

# Second-Party Opinion

## Volkswagen Green Finance Framework



### Evaluation Summary

Sustainalytics is of the opinion that the Volkswagen Green Finance Framework is credible and impactful and aligns with the four core components of the ICMA Green Bond Principles 2018 and LMA Green Loan Principles 2018. This assessment is based on the following:



**USE OF PROCEEDS** The eligible category for the use of proceeds is aligned with those recognized by the Green Bond Principles and Green Loan Principles. Sustainalytics considers that Clean Transportation will lead to positive environmental impacts and advance the UN Sustainable Development Goals 9 and 11.



**PROJECT EVALUATION / SELECTION** Volkswagen's Green Finance Committee (GFC) will evaluate and select the eligible green projects to approve whether the projects are aligned with the Framework. The GFC is comprised of cross-functional representatives from Group Treasury, Sustainability Department, Group Accounting, Group Controlling, Group Legal and business units developing eligible projects. This process is in line with market practice.



**MANAGEMENT OF PROCEEDS** Volkswagen will allocate the proceeds to an Eligible Green Project Portfolio. Volkswagen will track expenditure and development costs using internal reporting systems. Pending full allocation or reallocation, the unallocated proceeds will be invested in cash or other liquid marketable instruments. This process is in line with market practice.



**REPORTING** Volkswagen intends to annually publish allocation and impact reporting of proceeds on the Volkswagen Group's website until full allocation. Allocation reporting will include the balance of allocated and unallocated proceeds as well as the number of new and existing projects. In addition, impact reporting will disclose data of CO2 emissions avoided in the use and production phases, along with the description of the green projects and results of Life Cycle Assessment. Sustainalytics views Volkswagen's allocation and impact reporting plans to be aligned with market practice.

<b>Evaluation date</b>	March 2020
<b>Issuer Location</b>	Wolfsburg, Germany

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## Introduction

Volkswagen AG (VW) is an automobile company based in Wolfsburg, Germany. Its services mainly include the development and production of vehicles and components, as well as the sale of vehicles. The product segments consist of passenger cars, light commercial vehicles, power engineering and financial services that are related to mobility services.

VW has developed the Volkswagen Green Finance Framework (the “Framework”) under which it intends to issue green debt instruments (bonds and loans) and use the proceeds to finance or refinance, in whole or in part, existing or future projects that contribute to clean or climate-neutral mobility, specifically through the development and implementation of the Modular -Electrification Toolkit (MEB) technology for electric vehicles. The Framework defines eligibility criteria in one area:

### 1. Clean Transportation

VW engaged Sustainalytics to review the Volkswagen Green Finance Framework, dated March, 2020 and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP) and the Green Loan Principles 2018 (GLP).<sup>1</sup> This Framework has been published in a separate document.<sup>2</sup>

As part of this engagement, Sustainalytics held conversations with various members of VW’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of VW’s green bonds and loans. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Volkswagen Green Finance Framework and should be read in conjunction with that Framework.

<sup>1</sup> The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

<sup>2</sup> The Volkswagen Group Green Bond Framework is available on Volkswagen’s website at: <https://www.volkswagenag.com/en/InvestorRelations.html>

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the Volkswagen Green Finance Framework

#### Summary

Sustainalytics is of the opinion that Volkswagen's Green Finance Framework is credible and impactful, and aligns with the four core components of the Green Bond Principles 2018 and Green Loan Principles 2018. Sustainalytics highlights the following elements of Volkswagen's Green Finance Framework:

- Use of Proceeds:
  - The use of proceeds category – namely Clean Transportation – is recognized as impactful by the GBP 2018 and GLP 2018. The eligible projects in this category provide meaningful environmental contributions. Sustainalytics views VW's allocation of proceeds to be fostering innovation towards sustainable transportation and cities.
  - The eligible proceeds will be allocated to support the development of clean mobility, through the development and manufacture of the Modular-Electrification Toolkit (MEB) technology for electric vehicles and e-charging infrastructure. MEB is a platform that is exclusively used for electric vehicles. VW clarified the following details of the MEB related use of proceeds:
    - Development that is linked directly to the MEB
    - Manufacture of the MEB and of electric vehicles and their key components related to the MEB
    - Dedicated e-charging infrastructure
  - Sustainalytics positively notes that the proceeds are exclusively used for electric vehicles or charging infrastructure for electric vehicles, thus avoiding the production of components that could be used for conventional cars. In addition, Sustainalytics notes that VW plans to have all issuances CBI certified.
  - VW uses a three-year lookback period and intends to have full allocation on issuance.
- Project Evaluation and Selection:
  - VW has established a Green Finance Committee (GFC) which will evaluate and select the eligible green bond and loan projects. The GFC is comprised of cross-functional representatives from Group Treasury, Sustainability Department, Group Accounting, Group Controlling, and Group Legal. The Business Units that develop Eligible Green Projects are invited to the GFC Committee as guests. The GFC meets at least on an annual basis.
  - Based on a formal establishment of a dedicated committee formed by cross-department and management members, Sustainalytics considers the project evaluation and selection process to be in line with market practice.
- Management of Proceeds:
  - VW will manage the green bond and loan proceeds in a portfolio approach. All eligible project proceeds will be allocated to the Eligible Green Project Portfolio based on the evaluation and selection process stated above. The expenditure and development costs will all be tracked using VW's internal reporting system. Sustainalytics positively highlights that the process for tracking has been reviewed by an external auditor based on ISAE 3000 (limited assurance).
  - Pending full allocation, re-allocation, or unallocated proceeds will be invested in cash or other liquid marketable instruments.
  - Sustainalytics considers this to be in line with market practice.
- Reporting:
  - VW intends to publish annually the allocation and impact reporting of the proceeds until full allocation. The balance of allocated and unallocated proceeds as well as the number of new and existing projects will be disclosed in the allocation reports. CO<sub>2</sub> emissions avoided in the use and production phases, along with the description of the green projects and results of Life Cycle Analysis are to be disclosed in impact reports.
  - Sustainalytics considers VW's allocation and impact reporting to be in line with market practice. In addition, Sustainalytics notes positively that VW seeks to use an independent auditor to verify its allocation reporting.

### Alignment with Green Bond Principles 2018 and Green Loan Principles 2018

Sustainalytics has determined that VW's Green Finance Framework aligns to the four core components of the Green Bond Principles 2018 and Green Loan Principles 2018. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Performance and Strategy of Volkswagen Group

### Contribution of framework to VW's sustainability performance and strategy

In recent years, VW sharpened its sustainability strategy TOGETHER – Strategy 2025<sup>3</sup> to address key environmental issues regarding VW's fleet and own operations. Sustainalytics highlights below the targets and performance of VW that speak to the company's position as a credible green bond and loan issuer and demonstrates how the company's sustainability strategy aligns with the issuance of green bonds and loans.

VW targets a 30% carbon footprint reduction for its passenger cars and light duty vehicles by 2025 and carbon neutrality throughout its product fleet and production facilities by 2050 with Roadmap E.<sup>4</sup>

The emission reduction is aimed to be achieved through amongst others:<sup>5</sup>

- Reducing CO<sub>2</sub> emission of the European new-car fleet from 123 g/km in 2018 to 95 g/km by 2021;
- By 2020, reduce greenhouse gas emissions from energy supply for production facilities in Germany by 40% per unit produced compared to 2010 emission levels, and achieve CO<sub>2</sub> neutral hand-over to customers, through the use of renewable energy, reduced operational emissions and emission compensation;
- By 2025 reduce the environmental impact per unit by 50% compared to 2010, including energy, water consumption, waste for disposal, and emission levels;
- By 2025, achieve a 30% CO<sub>2</sub> reduction per vehicle over the lifecycle compared to 2015 (Decarbonization Index).<sup>6</sup>

VW plans an investment of minimum EUR 60 billion, comprising 21% of its 2018 group annual revenue,<sup>7</sup> in battery cell procurement in the coming years,<sup>8</sup> as well as 70 pure battery-electric vehicles and 30 plug-in hybrid models to be sold by the group by 2028. The company aims to provide completely carbon neutral vehicle fleets by 2050.<sup>9</sup>

VW discloses its CO<sub>2</sub> emissions from vehicle production. Between 2017 and 2018, the CO<sub>2</sub> emissions in kilogram per produced vehicle (Scope 1 and 2) was reduced by 10.89%. Disclosure of the CO<sub>2</sub> fleet emissions was also implemented in 2018 categorized by region: EU, China, Brazil, and the USA respectively.<sup>10</sup>

Given VW's quantitative goals and corporate-wide strategy, Sustainalytics is of the view that investments in the production of electric vehicles financed through its green bonds and loans will further support the group in advancing its sustainability strategy.

