from these categories amounts to 113.4 TEUR (2022: 103.6 TEUR) for the 2023 financial year.

OUTLOOK

At PUMA, we will continue the transition of our car fleet to low or zero emission vehicles in those countries where the charging infrastructure can support running an electric car fleet. We also plan to continue investing in te renewable energy capacity of the buildings we own. In addition, we will explore the activities listed under "Transition to a circular economy" to assess their technical and financial viability over the next years.

Proportion of turnover from products or services associated with Taxonomy-aligned economic activities – disclosure covering year 2023

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')									
Economic Activities	**Code**	**Turnover**	**Proportion of turnover**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum Safeguards**	**Proportion of Taxnomy-aligned (A.1) or eligible (A.2) turnover, year 2022**	**Category enabling activity**	**Category transitional activity**
		Currency (€)	**%**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**E**	**T**
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Taxonomy-aligned environmentally sustainable activities performed by PUMA		0	0	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
Of which enabling		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
Of which transitional		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Taxonomy-eligible environmentally sustainable activities performed by PUMA		0	0	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')									
Economic Activities	**Code**	**Turnover**	**Proportion of turnover**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum Safeguards**	**Proportion of Taxnomy-aligned (A.1) or eligible (A.2) turnover, year 2022**	**Category enabling activity**	**Category transitional activity**
		Currency (€)	**%**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**E**	**T**
A. Turnover of Taxonomy eligible activities (A.1+A.2)		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities		8,601,699,000	100																
TOTAL		8,601,699,000	100																

Proportion of CapEx from products or services associated with Taxonomy-aligned economic activities – disclosure covering year 2023

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')									
Economic Activities	**Code**	**CapEx**	**Proportion of CapEx, 2023**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum safeguard**	**Proportion of Taxonomy aligned (A.1) or eligible (A.2) CapEx, 2022**	**Category enabling activity**	**Category transitional activity**
		Currency (€)	**%**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**E**	**T**
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Activity 1: Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings) (7.4)	F42, F43, M71	240,000	0.04	Y	Y	N/EL	N/EL	N/EL	N/EL	Y	n.a.	n.a.	n.a.	n.a.	n.a.	Y	0.01	E	
Activity 2: Installation, maintenance and repair of renewable energy technologies (7.6)	F42, F43, M71	262,000	0.05	Y	Y	N/EL	N/EL	N/EL	N/EL	Y	n.a.	n.a.	Y	Y	n.a.	Y	0	E	
Activity 3: Transport by motorbikes, passenger cars and light commercial vehicles (6.5)	N77.11	408,000	0.07	Y	Y	N/EL	N/EL	N/EL	N/EL	Y	Y	n.a.	Y	Y	n.a.	Y	0.04	E	
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		910,000	0.16	0.16	0.16	0	0	0	0	Y	Y	n.a.	Y	Y	n.a.	Y	0.05		
Of which enabling		910,000	0.16	0.16	0.16	0	0	0	0	Y	Y	n.a.	Y	Y	n.a.	Y		E	
Of which transitional		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			T

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')									
Economic Activities	**Code**	**CapEx**	**Proportion of CapEx, 2023**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum safeguard**	**Proportion of Taxonomy aligned (A.1) or eligible (A.2) CapEx, 2022**	**Category enabling activity**	**Category transitional activity**
		Currency (€)	**%**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**E**	**T**
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Activity 1: Acquisition and ownership of buildings (7.7)	L68	335,998,000	60.01	EL	EL	N/EL	N/EL	N/EL	N/EL								56.31		
Activity 2: Transport by motorbikes, passenger cars and light commercial vehicles (6.5)	N77.11	7,522,000	1.34	EL	EL	N/EL	N/EL	N/EL	N/EL								0.77		
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		343,520,000	61.36	61.36	61.36	0	0	0	0								57.09		
A. CapEx of Taxonomy eligible activities (A.1+A.2)		344,430,000	61.52	61.52	61.52	0	0	0	0								57.13		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities		215,444,000	38.48														42.87		
TOTAL		559,874,000	100																

Proportion of OpEx from products or services associated with Taxonomy-aligned economic activities – disclosure covering year 2023

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')									
Economic Activities	**Code**	**OpEx**	**Proportion of OpEx, 2023**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum safeguard**	**Proportion of Taxonomy aligned (A.1) or eligible (A.2) OpEx, 2022**	**Category enabling activity**	**Category transitional activity**
		Currency (€)	**%**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**E**	**T**
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Taxonomy-aligned environmentally sustainable activities performed by PUMA		0	0	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
Of which enabling		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
Of which transitional		0	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Taxonomy-eligible environmentally sustainable activities performed by PUMA		0	0	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL								0		
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		0	0	0	0	0	0	0	0								0		
A. OpEx of Taxonomy eligible activities (A.1+A.2)		0	0	0	0	0	0	0	0								0		

