

# ISS-CORPORATE

## SECOND PARTY OPINION (SPO)

Sustainability Quality of the Issuer and Green Finance Framework

ZF Friedrichshafen AG

16 December 2024

### VERIFICATION PARAMETERS

Type(s) of instruments contemplated

- Green Finance Instruments (Green Bonds, Green Schuldscheins (SSDs), Green Loans)

Relevant standards

- Green Bond Principles (GBP), as administered by the International Capital Market Association (ICMA) (as of June 2021 with June 2022 Appendix 1)
- Green Loan Principles (GLP), as administered by the Loan Market Association (LMA) (as of February 2023)
- EU Taxonomy Climate Delegated Act, Annex I (as of June 2023)

Scope of verification

- ZF Green Finance Framework (as of December 16, 2024)
- ZF Selection Criteria (as of December 16, 2024)

Lifecycle

- Pre-issuance verification

Validity

- Valid as long as the cited Framework remains unchanged

## CONTENTS

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SCOPE OF WORK.....	3
ZF OVERVIEW .....	4
ASSESSMENT SUMMARY .....	5
SPO ASSESSMENT.....	7
PART I: ALIGNMENT WITH ICMA GREEN BOND PRINCIPLES.....	7
PART II: SUSTAINABILITY QUALITY OF THE SELECTION CRITERIA .....	10
CONTRIBUTION OF THE GREEN FINANCE INSTRUMENTS TO THE UN SDGs .....	10
PART III: ALIGNMENT OF THE SELECTION CRITERIA WITH THE EU TAXONOMY CLIMATE DELEGATED ACT .....	12
PART IV: CONSISTENCY OF THE GREEN FINANCE INSTRUMENTS WITH ZF'S SUSTAINABILITY STRATEGY.....	30
ANNEX 1: METHODOLOGY .....	36
ANNEX 2: QUALITY MANAGEMENT PROCESSES.....	37
About this SPO.....	38

## SCOPE OF WORK

ZF Friedrichshafen AG (“the Issuer”, “the Company”, or “ZF”) commissioned ISS-Corporate to assist with its Green Finance Instruments by assessing three core elements to determine the sustainability quality of the instruments:

1. ZF’s Green Finance Framework (as of December 16, 2024) – benchmarked against the International Capital Market Association’s (ICMA) Green Bond Principles (GBP).
2. The Selection Criteria – whether the project categories contribute positively to the United Nations Sustainable Development Goals (UN SDGs).
3. The alignment of the project categories with the EU Taxonomy on a best-efforts basis<sup>1</sup> – whether the nominated project categories are aligned with the EU Taxonomy Technical Screening Criteria (including Substantial Contribution to Climate Change Mitigation Criteria and Do No Significant Harm Criteria) and Minimum Safeguards requirements as included in the EU Taxonomy Climate Delegated Act (June 2023).<sup>2</sup> It has to be considered that the setup of EU Taxonomy Reporting and therefore also the alignment assessment of eligible activities is still on going and not yet fully implemented.
4. Consistency of the Green Finance Instruments with ZF’s Sustainability Strategy – drawing on the key sustainability objectives and priorities defined by the Issuer.

<sup>1</sup> Whilst the Final Delegated Act for Mitigation and Adaptation were published in June 2023, the Technical Screening Criteria allow for discretion on the methodologies in determining alignment in certain cases. Therefore, at this stage, the alignment with the EU Taxonomy has been evaluated on a “best efforts basis”.

<sup>2</sup> Commission Delegated Regulation (EU) 2021/2139 of June 2021, [URL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R2139](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R2139)

## ZF OVERVIEW

ZF is a global technology company and supplies mobility systems for passenger cars, commercial vehicles and industrial technology. The Company was founded on August 20, 1915 by Alfred Count von Soden-Fraunhofen and Alfred Colsman and is headquartered in Friedrichshafen, Germany.

### *ESG risks associated with the Issuer Industry*



ZF is classified in the Auto Components industry, as per ISS ESG's sector classification. Key sustainability issues faced by companies<sup>3</sup> in this industry are: social challenges in the supply chain, product safety, resource-conserving production, environmental impact of products.

