

# Second-Party Opinion

## Schaeffler Group Green Finance Framework

### Evaluation Summary

Sustainalytics is of the opinion that the Schaeffler Group 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. This assessment is based on the following:



**USE OF PROCEEDS** The eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that investments in (i) clean transportation, (ii) renewable energy, (iii) eco-efficient and/or circular economy adapted products, production technologies and processes, and (iv) energy efficiency will lead to positive environmental impacts and advance the UN Sustainable Development Goals 7, 9, 11 and 12.



**PROJECT EVALUATION / SELECTION** Schaeffler’s internal process for evaluating and selecting projects is handled by the Sustainability Committee formed by the Executive Board and selected managers with relevant functional responsibility. The Committee is responsible for selecting projects to be financed with proceeds from green finance instruments in compliance with the Eligibility criteria outlined in the Framework. This process is aligned with market practice.



**MANAGEMENT OF PROCEEDS** Schaeffler’s processes for management of proceeds is managed by the Treasury department through a portfolio approach. In the event that proceeds are temporarily unallocated, they will be managed according to Schaeffler’s internal policies and held and/or invested, at Schaeffler’s discretion, in its treasury liquidity portfolio, in cash or other short term and liquid instruments or to pay back a portion of its outstanding indebtedness. This process is aligned with market practice.



**REPORTING** Schaeffler intends to report on the allocation of proceeds at least annually or until full allocation on its corporate website, including the total amount of investments and expenditures in the eligible portfolio, the share of financing and refinancing, the balance of unallocated proceeds, and the location of the assets. Additionally, the Issuer intends to report on relevant impact metrics where and when feasible. This process is aligned with market practice.

<b>Evaluation date</b>	February 2020
<b>Issuer Location</b>	Herzogenaurach, Germany

### Report Sections

Introduction.....	2
Sustainalytics’ Opinion .....	3
Appendices .....	9

### For inquiries, contact the Sustainable Finance Solutions project team:

**Evan Bruner** (Amsterdam)  
Project Manager  
evan.bruner@sustainalytics.com  
(+31) 20 205 0027

**Charles Cassaz** (Amsterdam)  
Project Support  
charles.cassaz@sustainalytics.com  
(+31) 20 205 02 09

**Jean-Claude Berthelot** (Amsterdam)  
Client Relations  
susfinance.emea@sustainalytics.com  
+44 20 3880 0193

## Schaeffler Group Green Finance Framework

---

### Introduction

Schaeffler Group (Schaeffler AG and its subsidiaries, hereinafter “Schaeffler”, the “Company”, the “Group” or the “Issuer”) is a German company specializing in the design, production and distribution of bearings, precision mechanical components, modules and systems used in the automotive industry and other industrial sectors such as aerospace, rail transport, machine tools and wind turbines.

Schaeffler has developed the Schaeffler Group Green Finance Framework (the “Framework”) under which it may issue green financing instruments such as, but not limited to, Green Schuldschein (SSD), Green bonds and/or Green Loans, and use the proceeds to finance and refinance, in whole or in part, existing and future projects that will contribute to a low-carbon economy. The Framework will support advancing the decarbonization of road transportation, the generation of renewable energy, circular and more resource and energy efficient production processes. The Framework defines eligibility criteria in four areas:

1. Clean Transportation
2. Renewable Energy
3. Eco-efficient and/or circular economy adapted products, production technologies and processes
4. Energy Efficiency

Schaeffler engaged Sustainalytics to review the Schaeffler Group Green Finance Framework, dated February 2020, and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP) and 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 Schaeffler’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 Schaeffler’s Green Bond Framework. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Schaeffler Group 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 Schaeffler Group Green Finance Framework is available on Schaeffler Group’s website at: [https://www.schaeffler.com/content.schaeffler.com/en/investor\\_relations/creditor\\_relations\\_1/creditor\\_relations.jsp](https://www.schaeffler.com/content.schaeffler.com/en/investor_relations/creditor_relations_1/creditor_relations.jsp)

## Sustainalytics' Opinion

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

#### Summary

Sustainalytics is of the opinion that the Schaeffler Group Green Finance Framework is credible and impactful and aligns with the four core components of the GBP 2018 and GLP 2018. Sustainalytics highlights the following elements of Schaeffler's Green Finance Framework:

