

Green Finance Report 2024

July 2024



DISCLAIMER

The following presentations as well as remarks/comments and explanations in this context contain forward-looking statements on the business development of the Volkswagen Group. These statements are based on assumptions relating to the development of the economic, political and legal environment in individual countries, economic regions and markets, and in particular for the automotive industry, which we have made on the basis of the information available to us and which we consider to be realistic at the time of going to press. The estimates given entail a degree of risk, and actual developments may differ from those forecast. All figures are rounded, so minor discrepancies may arise from addition of these amounts.

At the time of preparing these presentations, it is not yet possible to conclusively assess the specific effects of the latest developments in the Russia-Ukraine conflict on the Volkswagen Group's business, nor is it possible to predict with sufficient certainty to what extent further escalation of the Russia-Ukraine conflict will impact on the global economy and growth in the industry in fiscal year 2024.

Any changes in significant parameters relating to our key sales markets, or any significant shifts in exchange rates, energy and other commodities or the supply with parts relevant to the Volkswagen Group will have a corresponding effect on the development of our business. In addition, there may also be departures from our expected business development if the assessments of the factors influencing sustainable value enhancement and of risks and opportunities presented develop in a way other than we are currently expecting, or if additional risks and opportunities or other factors emerge that affect the development of our business.

We do not update forward-looking statements retrospectively. Such statements are valid on the date of publication and can be superseded.

This information does not constitute an offer to exchange or sell or an offer to exchange or buy any securities.

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Foreword

Dear Ladies and Gentlemen,

we are proud to continue driving forward our sustainable financing strategy. A key element of this strategy has been the ongoing successful issuances of Green Bonds, which have significantly contributed to achieving our environmental goals and demonstrate that we are on the right path to making a positive impact.

For the future, we have set ourselves an ambitious goal: by 2030, we aim to increase the use of Green Debt Instruments to at least 30% of our outstanding bonds. As a major player in the automotive industry, this target underscores our commitment to ambitious sustainability objectives and shows that we are striving for a sustainable future.

I thank you for your continued support on Volkswagen's journey towards environmental responsibility and sustainable growth.

Yours sincerely, Rolf Woller
Head of Group Treasury & Investor Relations



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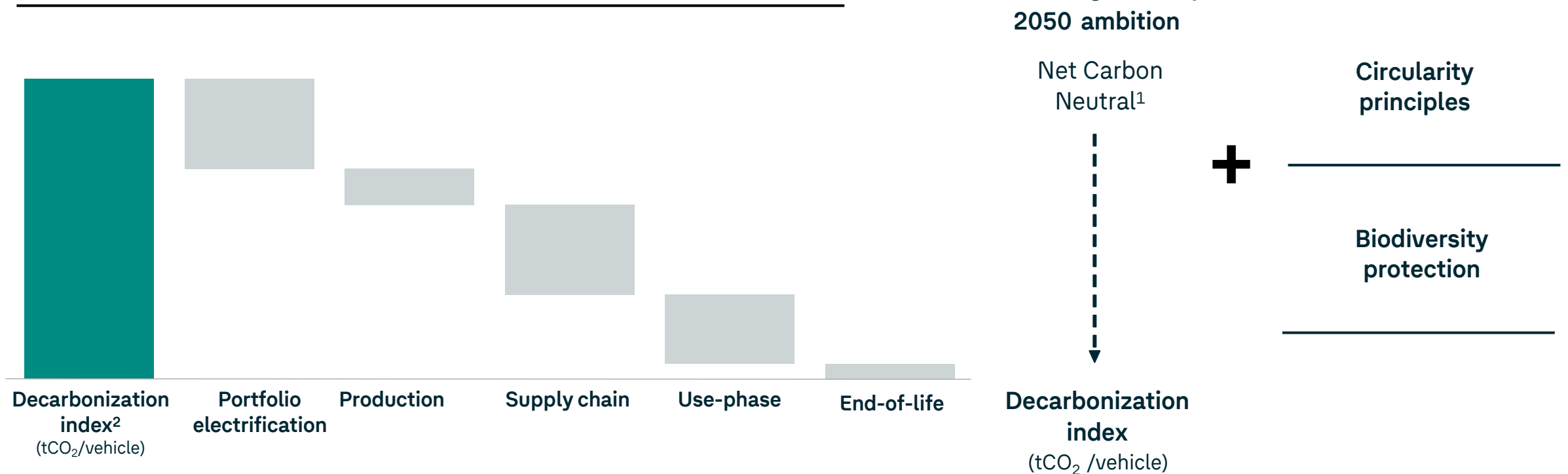
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NATURE: Our path to sustainable mobility

Underpinned by decarbonization, circular economy, and biodiversity protection

Key strategic levers to decarbonize¹



¹Strategy is subject to progress made in individual levers illustrated above, relying on assumptions and elements that cannot be influenced by Volkswagen Group and therefore might not be achievable. Offsets (including carbon reduction and carbon removal) are included in Volkswagen Group's decarbonization strategy.