This report focuses on the sustainability credentials of the issuance. Part III. of this report assesses the consistency between the issuance and the Issuer's overall sustainability strategy.

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<sup>3</sup> Please note, that this is not a company specific assessment but areas that are of particular relevance for companies within that industry.

## ASSESSMENT SUMMARY

SPO SECTION	SUMMARY	EVALUATION <sup>4</sup>
<p><b>Part I:</b></p> <p><b>Alignment with GBP</b></p>	<p>The Issuer has defined a formal concept for its Green Finance Instruments regarding use of proceeds, processes for project evaluation and selection, management of proceeds and reporting. This concept is in line with the ICMA GBP and LMA GLP.</p>	<p><b>Aligned</b></p>
<p><b>Part II:</b></p> <p><b>Sustainability quality of the Selection Criteria</b></p>	<p>The Green Finance Instruments will (re)finance eligible asset categories which include:</p> <p>Green categories: Clean Transportation and Renewable Energy.</p> <p>Product and/or service-related use of proceeds categories<sup>5</sup> individually contribute to one or more of the following SDGs:</p> <div style="text-align: center;">   </div>	<p><b>Positive</b></p>
<p><b>Part III:</b></p> <p><b>Alignment with EU Taxonomy</b></p>	<p>The ZF’s project characteristics, due diligence processes and policies have been assessed against the requirements of the EU Taxonomy (Climate Delegated Act of June 2023), on a best-efforts basis.<sup>6</sup> The nominated project categories are considered to be:</p> <ul style="list-style-type: none"> <li>▪ Aligned with the Climate Change Mitigation Criteria.</li> <li>▪ <b>Aligned</b> with the Do No Significant Harm Criteria DNSH to Use and Protection of Water and Marine Resources, to Pollution Prevention and Control to Air, Water or Land, except for Protection and Restoration of Biodiversity and Ecosystems <b>(which ones have red circle)</b>.</li> <li>▪ Aligned with the Minimum Safeguards requirements</li> </ul>	

<sup>4</sup> The evaluation is based on the ZF’s Green Finance Framework (December 16, 2024 version), on the analysed Selection Criteria as received on December 16, 2024.

<sup>5</sup> Clean Transportation and Renewable Energy.

<sup>6</sup> Whilst the Final Delegated Act for Mitigation and Adaptation was published in June 2023, the Technical Screening Criteria allow for discretion on the methodologies in determining alignment in certain cases. Therefore, at this stage, the alignment with the EU Taxonomy has been evaluated on a “best efforts basis”. ZF is subject to disclosure obligations under the Taxonomy Regulation starting from Financial Year 2025. The assessment performed within the context of this SPO is subject to change as methodologies in determining alignment evolve in advance of legal obligations.

<p><b>Part VI:</b></p> <p><b>Consistency of the Green Finance Instruments with ZF's Sustainability Strategy</b></p>	<p>The key sustainability objectives and the rationale for issuing Green Finance Instruments are clearly described by the Issuer. All the project categories considered are in line with the sustainability objectives of the Issuer.</p>	<p><b>Consistent with Issuer's sustainability strategy</b></p>
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## SPO ASSESSMENT

### PART I: ALIGNMENT WITH ICMA GREEN BOND PRINCIPLES

This section evaluates the alignment of the ZF's Green Finance Framework (as of December 16, 2024) with the ICMA GBP and LMA GLP.