- Use of Proceeds:
  - Schaeffler Group may finance and/or refinance projects in the following categories (i) clean transportation, (ii) renewable energy, (iii) eco-efficient and/or circular economy adapted products, production technologies and processes and, (iv) energy efficiency, which Sustainalytics views as contributing to a low-carbon economy and are recognized as credible and impactful by the GBP and GLP. Schaeffler's financing may span across the Company's global portfolio, with an emphasis on operations in Europe and China.
  - Investments and/or expenditures in the area of clean transportation may include both CAPEX and OPEX. CAPEX expenditures include those related to the manufacture, development and distribution of products for fully electric vehicles or energy storage systems. For example, this could include investments to support the manufacturing of e-axles and other components for electric motors. Additionally, Schaeffler may invest into research and development (R&D) for alternative and sustainable drives/power trains, e.g. components for fuel cell systems, which are OPEX.
  - Regarding investments and/or expenditures for renewable energy, financing includes CAPEX expenditures into Schaeffler's Industrial Division's, which manufactures components for wind turbines, including bearings and other equipment for use in wind energy projects. Sustainalytics notes that Schaeffler has analyzed each of its production lines to identify the proportion of operating costs associated with lines that are specific to the manufacturing of wind components. The Company has eliminated all production lines for which the proportion of costs associated with wind is less than 50% and, for lines that are more than 50% dedicated to the manufacturing of wind components, the Company applies a pro-rata approach to identifying CAPEX. Through this approach Schaeffler ensures that only the costs associated with wind component manufacturing are financed.
  - Schaeffler may finance improved manufacturing practices and enhanced engineering systems including ion exchangers, briquetting systems or evaporators, contributing to improved production technologies and processes. Additionally, Schaeffler may invest into research and development (R&D) for sustainable energy storage and conversion technologies along the whole energy chain.
  - Schaeffler may finance energy efficiency improvements for manufacturing processes; Schaeffler has confirmed that proceeds will only be used to finance energy efficiency investments for electricity-based processes and as such there is no concern for fossil fuel lock-in. Sustainalytics notes that the Company has not established energy efficiency savings thresholds for these improvements while recognizing that the establishment of such thresholds may be difficult for manufacturing processes. Schaeffler has committed to robust reporting on energy savings to ensure a high level of transparency, which Sustainalytics views positively.
  - Sustainalytics notes that several of the above categories, including clean transportation, renewable energy and eco-efficient and/or circular economy products, production technologies, and processes include R&D related expenditures, which are OPEX. Sustainalytics recognizes the importance of R&D, while also noting that it is difficult to estimate the positive impact that such investments may result in. Sustainalytics encourages Schaeffler to report on the positive impacts achieved from R&D related expenditures.
- Project Evaluation and Selection:
  - Schaeffler's internal process for project evaluation and selection is handled by the Sustainability Committee, which is formed by the Executive Board and selected managers with relevant

## Schaeffler Group Green Finance Framework

functional responsibility. The Committee will oversee the selection of projects financed through the Framework, in compliance with the Eligibility criteria. This process is aligned with market practice.

- Management of Proceeds:
  - Schaeffler’s Treasury department is responsible for the management of proceeds. The Treasury will allocate the proceeds of Green Finance Instruments to an Eligible Green Project Portfolio in accordance with the Eligibility criteria. Should any proceeds remain temporarily unallocated, they will be managed appropriately by Schaeffler, which will hold and/or invest them, at its own discretion, in its treasury liquidity portfolio, in cash or other short term and liquid instruments or to pay back a portion of its outstanding indebtedness. This process is aligned with market practice.
- Reporting:
  - Schaeffler intends to report allocation of proceeds, on an annual basis or until full allocation, including the total amount of investments and expenditures in the eligible portfolio, the share of financing and refinancing, the balance of unallocated proceeds, and the location of the assets. Additionally, the Issuer may report on the environmental impacts of the projects, where and when feasible, including relevant impact metrics such as estimated annual GHG emissions avoided/reduced (tCO<sub>2</sub>, scope 1,2), annual renewable energy generation in MWh, or annual energy savings in MWh/GWh etc. Sustainalytics notes that the Schaeffler Group may request a limited assurance statement from an external auditor on the allocation of proceeds from green finance instruments. Sustainalytics notes that third-party verification is aligned with market best practice.