²Volkswagen Group's "DCI" aims to provide a comprehensive overview of the CO₂ equivalent emissions throughout the value chain. It is primarily based on life cycle assessments (based on assumptions) which Volkswagen Group performs on the basis of systematic methods. The "DCI" calculation methodology is continuously adapted.

NATURE: Our path to sustainable mobility

Objectives

Near term targets

- Use phase emissions of our vehicles to be reduced by 30% compared to 2018 by 2030¹
- Ambition level for scope 1-2 is aligned with a 1.5 °C decarbonization pathway
- Reduction measures credited only

Long term ambitions

- Aspiring to operate all factories net carbon neutral by 2040
- The Volkswagen Group aims to achieve net carbon neutrality by 2050
- >-90% Reduction measures & avoidance

¹Certified by the Science Based Target initiative, use phase emissions reduction certified

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EU Taxonomy

Introduction to the Framework¹

Activity Eligibility

The EU Taxonomy is a classification system for sustainable economic activities.

An economic activity is considered taxonomy-eligible if it is listed in the EU Taxonomy and can therefore potentially contribute to realizing at least one of the following six environmental objectives:

- 1 | Climate change mitigation
- 2 | Climate change adaptation
- 3 | Sustainable use and protection of water and marine resources
- 4 | Transition to a circular economy
- 5 | Pollution prevention and control
- 6 | Protection and restoration of biodiversity and ecosystems.

Activity Conditions

An activity is only considered environmentally sustainable, i.e. taxonomy-aligned, if it meets all three of the following conditions:

- 1 | The activity makes a substantial contribution to one of the environmental objectives by meeting the screening criteria defined for this economic activity, e.g. level of CO₂ emissions for the climate change mitigation environmental objective. We are committed to the Paris Climate Agreement and align our own activities with the 1.5 °C goal. We aim to achieve net carbon neutrality by 2050.
- 2 | The activity meets the Do-No-Significant-Harm (DNSH) criteria defined for this economic activity. These are designed to prevent significant harm to one or more of the other environmental objectives, e.g. from the production process or by the product.
- 3 | The activity is carried out in compliance with the minimum safeguards, which apply to all economic activities and relate primarily to human rights and social and labor standards.

¹as stated in the Group sustainability report 2023: <https://www.volkswagen-group.com/en/publications/more/group-sustainability-report-2023-2674>

EUR 28bn of Eligible Assets

Taxonomy aligned Capital Expenditure

EU Taxonomy Criteria

Substantial contribution
to at least one of the environmental objectives

Do no significant harm (DNSH)
to any of the other environmental objectives

Minimum safeguards
comply with OECD Guidelines, UN Guiding Principles on Business and Human Rights, ILO fundamental conventions

Economic activity is environmentally sustainable

Capital Expenditure - Extracts from Annual Reports 2021-2023¹

	2021	2022	2023
3.3 manufacture of low-carbon technologies for transport			
of which additions to capitalized development costs for BEVs	3,504	4,415	4,920
of which additions to property, plant and equipment for BEVs	3,760	5,398	6,107
Total	7,264	9,814	11,027
Total Eligible Assets	28,105		

¹Extracts from Volkswagen Group annual reports, numbers in €m
Note: All figures shown are rounded, so minor discrepancies may arise from addition of these amounts.

Extract of the Green Finance Framework 2022

EU Taxonomy aligned

VW Group has established processes for **EU taxonomy reporting** (Article 8).

This report applies the EU Taxonomy Regulation including:

- ✓ **EU Environmental Objectives, the**
- ✓ **Technical Screening Criteria (TSC), the**
- ✓ **Do No Significant Harm (DNSH) criteria and**
- ✓ **Minimum Social Safeguard requirements**

Third-Party Review

Volkswagen Group's EU taxonomy reporting (Article 8) will be **externally audited** on a **reasonable assurance basis**, as it is part of the Group Management Report. Given that the Eligible Green Portfolio **only** consists of **EU taxonomy aligned capital expenditures**, it will have been subject to this audit process.