ICMA GBP	ALIGNMENT	OPINION
<p><b>1. Use of Proceeds</b></p>	<p>✓</p>	<p>The Use of Proceeds description provided by ZF's Green Finance Framework is <b>aligned</b> with the ICMA GBP and LMA GLP.</p> <p>The Issuer's green categories align with the project categories as proposed by the ICMA GBP. Criteria are defined in a clear and transparent manner. Disclosure of an allocation period and commitment to report by project category has been provided and environmental benefits are described.</p> <p>The Issuer defines a look-back period of 3 years, in line with best market practice.</p>
<p><b>2. Process for Project Evaluation and Selection</b></p>	<p>✓</p>	<p>The Process for Project Evaluation and Selection description provided by ZF's Green Finance Framework is <b>aligned</b> with the ICMA GBP and LMA GLP.</p> <p>The project selection process is defined and structured in a congruous manner. ESG risks associated with the project categories are identified and managed through an appropriate process. Moreover, the projects selected show alignment with the sustainability strategy of the Issuer.</p> <p>The Issuer involves various stakeholders in this process and identifies alignment of their Green Finance Framework and their green projects with the EU Taxonomy, in line with best market practice.</p>

<p><b>3. Management of Proceeds</b></p>	<p>✓</p>	<p>The Management of Proceeds provided by ZF's Green Finance Framework is <b>aligned</b> with the ICMA GBP and LMA GLP.</p> <p>The net proceeds collected will be equal to the amount allocated to eligible projects, with no exceptions. The net proceeds are tracked in an appropriate manner and attested in a formal internal process. The net proceeds are managed on an aggregated basis for multiple Green Instruments (portfolio approach). Moreover, the Issuer discloses the temporary investment instruments for unallocated proceeds and confirms labelling of ESG loan tranches as green in the event of a multi-tranche issuance.</p> <p>Furthermore, the Issuer has defined an expected allocation period of 36 months and discloses information regarding the allocation to individual or portfolio disbursements as well as the portfolio balance of unallocated proceeds, in line with best market practice.</p>
<p><b>4. Reporting</b></p>	<p>✓</p>	<p>The allocation and impact reporting provided by ZF's Green Finance Framework is <b>aligned</b> with the ICMA GBP and LMA GLP.</p> <p>The Issuer commits to disclose the allocation of proceeds transparently and to report in an appropriate frequency. The reporting will be publicly available on the Issuer's website. ZF has disclosed the type of information that will be reported and explains that the level of expected reporting will be at portfolio level. Moreover, the Issuer commits to report annually, until the proceeds have been fully allocated.</p> <p>The Issuer is transparent on the level of impact reporting and the information reported and further defines the duration and frequency of the impact reporting, in line with best market practice.</p> <p>Moreover, the Issuer commits to get the allocation report audited (Limited Assurance) by</p>



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		an external party, in line with best market practices
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## PART II: SUSTAINABILITY QUALITY OF THE SELECTION CRITERIA

### CONTRIBUTION OF THE GREEN FINANCE INSTRUMENTS TO THE UN SDGs<sup>7</sup>


Companies can contribute to the achievement of the SDGs by providing specific services/products which help address global sustainability challenges, and by being responsible corporate actors, working to minimize negative externalities in their operations along the entire value chain.

The assessment of UoP categories for (re)financing products and services is based on a variety of internal and external sources, such as the ISS ESG SDG Solutions Assessment (SDGA), a proprietary methodology designed to assess the impact of an Issuer's products or services on the UN SDGs, as well as other ESG benchmarks (the EU Taxonomy Climate Delegated Acts, the ICMA Green and/or Social Bond Principles and other regional taxonomies, standards and sustainability criteria).

The assessment of UoP categories for (re)financing specific products and services is displayed on a 3-point scale:



Each of the Green Finance Instruments' Use of Proceeds categories has been assessed for its contribution to, or obstruction of, the SDGs:

USE OF PROCEEDS (PRODUCTS/SERVICES)	CONTRIBUTION OR OBSTRUCTION	SUSTAINABLE DEVELOPMENT GOALS
<p><b>Clean Transportation</b></p> <ul style="list-style-type: none"> <li>▪ <i>Low carbon technologies that are aimed to demonstrate substantial life cycle GHG emission savings compared to the best performing alternative technology, product or solution.<sup>8</sup></i></li> <li>▪ <i>Mobility components for zero-emission personal mobility devices and of automotive and mobility systems, components, separate</i></li> </ul>	<b>Contribution</b>	

<sup>7</sup> The impact of the UoP categories on UN Sustainable Development Goals is assessed with proprietary methodology and may therefore differ from the Issuer's description in the framework.