### Well positioned to address common environmental and social risks associated with the projects

While clean transportation is recognized as an impactful green use of proceed, Sustainalytics acknowledges that the eligible projects have potential environmental and social risks related to workers' health and safety as well as emissions from production processes, and rare earth elements use in batteries and land use change for related infrastructure.

<sup>3</sup> VW Strategy TOGETHER 2025+. Retrieved from <https://www.volkswagenag.com/en/group/strategy.html>

<sup>4</sup> Idem. Roadmap has gone through several updates: released in 2017, revised in 2018 and published in March 2019

<sup>5</sup> VW Sustainability Annual Report 2018: [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial\\_Report\\_2018\\_e.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial_Report_2018_e.pdf)

<sup>6</sup> Volkswagen's Approach to Sustainability and Decarbonization:

[https://www.volkswagenag.com/presence/investorrelation/publications/presentations/2019/09\\_september/2019-09-20\\_ESG\\_Pfitzer.pdf](https://www.volkswagenag.com/presence/investorrelation/publications/presentations/2019/09_september/2019-09-20_ESG_Pfitzer.pdf)

<sup>7</sup> VW AG Annual Report 2018 to be retrieved from [https://www.volkswagenag.com/presence/investorrelation/publications/annual-reports/2018/volkswagen/en/Y\\_2018\\_e.pdf](https://www.volkswagenag.com/presence/investorrelation/publications/annual-reports/2018/volkswagen/en/Y_2018_e.pdf)

<sup>8</sup> VW did not communicate a time horizon for the investment.

<sup>9</sup> VW Sustainability Annual Report 2018: [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial\\_Report\\_2018\\_e.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial_Report_2018_e.pdf)

<sup>10</sup> The GHG Protocol Corporate Standard classifies companies' GHG emissions into three scopes. Further details to be found at [https://ghgprotocol.org/sites/default/files/standards\\_supporting/FAQ.pdf](https://ghgprotocol.org/sites/default/files/standards_supporting/FAQ.pdf)

The Risk Management and Internal Control System (RMS/ICS) structure established within VW is based on the internationally recognized COSO<sup>11</sup> Enterprise Risk Management Framework standard. The risk management system covers environmental matters, employee matters, and human rights related-matters, among others. The RMS/ICS system also incorporates the Three Lines of Defense Model required by the European Confederation of Institutes of Internal Auditing (ECIIA). The overall system entails guidelines and procedures to be conducted upon risk occurrence.<sup>12</sup>

Regarding employee health and safety aspects, VW has a strategy in place that, among others, requires all Volkswagen Group production sites to comply with the ISO 45001 standards and more specific Group requirements. The Volkswagen Checkup, an on-site free-of-charge health screening programme, is also implemented for all VW employees internationally.<sup>13</sup>

The batteries in electric cars require rare earth metals, some of which bear risks related to human rights in the supply chain. VW's "Group requirements regarding sustainability in its relationships with business partners" and "Code of Conduct for business partners", prohibit child and forced labour and require VW's suppliers to disclose information regarding smelters or refineries used. The VW Group expects "suppliers to avoid using raw materials from smelters or refineries that do not meet the requirements of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas."<sup>14</sup> In addition, VW confirmed that it will check suppliers' compliance with the requirements via its Sustainability Rating (S-Rating). Suppliers without S-Rating or with a negative S-rating cannot be awarded contracts. As such, Volkswagen Group mitigates the risk of sourcing conflict minerals, such as Cobalt, sourced in artisanal small-scale mining. The company also signed a Slavery and Human Trafficking Statement to avoid any forms of modern slavery and human trafficking,<sup>15</sup> in May 2019, based on the UN Global Compact, the ICC Business Charter for Sustainable Development and the conventions of the International Labour Organisation.