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')									
Economic Activities	**Code**	**OpEx**	**Proportion of OpEx, 2023**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum safeguard**	**Proportion of Taxonomy aligned (A.1) or eligible (A.2) OpEx, 2022**	**Category enabling activity**	**Category transitional activity**
		Currency (€)	**%**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y;N; N/EL**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**E**	**T**
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities		113,400,000	100																
TOTAL		113,400,000	100																

INDEX FOR COMBINED NON-FINANCIAL REPORT AND GRI CONTENT

This report constitutes a separate combined non-financial report in accordance with Sections 289b to 289e and 315b, 315c in conjunction with Sections 289c to 289e of the German Commercial Code (HGB). This consolidated combined non-financial report consists of the "Sustainability" and "Culture" subsections in the "Our People"section as well as “Compliance Management System” and “Corporate Social Responsibility” in the chapter “Corporate Governance Statement in accordance with Section 289f and Section 315d HGB”. The reporting period covered is from January 1, 2023 to December 31, 2023. No restatements of information have been made in this report. We have provided separate reports for PUMA SE and the PUMA Group within the “Our People” section only. Separate reporting of other sustainability data would not add any meaningful new information or value and would require significant additional resources, so we have omitted it here. Information about PUMA’s business model is set out in the Financial section of this Annual Report. We have not identified any most significant non-financial performance indicators according to Article § 289c, section 3, number 5 of the German Commercial Code (HGB). PUMA engaged KPMG AG Wirtschaftsprüfungs-gesellschaft to perform a “limited assurance” audit of the combined sustainability report with a focus on accordance with the German CSR Implementation Act (CSR-RUG).

Since 2003 PUMA’s sustainability reports are based on the guidelines of the Global Reporting Initiative (GRI), which developed detailed and widely recognised standards on sustainability reporting. PUMA SE has prepared this report with reference to the GRI Standards GRI 1: Foundation 2021. This option enables us to report on the impacts related to our economic, environmental, social and governance performance. It includes topics that are material to PUMA’s business and our key stakeholders, and that constitute our sustainability targets. These targets have been systematically developed in accordance with the feedback from PUMA’s stakeholders.

GENERAL DISCLOSURES

		Location	Pages
GRI 2: General Disclosures 2021	2-1 Organisational details	Commercial activities and organisational structure	214
	2-2 Entities included in the organisation's sustainability reporting	Scope of the Report	48
	2-3 Reporting period, frequency and contact point	Index for combined non-financial report and GRI content, Imprint	198
	2-4 Restatements of information	Index for combined non-financial report and GRI content	198
	2-5 External assurance	Limited assurance report of the independent practitioner regarding the separate non-financial group report	205
	2-6 Activities, value chain and other business relationships	Commercial activities and organisational structure; Sourcing	214, 220
	2-7 Employees	Our People; Employees	16, 222
	2-9 Governance structure and composition	Description of the working practices of the management board and the supervisory board	254
	2-10 Nomination and selection of the highest governance body	Description of the working practices of the management board and the supervisory board	254
	2-11 Chair of the highest governance body	Description of the working practices of the management board and the supervisory board	254
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability organisation and governance structure; Description of the working practices of the management board and the supervisory board	36, 254
	2-13 Delegation of responsibility for managing impacts	Sustainability organisation and governance structure	36
	2-14 Role of the highest governance body in sustainability reporting	Sustainability committee	8
	2-15 Conflicts of interest	Diversity concept for the supervisory board	254
	2-16 Communication of critical concerns	Risk and opportunity report	255
	2-17 Collective knowledge of the highest governance body	Compensation System https://about.puma.com/en/investor-relations/corporate-governance	
	2-19 Remuneration policies	Description of the working practices of the management board and the supervisory board	254
	2-20 Process to determine remuneration	Description of the working practices of the management board and the supervisory board. Compensation System https://about.puma.com/en/investor-relations/corporate-governance	254