### Alignment with Green Bond Principles 2018

Sustainalytics has determined that the Schaeffler Green Finance Framework aligns to the four core components of the GBP 2018 and GLP 2018. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Performance of the Issuer

### Contribution of framework to issuer’s sustainability strategy

Schaeffler is committed to bringing long-term value for its stakeholders and society.<sup>3</sup> The Company is committed to the principles of the Global Compact, and aspires to follow the requirements of the German National Action Plan on Business and Human Rights, the German Sustainability Development Strategy, and the Paris Agreement.<sup>4</sup> Schaeffler has developed a sustainability strategy around four areas, namely (i) sustainable management, (ii) customer and products, (iii) environment and energy, (iv) employees and society. The information below details the Issuer’s strategic fields of action and specific objectives.

- Environmental management
  - Within its management system, Schaeffer has integrated an Environmental Management System (“EMS”) certified in accordance with the ISO 14001 standard and the Eco-Management and Audit Scheme (“EMAS”) standard, demonstrating the Company’s ability to effectively quantify and reduce its environmental impacts. Between 2017 and 2018, the coverage rate of employees working at Schaeffler in EMAS registered sites increased from 87.9% to 88.2%.<sup>5</sup> This underlines the Issuer’s ability to manage environmental risk, as part of its sustainability strategy i.e. (i) sustainable management.
- Innovation
  - Within (ii) customer and products, Schaeffler states its recognition of the importance of energy efficiency and resource consumption in its industrial processes, and more broadly in the

<sup>3</sup> Schaeffler, “Sustainable Management”, (2018), at: <https://www.schaeffler-sustainability-report.com/2018/fields-of-action/sustainable-management.html>

<sup>4</sup> Schaeffler, “Understanding of Sustainability”, (2018), at: <https://www.schaeffler-sustainability-report.com/2018/strategy-and-sustainability-management/understanding-of-sustainability.html>

<sup>5</sup> Schaeffler, “Environmental Management”, at: (2018), <https://www.schaeffler-sustainability-report.com/2018/fields-of-action/environment-and-energy/environmental-management.html>

## Schaeffler Group Green Finance Framework

transport sector,<sup>6</sup> which is why its R&D department seeks to create the mobility of the future, in an ecologically and socially responsible manner.<sup>7</sup>

- Energy consumption and GHG emissions
  - Schaeffler's energy consumption increased by 7.95% between 2017 and 2018, while its absolute CO<sub>2</sub> emissions increased by 3.7% compared to the previous year; however this is mainly due to the growth of the Company and is only a reflection of absolute values.<sup>8</sup> As part of the (iii) environment and energy pillar of its sustainability strategy, the Company is committed to increase energy efficiency through technology improvements, such as energy-efficient LED lighting, and the promotion of more responsible energy behaviors, thanks to environmental officers providing tips to employees.<sup>8</sup> Moreover, Schaeffler states its intention to "uncouple the increase in CO<sub>2</sub> emissions from growth in the future," which Sustainalytics encourages the Company to define as a clear target.<sup>8</sup>
- Material and resource management
  - Within (iii) environment and energy, Schaeffler has committed to adhere to quantifiable sustainability targets regarding the use of natural resources. The Company expects to publicly release these targets in March 2020.
  - Schaeffler's water consumption has grown by 2.1% between 2017 and 2018, due to the expansion of the Company. Therefore, Schaeffler is integrating technologies when upgrading existing factories or buildings new ones. For instance, to reduce water consumption during the water-intensive electroplating phase, the used rinse water is processed and returned to the operating process thanks to ion exchanger, operating in a close loop (100% recycling). In addition, Schaeffler installed 15 evaporator systems to handle oily wastewater by evaporation of the aqueous components by vacuum. The Company plans to further install eight evaporator systems.
  - Moreover, Schaeffler is committed "to increase the use of recycle raw materials such as steel and aluminum".<sup>9</sup> The Company's goal is to achieve a closed loop recycling, i.e. minimizing production inputs, recycling internal waste and residue internally, and reusing materials from the products recycled by customers.<sup>10</sup>

Sustainalytics is of the opinion that the activities financed through the Framework will strengthen the Company's sustainable strategy, contributing to its resource reduction targets. Schaeffler's sustainability department has developed quantifiable time-bound sustainability targets with regards to climate protection, energy efficiency, renewable energy usage, supplier management, and occupational safety. These targets have been disclosed by Schaeffler's Sustainability Committee in February 2020 and are expected to be publicly released in March 2020.

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

Sustainalytics underlines the overall importance of the projects and activities that will be financed through this Framework. Nevertheless, as with any large-scale development projects, it is crucial to ensure that common environmental and social ("E&S") risks are mitigated. Potential E&S risks arising from the projects include labour and working conditions, occupational health and safety, and supply chain risks.

