Polestar
Sustainability report

2023

1. Introduction
2. Strategy
3. ESG report

Introduction

Introduction
Index

This is Polestar 05
CEO statement 07
2023 highlights 08
The quest 09
The context 10

Introduction
This is Polestar

Polestar creates exclusive electric performance cars that make the desirable choice and the right choice one and the same. Our foundation rests on three pillars: design, innovation, and sustainability. Thanks to our three-car lineup, customers who crave a unique driving experience do not need to compromise on their conscious lifestyles. With Polestar, having fun driving a sports car can be a way to build a more sustainable society. Our commitment to innovation involves developing more sustainable materials and solutions, and we communicate openly about the carbon footprint of our cars. A fair way to ensure Polestar's long-term strong financial performance.

In 2020, we launched Polestar 2, an all-electric fastback, now renowned for its intuitive technology and engaging driving dynamics. The introduction of Polestar 3 in 2022 – an exclusive electric SUV that further solidified Polestar's position in the electric vehicle market. In November 2023, the premium SUV coupé, Polestar 4, entered production. This model achieves remarkable milestones in both design and performance. Polestar 4 is our fastest car to date, with a 0-100 km/h acceleration of 3.8 seconds.

It is also the first Polestar car to feature a rear-facing HD camera, which replaces the rear window, offering a wider field of view. However, from a sustainability perspective, the most noteworthy achievement lies in its cradle-to-gate carbon footprint of 19.4 tCO_2e, making it the Polestar model with the smallest carbon footprint in our lineup. This exemplifies our dedication to prioritising climate impact while delivering high-quality electric performance.

We are headquartered in Gothenburg, Sweden, incorporated in the UK, and listed on the Nasdaq in New York under the ticker PSNY. At the end of 2023, we had 192 Polestar Spaces worldwide and more than 1,150 service points[1]. Our ability to deliver at scale was evident with 54,599 cars delivered and our continued investment in future vehicles and technologies (R&D) was up $30mn.

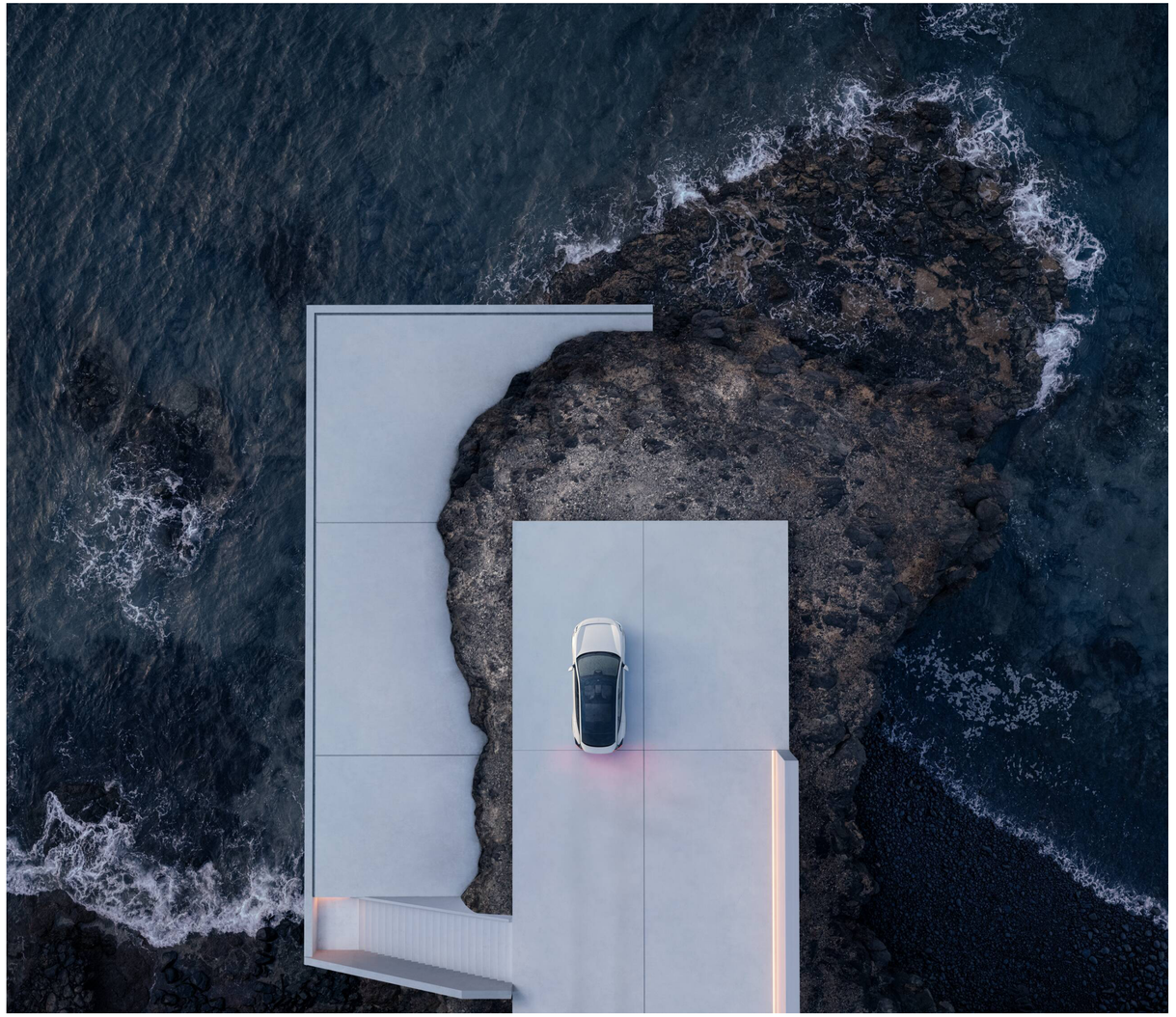
Polestar has established a presence in 27 markets across North America, Europe, and Asia Pacific. We take pride in the state-of-the-art production facilities and continue to diversify our contract manufacturing footprint. Production of Polestar 3 has started in Chengdu, China. Additional production is slated to start in South Carolina, USA, in mid-2024. In addition to being produced in Hangzhou Bay, China, Polestar 4 will also be produced in Busan, South Korea from mid-2025. We embrace a digital-first approach, enabling customers to explore our product range, configure their preferred car, and conveniently place orders online.

Polestar was established as an exclusive electric car brand and joint venture between Volvo Cars and Geely Holdings in 2017. Today, we operate on an asset-light, scalable business model that combines the agility of a start-up with the stability of established players with more than 100 years of manufacturing knowledge and a global industrial infrastructure.

This allows us to deliver innovative technologies, pursue progressive sustainability goals, and provide a seamless direct-to-consumer experience.

In 2023, Polestar presented a strengthened business plan which targets an accelerated margin improvement and a reduction of the company's total funding need to the point of cash flow break-even in 2025. This is expected to be achieved through a richer product mix, with four models in production, reduced cost structure and refocused approach to key markets including a new joint venture in China and measures to improve profitability in the US business.

[1]Represents Volvo Cars service centres to provide access to customer service points worldwide in support of Polestar's international expansion (Unaudited).



Introduction
Where we operate

As of 31 December 2023, Polestar had an established presence in 27 markets.

We had 192 Spaces globally out of which 33 were in North America, 90 in EMEA, 69 in Asia Pacific.

Our offices could be found in 16 countries globally.

The manufacturing and assembly of our vehicles was conducted in plants operated by Volvo Cars in Chengdu and in Luqiao (prev. Taizhou), China and Geely in Hangzhou Bay, China.

Markets
Austria
Belgium
Denmark
Finland
Germany
Iceland
Ireland
Italy
Luxembourg
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom
Canada
United States
Australia
China
Hong Kong
Israel
Kuwait
New Zealand
Singapore
South Korea
United Arab Emirates

Global breakdown of employees*
North America 4%

Global breakdown of employees*
EMEA 82%

Global breakdown of employees*
Asia Pacific 14%

*Does not include franchise or business partners

Thomas Ingenlath, Chief Executive Officer
CEO statement

In a world defined by uncertainty, volatility and complexity Polestar strives to be the natural choice for people who want pure design, unfaltering performance and uncompromising driving experience. We design and produce our cars using state-of-the-art technology, with the highest possible regard to the well-being of people and the environment - both upstream and downstream in our value chain. We believe that we can reform the way sustainability is seen in the automotive industry.

2023 was a busy year for our designers, product teams and sustainability experts. We now have a three-car lineup, available to customers in 27 markets, with each of our cars offered with a fully transparent Life Cycle Assessment (LCA). These reports, easily accessible online, show the progress that we have made in reducing the carbon footprint of our cars. Even if, for example, our first SUV Polestar 3 is a larger car than the other two, our learnings regarding use of more sustainable materials have helped us acheive its cradle-to-gate carbon footprint to 24.7 tCO_2e at launch – lower than Polestar 2, when it was launched in 2020.

Passenger cars account for about 15 percent of all global GHG emissions*. This means that our industry has an important role to play in living up to the Paris agreement. We are also aware of how individuals can contribute to the transition, and we'll continue doing our best to make our pure performance electric cars the most attractive possible alternative to internal combustion engine vehicles. With every car sold, our research and innovation get another nudge to keep on moving.

We have set out to halve our GHG emissions by 2030 and to to reach climate neutrality by 2040. This translates to striving for higher carbon efficiency in new car programs as well as decreasing the footprint of running car programs in the long-term. One way of doing this is to work with circular models, another leads through material innovation.

In 2021, we launched Polestar 0 project with the goal to create a climate neutral car by 2030. In our pursuit of this moonshot goal, we've learnt a lot, and a number of spinoff learnings have been picked up and implemented by our engineers and designers in the standard car programs. Polestar 0 project has delivered value and speed even though success can't be guaranteed.

"We can see our efforts paying off. International financial institutions are placing their investments in Polestar as part of their sustainable portfolios."

Innovation is key for staying on the 1.5-degree pathway. To remain aligned with the Paris agreement, according to our Pathway Report, fossil fuel cars need to be completely replaced by EVs by 2032. At the same time, we need to shift from the current global average of 39 percent fossil-free electricity to 100 percent by 2033. Last but not least, we have to reduce GHG emissions in the manufacturing and supply chain by 81 percent by 2032.

This is easier said than done.

Staying true to our vision has been all but a walk in the park. While the EV industry is being challenged by both more and less serious voices, the online space is continuously filled with misinformation and climate change denial. Our own research revealed that over the course of about two weeks in the run-up to and during COP28 there were 398,000 climate denying tweets on X, averaging around 16,000 per day.

Armed conflicts, economic slowdown and bad political decisions not only make many people's everyday a fight for survival, but also threaten to overshadow the debate about solutions to stop climate change, and how to speed up the shift to a decarbonized society. To this we may add the growing protectionism in many markets as well as more aggressive competition of EVs with low price tags.

Our determination to deliver exclusive cars that are fun to drive grows with every challenge, and we continue rallying for a greater transparency also where our business impacts people and communities, focusing on human rights and ethical business practices in the supply chain.

Looking forward, our ambitions encompass design, innovation and sustainability. Being a responsible business is a clear must-have for customers in the luxury segment. To meet their expectations, we are adopting a due diligence approach to improve our ability to identify and remediate sustainability-related risks, both when it comes to human rights and environmental challenges. We will take further steps towards increased circularity and inclusion along our value chain, keeping transparency and traceability at hand.

The speed of the transition to electric mobility can't be taken for granted right now. Many regulators and governments seem to be stuck in reverse gear, and they must join the collective effort and do more to enable this change. It's not about subsidies to stimulate electric car sales only, but rather making driving an electric car easy by facilitating faster development of charging infrastructure. Ultimately, a price needs to be put on CO_2. Emitting is, simply put, not expensive enough.

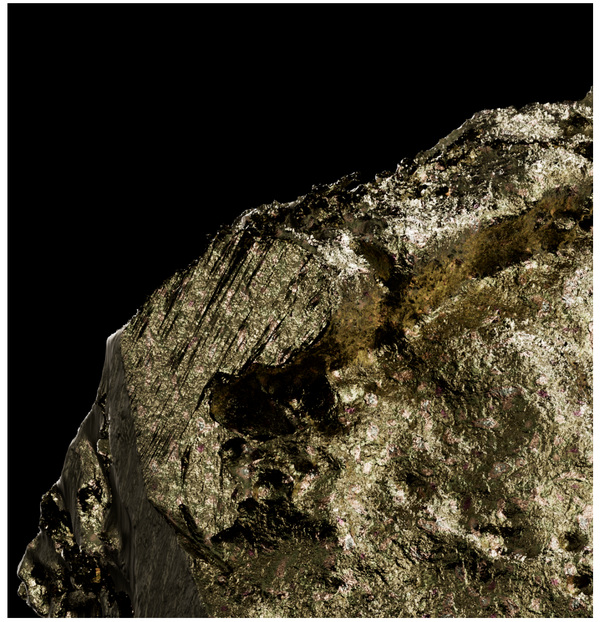
We can see our efforts paying off. International financial institutions are placing their investments in Polestar as part of their sustainable portfolios. Polestar is seen as an attractive employer. But most importantly, tens of thousands of customers have decided to trust us and purchase a Polestar car, an appetite we see surging as we are launching new models on the market. Obviously, an EV can be an object of desire that stands for both performance and sustainability.

*IEA: World Energy Outlook 2021

Introduction
2023 highlights

Recycled content in Polestar 4

Steel: 12%
Aluminium: 18%
Plastics: 19%



Emissions per sold car compared to last year

-9%

Absolute emissions compared to last year

-5%

Car programmes with LCA's

3/3

Employee satisfaction survey

7.9

Joined Better Mining to tackle challenges across the artisanal mining sector.

Read more about the programme →

Introduction
The quest

Polestar is on a quest towards sustainable mobility. We are determined to lead the way by showing how climate action, circularity, inclusion, and transparency are integral components across the entire value chain and how this contributes to long-term business success. We will seek to collaborate with others and to be fully transparent on both our progress to date and our plan going forward. In this way we hope to usher in a new era for our industry. We firmly believe that it is through our passion for materials and technology, expertise, and close relationships with customers and partners that we can truly create meaningful change.

Introduction
The context

We stand on the threshold of a technological and ideological shift. One that has the potential to lead society into a more secure and prosperous future. Through frameworks such as the UN's Sustainable Development Goals, there is a general consensus on what humanity needs to achieve. Businesses are moving towards greater accountability, transparency, and responsibility, driven by the need to innovate as well as to meet regulatory requirements. Technological development constantly creates new promising possibilities and provides opportunities to map and track more complex datasets. In short, sustainable development is within closer reach than ever before and now proving to be a great business opportunity.

However, we find ourselves in a time defined by uncertainty and complex societal challenges. Geopolitical tensions are further amplified by environmental factors. Many reports shows that global inequality is on the rise, GHG emissions are still increasing[2], and we are currently experiencing severe biodiversity loss and species extinction. Furthermore, armed conflicts are increasing[3], while the number of democracies is decreasing[4].

Businesses, regulators and governments must do their part in this ongoing transition. To make the shift towards a sustainable society a reality, sustainability needs to be integrated into corporate business strategies that reflect the new context that demands respect of human rights, stewardship of natural resources, and continuous improvement in resource efficiency. Building that roadmap should be the most central question for business leaders right now.

While electric vehicle (EV) technology clearly plays a pivotal role in the transition to low-carbon mobility, it faces significant challenges.

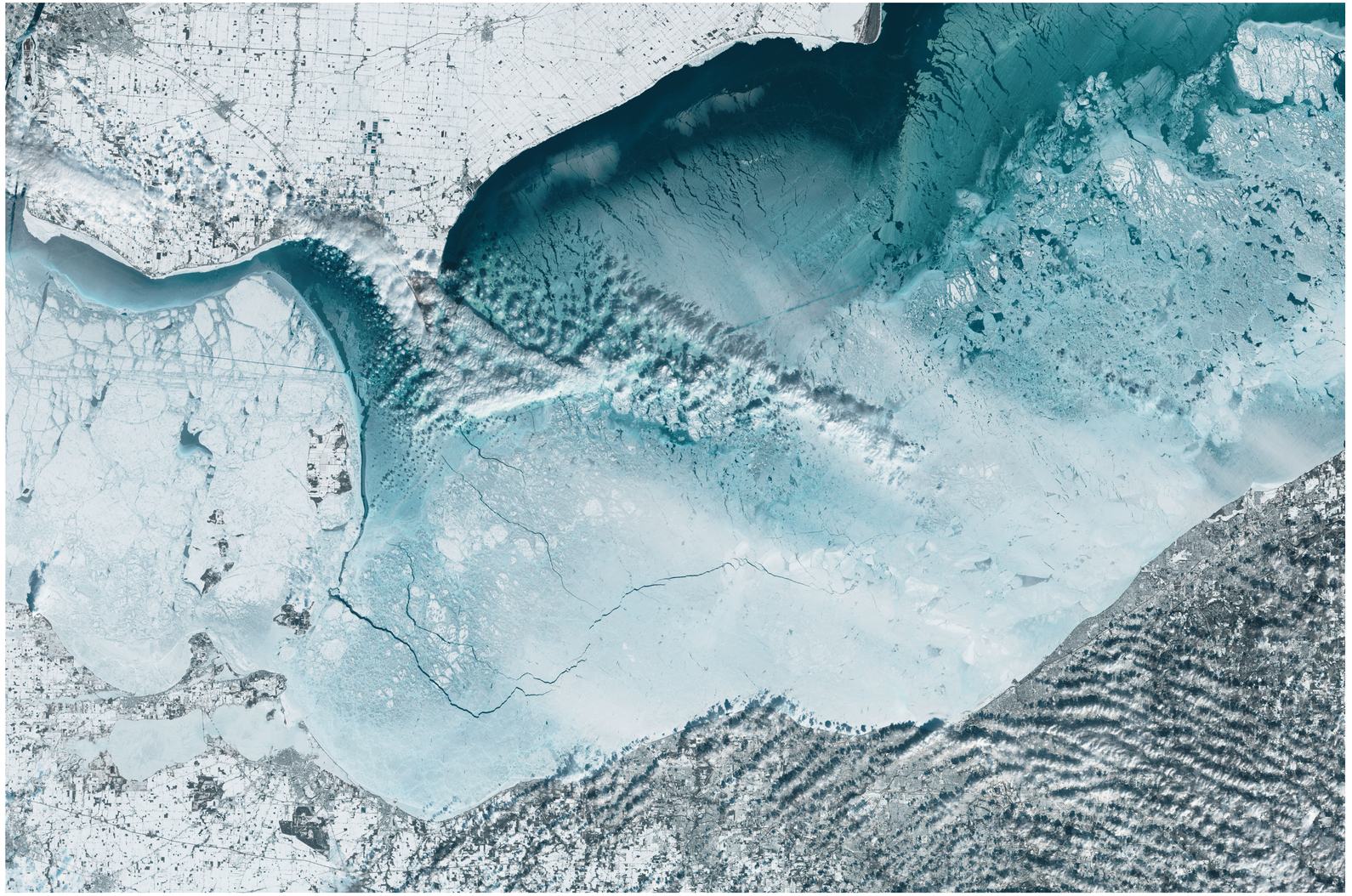
The production of materials and components, for example lithium-ion batteries, essential for EVs, involves resource-intensive processes and mining practices that raise environmental and social sustainability issues. From the extraction of raw materials such as lithium, cobalt, and nickel to the manufacturing and disposal of cars and batteries, EV technology encounters challenges related to labour rights, fair wages, child labour, corruption, pollution, energy use, and resource depletion.

Another key area for improvement is science-based climate roadmaps, where there is a surplus of net zero pledges but a lack of credible descriptions for how goals will be reached. To fulfil the true potential of the electric transition within the deadline set by the climate crisis, our industry needs to boldly rethink strategies and accelerate efforts.

[2] After global inequality on the rise: Poverty and Shared Prosperity 2022: Correcting Course

[3] After greenhouse gas emissions increasing: Executive Summary – CO2 Emissions in 2023 – Analysis - IEA

[4] After biodiversity loss



Strategy

Strategy

Introduction 13
Inclusion 15
Transparency 21
Circularity 28
Climate 32

Introduction
Our strategy

Our strategy is based on our holistic view of sustainability: we perceive all sustainability challenges as interconnected and inseparable. The strategy also acknowledges that we have both the opportunity and responsibility to make an impact throughout our value chain, encompassing environmental and social sustainability. Lastly, we consider our sustainability strategy as integral to our business agenda.

The strategy comprises four focus areas: Climate neutrality, Circularity, Inclusion, and Transparency. Each area encompasses various material topics and a series of strategic initiatives aimed at advancing our business's sustainability in the years to come. In this report, we describe our main targets, actions, and achievements on our road to truly sustainable mobility.

Fredrika Klarén, Head of Sustainability

Laying the foundations for a sustainable future

We pursue innovation in all sustainability areas, a mission that seamlessly aligns with our approach to design and performance. This positions Polestar strongly at the forefront of sustainability, innovation, and design development. By joining forces with our customers, we not only seize the opportunity to lead in developing pioneering solutions but also enhance our potential to excel even further.

Reflecting on 2023, it was a year marked by significant strides in advancing our sustainability initiatives. As outlined in this report, we have achieved key milestones in in advancing on climate action, circularity, and human rights within our value chain. Our progress is epitomised by our cars, both through the introduction of new models, like the Polestar 4, and through significant sustainability enhancements to our existing lineup. These efforts are a testament to our commitment to elevate sustainability performance across our range of vehicles. Through these efforts, we successfully reduced the carbon footprint of the Polestar 2 by three tonnes in three years.

2024 presents a number of challenges and causes for concern, with political instability and economic uncertainty occurring in many areas of the world. Additionally, there is growing concern over policy-makers reducing their support for green technologies. There is a discrepancy between expectations on our industry as expressed in the COP28 commitments and several national targets to phase out internal combustion engines (ICE), and actual support for this transition. Fossil-based tech is still receiving the lion's share of subsidies. This development contradicts the roadmap presented in the Pathway Report, which was co-commissioned by Polestar in 2023 together with Rivian and Kearney. The report argues that 100% of all vehicle sales should be EVs by 2032 to ensure that the automotive industry supports the 1.5 degrees Celsius pathway.

In this light, the level we have reached in EV adoption is a reason for hope. EV sales now account for a fifth of all vehicles sold worldwide. Such a milestone is often viewed as a tipping point for technological innovations, typically leading to a swift increase in adoption. Additionally, investment in renewable energy continues to rise, especially in China and the US. For every dollar that the investment community spends on conventional solutions, they spend 1.7 dollars on green solutions. This is a crucial development for our business and sustainability agenda.

> "Pioneering in emission elimination secures our competitive edge as we advance towards electric mobility."

This report outlines our entire sustainability work and how it is integrated and driven by the whole organisation. It demonstrates our holistic perspective on sustainable development and the interconnectedness of various challenges. This year we delve deeper into our climate plan.

We use existing technologies to significantly reduce GHG emissions during our cars' production phase. However, these measures can only take us so far. To reach our net zero goals we will need materials that come entirely without embedded GHG emissions. Our strategy and our agenda requires not only reduction but elimination of GHG emissions. This is where the significance of the Polestar 0 project lies for us. Pioneering in emission elimination secures our competitive edge as we advance towards electric mobility.

A definitive takeaway from COP28 is the urgent need to transition from rhetoric to tangible action in addressing climate change. The steps the automotive industry must take are well-defined, as detailed in the previously mentioned Pathway Report, whose significance was further emphasised by the outcomes of the climate summit. Additionally, a month prior to Climate Week in New York, UN Secretary-General Antonio Guterres called on companies to disclose their strategies for meeting their climate goals. Numerous companies have set goals, yet a smaller number have outlined the methods to achieve these targets. As we approach 2030, it becomes increasingly crucial for businesses to demonstrate the path forward, identify solutions, and take leadership positions.

We respond to Mr. Guterres call for complete transparency on climate goals. In this report, we present our goals and how we believe the path to a car with zero carbon footprint looks like. We aim to disclose our existing and feasibly implementable solutions, and discuss ongoing challenges, with the goal of illustrating viable paths today and fostering-collaborative innovation for future breakthroughs.

One might reasonably ask what role a premium automotive brand plays in the shift towards social and environmental sustainability. But if sustainable development is to be anything other than an elusive goal for humanity, innovations in climate, circularity and the protection of human rights must be developed. Our customers expect the best of us, and being a responsible business is a prerequisite.

Polestar is on an important and exciting journey. One that has been made possible by the unwavering support and collaboration of our entire ecosystem. This includes our dedicated employees, our innovation partners, the NGOs we are affiliated with, our suppliers, our owners, and our valued customers. Together, we have come this far, and together we will continue our journey into 2024 and beyond to further accelerate the transition to sustainable development.

Inclusion
Our approach

Our operations impact people worldwide. We influence individuals and communities along our entire value chain, from mines around the world to the cityscape of Gothenburg. Through our actions and operations, we disseminate and reinforce values and sentiments. We consider ourselves to be a responsible citizen of society and aim to make a positive contribution to the communities in which we operate, regardless of their location.

However, we also recognise that our operations can sometimes have a negative impact. In a world where human rights are frequently breached, and where local and global injustice is increasing, we aspire to be a counterforce through our actions. We want to advocate for human rights, diversity, and prosperity for all, which we see as the foundation for long-term business success.

Inclusion is both a focus area and an approach that we implement across our entire value chain. It serves as a valuable tool, enabling us to uphold high ethical standards and make a positive impact on the world.

The focus area consists of four different strategic initiatives: Human rights in the supply chain, Inclusive workplace, Inclusive customer experience, and Ethical business practices that safeguard inclusion throughout our value chain.

Inclusion
Value chain

Human rights in the supply chain

Raw material suppliers

The production of cars and batteries requires raw materials that come from complex, global supply chains. The extraction of these raw materials is associated with potentially adverse impacts to workers and local communities around extraction sites. We act independently and through multi-lateral industry initiatives to implement due diligence practices and responsible sourcing.

Tools and initiatives:

- Responsible Mining Initiative (RMI)
- Better Mining Programme
- IRMA audits
- RCS Global audits
- Conflict Minerals Reporting and Responsible Minerals Assurance Process (RMAP)
- Whistleblower function (SpeakUp and other tools within multistakeholder initiatives)

→ Suppliers

Our direct suppliers are crucial in our quest for sustainable mobility. We need to work closely with our suppliers in all aspects of our operations using both SAQs and audits to ensure fundamental rights at work are implemented.

Tools and initiatives:

- Code of Conduct for Business Partners
- Business Partner due diligence
- Self-Assessment Questionnaire (SAQ)
- Supplier Sustainability Index (SSI)
- Drive Sustainability
- Responsible Business Alliance (RBA)
- Supplier audits such as RBA Validated Assessment Process (VAP) or alike
- SpeakUp

→ Manufacturing

Polestar 2, Polestar 3, and Polestar 4 are currently manufactured in assembly plants operated by Volvo Cars and Geely. Because we are outsourcing our manufacturing operations, we work with our Code of Conduct for Business Partners and due diligence process to promote human rights and inclusion at our manufacturing plants. However, Polestar 5 will be manufactured in a plant operated by Polestar in collaboration with Geely, with staff hired by both companies, meaning that we will also be responsible for implementing our own policies and management approach for inclusion and human rights.

Tools and initiatives:

- Code of Conduct for Business Partners
- RBA Risk Assessment
- SpeakUp

Inclusive workplace

→ Direct and indirect employees

All employees and consultants working on behalf of Polestar are required to adhere to our high standards regarding environmental, social, and governance practices. We are implementing a holistic set of tools and initiatives aimed at promoting human rights and inclusion throughout our operations, and to comply with local and international obligations. Our aim is that all Polestar employees should feel comfortable and connected, and that their contribution to the workplace is appreciated.

Tools and initiatives:

- Workday Employee Management system
- Collective Bargaining Agreements
- Polestar Code of conduct
- Employee Satisfaction Pulse
- Checks by Peakon Learning Management System
- SpeakUp

Ethical business practices

→ Business partners

We expect all our business partners to actively join us in our commitment to sustainable transformation and adhere to the same high standards as we do.

Tools and initiatives:

- Code of Conduct for Business Partners
- Business Partner Due Diligence
- Transparency Index

Inclusive customer experience

→ Customers

We want everyone in the Polestar universe to feel included. By basing our customer experience on our inclusive approach, we can better build our brand and create a more engaging customer journey. At Polestar, product safety is included in the design from the start and the focus extends beyond the occupants of our vehicles to consider those sharing the road such as pedestrians.

Tools and initiatives:

- Net Promoter Score (NPS)
- Customer Satisfaction (CSAT)

Inclusion
Human rights in the supply chain

We tackle critical human rights and labour rights issues head-on through establishing processes to mitigate risks and remediate potential adverse impacts. By having inclusion as a key focus area, our aim is to safeguard human rights in the supply chain, and thereby establish a sustainable long-term business agenda. Our intention is that the implementation of well-functioning labour practices will have a positive impact on poverty, leading to beneficial effects on individuals and contributing to the overall development of local communities. Our sustainability strategy, sourcing strategy, and procurement process serve as key pillars in our commitment to addressing and rectifying these challenges in our supply chain, and together with our business partners we aim to cascade requirements and better sourcing practices.

The measures mentioned above are necessary since many of the automotive industry's most pressing sustainability challenges are related to human rights in the supply chain. These challenges include child labour, forced labour, modern slavery, discrimination, low wages, and unsafe working conditions. Vulnerable groups such as migrant workers, children, and minority groups, often bear a disproportionate burden of these risks, especially in mineral extraction and refining. In certain countries, labour markets have well-implemented functioning labour practices, while in other regions and countries, labour laws may be lacking or are not effectively enforced due to factors such as corruption or poverty. Some areas are also subject to conflict, which has negative impacts on affected populations and especially the most vulnerable in society.

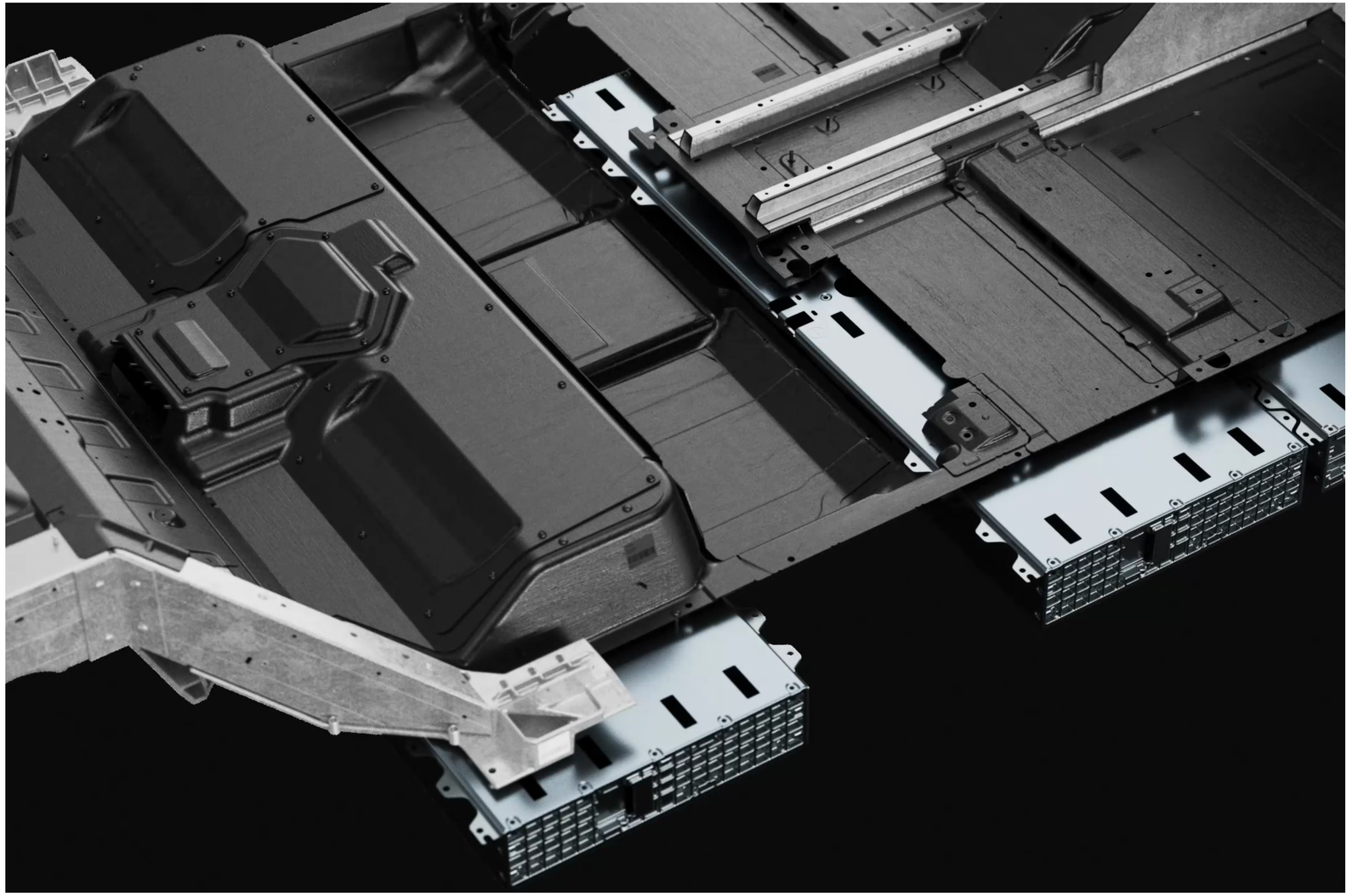
Polestar is committed to respecting and supporting international human rights principles by encompassing the Universal Declaration of Human Rights, United Nations Guiding Principles on Business and Human Rights, the United Nations Convention on the Rights of the Child, and the fundamental conventions of the International Labour Organization. Our commitment extends further by conducting thorough due diligence aligned with OECD guidelines and the Ten Principles of the UN Global Compact.

As a conscientious business, we hold our partners, including suppliers, to the same high standard of commitment as these principles. We believe in cultivating a shared responsibility for upholding human rights and ethical practices within our business ecosystem. In our work to advocate for collaborative efforts and industry-wide impact, we have joined multi-stakeholder initiatives such as Responsible Business Alliance, Responsible Minerals Initiative, Responsible Labor Initiative, Drive Sustainability, and the Better Mining Programme.

We aim to lead our industry towards a more robust implementation of human rights. Therefore, we have begun conducting audits of direct material suppliers in high-risk regions [4]. While this is considered standard practice in many other industries, the norm in the automotive sector is often limited to having suppliers fill out self-assessment questionnaires (SAQ). At Polestar we use SAQs as a tool during onboarding for selecting direct material suppliers and making sure they have policies in place that align with our expectations.

[4] as defined by RBA Risk Assessment Platform (responsiblebusiness.org)

Read more →
Workers in the value chain
Conflict mineral and Business Conduct



Inclusion
Inclusive workplace

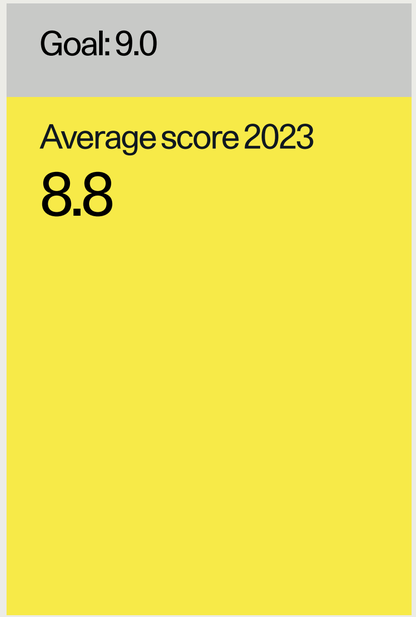
To ensure Polestar achieves positive impacts and business success, we strive for increased diversity and equality among our employees. We want our workforce to mirror the diversity of the communities around us. Our goal is to incorporate a range of personal experiences, perspectives, and backgrounds, recognising that diverse talent enhances creativity and fosters an innovative and inclusive global culture.

As a concrete step towards this goal, we have set a target that new hires should be equally many women and men, ensuring a proactive stance towards gender balance. At Polestar, the commitment to diversity and inclusion is actively championed by management, as outlined in several of our policies such as our Diversity and Inclusion Directive, our Code of Conduct, and our Discrimination, Harassment and Bullying Directive.

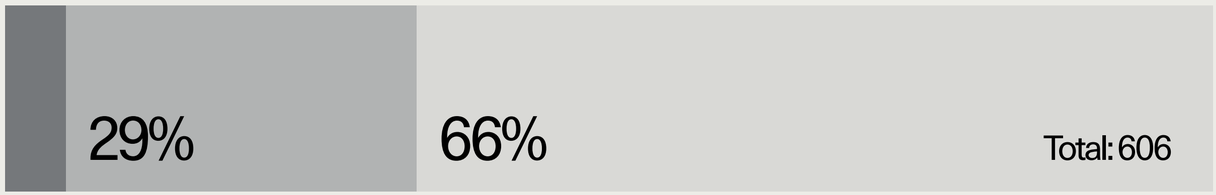
Our strategic priorities on inclusive recruitment, retention, and leadership, are designed to ensure we attract the right talents, maintain high employee engagement, and sustain our ongoing success. This also includes our health and safety work as well as training. We strive for a workplace where all Polestar team members feel welcome, connected, and valued for their contributions. Our approach to diversity and inclusion is not just a policy - it is ingrained in our internal operations, daily interactions, and communications with employees, customers, and business partners.

Read more and see our full list of policies concerning employees →
Own workforce

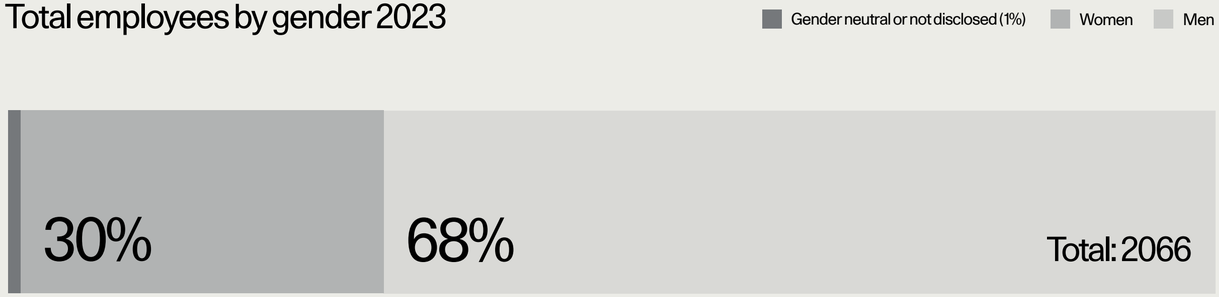
Inclusion index in employee pulse checks



New hires percentage 2023



Total employees by gender 2023



Inclusion
Inclusive customer experience

We want everyone in the Polestar universe to feel included. By basing our customer experience on our inclusive approach, we can more effectively build our brand and create a more engaging customer journey. Our inclusive customer experience initiative aims to provide a positive and equitable experience for all customers, irrespective of their background or identity, when interacting with Polestar. With this in mind, we created The Polestar Way as a guiding credo to permeate the entire company. The 'digital first, human always' approach in The Polestar Way was launched through company-wide training to create a deeper knowledge of how our choices impact customer decisions.

The initiative aims to create an inclusive culture and remove barriers that hinder certain customer groups from fully engaging with our products or services. This could include developing training programmes for employees, creating opportunities for customers from underrepresented groups, or gathering feedback from customers to identify and address areas where we can improve.

Customer satisfaction is fundamentally dependent on the quality of products and services, as well as a seamless customer experience. At Polestar, ensuring the safety of our products for consumers and end-users is crucial. From the initial stages of design, through research and development, our commitment is to consistently achieve a state-of-the-art level of safety risk mitigation and crash protection for both vehicle occupants and all road users.

Read more →
Consumers and end users

Customer statisfaction score (CSAT)

74

Yearly goal: 85

Net Promoter Score (NPS)

57

Yearly goal: 56

Inclusion
Ethical business practices

The focus area of inclusion illustrates how we view ourselves as a responsible corporate citizen. We are committed to integrating ethical business conduct and leveraging our global presence to make a positive impact. By cultivating a culture of compliance, encouraging open dialogue, and implementing due diligence practices, we demonstrate the type of impact we aspire to make. Ethical business practices are the tools we use to transform these actions into tangible results, ensuring our business operations are conducted ethically.