Eligible Assets

ICMA Green Bond Principles Eligible Green Project Category: Clean Transportation
Substantial contribution to Environmental Objective: Climate Change Mitigation
United Nation Sustainable Development Goals: 9.1, 9.5, 11.6, 13.1



Economic activity EU taxonomy	Allocation in the Volkswagen Group	Additional criteria and information on the Eligible Green Portfolio
3.3 Manufacture of low-carbon technologies for transport	Vehicle- related business	IFRS accounted additions to capitalized development costs ¹ for the BEVs (Battery Electric Vehicles) and, the IFRS accounted additions to property, plant and equipment ² for BEVs

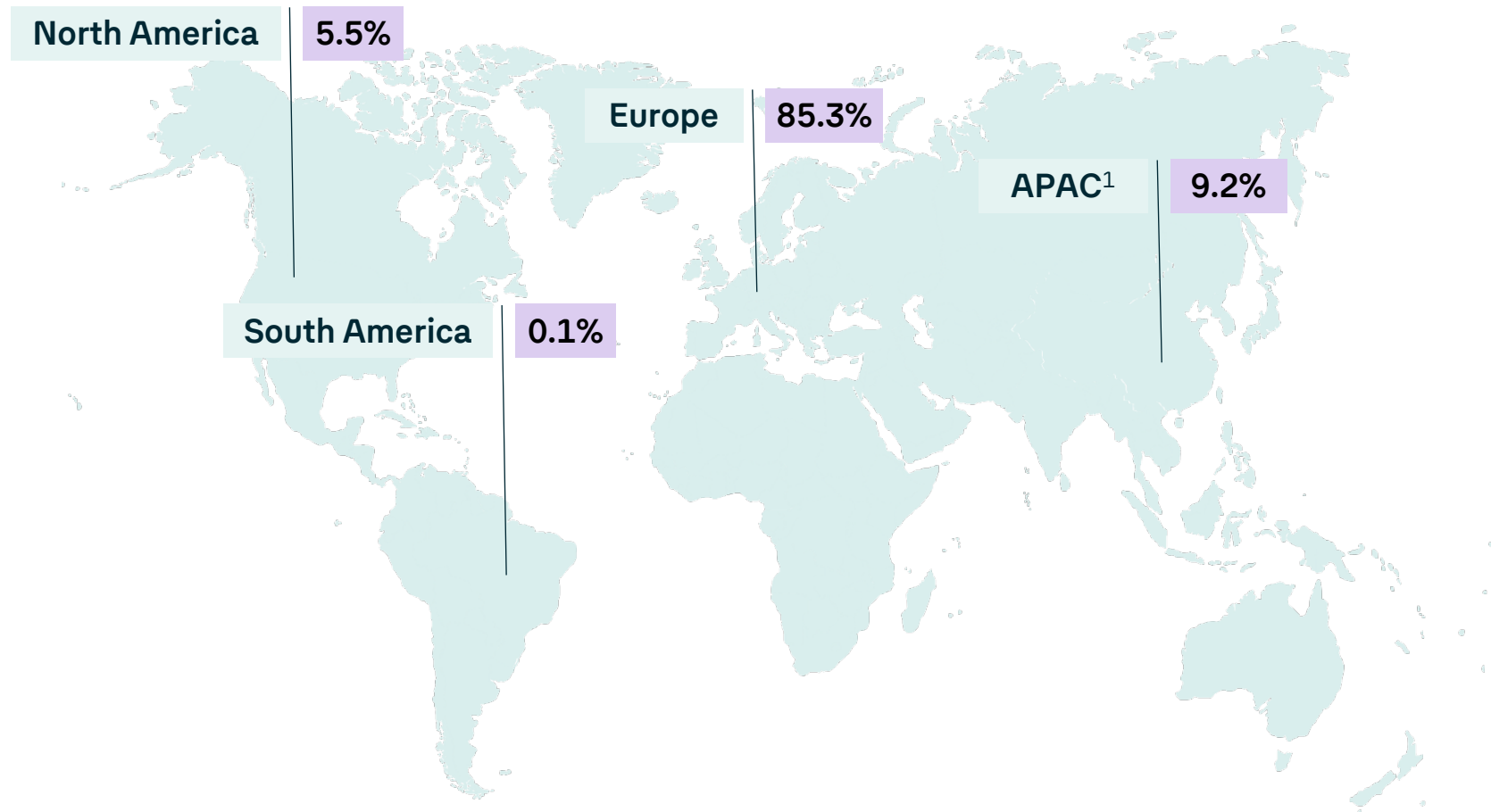
Exclusions	<ul style="list-style-type: none"> ✗ plug-in hybrid electric vehicles (PHEVs) ✗ vehicles with combustion engines
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¹Include all direct and indirect costs that are directly attributable to the development process (as defined in the notes to the Consolidated Financial Statements of the Annual Report)