The Company has implemented a risk management system that forms part of its governance structure, covering both risks and opportunities.<sup>11</sup> Risks are analyzed at the subsidiary level in a bottom-up process.

<sup>6</sup> Schaeffler, "Customers and products", at: (2018), <https://www.schaeffler-sustainability-report.com/2018/fields-of-action/customers-and-products.html>

<sup>7</sup> Schaeffler, "Sustainable products and technologies", (2018), at: <https://www.schaeffler-sustainability-report.com/2018/fields-of-action/customers-and-products/sustainable-products-and-technologies.html>

<sup>8</sup> Schaeffler, "Energy management and emissions", (2018), at: <https://www.schaeffler-sustainability-report.com/2018/fields-of-action/environment-and-energy/energy-management-and-emissions.html>

<sup>9</sup> The circular economy refers to an economic system aimed at eliminating waste and the continual use of resources by reusing, repairing, refurbishing, remanufacturing and recycling to create a close-loop system. Geissdoerfer, M., et al., (2017), "The Circular Economy – A new sustainability paradigm?", at: <https://www.repository.cam.ac.uk/handle/1810/261957>

<sup>10</sup> Schaeffler, "Material and resource management", (2018), at: <https://www.schaeffler-sustainability-report.com/2018/fields-of-action/environment-and-energy/material-and-resource-management.html>

<sup>11</sup> Schaeffler, "Schaeffler Annual Report March 06, 2019: Staying in motion", (2019), at: [https://www.schaeffler.com/remotemedien/media/\\_shared\\_media\\_rwd/08\\_investor\\_relations/reports/2018\\_ar/2018\\_schaeffler\\_annual\\_report\\_en.pdf#page=119](https://www.schaeffler.com/remotemedien/media/_shared_media_rwd/08_investor_relations/reports/2018_ar/2018_schaeffler_annual_report_en.pdf#page=119)

## Schaeffler Group Green Finance Framework

Based on this, the appropriate global management division implements a top-down analysis, assessing the risks within the subsidiaries and considering interdependencies within the Company.

Schaeffler's OHM is aligned with the Luxembourg Declaration on Workplace Health Promotion of the EU. In 2018, Schaeffler introduced a workplace register that identifies ergonomic strains in the workplace in order to reduce improper physical stresses for its employees. The tool has been implemented in 20 locations in Germany and is expected to be available worldwide by 2021. In 2018, 88.7% of Schaeffler's production sites worldwide were certified by the ISO norm 45001, including all Chinese production sites. Moreover, the accident rate has been reduced by 12.7% between 2017 and 2018.

To mitigate potential risks resulting from its material production via suppliers, Schaeffler uses the "Reasonable Country of Origin Inquiries" ("RCOI") procedure, created by the Responsible Minerals Initiative<sup>12</sup> to establish the location from which its "suppliers source components with critical materials, and, where appropriate, initiate targeted supply chain actions." The response rate of the suppliers surveyed increased from 57% to 94.3%, from 2013 to 2018. Based on the above, Sustainalytics is of the opinion that Schaeffler's relevant risk management procedures are robust and credible, and Schaeffler is well-positioned to issue green finance instruments.

### Section 3: Impact of Use of Proceeds

All four use of proceeds categories are recognized as impactful by GBP. Sustainalytics has focused on three below where the impact is specifically relevant in local context.

#### Electrifying the Transport Sector to Reduce its GHG Emissions in the European Context

In 2017, the transport sector accounted for 30.84% of the final energy consumption in the EU-28.<sup>13</sup> The transport sector is almost entirely powered by carbon intensive energy sources – including blended biofuels and biodiesels – while electrically powered transport represented only 1.7% of the energy consumed by transport in 2017.<sup>14</sup> Between 1990 and 2017, transport-related GHG emissions increased by 22% while the overall EU's emissions decreased by 22%, which demonstrates the critical need to reduce transportation related emissions.<sup>15</sup>