		Location	Pages
GRI 2: General Disclosures 2021	2-21 Annual total compensation ratio	Description of the working practices of the management board and the supervisory board. Compensation Report https://about.puma.com/en/investor-relations/corporate-governance	254
	2-22 Statement on sustainable development strategy	CEO Letter; Foreword	5, 31
	2-23 Policy commitments	https://about.puma.com/en/sustainability/codes-policies-and-handbooks	
	2-24 Embedding policy commitments	PUMA's FOREVER. BETTER. Sustainability Strategy; Human Rights	35, 53
	2-25 Processes to remediate negative impacts	Human Rights	67-78
	2-26 Mechanisms for seeking advice and raising concerns	Compliance management system	254
	2-28 Membership associations	Stakeholder outreach	38-41
	2-29 Approach to stakeholder engagement	Stakeholder outreach	38-41
	2-30 Collective bargaining agreements	Human Rights at own entities	53

MATERIAL TOPICS

		Location	Pages
	3-1 Process to determine material topics	Most material aspects	42-44
GRI 3: Material Topics 2021	3-2 List of material topics	Most material aspects	42-44

ANTI-CORRUPTION

		Location	Pages
	3-3 Management of material topics	Relevant disclosures of corporate governance practices that are applied beyond the regulatory requirements	263
GRI 3: Material Topics 2021	205-2 Communication and training about anti-corruption policies and procedures	Relevant disclosures of corporate governance practices that are applied beyond the regulatory requirements	263

TAX

		Location	Pages
GRI 207: Tax 2019	207-1 Approach to tax	"WE PAY OUR FAIR SHARE" is the core principle the PUMA Group is taking into consideration for its global tax strategy. In this regard, PUMA fully commits to act in accordance with all international tax regulations and to fulfill any tax obligations arising from its business activities. All information regarding PUMA's tax approach can be found in the tax strategy (https://about.puma.com/en/investor-relations/corporate-governance, see Tax Strategy)	
		As it is a general principle for PUMA to follow tax rules and to pay applicable taxes, taxes as such are not a material issue within the sustainability approach. Consequently, PUMA does not report in detail on the GRI Standard in this regard.	

MATERIALS

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Recycled material usage; Material origin	157, 173
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Recycled material usage; Material consumption data	157, 173
	301-2 Recycled input materials used	Recycled material usage	157, 173

ENERGY

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Climate	104
GRI 302: Energy 2016	302-3 Energy intensity	Climate	104

WATER AND EFFLUENTS

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Water and air	142
	303-2 Management of water discharge-related impacts	Water and air	142
	303-5 Water consumption	Water and air	142

BIODIVERSITY

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Biodiversity	177
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity	177

EMISSIONS

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Climate	104
	305-1 Direct (Scope 1) GHG emissions	Climate	104
	305-2 Energy indirect (Scope 2) GHG emissions	Climate	104
	305-3 Other indirect (Scope 3) GHG emissions	Climate	104
	305-4 GHG emissions intensity	Climate	104
GRI 305: Emissions 2016	305-5 Reduction of GHG emissions	Climate	104

WASTE

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Circularity	156
	306-1 Waste generation and significant waste-related impacts	Circularity	156
GRI 306: Waste 2020	306-2 Management of significant waste-related impacts	Circularity	156

OCCUPATIONAL HEALTH AND SAFETY

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Our people occupational health and safety	22
	403-2 Hazard identification, risk assessment, and incident investigation	Our people occupational health and safety	22
	403-9 Work-related injuries	Our people occupational health and safety	22

DIVERSITY AND EQUAL OPPORTUNITY

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Relevant disclosures of corporate governance practices that are applied beyond the regulatory requirements	254
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Relevant disclosures of corporate governance practices that are applied beyond the regulatory requirements	254

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Rights in the supply chain	55
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human Rights in the supply chain	55

FORCED OR COMPULSORY LABOR

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Rights in the supply chain	55
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human Rights in the supply chain	55

SUPPLIER SOCIAL ASSESSMENT

		Location	Pages
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Rights in the supply chain	55
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Human Rights in the supply chain	55
	414-2 Negative social impacts in the supply chain and actions taken	Human Rights in the supply chain	55

KPMG ASSURANCE STATEMENT

To the PUMA SE, Herzogenaurach

We have performed a limited assurance engagement on the combined separate non-financial group report of PUMA SE, Herzogenaurach (hereinafter: "company"), which was combined with the non-financial report of the parent company for the period from January 1 to December 31, 2023 (hereinafter the "consolidated non-financial report"). This consolidated non-financial report consists of the chapter "Sustainability", the section "Culture" in the chapter "Our People" and the sections "Compliance Management System" and "Corporate Social Responsibility" in the chapter "Corporate Governance Statement in accordance with Section 289f and Section 315d HGB" of the Annual Report 2023 of PUMA SE, Herzogenaurach.