Our Code of Conduct forms the cornerstone of our efforts to foster a culture of compliance. It integrates core principles of human rights derived from established agreements, which are disseminated through training sessions and reinforced in our business relationships.

Polestar is committed to promoting a culture where employees and stakeholders feel empowered to voice concerns, ask questions through multiple channels, and report any suspected violations of laws and regulations, all without fear of retaliation.

Complex supply chains can obscure companies' responsibilities and liabilities. A link exists between corruption and discrimination, with corruption adversely affecting the human rights of workers and impacted communities. Recognising this, we are committed to making concerted efforts to integrate due diligence processes within our operations. This involves identifying and assessing any actual or potential human rights risks along our value chain, enabling us to continually enhance our ethical business practices.

Read more →
Business conduct

Transparency
Transparency at Polestar

Transparency is a fundamental factor for our success. The value of transparency extends beyond building trust among stakeholders. It is also an essential internal governance tool and a catalyst for driving sustainability transformation.

A prerequisite for transparency is access to data and information. Significant changes are being made in this area. However, the lack of accessible data continues to be a core barrier to success across all our key focus areas. Ensuring better data and information flows is therefore a crucial part of our sustainability agenda.

Our work is complicated by the fact that transparency in the automotive industry has historically been low. This means that we must, to an even greater extent, drive and create the solutions we want to see. It also implies that actors and stakeholders within our value chain may lack awareness of our transparency expectations or potentially perceive them as a threat.

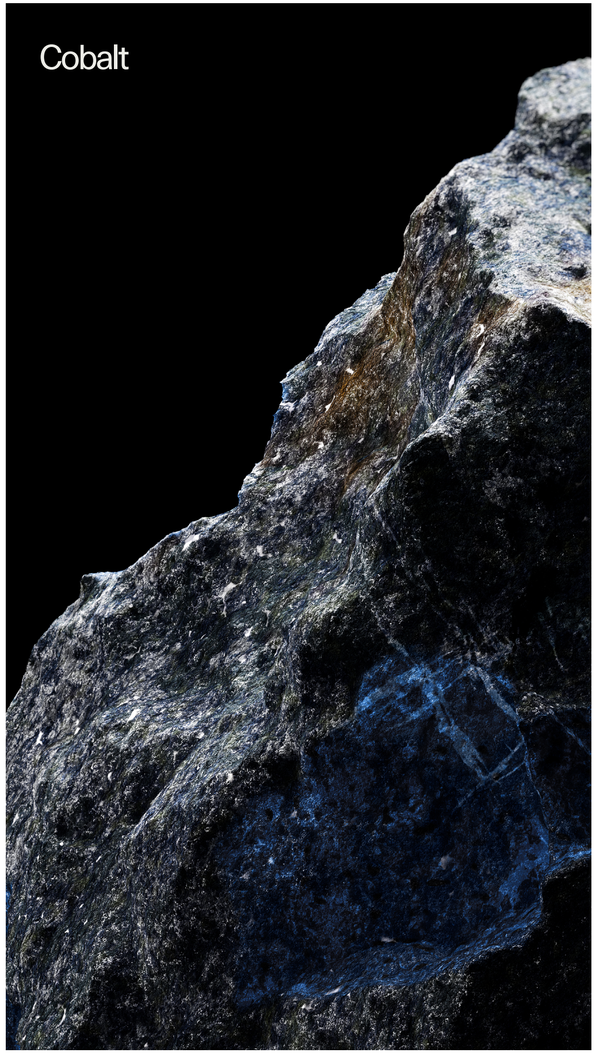
To some extent, this situation is a result of the complex nature of our work. A car consists of more than 30,000 components, assembled from raw materials sourced globally. Our focus is on addressing previously unsolved challenges, including the development of circular solutions for large-scale industries, and the safeguarding of human rights within global supply chains. As we continuously venture into uncharted territory, we devise new tools and methods. These challenges are not unique to us. Progressive companies in various industries such as fashion and electronics are also confronting similar obstacles.

The focus area of transparency is about finding or creating tools that are preferably harmonised to be used across our and other industries. It is divided into initiatives surrounding materials traceability, supply chain visibility, product sustainability declaration, and data-driven transparency.

Transparency
Materials traceability

Several materials used in electric vehicles have complex supply chains and are in some cases associated with environmental and social risks. The mining of materials used in batteries, particularly cobalt and mica, is associated with risks of child labour and unsafe working conditions. Mining activities can also have significant environmental impacts, such as deforestation, habitat destruction, and water pollution.

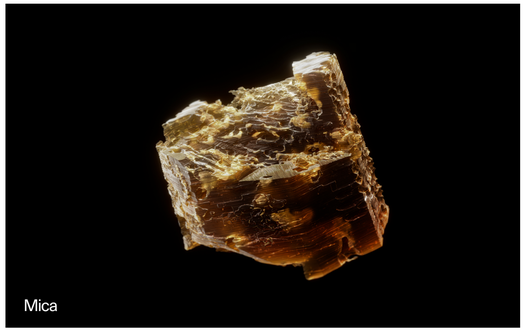
Biovinyl offers a more climate-friendly alternative to its fossil-based counterpart, although it is produced from agricultural products, which poses risks related to water usage and biodiversity impacts. Rare earth elements, used in electric motors and in magnets, have a limited supply and their extraction can result in environmental degradation and ecosystem disruption. These are a small number of examples of what we refer to as risk materials. Regardless of the terminology, they warrant the automotive industry's undivided attention to achieve improved sustainability outcomes.



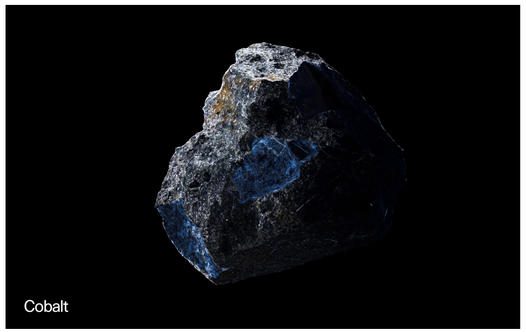
Transparency
Prioritised risk materials

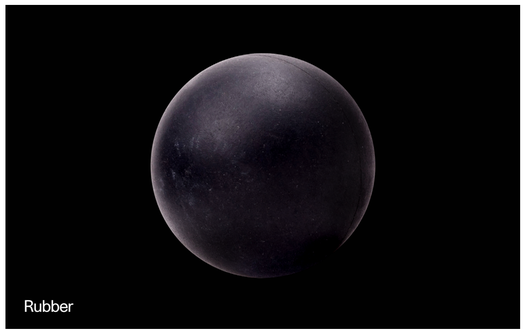
Polestar currently has a list of 18 materials that we categorise as risk materials. The list is continuously under development and compiled using a methodology that consistently incorporates research, policy analyses, and impact evaluations. These assess the risks each material poses to people and/or the environment. This approach also includes evaluating materials' criticality to Polestar and our usage volume. Based on these insights, we formulate a due diligence strategy for each material, aimed at stopping, preventing, or reducing any potential negative effects. Traceability of materials is a key element in these strategies.

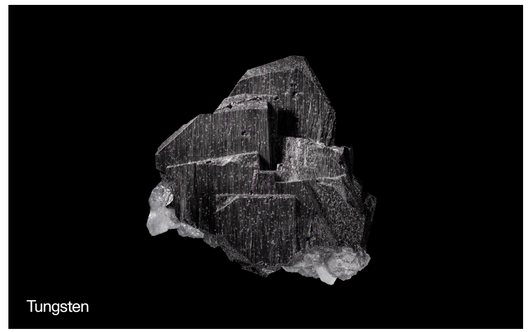
Lithium


Mica

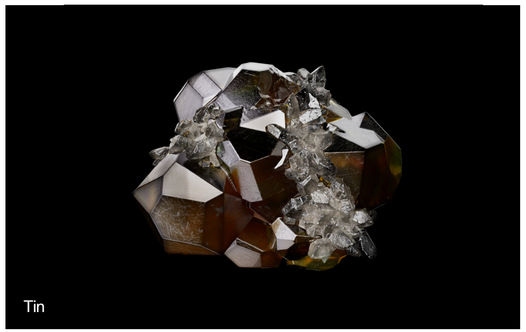
Tantalum

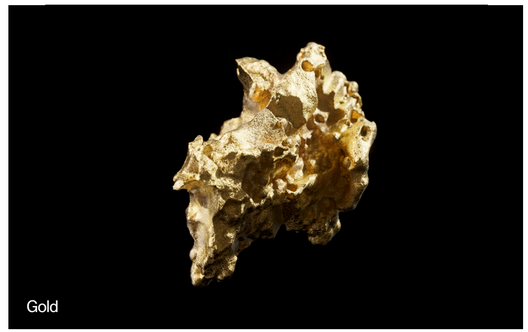

Cobalt


Rubber


Tungsten

Graphite


Tin

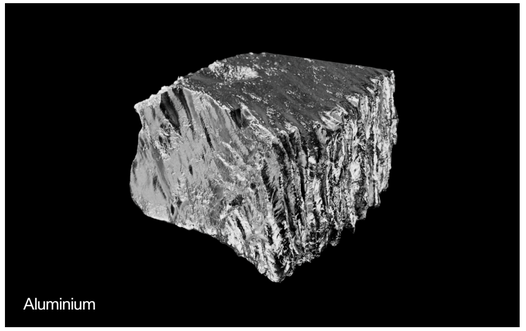

Gold

Transparency
Prioritised risk materials

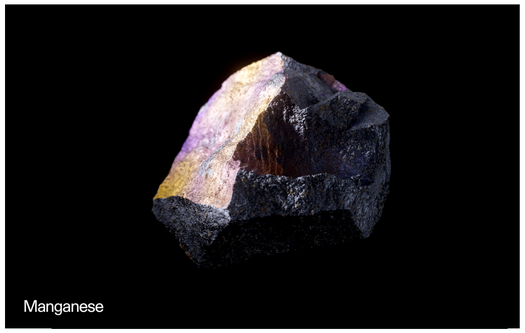
We utilise a variety of tools for material traceability, including multi-stakeholder standards and certifications, chain-of-custody schemes assessed by third parties, and private blockchain technologies. In 2023, we focused on enhancing our traceability practices and expanding the range of battery risk minerals we track. A significant advance is our ability to trace the lithium and nickel used in Polestar 3's batteries, adding to the cobalt and mica we have been monitoring with blockchain technology since 2020 and 2021, respectively.

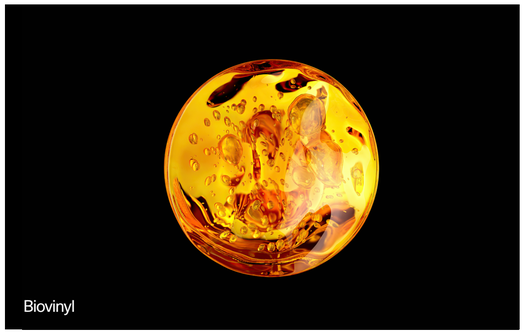
The materials are categorised according to their most severe risk even if, as in many cases, they pose risks in several categories.

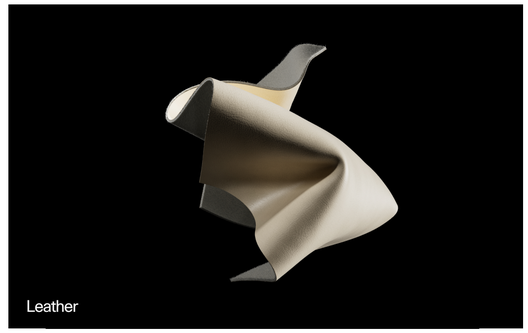
Nickel

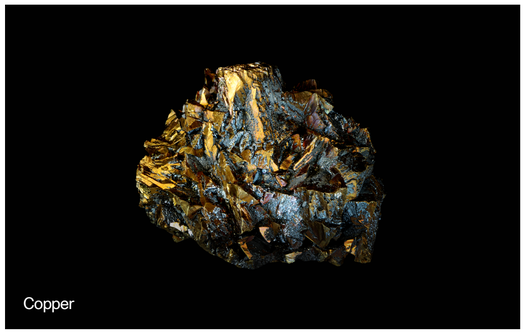

Aluminium

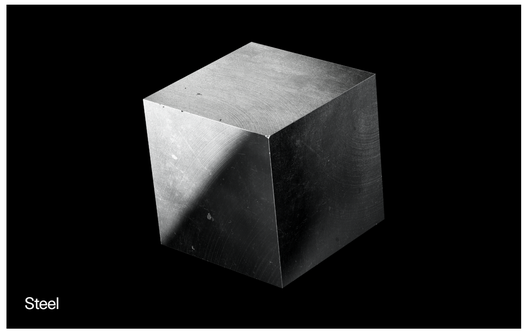
Wool


Manganese


Biovinyl


Leather


Copper


Steel

Polysilicon

Transparency
Supply chain visibility

Sustainability transformation goes far beyond the materials and processes that we identify in our risk material list. It is essentially about redefining how global supply chains operate, and to put transparency and harmonised sustainability efforts at the top of everyone's agenda, whether they are buyers or suppliers.

As a complement to our bottom-up approach to establishing traceability for risk materials, we also employ a top-down strategy, utilising a variety of tools and activities. This approach helps us identify and collaborate with the right suppliers, thereby enhancing the transparency of our supply chains. These instruments are key to our development of our supply sustainability assessment programme, complemented by our Code of Conduct for Business Partners (detailed on page 59). They underscore Polestar's dedication to sustainable practices throughout our supply chain. The overarching aim is to empower our organisation to lead sustainability enhancements more deeply within supply chains than has historically been achieved in the automotive sector.

We prioritise the use of tools that are standardised across our industry, provided they match our ambitious goals and have a demonstrated history or potential to generate genuine, quantifiable positive outcomes.

Read more →
Code of Conduct for Business Partners
Business conduct

01
Self-Assessment Questionnaire (SAQ)

Completion of a Self-Assessment Questionnaire (SAQ) on sustainability is a requirement during the sourcing process, and existing suppliers are required to complete a SAQ bi-annually. Developed as an industry initiative led by the multi-stakeholder organisation Drive Sustainability, it addresses areas such as business ethics, human rights, and environmental management. External assessors validate SAQ responses and provide suppliers with recommendations. Our requirement is for all active supplier sites to submit a completed SAQ, with action plans required if their rating falls below 70%, to be implemented within specified timeframes.

02
Supplier Sustainability Index (SSI)

For those suppliers that pass the SAQ, Polestar's Supplier Sustainability Index (SSI) gauges suppliers' maturity in four key sustainability areas: climate neutrality, circularity, transparency, and inclusion. Prospective suppliers must commit to our sustainability approach, track progress, and implement initiatives in these focus areas. Suppliers complete and submit the SSI, which is then analysed and scored by Polestar's Global Sustainability Procurement Team.

03
Institute for Public & Environmental Affairs' (IPE)

Polestar has used the Institute for Public & Environmental Affairs' (IPE) Blue EcoChain platform as one of its supplier environmental compliance management tools since 2021. All of our direct material suppliers located in China are screened using the IPE Blue EcoChain platform prior to the supplier nomination process. Any violation is required to be responded to and addressed as requested in the Polestar Procurement Sustainability Instruction. The supplier's record on IPE will impact their SSI score, which is updated annually.

04
Climate TRACE

In 2023, we partnered with Climate TRACE, a non-profit coalition building an accessible inventory of GHG emissions sources. Climate TRACE's expanded database now tracks GHG emissions from more than 352 million assets, a 4,400-fold increase compared to last year. All Climate TRACE data are free and publicly available to help enable action and accountability at the massive scale necessary for global progress. We are currently assessing how to integrate the data in Climate TRACE more concretely into our processes.

Transparency

Product sustainability declaration

We believe in transparency as a means to drive change throughout our industry, and to help our customers make informed choices. Polestar's product sustainability declaration helps customers assess the sustainability of our cars. The declaration, published on our website, discloses the cradle-to-gate GHG emissions, traced risk materials, and other information. As we make progress on extracting more validated data and information from our supply chain, we will be able to add more parameters to the declaration.

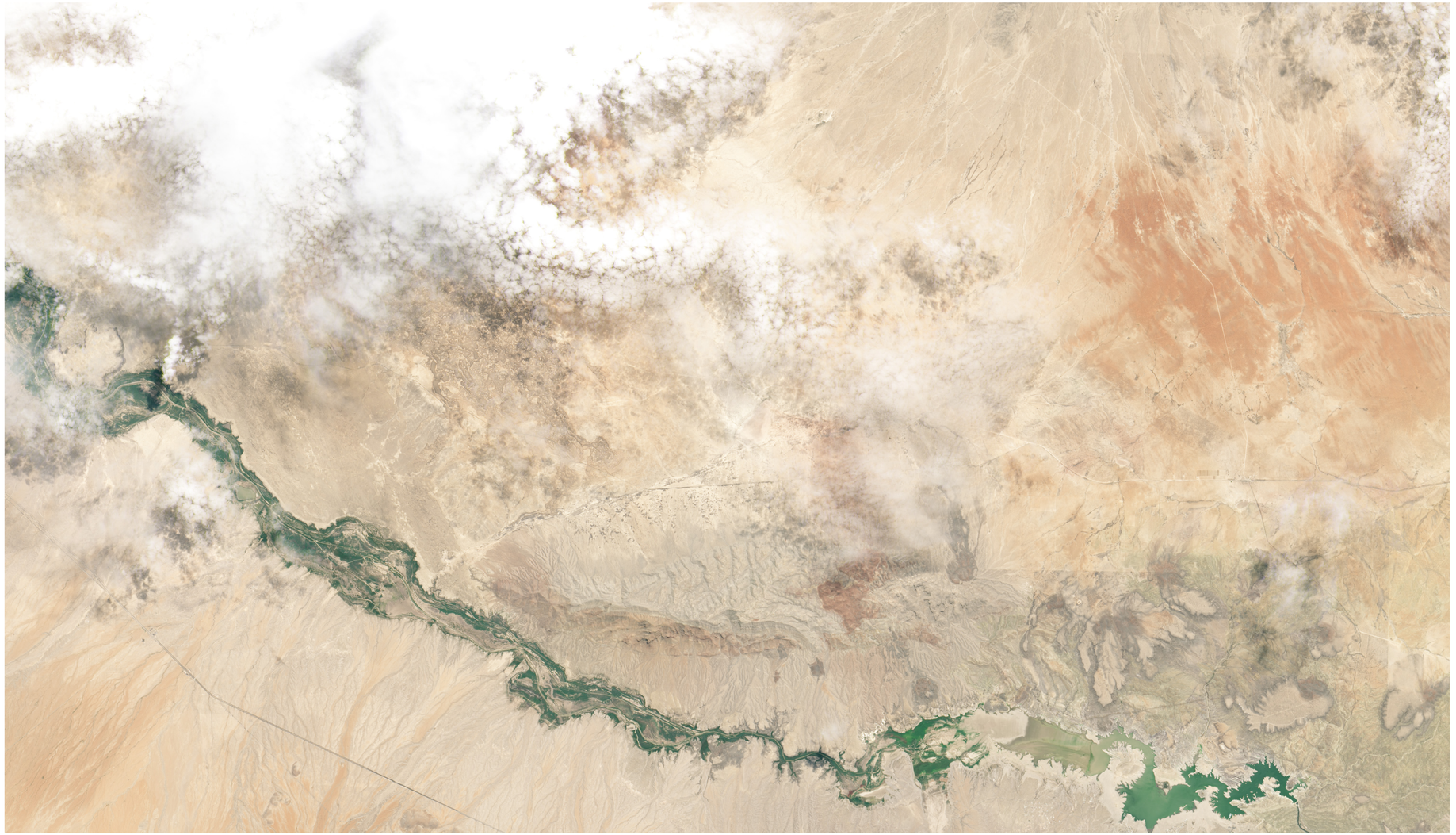
The carbon footprint of our models and their different variants is an essential part of the product sustainability declaration and is based on our life cycle assessments (LCA). The complete methodology behind these calculations is described in the LCA report. We publish this on our website to offer consumers full transparency regarding our assumptions and underlying data.

Read more →
Polestar's LCA reports

Transparency
Data-driven transparency

Digitalisation, particularly through digital tools that enable the use of large amounts of data, presents a significant opportunity to accelerate sustainable development. This acceleration comes from enhanced transparency and efficiency and from problem-solving capabilities offered by technologies such as AI. We must invest in systems that enable aggregated analysis and detailed exploration, especially when it comes to governing sustainability transformation in complex supply chains like ours. Data-driven transparency is a strategic initiative that enables all other sustainability initiatives.

During the year, Polestar introduced a digital platform to streamline the collection of sustainability data, ensuring transparency and compliance with standards and regulations.



Circularity
Circularity at Polestar

As calculated in our own Pathway Report, the automotive industry is exceeding its carbon budget. This is of course largely driven by the continued production and use of petrol and diesel cars, along with their exhaust pipe emissions, as well as the industry's consumption of materials and energy. At Polestar, circularity is a key solution to meet mobility demands while minimising resource impact. Circular design is integral to our decarbonisation strategy, aiming to reduce non-circular (non-recycled or non-biobased) materials per lifetime vehicle mileage to near zero. We have identified two main levers of impact: enhancing the share of circular materials, and increasing car mileage. Reaching this target will require us to rethink the way we design, make, sell, and treat cars during the entire vehicle lifetime and customer journey.

In terms of circularity, we strive to minimise waste and increase recyclability, utilise more circular materials, and limit the use of, and ultimately phase out, harmful chemicals. Raw material consumption lies at the root of all environmental problems, which also means that the actions we are taking on circularity have the potential to positively impact everything from biodiversity and climate change, to water use and pollution of micro-plastics and chemicals.

ChemSec

In 2023, Polestar became the 14th member of ChemSec Business Group, and the only automotive company to do so. ChemSec is a non-profit organisation focused on promoting the substitution of hazardous chemicals with safer alternatives and works toward a toxic-free environment. ChemSec Business Group consists of a select group of ambitious companies and associations from various industries worldwide, collaborating to inspire and achieve concrete progress on toxic use reduction.

Circularity
Strategic initiatives

The common denominator for all actions within the focus area circularity is effective use of all types of resources. The focus area include a slightly wider scope of topics than what conventionally is sorted under circularity. Under the initiative operational circularity we monitor for example water use and the use of substances of very high concern in our operations.

01
Operational circularity

Operational circularity aims to improve the environmental performance of our own operations and manufacturing, with a focus on water, waste, chemicals, and energy.

KPIs:

- Water usage
- Waste volumes
- Biodiversity enablement
- Substances of Very High Concern

02
Material circularity

Material circularity includes our efforts to increase the use of recycled, reused and renewable material, a reduced material palette, design for recyclability, and protect people and planet from harmful chemicals by using safer materials and working towards increased chemical transparency.

KPIs:

- Percentage of circular inflow per car
- Percentage of circular outflow per car
- Vehicle circularity score (TBC)
- Disassembly time per component
- Substances of Very High Concern

03
Lifetime optimisation

Lifetime optimisation encompasses our efforts to enable disassembly, repairability, upgradeability, reuse, and remanufacturing.

KPIs:

- Share of reused/remanufactured components in new vehicles
- Number of partnerships with scrap dealers for spare parts
- Number of trips to workshops per car
- Number of parts replaced per car

04
Utilisation improvement

Utilisation improvement encapsulates more long-term thinking in terms of how to enable higher utilisation of each car and its other assets, e.g. the battery and processors.

KPIs:

- Share of vehicles that Polestar has access to (leasing, subscription, etc.)
- Sold cars with on-board circular mobility platforms
- Utilisation time per vehicle

Circularity
Batteries

Lithium-ion batteries are currently state-of-the-art power sources for EVs, but the production of these batteries presents a range of environmental and social challenges. Battery production can have adverse effects on everything from biodiversity and climate to chemical pollution and water scarcity, driven by the extraction and processing of battery materials. Therefore, it is crucial that Polestar uses circularity measures to improve battery production.

01
Enhancing performance

We continuously strive to enhance our batteries through upgrades that improve cell chemistry and power efficiency, with a focus on extending range capabilities and reducing charging times. In addition, we actively engage with our suppliers to encourage the reduction of the carbon footprint of the battery modules they supply.

02
Recyclability

Polestar prioritises the recovery of all Battery Electric Vehicle (BEV) batteries through Volvo Car's collection system in collaboration with our network partners and service centres (where legally permitted). We aim to provide these batteries with as many opportunities for use before being recycled. In cases where batteries cannot be given a second life due to factors such as degraded battery health or a lack of economic viability, they undergo inspection for repair, remanufacturing, or material recycling. This process aims to recover valuable materials such as cobalt, lithium, manganese, and nickel, which can then be reintroduced into new raw material streams. This approach avoids the high economic costs associated with battery recycling and opens up opportunities for generating revenue by selling battery packs to third parties for alternative applications such as energy storage.

Polestar aims to partner and collaborate with recycling companies that use efficient recycling methods (>95% material recovery) and recycling methods with relatively low energy intensity (e.g. hydrometallurgical) compared to the traditional pyrometallurgical process.

03
Research & development

We are actively investigating new technologies that improve efficiency and deliver more power with a smaller environmental footprint. Solid state batteries, for example, have the potential to deliver significant advances in sustainability and performance. A testament to this commitment is the significant updates made to the Polestar 2 model year 2024. These advances have enabled the Polestar 2 to achieve up to 20% longer travel distances, consume up to 9% less energy, and enjoy up to 34% faster charging times. These improvements are largely attributable to hardware upgrades, such as the incorporation of larger batteries and the introduction of new motors. However, there are still several possible improvements to be made with the current battery chemistries.

In November 2023, Polestar entered into a collaboration with StoreDot, a company that specialises in innovative batteries that offer faster charging, enhanced safety, and improved sustainability. Polestar is working with StoreDot to bring their extreme fast charging (XFC) technology to production. Known as '100-in-5', this technology enables 100 miles (160 km) of range to be charged in just five minutes. This can be seamlessly integrated into existing battery pack formats, eliminating the need for major battery pack redesign.

Circularity
2023 circular footprint

When it comes to car production materials, steel, aluminium, and battery production have the most significant negative environmental impact. However, there are also meaningful improvements to be made in terms of design details, which is why we dedicate efforts to every aspect of the vehicle.

We challenge ourselves and our suppliers to source innovative, more sustainable, and premium materials that minimise Polestar's negative impact on the planet, people, and animals. For instance, in Polestar 2, WeaveTech is used as a vegan, PVC-free leather alternative. Polestar 4 showcases Tailored Knit made from 100% recycled PET.

The interior of the Polestar 2 features reconstructed wood deco, which utilises reused birch wood to preserve natural materials and reduce the amount of virgin materials in the car, while providing a textured look with the wood grain. Polestar 3 and Polestar 4 utilise carpets made from 100% ECONYL® polyamide, derived from discarded fishing nets and other plastic waste.

We have used a range of raw materials to produce our cars, as outlined in the table below. The basis for this data is the bill of materials for our car models, and therefore only shows the materials which ended up in the products.

The direct raw material consumption of Polestar 2, Polestar 3 & Polestar 4 (kg/car)

	Polestar 2 LRDM
Aluminium	347
Battery modules	360
Copper	59
Elastomers	9
Electronics	5
Fluids and undefined	81
Glass and ceramics	55
Natural materials	6
Other metals	7
Polymers	331
Steel and iron	908
Total	2,168

	Polestar 3 LRDM
Aluminium	541
Battery modules	474
Copper	70
Elastomers	11
Electronics	7
Fluids and undefined	74
Glass and ceramics	63
Natural materials	13
Other metals	19
Polymers	429
Steel and iron	885
Total	2,586

	Polestar 4 LRDM
Aluminium	322
Battery pack	581
Copper	49
Elastomers	11
Electronics	4
Fibres	19
Fluids and undefined	28
Glass and ceramics	57
Natural materials	7
Other metals	21
Other minerals	12
Polymers	433
Steel and iron	806
Total	2,350

Polestar 2 and 3 are manufactured by Volvo Cars and Polestar 4 is manufactured by Geely.
The manufacturing data categorization varies for each model resulting in inconsistencies in the material breakdown.

Climate
Blueprint for climate neutrality by 2040

At first glance, it may appear that the solution to the climate crisis is approaching. The number of electric cars on the roads is increasing, additional wind turbines are being erected, and many projects and initiatives are put into action. Despite these increasing technological advancements and investments in transition, the data related to climate change indicates a lack of progress or even regression. Global GHG emissions continue to rise. The urgency and cost of the transition increase with each passing year before the curve starts to decline. This urgency was emphasised during the COP28 climate meeting in 2023. Achieving the 1.5-degree target is challenging, but also the 2-degree goal requires significant efforts to be reached.

This underscores the pressing need for leadership. Today, while there is no shortage of net zero pledges, there is a high need for leaders who can effectively demonstrate concrete actions to rapidly reduce GHG emissions. In this report, we are not only sharing our roadmap, completed actions, and achieved goals, but also articulating how we plan to execute this roadmap and reduce our GHG emissions. This process entails envisioning the future and making assumptions, both about ourselves as a company and the world around us. Some of these assumptions may turn out to be incorrect, but sharing our analysis facilitates collaboration and scrutiny.

We aim to reach climate neutrality by 2040, striving to eliminate all GHG emissions across our operations and throughout the entire lifecycle of our cars as far as possible. This includes GHG emissions from the supply chain, manufacturing, and energy use during the car's life cycle but also GHG emissions stemming from our own activities such as energy usage in offices and spaces that we operate, business travels, events, and digital operations. The focus area of climate neutrality is divided into several strategic initiatives, presented in the overview on page 56.

From an industry perspective, two key goals must be achieved to fulfil the promise of electric vehicles and attain climate neutrality: vehicles need to be charged with electricity from fossil-free sources, and supply chains need to be decarbonised.

Accomplishing this task is both complex and demanding. The solutions can be classified into three different levels.

Level 1
Solutions ready for car program

This involves well-known and widely adopted technologies, such as purchasing aluminium manufactured with renewable electricity as well as adding renewable electricity in various stages of material and vehicle production. These changes helped reduce the cradle-to-gate carbon footprint of Polestar 2 from 26.1 to 23.1 tonnes. To ensure maximum utilisation of existing solutions, we continuously work on improving our models that are already in production, while also using them as basic requirements for future models.

Level 2
Applied Science

This pertains to processes that exist but have limited spread and application, or existing methods used for different purposes, in another environment or industry. These methods need to be adjusted, tested, and proved working to be implemented in a new industry with the ambition to eliminate GHG emissions.

Level 3
Research

The solutions in level 1 and level 2 will reduce GHG emissions substantially. However, we must take further actions to achieve our goal of reaching climate neutrality by 2040. At present, components such as batteries, electronics, and even basic elements like tires, glass and plastics cannot be manufactured without leaving a carbon footprint. Developing solutions for this will take time. Therefore, long-term collaborative projects aimed at discovering innovative elimination methods are essential - not just for Polestar, but for the entire industry. Initiatives delivering on this hold the dual potential of benefiting the climate and generating business value, offering viable solutions in a world striving towards net zero. That is why we have initiated the Polestar 0 project.

Polestar recognises that while carbon removals offer potential for GHG emissions reduction, we cannot solely rely on them. Instead, we view carbon removals as a final option for mitigating GHG emissions in the value chain, particularly those beyond direct control. The carbon removal market is in its early stages, with uncertain future scalability. In light of this, Polestar is vigilantly monitoring market developments to stay informed and adapt as necessary.

Climate
Decoupled growth

To understand the scale of our challenge and the value of what we are creating, one must examine total absolute GHG emissions generated throughout company value chains. This reveals a paradox shared with companies delivering a clear climate solution – each product contributes to the reduction of GHG emissions, but also leaves an environmental footprint. For us to have a significant positive climate impact, substantial growth is necessary, leading to an initial corresponding increase in our absolute GHG emissions as we ramp up production.

This situation is shared by all climate tech companies while aspiring for growth. At Polestar, we emphasise the relationship between growth and sustainability and have a clear idea of how to separate our growth from our carbon footprint. Currently, we are witnessing a promising trend: our economic growth is outpacing the rise in our GHG emissions, indicating a decoupling effect. Looking forward, our strategy and aspiration for the period between 2024 and 2030 is to amplify this effect. We aim to achieve a scenario where heightened growth directly contributes to a decrease in GHG emissions.

Climate
Targets towards 2040

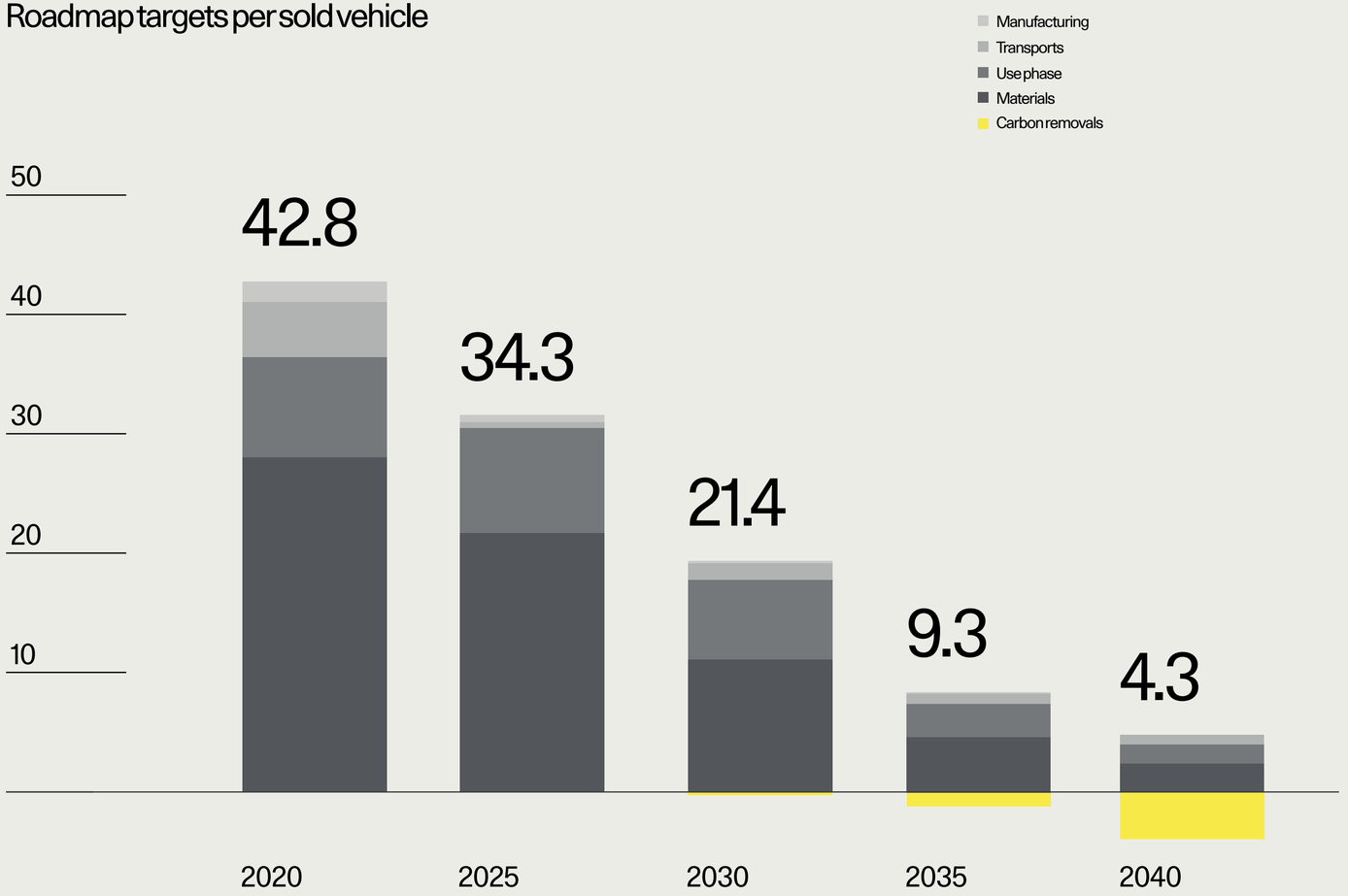
Our climate roadmap is designed to support our financial and value creation goals as well as reduce the GHG emissions per sold car with at least 90% until 2040. During 2023 we have integrated new measures in the roadmap to be able to reach the 90% reduction per sold car. We will continue working on closing the remaining gap, to which the Polestar 0 project plays a vital role, in order to reach our absolute target of climate-neutrality by 2040, allowing for a maximum of 10% removals.

GHG emissions include all Scope 1, 2, and 3 related to the production of our cars, from raw material extraction to manufacturing, transportation, customer product usage, and eventual dismantling. Within all scopes, we have identified potentials for GHG emission reductions, and it is with these potentials that we have put together this roadmap. The remaining residual GHG emissions per sold car then needs to be neutralised via carbon removals with high quality and environmental integrity.

For carbon removals, we see the need for a common standard or definition and credible certification framework. We actively track the ongoing efforts of entities such as the UNFCCC, the GHG Protocol, and the EU Commission, among others. In alignment with these endeavours, Polestar did not procure any carbon removals in 2023. However, we foresee a potential and gradual phase-up over time (as reflected in the graph to the right) to be able to neutralise residual GHG emissions per car sold until 2040.

A consequence of our efforts to reduce our GHG emissions is that we have a surplus of carbon credits. By allocating these on the market, we create a revenue stream with which we finance parts of our operations and scale-up. This is an example of how we integrate our climate and business agendas.

Roadmap targets per sold vehicle



Climate

GHG emissions per vehicle sold (physical intensity)

The key to reducing overall GHG emissions is ensuring each car has the smallest environmental footprint over its lifetime. On the following pages, we will explore our climate roadmap from various perspectives, outlining solutions, our capabilities, and our dependence on the external environment.

In the diagram you can see the footprint of Polestar cars and how it needs to change by 2040. As an automotive company, we have significant CO_2 mitigation potential in our value chain, which is our highest priority.

To reach our climate goals, we are focused on eliminating GHG emissions through a range of strategies, including:

- Resource efficiency
- Energy efficiency
- New technology and processes
- The use of fossil-free energy

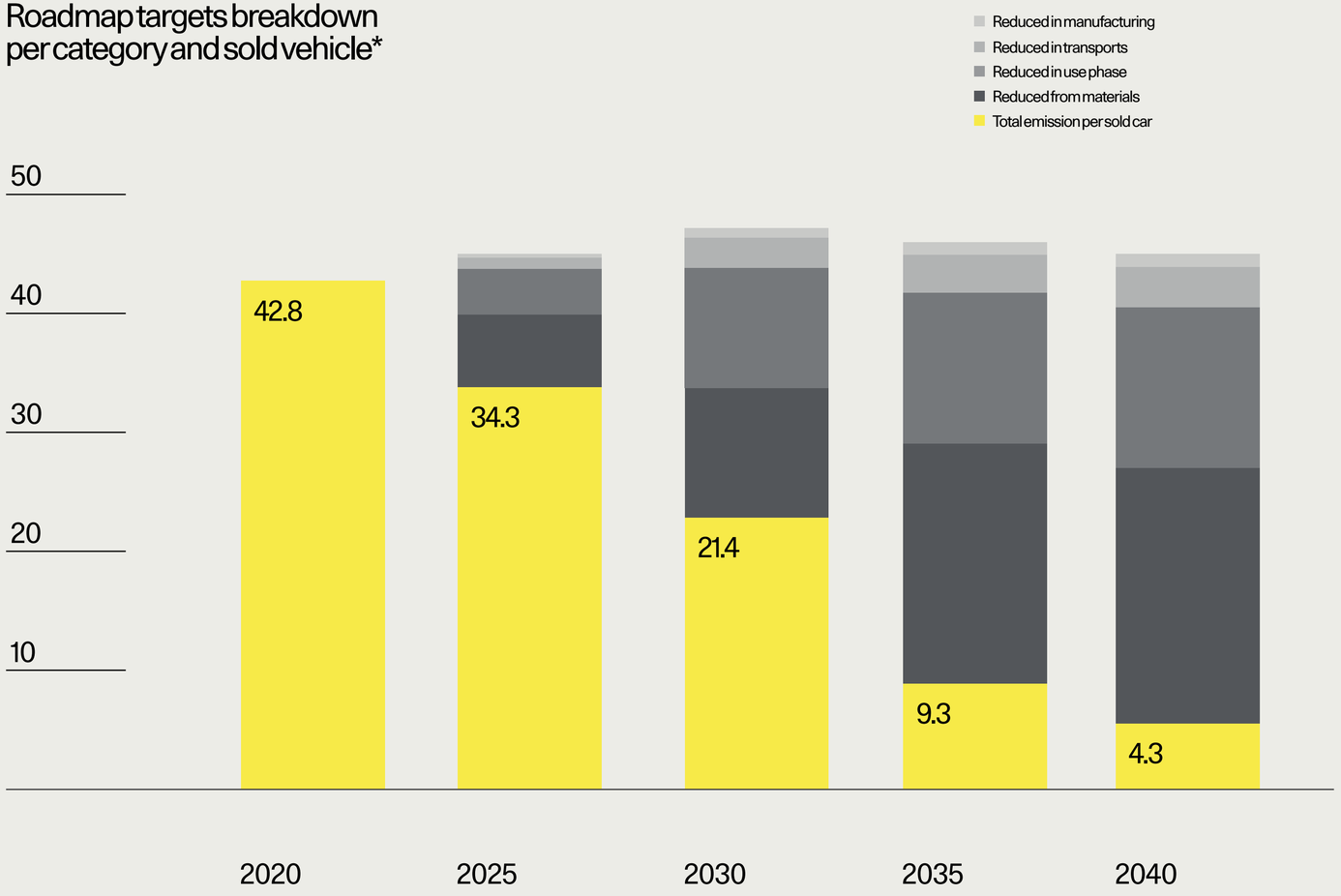
As shown in the graph on the previous page, most GHG emissions come from material extraction/processing, with a closer look at the distribution of GHG emissions among different materials below. This is where we have the greatest opportunity to influence, and thus, our efforts and investments are focused.