As such, decarbonizing the transport sector by further advancing its electrification contributes to EU emissions reduction targets; the EU and its Member States are committed to at least a 40% reduction in domestic GHG emissions. In 2016, light-duty-vehicles<sup>16</sup> ("LDVs") alone were responsible for 15% of CO<sub>2</sub> emissions in the EU,<sup>17</sup> highlighting the emissions reduction opportunity created by electrifying the propulsion of passenger cars and light commercial vehicles. Moreover, the EU has set zero- and low emission vehicles (ZLEVs) sales targets of 15% for 2025 and 35% for 2030, further incentivizing the growth of the electric vehicles ("EVs") market.<sup>18</sup> Consequently, Sustainalytics is of the opinion that Schaeffler's investments in products for fully electric "zero emission vehicles" will contribute to the electrification of the transport sector, which will eventually lead to its decarbonization.<sup>19</sup> Such products include, for example, the E-Axle 2-in-1 system, an axle drive designed for battery electric vehicles ("BEV").<sup>20</sup>

In addition, Sustainalytics notes that GHG emissions of EVs are largely dependent on the composition of the electricity mix, since the largest potential reduction in emissions occurs in the in-use phase.<sup>21</sup> For example, in the current German power mix context, EVs emit more CO<sub>2</sub> than modern diesel cars during their entire life

<sup>12</sup> Responsible Minerals Initiative, "Reasonable Country of Origin Inquiry Data", at: <http://www.responsiblemineralsinitiative.org/rcoi-data/>

<sup>13</sup> Eurostat, "Final energy consumption by sector", at: <https://ec.europa.eu/eurostat/databrowser/view/ten00124/default/table?lang=en>

<sup>14</sup> Eurostat, "Final energy consumption in transport by type of fuel", at: <https://ec.europa.eu/eurostat/databrowser/view/ten00126/default/table?lang=en>

<sup>15</sup> Eurostat, "Greenhouse gas emission statistics – emissions inventories", at: [https://ec.europa.eu/eurostat/statistics-explained/index.php/Greenhouse\\_gas\\_emission\\_statistics#Trends\\_in\\_greenhouse\\_gas\\_emissions](https://ec.europa.eu/eurostat/statistics-explained/index.php/Greenhouse_gas_emission_statistics#Trends_in_greenhouse_gas_emissions)

<sup>16</sup> Within the EU Single Market, light-duty-vehicles are passenger cars and vans. European Commission, "Vehicle categories", at: [https://ec.europa.eu/growth/sectors/automotive/vehicle-categories\\_fr](https://ec.europa.eu/growth/sectors/automotive/vehicle-categories_fr)

<sup>17</sup> European Commission, "Road transport: Reducing CO<sub>2</sub> emissions from vehicles", at: [https://ec.europa.eu/clima/policies/transport/vehicles\\_de](https://ec.europa.eu/clima/policies/transport/vehicles_de)

<sup>18</sup> ICCT, "Policy Update: CO<sub>2</sub> EMISSION STANDARDS FOR PASSENGER CARS AND LIGHT-COMMERCIAL VEHICLES IN THE EUROPEAN UNION", (2019), at: [https://theicct.org/sites/default/files/publications/EU-LCV-CO2-2030\\_ICCTupdate\\_20190123.pdf](https://theicct.org/sites/default/files/publications/EU-LCV-CO2-2030_ICCTupdate_20190123.pdf)

<sup>19</sup> The overall decarbonization of the transport sector is conditioned by external factors such as market trends or local electricity mixes. Please see the explication below regarding the importance of electricity carbon intensity (gCO<sub>2</sub>eq/kWh) for EVs life cycle emissions.

<sup>20</sup> Schaeffler, "Capital Markets Day 2019", (2019), at:

[https://www.schaeffler.com/remotemedien/media/\\_shared\\_media\\_rwd/08\\_investor\\_relations/capital\\_markets\\_days/2019\\_schaeffler\\_capital\\_markets\\_day\\_presentations\\_wfr29x.pdf](https://www.schaeffler.com/remotemedien/media/_shared_media_rwd/08_investor_relations/capital_markets_days/2019_schaeffler_capital_markets_day_presentations_wfr29x.pdf)

<sup>21</sup> EEA, "Electric vehicles from life cycle and circular economy perspectives. TERM 2018: Transport and Environment Reporting Mechanism (TERM) report", (2018), at: <https://www.eea.europa.eu/publications/electric-vehicles-from-life-cycle>

## Schaeffler Group Green Finance Framework

cycle.<sup>22</sup> Nevertheless, EVs reporting life cycle GHG emissions using the average European electricity mix is 17-21% lower than similar diesel vehicles and 26-30% lower than petrol vehicles.<sup>23</sup> The integration of renewables is therefore crucial to trigger the positive impacts of the electrification of transport, which is why Sustainalytics positively highlights the importance of Schaeffler's investments in components for renewable electricity generation and storage systems alongside investments related to EVs.