²Such as buildings, site improvements, technical equipment and machinery or other equipment and operating equipment, including special tools (as defined in the notes to the Consolidated Financial Statements of the Annual Report)

Taxonomy aligned Capital Expenditure from 2021-2023

Allocation by Region



¹Including China

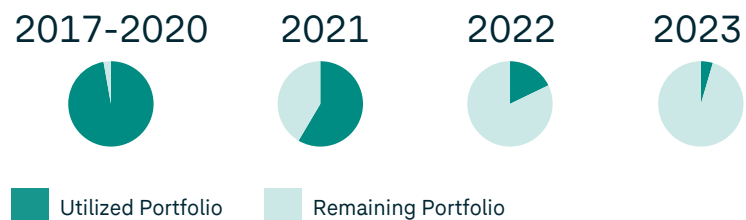
Note: All figures shown are rounded, so minor discrepancies may arise from addition of these amounts.

Our Automotive Green Bond Portfolio

Fully allocated towards Eligible Assets/Projects

ISIN	Framework	Issuance Date	Due Date	Coupon (%)	Amount (m)	Portfolio Allocation
XS2234567233	2020	09-23-2020	09-22-2028	0.875	1,250	2017 2018 2019
XS2234567662	2020	09-23-2020	09-23-2032	1.250	750	2019
XS2491738352	2020	06-21-2022	03-28-2025	3.125	750	2019 2020
XS2491738949	2020	06-21-2022	09-28-2027	3.750	750	2020
XS2554487905	2022	11-07-2022	11-15-2025	4.125	1,000	2021
XS2554488978	2022	11-07-2022	02-15-2028	4.250	750	2021
XS2554489513	2022	11-07-2022	05-15-2030	4.375	750	2021
XS2604697891	2022	03-23-2023	03-29-2026	3.875	1,000	2021
XS2604699327	2022	03-23-2023	03-29-2029	4.250	750	2021
XS2675884576	2022	08-29-2023	perpetual	7.500	1,000	2022
XS2675884733	2022	08-29-2023	perpetual	7.875	750	2022
XS2794650833	2022	03-25-2024	03-27-2026	3ME+0.650	500	2023

Portfolio Utilization

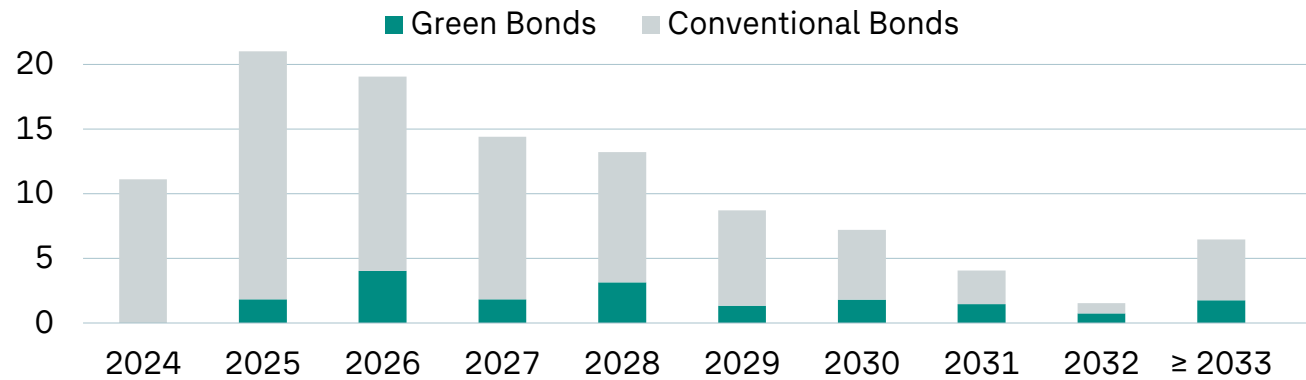


Total Portfolio Utilization 2021-2023 (m)