The second-largest GHG emissions category is the use phase, representing the electricity our customers use to charge their cars. Achieving our goals requires a transition from fossil fuel to fossil-free energy sources in the markets where we sell our cars.

Lastly, GHG emissions stemming from transportation and manufacturing present distinct challenges. While manufacturing is already experiencing a positive transformation towards lower GHG emissions, transportation continues to pose significant hurdles. Nevertheless, we are committed to addressing these challenges head-on. A testament to our efforts is the reduction of GHG emissions from the Polestar 4 project, achieved by strategically minimising the distances between our suppliers and manufacturing sites.

*Increase in the GHG emissions per sold vehicle (reductions in use phase) in 2025 and forward is due to the change in the volume mix of cars sold in different markets. The base year 2020 had a high share of cars sold in Europe with a relatively clean electricity grid mix. From 2025 and forward the share of sales in other regions is estimated to increase, leading to a slight increase in the share of GHG emissions in 2025 before they start to decrease.

Roadmap targets breakdown per category and sold vehicle*

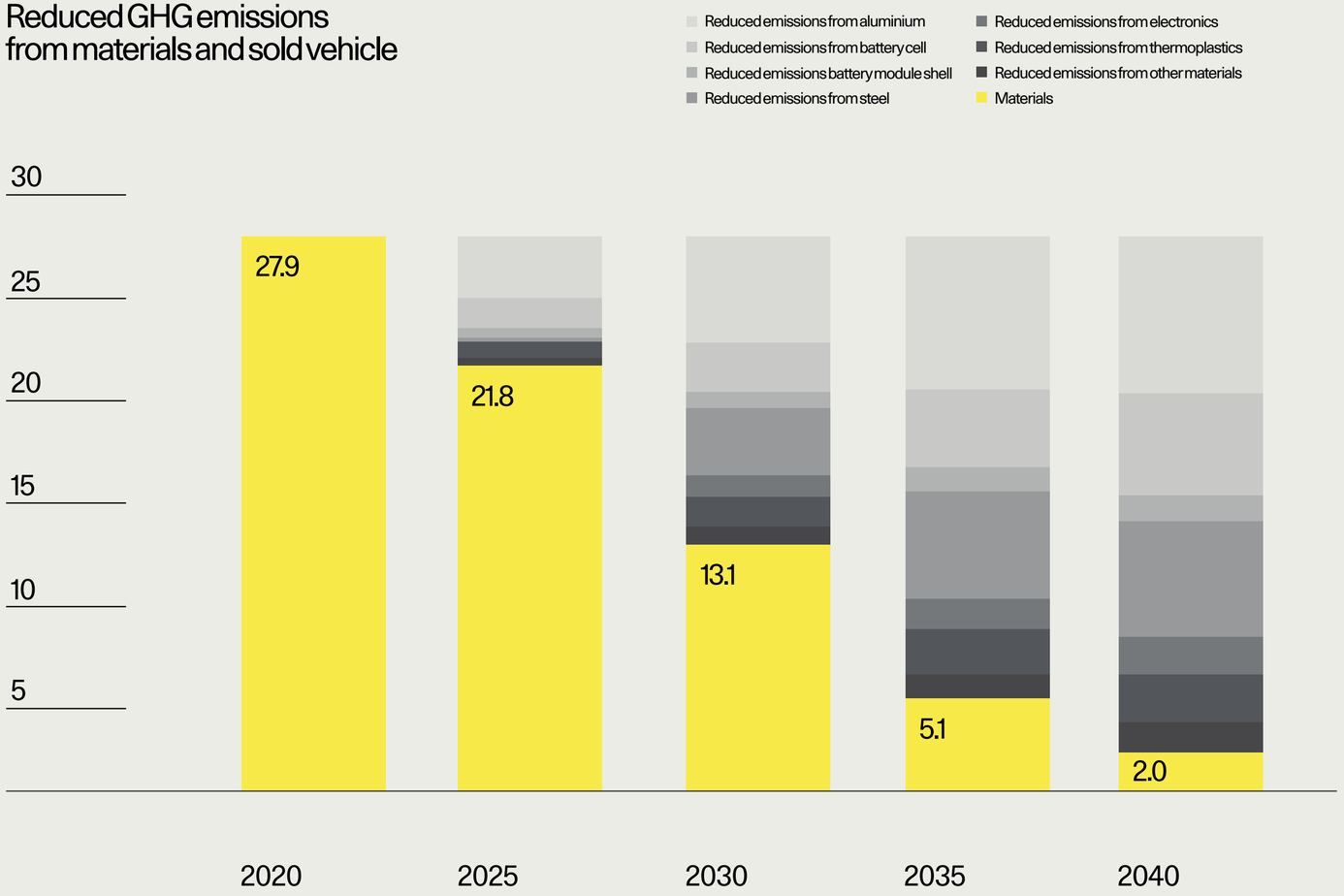


Climate
Materials

The majority of GHG emissions stem from the extraction and processing of various materials, with three components – aluminium, steel, and batteries – accounting for the vast majority. Following these are thermoplastics and electronics. Our work at Polestar aims to implement existing solutions, advocate for emerging solutions, and actively address what is currently considered unsolvable. Existing solutions may involve purchasing aluminium produced using renewable electricity, emerging solutions could include steel made with renewable energy, and entirely new solutions may relate to electronics, tires, and thermoplastics.

At Polestar, the entire company is involved in reducing the footprint of upcoming models and existing ones through Sustainability Upgrades. Success in our plan necessitates collaborative efforts, involving not only the sustainability department but also designers, buyers, and purchasers. Material innovation is the key focus of the Polestar 0 project.

Reduced GHG emissions from materials and sold vehicle



Climate
Use phase

The second-largest GHG emissions category is usage. While Polestar's ability to influence this is limited, improvements in our cars' energy efficiency contribute to a smaller part of the reduction, as the majority of GHG emissions come from electricity production for car charging. But also in this phase, we ensure that we do what we can to reduce the climate footprint. By optimising the charging process based on external market signals, smart charging technology can minimise the environmental footprint of EV charging.

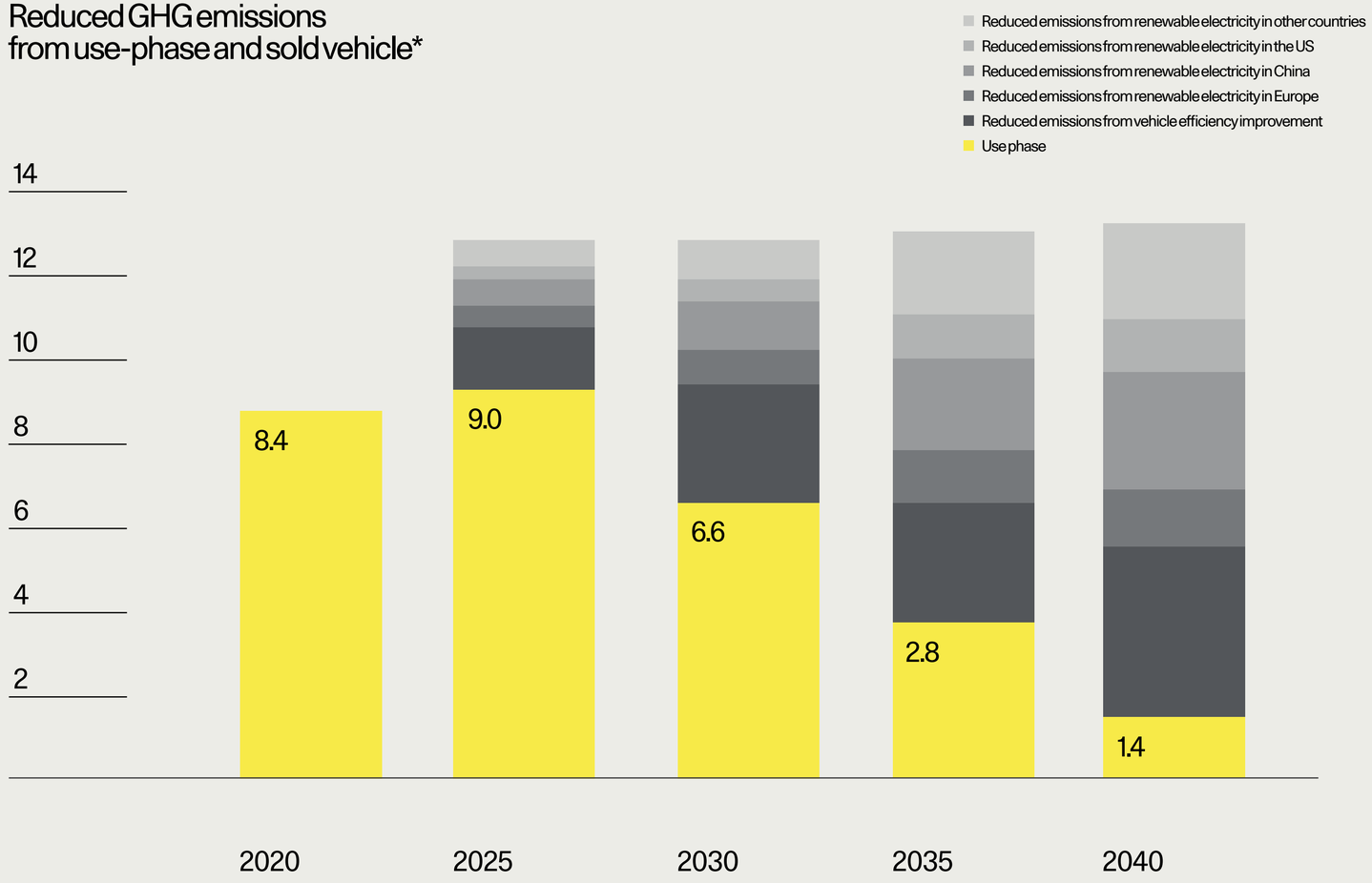
For example, we use a technology called V1G, which enables unidirectional energy flow from the grid to the vehicle during off-peak hours. This allows our electric vehicles to store energy when it is abundantly available, subsequently reducing demand during peak periods. By actively participating in load-shifting strategies, vehicles enabled by this technology contribute to a more balanced and efficient energy distribution, optimising grid performance and reducing overall environmental impact.

At the same time, we are working with the technology V2G, which enables our electric vehicles not only to consume energy but also to feed surplus energy back into the grid during peak demand. By actively participating in grid services, our vehicles play a pivotal role in promoting grid stability and facilitating the transition to a cleaner energy future. Polestar 3, the first electric performance SUV in our three-car line-up, is prepared for bidirectional charging technology which will make it compatible for future V2G solutions.

Looking forward, Polestar is investigating options to improve the accuracy of use phase calculation methodology, which may have an additional benefit of unlocking additional emission reduction measures that Polestar can directly influence. Assumptions about the changing energy mix in markets where Polestar aims to grow form the basis of our calculations. Though these are assumptions, the global trend towards renewable energy, confirmed at COP 28 by entities such as the International Energy Agency, is evident, particularly in China, EU, and the US.

*Increase in the GHG emissions per sold vehicle (reductions in use phase) in 2025 and forward is due to the change in the volume mix of cars sold in different markets. The base year 2020 had a high share of cars sold in Europe with a relatively clean electricity grid mix. From 2025 and forward the share of sales in other regions is estimated to increase, leading to a slight increase in the share of GHG emissions in 2025 before they start to decrease.

Reduced GHG emissions from use-phase and sold vehicle*



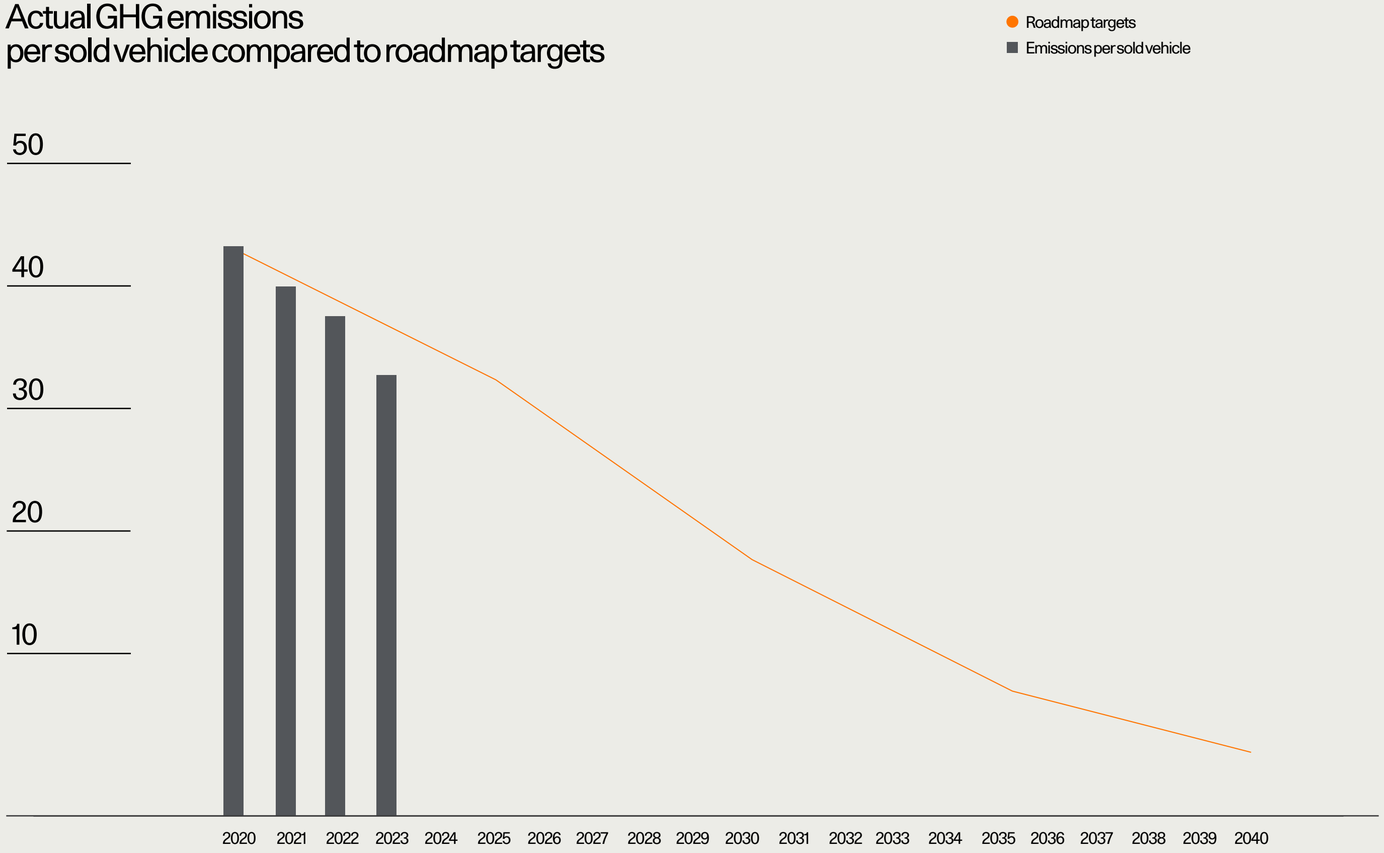
Climate
Cradle-to-gate

To provide an accurate assessment of a car's footprint, one must consider GHG emissions throughout its entire lifespan, including the use phase, the so-called cradle-to-grave. However, internally at Polestar, closely monitoring and setting targets for the car production footprint, termed cradle-to-gate, is crucial. It encompasses all GHG emissions from material extraction to when the car leaves the factory gate.

We have established cradle-to-gate carbon budgets for our car programs aligned with our Climate Roadmap, with the purpose to activate our designers, engineers and buyers to use solutions that cut GHG emissions to the point where the car is produced within its carbon budget. We are also working with our Sustainable Upgrades program to bring in more GHG-cutting solutions through the model year updates of our cars, securing that we improve it's carbon footprint along the full production lifecycle.

Learn more about the GHG emissions reductions we have made and how our total footprint has changed in Climate Change in Sustainability Notes on page 61.

Actual GHG emissions per sold vehicle compared to roadmap targets



Climate
Our models carbon footprint

Polestar's three-car lineup now consists of the 5-door electric performance fastback, Polestar 2, the electric performance SUV, Polestar 3, and the electric performance SUV coupé, Polestar 4.

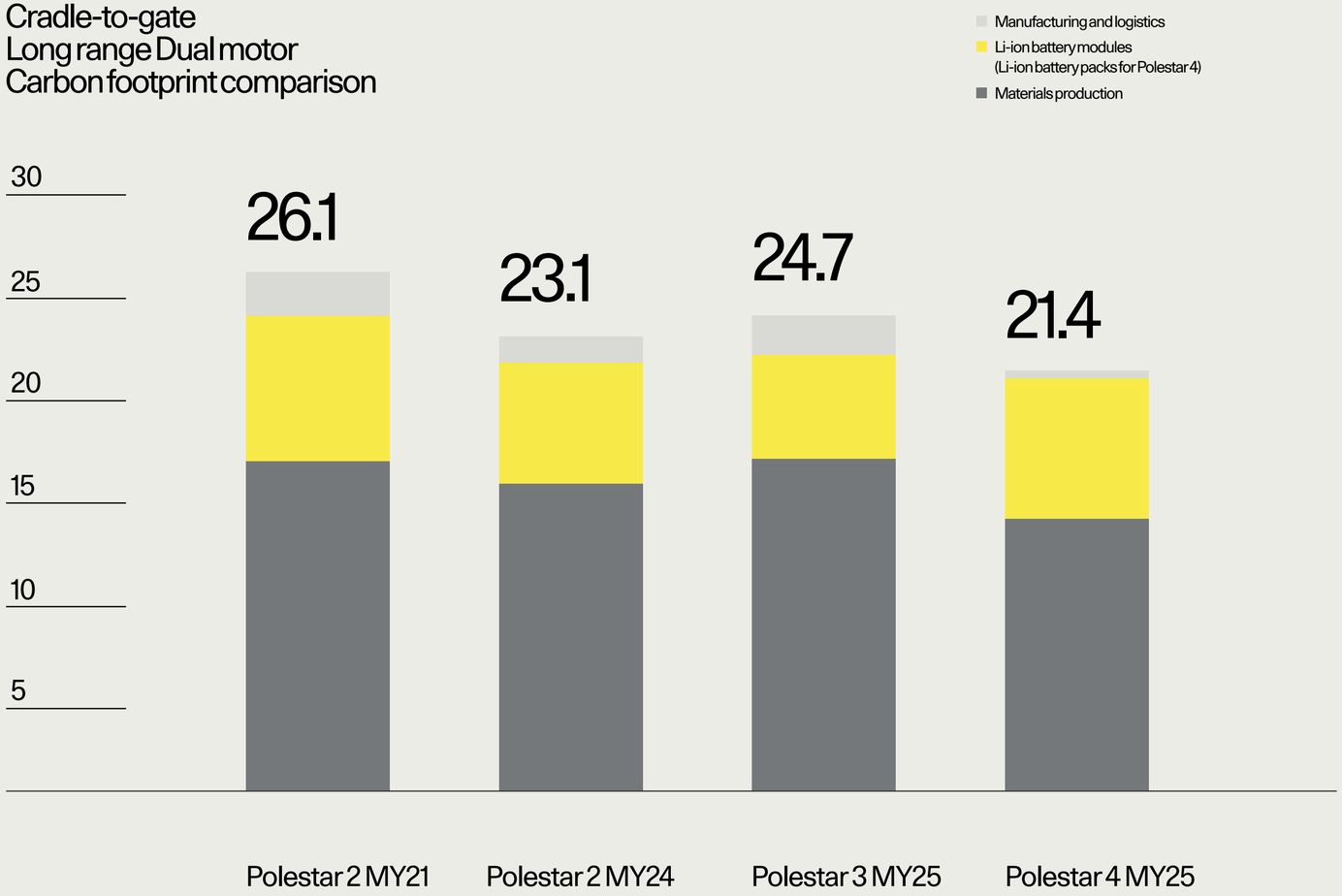
Since its launch in 2020, the cradle-to-gate carbon footprint of Polestar 2 has been reduced by three tonnes in three years, now 21.6-23.1 tCO_2e. The total cradle-to-gate carbon footprint of Polestar 3 is lower than that of the smaller Polestar 2 when it was launched in 2020 at 24.7 tCO_2e versus 26.1 tCO_2e. Polestar 4 was confirmed in late 2023 to have the lowest cradle-to-gate carbon footprint of any Polestar car at launch, 19.4-21.4 tCO_2e.

The majority of a vehicle's GHG emissions stem from extracting and processing materials. Thus, the approach to meeting the ambitious cradle-to-gate target for Polestar 3 took learnings from the carbon footprint reductions of Polestar 2. Consequently, 81% of Polestar 3's total aluminium mass production, the Li-ion battery cell module production as well as anode and cathode material production use 100% renewable electricity. By doing this, 8.5 tCO_2e have been eliminated.

Polestar 3 is manufactured initially at Volvo Cars' Chengdu factory in China, additional production is slated to start in South Carolina, USA, in the middle of 2024. Both manufacturing plants use 100% renewable electricity. A separate LCA will be produced for cars produced in this factory.

Polestar 4 is produced in Geely Holdings' SEA factory in Hangzhou Bay, China, which combines green electricity that carries the I-REC hydro power certificate, with photovoltaic electricity from the roof of the plant. A higher use of low-carbon aluminium from smelters using hydropower electricity helps reduce the climate impact further. In addition, data regarding the share of recycled aluminium has been included in the assessment for the first time.

Cradle-to-gate
Long range Dual motor
Carbon footprint comparison



Climate
Polestar 0 project

Polestar has an ambition to become a truly climate neutral company. Rather than passively awaiting the emergence of carbon removal solutions, we invest in creating initiatives that reduce, and ideally, eliminate the need for such measures altogether.

Consequently, the Polestar 0 project was launched in spring 2021. Polestar 0 is an ambitious project with a moonshot goal of creating a truly climate-neutral car by 2030. That means eliminating all GHG emissions from our supply chain, manufacturing processes, and end-of-life, without relying on offsets.

While the Polestar 0 project may aim for the moon, even in instances where it falls short, it paves the way for advancements that surpass existing solutions. It is not a conventional car project, and standard delivery guarantees cannot be provided. Nonetheless, every discovery holds value. Any solution that contributes to reducing GHG emissions is handed over to Polestar's car programs and, if viable, used in designing and producing regular Polestar range. A great example of how science done for greater good can help deliver on the business plan.

Striving for a climate-neutral car requires scrutinising every aspect of our supply chain, from mining and material refining to transportation. To streamline our efforts, the scope of the Polestar 0 project does not include the use phase and focuses solely on innovations that do not exist as of today.

The blueprint of Polestar 0 project extends beyond Polestar and builds upon the support and collective action from across industries. The lean project set-up facilitates swift and flexible collaboration between industry experts, universities, and governments. The number of cooperating leading industry partners has stabilised at 30 who now intensively explore the research / applied science stage.

Read more →
About our partners on our website

In 2023, the quest for net zero technologies materialised in founding Mission 0, a joint collaborative innovation forum. Since January 2024, nine industry partners, including Polestar, have been actively engaged in developing a proof of concept. This research is financed by private and public sectors, including Sweden's innovation agency Vinnova.

The actual outcomes of the Polestar 0 project are strictly confidential in order for us and our partners to develop them into real solutions. But the project constantly creates spinoff-effects meant to be used in our car programs or patented and shared with the industries to accelerate the transition towards a more sustainable world.

ESG report

ESG report

General sustainability information 43
Environmental information [E] 62
Social information [S] 81
Governance information [G] 101
GRI Index 108

General sustainability information
Basis for preparation

Polestar Automotive Holding UK PLC, "Polestar Group", together with its subsidiaries, is a limited company incorporated under the laws of England and Wales. Polestar Group operates principally in the automotive industry, engaging in research and development, manufacturing, branding and marketing, and commercialising and selling vehicles, technology solutions, and services related to battery electric vehicles (EV). Polestar Group's management is headquartered at Assar Gabrielssons väg 9, 405 31 Gothenburg, Sweden.

Polestar publishes an annual sustainability report detailing the company's sustainability strategy, management, initiatives, and performance in environmental, social, and governance matters. Polestar's previous sustainability report was published on April 3, 2023, and is available at polestar.com.

This sustainability report, published on 16 April 2024, covers the fiscal year 2023 and has been prepared on a consolidated basis and includes all operations of Polestar Automotive Holding UK PLC and its subsidiaries, including Polestar Performance AB, a company incorporated under Swedish law. The reporting year for Polestar's 2023 sustainability report is the same as Polestar's financial reports. Polestar Automotive Holding UK PLC is listed on the Nasdaq in New York under the ticker symbol PSNY.

The 2023 sustainability report has been prepared in accordance with the GRI Standards 2021, the European Union's Non-Financial Reporting Directive as implemented by the Swedish Annual Accounts Act's requirements on statutory sustainability reports, and it details our disclosures in line with the Task Force on Climate-related Financial Disclosures (TCFD). The report also references a selection of disclosures from the Sustainability Accounting Standards Board's (SASB) sector guidelines for the automobile industry.

This report covers Polestar's upstream and downstream value chain activities.

Polestar's voluntary EU Taxonomy report is published as a separate appendix to the sustainability report available on our website.

Read more →
Polestar's voluntary EU Taxonomy report

Our auditor has conducted an examination in accordance with the statutory sustainability report requirements as per the Swedish annual accounts act.

Important business relationships

Polestar was established as a premium electric car brand by Volvo Cars and Geely in 2017 and benefits from the technological, engineering, and manufacturing capabilities of these established global car manufacturers. Polestar has an asset-light, highly scalable business model with immediate operating leverage. These characteristics give it access to the developed technology, IT, logistic channels, manufacturing capacity, and distribution networks established by Polestar's founding partners on a global basis.

Accordingly, Polestar has entered into a number of contractual arrangements with Volvo Cars and Geely to obtain support and various services related to its business. These business partner agreements are made on an arm's-length basis, and any agreement with related parties is assessed on the same basis as an agreement with third parties regarding the scope of the services offered, timing, and fees.

While Polestar derives substantial benefit from access to its partner's resources and expertise, Polestar is free to seek technology, manufacturing, and other services from third parties based solely on the needs of its business.

List of entities included in the sustainability report:
The significant subsidiaries of the company as of the date of this Report are listed below.

Legal Name	Jurisdiction of Incorporation	Proportion of Ordinary Shares Held by the Company %
Polestar Holding AB	Sweden	100
Polestar Automotive (Singapore) Pte. Ltd.	Singapore	100
Polestar Performance AB	Sweden	100
Polestar Automotive Canada Inc.	Alberta, Canada	100
Polestar Automotive USA Inc.	Delaware, USA	100
Gores Guggenheim, Inc.	Delaware, USA	100
Polestar Automotive Belgium BV	Belgium	100
Polestar Automotive Germany GmbH	Germany	100
Polestar Automotive Netherlands BV	Netherlands	100
Polestar Automotive Sweden AB	Sweden	100
Polestar Automotive Austria GmbH	Austria	100
Polestar Automotive Denmark ApS	Denmark	100
Polestar Automotive Finland Oy	Finland	100
Polestar Automotive Switzerland GmbH	Switzerland	100
Polestar Automotive Norway A/S	Norway	100
Polestar Automotive Korea Limited	South Korea	100
Polestar Automotive Australia PTY Ltd.	Australia	100
Polestar Automotive (Singapore) Distribution Pte. Ltd.	Singapore	100
Polestar Automotive Ireland Limited	Republic Ireland	100
Polestar Automotive Portugal Unipessoal Lda	Portugal	100
Polestar Automotive Poland sp. zo. o	Poland	100
Polestar Automotive UK Limited	United Kingdom	100
Polestar Automotive Spain S.L	Spain	100
Polestar Automotive Luxembourg SARL	Luxembourg	100
Polestar Automotive Czech Republic s.r.o	Czech Republic	100
Polestar Automotive Italy s.r.l	Italy	100
Polestar Automotive Shanghai Co., Ltd.	People's Republic of China	100
Polestar New Energy Vehicle Co., Ltd.	People's Republic of China	100
Polestar Automotive China Distribution Co., Ltd.	People's Republic of China	100
Polestar Automotive Consulting Service (Shanghai) Co., Ltd.	People's Republic of China	100
Polestar Automotive (Chongqing) Co., Ltd.	People's Republic of China	100
Polestar Automotive (Singapore) Investment Pte Ltd	Singapore	100

General sustainability information
Governance

Corporate Governance at Polestar

The Board of Directors of Polestar Automotive Holding UK PLC sets high standards for the company's employees, officers, and directors. Implicit in this philosophy is the importance of sound corporate governance. The purpose of corporate governance is to create a good foundation for active and responsible ownership and provide a structure within which our directors and management can effectively pursue Polestar's objectives for the benefit of our shareholders.

Polestar's corporate governance structure follows a three-tier hierarchical approach: (i) Polestar's shareholders, (ii) the Board of Directors, and (iii) Polestar's CEO and CFO. The CEO and CFO are entrusted with powers according to the Companies Act 2006, and where necessary, every other statute from time to time in force and affecting the company.

This governance structure has been established to support the running of Polestar as a publicly listed company, to enhance the Polestar brand in key markets, and to follow the requirements as applicable under English and Swedish law, as well as any applicable listing requirements of the Nasdaq New York stock exchange.

Sustainability governance

Our core pillars, Design, Innovation, and Sustainability, form the basis of all operations at Polestar. Our corporate policy landscape comprises policies adopted by the Board of Directors, such as the Polestar Code of Conduct and the Polestar Code of Conduct for Business Partners, directives adopted by the Management Team, and guidelines, instructions and process documents adopted by specialist departments.

Through our policies, directives and processes, we follow the International Labour Organization's (ILO) fundamental conventions, the Universal Declaration of Human Rights, the United Nations Convention on the Rights of the Child, OECD Guidelines for Multinational Companies, the United Nations Guiding Principles on Business and Human Rights, and the precautionary principle. Polestar is also a member of the Exponential Roadmap Initiative and the United Nations' Race to Zero.

Sustainability is a global function, and Polestar's Head of Sustainability is a member of the Management Team and reports to the CEO. The Sustainability Team comprises a Climate Lead, Circularity Lead, Inclusion Lead, Transparency Lead, Sustainable Chemicals Lead, Communications & Reporting Lead, Programme Sustainability Manager, and Life Cycle Assessment specialists. We aim to embed sustainable thinking and processes in Polestar operations and implement this approach across our governance structure. Subject-matter experts, such as our sustainability leads and life cycle assessment specialists, guide the organisation in implementing our strategy to foster a culture of sustainability at Polestar.

Sustainability is steered through the Polestar Management System, which includes governance structures, processes, and policies. Each global function at Polestar is accountable for setting action plans and securing resources in line with Polestar's sustainability policy and strategy, as well as ensuring compliance with sustainability-related laws and regulations applicable to their respective areas.

Every year, each department is tasked with putting together a climate action plan setting out the path and initiatives for the coming year. Climate investments are allocated from the departments' regular budgets, in line with our integrated approach. The relevant management forum approves the climate action plans and follows up twice a year. This integrated way of working enables action in all departments and ensures we take the necessary steps to reach our targets.

Sustainability risk management and internal controls

Sustainability risks are identified, assessed, and managed throughout the organisation by individual departments and the Sustainability Team. This is done with regular assessments of impact, risks, and opportunities. A dedicated Enterprise Risk Management & Internal Controls function periodically assesses risks to the business together with our Internal Audit Team and reports on key risks to the Management Team and the Board of Directors.

When entering a new market, we define which actions are necessary for markets that Polestar's risk management assesses as high risk. The assessments are shared with the management team to gain insights on labour and geographical risks, freedom risks, governance indicators, gender equality, and sexual orientation law, as well as compliance risks associated with, for example, sanctions and corruption.

Polestar was rated on ESG by Sustainalytics in 2022, resulting in a risk rating of 17, which places the company in the low-risk category. We also achieved a Silver business sustainability rating from Ecovadis in 2022.

General sustainability information
Governance

The role of the administrative, management, and supervisory bodies

The Board is collectively responsible for worldwide management of company business, acting within an effective control framework, with all directors providing an element of constructive challenge and helping to develop and communicate Polestar's strategic aims. The Board of Directors' Nominating and Governance Committee are responsible for reviewing and approving the information reported in the sustainability report including Polestar's material topics, through the process. described on page 58.

The Board considers the overall strategic direction, development and control of Polestar and reviews trading performance, investment opportunities, and other matters of significance to the Group. Various decisions require Board approval, including but not limited to the approval of the annual budget, larger capital expenditure proposals, acquisitions, and disposals. The Board receives an agenda ahead of each meeting as well as pre-read material for each agenda item.

The Directors have the obligation to report potential conflicts of interest to the company. Reported conflicts are assessed by the company in accordance with the company's conflict of interest policy. The Directors are also obliged to request approval from the Nominating and Governance Committee before accepting a board position in another company. Conflicts authorised by the Board and the company are registered in a conflict register. The register is not public. Each meeting also starts with a review of the potential conflicts of interest relating to the topics to be discussed. The Board decides which board members are excluded from voting, or, if deemed necessary, excluded from discussions over which conflicts arise or decides to authorise voting despite such conflicts. Such decisions are recorded in the meeting minutes.

In 2023, the Board comprised the Chief Executive Officer, the Chair, and seven other Non-Executive Directors*.

Karen Francis, Carla De Geyseleer, Karl-Thomas Neumann, David Richter, David Wei, and Winfried Vahland qualify as independent, as defined under the listing rules of Nasdaq. All directors are given regular access to the company's operations and personnel as and when required. Their biographies are available on the Polestar website and they illustrate their relevant corporate and industry experience to provide judgement on issues of strategy, performance, resources, and standards of conduct which are relevant to the company's success.

→ Board of Directors

The Board usually holds scheduled meetings eight times a year to enable it to discharge its duties effectively and to consider matters that specifically require Board review and decisions. In addition, meetings are convened on an ad hoc basis when there is urgent or undelegated business that cannot wait until the next scheduled meeting.

The Board conducts an annual evaluation by submitting anonymous questionnaires completed by individual interviews with the Chair. The company conducts an analysis of the strengths and areas of improvement coming out of the questionnaire and drafts an action plan to address the areas of improvement.

Polestar Board of Directors 2023

Name	Position	Date Appointed	Initial term
Håkan Samuelsson	Chair	23 June 2022	2 years
Thomas Ingenlath	Chief Executive Officer	13 April 2022	1 year**
Carla De Geyseleer	Independent Non-executive Director	23 June 2022	2 years
Karen C. Francis	Independent Non-executive Director	23 June 2022	3 years
Daniel Li	Non-executive Director	23 June 2022	1 year**
Karl-Thomas Neumann	Independent Non-executive Director	23 June 2022	2 years
David Richter	Independent Non-executive Director	23 June 2022	1 year**
James (Jim) Rowan	Non-executive Director	23 June 2022	3 years
Zhe Wei	Independent Non-executive Director	23 June 2022	3 years

*Additionally, Winfried Vahland was appointed on the Board on 15 January 2024.
**Directors having fulfilled their first 1-year term are now exercising a 3-year term

General sustainability information
Governance

Meeting Attendance

The following table sets out the number of meetings of the Board, excluding ad hoc meetings, and its committees from 1 January 2023 to 31 December 2023 and the attendance of the members at those meetings (attended/eligible to attend).

Meeting attendance 2023

Name	Board	Nominating and Governance Committee	Audit Committee	Compensation Committee
Håkan Samuelsson*	9/10	4/4	N/A	1/1
Thomas Ingenlath	10/10	N/A	N/A	
Carla De Geyseleer	8/10	N/A	10/10	N/A
Karen C. Francis	10/10	4/4	N/A	4/4
Daniel Li	10/10	4/4	N/A	2/4
Karl-Thomas Neumann**	10/10	N/A	N/A	3/3
David Richter	10/10	N/A	8/10	N/A
James (Jim) Rowan	10/10	4/4	N/A	N/A
Zhe Wei	10/10	N/A	10/10	N/A

* Resigned from the Compensation Committee in March 2023
** Appointed on the Compensation Committee in March 2023

General sustainability information
Governance

Diversity of the Board

Polestar reviews the composition of the Board annually, with specific attention to independent, knowledge, skills, experience, and diversity.

The Board comprises an Audit Committee composed of independent Directors, a Nominating and Governance Committee, and a Compensation Committee. All Board committees act in accordance with respective Charters published on the Polestar website:

→ Corporate governance

Board Diversity Matrix (As of December 31, 2023)

Country of Principal Executive Offices	Sweden
Foreign Private Issuer	Yes
Disclosure Prohibited under Home Country Law	No
Total Number of Directors	9

Gender Identity	Female	Male	Non-Binary	Did Not Disclose Gender
Directors	2	7	-	-

Demographic Background	Directors
Underrepresented Individual in Home Country Jurisdiction	0
LGBTQ+	0
Did Not Disclose Demographic Background	1

General sustainability information
Governance

Audit Committee

The Audit Committee convenes at least four times a year, and oversees accounting and financial reporting processes, internal controls, operational procedures, and enterprise risk management framework.

The Audit Committee comprises at least three board members, with at least one member fulfilling the need for recent and relevant financial experience. The current composition is displayed in the following table.

Committee	Role
Carla De Geyseleer	Chairperson
David Richter	Member
David Wei	Member

As set out in Rule 10A-3 of the Securities Exchange Act of 1934 and the rules of NASDAQ, each member of the Audit Committee is independent. It is noted that no member of the Audit Committee may have participated in the preparation of the company's or any of its subsidiaries' financial statements at any time in the past three years.

Invitations are also extended to the auditors to attend meetings of the Audit Committee to discuss issues relating to the audit and financial control of the Group. The auditors also have direct access to the Audit Committee, should they require it. The Audit Committee has responsibility within the terms of reference for, among other things, the planning and review of the Group's annual and interim financial statements, the supervision of its auditors in reviewing such financial statements, and the review and monitoring of their independence. The Audit Committee focuses mainly on the Group's compliance with legal requirements and accounting standards and on ensuring that effective systems for internal financial control are maintained.

A full breakdown of the duties of the Audit Committee can be found on the Polestar website:

→ Audit Committee charter

Nominating and Governance Committee

The Nominating and Governance Committee convenes at least three times a year and is responsible for overseeing the director nomination process and the company's overall corporate governance. Its duties encompass various important matters, including selecting and recommending nominees for election or appointment on the board, conducting annual reviews of the board's composition including in terms of independence, knowledge, skills, experience, and diversity, making recommendations on board meeting frequency and structure, monitoring committee functionality, as well as developing and periodically reviewing the Corporate Governance Guidelines for the Board's approval.

The Nominating and Governance Committee is to be composed of at least three board members. The current composition of the Nominating and Governance Committee is displayed in the following table.

Committee	Role
Håkan Samuelsson	Chairperson
Karen Francis	Member
Daniel Li	Member
Jim Rowan	Member

As the company is a "controlled company", as defined in the rules of Nasdaq, the Nominating and Governance Committee is not required to be composed solely of independent directors.