VW has received recognition of their CO<sub>2</sub> reduction performance from international standards such as ISO14001 and EMAS. 101 out of 123 VW facilities worldwide have been certified by ISO14001 based on their environmental standards. 44 of VW's production locations have also been certified with their energy management systems in accordance with ISO 50001.<sup>16</sup>

Sustainalytics recognizes that government authorities in a number of countries worldwide have conducted and are conducting investigations of Volkswagen regarding findings of irregularities relating to nitrogen oxide ("NOx") exhaust emissions from diesel engines in certain Volkswagen Group vehicles. Parts of the software of the engine control unit in affected vehicles were identified as an unlawful "defeat device" under US law resulting in noticeable discrepancies between the figures achieved in testing and in actual road use. Cars would appear to have lower levels of pollutants, while under normal driving conditions, the cars emitted levels of NOx<sup>17</sup> "from 10 to 40 times higher than allowed by law above the EPA compliant levels, depending on the type of drive cycle (e.g., city, highway)"<sup>18</sup>. Over eleven million vehicles worldwide with type EA 189 diesel engines were affected. Numerous court and governmental proceedings were subsequently initiated in the USA and the rest of the world.

Since 2015 Volkswagen has recognized expenses directly related to the diesel issue in the total amount of around EUR 30.0bn. Nonetheless, numerous cases are still ongoing or pending in different countries, including a lawsuits filed by investors seeking approximately EUR 9.6bn in compensation from VW for allegedly omitting or delaying the immediate publication of allegedly price sensitive insider information relating to the emissions issue.

After the first Notice of Violation of the U.S. Clean Air Act was issued, Volkswagen initiated its own internal inquiries and an external investigation. In coordination with responsible authorities, the Volkswagen Group has made and is making technical measures available designed to rectify the diesel issue in affected diesel vehicles worldwide. In addition, Volkswagen has been working closely with an appointed independent monitor who is overseeing the implementation of measures to strengthen compliance, reporting and monitoring systems, including an enhanced ethics program within the Group. VW has implemented several initiatives to mitigate related risks, such as forming a task force, led by the group's internal audit, to review processes, reporting and control systems, particularly on engine control unit software development, emission classification and escalation management, which developed rules for enhanced product compliance and

<sup>11</sup> Committee of Sponsoring Organizations of the Treadway Commission

<sup>12</sup> VW Sustainability Annual Report 2018: [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial\\_Report\\_2018\\_e.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial_Report_2018_e.pdf)

<sup>13</sup> Idem

<sup>14</sup> [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/2019\\_Code\\_of\\_Conduct\\_for\\_Business\\_Partners-DE-EN.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/2019_Code_of_Conduct_for_Business_Partners-DE-EN.pdf)

<sup>15</sup> [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/SHTS\\_2019\\_englisch\\_unterschieden.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/SHTS_2019_englisch_unterschieden.pdf)

<sup>16</sup> VW Sustainability Annual Report 2018: [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial\\_Report\\_2018\\_e.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2018/Nonfinancial_Report_2018_e.pdf)

<sup>17</sup> NOx: nitrogen oxides is a toxic pollutant that could affect the environment and human health.

<sup>18</sup> United States Environmental Protection Agency Notice of Violation addressed to Volkswagen AG, Audi AG and Volkswagen Group of America, Inc., dated September 18, 2015.

conformity checks, including: a) early documentation; b) introduction of multiple controls for approvals in the product development process; c) separation of development and approval of drives; d) new bodies for cross-brand management and clarification of compliance issues.

Further measures include VW's announcement to "make comprehensive changes" to testing practices, including independent, third-party evaluation of emissions tests and real-world random tests of vehicles' emissions in the future. Further VW developed a Sustainability Council which advises on the Group's sustainability and social responsibility from an independent party's angle. They are not bound by instructions and have extensive rights of information, consultation and initiative. Considering the measures and changes announced, Sustainalytics is of the opinion that VW has taken steps to mitigate related risks, but encourages the company to complete recalls in a timely manner, and ensure continuous compliance and further progress on strengthening internal systems (to ensure compliance and prevent recurrence) to further mitigate risks.

Given VW's internal risk management programmes and external certification as well as supplier policies, Sustainalytics is of the opinion that VW is well positioned to address key environmental and social risks associated with the projects financed.

### Section 3: Impact of Use of Proceeds

The use of proceeds category, clean transportation, is recognized as impactful by the GBP. Sustainalytics discusses below where the impact is specifically relevant in the local context.