Not subject of our assurance engagement was the material audit of the external sources of documentation, interviews, case studies, expert opinions, the Environmental Profit & Loss figures as well as checking the content of links to internet pages mentioned in the non-financial report (see Annex 1 to the assurance report).

Responsibilities of Management
Management of PUMA SE, Herzogenaurach, is responsible for the preparation of the consolidated non-financial report in accordance with Sections 315c in conjunction with 289c to 289e HGB and Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of June 18, 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter the "EU Taxonomy Regulation") and the Delegated Acts adopted thereunder, as well as for making their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the delegated acts adopted thereunder as set out in section "Reporting in accordance with the EU taxonomy regulation" of the consolidated non-financial report.

This responsibility of the legal representatives of the company includes the selection and application of appropriate non-financial reporting methods and making assumptions and estimates about individual non-financial disclosures of the group that are reasonable in the circumstances. Furthermore, management is responsible for such internal control as they consider necessary to enable the preparation of a consolidated non-financial report that is free from material misstatement, whether due to fraud (manipulation of the non-financial group report) or error.

The EU Taxonomy Regulation and the Delegated Acts issued thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, management has disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in section "Reporting in accordance with the EU taxonomy regulation" of the consolidated non-financial report. They are responsible for the defensibility of this interpretation. Due to the immanent risk that indeterminate legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

Independence and Quality Assurance of the Assurance Practitioner
We have complied with the independence and quality assurance requirements set out in the national legal provisions and professional pronouncements, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QMS 1 (09.2022)).

Responsibility of the Assurance Practitioner
Our responsibility is to express a conclusion with limited assurance on the consolidated non-financial report based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" issued by the IAASB. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the company's consolidated non-financial report*, other than the external sources of documentation or expert opinions mentioned in the non-financial report,* is not prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by management disclosed in section "Reporting in accordance with the EU taxonomy regulation" of the consolidated non-financial report.

In a limited assurance engagement, the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly, a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgment of the assurance practitioner.

In the course of our assurance engagement we have, among other things, performed the following assurance procedures and other activities:
- Gain an understanding of the structure of the Group's sustainability organisation and stakeholder engagement.
- Inquiries of management and relevant employees involved in the preparation of the consolidated non-financial report about the preparation process, about the internal control system related to this process, and about disclosures in the non-financial report.
- A risk analysis, including media research, to identify relevant information on PUMA SE's sustainability performance in the reporting period.
- Identification of likely risks of material misstatement in the consolidated non-financial report.
- Analytical procedures on selected disclosures in the consolidated non-financial report.
- Inquiries of management and relevant employees that are responsible for determining disclosures about concepts, due diligence processes, results and risks, performing internal control procedures and consolidating disclosures in the preparation of the consolidated non-financial report.
- Inspection of selected internal and external documents.
- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at Group level by all sites.
- Evaluation of local data collection, validation and reporting processes as well as the reliability of reported data based on a sample taken at nine suppliers (remote site visits) and two offices (on-site and remote site visits).
- Assessment of the overall presentation of the disclosures.
- Inquiries of Group level personnel in order to understand the processes for identifying relevant economic activities according to the EU Taxonomy Regulation.
- Evaluation of the process for the identification of taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the consolidated non-financial report.

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, management is required to interpret undefined legal terms. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties.

Assurance Opinion
Based on the assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the consolidated non-financial report of PUMA SE, Herzogenaurach for the period from January 1 to December 31, 2023 has not been prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by management as disclosed in section "Reporting in accordance with the EU taxonomy regulation" of the consolidated non-financial report.

We do not express an assurance opinion on the external sources of documentation, interviews, case studies, expert opinions, Environmental Profit & Loss as well as content of links to internet pages mentioned in the consolidated non-financial report (see Annex 1 to the assurance report).

Restriction of Use
This assurance report is solely addressed to the PUMA SE.

Our assignment for PUMA SE and professional liability is governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (German Public Auditors and Public Audit Firms) (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (Appendix 2). By reading and using the information contained in this assurance report, each recipient confirms having taken note of provisions of the General Engagement Terms (including the limitation of our liability for negligence to EUR 4 million as stipulated in No. 9) and accepts the validity of the attached General Engagement Terms with respect to us.

Nuremberg, February 1st, 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft

Marc Stauder
01.02.2024

Stauder
Wirtschaftsprüfer
[German Public Auditor]

Klaus-Peter Käuffelin
01.02.2024

Käuffelin
Wirtschaftsprüfer
[German Public Auditor]