A full breakdown of the duties of the Nominating and Governance Committee can be found on the Polestar website:

→ Nominating and Governance Committee Charter

The Nominating and Governance Committee monitors the ESG strategy on an ongoing basis and oversees the progress of sustainability-related goals and commitments. The Head of Sustainability reports to the Nominating and Governance Committee three times a year.

Compensation Committee

The Compensation Committee assists the Board with overseeing executive compensation, incentives/equity plans, and employee benefit plans.

The Compensation Committee shall consist of two or more members of the Board. The current composition of the Compensation Committee is displayed in the following table.

Committee	Role
Håkan Samuelsson	Chairperson
Karl-Thomas Neumann	Member
Daniel Li	Member
Jim Rowan	Member

As the company is a "controlled company", as defined in the rules of Nasdaq, the Compensation Committee is not required to be composed solely of independent directors. Furthermore, as the company is a Foreign Private Issuer (FPI), there is no requirement for independence on the Compensation Committee, as the independence requirements of Rule 10C-1 do not apply.

A full breakdown of the duties of the Compensation Committee can be found on the Polestar website:

→ Compensation Committee Charter

General sustainability information
Governance

The Board's role in the stakeholder engagement

The Board delegates specific engagement responsibilities to dedicated Board Committees, the Management Team, including the Group CEO, and relevant Management Team members. These individuals provide the Board with updates on stakeholder developments and interests; this feedback helps inform the Board as it takes principal decisions, including strategy development. The Board recognises that proactive and two-way dialogue with stakeholders is a critical part of the company's long-term success. Thus, the Board will continue to take stakeholder interests and concerns into account as part of its decision-making process. The Board acknowledges that decisions must be made based on its conclusion of the best outcome for the company's stakeholders and that different stakeholders may have competing priorities.

Polestar Management Team

The Management is composed of the CEO and management team (MT). The MT members are appointed by the CEO subject to the Board's review. The CEO reports to the Board and is responsible for the day-to-day running of Polestar. In this respect, the CEO is the Chairman of the MT and is responsible for regularly reporting to the Board on the financial and operational status.

The MT is responsible for carrying out the operation of Polestar under the leadership of the CEO. The duties of the CEO and MT are detailed in the Corporate Governance Guidelines available on Polestar's website:

→ Corporate governance guidelines

The MT meets weekly or as the CEO decides from time to time and notice of each meeting shall confirm the venue and timing. In addition, the MT will appoint its subcommittees to assist in carrying out their decisions and actions. Still, the CEO will retain responsibility for the actions of the MT sub-committees.

Remuneration policies and compensation programmes

The Compensation Committee's role is to ensure that senior executives and other key employees at Polestar are appropriately compensated and incentivised to deliver growth to shareholders in a long-term and sustainable manner. The Committee seek to accomplish this by implementing compensation programmes that are grounded in market practice, effective at driving proper executive behaviours, clearly link pay with performance and are cost-efficient overall to shareholders. The Committee also considers non-executive directors and considers that the current compensation provides an appropriate level of remuneration .

The Committee's duties, which are specified in our Compensation Committee Charter, include but are not limited to, assisting the Board with oversight of executive compensation, incentives/equity plans and employee benefit plans.

Remuneration Policy

The Remuneration Policy sets out a summary of Polestar's policy on remuneration for executive directors, non-executive directors, and other employees. The Remuneration Policy was approved at the Annual General Meeting in 2023. The Policy is designed to attract, retain, and motivate our leaders and employees within a framework designed to promote the long-term success of Polestar and aligned with our shareholders' interests.

Director compensation is recommended by the Compensation Committee of the Board of Directors and approved by the Board of Directors. A combination of base salary, benefits, short-term incentives, and equity-based long-term incentives is used to attract and retain qualified Directors.

The Compensation Committee's annual compensation review includes a periodic data analysis comparing the company's director compensation levels against the relevant external market, including peer groups of relevant companies. In conducting such a review, the Compensation Committee may utilise publicly available market data, compensation survey data, and advice provided by compensation consultants. The compensation recommendation is subsequently provided to the full Board for review and final approval.

The total compensation structure for the CEO and the other Executives has primarily been set based on a Swedish market context. However, the variable pay elements have been set closer to European levels due to the investor perspective of performance pay, being listed in the US, and retention purposes.

General sustainability information
Governance

Remuneration policy and its link to the company strategy

Element of compensation	Purpose and link to strategy
Base salary	Provides market competitive fixed compensation, set at a level sufficient to attract and retain executives who are capable of delivering the company's strategic objectives and driving the company's success. Base Salaries reflect the responsibilities of the role, the experience of the individual and the performance over time.
Benefits and pension	Provide market-competitive yet cost-effective employment benefits to assist with recruitment and retention.
Annual bonus	To incentivise and reward delivery of the company's strategy and short-term corporate objectives on an annual basis.
Long-term incentive plan	To align the long-term interests of the shareholders with the Executive directors and selected management positions.
Share ownership guidelines	The Board of Directors believes long-term share ownership is an important way to create alignment between the Executive Management team members and Polestars' shareholders. A Share ownership guideline for the CEO and the Executive Management Team was introduced in 2023.
Non-executive director fees	Provides market competitive director fees, set at a level sufficient to attract non-executives that are capable of driving the company's success.

Remuneration policy and its link to the company operations

Element of compensation	Purpose and link to operations
Base salary	Typically assessed on an annual basis, this process considers factors such as individual duties, experience, performance, inflation, prevailing market rates, and the treatment of the broader workforce. Salary increases are normally effective from 1 April each year. Salaries are periodically benchmarked against the relevant external market.
Benefits and pension	For Executive Directors this currently includes private medical insurance, company car, and for the CEO, a schooling allowance. Executive Directors are also eligible to join the pension plans defined in the collective agreement Teknikavtalet, either ITP 1 or ITP 2, as is typical in Sweden.
Annual bonus	Annual bonus performance targets are set at the start of the financial year by the Board and the Committee assesses the performance against these objectives after the end of the relevant financial year. The Committee retains discretion to amend objectives during the year if it considers that objectives are no longer appropriate. Different performance measures and weighting may be used each year, as agreed with the committee, to take into account changes in the business strategy. Bonuses are normally paid in cash after the award has been approved by the Board, normally in April each year.
Long-term incentive plan	Conditional awards are normally granted under the 2022 Omnibus incentive plan. Such awards may include a mix of share options, restricted share units, performance share units, and other forms of awards available under the 2022 Omnibus incentive plan. Awards vest in accordance with the vesting schedule set for the relevant award in its equity agreement. The long-term incentives are administered by the committee and the committee maintains discretion over the types and terms of equity awards granted under the plan. Such share-based incentives are not subject to any holding period post-vesting. Any share-based entitlements granted to an Executive Director under the company's share plans will be treated in accordance with the relevant plan rules or any applicable agreement. At present, it is the Committee´s intention to make future awards to the CEO in the form of performance share units.
Share ownership guidelines	The Board of Directors expects the CEO and other members of the Executive Management Team to accumulate personal holdings in shares with a market value corresponding to the value of 100% of the Executive Management Team member's annual fixed base salary. It is expected that the personal holding of shares be established within five years from the listing of the company and, for new hires, within five years from commencement of employment with the Group as CEO or other member of the Executive Management Team. Non-executive Directors are requested to invest 50% of their net annual ordinary board fee in Polestar shares and to keep the shares as long as they hold their position on the Polestar board.
Non-executive director fees	Fees to non-executive directors are paid in cash. Non-executive directors receive a base fee plus additional fees for committee chairmanship and membership.

General sustainability information
Governance

Remuneration policy and maximum opportunity

Element of compensation	Maximum opportunity
Base salary	There is no prescribed maximum annual salary or salary increase. Any increase will take into account prevailing market and economic conditions and the approach to employee pay throughout the organisation. Base salary increases are awarded at the discretion of the Committee; however, salary increases will normally be no greater than the general increase awarded to the wider workforce in percentage of salary terms. However, a higher increase may be made where an individual had been appointed to a new role at a below-market salary while gaining experience. Subsequent demonstration of strong performance may result in a salary increase which is higher than that awarded to the wider workforce.
Benefits and pension	There is no formal maximum level of benefits provided to an Executive Director, as the value of insured benefits is typically based upon the cost from third-party providers, which will vary from year to year. Pension premiums are normally set as a percentage of the base salary. Pension premiums for Executive Directors (percentage) are aligned with the wider workforce.
Annual bonus	The maximum annual bonus payable to the CEO is 150% of the annual base salary, with not more than 75% of the base salary paid for target performance.
Long-term incentive plan	The maximum awards in the share-based long-term incentives are twice the target level. As the share-based long-term incentives are based on Performance Share units, the KPIs must be fulfilled to reach the target level. In order for the maximum vesting level to be reached, the KPIs must have reached the stretch maximum level. The target level for the CEO in the LTI programme may not exceed 100% of the annual base salary.
Non-executive director fees	There is no prescribed maximum annual salary level or salary increase. Any increase will take into account prevailing market and economic conditions and the approach to employee pay throughout the organisation.

Remuneration policy and perfomance metrics

Element of compensation	Performance metrics
Base salary	The overall performance of the company, the individual performance, and the market movement are the key determinants for base salary increases.
Benefits and pension	Not applicable.
Annual bonus	Bonus measures are reviewed annually, and the committee has the discretion to vary the mix and the weighting of measures or to introduce new measures based on the strategic focus of the company at that time. The payment of any bonus is at the absolute discretion of the board, which has the discretion to override formulaic outcomes of the bonus if appropriate to do so, having regard to matters including but not limited to factors such as the underlying financial and operational performance of the company and individual performance.
Long-term incentive plan	The Committee retains discretion over the extent to which vesting of equity awards is subject to performance (rather than time) based conditions, the applicable measures, their weightings and the period over which performance is tested. The Committee selects the most appropriate form of EIP awards each year. Vesting of equity incentives is generally subject to continued employment and may be on a time-phased basis or subject to performance conditions aligned with the company's strategic plan, as determined at the discretion of the Committee. Vesting of equity awards may be accelerated in part or in full in connection with certain corporate events, such as a change in control.
Share ownership guidelines	Not applicable.
Non-executive director fees	Not applicable.

General sustainability information
Governance

Recovery provisions and Committee discretion

All Share awards and other types of compensation will be subject to the company claw-back policy, including any claw-back policy adopted to comply with applicable law in the relevant jurisdictions in which participants receive awards (including the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder) as set forth in such claw-back policy or the applicable Award agreement.

Remuneration Policy on recruitment

Where it is necessary to appoint or replace an Executive Director, the Committee's approach when considering the overall compensation arrangement in the recruitment or promotion of a new Executive Director is to take into account the calibre, expertise and responsibilities of the individual, their compensation in their prior role and the prevailing market rate for similar roles. Compensation will be in line with our Remuneration Policy, and the Committee will not pay more than is necessary for successful recruitment. It is recognised that in order to attract and recruit talented individuals, the policy needs to allow sufficient flexibility with respect to remuneration on recruitment.

Remuneration Policy on termination

The Committee will exercise its discretion when determining amounts that should be paid to leavers, taking into account the facts and circumstances of each case. Generally, in the event of termination, the Executive Directors' service contracts provide for payment of basic salary and benefits over the notice period. The company may elect to make a payment in lieu of notice equivalent in value to basic salary and benefits for any unexpired portion of the notice period. For voluntary termination, salary and benefits are payable for the notice period; no bonus (neither pro-rated nor full-year bonus) becomes payable in the event of voluntary termination and unvested equity awards lapse in full unless determined otherwise by the Compensation Committee.

Remuneration Policy for other employees

The Committee is made aware of employment conditions in the wider Group. The same broad principles apply to the policy for the Executive Directors and the wider employee population. However, the compensation for the Executive Directors has a stronger emphasis on variable pay than for other employees.

In particular, the following approach is used for the wider employee population in the Group:

- Salaries, incentives, benefits, and pensions are compared to appropriate market rates and set at approximately mid-market level with allowance for role, responsibilities, and experience.
- When setting salary levels for the Executive Director, the Committee considers the salary increases provided to other employees.
- An annual bonus plan is available to all employees at a consistent percentage of base salary for all wider staff levels. The bonus is based entirely on company performance, and the performance measures are the same for the CEO as for other employees. Payments under the bonus plan are entirely discretionary.

Pay in a wider context

Polestar aims to offer Compensation and Benefits that ensure that we attract, motivate, and retain the employees needed for the successful execution of the company's strategies. We want to build a sustaining and winning culture where we recognise good performance and behaviour supporting our ambitious long-term plans.

Compensation, rewards, and recognition in Polestar must be based on transparent and non-discriminatory grounds. Discriminatory differentials based on race, religion, gender, national origin, age, sexual orientation, disability, or any other unjust cause should never occur.

Compensation shall also ensure that Polestar maximises its opportunity to reach set performance goals in a short- as well as long-term perspective and, at the same time, be affordable in relation to Polestar's financial status.

Polestar wants to offer flexible compensation and benefits solutions to meet the needs of our diverse workforce. Depending on the age and life situation, there will be different needs, and we want to try to meet these needs as far as possible by offering flexible compensation and benefits.

CEO-to-employee pay ratio

The CEO-to-employee pay ratio is an important metric that reflects the level of compensation variability within a company. In Polestar Automotive UK, the CEO-to-employee pay ratio was 13:1 in 2023. This ratio indicates that for every dollar earned by the CEO, 0.08 USD was earned by the average employee. This ratio may vary from year to year due to variations in the performance-based pay earned by the CEO as well as other factors.

We believe that a fair and equitable pay structure is crucial for promoting employee satisfaction and motivation. In light of this, Polestar Automotive has implemented a number of measures to ensure that our pay practices are transparent and aligned with our values. These measures include regularly reviewing and adjusting our pay scales to ensure that they remain competitive, providing regular training and development opportunities to employees, and offering a range of benefits and perks to help attract and retain top talent.

Looking ahead, we remain committed to maintaining a fair and equitable pay structure that takes into account the contributions of all employees and supports our overall business goals. We will continue to review our compensation practices on an ongoing basis and make any necessary adjustments to ensure that our pay ratios remain aligned with our values and objectives.

According to UK legislation, we are encouraged to present the CEO pay ratio compared to UK employees. We have used option A to conduct the CEO pay ratio benchmark. The benchmark is based on the actual CEO pay for 2023 and the actual 25th percentile, Median and 75th percentile compensation for our UK employees. The benchmark includes a base salary benchmark and a total compensation benchmark.

CEO pay compared to all UK employees

CEO pay ratio	25th percentile ratio	50th percentile ratio	75th percentile ratio
2023 Base pay	16:1	13:1	11:1
2023 Total pay ratio	31:1	26:1	22:1

CEO Base pay and Total pay (base salary, STI, cash LTI, and pension contributions) compared to all UK employees.

Pay data 2023	Base salary (£000)	Total Pay (£000)
CEO Compensation	767	1711
UK colleague 25th percentile	47	54
UK colleague 50th percentile	59	67
UK colleague 75th percentile	69	78

CEO Base pay and Total pay for full year 2023 compared to all UK employees, data as of 31st December 2023.
The exchange rate used to convert SEK to GBP is 0.0752.

General sustainability information
Governance

Gender Pay Gap reporting

The gender pay gap is a significant issue that affects women in the workforce globally. At Polestar, we are committed to promoting equal pay for equal work and reducing the gender pay gap within our organisation. Our compensation should not be affected by gender, race, religion, national origin, age, sexual orientation, disability, or any other unjust cause.

In 2023, our analysis of the raw gender pay gap showed a difference in median earnings between male and female employees. This difference is primarily due to a higher representation of men in senior leadership positions and in certain specialist roles with higher pay scales. The gender pay analysis was also made on a “similar job basis”, and this analysis shows a lower pay gap.

In response to this issue, Polestar has taken a number of steps to address the gender pay gap and promote equal pay for equal work. These steps include regularly conducting pay equity analysis, offering leadership development opportunities to women and underrepresented groups, and implementing programmes aimed at increasing the representation of women in senior leadership positions.

We recognise that closing the gender pay gap is an ongoing effort that requires sustained attention and action. Moving forward, we will continue to monitor and address the gender pay gap through regular pay equity analysis and ongoing initiatives aimed to promote diversity, equity, and inclusion in the workplace. We believe that a diverse and inclusive workplace, where all employees are valued and fairly compensated, is key to the success and growth of Polestar.

A gender pay analysis was made in our two biggest countries, Sweden and the UK, in 2023.

Raw gender pay gap

Country	% Women's salary in relation to men's salary	% of Women employees	% of Men employees	Number of employees
Sweden 2023*	90	36	62	1,198
Sweden 2022*	87	36	62	1,150
UK 2023	84	20	80	528
UK 2022	83	18	82	522

* 2% gender neutral or not disclosed

General sustainability information
Strategy

Strategy, business model, and value chain

Polestar has established a presence in 27 markets across North America, Europe, and Asia Pacific. We take pride in our state-of-the-art production facilities and continue to diversify our contract manufacturing footprint. Polestar 2, the electric performance fastback, was launched in 2020. Production of Polestar 3 has started in Chengdu, China. Additional production is slated to start in South Carolina, US, in mid-2024. Polestar 4, in addition to being produced in Hangzhou Bay, China, will also be produced in Busan, South Korea, from mid-2025.

Polestar's research and development strategy is to focus its own resources on the development of key electric vehicle technologies while accessing the benefit of investments in other technology from within the larger Geely ecosystem, including Volvo Cars and with external partners. Polestar also accesses and utilises battery labs, wind tunnels, VR simulations, and testing, proving grounds both in the UK and in Sweden.

Polestar's research and development teams are located in the United Kingdom, Sweden, and China. Polestar's headquarters and research and development team is located in Gothenburg, Sweden, and is focused on a wide variety of areas, including electrical propulsion, sustainability, lightweight material designs, software, and more. In the United Kingdom, Polestar's research and development team is located in the Mira Technology Park in Coventry. This location benefits from good access to engineering talent, proving grounds, wind tunnels, and workshops. Polestar's engineering focus in the United Kingdom is chassis and dynamics, aluminium bonding and architecture and sports car design. Located in Shanghai, Polestar's China-based research and development team focuses on the development of bespoke features for the Chinese market.

Polestar's sales channels include both direct-to-business and direct-to-consumer models. In direct-to-business, vehicles are sold to various fleet customers, such as rental car companies and corporate fleet managers. In direct-to-consumer, Polestar uses a digital-first approach that enables its customers to browse Polestar's products, configure their preferred vehicle and place their orders online. In addition, Polestar Spaces enable customers to see, feel, and test drive Polestar vehicles prior to making an online purchase. Polestar believes this combination of digital and physical retail presence delivers a seamless experience for its customers. Polestar's customer experience is further enhanced by its comprehensive service network that leverages the existing Volvo Cars service centre network. As of 31 December 2023, there were 192 Polestar Spaces. In addition, Polestar leverages the Volvo Cars service centre network to provide access to 1,150 customer service points worldwide in support of its international operations.

Our value chain

Our operations impact the environment as well as individuals and communities across our entire value chain, from the extraction of raw materials to manufacturing of material and vehicles to the use and end-of-life of our vehicles.

Upstream value chain:

- Raw material suppliers: Mine sites, smelters, refiners, manufacturing and assembly of parts and components used in Polestar vehicles.
- Suppliers: Direct material suppliers and indirect purchasing of goods and services.
- Manufacturing partners: The manufacturing and assembly of our vehicles is currently conducted in plants operated by Volvo Cars and Geely.
- Upstream transportation and distribution: Inbound logistics from tier 1 suppliers to manufacturing and outbound logistics from manufacturing to customer handover or point of sale.

Own operation:

- Direct and indirect employees

Downstream value chain:

- Downstream transportation and distribution: Transportation and distribution of sold Polestar vehicles that are not paid for by Polestar, for example outbound logistics within importer markets and the China domestic market through our Joint Venture, or home deliveries paid by customers.
- Retail partners: Polestar's third-party business partners contracted to invest in retail facilities to display vehicles, assist customers with services such as test drives and product configuration and hand over of purchased vehicles. Locations representing Polestar will have a combination of these capabilities depending on site, market requirements, business model and agreement.
- Customers: Polestar's customers consist of private buyers as well as fleet companies, leasing and rental agencies, and insurance providers. During the use phase of the vehicle our customers will come across our service network provided by Volvo Cars, independent workshops, mobile service providers, spare parts providers, and our customer support.
- End of life-treatment: Polestar prioritises the recovery of all battery electric vehicles batteries through Volvo Car's collection system in collaboration with our network partners and service centres where legally permitted. Used batteries are routed to three regional battery centres for sorting and deployment for repair, remanufacturing, or recycling. Polestar's end-of-life of vehicle take back network depends on the economic conditions in the different member states, specific networks according to local registration and deregistration system and national legislation.

General sustainability information
Strategy

Statement on due diligence

We acknowledge the positive contributions we as a business can make to environmental and social progress, but we also recognise that our activities and activities affected by our operations may result in adverse impacts related to climate, circularity, inclusion, and transparency. We carry out risk-based due diligence to avoid, mitigate, and address such potential adverse impacts relating to our own operations, our supply chain, business relationships, and other stakeholders.

Embedding responsible business conduct within our operations, car programmes, and strategic initiatives is crucial for a just electric transition that aligns with international standards and supports our industry's and stakeholders' expectations.

Polestar assesses its material sustainability topics annually, including dialogues with internal and external stakeholders such as employees and consultants, individual Polestar owners, fleet owners, shareholders, suppliers, NGOs, and industry associations. The materiality assessment result informs the company strategy and allows Polestar to identify and assess actual and potential adverse impacts associated with its products and operations. The result also serves as a basis for our sustainability reporting.

Polestar aims to have a lean sustainability department and implement accountability throughout the organisation to drive change. Therefore, a set of strategic initiatives is established where accountability and responsibilities lie within defined departments to drive key priorities and improvements. Forums are set up with relevant managers, and each initiative and department reports the status and progress to its respective forum on a regular basis. The CFO and/or CEO are always present at each forum.

Polestar Management System (PSMS) aims to help secure processes and policies within the branching management systems and enables a clear picture of each department's area of responsibility in maintaining qualitative and ethical operations.

On the next page you find an overview of our responsible business conduct within our operations.

Working with strategic sustainability initiatives at Polestar

Within each sustainability initiative, the head of department and responsible person, with support from sustainability experts, identify and assess potential impact. Strategic initiatives involve embedding responsible business conduct, with responsibility at the specified department to raise awareness, knowledge, and competence on the subject. Initiatives are set up to mitigate adverse impacts, and based on conducted risk assessments, key priorities are identified.

Tracking implementation to improve performance

Goals and roadmaps, as well as actions to cease, prevent, and mitigate identified adverse impacts within programmes and initiatives, are reported at the forum aiming at advancing Polestar's businesses with regard to sustainability.

Heads of departments are responsible for initiatives and securing resources to manage key priorities and goals. We use Key Performance Indicators (KPIs) and risk assessment to track progress and enable adaptations for new challenges, constant improvements, and higher performance.

Embedding social justice principles at the heart of the mobility transition is crucial. Programmes and initiatives should be designed with responsible business conduct. Risk assessment and risk mitigation actions are a continuous process of monitoring and improvement.

Communicating impacts

We share and discuss data we collect and analyse with our higher management in designated forums, in which the CEO and/or CFO are always present, to enable a stream of relevant information within our sustainability initiatives and as an effective way of improving our due diligence standards. We gather insights and externally communicate the most relevant performance indicators through sustainability reports and our web pages. Polestar endeavours to enable transparent and inspiring sustainability communication to our stakeholders about Polestar's brand, products, and issues that we advocate for.

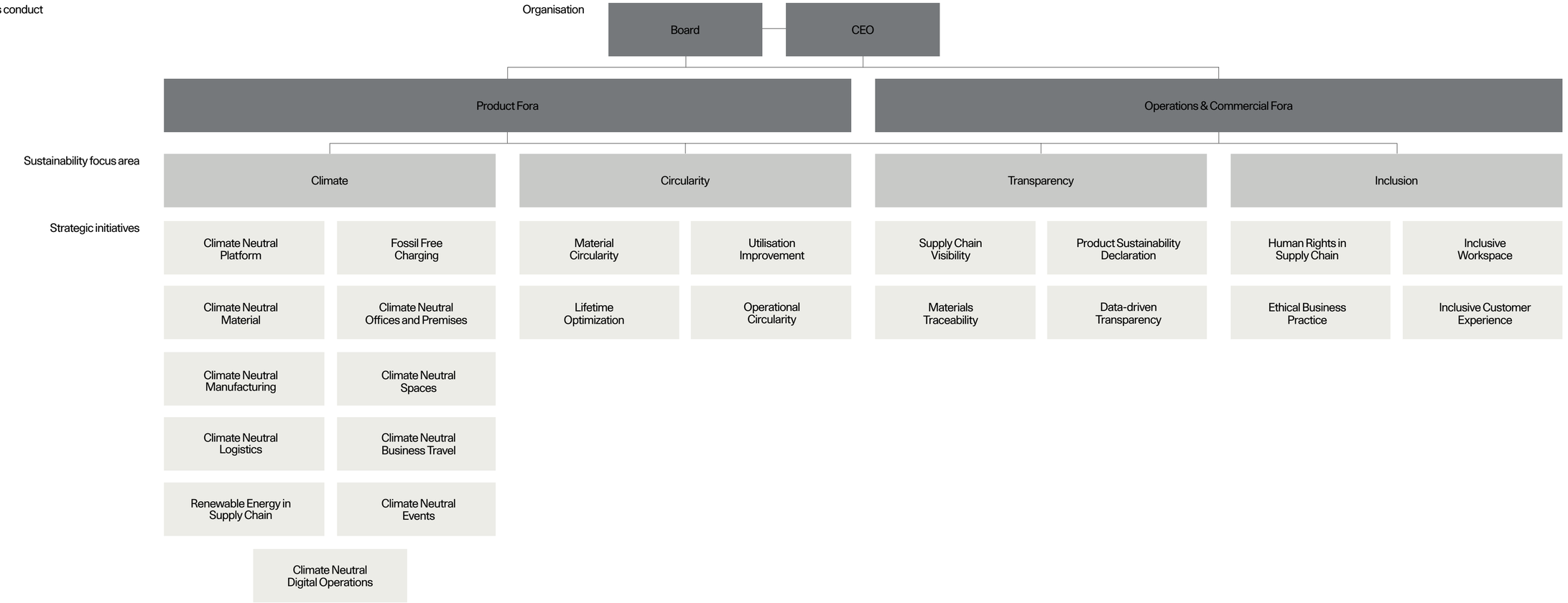
Remediation and grievance mechanisms

Where Polestar would identify that it has caused or contributed to adverse impacts, we would provide for or co-operate in their remediation through legitimate processes. Polestar established grievance mechanisms whereby employees, suppliers and others outside Polestar can report grievances, suspected violations, or other concerns.

Suppliers and other external stakeholders outside of Polestar can direct such reports via the whistleblowing channel SpeakUp. A link to the channel is available in the Code of Conduct, the Code of Conduct for Business Partners, on Polestar's website, and in other communications with suppliers.

General sustainability information
Strategy

Responsible business conduct within our operations



General sustainability information
Stakeholders & Materiality

Interests and views of stakeholders

We continually engage with our stakeholders through various channels, including financial and sustainability reporting, our website, surveys, partnership meetings, interviews, and as part of our regular interactions.

In 2023, we also conducted a digital survey for stakeholder groups, employees and consultants, suppliers, NGOs, and industry associations. Stakeholders were identified based on their dependency and influence on Polestar. The topics raised in the survey were drawn from Polestar's impact materiality assessment, the ESRS standards, GRI and sector guidance from the SASB reporting frameworks. The survey also included open questions where respondents were invited to discuss other sustainability topics.

Key topics raised by our stakeholders in 2023 included climate change mitigation and reduction of carbon footprint throughout our value chain, human rights and modern slavery, sourcing and traceability of risk materials, and circularity. Polestar has created an overview of stakeholder engagement and the most frequent topics raised.

The insights from the stakeholder engagement and the feedback received inform our sustainability strategy are integrated into our focus area risk assessments, roadmaps, and priorities.

Description of the process to identify and assess material impacts

Polestar recognises the importance of directing sustainability efforts towards the areas with the most significant impact. To identify and prioritise the topics that are most relevant to our stakeholders and our business, we analyse our stakeholders' expectations as well as the social, environmental, and economic impacts along our value chain in a materiality analysis on an annual basis using the following steps:

1. Identification

Polestar conducts a yearly review of a wide range of sustainability topics, taking external standards and areas of business and/or stakeholder interest into account.

2. Prioritisation

All topics identified as material are scored in terms of scope, scale, and remediability of impact by Polestar's sustainability subject-matter experts and prioritised based on the level of economic, environmental, and social impact and level of importance to stakeholders. Internal and external stakeholders are consulted to verify the material topics.

3. Review

As part of our commitment to delivering our sustainability strategy, Polestar actively engages with key stakeholders to regularly review and update our materiality matrix. This process allows us to stay responsive to emerging challenges while remaining focused on our sustainability goals.

Stakeholder dialogue and impact materiality assessment 2023

Stakeholder group	Channel for dialogue	Most important sustainability topics 2023	
Fleet owners	• Day-to-day operations • Customer service	• Carbon footprint reduction in manufacturing, products and logistics • Localized manufacturing • Sourcing and traceability of risk materials (including mining)	• Modern slavery • Human rights and health impacts in the supply chain • Sustainable charging infrastructure • Circularity
Individual customers and potential customers	• Customer service • Continuous dialogues through Polestar.com and social media	• Carbon footprint reduction • Battery disposal, reuse and recycling of batteries • Use of sustainable materials	• Sourcing and traceability of risk materials • Human rights and health impacts in the value chain • Animal welfare
Employees and consultants	• Day-to-day operations • Intranet • Digital stakeholder dialogue survey	• Climate change mitigation • Environmental and biodiversity impacts • Human rights and health impacts in the supply chain • Pollution to air, water and soil • Hazardous substances • Product and passenger safety	• Circularity; use of resources and waste management • Employee working conditions incl. health and safety • Diversity & Inclusion; equal opportunities for all • Anti-corruption and protection of whistleblowers
Shareholders	• Investor relations • Regulatory communications	• Carbon footprint reduction program • Traceability of risk materials • Passenger and product safety • Human rights in the supply chain • Energy consumption of Polestar's vehicles	• Fleet emissions • Charging infrastructure • Employee health and safety • Political influence on green mobility solutions
Suppliers	• Day-to-day operations • Supplier assessments and audits	• Product and passenger safety • Human rights and health impacts in the supply chain • Water management	• Employee working conditions incl. health and safety • Carbon footprint reduction
NGOs and industry associations	• Topic-specific dialogues • Digital stakeholder dialogue survey	• Climate change mitigation, incl. carbon foot printreduction • Water management • Employee working conditions incl. health and safety	• Product and passenger safety • Circularity; use of resources and waste management • Anti-corruption and protection of whistleblowers • Diversity & Inclusion; equal opportunities for all

General sustainability information
Strategy

Material topics 2023

In 2023, we conducted an impact materiality assessment where the sustainability topics outlined in the European Sustainability Reporting Standards, ESRS 1 General requirements, were included in the identification and prioritisation of material topics, together with relevant topics covered in GRI Standards and SASB. The topics were then mapped against our previous materiality matrix. As a result, the material topics have been regrouped and renamed to reflect the ESRS standards compared to previous years. Polestar's sustainability subject-matter experts conducted the materiality assessment, taking all of the company's impacts, direct and indirect, positive and negative, into account. Internal and external stakeholders have been consulted to verify the result.

We are reporting on the topics that are rated as critical and significant in the impact materiality assessment and that are valued as very or extremely important by our stakeholders.

The revised impact materiality assessment has resulted in an expanded scope of GRI Standards to be included in our reporting, which has consequently led to a rise in data omissions this year due to challenges in data quality collection.

During 2024 we will refine our impact materiality as well as adding a financial perspective in line with the requirements of the Corporate Sustainability Reporting Directive. Adding a financial perspective to the impact materiality is expected to give important information to our strategy development, risk management, and prioritisation of activities.

List of material topics

ESG area	Material topics	Risk	Policy	Governance & management of risk
Environment	Climate change mitigation	Raw material extraction and manufacturing of electric vehicles have an impact on the climate through the carbon emissions related to these processes. Also the use phase of the car has an impact, varying in size depending on the source of electricty used for charging the vehicles. An increased severity of extreme weather events due to climate change can lead to higher electricity prices and distrupted business contingency. Changes in precipitation patterns and variability in weather patterns can lead to higher costs of raw materials from suppliers in affected regions. Rising sea levels can lead to higher cost of raw materials from suppliers in affected regions.	• Sustainability Policy • Climate Position Paper • Climate roadmap • Circularity roadmap	Climate, pages 32-40 Climate Roadmap, pages 34-38
Environment	Direct impact drivers of biodiversity loss and impacts on the state of species	Biodiversity loss could impact operations by affecting access to vital resources and disrupting supply chains. It also poses acute threats to all life due to both physical and socio-economic impact. Our business, especially resource extraction and processing of materials: building and operating manufacturing plants; and value chain logistics risk impacting biodoversity negatively.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap • Deep Sea Mining Position Paper	Circularity, pages 28-31 Biodiversity and ecosystems, page 76
Environment	Resources inflows, including resource use	Critical raw material scarcity creates price volatility of essential metals and minerals. Dependence on geopolitically sensitive regions for sourcing materials creates supply risk in addition to environmental degradation and human rights violation risks, creating reputational risk. Regulatory compliance challenges put pressure on prices and availability of sustainable materials. Our business, especially resource extraction and processing of materials, building and operating manufacturing plants and end-of-life of vehicles risk impacting resource flows in a negative way.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap • Inclusion Position Paper • Inclusion roadmap	Material circularity, page 29 Resource use and circular economy, page 77 Supply chain visibility, page 25 Materials Traceability, page 22 Human Rights in the supply chain, page 17
Environment	Pollution of air, soil and water	Pollutants from manufacturing processes could result in fines and direct and indirect health issues for employees and other stakeholders.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap	Circularity, pages 28-31 Pollution, page 75
Environment	Hazardous substances	If not managed correctly, hazardous substances can pose a risk to human health and the environment during manufacturing, as well as having negative impact on customers, waste operators and the environment during the use phase and at end of life. Hazardous substances can also put Polestar's circularity ambitions at risk, as they might hinder recyclability and contaminate waste streams. Compliance with regulations could create recalls and fines, impact market access and severely hurt the business.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap	Circularity, pages 28-31 Pollution, page 75 Resource use and circular economy, page 77
Environment	Energy	The raw material extraction and manufacturing of electric vehicles as well as the charging of electric vehicles is dependent on energy consumption. An increased severity of extreme weather events can lead to higher electricity prices.	• Sustainability Policy • Climate Position Paper • Climate roadmap	Climate roadmap - Use phase, page 37 Energy use and mix, page 64 Use phase energy and emissions, page 65

List of material topics

ESG area	Material topics	Risk	Policy	Governance & management of risk
Environment	Waste	Regulatory compliance is becoming stricter in terms of waste from production and end-of-life, potentially raising costs for manufacturing and R&D. Our business, especially resource extraction and processing of materials; building and operating manufacturing plants; value chain logistics; and end-of-life comes with risks of high waste generation and landfill.	• Sustainability Policy • Climate Position Paper • Climate roadmap	Resource use and circular economy, pages 77-80
Environment	Water management - Water discharges in water bodies and in the oceans, water withdrawals, water use	The battery supply chain is water-intensive, and in regions with water scarcity using this water for battery minerals could create conflicts with local communities and restrictions on water use. Improper water treatment can result in fines and restrictions. Climate change impacts could also affect water availability, thus creating supply constraints. Sub-optimal design of and improper end-of-life management of EVs and batteries could create additional costs for recycling, thus affecting profitability, as well as increase risk of pollution from improper disposal of batteries, and increase resource scarcity for critical raw materials that do not end up being recycled, and thus create supply constraints.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap	Resource use and circular economy, page 80
Environment	Resource outflows related to products and services	Sub-optimal design of and improper end-of-life management of EVs and batteries could create additional costs for recycling, thus affecting profitability, as well as increase risk of pollution from improper disposal of batteries, and increase resource scarcity for critical raw materials that do not end up being recycled, and thus create supply constraints.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap • End-of-life of Vechicle Recycling Strategy	Material circularity, page 29 Resource use and circular economy, page 77 Supply chain visibility, page 25 Materials Traceability, page 22
Environment	Biodiversity - Impacts on the extent and condition of ecosystems and dependencies on ecosystem services	The degradation of ecosystems can lead to supply chain disruptions due to regulatory restrictions, depletion of resources, or conflicts with local communities and indigenous peoples, causing price increases and supply constraints. Increasing attention to biodiversity conservation can create non-compliance issues and fines, increasing production costs.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap • Deep Sea Mining Position Paper	Circularity, pages 28-31 Biodiversity and ecosystems, page 76
Environment	Climate change adaptation	Rising temperatures, extreme weather events, and sea-level rise could directly our operations, infrastructure, and/or supply chains. These risks include increased damage to property, disruptions in production, and increased costs for repairs and maintenance.	• Sustainability Policy • Climate Position Paper • Climate roadmap	Climate, pages 32-40 Climate Roadmap, pages 34-38 Circularity, pages 28-31
Environment	Pollution of living organisms & food resources	Pollutants from manufacturing processes could result in fines and direct and indirect impact of living organisms and food resources. Pollution of living organisms and food resources could impact operations by affecting access to vital resources and disrupting supply chains. It also poses acute threats to all life due to both physical and socio-economic impact.	• Sustainability Policy • Circularity Position Paper • Circularity roadmap	Climate, pages 32-40 Climate Roadmap, pages 34-38 Circularity, pages 28-31 Pollution, page 75
Social	Working conditions and rights for value chain workers	Key risks for violating working conditions and rights for value chain workers in the automotive industry include child labour and forced labour, not correct terms of employment, wages and overtime issues, health and safety hazards, lack of freedom of association and more. Violations can lead to reputational damage, loss of business partners, legal consequences and fines.	• Sustainability Policy • Code of Conduct • Code of Conduct for Business Partners • Inclusion Position Paper • Inclusion roadmap	Human rights in the supply chain, page 17
Social	Particular rights of affected indigenous communities	Risk includes failure to respect land rights of indigenous people, especially down the supply and within raw material extraction such as mining. Activities may result in environmental damage to land or displacement of indigenous peoples with lack of consent that may cause conflict. Violating the rights of indigenous communities can lead to legal consequences, fines and reputational damage.	• Sustainability Policy • Code of Conduct for Business Partner • Inclusion Position Paper • Inclusion roadmap • Climate Position Paper • Climate roadmap	Workers in the value chain, pages 95-99

List of material topics

ESG area	Material topics	Risk	Policy	Governance & management of risk
Social	Affected communities' civil, political, economic, social and cultural rights	Risk connected to communities along the value chain can for exmple be populations suffering impacts on their health and quality of life in a highly industrialised area, toxic waste and pollution from activities in the value chain, protest by affected communities met with violance. Failure to respect the rights of affected communities can lead to legal liabilities, lawsuits, fines, and sanctions as well as reputational damage and business partner loss.	• Sustainability Policy • Code of Conduct for Business Partner • Inclusion Position Paper • Inclusion roadmap • Climate Position Paper • Climate roadmap	Human Rights in the supply chain, page 17 Workers in the value chain, pages 94-98
Social	Personal safety of consumers and/or end-users	Polestar may, voluntarily or involuntarily, initiate a recall if any of its electric vehicles or components prove to be defective or noncompliant with applicable motor vehicle safety standards. If a large number of vehicles are the subject of a recall or if needed replacement parts are not in adequate supply, Polestar may be unable to service and repair recalled vehicles for a significant period of time. Such recalls, whether caused by systems or components engineered or manufactured by Polestar or its suppliers, would involve significant expense and diversion of management's attention and other resources, which could adversely affect Polestar's brand image in its target market and its business, prospects, results of operations and financial condition.	• Polestar Development System (PSDS) • Supplier Management systems	Product Safety, page 100.
Social	Own workforce working conditions and equal treatment and opportunities for all	Main risks include discrimination and failure to be a responsible employer, not achieving equal opportunities with fair wages, as well as protecting workers health and safety. Failing to promote diversity (including but limited gender, race, ethnicity, age, and disability) can hinder innovation and organizational success. It can have reputational damage and hinder the company from recruting right competences.	• Code of Conduct • People Policy • Responsible employer directive • Work environment directive • Diversity & Inclusion directive • Discrimination, harassment & bullying directive • Inclusion Position Paper • Inclusion roadmap	Inclusive workplace, page 18 Own workforce, pages 82-94
Governance	Corruption and bribery	Non-compliance with anti-corruption, anti-bribery, anti-money laundering or financial and economic sanctions laws could subject Polestar to whistleblower complaints, adverse media coverage, investigations and severe administrative, civil and criminal sanctions, collateral consequences, remedial measures and legal expenses, all of which could materially and adversely affect Polestar's business, reputation, financial condition and results of operations.	• Anti-corruption Policy • Conflict of Interest Policy • Trade Sanctions and Export Control Policy • Code of Conduct • Code of Conduct for Business Partners • Anti-corruption Directive • Instruction on Gifts, Favours, Hospitality, Entertainment and Travel • Instruction on Governmental Interactions	Ethical business practices, page 20 Sustainability policies, management and compliance, page 58 Business conduct, pages 103-108
Governance	Protection of whistle-blowers	Risk of employees or business partners to not report concerns, misconduct or unacceptable behaviours and demands in fear of retaliation.	• Code of Conduct • Code of Conduct for Business Partners • Speak Up Policy	SpeakUp: our whistleblowing system, page 105 Business conduct, pages 103-108

General sustainability information
Sustainability policies, management and compliance

Policies adopted to manage material sustainability matters

Corporate policies are adopted by the Board of Directors and reviewed at least every three years. The Nominating & Governance Committee performs an annual stocktaking of the policies to identify potential gaps, and aligns on a review schedule.