### **Decarbonizing EU's Electricity Generation: Adding Renewable Capacity, Fostering Grid-Scale Energy Storage**

Schaeffler investments in components for renewable electricity generation and storage systems support decarbonizing the European electricity mix and therefore reducing energy related GHG emissions. This is due to the fact that energy production and consumption are the largest source of emissions in the EU, contributing for 80% of the total.<sup>24</sup> According to the IRENA's REmap Case 2050, 8.8 Gt of CO<sub>2</sub> would be avoided annually worldwide by reaching an 85% renewable share in total electricity generation, by 2050 compared to 2015.<sup>25</sup> Schaeffler investments can assist the EU in reaching its binding target of achieving a share of at least 32% of renewable energy by 2030.<sup>26</sup> In 2017, the energy sector in the EU was dominated by fossil-fuels, with renewables accounting for 17.53% of the gross final energy consumption, highlighting the road ahead.<sup>27</sup> In 2018, renewables (including hydro) delivered 28.4% of the electricity in the EU-28, increasing its share by 2.5 points of percentage since 2016.<sup>28</sup>

However, the penetration of renewables is challenging for grids stability, given the intermittent generation of renewable energy sources.<sup>29</sup> The development of grid-scale energy storage is ergo crucial to shift towards a renewables-dominated electricity mix,<sup>30</sup> overcoming the weather dependency of renewables by reducing the variability of power produced at a given moment.

### **Electrification of Transport and Decarbonization of Electricity Generation in China**

In 2008, the transport sector accounted for approximately 10% of China's CO<sub>2</sub> emissions.<sup>31</sup> From 1995 to 2012, the annual growth rate of transport-related CO<sub>2</sub> emission was 11.7%. Therefore, cutting down transport-related emissions has been a priority for the Chinese government. China has chosen to push towards the electrification of transport. For example, the Electric Vehicle Subsidy Program amended in 2018 is incentivizing higher battery energy density in order to drive demand for EVs.<sup>32</sup> As explained above,<sup>19</sup> electrification of transport could ultimately reduce the sector's life cycle carbon emissions, reducing China's electricity carbon intensity. Consequently, Schaeffler's financing of components for EVs will facilitate the further electrification of transportation and could contribute to the decarbonization of the transport sector.

To maintain the path towards a 2°C climate change target, global electricity carbon intensity must achieve a short-term target of 600g/kWh by 2020.<sup>31</sup> In 2018, China generated 26.7% of the world's electricity generation,<sup>33</sup> highlighting its importance in meeting the above-mentioned electricity carbon intensity target. China has therefore expressed its will to maintain electricity supply emission levels at 550g/kWh.<sup>34</sup> Given the

<sup>22</sup> Buchal, C., et al., (2019), "Kohle motoren, Windmotoren und Dieselmotoren: Was zeigt die CO<sub>2</sub>-Bilanz?", at: [http://www.hanswernersinn.de/dcs/sd-2019-08-sinn-karl-buchal-motoren-2019-04-25\\_0.pdf](http://www.hanswernersinn.de/dcs/sd-2019-08-sinn-karl-buchal-motoren-2019-04-25_0.pdf)

<sup>23</sup> Hawkins, T., et al., (2013), "Comparative environmental life cycle assessment of conventional and electric vehicles", Journal of Industrial Ecology, at: <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1530-9290.2012.00532.x>

<sup>24</sup> European Commission, "Energy", at: [https://ec.europa.eu/clima/policies/international/paris\\_protocol/energy\\_en](https://ec.europa.eu/clima/policies/international/paris_protocol/energy_en)

<sup>25</sup> IRENA, "Energy Transformation – A Roadmap to 2050", (2018), at: [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA\\_Report\\_GET\\_2018.pdf](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf)

<sup>26</sup> European Parliament, "Energy: new target of 32% from renewables by 2030 agreed by MEPs and ministers", (2018), at: <https://www.europarl.europa.eu/news/en/press-room/20180614IPR05810/energy-new-target-of-32-from-renewables-by-2030-agreed-by-meps-and-ministers>

<sup>27</sup> Eurostat, "Share of renewable energy in gross final energy consumption", at: [https://ec.europa.eu/eurostat/databrowser/view/t2020\\_31/default/table?lang=fr](https://ec.europa.eu/eurostat/databrowser/view/t2020_31/default/table?lang=fr)