#### Impact of Electric Vehicles (EVs) on clean transportation

VW intends to use its Green Bonds' and Loans' proceeds for manufacturing components for electric vehicles and eligible e-charging infrastructure. In particular, Volkswagen intends to invest in Modular Electrification Toolkit (MEB, Modular electric drive matrix). The MEB is a basic component of electric vehicles and the toolkit intends to increase efficiency in the manufacture of battery electric vehicles (BEVs) and thus decrease costs of e-mobility. BEVs are solely run by an electric motor using electricity from the on-board battery. Unlike conventional vehicles using an internal combustion engine, zero exhaust emissions are generated while driving BEVs.<sup>19</sup>

Despite noteworthy technological advancements, CO<sub>2</sub> emissions from transport are expected to increase 60% by 2050.<sup>20</sup> Moreover, the transport sector accounted for 25% of global greenhouse gas (GHG) emissions in 2016.<sup>21</sup> In this context, the UN Framework Convention on Climate Change (UNFCCC) considers the transportation sector to play a critical role in tackling climate change,<sup>22</sup> indicating the importance to cut GHG emissions from the sector.

While electric mobility has a big potential to cut GHG emissions from transport, to assess the total emissions of an Electric Vehicle (EV) during its complete lifecycle, it is crucial to know which energy source is used to charge the electric batteries.<sup>23</sup> According to the EU, electric mobility can help to cut GHG emissions if EVs use electricity which is at least partly generated from renewable sources during their entire life cycle.<sup>24</sup> Other influencing factors for the potential of EVs to reducing GHG emissions include the total mileage during the life cycle and disposal of the components at the end of the life cycle. Thus, the use phase is where the largest reduction potential takes place when comparing EVs to a conventional vehicle.<sup>24</sup> If the EVs are mostly charged using energy from a renewable source, the higher GHG emissions produced during the manufacturing phase can be offset during the use phase.<sup>24</sup> Given an expected increase in renewable energy to meet the global energy demand by one-fifth in the next five years to reach 12.4% in 2023,<sup>25</sup> Sustainalytics is of the opinion that electric vehicles can contribute to reduce GHG emissions in the transport sector. VW itself conducted a life cycle assessment to compare the carbon footprint of its current Golf TDI (Diesel) and its e-Golf, indicating that the e-Golf emits 15% less CO<sub>2</sub>/km on average over its lifetime.

However, even though the share of electric cars has grown rapidly over the last decade, the electric car still accounts for less than one percent of the global car fleet of VW Group.<sup>26</sup> According to the International Energy

<sup>19</sup> EEA, "Electric vehicles in Europe", at: <https://www.eea.europa.eu/publications/electric-vehicles-in-europe>

<sup>20</sup> ITF (2017). ITF Transport Outlook 2017, OECD Publishing, at: <https://doi.org/10.1787/9789282108000-en>.

<sup>21</sup> IEA, Co2 Emissions Statistics, at: [www.iea.org/statistics/co2emissions/](http://www.iea.org/statistics/co2emissions/)

<sup>22</sup> Mobilizing Sustainable Transport For Development, at:

<https://sustainabledevelopment.un.org/content/documents/2375Mobilizing%20Sustainable%20Transport.pdf>

<sup>23</sup> EEA, "Electric vehicles in Europe", at: <https://www.eea.europa.eu/publications/electric-vehicles-in-europe>

<sup>24</sup> Electric Road Vehicles in the European Union: Trends, Impacts and Policies, at: [http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS\\_BRI%282019%29637895](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI%282019%29637895)

<sup>25</sup> [https://www.iea.org/renewables2018/#targetText=Hydropower%20remains%20the%20largest%20renewable.%2C%20and%20bioenergy%20\(3%25\).&targetText=Renewable%20heat%20consumption%20is%20expected.heating%20sector%20demand%20by%202023](https://www.iea.org/renewables2018/#targetText=Hydropower%20remains%20the%20largest%20renewable.%2C%20and%20bioenergy%20(3%25).&targetText=Renewable%20heat%20consumption%20is%20expected.heating%20sector%20demand%20by%202023)

<sup>26</sup> IEA (2019). Electric vehicles: Tracking Clean Energy Progress. Retrieved from <https://www.iea.org/tecip/transport/electricvehicles/>



Agency's Sustainable Development Scenario (SDS),<sup>27</sup> 15% of the global car fleet should be electric by 2030,<sup>28</sup> indicating the need to increase efficiency and availability of EVs. VW also opened the MEB technology to other manufacturers,<sup>29</sup> increasing the potential impact of the MEB on e-mobility.