To strengthen the company's corporate values, core behaviours, and sustainability strategy and to ensure compliance with expectations for Polestar as a listed company, the current version of the Code of Conduct was adopted, and approved by the Board of Directors in June 2022. At the same time, a number of policies were updated, including the Conflict-of-Interest Policy and the SpeakUp Policy. Additionally, messaging relating to human rights was further developed.

In 2023, we saw the launch of the Procurement Policy and Security Policy. We launched new supplementary instructions related to gifts, favours, hospitality, entertainment, and related to governmental interactions. We also made updates to the Anti-Corruption Policy and Privacy and Data Protection Policy.

Polestar Code of Conduct

Polestar's Code of Conduct is the guiding star in our daily work and the decisions we make. It is how we make sure that all Polestar employees understand and act in accordance with our strong commitment to conduct business in an ethical way. Polestar's Code of Conduct is publicly available on the website.

Read more →
Ethics and Codes of Conduct

Polestar's Code of Conduct is based on seven principles:

- Improving the society in which we live
- Delivering for our customers
- Ethical business practices
- Separating personal interest from business activities
- Transparent and responsible communication
- Protecting information and our business
- Speaking up

Polestar Code of Conduct for Business Partners

Polestar has also adopted a Code of Conduct for Business Partners. It describes the principles and requirements of responsible business conduct, which our business partners are expected to comply with when doing business with Polestar and cascade to their subcontractors.

Polestar's Code of Conduct for Business Partners is publicly available on the website.

Read more →
Ethics and Codes of Conduct

The Code of conduct for Business Partners includes principles on, preventing child labour, preventing forced labour or modern slavery, non-discrimination and equal opportunities, the right to freedom of association and collective bargaining, and proper management relating to terms of employment, wages, benefits, working hours, and health and safety.

Polestar's Code of Conduct for Business Partners is included in contracts with Polestar Locations operators and handover centres, as well as production material suppliers. It is also communicated to all potential production material suppliers requested to provide a quote to Polestar. For indirect material suppliers, Polestar's Code of Conduct for Business Partners is referenced in Polestar's purchasing terms and conditions.

Business partners are required to conduct their business in compliance with applicable laws and regulations and maintain awareness of laws and regulations. They are required to ensure that their employees and subcontractors are made aware of the code; in particular, business partners are expected to choose the suppliers they retain in relation to Polestar business with appropriate due diligence, communicate the principles set out in the Code (or equivalent principles) to their suppliers and ensure compliance with the principles.

Business partners in high and medium-risk markets (as defined by Transparency International's Corruption Perceptions Index) are assessed through Polestar's due diligence process for evaluating business partners on adverse media, anti-corruption, and modern slavery.

Compliance and ethics

Polestar is committed to acting responsibly, competing fairly, and adhering to applicable laws and regulations. We are committed to fostering a compliance and ethics culture that permeates all operations, both Polestar's and our business partners. All employees and consultants working on behalf of Polestar must adhere to Polestar's Code of Conduct and the applicable policies.

Key compliance areas for Polestar include anti-corruption, competition law, data privacy, human rights, environmental compliance, trade sanctions, and export control. Certain countries have implemented strict laws restricting trade and export activities with specific countries, organisations, and individuals. These rules aim to prevent violation of international law, human rights, proliferation of weapons of mass destruction, international terrorism, or flows of items that could be used for military or internal repression purposes.

The Compliance & Ethics programme, led by the Compliance & Ethics function in the Legal department, is designed to instil commitment to ethical business practices throughout the organisation. The Compliance & Ethics function reports at least twice a year to the Audit Committee of the Board and to the management operations and commercial forum. The Audit Committee of the Board is tasked to oversee and report to the Board on the effectiveness of Polestar's compliance and ethics program, violations of the Code of Conduct or corporate policies, and whistleblowing.

Polestar has a set of corporate policies and directives covering compliance areas. Competition law and fair business practices topics are important to Polestar, not least because there are legal provisions in the markets Polestar is active in regarding the exchange of information with competitors and the abuse of dominant positions of undertakings. Trade sanctions prohibit trade with selected countries, organisations, and individuals. Through our Business Partner Due Diligence process, we screen business partners against trade sanctions lists.

The sustainability team manages Polestar's sustainability compliance obligations process, which involves all departments monitoring, reviewing, and reporting compliance or risk of non-compliance with current and upcoming laws and regulations related to environment and social governance. Environmental compliance includes regulations on car environmental performance, site permits, and other environmental regulations. All Polestar vehicles meet strict international environmental requirements and are approved by the relevant certifying authorities in each sales market.

The plants where our vehicles are being manufactured have ISO 14001 certifications to ensure compliance with environmental laws and regulations while also guaranteeing ongoing improvements. Polestar's environmental management system, located at its headquarters in Gothenburg, is also certified to ISO 14001.

There have been no significant fines or non-monetary sanctions for non-compliance with environmental laws or other compliance areas in 2023.

Our contribution to Agenda 2030

The United Nations' Agenda 2030 is an ambitious global framework aiming to end extreme poverty, reduce inequalities and injustice, and stop climate change. It was adopted by all UN Member States in 2015. We are now halfway to the target year 2030, and immediate action is required to meet its 17 goals and the 169 targets. Through a Sustainable Development Goals materiality assessment done in 2022, we have defined the goals and targets where Polestar has the greatest impact. We aim to continue to evaluate our progress in relation to the identified goals and targets annually and to develop our strategy to ensure that we are optimising our contribution.

Environmental information [E]
Introduction

Humanity is confronting a range of interconnected environmental challenges. GHG emissions from human activities, such as burning fossil fuels and deforestation, are trapping heat in the atmosphere, leading to rising global temperatures. This has far-reaching consequences, including more frequent and severe weather events, sea-level rise, and disruptions to ecosystems and agriculture.

At the same time, we are facing a biodiversity crisis, with species going extinct at an alarming rate due to habitat destruction, pollution, climate change, and other human activities. Biodiversity loss threatens the survival of countless plant and animal species and undermines ecosystem stability and resilience, upon which human societies depend for food, clean water, and other essential services. Human activities are also depleting natural resources at unsustainable rates, including freshwater, forests, fisheries, and minerals. This depletion can lead to resource shortages, conflicts over scarce resources, and exacerbate environmental degradation. Even if we are part of the solution, we are still affected by and contribute to these challenges.

We depend on many of the resources that are currently under severe strain. And even though our product is a central part of the climate transition, we risk creating other sustainability problems. Therefore, we carefully consider these risks when developing plans and strategies.

Environmental information [E]
Climate change

Policies related to climate change mitigation and adaptation

Polestar has adopted a Sustainability Policy stating our commitment to sustainability, and in addition, we address climate-change specifically in several guiding documents:

- Climate Position Paper
- Circularity Position Paper
- Deep Sea Mining Position Paper
- Polymers Recycling Position Paper
- End-of-life of Vehicle Recycling Strategy

We do not yet have a climate adaptation policy.

Transition plan and targets for climate change mitigation

We are members of the Exponential Roadmap Initiative, which brings together some of the world's most progressive companies, and the United Nations' Race to Zero campaign. It is assembling the largest-ever alliance committed to halving global emissions by 2030 and achieving net zero emissions by 2050 by rallying companies, cities, regions, and financial and educational institutions. All members are committed to the same overarching goal: reducing emissions swiftly and fairly, in line with the Paris Agreement, through transparent action plans and robust near-term targets.

Our climate roadmap traces our path to climate neutrality through our strategic initiatives: climate-neutral platform, climate-neutral materials, climate-neutral manufacturing, renewable energy in the supply chain, climate-neutral logistics, fossil-free charging, and climate-neutral company. It sets out reduction targets for the four five-year periods leading up to becoming climate-neutral in 2040.

We are following science closely and base our targets on what is needed according to the IPCC. Our overarching climate target is to reach climate neutrality across our value chain by 2040. However, Polestar's growth will cause our GHG emissions to increase for a few years initially. This is why we have also set the target to halve GHG emissions per sold car by 2030, compared with the 2020 baseline. Achieving this requires eco-economic decoupling, where economic growth no longer depends on increased GHG emissions. In addition, we have set the goal to create a climate-neutral car by 2030.

The actions in our climate roadmap include having 50% fossil-free energy in most supply chains by 2030 and 90–100% fossil-free energy in all supply chains by 2040. In order to reduce use phase GHG emissions by almost 20% by 2030, our cars need to become more efficient, but customers also need to charge with fossil-free electricity. Materials will also have to be used more efficiently, using less for the same type of component. The use of recycled materials must also increase, and we need to transition from only recycling to remanufacturing and re-using parts.

We know what the average GHG emissions per sold car will have to be in 2025, 2030, 2035, and 2040 to reach climate neutrality. Based on these targets and sales volume projections, we are setting targets for tonnes of greenhouse gases per car for each programme to be reached at the production start.

To reach the targets, however, our cars cannot remain on the same GHG emissions level for the whole production cycle. Therefore, Polestar is also drafting greenhouse gas emission reduction pathways over the production cycle for each programme, translated into concrete actions concerning for example materials, manufacturing, and logistics. This is integrated as a part of our Sustainable Upgrades programme, which aims to move away from conventional face-lift schemes and enable continual improvements in sustainability. Reductions in GHG emissions for the car model and its variants are communicated through our Product Sustainability Declaration with every new vehicle model year. The climate target for each programme is then translated into specific actions concerning for example materials, manufacturing, and logistics.
For information about the processes to identify and assess material climate-related risks and the resilience of Polestar's strategy and business model in relation to climate change.

Read More →
Task Force on Climate-Related Financial Disclosures (TCFD) report

Environmental information [E]
Climate change

Energy use and mix

Energy use is presented in two sections.
This first section covers energy use within the organisation, i.e. where Polestar has operational control. This includes electricity and fuel from company-owned cars, and energy use (electricity and sometimes district heating or natural gas) in owned or controlled manufacturing plants, offices, and spaces. This includes the Chengdu plant.
Energy data is collected locally in each market and consolidated for reporting at the group level.
In case the actual data for the energy use was not available in time for the report, the energy use has been estimated. Compared to 2022, the energy use in this section has increased by 13% due to an increase in electricity and district heating usage as more offices and spaces had opened.

Energy at Chengdu plant, in company owned cars and Polestar operated offices and spaces

MWh	2023	2022	2021	2020	Change % 2022-2023
Electricity	30,530	26,443	29,511	9,144	15
District heating	2,303	1,546	1,587	786	49
Fuels					
Natural gas	1,005	1,880	2,980	3,918	-47
Petrol	48	9	65	65	417
Total non-renewable fuels	1,053	1,889	3,045	3,984	-44
Ethanol (admixture in petrol)	0,4	-	0,3	0,3	-
Total renewable fuels	0	-	0,3	0,3	-
Total energy	33,887	29,878	34,143	13,913	13

Environmental information [E]
Climate change

The second section covers energy outside the organisation, i.e. where Polestar does not have operational control. This includes energy use (electricity and sometimes district heating or natural gas) in manufacturing plants owned and operated by Volvo Cars or Geely and franchise or investor-owned and controlled spaces. Compared to 2022, the total energy use in this section has neither increased nor decreased but stayed at the same level between 2022 and 2023.

Use phase energy and emissions

Polestar's highest sales volumes are in countries with a low-emission electricity grid mix. Increasing sales in markets such as China and the US will lead to increased emissions from the use of sold products (driving the cars). However, the general improvement of electricity emissions in these markets is bound to happen as the share of renewable electricity in the country mixes is increasing. Total electricity use in the use phase increased by 3% between 2022 and 2023 as the number of sold cars increased. Meanwhile, shifting away from Polestar 1, with an internal combustion engine, also means completely shifting away from petrol and ethanol.

Energy at other manufacturing plants and in leased offices and locations not operated by Polestar

MWh	2023	2022	2021	2020	Change % 2022-2023
Electricity operations	43,175	45,396	35,505	19,940	-5
District heating, operations	343	-	-	-	n/a
Natural gas operations	25,169	23,471	22,306	14,795	7
Total energy	68,687	68,867	57,811	34,735	0

Total energy consumption in the use phase

MWh	2023	2022	2021	2020	Change % 2022-2023
Electricity	1,801,683	1,745,121	1,054,997	394,764	3
Petrol	-	1,909	260	1,712	-100
Ethanol (admixture in petrol)	-	65	9	58	-100
Total energy	1, 801,683	1, 747,095	1,055,266	396,534	3

Petrol is assumed to have an admixture of 5% ethanol in general. The use phase is calculated for an average lifetime distance of 200,000 km per sold car. WLTP (Worldwide Harmonised Light Vehicle Test Procedure) cycle is used for consumption.

Environmental information [E]
Climate change

During the year, Polestar has improved the range, efficiency and performance of Polestar 2 as part of significant updates while simultaneously reducing its carbon footprint for the 2024 model year. Our engineers have worked hard to integrate important upgrades that enhance the overall package, including the efficiency. Polestar 2 can now travel up to 22% farther and consume up to 9% less energy thanks to hardware upgrades, including larger batteries and new motors. The energy efficiency of our cars is followed up through the key performance indicator kWh per 100 kilometres.

Vehicle energy efficiency for car models sold 2023

WLTP kWh/ 100km	MY25	MY24	MY23	MY22	MY21
Polestar 2 LRDM	-	15.9-17.2	19.3-20.2	19.4-20.2	18.8-21.6
Polestar 2 LRSM	-	14.8-15.8	17.0-18.4	17.1-18.6	-
Polestar 2 SRSM	-	14.9-15.9	16.5-17.8	16.7-18.3	-
Polestar 4 LRDM	18.6-21.0	-	-	-	-
Polestar 4 LRSM	17.7-18.1	-	-	-	-
Polestar 4 SRSM*	14,7	-	-	-	-

*The first WLTP value for Polestar 4 SRSM is preliminary data based on tested Chinese Light-Duty Vehicle Test Cycle (CLTC) values.

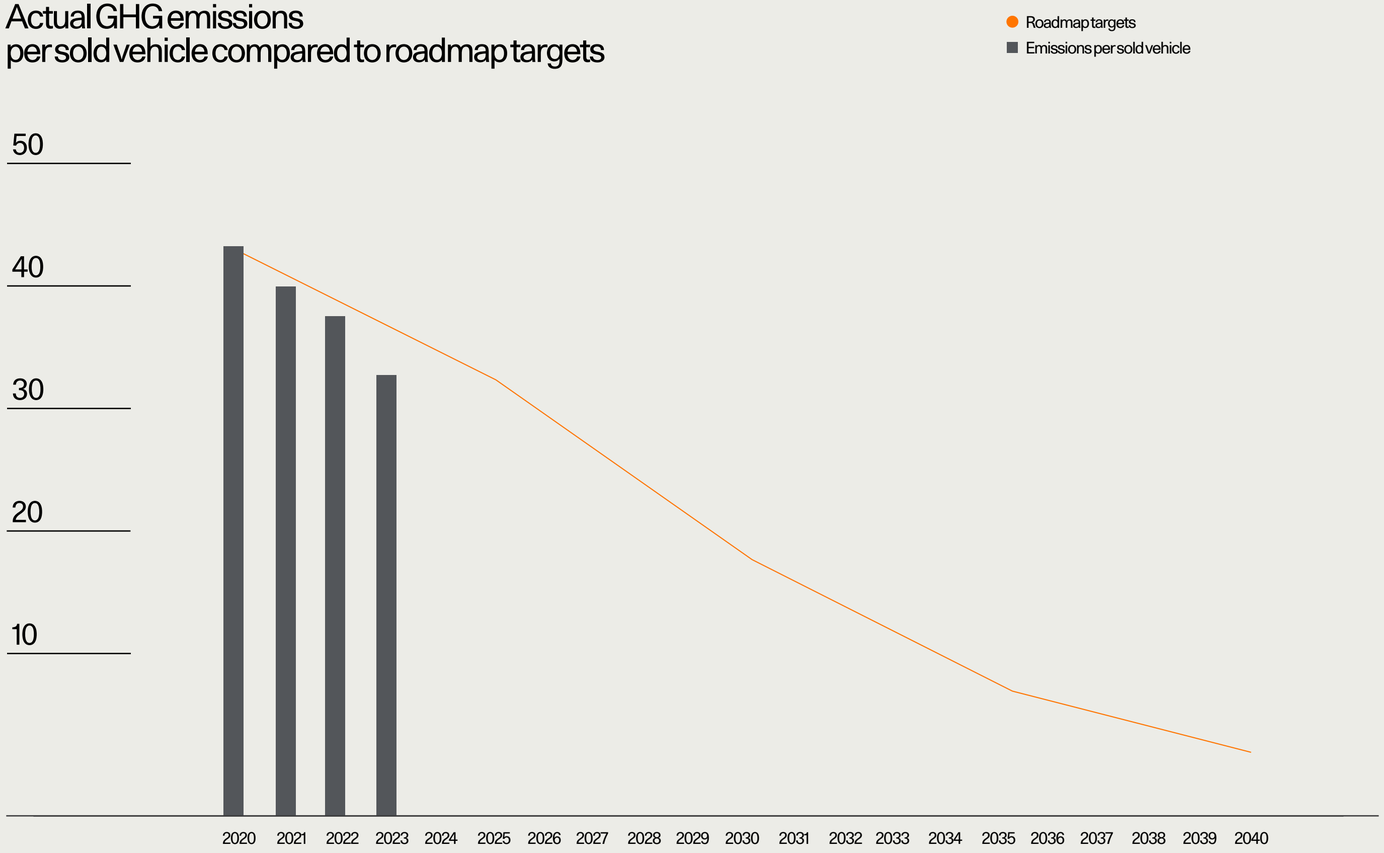
Environmental information [E]
Climate change

Scopes 1,2,3 and total GHG emissions

In 2023, absolute GHG emissions across our value chain decreased by 5% to 1,779,689 tCO_2e. The emissions intensity, including Scope 1, 2 and 3, was 33.7 (2022: 37.1) tCO_2 e per sold car, which is a decrease of 9% compared to 2022.

The reason for this is, for example, the Polestar 2 LCA upgrades that lower the emissions from material and that the use phase emissions per car have gone down, as electricity market emissions for some markets have decreased and the energy efficiency of our sold cars has improved.

Actual GHG emissions per sold vehicle compared to roadmap targets



Environmental information [E]
Climate change

Emissions are calculated based on the guidance of the Greenhouse Gas Protocol, and include GHG emissions within our operational control. The following categories have been excluded: capital goods, processing of sold products, and investments. For detailed information about the methodology used, see page 70.

Biogenic emissions 2023:
Scope 1 – 0.1 tCO_2e

Total GHG emissions Scope 1, 2 and 3

Base Year	2020	2021	2022	2023	% 2023/2022
Scope 1 GHG emissions					
Gross Scope 1 GHG emissions (tCO_2eq)	897	731	470	198	-58
Percentage of Scope 1 GHG Emissions from regulated emission trading schemes (%)	0	0	0	0	0
Scope 2 GHG emissions					
Gross location-based Scope 2 GHG emissions (tCO_2eq)	4,175	9,646	6,065	7,401	22
Gross market based Scope 2 GHG emissions (tCO_2eq)	1,136	9,252	8,630	10,234	19
Significant scope 3 GHG emissions					
Total Gross indirect (Scope3) GHG emissions (tCO_2eq)	422,672	1,116,445	1,866,766	1,769,258	-5
1 - Purchased goods and services	292,406	730,966	1,231,192	1,128,428	-8
3 - Fuel and energy-related Activities (not included in Scope 1 or Scope 2)	382	605	1,091	1,927	77
4- Upstream transportation and distribution	45,931	84,582	119,753	144,533	21
5 - Waste generated in operations	47	3	5	11	116
6 - Business traveling	652	1,311	2,808	1,493	-47
7 - Employee commuting	170	971	1,619	1,727	7
8 - Upstram leased assets	0	0	0	0	0
9 - Downstream transportation	0	0	0	0	0
10 - Processing of sold products	0	0	0	0	0
11 - Use of sold products	77,950	282,725	483,071	462,671	-4
12 - End-of-life treatment of sold products	5,013	14,410	25,421	26,294	3
13 - Downstream leased assests	0	0	0	0	0
14 - Franchises	122	872	1,805	2,175	20
15 - Investments	0	0	0	0	0
Total GHG emissions					
Total GHG Emissions (location-based) (tCO_2eq)	427,744	1,126,823	1,873,300	1,776,857	-5
Total GHG Emissions (market-based) (tCO_2eq)	424,705	1,126,428	1,875,866	1,779,689	-5

Environmental information [E]
Climate change

The main contributors to our GHG emissions are the purchased goods for producing our cars, followed by the use of our cars by the customers. Together, they make up 89% (2022: 88%) of our total GHG emissions.

Breakdown of GHG emissions by Polestar specific categories

GHG emissions	Share of total emissions					
Emissions source tonnes CO_2e	2023	2023%	2022	2021	2020	Change % 2022-2023
Overhead	4,943	0	5,302	2,718	937	-7
Manufacturing	6,525	0	9,073	16,762	16,518	-28
Transportation and logistics	143,614	8	119,537	84,398	45,931	20
of which inbound	25,932	1	28,799	21,793	27,000	-10
of which outbound	117,682	7	90,738	62,605	18,931	30
Purchased goods	1,122,108	63	1,222,573	715,109	277,090	-8
of which direct materials	1,095,640	62	1,162,909	658,144	239,182	-6
of which indirect materials	26, 469	1	59,663	56,965	37,908	-56
Sales	13, 535	1	10,891	10,306	1,266	24
Use of sold products	462,671	26	483,071	282,725	77,950	-4
of which EMEA	258, 990	15	212,246	125,175	N/A	22
of which China	10, 755	1	23,254	5,983	N/A	-54
of which APAC	88, 427	5	91,168	1,914	N/A	-3
of which Americas	104, 500	6	156,403	95,806	N/A	-33
End-of-life treatment of sold products	26, 294	1	25,421	14,410	5,013	3
Total GHG emissions in Scope 1, 2 and 3	1, 779,689	100	1,875,868	1,126,428	424,705	-5

Environmental information [E]
Greenhouse gas reporting principles

Greenhouse gas reporting principles

Polestar reports emissions of greenhouse gases according to the global standard Greenhouse Gas Protocol. Emissions are reported in tonnes of carbon dioxide equivalents (CO_2e), thus accounting for all greenhouse gases. Emissions are reported using the operational control approach according to the Greenhouse Gas Protocol, to align with the Corporate Sustainability Reporting Directive and the European Sustainability Reporting Standards. The global warming potential (GWP) rates from the IPCC's Fifth Assessment Report are used for all greenhouse gases included in this report. The baseline year for our climate targets and roadmap is 2020, marking the start of our greenhouse gas emission calculations and the development of the climate roadmap.

Scope 1 (Direct GHG emissions) includes:

Company-owned facilities:

Consists of the GHG emissions from the manufacturing plant in Chengdu, which was owned by Polestar until 31 July 2023, and includes refrigerant leakage and natural gas for heating. The consumption is multiplied by an emission factor for each type of energy or refrigerant.

Company vehicles:

Comprises GHG emissions from company vehicles, which are related to the fuel consumed by Polestar 1 cars owned by Polestar. The petrol consumption is calculated based on WLTP data and an assumed travel distance of 15,000 km per car and year. GHG emissions related to the use of electricity as well as production and end-of-life treatment of test cars are reported in Scope 2 as well as Scope 3, respectively. The consumption is multiplied by an emission factor for each energy type.

Scope 2 (Indirect GHG emissions from energy) includes:

Purchased electricity for own use:

Includes the electricity consumption at the manufacturing plant in Chengdu before July 31, 2023, emissions from the use of electricity and heating at offices and temporary spaces operated by Polestar and the electricity consumption of Polestar owned cars. Regarding the manufacturing plant in Chengdu, only solar and hydropower is used, so there are no Scope 2 emissions from owned facilities. The electricity consumption of Polestar-owned cars is based on test driving and events. It is assumed that every car is charged with 12,168 kWh a year. The consumption is multiplied by an emission factor for each energy type and country of use.

Most of the energy data for offices and temporary spaces operated by Polestar is based on actual amounts of purchased electricity, district heating, and natural gas. Where no actual electricity data is given, electricity use is extrapolated based on either the office area, together with the average electricity use per square metre for the offices where actual energy data is provided, or the average electricity use per office space where office information is not available.

Polestar uses the market-based method, meaning that Electricity Attribute Certificates (EACs), stating the origin of bought renewable electricity, are used together with specific emissions factors for renewable energy. Bought electricity without EAC is accounted for as a country-specific residual mix. In accordance with the Greenhouse Gas Protocol, the location-based calculation method, using average emissions for country electricity mixes, is also reported.

The energy use in other facilities used by Polestar, such as franchise or investor-owned spaces and manufacturing facilities, where Polestar does not have operational control, are included in scope 3.

Scope 3 (Indirect GHG emissions) includes:

Purchased goods and services:

This category includes the emissions from the manufacturing of parts and materials for Polestar 2 and Polestar 4 as well as the emissions from other purchased miscellaneous goods and emissions related to the production of Polestar cars in manufacturing facilities not operated by Polestar. The calculation of emissions from the car material is based on the LCA for different car models and variants from Polestar multiplied by the number of cars sold in the reporting year. The GHG emissions caused by materials and services not directly related to the car are calculated on a cost-based approach using emission factors from US EPA.

GHG emissions related to the production of Polestar cars in manufacturing facilities not operated by Polestar, i.e.Volvo Cars Taizhou (Luqiao) Plant and Geely Hangzhou Bay Plant, are also accounted for in this category as these activities are considered to be a bought service. Here, energy-related emissions from electricity and natural gas are proportional to the Polestar share of produced cars in the individual manufacturing plants.

Fuel and energy related activities:

Includes the GHG emissions from fuel and energy-related activities that are allocated to Scope 2 – the Well-to-Tank (WTT) emissions of the fuel and electricity consumed by Polestar's own cars and Scope 3 emissions of the energy used at the manufacturing plant, offices, and spaces where Polestar has operational control.

Transportation and distribution:

GHG emissions from logistics include inbound and outbound transport managed by Volvo Cars and paid for, directly or indirectly, by Polestar. Emissions data, revised by a third party, is provided by Volvo Cars. It also includes inbound transport related to manufacturing of Polestar 4 managed by Geely and paid for indirectly by Polestar. Transport-related emissions for Polestar 4 are estimated based on theoretical values. Outbound transport emissions within import markets are not included. Transportation of spare parts and test vehicles is managed and reported by Volvo Cars and is not included in this reporting.

Waste generated in operations:

This category includes waste generated at manufacturing plants, operated by Polestar and those operated by Volvo Cars and Geely. GHG emissions from waste-generated operations are calculated by categorising waste volumes into types and treatment methods (landfill, material recovery, and energy recovery), as well as using external generic emissions factors from DEFRA.

Business travel:

GHG emissions from air travel are calculated using the number of flights, routes, and travel distance (extracted from Polestar's travel agencies). Calculations are based on flight distances between airports and emissions factors from NTM. The radiative forcing has been calculated with a factor of 2.7. Emissions caused by other modes of business travel, such as rental cars, taxis, trains, and hotel nights, are calculated based on spending data from Polestar and emission factors from Exiobase.

Employee commuting:

GHG emissions from employee commuting are based on assumptions about Polestar employees' travel distance, mode, and pattern. The assumptions are based on number of employees, type of personnel, and country. Emission factors for public transport and commuting with ICE cars are from the Swedish Transport Administration and NTM. For electric vehicles, average country-specific electricity mixes are used, together with the WLTP electricity consumption for Polestar 2.

Use of sold products:

In this report, data on sold cars refers to cars handed over to the consumer as there is no use phase emissions before that. The calculation of average GHG emissions from the use of sold products is based on the official WLTP data for Polestar's cars, combined with Scope 2 emission factors corresponding to the average electricity market mix in each market where the cars are sold. The WLTP consumption is multiplied by an assumed average mileage of 200,000 km per car. The total GHG emissions from the use of sold products are calculated by multiplying the lifetime consumption per car by the number of cars sold as well as the average electricity mixes for each specific country. Refrigerant leakage during lifetime has been included and is based on leakage assumptions.

The accuracy of the calculation method can be influenced by real-world factors not covered by the official data, such as driving behaviour and different usage of auxiliary loads. Polestar's ambition is to increase knowledge and accuracy over time and to be as transparent as possible regarding the GHG emissions from using Polestar's products.

End-of-life treatment of sold products:

GHG emissions caused by the end-of-life treatment of sold products are estimated based on LCA data and number of cars sold. This category also includes potential refrigerant leakage in the end-of-life treatment process.

Franchise:

GHG emissions from spaces owned and operated by franchises or investors are based on data concerning purchased electricity. For spaces where no electricity data has been provided, emissions are extrapolated based on either historical data from the previous year, information on space area together with an average value on electricity use per space area or information on the numberof spaces together with an average value on electricity use per space.

Environmental information [E]
Task Force on Climate-Related Financial Disclosures (TCFD)

Overview

The Task Force on Climate-related Financial Disclosures (TCFD) has developed a recommendation to help companies and organisations to better identify, prioritise, manage and publicly disclose information about their significant climate-related risks and opportunities. Polestar started working with TCFD in 2021 and continued to expand and refine its approach in 2022. During 2024 Polestar will revisit and update the previous assessments.

A summary of Polestar's progress is provided below for TCFD's four key thematic areas.

Risk management

To identify and assess Polestar's climate-related risks and opportunities, the company has:

- Developed an initial gross list of climate-related risks and opportunities (47), directly informed by and aligned to the TCFD categories (transition risks, physical risks, and opportunities) and sub-categories. For example, policy and legal, technology, market, reputation, acute, and chronic physical risks, and markets and products opportunities. The gross list and broader risk assessment process included risks and opportunities across Polestar's value chain (direct operations, upstream, and downstream).
- Defined the likely potential financial impacts of each of these risks and opportunities for Polestar's business. For example, higher operating costs, higher capital expenditure, and access to capital.
- Conducted an initial risk assessment to identify and prioritise Polestar's most significant (material) climate-related risks and opportunities (10) in the short term of 2023–2025. Polestar's climate risk assessment framework is informed by Polestar's company-wide risk framework and comprises a three-point (low, medium, and high) likelihood and consequence scale, with the materiality determinations/threshold set as risks/opportunities assessed as 'high' from likelihood and consequence perspectives.
- Conducted a company-wide climate-related scenario analysis to assess the possible changes in exposure to material short-term risks in the medium term (2026–2030) and longer term (2031–2050) compared with the short term (2023– 2025) (see Box 1). In future years, Polestar intends to further expand this analysis to include new climate-related risks and opportunities that may emerge in the medium to longer term, but which are not material in the short term.

The climate-related risk assessments, including climate-related scenario analysis, were facilitated by Polestar's sustainability team, with the support of an external consultant, and included input from senior representatives from across Polestar's business.

Overview of Polestar's climate-related scenario analysis

Climate scenarios present plausible futures, not forecasts, based on different levels of climate change and associated policy responses. They are used to understand potential climate-related impacts on an organisation at different time horizons. A climate scenario analysis enables companies to better prepare for, and respond to, uncertainties of climate change.

Polestar has undertaken a climate scenario analysis to assess the potential impacts of climate change on our business and identify climate-related risks and opportunities that may arise during different climate scenarios and time horizons (short-term, medium-term (2026–2030), and long-term (2031–2050)).

Polestar selected two scenarios that represent different pathways and assumptions, allowing different plausible outcomes to be explored. The two scenarios were used to assess future impacts on Polestar's business in medium and long-term time horizons, taking Polestar's value chain and existing mitigation strategies into account.

Polestar has selected the following two climate scenarios displayed in the table.

- A low-emissions scenario, aligned to the Paris Agreement and a temperature rise limited to 1.5 °C by 2050.
- A high-emissions scenario, including limited policy changes to reduce emissions and a likely temperature rise of 1.9°C – 3.0°C by 2050.

Both scenarios are widely used and accepted, but as with all climate scenarios, they include assumptions and uncertainties. This is especially relevant for scenarios that represent upper and lower levels of temperature change.

Transition risks were assessed by using the low-emission scenario, where the global economy transitions to mitigate global warming to a 1.5°C temperature rise. Physical risks were assessed by using the high-emission scenario, where higher levels of physical risks are likely to occur as a result of climate change. Polestar recognises that physical risks will be present in lower temperature rise scenarios, but at this stage, the analysis is limited to focusing on a future with more severe potential physical impacts.

Climate scenarios

	Low-emissions scenario	High-emissions scenario
Scenario & underlying model	Net Zero Emissions by 2050 scenario (NZE) International Energy Agency (IEA)	Representative Concentration Pathways 8.5 (RCPB.5) and Shared Socioeconomic Pathways 5-8.5 (SSPS-8.5) Intergovernmental Panel on Climate Change (IPCC)
Temperature rise (2050)	1.5°C	1.7°C-3.7°C (RCP8.5) 1.6°C-4 °C (SSP5-8.5)
Purpose & application	To assess the transition impacts in a future state where the global economy transitions to a lower carbon world	To assess physical impacts in a future with limited policy changes to reduce emissions

Environmental information [E]
Task Force on Climate-Related Financial Disclosures (TCFD)

Polestar identified ten short-term material climate-related risks and opportunities, including transition risks (4), physical risks (4), and opportunities (2).

The identified risks and opportunities are presented in the table.

Polestar's material short-term climate-related risks and opportunities

Description	Potential financial impact
Transition risks	
Changes in Polestar's external climate-related policy and/or legal operating environment, leading to increased carbon pricing through emissions trading schemes or other carbon pricing mechanisms	Higher operating costs
Changes in Polestar's external climate-related policy environment, and particularly reduced incentives for EVs, leading to Polestar losing market share to non-EV competitors	Lower revenues
Economy-wide and global transition to electrification leading to intermittent reduction(s) in Polestar's production capacity driven by energy rationing restrictions imposed on Polestar's direct operations	Lower revenues, Higher costs
Polestar is perceived to be not sufficiently contributing to transition to a lower-carbon economy leading to Polestar losing key clients to competitors	Lower revenues
Physical risks	
Increased seventy of extreme weather events, leading to higher electricity prices	Higher operating costs, Lower revenues
Changes in precipitation patterns and variability in weather patterns leading to higher cost of raw materials from suppliers in affected regions	Higher costs
Rising sea levels, leading to higher cost of raw materials from suppliers in affected regions	Higher costs
Rising mean temperatures, leading to reductions in Polestar's production capacity driven by heat-related interruptions to Polestar's production	Lower revenues, negative balance sheet impacts
Opportunities	
Changes in Polestar's external climate-related policy environment (for example emissions standards) leading to Polestar taking market share from traditional car brands	Increased revenues
Polestar is perceived to be sufficiently contributing to transition to a lower-carbon economy leading to Polestar gaining market share from competitors	Increased revenues, ability to raise new loans or equity on (relatively) favourable terms

Environmental information [E]
Task Force on Climate-Related Financial Disclosures (TCFD)

Polestar completed a climate scenario analysis to assess the changing risk profile of Polestar's material short-term climate-related risks and opportunities in the medium-term (2026–2030) and long-term (2031–2050). In general, and relative to assessed short-term risk exposure, Polestar's material:

- Transition risks may remain at similar levels in the short to medium term
- Physical risks may increase in the medium to long term
- Opportunities may increase in the medium to long term

The results from the climate scenario analysis are presented in the table.

Climate scenario analysis
Low-emissions scenario: Polestar risk exposure over time (compared with short-term)

Transition risks

Description	Medium-term	Long-term
Changes in Polestar's external climate-related policy and/or legal operating environment, leading to increased carbon pricing through emissions trading schemes or other carbon pricing mechanisms	↗	↗
Changes in Polestar's external climate-related policy environment, and particularly reduced incentives for EVs, leading to Polestar losing market share to non-EV competitors	↗	↘
Economy-wide and global transition to electrification leading to intermittent reduction(s) in Polestar's production capacity driven by energy rationing restrictions imposed on Polestar's direct operations	→	↘
Polestar is perceived to be not sufficiently contributing to transition to a lower-carbon economy leading to Polestar losing key clients to competitors	→	↘

Opportunities

Description	Medium-term	Long-term
Changes in Polestar's external climate-related policy environment (for example emissions standards), leading to Polestar taking market share from traditional car brands	↗	↗
Polestar is perceived to be sufficiently contributing to transition to a lower-carbon economy leading to Polestar gaining market share from competitors	↗	↗

Climate scenario analysis
High-emissions scenario: Polestar risk exposure over time (compared with short term)

Physical risks

Description	Medium-term	Long-term
Increased severity of extreme weather events, leading to higher electricity prices	→	↗
Changes in precipitation patterns and variability in weather patterns leading to higher cost of raw materials from suppliers in affected regions	↗	↗
Rising sea levels, leading to higher cost of raw materials from suppliers in affected regions	→	↗
Rising mean temperatures, leading to reductions in Polestar's production capacity driven by heat-related interruptions to Polestar's production	↗	↗

↗ Risk exposure increases → Risk exposure stable ↓ Risk exposure decreases

Environmental information [E]
Metrics and targets

As Polestar recognises the significance of climate-related risks and opportunities for their business, the broader economy, and society as a whole, the company:

- Measures and publicly discloses its direct and indirect (Scope 1, 2 and 3) GHG emissions in accordance with the Greenhouse Gas Protocol (see chapter Climate neutrality).
- Measures a range of other indicators aligned to Polestar's material climate-related risk and opportunities.
- Has set ambitious climate-related targets, including:
  - Climate-neutral car by 2030
  - Halve carbon intensity by 2030
  - Climate-neutral company by 2040
- Has completed transition planning to support meaningful progress towards and achievement of these targets. The climate roadmap traces Polestar's path to climate neutrality through strategic initiatives: a climate-neutral platform, climate-neutral materials, energy optimisation, climate-neutral manufacturing, renewable energy in the supply chain, and climate-neutral company. It sets targets for the four five-year periods leading up to becoming climate-neutral in 2040.

Environmental information [E]
Pollution

Policies related to pollution

Polestar does not have a policy related to Pollution. The areas of pollution and chemical management across the value chain are incorporated in Polestar's Circularity position paper.

Actions and resources related to pollution

In 2023, we have set a chemical strategy for Polestar that is to be implemented during 2024. The chemical strategy is incorporated in the focus area Circularity.

Polestar's ambitions are to:

- Protect people and the planet from harmful chemicals by using safer materials in our vehicles.
- Phase out and limit exposure to/pollution from harmful and potentially harmful chemicals used in Polestar's own operation and within our supply chain.
- Increase transparency around chemicals used in Polestar materials, our supply chain and risks connected to pollution during the use phase of our vehicles.
- Work towards full disclosure for materials used in Polestar vehicles to make informed decisions in terms of materials, enable future recycling, and avoid downcycling of materials because of unknown chemical content.