<sup>28</sup> Eurostat, "Electricity Statistics, EU-28 and EA-19, 2016-2018 (GWh)", at: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Electricity\\_Statistics,\\_EU-28\\_and\\_EA-19,\\_2016-2018\\_\(GWh\).png](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Electricity_Statistics,_EU-28_and_EA-19,_2016-2018_(GWh).png)

<sup>29</sup> Arbabzadeh, M., et al., (2019), "The role of energy storage in deep decarbonization of electricity production", Nature Communications, at: <https://www.nature.com/articles/s41467-019-11161-5>

<sup>30</sup> IRENA, "Electricity Storage and Renewables: Costs and Markets to 2030", (2017), at: [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2017/Oct/IRENA\\_Electricity\\_Storage\\_Costs\\_2017\\_Summary.pdf?la=en&hash=2FDC44939920F8D2BA29CB762C607BC9E882D4E9](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2017/Oct/IRENA_Electricity_Storage_Costs_2017_Summary.pdf?la=en&hash=2FDC44939920F8D2BA29CB762C607BC9E882D4E9)

<sup>31</sup> Wei, L., et al., (2016), "The Analysis of CO<sub>2</sub> Emissions and Reduction Potential in China's Transport Sector", at: <https://www.hindawi.com/journals/mpe/2016/1043717/abs/>

<sup>32</sup> International Energy Charter, "China Energy Efficiency Report", (2018), at: [https://www.energycharter.org/fileadmin/DocumentsMedia/EEER/EEER-China\\_ENG.pdf](https://www.energycharter.org/fileadmin/DocumentsMedia/EEER/EEER-China_ENG.pdf)

<sup>33</sup> BP, "Statistical Review of World Energy", (2019), at: <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>

<sup>34</sup> State Council, "The Thirteenth Five Year Plan on Controlling Greenhouse Gas Emissions", (2016), at: [http://www.gov.cn/zhengce/content/2016-11/04/content\\_5128619.htm](http://www.gov.cn/zhengce/content/2016-11/04/content_5128619.htm)

## Schaeffler Group Green Finance Framework

nature of this highly ambitious target,<sup>35</sup> Schaeffler's investments in renewable energy components could contribute to lower China's electricity carbon intensity by facilitating the addition of renewable capacity.

Sustainalytics is of the opinion that the use of proceeds is credible and impactful, contributing to the energy transition by advancing technologies and products for low carbon transportation or renewable electricity generation and storage.

### 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. This green bond advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Clean Transportation	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
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Eco-efficient and/or circular economy adapted products, production technologies and processes	12. Responsible Consumption and Production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
Energy Efficiency	7. Affordable and Clean Energy  9. Industry, Innovation and Infrastructure	7.3 By 2030, double the global rate of improvement in energy efficiency  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 acting in accordance with their respective capabilities

### Conclusion

Schaeffler Group has developed a Green Finance Framework under which it may issue green financing to finance and/or refinance future and/or existing projects related to clean transportation, renewable energy, eco-efficient and circular economy products, production technologies and processes. Schaeffler's processes for project evaluation and selection, management of proceeds and reporting are aligned with market practice. Sustainalytics is of the opinion that the use of proceeds will contribute to the advancement of Schaeffler's Sustainability Strategy and help to fulfill national, regional and international commitments on GHG emission reduction. Based on the above, Sustainalytics considers that Schaeffler is well-positioned to issue green finance instruments and that the Schaeffler Group Green Finance Framework is credible, robust and aligns with the four pillars of the Green Bond Principles 2018 and Green Loan Principles 2018.

<sup>35</sup> In 2018, coal accounted for 66.54% of the electricity generated in China (7111.8 TWh generated in total). The same year, 245 GW of coal capacity were under construction, undermining China's effort to reach the above-mentioned carbon intensity target.



## Appendices

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

<b>Issuer name:</b>	Schaeffler Group
<b>Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i></b>	Schaeffler Group Green Finance Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	January 10, 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 summarize 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 (please specify):                                |  |

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.

## Schaeffler Group Green Finance Framework

### 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 category for the use of proceeds are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that the (i) clean transportation, (ii) renewable energy, (iii) eco-efficient and/or circular economy adapted products, production technologies and processes, and (iv) energy efficiency will lead to positive environmental impacts and advance the UN Sustainable Development Goals 7, 9, 11 and 12.