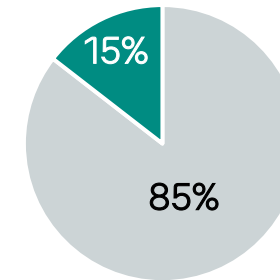
Portfolio	Utilized	Left
28,105	6,500	21,605

Volkswagen Group is a well-established issuer in the Green Bond market

Bond Maturity Profile¹ (EUR equivalent)

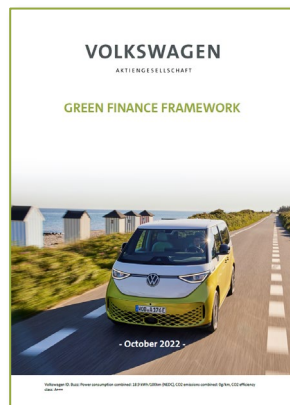


Share of Green Bonds¹



Further Information on Volkswagen's Green Bonds

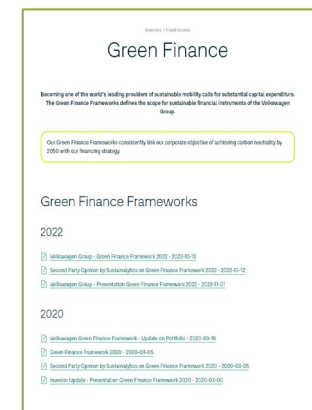
Target 2030: at least **30%** of our outstanding bond volume through **green bonds**²



Volkswagen Group - Green Finance Framework 2022
[volkswagen-group.com](https://www.volkswagen-group.com)



Volkswagen Financial Services - Green Finance Framework
[vwfs.com](https://www.vwfs.com)



www.volkswagen-group.com > Investors > Fixed Income > Green Finance

¹ Includes all outstanding bonds from the Volkswagen Automotive Division (hybrids shown on first call dates) and Financial Services Division, as of 06/24

² target based on the current EU Taxonomy framework

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Life Cycle Assessment

Methods and independent verification

Life Cycle Assessment (LCA) based on DIN EN ISO 14040 and DIN EN ISO 14044

We are currently particularly observing the global warming potential as impact category that converts certain environmental impacts into CO₂ equivalents. Volkswagen AG commissioned TÜV NORD CERT Prüf- und Umweltgutachtergesellschaft mbH as an independent external body to carry out the critical review of this LCA study in accordance with the applicable standards DIN EN ISO 14040 and DIN EN ISO 14044. In accordance with the standard, the manufacturing phase from raw material extraction, the use phase comprising passenger transportation over 200,000 km in the WLTP driving cycle and the dismantling for recycling (without battery system) were used as framework. The environmental impacts were assessed via a special software including a database with average upstream chain values. For selected parts like the battery cells separate analyses were carried out.