We work to achieve these ambitions through our strategic initiatives, which have been updated to better address risks connected to pollution and chemicals. The strategic initiative Operational circularity focus on decreasing risks connected to chemicals used within Polestar operations and the strategic initiative Materials circularity focus on protecting people and the planet from harmful chemicals by using safer materials and working towards increased chemical transparency. Some of the harmful groups of chemicals that we will target are SVHCs, PFAS, and other SIN-list substances (Substitute It Now, ChemSec).

Resources: Sustainable Chemicals Lead in the Sustainability team, Global EHS-lead partly managing chemicals used within operations and managing projects within the strategic initiative Operational circularity, R&D resources to manage projects connected to chemicals, and pollution within the strategic initiative Materials circularity.

Targets related to pollution

Targets for pollution and chemicals will be set during 2024. A new Restricted Substance Standard is being created to set chemical requirements in upcoming vehicle programmes.

Pollution of air, water and soil

All vehicles lead to emissions of tyre particles during the use phase. In general, battery electric vehicles are heavier than other vehicles, which might lead to increased tyre emissions as we transform the global vehicle fleet from ICE cars to EVs. Tyre wear is inevitable. However, we acknowledge that emissions of tyre particles are a material topic, and we are investigating ways to decrease emissions of tyre particles and the possibility of using tyres with better chemical content to decrease the toxicity of emitted particles. However, in terms of particle emissions from brake discs, thanks to regenerative braking of EVs, the wear of disk brakes is substantially lower and thus, the emissions linked to it are very small.

The plants where our vehicles are being manufactured have ISO 14001 certifications. This guarantees that we evaluate the environmental risks associated with our activities, implement operational controls, conduct checks through a risk-oriented audit program overseen by an independent organization, and undergo an annual management review process.

Substances of concern and substances of very high concern

Polestar register components that contain substances of very high concern (SVHC) in the EU database SCIP (Substances of Concern In articles as such or in complex objects (Products)).

Information on which parts of the cars that contain SVHC is also included in the vehicle manual and thereby provided to customers in accordance with the information requirements of EU REACH legislation. For management of chemical products that are used in the production and to keep track of potentially hazardous substances Polestar uses Ecoonline and Chemwise chemical management systems.

Currently there are 16 SVHC-uses in the UK operations and 2 SVHC uses in Sweden operations. In 2024, Polestar will adopt phase-out plans for the use of these substances. Polestar will also finalise a new RSMS (Restricted substance management standard) in 2024 which will be implemented in the new vehicle programs and also for new suppliers in existing programs. The aim for 2024 is to set the scope and adopt KPIs for "substances of concern" and also set a CAPEX-statement to be able to align with taxonomy for 2024 sustainability report.

Environmental information [E]
Biodiversity and ecosystems

Policies related to biodiversity and ecosystems

In 2023, Polestar took a public and internal position on deep-sea mining. Deep-sea mining targets extracting minerals and resources from the ocean floor at depths exceeding thousands of metres, presenting potential economic benefits and significant environmental risks. It promises access to critical minerals for the automotive industry and poses an alternative to reduce terrestrial ecosystem impacts and human rights violations associated with land mining. However, it threatens deep-sea biodiversity, disrupts unique habitats, and risks long-term, poorly understood environmental damage due to slow ecosystem recovery rates and the potential for irreversible impacts. Increasing advocacy from scientists, civil society, and political leaders for a moratorium on deep-sea mining has underscored the urgency of evaluating its environmental, social, and economic risks thoroughly. Considering Polestar's adoption of the precautionary principle in environmental matters with insufficient knowledge, as stated in our sustainability policy, Polestar has decided to support WWF's initiative on the moratorium of deep-sea mining, joining other leading companies in promoting environmental stewardship.

Actions and resources related to biodiversity and ecosystems

We have started to look at tools and methodologies for assessing the biodiversity impact of our supply chain and to create a biodiversity strategy that would encompass material choices, supplier choices, and requirements for mitigating actions. This work is partly dependent on the implementation of a supply chain traceability system.

We currently do not own, manage, or lease any manufacturing sites, but the Geely owned Chongqing plant to be operated by Polestar, which is under development, is expected to undergo a comprehensive biodiversity assessment in 2024.

The use of materials profoundly affects biodiversity at every stage of the product life cycle. The extraction and processing of materials lead to habitat destruction, ecosystem imbalance, and loss of species. Such activities often occur in areas rich in biodiversity, exacerbating the loss of flora and fauna, and disrupting natural habitats. The pollution resulting from material extraction, particularly from mining and metallurgical processes, contaminates ecosystems, affecting terrestrial and aquatic life. This pollution also degrades the quality of soil and water resources, further impacting biodiversity.

To mitigate these negative impacts on biodiversity, a shift towards circular material use is imperative. By prioritising the reuse and recycling of existing materials, we significantly reduce the need for new extractions, thereby preserving natural habitats, protecting ecosystems, and maintaining the earth's biological diversity. Closing material loops not only conserves resources but also helps in maintaining the intricate balance of nature, which is essential for biodiversity to thrive.

In 2023, we have increased efforts to phase out virgin REEs from as many of our upcoming and ongoing car programmes as possible, with a focus on securing traceable and verified 100% post-consumer recycled content.

Environmental information [E]
Resource use and circular economy

Policies related to resource use and circular economy

Polestar's End-of-Life Vehicle Management Strategy showcases our commitment to sustainable consumption and resource use. The document prioritises circularity principles in the waste hierarchy, focusing on reusing components, re-manufacturing or refurbishing worn parts, recycling into base materials, and responsibly disposing of materials. Key elements include adhering to the EU's Directive 2000/53/EC for recycling and de-pollution of end-of-life vehicles, managing restricted substances, and ensuring reusability, recyclability, and recoverability (RRR) in design and end of life. The strategy proposes preferred management solutions for managing batteries, metals, polymers, elastomers, and glass. We also outline our approach to part marking, ensuring materials are appropriately labelled for recycling.

Through a collaboration with Circle Economy in 2022, we were able to also better assess how much raw material goes into the production of a Polestar 2 by analysing the total raw material consumption upstream, including all materials needed to make the final materials and products ending up in our cars. A key finding was that the highest raw material consumption is related to the upstream extraction of materials and the production of components used in the propulsion and electronic systems. The study presented an important indicator, Raw Material Consumption (RMC) measured in kg of raw material per car, that we will use to monitor our resource efficiency and continually lower raw material use. The raw material consumption for a single Polestar 2 vehicle is estimated at 57,130 kg of material per car.

Actions and resources related to resource use and circular economy

In 2023, Polestar's circularity strategy was broken down into four strategic initiatives covering the f ull life cycle and value chain scope of circularity. These initiatives will implement Polestar's circularity vision over the coming years with the following intended actions:

1. Operational circularity

Under our strategic initiative for operational circularity, we have embarked on a series of focused actions to enhance sustainability practices within our own operations, such as factories, workshops, handover locations, spaces and offices. Key to this initiative will be the comprehensive mapping of our main resource and waste flows. We will establish a robust system for data collection and formulate precise reporting requirements, ensuring seamless integration with the Position Green reporting platform.

In addition to resource management, we intend to develop a lean packaging strategy aimed at reducing waste in transport and at our assembly sites.

We also recognise the importance of informed decision-making in our procurement processes. To this end, we will roll out awareness and training programmes for our procurement team, focusing on understanding and managing chemical processes effectively.

A critical component of this initiative is the mapping of high-volume and high-priority chemicals like PFAS, cleaners, degreasers, CMR substances, sensitising substances, microplastics in chemical products, and VOCs in production. The outcome of this mapping will be a targeted list of phase-out activities for the most harmful chemicals.

Furthermore, we will conduct a thorough biodiversity assessment for our Chongqing plant, providing valuable insights to inform our biodiversity strategy.

Lastly, ensuring operational legal compliance is paramount, particularly for our sales organisation across various markets. We are diligently working to align with the requirements of the RRR and ELV Directive to demonstrate our commitment to legal and environmental responsibility.

2. Material Circularity

We have set ambitious goals to increase the use of recycled and renewable materials across all our programmes, recognising the importance of sustainable material sourcing in reducing our environmental footprint.

The start of production of the Polestar 4 marked the start of manifesting our increasing ambitions for the use of recycled materials in our cars. While the recycled material quantity in Polestar 2 was untraced and thus assumed to be 0%, for Polestar 4 we have secured the following recycled material values:

- Steel: 12%
- Aluminium: 18%
- Plastics: 19%

The values combine post-industrial and post-consumer scrap, while notably excluding the accounting of home scrap, in alignment with ISO 14021. For steel and aluminium, we were able to secure self-claimed target values. For plastics, all of the recycled content was GRS (Global Recycled Standard) certified. GRS is the most comprehensive and well-known certification for recycled content, which requires meeting both social and environmental criteria in addition to defining material traceability.

Additionally, out of the 2,250 kg of material in the Polestar 4 (average over three variants), 6 kg is renewable material.

To systematically assess and improve our material choices for all our upcoming car models, we intend to develop a material circularity scoring method to evaluate the circularity of materials used in our products, guiding us towards more sustainable choices. To complement this, we also strive to develop a reduced material palette for our design and engineering teams to reduce material complexity and increase recyclability, as well as to ensure that all materials used meet our sustainability criteria.

A unique aspect of our strategy is to start designing products with closed-loop recyclability in mind. We intend to formulate comprehensive guidelines to aid our designers in creating products that are not only efficient and functional but also provide the building blocks for making brand-new cars from the same materials without loss of quality.

Recognising the importance of chemical safety, we will undertake a detailed mapping of hazardous chemicals present in all our materials. This thorough analysis ensures that we are aware of and can manage any potential risks associated with these chemicals. Building on this, we intend to establish a system for the traceability of all hazardous chemicals in our materials. This will allow us to track and manage these substances throughout the life cycle of our products, ensuring safety and compliance with environmental standards, and also to set strategies for the phase-out of many of these substances.

3. Lifetime Optimisation

The strategic initiative lifetime optimisation aims to enhance the sustainability and longevity of our vehicles. Through design interventions and capturing value from data collection and analysis, we aim to increase the sustainability of our vehicles by focusing on the use phase and providing enough value to enable and encourage longer ownership cycles.

We are committed to developing guidelines focused on the repairability of our vehicles. These guidelines will ensure that our vehicles can be easily and efficiently repaired, thus extending their usable life, reducing waste and costs, and maintaining the product's appeal for an extended time. This not only supports a circular economy but also aligns with our goal of providing sustainable and customer-friendly vehicle solutions throughout the customer journey.

We intend to develop strategies for extending the lifetime of our vehicles beyond standard industry practices. This will be an exploration of innovative approaches and techniques to enhance the functionality of our vehicles through the use of durable engineering solutions and ways of preventing premature obsolescence by pre-emptive measures and enabled upgrades of the car that could keep it on par with newer models.

A pivotal part of our initiative is the development of a corporate car data strategy. This strategy will enable the tracing and analysis of data flows from the use and maintenance phases of all Polestar vehicles. By leveraging this data, we will be able to gain valuable insights into vehicle performance and user behaviour. This, in turn, will allow us to innovate solutions that can nudge user behaviour towards more sustainable practices, create circular business models, and foster a deeper understanding of the entire life cycle of our vehicles.

The objective is to use data-driven insights to optimise the performance, sustainability, total cost of ownership, and user experience of our vehicles.

4. Utilisation Improvement

Under this initiative, we intend to focus on transforming Polestar vehicles into multifunctional, sustainable assets. We will map various innovative uses, from vehicle-to-grid (V2G) integration for energy contribution to leveraging spare computing power for distributed computing projects. The initiative has the task of exploring the potential of integration of our vehicles into Mobility-as-a-Service (MaaS) platforms to optimise fleet usage and reduce urban congestion and their use as mobile offices or secure storage solutions in space-constrained urban environments. These measures, accompanied by specific utilisation indicators, aim to maximise vehicle efficiency and functionality, providing more value to society without increasing material consumption.

Environmental information [E]
Resource use and circular economy

Sustainable materials strategy

The use of materials is at the root of our biggest social and environmental impacts. The extraction, processing, use, and waste treatment of materials are associated with risks and potential negative impacts such as resource depletion; pollution of air, soil, and water; climate impact; loss of biodiversity; and human rights violations. Pollution from metallurgical processes and mining activities also affects the health of people working in the supply chain and their local environments. The most sustainable solution is to use the materials we already have. By closing material loops, fewer virgin materials and minerals need to be extracted and produced, reducing our environmental impact.

Together with our sustainability strategy, sourcing strategy, procurement process, and product development process, our sustainable materials strategy provides the framework for many of our circularity efforts. It is continually developed as new insights and more data become available. In addition to life cycle assessments (LCA), we use global standards and recognised methodologies, various best practice benchmarks, and restricted substance criteria to maintain and set even stricter new standards for sustainable materials in cars. The strategy outlines particular materials that we aim to phase out over the coming years due to disproportionate negative environmental impacts, lack of feasible end-of-life treatment options, or planned regulatory changes. During the year, we have also implemented a no-go list, identifying a set of materials that our designers and engineers should avoid early on in our car programmes to enable efficient phase-out.

Read more →
Materials Traceability

Maximising value at end-of life

In total, at least 85% by mass of the materials used in each Polestar model is recyclable, as required by the EU Directive on End-of-Life Vehicles. Polestar fully supports the EU's intention to facilitate the disassembly of vehicles to recycle and reuse parts. However, whereas the EU currently allows for downcycling of materials at their end of life, our ambition is that our cars should allow at least 85% closed-loop recycling, which is material recycling without loss of quality. A major challenge for the industry is maintaining material quality after recycling, which often leads to downcycling, as well as identifying feasible recycling pathways for low-value materials such as plastics and textiles. We aim to build a better understanding of these challenges to influence change.

One challenging area is electronics, which also have a major raw material footprint with impacts on biodiversity and social risks associated with mining. We are working on improving the integration of electronics in our cars to improve the recycling rate, which will reduce our raw material footprint.

Aluminium is another important material in car manufacturing. Cars contain different grades of aluminium, each with specific attributes. However, recycling plants do not distinguish between these grades and recycle them as one material, producing aluminium that is no longer suitable for high-grade applications. Only a small share of that material finds its way back to the automotive industry, as most of it is downcycled into lower-grade metals.

The Polestar electric roadster concept, which was unveiled in 2022, presented a potential solution for distinguishing between different aluminium grades. All of the aluminium in the concept was labelled and colour-coded to provide recyclers with a visual method of differentiating between different grades, which would enable them to recycle the materials in separate streams. This would lead to a closed material loop in which aluminium is recycled back to its original quality. This concept car has now become the Polestar 6 LA concept edition.

Re-use and recycling of batteries

The battery of an electric vehicle that has reached its end of life holds significant value. For instance, disused batteries from EVs electric vehicles can potentially be used for grid balancing, backup power for telecommunications, or low-voltage mobility.

Battery minerals are a scarce resource, and there is not much recycled material available. To manage this, we cooperate with partners in industry and academia to develop concepts for better disassembly of batteries at end of life to ensure that reuse and refurbishment is promoted. This includes developing an in-house battery score to collect information on for example how a battery can be remanufactured and how much efficiency and charging capacity is lost in the process. We are also mapping the ecosystem surrounding our parts and batteries. The insights provided enable us to identify bottlenecks and to decide on actions for future improvement.

We have teamed up with Volvo Cars to maintain and manage batteries' end of life. Volvo Cars' service centre networks will route used batteries to three regional battery centres for sorting and deployment for repair, remanufacturing, or recycling. Currently, very few batteries have entered this system as they are still in active use in cars that are almost new.

In August 2023, the new Batteries Regulation came into effect in the EU, which aims to ensure that in the future, batteries will have a low carbon footprint, use minimal harmful substances, need less raw material from non-EU countries, and be collected, reused, and recycled to a high degree in Europe. For example, it mandates a clear carbon footprint declaration alongside restrictions on hazardous substances. Additionally, economic operators are required to implement due diligence policies aligned with international standards to manage social and environmental risks in the sourcing and trading of raw materials. Notably, batteries will now need a digital passport and specific labelling, including QR codes, to provide detailed information about capacity, performance, and composition, with a "CE" mark showing EU standards compliance. Finally, the regulation enhances recycling efforts, including a software reset function for the battery management system in EV batteries to facilitate reuse and repurposing.

The regulation has set multiple deadlines to meet the different requirements and is developing secondary legislation to support companies in achieving compliance. Polestar has proactively created an internal task force to ensure we are aligned with the regulation's intents and upcoming requirements and is prepared to not only become compliant but also exceed the requirements where possible.

Environmental information [E]
Resource use and circular economy

Resource outflows

We aim to send zero waste to landfill by 2030. In 2023, the waste generated from our plant in Chengdu, China, amounted to 12.87 tonnes, of which 10.37 was hazardous. Of the total waste generated, 100% was sent to incineration for energy recovery. No waste was sent to landfill. Polestar's Chengdu plant was sold on 31 July, 2023, effectively ending the generation and recording of waste data in the middle of the year.

Waste generated, Chengdu plant

	2023			2022			2021			2020		
Tonnes	Total	Waste recycled	Disposal	Total	Waste recycled	Disposal	Total	Waste recycled	Disposal	Total	Waste recycled	Disposal
Domestic waste *	1,32	0	1.32	5.28	0	5.28	14.4	0	14.4	0	0	0
Contaminant	1.175	0	1.175	0.43	0	0.43	7.84	0	7.84	6.31	0	6.31
Filter box	0.7225	0	0.7225	1.49	0	1.49	4.88	0	4.88	0	0	0
Containers/drums	1.63	0	1.63	0.83	0.83	0	2.92	2.92	0	1.63	1.63	0
Solvent	7.667	0	7.667	7.67	0	7.67	40.69	0	40.69	26.23	0	26.23
Paint	0	0	0	0.02	0	0.02	1,5	0	1,5	0.72	0	0.72
Slag	0	0	0	0.05	0	0.05	0,11	0	0,11	0,04	0	0.04
Cardboard	0	0	0	1.45	1.45	0	82.95	82.95	0	55.11	55.11	0
Plastic	0	0	0	0.19	0.19	0	6.71	6.71	0	5.22	5.22	0
Foam	0	0	0	0.02	0.02	0	0	0	0	0	0	0
Metal **	0	0	0	1.51	1.51	0	10.419	10.419	0	6.73	6.73	0
Wood	0	0	0	0	0	0	174.49	174.49	0	129.78	129.78	0
Oil	0.355	0	0.355	0	0	0	0.72	0	0.72	0,03	0	0.03
Glue	0	0	0	0	0	0	7.27	0	7.27	5.94	0	5.94
Carbon	0	0	0	0	0	0	0.18	0	0,18	0.18	0	0.18
Rubber	0	0	0	0	0	0	1.69	1.69	0	0.98	0.98	0
Total	12.8695	0	12.8695	18.94	4	14.94	356.769	279.179	77.59	238.9	199.45	39.45

*Including office waste **Including body iron, other iron, aluminum and copper

Environmental information [E]
Resource use and circular economy

Waste diverted from disposal, Chengdu

	2023			2022			2021			2020		
Tonnes	Onsite	Offsite	Total	Onsite	Offsite	Total	Onsite	Offsite	Total	Onsite	Offsite	Total
Total, hazardous waste	0	0	0	0	0.83	0.83	0	2.92	2.92	1.63	0	1,63
Preparation for reuse	0	0	0	0	0.83	0.83	0	0	0	1.63	0	1,63
Recycling	0	0	0	0	0	0	0	0	0	0	0	0
Other recovery operations	0	0	0	0	0	0	0	0	0	0	0	0
Total, non-hazardous waste	0	0	0	0	3.17	3.17	0	274.57	274.57	0	197.82	197,82
Preparation for reuse	0	0	0	0	0	0	0	0	0	0	0	0
Recycling	0	0	0	0	0	0	0	0	0	0	0	0
Other recovery operations	0	0	0	0	3.17	3.17	0	2.92	2.92	0	0	0
Total waste prevented	0	0	0	0	4	4	0	277.49	277.49	1.63	197.82	199,45

Waste directed to disposal, Chengdu plant

	2023	2022	2021	2020
Total Hazardous	11.55	9.65	63.19	39.45
Incineration with energy recovery	11.55	9.65	63.19	39.45
Incineration without energy recovery	0	0	0	0
Total non-hazardous	1.32	5.28	14.4	0
Incineration with energy recovery	1.32	5.28	14.4	0
Incineration without energy recovery	0	0	0	0

Water use in Chengdu plant

	2023	2022	2021	2020
Water withdrawal m^3	1,584	15,085	27,814	31,580
Water discharge m^3	14,265	13,576	25,033	28,422
Water consumption m^3	158	1,509	2,781	3,158

Social information [S]
Introduction

In a world of increased division, geopolitical tension, and increased global inequality, businesses must safeguard work to ensure that human rights are respected throughout the value chain. Businesses not only have a moral obligation to respect and uphold human rights but benefit from it. This includes ensuring fair labour practices prohibiting force and child labour, preventing discrimination and promoting equity, safeguarding workers' health and safety, and respecting the rights of communities affected by their operations. Upholding human rights aligns with ethical principles and contributes to building trust and legitimacy with stakeholders. Adopting responsible sourcing practices, conducting due diligence on suppliers, and engaging with stakeholders can help businesses identify and address human rights risks in their supply chains with the aim of driving a positive impact.

For Polestar, all these aspects are particularly important because human rights are integral to our brand and company strategy. Inclusion is central to us, and acting as a responsible citizen and with respect for all stakeholders along our value chain is key.

Social information [S]
Own workforce

Policies related to own workforce

At Polestar, we aim to be an attractive employer, not only for those new to the company but for everyone who works there. We have zero tolerance for discriminatory behaviour, such as bullying and harassment, and all employees must follow our Code of Conduct. Working conditions and terms of employment should, as far as possible, allow equal opportunity for all and facilitate a sound balance between work and private life. We strive to give every employee the same rights and equality of opportunity regardless of gender, gender expression, ethnicity, religion, age, disability, sexual orientation, nationality, political opinion, union affiliation, social background, or other characteristics protected by applicable law.

With a commitment to provide a sustainable working environment with fair terms of employment, the human resources department at Polestar drives the People agenda and is responsible for Polestar's People Policy. The policy is complemented by other specific directives and guidelines addressing Polestar's role as a responsible employer.

There are a number of Policies and documents in addition to the People Policy that help embed responsible social business conduct and expectations in our own employees:

- Code of Conduct
- Discrimination, Harassment, and Bullying Directive
- Diversity and Inclusion Directive
- Responsible Employer Directive
- Speak Up Policy
- Work Environment Directive

Inclusive Workplace

Polestar seeks to champion diversity and insists on equality to make sure to have a positive social impact. We hope to build a workforce that reflects the diversity of the world we live in, and we strive to bring in different personal experiences, perspectives, and backgrounds. It is in our differences that we will thrive. We have set out key priorities such as inclusive recruitment, inclusive retention, and inclusive leadership to ensure that we find the right competencies and ensure continued employee engagement, a prerequisite for our continued success. Our aim is for all Polestar employees to feel comfortable and connected and that their contribution to the workplace is appreciated.

Polestar aims to become the world's most diverse and inclusive EV company. Starting in 2022, we are building the foundation for inclusion to take root within Polestar, including setting up measurable and transparent KPIs. As the automotive industry is very male-dominant, one priority is closing the gender gap when setting diversity goals:

- Unbiased recruitment process and ambition of new hires 50/50 males and females as well as increasing hires with other sexual orientations
- Thereafter, we aim to gain an effect of 40% females in the overall workforce globally and in leader representation.
- We regularly conduct wage gap analyses and continuously improve efforts to reach these targets.

In addition to gender goals, we measure that everyone experiences comfort, connection and contribution. We have a new employee survey, Peakon, with a goal for an Inclusion Index of 9.0.

Polestar aims to be a responsible employer, creating job opportunities with fair terms of employment and within an environment where people can thrive, feel safe, and have work-life balance. Correct terms of employment entail, for example, having no forced labour, no child labour, fair wages, benefits and social protection, and a safe work environment. There must be no discrimination in the workplace.

Polestar encourages freedom of association and collective bargaining. Employees have the right to form or join associations of their own choosing concerning the relationship between the employer and the employees and to bargain collectively. Disciplinary or discriminatory actions against employees who choose to peacefully and lawfully organise or join an association are not tolerated. Employees are forbidden to use intimidation of any kind to obstruct other employees' right to freedom of association or right to be unorganised.

In 2023, Polestar had 2,517 employees, of which 54% (2022: 48) were covered by collective bargaining agreements. Current countries with collective bargaining agreements are Austria, Belgium, Finland, Italy, Netherlands, and Sweden.

Within the initiative Inclusive Workplace, risk analyses are conducted to cease and prevent negative impacts on diversity and equality and to track and measure performance. Risk analyses, materiality assessments, and stakeholder dialogues are conducted regularly.

Read more →
Stakeholders & Materiality

Social information [S]
Own workforce

Processes for engaging with own workforce and workers' representatives about impacts

Our work on diversity and inclusion is driven by the active involvement of management in all parts of Polestar, and all managers have participated in training on inclusion. We foster a leadership style where leaders make our people feel that they are contributing, that their input and ideas are valuable, that their work is important, and that their efforts are recognised.

Throughout the year, we work with training and continual performance management, employee surveys, work environment assessment and actions.

Learning Management System

A new learning platform is established to better support the organisation with competence development and knowledge sharing on impacts and other relevant topics.

Continual performance management

The Polestar Performance Management process describes the way in which targets and results are followed up for each employee. The 360 feedback process describes the continual communication and evaluation between managers and employees, as well as employee-to-employee. The performance management is employee-driven and consists of three main components: setting clear priorities, continual dialogue and feedback, and regular performance evaluations. We use 360 feedback to increase data validity for performance reviews and internal promotion. This provides us with perspectives and insights in addition to the assessment by the respective manager, which is crucial for us to ensure that we have fair and unbiased promotion and evaluation processes.

Employee surveys

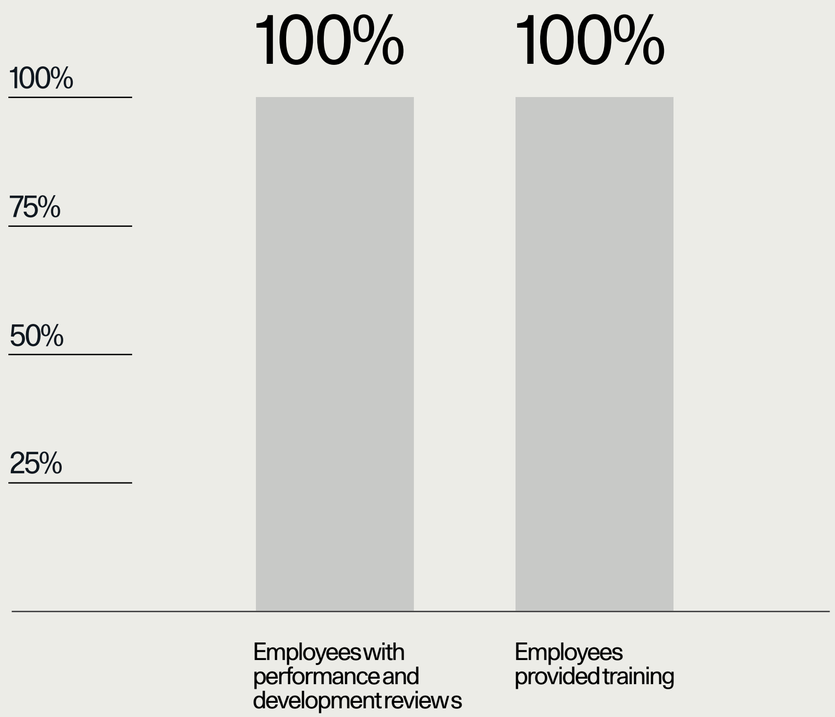
Polestar Pulse-checks powered by Peakon are a data-driven approach for employees to share feedback about working at Polestar, for teams to learn, for leaders to listen, and for everyone to take action to unlock the power of engagement. Peakon is an employee engagement tool that supports sending employee surveys and can turn feedback into valuable, actionable insights. It registers honest opinions in an unbiased and non-hostile manner. With help from Peakon, the goal is to gain meaningful and actionable data that we can use to improve our teams' engagement. Peakon can also give us Global industry benchmarks based on a database of over 200 million employee responses across 23 industries.

Health and Safety engagement

The Work Environment Committee or Safety Review Board (SRB) in the line organisation of each unit approves objectives and action plans for the work environment. Risks are investigated and assessed regularly, and in the event of changes, necessary steps are taken. Polestar offers all employees the introduction and training they need to work safely. Managers are provided with the skills, resources, and powers to work for a good and safe working environment. Employees must follow instructions and procedures and report any risks identified.

*Includes female, male and gender-neutral/gender non-disclosed employees.

Regular performance and career development reviews (2517 employees*)



Social information [S]
Own workforce

Processes to remediate negative impacts and channels for own workforce to raise concerns

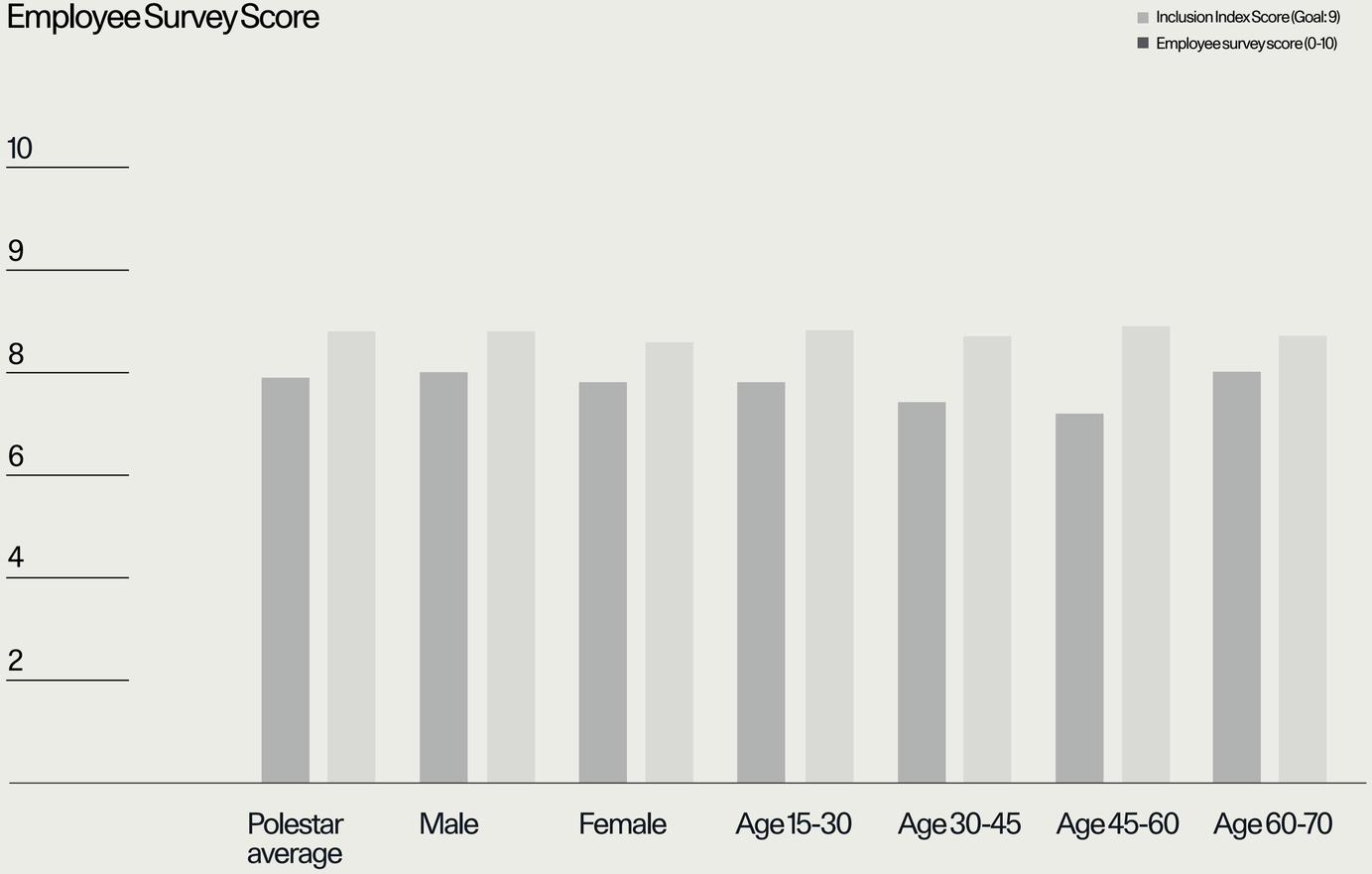
Having a speak-up culture at Polestar means everybody should feel comfortable asking questions or reporting misconduct when they see it – regardless of who they are or who they are reporting about. Our Code of Conduct and Corporate Policies apply to all of us equally. If anyone notices or suspects any violation of any of these documents, Polestar advocates for concerns to be raised as early as possible. The first channel to raise concerns is the manager. However, if an employee cannot speak to their manager, the employee can turn to their HR representative or to the Legal team. If anyone wishes to report suspected misconduct anonymously, using the whistleblowing system Speak Up is also possible.

Read more →
Our whistleblowing system Speak Up

Polestar uses the employee survey Peakon to measure employee satisfaction and to help us work with continuous improvements. In the employee survey conducted biweekly throughout most of the year, it is possible to add comments and additional feedback. Results from the employee pulse checks are reviewed to identify areas for improvement.

The new employee survey implemented during 2023 has revealed an average score of 7.9 with a scale from 1 to 10. The employee survey includes questions and feedback on engagement, accomplishment, freedom of opinion, management support, workload, recognition, peer relationships, work environment, and more. In addition to that, we ask questions about inclusion where we have achieved an inclusion index of 8.8, which is almost reaching our goal of 9. 0. The Inclusion Index includes questions related to diversity and inclusion, inclusiveness, and non-discrimination.

Employee Survey Score



Social information [S]
Own workforce

Characteristics of Polestar's employees and non-employees
There are no significant seasonal variations in the number of employees during the year. We have zero non-guaranteed hours employees.

Total all employees	2023	2022	2021	2020
Total employees (HC)	2,517	2,377	1,283	679
Permanent employees	2,208	1,972	1,274	657
Temporary employees	309	405	9	22
New hires	606	1,213	722	-
Rate of recruitment %	25	51	56	-
Employee turnover %	19	13	12	-
Non-employees 2023	484	981	343	-

Global breakdown of employees
North America 4%

	2023	2022	2021	2020
Total employees (HC)	101	99	54	19
Permanent employees	101	99	54	19
Temporary employees	0	0	0	0
New hires	22	52	42	-
Rate of recruitment %	22	53	78	-
Employee turnover %	22	16	11	-
Non-employees 2023	7	-	-	-
Full time employees	101	-	-	-
Part time employees	0	-	-	-

Markets:
Canada
United States

Global breakdown of employees
EMEA 82%

	2023	2022	2021	2020
Total employees (HC)	2,066	1,841	945	456
Permanent employees	2,017	178	936	432
Temporary employees	49	61	9	22
New hires	500	954	551	-
Rate of recruitment %	26	52	58	-
Employee turnover %	14	10	5	-
Non-employees 2023	470	-	-	-
Full time employees	2,024	-	-	-
Part time employees	42	-	-	-

Markets
Austria
Belgium
Denmark
Finland
Germany
Iceland
Ireland
Italy
Luxembourg
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom

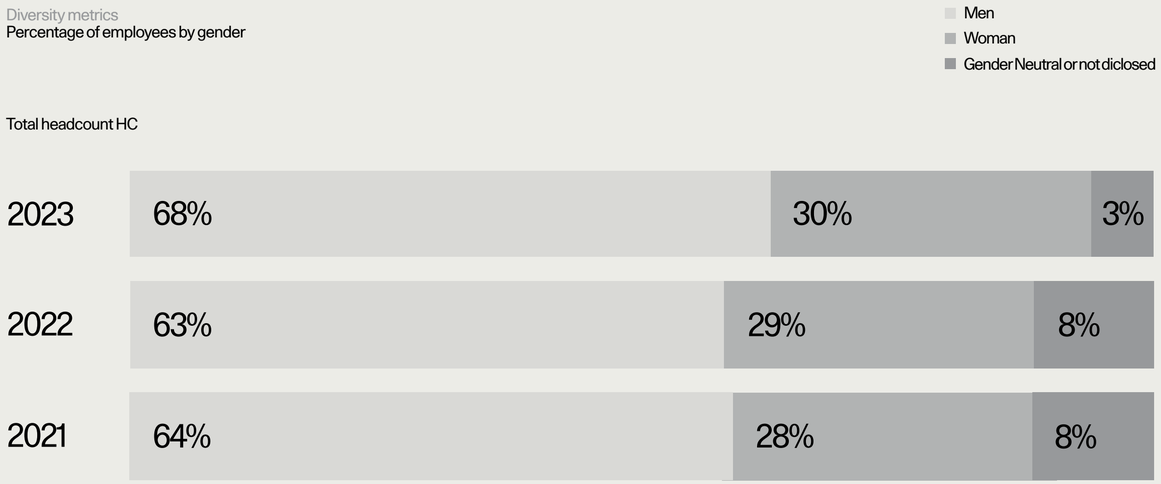
Global breakdown of employees
Asia Pacific 14%

	2023	2022	2021	2020
Total employees (HC)	350	437	284	204
Permanent employees	90	93	284	204
Temporary employees	260	344	0	0
New hires	84	207	129	-
Rate of recruitment %	21	47	45	-
Employee turnover %	41	22	32	-
Non-employees 2023	7	-	-	-
Full time employees	333	-	-	-
Part time employees	17	-	-	-

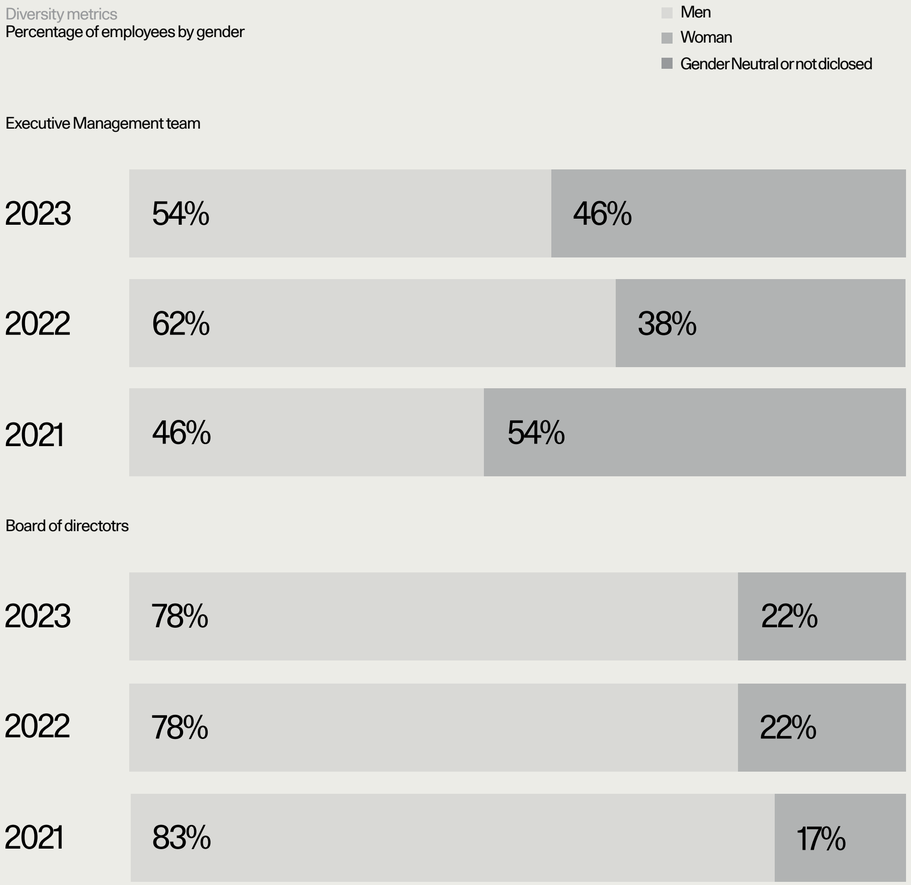
Markets
Australia
China
Hong Kong
Israel
Kuwait
New Zealand
Singapore
South Korea
United Arab Emirates

Social information [S]
Own workforce

Diversity metrics
Percentage of employees by gender



Diversity metrics
Percentage of employees by gender



Social information [S]
Own workforce

Diversity metrics
Employees by gender

		Men	Women	Gender neutral or not disclosed
2023	Total number (HC)	1422	624	20
	Executive Management Team %	54%	46%	0%
	Board of Directors %	78%	22%	0
	Permanent %	98%	98%	95%
	Temporary %	2%	2%	5%
	Full-time employees %	98%	97%	95%
	Part-time employees %	1%	4%	5%
	New hires	401	173	32
	Rate of recruitment %	25%	24%	41%
	Employee turnover %	16%	18%	90%
2022	Total number (HC)	1510	687	180
	Executive Management Team %	63	38	0
	Board of Directors %	78	22	0
	Permanent %	85	85	58
	Temporary %	15	15	42
	Full-time employees %	99	99	96
	Part-time employees %	1	1	4
	New hires	717	329	167
	Rate of recruitment %	47	48	93
	Employee turnover %	12	14	28

		Men	Women	Gender neutral or not disclosed
2021	Total number (HC)	830	359	113
	Executive Management Team %	75	25	0
	Board of Directors %	83	17	0
	Permanent %	99,5	99	100
	Temporary %	0,5	1	0
	Full-time employees %	99,8	99	99
	Part-time employees %	0,2	1	1
	New hires	415	193	114
	Rate of recruitment %	50	54	101
	Employee turnover %	14	8	13
2020	Total number (HC)	468	155	56
	Executive Management Team %	98	96	88
	Board of Directors %	2	4	13
	Permanent %	99	99	96
	Temporary %	1	1	4

Social information [S]
Own workforce

Diversity metrics
Percentage of new hires by age

2023		Employees	Percentage %
New hires			
	<30 years old	185	37
	30-50 years old	358	22
	>50 years old	63	19
Employee Turnover			
	<30 years old	130	26
	30-50 years old	285	18
	>50 years old	43	13

Diversity metrics
Percentage of employees by age

%		2023	2022	2021	2020
Employees		100	100	100	100
	<30 years old	20	24	28	24
	30-50 years old	66	64	60	56
	>50 years old	14	12	12	11
	Age not disclosed	0	0	0	9
Executive Management Team		100	100	100	100
	<30 years old	0	0	0	0
	30-50 years old	54	50	70	56
	>50 years old	46	50	30	44
Board of Directors		100	100	100	100
	<30 years old	0	0	0	0
	30-50 years old	0	0	0	70
	>50 years old	100	100	100	30

Social information [S]
Own workforce

Adequate wages

An essential aspect of diversity is fair and equal pay for all employees. This is why we have clear remuneration principles and a structured salary process. Polestar is committed to providing employees with working conditions that comply with statutory requirements. Employees shall get written information, in a language they can easily understand, specifying their terms of employment, including salaries and benefits, before the start of employment. Polestar does not engage in or support the use of forced labour, including debt bondage, trafficking, or other forms of modern slavery. Employees shall never be required to deposit identity papers at the start of employment and are free to leave the employment after a notice period, as required by law and contract.