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

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy   | <input checked="" 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 checked="" 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*):

Schaeffler's internal process for project evaluation and selection is handled by the Sustainability Committee, which is formed by the Executive Board and selected managers. The Committee will oversee the selection projects financed through the Framework, in compliance with the Eligibility criteria. This process is aligned 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 type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |

## Schaeffler Group Green Finance Framework

- Summary criteria for project evaluation and selection publicly available
  Other (*please specify*):

### Information on Responsibilities and Accountability

- Evaluation / Selection criteria subject to external advice or verification
  In-house assessment
- Other (*please specify*):

### 3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

Schaeffler's processes for management of proceeds is managed by the Treasury department through a portfolio approach. In the event that proceeds are temporarily unallocated, they will be managed according to Schaeffler's internal policies and held and/or invested, at Schaeffler's discretion, in its treasury liquidity portfolio, in cash or other short term and liquid instruments or to pay back a portion of its outstanding indebtedness. This process is aligned with market practice.

#### Tracking of proceeds:

- Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- Other (*please specify*):

#### Additional disclosure:

- Allocations to future investments only
  Allocations to both existing and future investments
- Allocation to individual disbursements
  Allocation to a portfolio of disbursements
- Disclosure of portfolio balance of unallocated proceeds
  Other (*please specify*):

### 4. REPORTING

Overall comment on section (*if applicable*):

Schaeffler intends to report on the allocation of proceeds at least annually or until full allocation on in its corporate website, including the total amount of investments and expenditures in the eligible portfolio, the share of financing and refinancing, the year of investment/disbursement, the balance of unallocated proceeds, and the location of the assets. Additionally, the Issuer intends to report on relevant impact metrics where and when feasible. This process is aligned with market practice.

#### Use of proceeds reporting:

## Schaeffler Group Green Finance Framework

- |  |  |
|--|--|
| <input type="checkbox"/> Project-by-project            | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other ( <i>please specify</i> ):        |

### Information reported:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Allocated amounts     | <input checked="" type="checkbox"/> Green Bond financed share of total investment |
| <input type="checkbox"/> Other ( <i>please specify</i> ): |   |

### Frequency:

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual   | <input type="checkbox"/> Semi-annual |
| <input checked="" type="checkbox"/> Other ( <i>please specify</i> ): share of financing vs. refinancing, location of the assets, year of investment / disbursement |                                      |

### Impact reporting:

- |  |  |
|--|--|
| <input type="checkbox"/> Project-by-project            | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other ( <i>please specify</i> ):        |

### Frequency:

- |   |                                      |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual                | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other ( <i>please specify</i> ): |                                      |

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

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input checked="" type="checkbox"/> Energy Savings  |
| <input checked="" type="checkbox"/> Decrease in water use   | <input checked="" type="checkbox"/> Other ESG indicators ( <i>please specify</i> ): impact metrics will, on a best effort's basis, align with those outlined in the Use of Proceeds table in Section 2. |

### Means of Disclosure

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Information published in financial report   | <input type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents  | <input type="checkbox"/> Other ( <i>please specify</i> ):               |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): |   |

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

## Schaeffler Group Green Finance Framework

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

<https://www.schaeffler.com/content.schaeffler.com/en/company/sustainability/sustainability.jsp>  
<https://www.schaeffler-sustainability-report.com/2018/>

### SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

**Type(s) of Review provided:**

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

**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 recognized 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 specialized 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

© Sustainalytics 2019. All rights reserved.

The intellectual property rights to the information contained herein is vested exclusively in Sustainalytics. No part of this deliverable may be reproduced, disseminated, comingled, used to create derivative works, furnished in any manner, made available to third parties or published, parts hereof or the information contained herein in any form or in any manner, be it electronically, mechanically, through photocopies or recordings without the express written consent of Sustainalytics.

As the information herein is based on information made available by the issuer, the information is provided “as is” and, therefore Sustainalytics does not warrant that the information presented in this deliverable is complete, accurate or up to date, nor assumes any responsibility for errors or omissions and Sustainalytics will not accept any form of liability for the substance of the deliverable and/or any liability for damage arising from the use of this deliverable and/or the information provided in it. Any reference to third party names is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner.

Nothing contained in this deliverable shall be construed as to make a representation or warranty on the part of Sustainalytics, express or implied, regarding the advisability to invest in companies, selection of projects or make any kind of business transactions. It shall not be construed as an investment advice (as defined in the applicable jurisdiction), nor be interpreted and construed as an assessment of the issuer’s economic performance, financial obligations nor its creditworthiness.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

## 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)