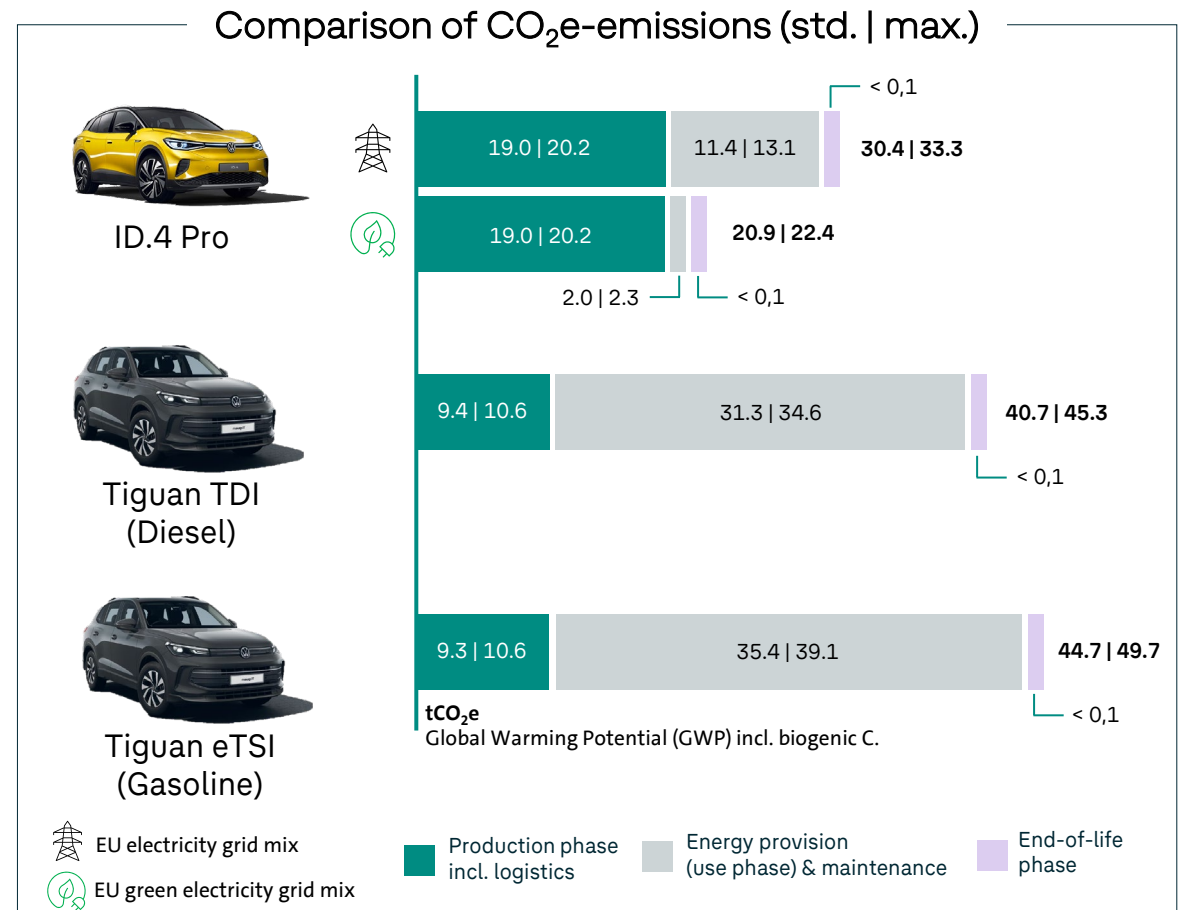


With regard to the state of the art of LCAs, it should be noted that the calculation methods for LCAs in the automotive industry are subject to constant further development. Amongst others generic data and assumptions are increasingly being replaced by vehicle- and company-specific data, thus future calculations may lead to significant deviations from previous LCA values. Therefore LCAs are to be understood as a status at the time of execution (snapshot of the respective assumptions), do not represent a guaranteed product property in a legal sense and are not suitable for comparisons with LCAs from other car manufacturers. Respective harmonizing EU standards are expected to be published in 2025.

Example of ID.4 and Tiguan LCA Comparison

CO₂e-emissions by life cycle phases

Overview LCA ID.4 Pro & Tiguan			
	ID.4 Pro 210 kW 82 kWh ³	Tiguan 2.0 TDI 110 kW ⁴ DSG	Tiguan 1.5 eTSI 110 kW ⁵ DSG
Configurations ¹	standard (std.) maximum (max.), market Germany, MY 24		
Functional unit	200,000 km passenger transportation in WLTP test cycle		
System boundaries	production in Europe (not site-specific)		
	avg. logistics Zwickau & Emden	avg. logistics Wolfsburg	
WLTP energy / fuel consumption ²	16.0 18.4 kWh per 100 km	5.3 5.8 liter per 100 km	6.2 6.8 liter per 100 km
Maintenance	tires, brake pads and disks, starter batteries, wiper blades, additionally for Tiguan engine oil and AdBlue in case of TDI		
End-of-life phase	dismantling (without battery), no credits for recovery (cut-off)		
Critical Review	TÜV NORD CERT, date of validity statement: 2024-04-16		



All figures shown in the report are rounded, minor discrepancies may arise from addition of these amounts

¹standard configuration: standard equipment in representative line | maximum configuration: one feasible parameter set for additional equipment for maximum weight ²values rounded to first decimal place

Information in accordance with 1999/94/EC for the German market as of April 2024:³energy consumption combined 18.41 - 15.93 kWh/100 km; CO₂ emissions combined 0 g/km; CO₂ class: A ⁴fuel consumption combined 5.9 - 5.3 l/100 km; CO₂ emissions combined 154 - 139 g/km; CO₂ class: E; ⁵fuel consumption combined 6.9 - 6.2 l/100 km; CO₂ emissions combined 156 - 140 g/km; CO₂ classes: F-E