Salaries and benefits shall always be commensurate with legal or industry standards and always be equal to or above the defined living wage. Employees must be covered by pension or employee savings trust plan and insurance benefits, either by Polestar or any other actor. Information on salaries and benefits shall be available to individual employees in accordance with applicable law. All employees should also be provided with details of their salaries for the given pay period each time they are paid. No salary deductions are permitted without the expressed permission of the employee concerned, if not provided for by national law or collective labour agreements, or in accordance with the Employee's terms of employment.

Compensation & Benefits Philosophy

Polestar aims to offer compensation and benefits that ensure we attract, motivate, and retain the employees needed to successfully execute the company's strategies. We want to build a sustainable and winning culture where we recognise good performance and behaviour that supports our ambitious long-term plans.

Our philosophy is to offer the same benefits to all employees insofar as is possible. We do not make any difference between part-time employees and full-time employees. The standard benefit package in a country is based on local legislation, collective agreements, and local market situation. We aim to offer a competitive benefits package, focusing on health-, retirement- and car benefits. In our major employing countries, we offer a share-matching plan, and both part-time and full-time employees can participate.

Compensation, rewards, and recognition in Polestar must be based on transparent and non-discriminatory grounds. Discriminatory differentials based on race, religion, gender, national origin, age, sexual orientation, disability, or any other unjust cause should never occur.

Read more →
Gender Pay Gap reporting

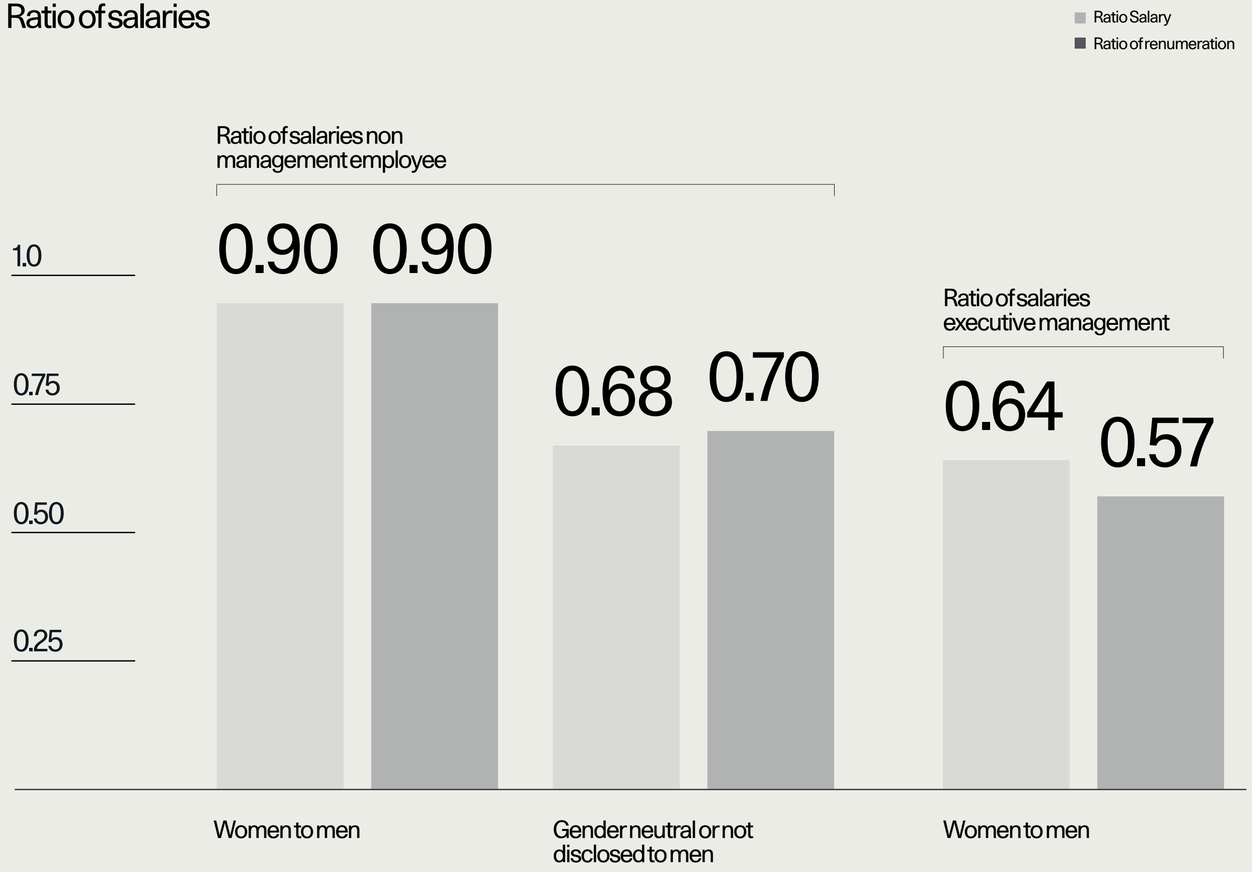
Remuneration shall also ensure that Polestar maximises its opportunity to reach set performance goals in a short- as well as long-term perspective and, at the same time, be affordable in relation to Polestar's financial status.

Polestar wants to offer flexible compensation and benefits solutions to meet the needs of our diverse workforce. Depending on the age and life situation, there will be different needs, and we want to try to meet these needs as much as possible by our flexible compensation and benefits offering.

Working hours

National legislation and collective bargaining on working hours must be complied with, and Polestar undertakes to respect employees' right to leisure time and their availability outside working hours so as to enhance work-life balance.

Ratio of salaries



Social information [S]
Own workforce

Work-life balance metrics

Working conditions and terms of employment should, as far as possible, allow equal opportunity for all and facilitate a sound balance between work and private life. Polestar believes in freedom with responsibility and gives flexibility to work around private matters if it does not affect the job. All employees are entitled to either 25 or 30 days of vacation each year (paid, unpaid, or loan/ advance days).

There are several types of absence depending on the nature of the leave, such as vacation, sick leave, sick child leave, parental leave, short paid leave, leave with pregnancy allowance, second parental leave, time bank time off, and unpaid leave. Parental benefit is money an employee receives to be able to stay with their child instead of working. To guarantee it is approved, employees need to announce all types of parental leave at least two months in advance by submitting a request. Polestar will pay a supplementary payment called Parental Pay if eligibility requirements are met, according to the collective agreement.

Social protection

All Polestar employees are covered by local regulations regarding social protection. In Sweden, it is Swedish national collective pension and insurance plan called ITP, and an additional, local and collectively agreed occupational pension. Several markets are also covered by collective agreement. On a global level all employees are provided business travel insurance.

Parental Leave Statistics

Org.unit	KPI	Female employees	Male employees	Gender neutral or gender not disclosed
Americas	Total number of employees who were entitled to parental leave	33	66	2
	Total number of employees who took parental leave	0	3	0
	Total number of employees who returned to work in the reporting period after parental leave	N/A	3	N/A
	Total number of employees who returned to work after parental leave who were still employed 12 months after their return to work	N/A	0	N/A
	Total number of employees who returned to work in the prior reporting period after parental leave	N/A	0	N/A
	Return to work rate (%)	N/A	100	N/A
	Retention rate (%)	N/A	0	N/A
APAC	Total number of employees who were entitled to parental leave	86	216	48
	Total number of employees who took parental leave	1	0	0
	Total number of employees who returned to work in the reporting period after parental leave	0	N/A	N/A
	Total number of employees who returned to work after parental leave who were still employed 12 months after their return to work	0	N/A	N/A
	Total number of employees who returned to work in the prior reporting period after parental leave	4	N/A	N/A
	Return to work rate (%)	0	N/A	N/A
	Retention rate (%)	0	N/A	N/A
EMEA	Total number of employees who were entitled to parental leave	624	1,422	20
	Total number of employees who took parental leave	69	96	1
	Total number of employees who returned to work in the reporting period after parental leave	28	68	1
	Total number of employees who returned to work after parental leave who were still employed 12 months after their return to work	25	59	0
	Total number of employees who returned to work in the prior reporting period after parental leave	11	34	0
	Return to work rate (%)	41	71	100
	Retention rate (%)	36	61	0

Social information [S]
Own workforce

Training and skills development metrics

At Polestar, we want to invest in our employees and provide them with the opportunities to further boost their competence by developing specific skills. We believe in harnessing the power of our internal talent, fostering growth, and creating a culture of continuous learning.

Polestar employees have a collective responsibility to be well-versed in our products, understand the roots of our company, and align themselves with its future trajectory. A new learning management platform was established in 2023 that is being populated and supports the company on this learning journey. With a yet rather limited number of courses, we still cover everything from product knowledge to sustainability, brand, security, inclusion, and R&D knowledge sharing.

The platform offers reporting tools that enable managers and employees to gain visibility into competence development. Every employee is encouraged to take ownership of their individual development, while managers play a pivotal role in fostering the growth of their team members.

On average, Polestar employees received 1.39 hours of training during 2023. As the new Learning Management System is being populated with courses and is under the implementation phase, there is probably additional training that has not yet been recorded within the system.

Job shadowing, job swaps, mentorship and referral programmes are examples of transition assistance programmes provided to facilitate continued employability that has been piloted in several markets and are to be applied on a global level.

Average hours of training per year per employee and by gender and employee category

KPI	2023
No. of hours per employee	1.39
No. of hours per year, female employees	1.33
No. of hours per year, male employees	1.41
No. of hours per year, gender neutral or not displayed	1.47
No. of hours per employee (executive management)	1.0
No. of hours per employee (non-management position)	1.38

Social information [S]
Own workforce

Health and safety metrics

Health and safety are the highest priority in all our operations. All our operations, employees and contractors are governed by our global health and safety standards and relevant regulations.

Polestar's long-term objective is to ensure that nobody is fatally or seriously injured at work, and we strive proactively to achieve a safe and secure workplace. Our Work Environment Directive covers all employees as well as agency personnel who work at Polestar's premises or under the direction of Polestar. At every site, a systematic work environment programme is employed and followed up annually. Polestar has volontarily implemented an occupational health and safety (OHS) management system based on the recognised risk management and management system ISO 45001. The system has not been externally verified.

Workers covered by an occupational health and safety management system

	KPI	Total coverage	Americas	APAC	EMEA
Controlled by Polestar	Number of Emplyees and/or workers	2517	101	350	2,066
	Perscentage	100%	100%	100%	100%
Controlled by Polestar and internally audited	Number of Emplyees and/or workers	2517	101	350	2,066
	Perscentage	100%	100%	100%	100%
Controlled by Polestar and internally audited or certified by external party	Number of Emplyees and/or workers	0	-	-	-
	Perscentage	0	-	-	-
Workers excluded	Number of Emplyees and/or workers	0	0	0	0

While not externally accredited Polestar looks to operate an OHS Management system in accordance with ISO45001.

Social information [S]
Own workforce

The Work Environment Committee or Safety Review Board (SRB) in the line organisation of each unit approves objectives and action plans for the work environment. Risks are investigated and assessed regularly, and in the event of changes, necessary steps are taken. Electricity, work equipment, use of company vehicles, working at height, hot work and fire are work-related hazards that pose risks of high-consequence injury. Other work-related ill health types identified are stress and occupational conditions related to exposure to hazardous substances.

Polestar offers all employees the introduction and training they need to work safely. All employees receive a basic introduction outlining key health and safety policies and procedures at the beginning of their employment. Specific health and safety training will then be delivered based on job role, function, or department subject to the completion of a training needs analysis.

The training needs analysis looks at employees' skills, knowledge and abilities to determine the training required to improve their performance. The assessment can be conducted at three levels: organisational, occupational, and individual. The organisational level focuses on the broader performance of the organisation, while the occupational level focuses on the specific job requirements. The individual level focuses on the employee's performance and development needs.

We develop effective training content using visual aids, incorporating real-life examples and case studies, and conducting interactive training sessions and workshops. The training content has clear objectives and is structured to help employees learn about health and safety. Visual aids such as videos and graphics help employees understand how to implement a health and safety strategy. Real-life examples and case studies help our employees remember the importance of health and safety. Interactive training sessions and workshops help employees practice what they have learned. We cover a variety of different topics to ensure a high level of safety competency. Some of our major training initiatives include various levels of electric vehicle safety and a specialist driver training programme.

Managers are provided with the skills, resources and powers to create a safe working environment. Employees must follow instructions and procedures and report any risks identified. Polestar has established a centralised information hub on the company's intranet, where workers can access relevant Occupational Health and Safety (OHS) materials. Polestar disseminates critical OHS information through clear communication channels, regular meetings, and training sessions and ensures information is easily understandable, up-to-date, and readily available to all workers.

We develop open communication channels, ensuring regular updates on OHS matters including meetings and online platforms. We conduct workshops involving workers to assess workplace risks collectively and encourage discussions on potential hazards and effective control measures. We include workers in incident investigations. Their firsthand experiences provide valuable insights into the root causes and potential preventive measures. We collaboratively monitor the performance of safety measures and establish indicators, and involve workers in assessing progress toward safety goals. By integrating workers into the development, implementation, and evaluation of the OHS management system, we harness collective expertise and commitment, fostering a safer and healthier work environment.

There are quarterly meetings of the Work Environment Committee represented at Polestar HQ, which is responsible for collaboratively identifying and addressing workplace hazards, conducting regular risk assessments, reviewing safety policies, promoting employee training, investigating incidents, and facilitating ongoing communication between management and workers to ensure a safe and healthy work environment. The Work Environment Committee has the ability to decide on policies, allocate resources, and shape the direction of the entire organisation.

Applying the hierarchy of control is fundamental to our risk assessment process. We aim to address hazards early to eliminate them before they become a problem. We employ substitution techniques within our chemical management process. Robust engineering controls are employed across our manufacturing and R&D facilities. We have documented administrative procedures to ensure our employees know what precautions need to be taken. While Personnel Protective Equipment (PPE) is the last resort, where necessary, we mandate its requirement and provide it free of charge to our employees.

We strive to provide a sustainable work-life balance and prevent work-related illnesses that lead to long-term sick absenteeism. Managers are responsible for implementing rehabilitation programmes at an early stage. Employees are expected to contribute and participate in the activities. Every unit has guidelines and routines in place for work-related rehabilitation. The line organisation sets objectives and decides on action plans to follow up on each individual's rehabilitation.

Each Polestar site has an occupational health service provider offering preventive and rehabilitation care. Employees are also offered annual health benefits, and blue-collar employees are offered occupational health check support. In addition, Polestar offers all employees access to non-occupational medical and healthcare services such as:

- Offering health insurance or health coverage benefits
- Providing information on local healthcare providers and clinics
- Arranging on-site health screenings or flu vaccination programmes
- Offering flexible work schedules to accommodate medical appointments
- Providing resources or assistance for appointment scheduling and transportation

Polestar provides its employees with voluntary health promotion services to address non-work-related health risks, including fitness classes, nutrition workshops, smoking cessation programmes, and mental health support. These initiatives aim to improve overall well-being, enhance employee productivity, and create a healthier workplace culture by addressing major health concerns outside of work-related activities.

Promoting employee engagement in Employee Assistance Programs (EAPs) involves creating awareness, fostering a supportive culture, and providing resources that encourage employees to utilise the services. Polestar utilises various techniques to do this, including communication and education, ensuring confidentiality, providing leadership support, conducting promotional campaigns, and incorporating mental health into the work culture.

We use secure storage systems, limit access to authorised personnel only, ensure encryption for electronic records, and strictly adhere to privacy policies. We train staff on confidentiality protocols and regularly audit processes to uphold privacy standards.

Our electronic incident reporting system allows employees to proactively report near misses, unsafe conditions, and unsafe behaviours. We review the information within the system to identify trends and patterns and use the data to prevent accidents before they occur. We are continuously looking to improve this process and further encourage our employees to identify hazards in our workplace. Polestar clearly communicates its anti-retaliation position internally to employees and fosters a positive workplace culture by creating an open environment where employees feel comfortable voicing concerns without fearing reprisals.

Polestar operates an OHS policy known as STOP-CALL-WAIT, which encourages employees who identify hazards to cease the activity, communicate with the relevant party, and identify a suitable solution to proceed safely. This policy can be applied in several scenarios, including changes to the work scope, unscheduled events, incomplete understanding of the task, observations with a potential safety impact, identifying a hazard not previously identified, or a requirement to ask for help or assistance.

The main types of work-related injuries:

- Hand and finger injuries
- Bruises and lacerations resulting from slips trips and falls

To investigate workplace incidents, we ensure that the relevant information is gathered from various sources, including witnesses, photographs, and documents. The information collected is analysed to identify the root cause of the incident, and based on the analysis, measures are identified to prevent similar incidents from happening in the future. An action plan is developed and implemented to address the identified risks. When deciding on corrective action, the hierarchy of control will be considered to ensure that, wherever possible, the elimination of the hazard takes priority over less effective measures such as PPE.

Continuous improvement in the OHS management system is identified in a variety of ways including risk assessment, incident reporting, inspection, audit and management review. Our largest R&D development site, which is in the UK, was recognised in 2022 by the UK Royal Society for Accident Prevention (RoSPA) and the British Safety Council in their annual awards for exceptional health and safety performance.

While not externally accredited, Polestar looks to operate an OHS Management system in accordance with ISO 45001.

Incidents, complaints, and severe human rights impacts

In 2023, our high levels of employee training and robust risk assessment procedures helped ensure no notifiable or lost-time accidents. There was no reported work related ill-health or work related fatalities at Polestar. This includes Polestar employees as well as consultants and agency personnel. There have been no stoppages or days idle.

Social information [S]
Workers in the value chain

Workers in the value chain

The automotive industry relies on complex global supply chains. We acknowledge that there are vulnerable and marginalised groups along our value chain and that they are more likely to endure inequalities and discrimination. Many of the auto-motive industry's greatest sustainability risks relate to human rights in the supply chain which include child labour, forced labour, bad and hazardous working conditions. Migrant workers, including domestic migrant workers, children, and indigenous peoples, are often disproportionately exposed to these risks, and the conditions surrounding the extraction and refining of minerals are particularly precarious. In some countries with raw mineral extraction, there are high-intensity conflicts funded by mining.

Trade and investment, coupled with social sustainability, have the possibility of creating a positive impact on people and communities, but major income disparities continue to grow, and vulnerable people in global supply chains are disproportionately exposed to risk. Successful programmes need to start with good management, but lack of transparency and leverage negatively impact the effectiveness of ethical business practices and management systems promoting inclusion and human rights.

Human Rights in the Supply Chain

For responsible supplier management, we have a strategic initiative called Human Rights in Supply Chain driven by the Procurement department. Within this initiative, we assess risks and set actionplans to cease, prevent and mitigate those risks. Polestar is a light asset company and sources products, parts and components; we do not manufacture them. Instead, we select suppliers and business partners with whom we place requirements into contracts regarding expectations we have on them when it comes to for example inclusion and human rights.

We acknowledge that around the world, there are countries, areas, and regions with a higher risk of human rights abuse, such as modern slavery, child labour, unsafe working conditions, and inadequate labour conditions. Therefore, we prioritise actions in high-risk regions.

To assess risks, we continuously monitor the research development in order to update our assessments. We are also members of multi-stakeholder dialogues like Drive Sustainability, RBA and RMI, and through these initiatives, we gain insights regarding risks in our value chain. They provide assessments on specific materials and regions and release reports and training sessions. We are active members, participate in meetings and take part in their tool offerings for assessing risks.

Material impacts, risks, and opportunities and their interaction with strategy and business model

We acknowledge that the legitimacy of a business depends on its ability to create value for society. Polestar wants to contribute to a just transition to a sustainable society by generating income, and thereby welfare and growth, that can foster local development. There is a high risk of discrimination, welfare dispersions, workers' exploitation, and human rights abuses if the role of inclusion is not acknowledged in business practices and decisions.

Inclusion is a focus area at Polestar and one of four sustainability pillars alongside Climate neutrality, Circularity, and Transparency. Inspired by the UN agenda of leaving no one behind, we are determined to implement solutions to maximise our positive impact on people. We recognise that we can have an even greater impact if we inspire and collaborate with others to drive change. Fundamentally changing the ingrained inequalities in society and tackling human rights violations requires multilateral collective action. Therefore, we seek out joint efforts together with peers, business partners, governments, and non-governmental organisations.

We are members of global multi-partner initiatives (RBA, RMI, Drive Sustainability and Better Mining notably) to improve risk identification in the supply chains and jointly drive change. Polestar suppliers are invited to join forces in those global approaches and identified risk materials. We require traceability to further mitigate the negative impact in those supply chains. This allows them to challenge their own supply chains to ensure better risk coverage.

Complex supply chains distance companies from responsibility and liability for the labour practices that go into the making of their products. A car consists of some 30,000 components that rely on complex layers of suppliers and sub-manufacturers. As the transition to a low-carbon economy accelerates, demand for the minerals that support the energy transition ramps up. Responsibly sourcing minerals is key. Some materials pose human rights risks in the supply chain, and we have traced cobalt, mica, lithium, and nickel as well as conducted conflict minerals campaigns on 3TGs.

We acknowledge that a large share of raw material sourcing of minerals is located in conflict-affected and high-risk areas that may contribute, directly or indirectly, to armed conflict, gross human rights violations, and hinder economic and social development. Many supply chains are global and cut across different national jurisdictions, yet labour law tends to be national. Companies at the helm of these global supply chains do have a responsibility to ensure fair labour standards and ethical business practices throughout their entire global value chain.

There is a correlation between corruption and discrimination. Corruption harms the human rights of workers and communities affected by it. Subsequently, business efforts to reduce and mitigate the risk of biases and corruption throughout the value chain will also drive positive progress in human rights.

There is a need to gain knowledge and verified data to secure due diligence on human rights that sets in motion adequate mitigation actions within strategies, processes, and routines. We have lower leverage down the supply chain and need to find partnerships to help drive change and greater impact.

Social information [S]
Workers in the value chain

Policies related to value chain workers

Polestar is committed to respecting and complying with international human rights principles, including the Universal Declaration of Human Rights, the United Nations Convention on the Rights of the Child and the ILO's fundamental conventions. We are also committed to observing the UN Global Compact's Ten Principles and conducting due diligence in line with OECD guidelines. As a responsible business, we expect the same level of commitment from our business partners, including our suppliers.

The requirements and guiding principles for our business partners regarding working conditions, human rights, business integrity, and the environment are expressed and defined in our Code of Conduct for Business Partners, including principles on:

- Preventing forced labour or modern slavery
- Preventing child labour
- Respecting the right to freedom of association and collective bargaining
- Non-discrimination and equal opportunities
- Requirements for proper management relating to terms of employment, wages, benefits, working hours and health and safety

No forced or compulsory labour

Modern slavery is a comprehensive term that covers forced and compulsory labour, child labour, servitude, human trafficking, and similar violations. Forced labour can include unreasonable fees leading to debt bondage, restriction of movement, abusive living and working conditions, wage withholding, and retention of personal documents. According to the available data and experts in the field, forced labour occurs in all sectors and industries and is unfortunately observed in all types of economic activities and in every country.

Vulnerable groups are more likely to endure human rights abuses and forced labour. The ILO estimates that approximately 25 million people are in forced labour globally. Of them, 20.8 million people, many of them women and children, are working in the private economy.

Polestar acknowledges that because of the complexity of our supply chains, there are risks of human rights violations and modern slavery. We have a global commitment to inclusion and human rights and to acting responsibly, competing fairly, and complying with applicable laws and regulations. We are also dedicated to fostering a compliance and ethics culture that permeates all operations, and we fight to protect human rights and embed social justice principles in the transition to electric mobility.

Information on how we manage forced labour is disclosed publicly in Polestar's modern slavery statement, which is updated yearly according to legislation on our sales market.

Read more →
Modern slavery statement

No child labour

One in four victims of modern slavery are children. A total of approximately 3.3 million children are in situations of forced labour (The 2021 Global Estimates).

Businesses must join forces as employment should not be offered under any circumstances to a person younger than 15 years of age or 14 where national law allows. As part of any business's recruitment process, robust age-verification mechanisms must be in place to ensure facilities do not hire a child and that special care is taken for young workers.

Young employees must be protected against conditions of work, which are prejudicial to their health, safety, morals, and development, and should, for example, not work the night shift. Businesses must pay special attention to the access young workers shall have to effective grievance mechanisms and to OHS training schemes and programmes. Their working hours must not prejudice their attendance at school or their capacity for training or instruction programmes.

If child labour would be discovered in Polestar's value chain, measures to ensure the protection of affected children need to be put in place while removing it from the workplace. When appropriate, the possibility to provide decent work for adult household members of the affected children's family shall be pursued. Special care is needed as children can move into more hazardous employment, such as prostitution or drug trafficking.

Freedom of association and collective bargaining

Freedoms to associate and to bargain collectively are fundamental rights. Businesses shall respect the rights of their employees to lawfully form, join, or exclude themselves from employer-employee relationship-related associations and to bargain collectively, where permissible by local laws. Businesses must also ensure that employees are given the opportunity to discuss their working conditions with management without fear of retaliation, discrimination, reprisal, intimidation, or harassment. Channels of reporting grievances should be established.

Processes to remediate negative impacts and channels for value chain workers to raise concerns

In procurement processes, we select suppliers and business partners with due diligence processes that include Self-assessment questionnaires (SAQs), screening for trade sanctions, and evaluation on corruption and adverse media. During RFQ (Request for Quotation), we also introduce suppliers and business partners to our requirements and make supplier assessments in order to select business partners and suppliers that we believe can fulfil our sustainability requirements and our Code of Conduct for Business Partners.

The SAQs also help evaluate the policies and processes that suppliers already have in place. A direct material supplier needs a score of >70% to become a Polestar supplier. If a supplier scores less than this or lacks certain processes, we have the opportunity to explain our expectations of them during the procurement process.

SAQs can help when selecting business partners during the procurement process and prepare for the expectations we have of them. However, we believe more robust processes are necessary within this industry, just as in other industries. Therefore, we have introduced the requirement that all new direct suppliers located in high-risk regions, based on a sustainability risk assessment, must have a third-party onsite human rights audit. These audits cover DM suppliers with whom we have business contracts (tier 1) and direct material suppliers in tier 2.

A human rights audit, such as the preferred Responsible Business Alliance Validated Assessment Programme (RBA VAP) or similar system agreed upon and accepted by Polestar's Inclusion Lead, consists of management interviews, document review, plant walkthroughs, and worker interviews. We expect our business partners to ensure continual improvement of working conditions within their organisations. If non-conformance is found during the audit, the supplier must analyse the root causes of non-observance and agree on a remediation plan and to follow up on the progress of the remediation. The corrective action plan (CAP) shall be shared with and agreed upon by Polestar Procurement.

The primary value of an on-site compliance audit is not in the identification of issues at a facility but in the correction of those issues. However, if CAPs are not remediated, this may ultimately result in termination of the relationship.

Workers are encouraged to raise concerns to the auditing company and the scheme used for conducting onsite audits, such as RBA. Their grievance mechanism is also available online. In addition, anyone, including workers in our value chain, can directly raise concerns to Polestar through our own grievance, the Speak Up tool.

Taking action on material impacts on value chain workers

Polestar's current vehicles are manufactured by our business partners Volvo Cars, (Polestar 2 and Polestar 3), and Geely (Polestar 4). Polestar 5 will be manufactured in a Geely owned plant operated by Polestar in Chongqing, China, but has not gone into production yet. Each of these programmes has diversified and global supply chains with a total of 747 direct material suppliers at the end of 2023, sourced by Volvo Cars, Geely and Polestar.

The management of risk assessments and audits related to value chain workers are steered through our supplier agreements with Volvo Cars and Geely for the programmes they manufacture. The agreements include sustainability requirements as well as Code of Conduct that for example stipulate requirements on the core principles of human rights. Together with our business partners, we assess risks and put actions in place to prevent, cease and mitigate negative impacts in all car programmes. Our business partners will implement actions, so selecting business partners with care is crucial.

For car programmes manufactured by Polestar, we assess risk and put actions in place to prevent, cease and mitigate negative impacts together with our direct material suppliers.

At the end of 2023, a total of 586 direct material suppliers were located in high-risk regions.

Polestar use the RBA risk assessment tool to assess a country's risk. Risk factors include generic risks, such as geographical risks related to labour rights, business ethics, health and safety and the environment, as well as specific commercial risks, such as spending and supplier dependency. The risk assessment is used to prioritise our due diligence efforts and to select suppliers for sustainability audits.

Social information [S]
Workers in the value chain

Polestar 2

Volvo Cars manufactures Polestar 2, and the suppliers of car components and materials have been sourced and contracted by Volvo Cars. Polestar receives quarterly reports on the progress of Polestar-specific suppliers.

- 174 suppliers manufactured components and material for Polestar 2.
- 73% (2022: 74%) of suppliers located in high-risk regions.
- 100% of suppliers have signed agreements on human rights and code of conduct.
- 100% of all suppliers have gone through screening against trade sanctions.
- 88% (2022: 66%) have completed a SAQ verified by Drive Sustainability Initiative. The completed assessment's average score is 82%. Twenty one suppliers have not yet been scored and five suppliers have a score below 70%, meaning that improvement actions are needed.
- 30% (2022: 18%) of all suppliers in high-risk regions have third-party onsite human rights audit including RBA VAP audits to verify adherence to the Code of Conduct.

Freedom of association and collective bargaining:

- 99% with completed SAQ verified by Drive sustainability have policy of freedom of association.
- 73% of suppliers assessed to be at high-risk with regards to freedom of association and collective bargaining.
- 100% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings relating to violations to freedom of association and collective bargaining.

Child labour:

- 99% with completed SAQ verified by Drive sustainability have policy for no child labour.
- 73% of suppliers assessed to be at high-risk of child labour and/or young workers exposed to hazardous work.
- 99.3% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings of child labour and/or young workers exposed to hazardous work. Findings are followed up with business partners and suppliers according to audit routine.

Forced and compulsory labour:

- 99% with completed SAQ verified by Drive sustainability have policy of no force or compulsory labour.
- 73% of suppliers assessed to be at high-risk of forced and compulsory labour.
- 97.6% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings relating to forced and compulsory labour. Findings are followed up with business partners and suppliers according to audit routine.

Polestar 3

In 2023, Polestar 3 had not yet gone into production, but sourcing and nomination of suppliers was completed. Volvo Cars has contracted these suppliers. Polestar receive quarterly reports on the progress of Polestar specific suppliers.

- 355 suppliers manufactured components and material for Polestar 3.
- 70% (2022: 71%) of suppliers located in high-risk regions.
- 100% of suppliers have signed agreements on human rights and code of conduct.
- 100% of all suppliers have gone through screening against trade sanctions.
- 17% (2022: 13%) of all suppliers in high-risk regions have third-party onsite human right audits, including RBA VAP audits to verify adherence to the Code of Conduct.
- 85% (2022: 63%) have completed a SAQ verified by the Drive Sustainability Initiative. The completed assessments' average score is 81%. 55 suppliers have not yet been scored and 17 suppliers have a score below 70%, meaning that improvement actions are needed.

Freedom of association and collective bargaining:

- 99% with completed SAQ verified by Drive sustainability have policy of freedom of association.
- 70% of suppliers assessed to be at high-risk with regards to freedom of association and collective bargaining.
- 100% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings relating to violations to freedom of association and collective bargaining.

Child labour:

- 99% with completed SAQ verified by Drive sustainability have policy for no child labour.
- 70% of suppliers assessed to be at high-risk of child labour and/or young workers exposed to hazardous work.
- 99.6% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings of child labour and/or young workers exposed to hazardous work. Findings are followed up with business partners and suppliers according to audit routine.

Forced and compulsory labour:

- 99% with completed SAQ verified by Drive sustainability have policy of no force or compulsory labour.
- 70% of suppliers assessed to be at high-risk of forced and compulsory labour.
- 98.8% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings relating to forced and compulsory labour. Findings are followed up with business partners and suppliers according to audit routine.

Social information [S]
Workers in the value chain

Polestar 4

Polestar 4 is manufactured by Geely with the start of production in late 2023. The suppliers of car components and materials have been sourced and contracted by Geely. Polestar receive quarterly reports on the progress of Polestar specific suppliers.

- 204 suppliers manufactured components and material for Polestar 4.
- 99.5% (2022: 98.9%) of suppliers located in high-risk regions.
- 99% of suppliers have signed agreements on human rights and code of conduct. Two suppliers have still not signed.
- 100% of all suppliers have gone through screening against trade sanctions.
- 33% of all suppliers in high-risk regions have third-party onsite human right audits, including RBA VAP audits to verify adherence to the Code of Conduct.
- 99.5% (2022: 99%) of Polestar's suppliers have completed a SAQ developed by the Drive Sustainability Initiative. The completed assessments' average score is 80.8%. One supplier has not yet been scored and two suppliers have a score below 70%, meaning that improvement actions are needed.

Freedom of association and collective bargaining:

- 100% with completed SAQ verified by Drive sustainability have policy of freedom of association.
- 99.5% of suppliers assessed to be at high-risk with regards to freedom of association and collective bargaining.
- 33% of all suppliers in high-risk regions have third-party onsite human right audits, including controls for violations to freedom of association and collective bargaining.

Child labour:

- 100% with completed SAQ verified by Drive sustainability have policy for no child labour.
- 99.5% of suppliers assessed to be at high-risk of child labour and/or young workers exposed to hazardous work.
- 33% of all suppliers in high-risk regions have third-party onsite human right audits, including controls for child labour and/or young workers exposed to hazardous work.

Forced and compulsory labour:

- 100% with completed SAQ verified by Drive sustainability have policy of no force or compulsory labour.
- 99.5% of suppliers assessed to be at high-risk of forced and compulsory labour.
- 33% of all suppliers in high-risk regions have third-party onsite human right audits, including controls for forced and compulsory labour.

Polestar 5

Polestar has built in house procurement capability and developed procurement processes ahead of the production of Polestar 5, which is expected to be launched in 2025. Suppliers are sourced and nominated by Polestar.

- 212 of the suppliers are nominated to manufacture components and material for Polestar 5.
- 83% of suppliers located in high-risk regions.
- 100% of suppliers have signed agreements on human rights and code of conduct.
- 100% of all suppliers have gone through screening against trade sanctions.
- 30% of all suppliers in high-risk regions have valid third-party onsite human right audit such as RBA VAP and SA8000 audits to verify adherence to the Code of Conduct.
- 78% (2022: 48%) of Polestar's suppliers have completed a SAQ developed by the Drive Sustainability Initiative. The completed assessments' average score is 82%. Fourty six suppliers have not yet been scored and seven suppliers have a score below 70 percent, meaning that improvement actions are needed.

Freedom of association and collective bargaining:

- 99% with completed SAQ verified by Drive sustainability have policy of freedom of association.
- 83% of suppliers assessed to be at high-risk with regards to freedom of association and collective bargaining.
- 100% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings relating to violations to freedom of association and collective bargaining.

Child labour:

- 99% with completed SAQ verified by Drive sustainability have policy for no child labour.
- 83% of suppliers assessed to be at high-risk of child labour and/or young workers exposed to hazardous work.
- 100% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings of child labour and/or young workers exposed to hazardous work.

Forced and compulsory labour:

- 99% with completed SAQ verified by Drive sustainability have policy of no force or compulsory labour.
- 83% of suppliers assessed to be at high-risk of forced and compulsory labour.
- 100% of suppliers in high-risk regions with third-party onsite human right audits has no priority findings relating to forced and compulsory labour.

Other indirect purchases

In addition to direct material suppliers connected to the sourcing of components and parts to our car programmes, Polestar has suppliers delivering indirect products and services. Currently, Polestar has more than 3,133 identified indirect suppliers, all of which have gone through screening for trade sanctions. Further due diligence processes and tools are being implemented to manage indirect suppliers that are spread out globally.

Social information [S]
Workers in the value chain

Supply chain transparency

Since transparency is an increasingly important tool for supply chain sustainability, we put a lot of effort into being transparent about where our risks lie.

Some of the automotive industry's most significant sustainability risks arise in the supply chain. The automotive industry's supply chains are long and have many tiers, ranging from direct suppliers, such as component manufacturers, to raw material producers, such as mining companies located far upstream in the supply chain. The number of tiers in the supply chain, along with its complexity, complicates the assessment and management of indirect impacts and risks. This includes risks related to modern slavery. We acknowledge these risks, particularly linked to the sourcing of minerals for battery cells.

Materials traceability

Critical minerals used in the manufacturing of EVs are essential for the transition to a low-carbon economy, yet the economic wealth generated from mining often does not benefit the local communities. Around half the world's known cobalt reserves are in the Democratic Republic of Congo, and Russia is a leading country in the global production of sheet mica.

We recognise that the extraction, handling, processing, transportation and trade of metals and minerals can contribute to or result in adverse social and environmental impacts. We are committed to the responsible sourcing of materials and minerals used in the operation of our business and the manufacture of our products. This includes legally defined 'conflict minerals' such as tin, tungsten, tantalum and gold, also commonly known as 3TG, as well as other minerals such as cobalt, mica, lithium, and nickel. In politically unstable areas, the mineral trade can be used to finance armed groups, fuel forced labour and other human rights abuses, and support corruption and money laundering. Materials traceability is one of our greatest tools in the fight against this.

Read more →
Conflict minerals

The materials traceability initiative is led by Polestar's Procurement department with support from Polestar's Transparency Lead. Traceability targets are set for all new Polestar models, and our list of prioritised risk materials is constantly evolving in line with new knowledge and awareness about associated risks. We are constantly looking for a robust chain of custody methods to trace the materials on our list.