<sup>8</sup> The Eligible Project/Service criteria is in line with the Substantial Contribution criteria of Activity 3.6 in the EU Taxonomy Climate Delegated Act ((EU) 2021/2139).

*technical units, parts and spare parts.*<sup>910</sup>

- *Products, equipment, systems, and software related to the rail constituents.*<sup>11</sup>

### Renewable Energy

*Renewable energy technologies, where renewable energy is defined in Article 2(1) of Directive (EU) 2018/2001.*<sup>1213</sup>

Contribution



<sup>9</sup> PHEVs and HEVs are excluded.

<sup>10</sup> The Eligible Project criteria is in line with the Substantial Contribution criteria of Activity 3.18 in the EU Taxonomy Climate Delegated Act, Annex I (as of June 2023).

<sup>11</sup> The Eligible Project criteria is in line with the Substantial Contribution criteria of Activity 3.19 in the EU Taxonomy Climate Delegated Act, Annex I (as of June 2023).

<sup>12</sup> EU Directive 2018/2001 on the promotion of the use of energy from renewable sources, see [link](#).

<sup>13</sup> The Eligible Project/Service criteria is in line with the Substantial Contribution criteria of Activity 3.1 in the EU Taxonomy Climate Delegated Act, Annex I (as of June 2023).

## PART III: ALIGNMENT OF THE SELECTION CRITERIA WITH THE EU TAXONOMY CLIMATE DELEGATED ACT

The alignment of ZF's project characteristics, due diligence processes and policies for the nominated Use of Proceeds project categories have been assessed against the relevant Climate Change Mitigation and Do Not Significant Harm Criteria (DNSH) Technical Screening Criteria, and against the Minimum Safeguards requirements of the EU Taxonomy Climate Delegated Act<sup>14</sup> (June 2023), based on information provided by ZF. Where ZF's project characteristics, due diligence processes and policies meet the EU Taxonomy Criteria requirements, a tick is shown in the table below.

ZF's project selection criteria overlap with the following economic activities in the EU Taxonomy:

3.1 Manufacture of renewable energy technologies

3.6 Manufacture of other low carbon technologies

3.18 Manufacture of automotive and mobility components

3.19 Manufacture of rail rolling stock constituents

All projects financed under the Green Finance Framework are and will be located globally.

Note: In order to avoid repetition, the evaluation of the alignment of ZF's assets to the Do No Significant Harm Criteria to Climate Change Adaptation is provided in Section e). Similarly, the evaluation of the alignment to the DNSH to Use and Protection of Water and Marine Resources is given in Section f), the DNSH to Pollution Prevention and Control to Air, Water or Land is given in Section g), and the DNSH to Protection and Restoration of Biodiversity and Ecosystems is given in Section h). They are applicable to all of the above activities.

Furthermore, this analysis only displays how the EU Taxonomy criteria are fulfilled/not fulfilled. For ease of reading, the original text of the EU Taxonomy criteria is not shown. Readers can recover the original criteria at the following [link](#).

<sup>14</sup> Commission Delegated Regulation (EU) 2020/852, [URL https://ec.europa.eu/info/law/sustainable-finance-taxonomy-regulation-eu-2020-852/amending-and-supplementary-acts/implementing-and-delegated-acts\\_en](https://ec.europa.eu/info/law/sustainable-finance-taxonomy-regulation-eu-2020-852/amending-and-supplementary-acts/implementing-and-delegated-acts_en)