Impact Reporting based on ID.4

Clean Transportation Portfolios	Signed Amount in EUR bn	Share of Total Project Financing	Eligibility for Green Finance Instruments	Allocated Amount in EUR bn	Potentially saved CO ₂ emissions ID.4 vs Tiguan TDI over life cycle (200,000km) in t CO ₂ e ¹	Number of ID.4 delivered in the EU including the UK, Norway and Iceland (#)	Calculated potentially avoided CO ₂ emissions ID.4 vs Tiguan TDI over life cycle (200,000km) in t CO ₂ e
	a/	b/		c/	d/		d/
Projects related to the manufacture of electric vehicles							
2023	11,027	100%	100%	0.5	10.3	85,714	882,854
Total							882,854

Portfolio date: 2023

General: The ID.4 and Tiguan are compared via the given standard versions and by only taking into account the Tiguan TDI to ensure a conservative approach.

a/ Signed amount represents the amount legally committed by the issuer for the portfolio of projects or is eligible for green bond financing

b/ This is the share of the total project cost that is financed

c/ This represents the amount of green debt instruments proceeds that has been allocated for disbursements to the portfolio

d/ Eligible Categories impact indicators

Vehicle basis: ID.4 Pro (standard configuration) and Tiguan TDI (Diesel, standard configuration)

both A-Segment with similar dimensions, comparable purpose and usability, both produced mainly in Germany

comparison in accordance with requirements of the standards DIN EN ISO 14040 and DIN EN ISO 14044 for comparative LCAs (critical review by TÜV NORD CERT, date of validity statement: 2024-04-16)

¹impact of electricity grid mixes in Norway and Iceland not considered

<https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Handbook-Harmonized-Framework-for-Impact-Reporting-December-2020-151220.pdf>

ID.4 and Tiguan LCA methodology



Software, Data Basis and Scope

Software

- Sphera LCA for Experts version 10.7.1.28

LCA database and data sets

- Sphera LEAD database content version 2023.2 with extension databases and data-on-demand datasets, respective VW Group mapping list
- VW Group datasets: final assembly, paint shop, press-quenched steel, tires, vehicle windows, recovery, printed circuit boards, high-voltage battery cell
- Logistics via VW logistic system (only GWP)

Calculation Rules

- DIN EN ISO 14040/44
- VW Group LCA Guidelines version 2.0 and VW Group LCA Manual version 8.0

Scope

- According to the life cycle approach the system boundaries comprise the entire product life span (from production to use phase and end-of-life). Emissions from further scope 3 categories like business travel, employee commuting, franchises etc. as defined in the greenhouse gas protocol are not covered and are considered for the calculation of the VW group KPI "Decarbonization Index".



Input variables

Production phase

- Vehicle configurations in dominant market with standard equipment in representative line and with one feasible parameter set for additional equipment for maximum weight
- Supply chain and in-house production in Europe (not site-specific)
- Battery: one traction battery (if applicable) covering the functional unit
- If applicable inclusion of reduction measures on part level confirmed by respective validation reports and validity statements

Use Phase

- Energy and fuel provision: European electricity, gasoline and diesel datasets of 2019 (the most current data available in the applied Sphera LEAD database)
- Energy and fuel consumption: Worldwide Harmonized Light Vehicles Test Procedure (WLTP) for 200,000 km
- Maintenance: tires, brake pads and disks, starter batteries, wiper blades, if applicable engine oil and AdBlue

End-of-life

- Generic vehicle segment specific model for dismantling without battery system and without credits for recovery (cut-off approach)



Verification

- Critical Review by TÜV NORD CERT: validity statement from 2024-04-16 (Audit Report No. 3535 7825) for LCA background report from 2024-03-22



With regard to the state of the art of LCAs, it should be noted that the calculation methods for LCAs in the automotive industry are subject to constant further development. Amongst others generic data and assumptions are increasingly being replaced by vehicle- and company-specific data, thus future calculations may lead to significant deviations from previous LCA values. Therefore LCAs are to be understood as a status at the time of execution (snapshot of the respective assumptions), do not represent a guaranteed product property in a legal sense and are not suitable for comparisons with LCAs from other car manufacturers. Respective harmonizing EU standards are expected to be published in 2025.

ID.4 and Tiguan

LCA methodology - glossary

CML methodology

The Life Cycle Impact Assessment (LCIA) and the characterization model are based on the CML methodology (as of August 2016), which has been developed at the University of Leiden at the Centrum voor Milieukunde Leiden (CML) in the Netherlands. With this methodology, the assessment of environmental impact potentials is based on accepted scientific models.

Critical Review

Process described in ISO 14044 intended to ensure consistency between a life cycle assessment and the principles and requirements of the International Standards on life cycle assessment as described in ISO 14040, carried out by independent experts.