Given the importance of the transport sector and EVs in reducing global GHG emissions, Sustainalytics is of the opinion that VW's investments in components of EVs and related e-charging infrastructure can contribute to reduce GHG emissions.

#### Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. The green bonds and loans issued under this framework advance the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Clean Transportation	9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
	11. Sustainable Cities and Communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

## Conclusion

VW has developed the Volkswagen Green Finance Framework under which it intends to issue green debt instruments (bonds and loans) and use the proceeds to finance or refinance the development and implementation of the Modular -Electrification Toolkit (MEB) technology for electric vehicles. Sustainalytics considers the financing of the MEB to contribute to VW goals of developing fully electric vehicles and the overall availability of e-mobility.

Sustainalytics reviewed VW's processes for project evaluation and selection, management of proceeds and reporting and considers them aligned with market practice. Furthermore, Sustainalytics highlights that VW's process for management of proceeds and the allocation reporting are audited by an external independent party, which is aligned with market best practice.

Given the above Sustainalytics considers the Volkswagen Green Finance Framework to be credible, robust and impactful and aligned with the GBP and GLP.

<sup>27</sup> The IEA's Sustainable Development Scenario (SDS) outlines an integrated approach to achieving internationally agreed objectives on climate change, air quality and universal access to modern energy. Retrieved from [www.iea.org/weo/weomodel/](https://www.iea.org/weo/weomodel/)

<sup>28</sup> IEA (2019). Electric vehicles: Tracking Clean Energy Progress. Retrieved from <https://www.iea.org/tcep/transport/electricvehicles/>

<sup>29</sup> <https://www.volkswagen-newsroom.com/en/press-releases/volkswagen-opens-electric-platform-to-third-parties-4732>

## Appendices

### Appendix 1: Green Bond / Green Bond Programme - External Review Form Section 1. Basic Information

<b>Issuer name:</b>	Volkswagen AG
<b>Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i></b>	Volkswagen Green Finance Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	March 2020
<b>Publication date of review publication: <i>[where appropriate, specify if it is an update and add reference to earlier relevant review]</i></b>	

### Section 2. Review overview

#### SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds        | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting                                    |

#### ROLE(S) OF REVIEW PROVIDER

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification   | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other <i>(please specify)</i> :                        |  |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

#### EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Please refer to Evaluation Summary above.



### Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

#### 1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible proceeds will be allocated to support the development of clean mobility, through the development and manufacture of the Modular-Electrification Toolkit (MEB) technology for electric vehicles and e-charging infrastructure. MEB is a platform that is exclusively used for electric vehicles. VW clarified the following details of the MEB related use of proceeds:

- ☐ Research and development that is linked directly to the development of the MEB
  - ☐ Manufacture of the MEB and of electric vehicles and their key components related to the MEB
- Sustainalytics positively notes that the proceeds are exclusively used for electric vehicles or charging infrastructure for electric vehicles, thus avoiding the production of components that could be used for conventional cars. In addition, Sustainalytics notes that VW plans to have all issuances CBI certified. VW uses a three-year lookback period and intends to have full allocation on issuance.

#### Use of proceeds categories as per GBP:

- |  |  |
|--|--|
| <input type="checkbox"/> Renewable energy  | <input type="checkbox"/> Energy efficiency   |
| <input type="checkbox"/> Pollution prevention and control  | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation   | <input checked="" type="checkbox"/> Clean transportation   |
| <input type="checkbox"/> Sustainable water and wastewater management   | <input type="checkbox"/> Climate change adaptation   |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes                             | <input type="checkbox"/> Green buildings   |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other <i>(please specify)</i> :   |

If applicable please specify the environmental taxonomy, if other than GBPs:

#### 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section *(if applicable)*:

VW has established a Green Finance Committee (GFC) which will evaluate and select the eligible green bond and loan projects. The GFC is comprised of cross-functional representatives from Group Treasury, Sustainability Department, Group Accounting, Group Controlling, and Group Legal. The Business Units that develop Eligible Green Projects are invited to the GFC Committee as guests. The GFC meets at least on an annual basis.