a) 3.1 Manufacture of renewable energy technologies

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>15</sup>	ALIGNMENT WITH THE EU TAXONOMY'S TECHNICAL SCREENING CRITERIA	
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION		
<p>ZF develops, manufactures, and distributes components for renewable energy generation and storage systems (i.e., wind turbine gearboxes). Indirectly, ZF contributes to the increase in capacity and generation of renewable energy with consequent GHG emissions avoidance via manufacturing of wind turbine gearboxes. This activity generates renewable energy as defined by Renewable Energy Directive 2018 (Directive (EU) 2018/2001)<sup>16</sup> and is in line with NACE C27.</p>	✓	
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
See e)	✓	
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
See f)	✓	
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
<p>ZF has a long history of remanufacturing. In 2023, ZF sold over 1.6 million parts globally, and has more than 5,500 single products in its product range globally. Up to 90% of material are saved per “reman” product compared to “newly produced” products.<sup>17</sup></p> <p>The selection of sustainable materials is of central importance for an optimized use of resources and further waste reduction. Based on the total material volume, ZF has developed a concept to test and evaluate materials produced with new process technologies and higher recycling contents. The results form the basis of a ZF-wide roadmap that includes alternative material concepts and production routes for main material groups.</p> <p>Together with Product Development, ZF Product Stewardship ensures that ZF products comply with changing legal requirements for materials and substances of concern. Key elements of this collaboration are the ZF Global</p>		✓

<sup>15</sup> This column is based on input provided by the Issuer.

<sup>16</sup> Renewable Energy Directive 2018 (Directive (EU) 2018/2001): <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001>

<sup>17</sup> Cradle-to-cradle (C2C) standard: <https://c2ccertified.org/the-standard>

Development and Product Evolution Process (GDPEP) and various internal standards for life cycle and circular aspects (GDPEP DCF 23-0168 in conjunction with ZFN 9005), as well as risk reduction for people and the environment by minimizing hazardous substances in products according to GDPEP ZFN 9005 and ZFN 9003. ZF Company Standard ZFN 9003 also regulates corresponding reporting obligations for all deliveries procured by ZF and products manufactured by ZF. ZF has revised the ZF Company Standard 9005 (ZFN 9005)<sup>18</sup> for sustainable product design and expanded it to include aspects of the circular economy. This includes design criteria such as more sustainable material selection, including recycled content and critical raw materials, modularity, durability, reparability and remanufacturing. Aside from metals, polymers are also an important material group for ZF products. Widely used in the manufacturing of components in the automotive industry (among others), ZF is working on processing methods with reduced emission intensity and innovative polymer designs for increased functional integration and reduced party weight.

ZF's environmental management system is aimed at continuously reducing the amount of waste generated. ZF channels a high percentage of waste from production processes back into the external recycling processes. This applies mainly to scrap metal and metal chips, waste oil, paper, and cardboard as well as wood. As a result of their material composition and design aspects, ZF products have a high recycling rate, resulting in a contribution to meeting the recycling quotas stipulated in the EU End-of-Life Vehicles Directive. In 2023, the recycling rate of waste was 90%. The total amount of waste increased by 5.6%. The specific amount of waste for disposal (tons per EUR million sales) was again lower in 2023 than in the previous year, and meeting the annual reduction target. The target for all ZF locations is to reduce the waste for disposal volume by 1% annually relative to sales. The base year for the target is 2019. When it comes to reducing hazardous waste (in the context of waste management) ZF is adapting processes, optimizing procedures and replacing hazardous substances used in operations. The disposal of hazardous waste by ZF is organized locally and movement across national borders is only permitted in the absence of local disposal options, taking into account the Basel Convention.<sup>19</sup>

ZF has adopted the substance declarations and prohibitions of the Global Automotive Declarable Substance List (GADSL), which defines requirements for prohibited and/or declarable substances (some of which are required for ZF products). Substances listed in the GADSL must be identified and reported. The selection of Substances of Very High Concern (SVHCs) from the REACH

<sup>18</sup> ZF Company Standard 9005: [https://www.zf.com/site/supplierboard/en/quality\\_guidelines/quality\\_guidelines.html](https://www.zf.com/site/supplierboard/en/quality_guidelines/quality_guidelines.html)