Cut-off approach

For the secondary materials emerging from vehicle recovery processes at the end of life, no credits are issued within the life cycle assessment. Only the expenditures and emissions of the recovery processes are considered. For vehicles with a high-voltage battery, the end of life of the battery including thermal deactivation and shredding is not assessed.

Global Warming Potential (GWP)

The global warming potential describes the emission of greenhouse gases, which lead to an increase of the heat absorption of solar radiation within the atmosphere and thus can contribute to climate change, e.g. an increase of global average temperatures. The reference substance for the global warming potential is carbon dioxide. All other greenhouse gases (e. g. CH₄, N₂O, SF₆) are projected to carbon dioxide in terms of their impact on global warming (CO₂ equivalents or CO₂e). GWP values including biogenic carbon (biogenic C) basically consider the uptake of greenhouse gases from the atmosphere by respective processes.

Greenhouse Gas Protocol (GHG Protocol)

A partnership between the World Resources Institute and the World Business Council for Sustainable Development providing accounting and reporting standards, sector guidance and calculation tools for emissions reporting. It establishes a comprehensive, global, standardized framework for measuring and managing emissions and divides emissions into three scopes: scope 1 - direct GHG emissions (of company), scope 2 - energy related indirect GHG emissions, scope 3 - other indirect GHG emissions

ISO 14040/44

ISO 14040 and ISO 14044 define the standard for an ISO-compliant Life Cycle Assessment (LCA) and respective comparative LCAs. ISO 14040 provides the 'principles and framework' of the standard, while ISO 14044 provides an outline of the 'requirements and guidelines'.

Life Cycle Assessment (LCA)

LCA addresses the environmental aspects and potential environmental impacts (e.g. use of resources and environmental consequences of releases) throughout a product's life cycle from raw material acquisition through production, use and end-of-life treatment (i.e. cradle-to-grave). An LCA study consists of the phases (1) goal and scope definition, (2) inventory analysis, (3) impact assessment and (4) interpretation.

Sphera LCA for Experts

The software LCA for Experts (common name: GaBi, "Ganzheitliche Bilanzierung") from Sphera is a LCA modelling and reporting application. The content databases include many raw materials and processes in every phase from extraction to end-of-life across the supply chain.

Worldwide Harmonized Light Vehicles Test Procedure (WLTP)

The WLTP is a globally harmonized standard for determining the levels of pollutants, CO₂ emissions and fuel consumption of traditional and hybrid cars, as well as the range of fully electric vehicles.

Information in accordance with 1999/94/EC:

The figures for fuel consumption, power consumption, CO₂ emissions and electric range were determined in accordance with the legally required "Worldwide Harmonized Light Vehicles Test Procedure" (WLTP) in accordance with Regulation (EC) 715/2007. Additional equipment and accessories (add-on parts, tyre format, etc.) can change relevant vehicle parameters, such as weight, rolling resistance and aerodynamics, and influence a vehicle's fuel consumption, power consumption, CO₂ emissions, electric range and mileage values in addition to weather and traffic conditions as well as individual driving behaviour.

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ESG relevant reports & sources of information



Association Climate Review
2023

SUSTAINABILITY REPORT
2023

www.volkswagen-group.com > Sustainability > Reporting



Responsible Raw Materials Report
2023
VOLKSWAGEN GROUP


www.volkswagen-group.com > Sustainability > Reporting



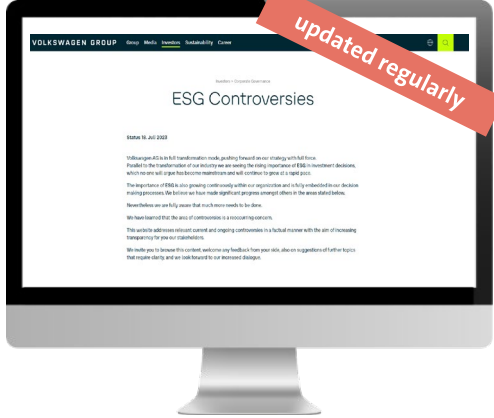
regenerate+

www.volkswagen-group.com > Sustainability > Sustainability Strategy

ESG indicators reflect the Volkswagen Group's measurable performance and progress on environmental, social and governance matters.



ESG Figures and PAI Indicators
www.volkswagen-group.com > Sustainability > ESG-Performance & Reporting > ESG-figures



updated regularly

ESG Controversies

www.volkswagen-group.com > Investors > Corporate Governance > ESG Controversies

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