In 2023, RCS Global, RMI (Responsible Mica Initiative) audits, and IRMA audits have helped to apply due diligence to our high-risk material supply chains. Within our critical suppliers of cobalt, mica, nickel, and lithium supply chains, there have been 28 external on-site audits from tier 2 down to the mine site.

The programme has identified the origin of raw materials, human rights risks, and due diligence conformance of Polestar's supply chain. These audits allow Polestar to identify, review, and analyse sustainability risks and, jointly with our manufacturing partner, respond to critical risks where they are identified.

Better Mining

As a giving-back programme and to support and improve the artisanal and small-scale mining (ASM) sector, Polestar collaborates with Better Mining. This is an assurance and impact programme led by RCS Global Group that is trying to tackle challenges involved in embedding safer and more equitable conditions across a very complex portion of the global mining sector.

Serving artisanal and small-scale miners and their communities in The Democratic Republic of Congo (DRC) and Rwanda, Better Mining covers critical raw materials, including tin, tantalum, tungsten, copper, and cobalt. There is an ambition to expand the coverage beyond cobalt, copper, and 3TG, and the operation to new geographies with mica in Madagascar already underway.

Better Mining works on ASM sites to directly improve conditions and reports on improvement to the programme participants, the supply chain and to society. Trained monitoring agents are permanently deployed at the sites, recording data on incidents which indicate what kind of risks a specific mine is facing. The information collected is verified and analysed by a team of experts who ensure completeness and follow up with agents on any red flags or data anomalies. To mitigate identified risks, monthly Corrective Action Plans (CAPs) are reviewed with local stakeholders and the implementation is overseen by Better Mining agents and project teams. Polestar receives communication on the progress of CAP implementation every quarter.

Better Mining is accredited by the Responsible Minerals Initiative (RMI) and is recognised for its implementation of OECD-aligned due diligence procedures and management systems. Extreme poverty and lack of other economic opportunities are the main drivers for engagement in ASM. Other risk areas covered are gender, forced labour, discrimination, OHS, workers' rights, community engagement, and indigenous people. Building trust and inspiring community members is essential in ensuring long-lasting impacts that improve the ASM sector. Better Mining teams regularly engage with government officials at national and local level. By sharing knowledge and collaborating with state services such as ASM technical services and the police, Better Mining is able to carry out operations in the field and drive mining operators toward complying with international standards.

Better Mining's accreditation by the RMI underscores its commitment to OECD-aligned due diligence procedures and management systems, reinforcing its credibility in driving positive change within the ASM sector. By addressing key risk areas such as extreme poverty, gender equality, forced labour, and OHS, Better Mining endeavours to create lasting impacts that uplift mining communities. This is driving impact for ASM and local communities. Since Better Mining's inception:

- More than 11,000 incidents have been registered and translated into risk data
- More than 2,500 corrective actions have been assigned
- More than 1,800 have been implemented or are in progress

Social information [S]
Consumers and end-users

Policies related to consumers and end-users

In 2023, Polestar rolled out a significant update to the Customer Privacy Policy in non-European markets. This roll-out completes the project that started in 2022 for European markets to improve transparency, clarity, and compliance of information Polestar provides to customers. A new car-specific privacy notice was published on our website polestar.com to serve as a hub for information on data practices in the car. The first version is related to Polestar 2, with future versions planned to describe the data practices in the upcoming car models.

As our customers' privacy is essential, Polestar's Code of Conduct includes a chapter about privacy. We want to be transparent about how we handle customer data, and our customers should be able to trust that we use their data in accordance with applicable laws.

Processes for engaging with consumers and end-users about impacts

The Customer Experience (CX) department at Polestar aims to inspire a customer-centric mindset and drive impact by unifying our teams, business, and partners around our customers and what matters to them.

The CX function is divided into competence areas, with several sub-areas, each addressing and engaging with consumers and end-users of our products:

- Customer Insight & Analytics: responsible for the collection, analysis, and visualisation of customer data. They are the driving force behind the organisation's shift towards customer-driven decision-making and developing a clear understanding of our customers and their needs.
- Retail Operations and Experience: responsible for the roll-out, set-up, and optimisation of our retail spaces, giving customers the ability to experience the Polestar brand and our cars in an immersive space. They work directly with and train the Polestar Specialists in the spaces to ensure that customers are informed and educated in a relaxed but inspiring way.
- CX Operations: responsible for being a reliable and proactive point of contact for customers throughout their journey with Polestar across different channels. They work directly with customers and with third parties representing Polestar to ensure that customers can get the help and information they need through the channel that best suits them.
- The training team: responsible for the development and implementation of training programmes for customer-facing staff globally. They work with retail spaces, customer care, and global car service & repair to ensure that customers receive an outstanding and distinctly Polestar experience across their journey.

The programmes help us to reach our vision of enhancing the experience through customer empathy and eliminating friction in the total experience of Polestar.

Voice of the Customer programme

The Voice of the Customer programme consists of tools and processes used to gather, interpret and communicate customer feedback throughout the organisation. By systematically gathering, analysing, and acting on feedback from customers, we aim to improve our products, services, and overall customer experience. Ultimately, the objective is to better understand and respond to the needs and expectations of our customers to drive business success.

Building and championing a deliberate and disciplined customer experience obliges us to listen and learn from our customers as well as understand and act on their needs. Customer centricity is not just an additional benefit, it is a necessity for our future existence.

By collecting feedback, we learn what our customers are expecting and how well we deliver on stated promises. The Voice of the Customer programme helps us to gather, interpret and express our customers' behaviour, including measures or weakest points, onto one platform.

Curated insights will empower teams to make data-driven decisions and provide guidance in everyday priorities.

Processes to remediate negative impacts and channels for consumers and end-users to raise concerns

All customers may raise concerns through various channels to Polestar, either directly at spaces and locations or through Polestar support channels such as for example phone, e-mail and chat but also web, social media and our apps. We have a dedicated customer care team that handles concerns in all markets.

Inclusive customer experience

Our inclusive customer experience initiative is meant to ensure that all customers, regardless of their background or identity, have a positive and equitable experience when interacting with Polestar.

The goal of the initiative is to create a culture of inclusiveness within the organisation and to eliminate barriers that may prevent certain groups of customers from fully engaging with the company's products or services. The initiative might include developing employee training programmes, creating opportunities for customers from underrepresented groups to interact with us, or gathering customer feedback to identify and address areas where we can improve.

To ensure that all customers feel valued, and respected, and to meet their needs, all team members need to be aware and trained in inclusiveness. We continuously improve the customer experience based on customer feedback and data analysis and monitor the experience across the shopping and ownership journey through several different metrics, such as net promoter score and customer satisfaction.

- NPS score 57 (yearly target 56)
- CSAT Score 74 (yearly target 85)

Web accessibility

Polestar strives to ensure digital accessibility for all. Our digital department expends considerable effort and uses the Web Content Accessibility Guidelines (WCAG) 2.1 Level AA as a guide to ensure that people with disabilities are able to use and enjoy our website. We run continual development tests and perform manual audits several times a year to ensure the website is accessible. We identify and document any accessibility issues that we find on our website and prioritise them according to the overall impact they have on the website visitors and the level of effort required to address them.

Social information [S]
Consumers and end-users

Product safety

Product safety is a fundamental aspect of Polestar design. We set our internal targets based on our customer base and industry test schemes – a step beyond our legal obligations.

Led by the Safety team at Polestar's R&D department, we run an extensive crash testing programme during our product development phases. This work is supported by simulation activities with models that are regularly verified to match real-world performance. During a typical product development programme, we design and test our vehicles to meet several hundred safety requirements, supported by thousands of computer simulations.

Polestar's safety focus extends beyond the occupants of our vehicles to consider those sharing the road, especially those who are more vulnerable, such as pedestrians. Our Advanced Driver Assistance System (ADAS) is key in enabling mitigation or even avoidance of a collision.

All Polestar 2 models to date have been awarded 5 Stars by the New Car Assessment Programmes in the major markets of the US, Europe and Australia (USNCAP/Euro NCAP/ANCAP). According to Euro NCAP, a 5-star safety rating corresponds with an 'overall excellent performance in crash protection and well equipped with comprehensive and robust crash avoidance technology'.

In 2023, 100% of safety-related defect complaints have been investigated by Polestar, and in total, 435 vehicles were recalled. Remediation work continued to rectify vehicles affected by voluntary recalls issued in 2023. The voluntary service recalls addressed the risk of a ball joint issue and the second step to rectify the recall we released in 2022 regarding possible overheating of the battery cells. These recalls were carefully coordinated, communicated, and implemented to adjust the situation and provide a safe and compliant product to customers.

Workers covered by an occupational health and safety management system

Measure	Reported value	Unit	Comment
Percentage of vehicle models rated by NCAP programs with an overall 5-star safety rating, by region	100	%	All Polestar 2 models to date have been awarded 5 Stars by the New Car Assessment Programmes in the major markets of the US, Europe and Australia (USNCAP/ Euro NCAP/ANCAP)
Total number of safety-related defect complaints	3	Complaints	Two battery module replacements, and one ball joint inspection
Number of safety-related defect complaints, percentage investigated	100	%	
Total number of vehicles recalled	435	Recalls	
Total number of voluntary recalls	435	Recalls	
Total number of involuntary recalls	0	Recalls	
Share of voluntary recalls [%]	100	%	
Share of involuntary recalls [%]	0	%	
Assessment of the health and safety impacts of product and service categories. Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	100	%	
Total number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services within the reporting period, by:	3	Incidents	Two battery module replacements, and one ball joint inspection.
i. incidents of non-compliance with regulations resulting in a fine or penalty	0	Incidents	
ii. incidents of non-compliance with regulations resulting in a warning	0	Incidents	
iii. incidents of non-compliance with voluntary codes	3	Incidents	

Social information [S]
Consumers and end-users

Customer data privacy

Polestar's vehicles are connected and generates a lot of data which has the potential to be associated with drivers or other persons inside or outside the vehicles. Therefore, the use and integrity of personal data must adhere to the various privacy regulations applicable around the world to build and retain customer trust. We are committed to respect and safeguard the privacy of our customers, prospects, employees and business partners. Customer data privacy is managed by our Compliance & Ethics team.

The greatest risks concern the collection and use of customer data linked to the different business processes and from the connected vehicles. Data breaches, both in relation to vehicle data and to customer data, as well as security incidents, remain threats to customer privacy. In addition, connected vehicles are subject to increased attention from supervisory authorities, as they contain ample possibilities for data collection using cameras, sensors or other measuring points. Vehicles as a potential data source also open possibilities for data monetisation, which adds another perspective to customer privacy.

Polestar's data privacy compliance programme is based on the data privacy and data protection laws in each country Polestar operates in. Data privacy regulations generally apply to all of Polestar's use of customer and prospect data, as well as vehicle data from its vehicles on the road. Polestar is adapting its data compliance programme to the legislative developments globally, including the new comprehensive data privacy laws in US states and the recent laws on information protection and data security in China.

In 2023, the globally applicable Privacy and Data Protection Policy was updated to improve Polestar's regulation of i.e. data minimisation, sensitive data, cross-border transfers, and Polestar's position on data access requests from public authorities. Furthermore, to respond to risks associated with the use of artificial intelligence services, Polestar developed its first guideline on the use of generative AI.

In 2023, there were 24 (2022: 28) substantiated breaches of customer data privacy. None were reported to relevant regulatory bodies since each of the breaches was assessed not to meet the applicable reporting thresholds. The breaches of customer data privacy were of a limited character and/or with non-sensitive data sets. The most common type was sending of e-mails containing personal data to the wrong recipient, and the most common cause was human error. To prevent future data breaches, Polestar focuses on security measures and process adjustments, such as internal training measures, access restrictions and limiting the amount of data used in a given activity. During the year there were 4 complaints logged, none of them were substantiated but referred to practices related to partners. There were no complaints from regulatory bodies.

Governance information [G]
Introduction

Under General Sustainability Information, we define the foundational structure for governing and monitoring our strategy across all areas of sustainability. Governance in this chapter refers to specific aspects of corporate conduct, such as prevention and detection of corruption and bribery, supply chain management, ethical business practices, and measures related to increased transparency.

For Polestar, with a value chain that spans diverse regions globally, cultivating a robust corporate culture anchored in our codes of conduct is essential. Our products necessitate a worldwide network of suppliers and subcontractors, making it crucial for us to strive for the highest ethical business standard and to constantly increase transparency and traceability.

Governance information [G]
Business conduct

Business conduct policies and corporate culture

Polestar is committed to acting responsibly and adhering to applicable laws and regulations. We are committed to fostering a compliance and ethics culture that permeates all operations at Polestar and among our business partners. Corporate policies are minimum requirements and key principles which everyone must follow.

Polestar's Speak Up Policy describe speaking up, the different ways of speaking up, and the principles which apply when suspected or confirmed misconduct is reported. The Speak Up Policy applies to all Polestar employees, but Polestar's business partners are also encouraged to make use of the appropriate reporting channels described in the policy.

The policies that address business conduct matters are:

- Anti-corruption Policy
- Speak Up Policy
- Code of Conduct
- Code of Conduct for Business Partners
- Conflict of Interest Policy
- Competition Law Policy
- Trade Sanctions & Export Control Policy

Read more →
Code of Conduct
Code of Conduct for Business Partners
(see Policies adopted to manage material sustainability matters)

Governance information [G]
Business conduct

Prevention and detection of corruption and bribery

Corruption and bribery, whether it involves government officials or private individuals, is a fundamental threat to achieving progress on sustainability. Corruption is not just wrong and a threat to social development and a well-functioning market economy, it is also generally illegal in the countries where we do business.

Our business relationships must be based on trust, transparency, honesty, and accountability, and we are committed to following applicable laws and rules in all countries where we operate. We do not tolerate any form of improper payment or incentive that is offered to influence a business decision. Employees will never face any adverse consequences for refusing to pay or accept a bribe, even if it would lead to a loss of business.

The most significant risks of corruption in Polestar's value chain occur in the extraction of minerals and materials in the supply chain, as well as the distribution of vehicles. Specific activities that are considered high risk include the mining of raw materials, the establishment of production facilities and the production of vehicles. Corruption risks are also associated with logistic partners, tolls and customs, and interactions with governmental actors. During the year, all relevant employees have received training on anti-corruption.

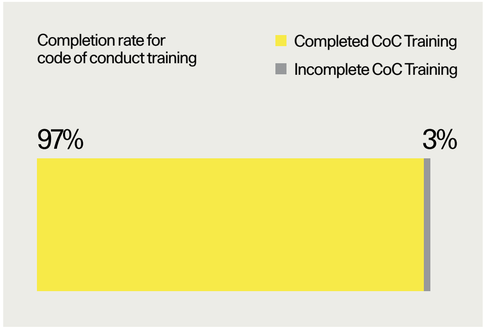
In 2023, the following two operations were assessed for risks related to corruption:

An anti-corruption assessment was carried out on an operation in India. The country's Corruption Perception Index score for 2023 was 39/100 (rank 93). According to experts and businesspeople, the CPI ranks 180 countries and territories by their perceived levels of public-sector corruption. It relies on 13 independent data sources and uses a scale of zero to 100, where zero is highly corrupt, and 100 is very clean. The main risk factors highlighted included interactions with government officials and interactions with business partners.

A fraud and anti-corruption risk assessment was carried out on headquarter level. The main risk factors highlighted included sales activities, interactions with government officials, interactions with business partners (e.g. importers and dealers) and suppliers and supply chain.

In 2023, there was 1 (2022: 2) incident of a violation of the Code of Conduct related to corruption brought to the attention of management, and it was without merit. No further actions were taken. No legal cases regarding corruption were brought against Polestar or a Polestar employee.

Each year, everyone working at Polestar is provided with training on our Code of Conduct, which covers anti-corruption and bribery. A new group-wide training on Code of Conduct was rolled out this year. All employees and consultants were invited to an enhanced and interactive e-learning. The Code of Conduct, anti-corruption policy and compliance also constitute a part of the mandatory onboarding training for new employees. A similar introduction to compliance is provided to all new Board members on appointment to Polestar's Board of Directors.



Communication and training about anti-corruption policies and procedures

KPI	Reported value	Unit
Total number of governance body members that the organization's anti-corruption policies and procedures have been communicated to	22	people
Total number of employees that the organization's anti-corruption policies and procedures have been communicated to	3,169	people
Total number of people in board of director that has received communication of Code of Conduct	10	people
Total number of people in management that has received communication of Code of Conduct	13	people
Total number of employees that has received communication of Code of Conduct	2,498	people
Total number of consultants that has received communication of Code of Conduct	675	people
Total number of business partners that the organization's anti corruption policies and procedures have been communicated to and accepted	1,183*	partners
Total number of partners	4,095	partners
Share of partners that has received communication regarding Code of Conduct [%]	28.9	%
Total number of governance body members that have received training on anti corruption	13	people
Total number of employees that have received training on anti corruption	2,484	people
Total number of people in board of director that has received training in Code of Conduct	10	people
Total number of people in management that has received training in Code of Conduct	13	people
Total number of employees that has received training in Code of Conduct	2,448	people
Total number of consultants that has received training in Code of Conduct	630	people

*Of 1183, 1033 are suppliers (DM and IDP) and 150 other partners.

Governance information [G]
Business conduct

Speak Up: our whistleblowing system

Polestar encourages a speak-up culture where our employees ask questions and raise concerns without fear of retaliation. We encourage employees and other stakeholders to report, via several channels, any suspected breach of laws or regulations and any conduct inconsistent with our Code of Conduct, corporate policies, and directives. Suspicions of severe violations can be reported through the global whistleblower system SpeakUp, which guarantees anonymity and complies with the EU's Whistleblower Directive (Directive (EU) 2019/1937).

There were 84 (2022: 30) reported cases in 2023, of which 62 were through SpeakUp. Of these cases, 14 cases (2022: 2) were closed with merit, whereas the other cases were either closed without merit or were open at year-end. Of the reported cases, one was related to suspicions of corruption. Others were related to discrimination and harassment, as well as conflicts of interest.

The active use of Polestar's whistleblower system has grown since it was introduced in 2021, attributing to growth in business and organisational size, as well as active internal awareness campaigns.

During 2023 an environmental pollution concern in China reported through Speak Up in 2021 was closed.

Incidents are initially reviewed in line with the SpeakUp Policy and the Compliance Investigation Procedure. The Compliance Ethics function reviews whether the incoming report could constitute a potential severe violation (a violation against Code of Conduct or corporate policies, or a violation of law; discrimination, harassment and bullying is a defined category of severe violation) and whether the incoming report is concrete enough to investigate. Internal discrimination and harassment cases are typically handed over to the HR team, whereas external cases, or in case the allegation concerns the HR team, the Compliance Ethics team handles the investigations. External advice is involved if necessary in the individual case.

Ethical and Compliance incidents overview

KPI	Reported value	Unit
Number of whistle-blowing cases received (all categories, not just discrimination)	84	Cases
Number of whistle-blowing cases received with merit (all categories, not just discrimination)	14	Cases
Total number of incidents of discrimination during the reporting period	2	Incidents
Number of incidents that has resulted in corrective actions	0	Incidents
Share of incidents where corrective action have been taken [%]	0	%
Number of formal harassment complaints	6	Complaints
Number of complaints that has resulted in corrective actions	3	Complaints
Share of harassment complaints where corrective action have been taken [%]	50	%
The total number of reported suspected violations of the Code of Conduct	65	Violations
Number of cases where the allegation or suspicion of a Code of Conduct violation was confirmed by Compliance & Ethics/HR	11	Violations
Share of Code of Conduct violations confirmed [%]	17	%

Governance information [G]
Business conduct

Anti-competitive behaviour, anti-trust, and monopoly practices

Polestar avoids practices that could be considered anti-competitive between us and our competitors, such as price fixing, bid rigging, and dividing markets.

As a general rule, we do not exchange confidential or sensitive information with our competitors, as this exchange of information may be considered anti-competitive and illegal, even if the information is shared through third parties.

In 2023 Polestar had no legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and no legal actions pending.

Management of relationships with suppliers and business partners

Four elements comprise our sustainability assessment programme, which was developed to promote Polestar's values and sustainability goals. Our Code of Conduct for Business Partners provides the foundation for our supplier requirements and expectations. In addition to The Code of Conduct for Business Partners, we conduct risk assessments using tools and processes such as screenings, sustainability SAQs, and our own Supplier Sustainability Index.

1. Code of conduct for business partners

Polestar requires all suppliers and business partners to protect working conditions and human rights, care for the environment, and conduct business with integrity. The Code of Conduct for Business Partners is included in the contract package for all new suppliers.

2. Screening on trade sanctions and risk assessments

Polestar has set up a due diligence screening process and further risk assessment to ensure suppliers and business partners are evaluated and selected in accordance with Polestar's business standards.

Identified suppliers and business partners to Polestar must be screened against trade sanctions. Sanction screening is mandatory, helps identify suppliers or business partners we should avoid doing business with, and helps ensure a comprehensive approach to sanctions compliance.

Based on the Transparency Index, Polestar identifies suppliers and business partners that must go through higher evaluation screening regarding adverse media, anti-corruption and modern slavery before we decide to enter a business relationship. To conclude, the risk assessments and due diligence screening cover sanctions, corruption, sustainability, and financial and reputational risks – to ensure that adequate policies and processes are in place to prevent corrupt practices and ensure compliance, in practice, with laws and regulations.

3. Sustainability SAQ

The SAQ on sustainability is part of the sourcing process and is done on all new direct material suppliers that are supplying components and parts to our car programmes. Existing suppliers are required to conduct the SAQ biannually. The SAQ has been developed as part of the collaborative initiative Drive Sustainability. It covers business ethics, human rights, environmental management, and responsible sourcing. An external assessor validates all answers in the SAQ, and the suppliers are provided with recommendations on how to improve. We aim to have all active supplier sites delivering production materials submit a completed SAQ. If the rating is below 70%, suppliers need to agree and implement action plans on identified topics within certain timeframes.

4. Supplier Sustainability Index (SSI)

Polestar's Supplier Sustainability Index (SSI) is a tool used for Polestar-contracted direct material suppliers. It measures suppliers' maturity in relation to our four sustainability focus areas: Climate neutrality, Circularity, Transparency, and Inclusion. Prospective suppliers must commit to our sustainability approach, track their progress and implement initiatives related to the focus areas of their business and supply chains. The SSI is filled out and submitted by the supplier, which is then analysed and verified, and a score is assigned by Polestar's Global Sustainability Procurement Department.

5. Responsible Business Alliance (RBA) and Drive Sustainability

Polestar is also a member of the RBA and Drive Sustainability. Our membership in RBA gives us access to its multi-stakeholder initiatives, such as the RMI and the Responsible Labour Initiative. These initiatives are vital to provide us with greater insights through stakeholder dialogues and research; they help with joint leverage to drive change within the industry, provide platforms, and create credible tools to strengthen our supplier assessments further.

Governance information [G]
Business conduct

Traceability/transparency strategy

Transparency is a fundamental factor for our success. Greater transparency helps create, maintain, and repair trust; demonstrates ownership and accountability; and is becoming increasingly important to facilitate strong relationships with our stakeholders. Transparency is only a means and not an end, and needs to be followed up with concrete actions.

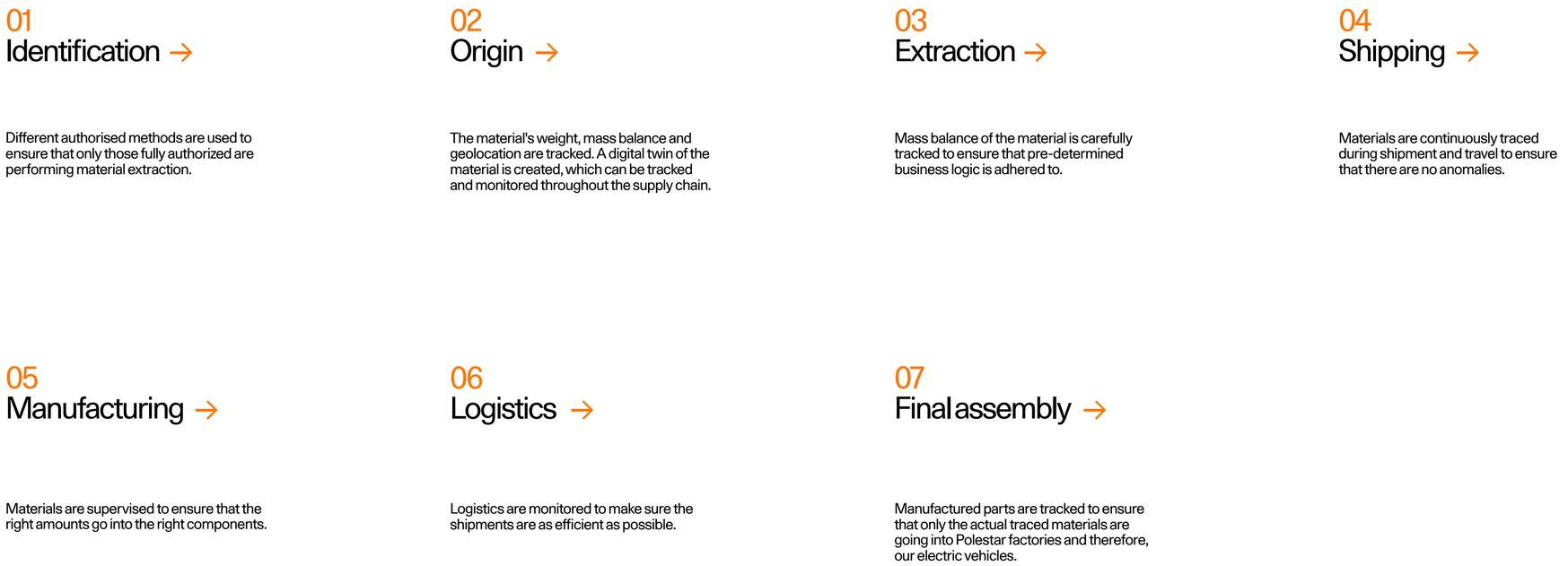
The value of transparency extends beyond building trust among stakeholders; it is also an essential internal governance tool and a catalyst for driving sustainability transformation. A prerequisite for transparency is access to data and information.

Blockchain technology

For some risk materials, we use established standards and certifications to create traceability from raw materials to finished products.

Where these standards are not well-developed, we opt for blockchain technology-based traceability. It has revolutionised supply chain visibility by offering an unchangeable, digital and efficient way of creating transparency. Blockchain is a proven data collection system that allows us to effectively trace materials in our cars as we strive to be more sustainable. Coupled with audits, this will enable responsible sourcing.

We collaborate with Circulor, a traceability-as-a-service provider, to employ blockchain technology to trace the origins of the cobalt and mica used in Polestar 2 batteries. The traceability service tracks origin, mass, size, and chain of custody. In Polestar 3 batteries, we will trace cobalt, mica, lithium and nickel. It lets us trace risk minerals used in battery production to understand the origin of these materials, which will enable more circular batteries over time. We are working on a solution for materials traceability for Polestar 4.



Governance information [G]
Business conduct

Conflict minerals

Our ambition is to only source components containing tantalum, tin, tungsten and gold, known as conflict minerals or 3TGs, from supply chains with third-party validated, conflict-free smelters and refiners.

Every year, we request our manufacturers, suppliers, and suppliers of components containing conflict minerals to declare their due diligence measures and disclose the smelters used in their supply chain in a Conflict Minerals Reporting Template (CMRT). With the help of CMRT, we can identify potential discrepancies, select suppliers for independent OECD-aligned audits, and follow up on risk mitigation action plans to address adverse impacts.

The Conflict Mineral due diligence process is drawn up by experts at the OECD in collaboration with industry, civil society and other governments, and should ensure compliance with legislation and regulations such as the US Dodd Frank Act and EU Conflict Minerals Regulation. As a listed company, Polestar submits a conflict minerals report to the SEC US authority.

The current level of Responsible Minerals Assurance Process compliant smelters is 65%.

Read more →
Polestar's Position on Conflict Minerals
Conflict Minerals Report

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
General disclosures			Requirement(s) omitted	Reason	Explanation	Comment
GRI 2: General Disclosures 2021	2-1 Organizational details	43, 54				
	2-2 Entities included in the organization's sustainability reporting	43				
	2-3 Reporting period, frequency and contact point	43				
	2-4 Restatements of information	43				The result for manufacturing 2022 has been updated compared to the information published in the sustainability report in the previous year. This is due to a correction of emissions factor for waste treatment in operations. This correction also affects the total reported GHG emissions for 2022. The unit for energy consumption has been changed from MJ to MWh.
	2-5 External assurance	43				
	2-6 Activities, value chain and other business relationships	43, 54				
	2-7 Employees	85–88				
	2-8 Workers who are not employees	85				
	2-9 Governance structure and composition	44–50				
	2-10 Nomination and selection of the highest governance body	45–46, 48				
	2-11 Chair of the highest governance body	44–45, 49–50				
	2-12 Role of the highest governance body in overseeing the management of impacts	44–46, 49–50, 55, 57, 61				
	2-13 Delegation of responsibility for managing impacts	44–46, 48, 55, 57				
	2-14 Role of the highest governance body in sustainability reporting	45–46, 48, 57				
	2-15 Conflicts of interest	45, 61				

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
General disclosures			Requirement(s) omitted	Reason	Explanation	Comment
GRI 2: General Disclosures 2021	2-16 Communication of critical concerns	45, 105				Cases of concern are reported to Polestar mainly through the Speak UP channel. In 2023, 6 of the reported cases were communicated to the Audit Committee. However, Polestar does not classify any of the reported cases as critical in accordance with the GRI disclosure standard 2-16 definition.
	2-17 Collective knowledge of the highest governance body	45, 57				
	2-18 Evaluation of the performance of the highest governance body	44–46, 48, 49–50				The performance of the board in overseeing the management of Polestar's impact on sustainability matters is not evaluated in accordance with the GRI disclosure standard 2-18 definition.
	2-19 Remuneration policies	49				
	2-20 Process to determine remuneration	45, 48, 49				
	2-21 Annual total compensation ratio	52				
	2-22 Statement on sustainable development strategy	7				
	2-23 Policy commitments	44, 61, 95				
	2-24 Embedding policy commitments	44, 61, 102, 104				
	2-25 Processes to remediate negative impacts	55, 84, 99, 105				
	2-26 Mechanisms for seeking advice and raising concerns	55, 61, 84, 105				
	2-27 Compliance with laws and regulations	61				
	2-28 Membership associations	106				
	2-29 Approach to stakeholder engagement	57				
	2-30 Collective bargaining agreements	82				

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
General disclosures			Requirement(s) omitted	Reason	Explanation	Comment
GRI 2: General Disclosures 2021	3-1 Process to determine material topics	57, 58				
	3-2 List of material topics	58				
Anti-corruption						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	104	205-1 a	Information unavailable/incomplete	Information incomplete. The percentage of operations assessed for corruption risks in percent is not available for 2023.	
	205-2 Communication and training about anti-corruption policies and procedures	104	205-2	Information unavailable/incomplete	Data incomplete. Polestar is not collecting data broken down in percent, by employee category or by region.	
	205-3 Confirmed incidents of corruption and actions taken	104				
Materials						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 301: Materials 2016	301-1 Materials used by weight or volume		301-1	Information unavailable/incomplete	We can track and have presented information about the total amount of materials going into our products but data about renewable content is largely missing due to very small anticipated volumes of renewable content in current product range and we expect such information to become available in the coming years from our suppliers. We also do not know about the exact total amount of materials required to make our final products due to thousands of sub-suppliers in the supply chain who do not currently report on their process material consumption. It is not possible to state when this information will become available. Until then we can report on a raw material consumption figure that we calculated using LCA for Polestar 2 in 2022.	
	301-2 Recycled input materials used	77	301-2	Information unavailable/incomplete	This information is unavailable due to supply chain intransparency and our suppliers not requesting such information from their own suppliers. This information is expected to become available for our full product range in the coming years, whereas the recycled content of Polestar 4 is already known and reported under "Material Circularity".	
	301-3 Reclaimed products and their packaging materials		301-3	Not applicable	Polestar does not manage or handle its own products that have reached the end of their useful life.	

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
Energy			Requirement(s) omitted	Reason	Explanation	Comment
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 302: Energy 2016	302-1 Energy consumption within the organization	64	302-1 c-iii, c-iv, d	Information unavailable/incomplete	The total energy consumption reported covers heating and electricity within the organization, as well as petrol from company owned cars. Any cooling from air conditioning in spaces or offices is reported under electricity. Polestar does not procure any steam and does not sell energy.	
	302-2 Energy consumption outside of the organization	65				
	302-3 Energy intensity	65	302-3	Information unavailable/incomplete	The energy performance and energy intensity of driving a Polestar car is followed up for each car program, however the energy intensity in production is not followed up per car, but is followed up on the total energy consumed during the manufacturing process.	
	302-4 Reduction of energy consumption		302-4	Information unavailable/incomplete	This KPI is not currently followed-up by Polestar. We do not have any tracking of specific projects regarding reducing energy consumption.	
	302-5 Reductions in energy requirements of products and services	65	302-5	Information unavailable/incomplete	Polestar has not set a baseyear for reductions in energy requirements of products and services and therefore the percentage change against the base year is omitted. The energy efficiency performance of each car model is followed up in each program and year.	
Water and effluents						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104	3-3	Information unavailable/incomplete	Polestar does not have a water management policy, although we have targets for water consumption per car and we measure water effluents. An assessment for Polestar's water-related impacts has not been developed due to relatively low estimated materiality for the company in operations phase.	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource		303-1	Information unavailable/incomplete	Polestar does not have a water management policy, although we have targets for water consumption per car and we measure water effluents. An assessment for Polestar's water-related impacts has not been developed due to relatively low estimated materiality for the company in operations phase.	
	303-2 Management of water discharge-related impacts		303-2	Information unavailable/incomplete	Polestar does not have a water management policy, although we have targets for water consumption per car and we measure water effluents. An assessment for Polestar's water-related impacts has not been developed due to relatively low estimated materiality for the company in operations phase.	
	303-3 Water withdrawal	79	303-3	Information unavailable/incomplete	Polestar discloses on total water withdrawal in the unit m3, not in megaliters, and does not report according to the breakdown in GRI 303-3.	
	303-4 Water discharge	79	303-4	Information unavailable/incomplete	Polestar discloses on total water dischargel in the unit m3, not in megaliters, and does not report according to the breakdown in GRI 303-4.	
	303-5 Water consumption	79	303-5	Information unavailable/incomplete	Polestar discloses on total water consumption in the unit m3, not in megaliters, and does not report information related to water stress areas or change in water storage.	

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
Biodiversity			Requirement(s) omitted	Reason	Explanation	Comment
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104	3-3 e	Information unavailable/incomplete	Polestar does not currently have biodiversity related goals, targets and indicators, nor a process to track the effectiveness of actions in place. Polestar has started to look at tools and methodologies for assessing its biodiversity impact in the supply chain and to create a biodiversity strategy.	
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	76	304-1	Information unavailable/incomplete	We do not have information about this. A biodiversity assessment of our Chongqing plant is expected to be made in 2024-2025.	
	304-2 Significant impacts of activities, products and services on biodiversity	76	304-2 b	Information unavailable/incomplete	Polestar does not currently have information related to the data points in b. Access to information related to Polestar's impacts on biodiversity is difficult to obtain due to the supply chain length and complexity, therefore there is no estimated timeframe of when this information will be available.	
	304-3 Habitats protected or restored	76	304-3	Not applicable	Polestar has not executed any habitat restoration or protection activities.	
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	76	304-4	Information unavailable/incomplete	We do not have information about this. A biodiversity assessment of our Chongqing plant is expected to be made in 2024-2025.	
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	67–68, 70				
	305-2 Energy indirect (Scope 2) GHG emissions	67–68, 70				
	305-3 Other indirect (Scope 3) GHG emissions	67–68, 70				
	305-4 GHG emissions intensity	67–68, 70				
	305-5 Reduction of GHG emissions	39, 70				
	305-6 Emissions of ozone-depleting substances (ODS)		303-6	Information unavailable/incomplete	Data on emissions of these substances are not available. Polestar is reviewing the possibility of collecting such data for the annual report.	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		303-7	Information unavailable/incomplete	Data on emissions of these substances are not available. Polestar is reviewing the possibility of collecting such data for the annual report.	

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
Waste			Requirement(s) omitted	Reason	Explanation	Comment
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	78				
	306-2 Management of significant waste-related impacts	77, 78	306-2 b	Information unavailable/incomplete	306-2-b is excluded as such processes on a corporate level do not exist while for individual localities where waste is generated, trust is put on using well-known third parties who are considered reliable. A process for making sure that these third parties are chosen based on specific requirements and that it would be possible to follow up on the legality of their actions will be created in the coming years.	
	306-3 Waste generated	79				
	306-4 Waste diverted from disposal	79				
	306-5 Waste directed to disposal	79	306-5- d.	Information unavailable/incomplete	Information unavailable. Polestar does not breakdown reporting on waste directed to disposal into onsite and offsite.	
Supplier environmental assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	106				
	308-2 Negative environmental impacts in the supply chain and actions taken	106	306-2 b	Information unavailable/incomplete	The data is currently not available, and Polestar does not have plans on following up these specific KPIs.	
Employment						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	85				
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	89				
	401-3 Parental leave	90				

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
Occupational health and safety			Requirement(s) omitted	Reason	Explanation	Comment
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	92				
	403-2 Hazard identification, risk assessment, and incident investigation	92				
	403-3 Occupational health services	92				
	403-4 Worker participation, consultation, and communication on occupational health and safety	92				
	403-5 Worker training on occupational health and safety	92				
	403-6 Promotion of worker health	92				
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	94–98				
	403-8 Workers covered by an occupational health and safety management system	92				
	403-9 Work-related injuries	93				
	403-10 Work-related ill health	93				
Diversity and equal opportunity						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	86-88				
	405-2 Ratio of basic salary and remuneration of women to men	89				

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
Non-discrimination			Requirement(s) omitted	Reason	Explanation	Comment
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	105				
Freedom of association and collective bargaining						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
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	95	407-1 a. ii		The direct material suppliers located in high risk regions are situated in China, Mexico, Marocco, Thailand, Turkey and Vietnam	
Child labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	95	408-1 a. ii, b i. & ii		Polestar does not disclose because...XXX	
Forced or compulsory labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	95	409-1 a. i & ii		Polestar does not disclose because...XXX	
Rights of indigenous peoples						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104	3-3 c, d, & e	Information unavailable/incomplete	Polestar does not currently have any policies, actions or goals addressing protection of the rights of indigenous peoples, this is to be developed.	
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples			Information unavailable/incomplete	As per agreement with our business partners and the sub-tiers in the supply chain there are NDA's on the audit findings.	

Sustainability notes
GRI Index

GRI Standard	Disclosure	Location	Omission			
Local communities			Requirement(s) omitted	Reason	Explanation	Comment
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104	3-3	Information unavailable/incomplete	This is a new material topic for Polestar as per the updated materialty assessment. The data is unavailable for reporting year 2023.	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs		413-1	Information unavailable/incomplete	This is a new material topic for Polestar as per the updated materialty assessment. The data is unavailable for reporting year 2023.	
	413-2 Operations with significant actual and potential negative impacts on local communities		413-2	Information unavailable/incomplete	This is a new material topic for Polestar as per the updated materialty assessment. The data is unavailable for reporting year 2023.	
Supplier social assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104,				
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	106				
	414-2 Negative social impacts in the supply chain and actions taken	95, 106				
Customer health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	100				
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	100				
Customer privacy						
GRI 3: Material Topics 2021	3-3 Management of material topics	58, 94, 95, 103, 104				
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	101				

Sustainability notes
SASB Index

Topic listed in the SASB sector guideline for the automobile industry

Occupational health and safety	Location	Code	Page reference for disclosure
Product Safety	Percentage of vehicle models rated by NCAP programs with an overall 5-star safety rating, by region	TR-AU-250a.1	100
Product Safety	(1) Number of safety-related defect complaints, (2) percentage investigated	TR-AU-250a.2	100
Product Safety	Number of vehicles recalled	TR-AU-250a.3	100
Labour Practices	Percentage of active workforce covered under collective bargaining agreements.	TR-AU-310a.1	83
Labour Practices	(1) Number of work stoppages and (2) total days idle	TR-AU-310a.2.	93

Do you have questions or comments?
Please contact us at media@polestar.com
or ir@polestar.com.

Images on pages 3, 10, 20, 27, 41, 62, 81, 103 are:
Landsat imagery courtesy of NASA Goddard Space Flight Center and U.S. Geological Survey