Based on a formal establishment of a dedicated committee formed by cross-department and management members, Sustainalytics considers the project evaluation and selection process to be in line with market practice.

#### Evaluation and selection

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives            | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories               |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available       | <input type="checkbox"/> Other ( <i>please specify</i> ):   |

#### Information on Responsibilities and Accountability

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other ( <i>please specify</i> ):  |  |

### 3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

VW will manage the green bond and loan proceeds in a portfolio approach. All eligible project proceeds will be allocated to the Eligible Green Project Portfolio based on the evaluation and selection process stated above. The expenditure and development costs will all be tracked using VW's internal reporting system. Sustainalytics positively highlights that the process for tracking has been reviewed by an external auditor based on ISAE 3000 (limited assurance). Pending full allocation, re-allocation, or unallocated proceeds will be invested in cash or other liquid marketable instruments. Sustainalytics considers this to be in line with market practice.

#### Tracking of proceeds:

- |   |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in an appropriate manner          |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other ( <i>please specify</i> ):   |

#### Additional disclosure:

- |   |   |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements          |

☒ Disclosure of portfolio balance of unallocated proceeds

☐ Other (please specify):

#### 4. REPORTING

Overall comment on section (if applicable):

VW intends to publish annually the allocation and impact reporting of the proceeds for the lifetime of the green debt instruments. The balance of allocated and unallocated proceeds as well as the number of new and existing projects will be disclosed in the allocation reports. CO<sub>2</sub> emissions avoided in the use and production phases, along with the description of the green projects and results of Life Cycle Analysis are to be disclosed in impact reports. Sustainalytics considers VW's allocation and impact reporting to be in line with market practice. In addition, Sustainalytics notice positively that VW seeks to use an independent auditor to verify its allocation reporting.

#### Use of proceeds reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other (please specify):

#### Information reported:

☒ Allocated amounts

☐ Green Bond financed share of total investment

☐ Other (please specify):

#### Frequency:

☒ Annual

☐ Semi-annual

☐ Other (please specify):

#### Impact reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other (please specify):

#### Frequency:

☒ Annual

☐ Semi-annual

☐ Other (please specify):

#### Information reported (expected or ex-post):

☒ GHG Emissions / Savings

☐ Energy Savings

☐ Decrease in water use

☐ Other ESG indicators (please specify):

**Means of Disclosure**

- ☐ Information published in financial report
 ☐ Information published in sustainability report  
☒ Information published in ad hoc documents
 ☐ Other (please specify):  
☒ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): annual reporting with regard to the Green Finance Projects will also be subject to external verification by Climate Bonds Initiative

Where appropriate, please specify name and date of publication in the useful links section.

**USEFUL LINKS** (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

<https://www.volkswagenag.com/en/sustainability.html>

**SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE****Type(s) of Review provided:**

- ☐ Consultancy (incl. 2<sup>nd</sup> opinion)
 ☐ Certification  
☐ Verification / Audit
 ☐ Rating  
☐ Other (please specify):

**Review provider(s):****Date of publication:****ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP**

- i. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

## Disclaimer

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## Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, the firm partners with institutional investors who integrate ESG information and assessments into their investment processes. Spanning 30 countries, the world's leading issuers, from multinational corporations to financial institutions to governments, turn to Sustainalytics for second-party opinions on green and sustainable bond frameworks. Sustainalytics has been certified by the Climate Bonds Standard Board as a verifier organization, and supports various stakeholders in the development and verification of their frameworks. In 2015, Global Capital awarded Sustainalytics "Best SRI or Green Bond Research or Ratings Firm" and in 2018 and 2019, named Sustainalytics the "Most Impressive Second Party Opinion Provider". The firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance in 2018, and in 2019 was named the "Largest Approved Verifier for Certified Climate Bonds" by the Climate Bonds Initiative. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan and the Minister of the Environment Award in the Japan Green Contributor category of the Japan Green Bond Awards in 2019.

For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com)

Or contact us [info@sustainalytics.com](mailto:info@sustainalytics.com)