<sup>19</sup> Basel Convention: <https://www.basel.int/>

<p>Regulation Candidate List (CL) with a mass fraction of more than 0.1% is restricted for newly developed ZF products, including purchased parts and carry-over parts for new projects. ZF requires suppliers to use the most suitable substitutes for CL substances.</p> <p>ZF is a member of the initiative for sustainable supply chains in the automotive industry called Responsible Supply Chain Initiative e.V. (RSCI), which has developed a standard and central platform for a standardized sustainability assessment of production locations. The initiative also carries out on-site assessments and tracing.</p>	
<b>5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA</b>	
See g)	✓
<b>6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA</b>	
See h)	○

b) 3.6 Manufacture of other low carbon technologies

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>20</sup>	ALIGNMENT WITH THE EU TAXONOMY'S TECHNICAL SCREENING CRITERIA
<b>1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION</b>	
<p>ZF produces parts for zero-emission and hybrid agricultural and construction machinery. Zero-emission tractors, backhoe loaders, concrete mixers or forestry machines use ZF's electric powertrain elements.</p> <p>For eligible technologies identified, ZF uses third-party verification and life cycle GHG emissions savings are calculated in line with the ISO 14067:201897 recommendation.<sup>21</sup></p>	✓
<b>2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA</b>	
See e)	✓

<sup>21</sup> ISO 14067:201897: <https://www.iso.org/standard/71206.html#:~:text=This%20document%20specifies%20principles%2C%20requirements,ISO%2014040%20and%20ISO%2014044>.

3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA	
See f)	✓
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA	
<p>ZF has a long history of remanufacturing. In 2023, ZF sold over 1.6 million parts globally, and has more than 5,500 single products in its product range globally. Up to 90% of material are saved per “reman” product compared to “newly produced” products.<sup>22</sup></p> <p>The selection of sustainable materials is of central importance for an optimized use of resources and further waste reduction. Based on the total material volume, ZF has developed a concept to test and evaluate materials produced with new process technologies and higher recycling contents. The results form the basis of a ZF-wide roadmap that includes alternative material concepts and production routes for main material groups.</p> <p>Together with Product Development, ZF Product Stewardship ensures that ZF products comply with changing legal requirements for materials and substances of concern. Key elements of this collaboration are the ZF Global Development and Product Evolution Process (GDPEP) and various internal standards for life cycle and circular aspects (GDPEP DCF 23-0168 in conjunction with ZFN 9005), as well as risk reduction for people and the environment by minimizing hazardous substances in products according to GDPEP ZFN 9005 and ZFN 9003. ZF Company Standard ZFN 9003 also regulates corresponding reporting obligations for all deliveries procured by ZF and products manufactured by ZF. ZF has revised the ZF Company Standard 9005 (ZFN 9005)<sup>23</sup> for sustainable product design and expanded it to include aspects of the circular economy. This includes design criteria such as more sustainable material selection, including recycled content and critical raw materials, modularity, durability, reparability and remanufacturing. Aside from metals, polymers are also an important material group for ZF products. Widely used in the manufacturing of components in the automotive industry (among others), ZF is working on processing methods with reduced emission intensity and innovative polymer designs for increased functional integration and reduced part weight.</p> <p>ZF’s environmental management system is aimed at continuously reducing the amount of waste generated. ZF channels a high percentage of waste from production processes back into the external recycling processes. This applies mainly to scrap metal and metal chips, waste oil, paper, and cardboard as well</p>	✓

<sup>22</sup> Cradle-to-cradle (C2C) standard: <https://c2ccertified.org/the-standard>

<sup>23</sup> ZF Company Standard 9005: [https://www.zf.com/site/supplierboard/en/quality\\_guidelines/quality\\_guidelines.html](https://www.zf.com/site/supplierboard/en/quality_guidelines/quality_guidelines.html)



as wood. As a result of their material composition and design aspects, ZF products have a high recycling rate, resulting in a contribution to meeting the recycling quotas stipulated in the EU End-of-Life Vehicles Directive. In 2023, the recycling rate of waste was 90%. The total amount of waste increased by 5.6%. The specific amount of waste for disposal (tons per EUR million sales) was again lower in 2023 than in the previous year, and meeting the annual reduction target. The target for all ZF locations is to reduce the waste for disposal volume by 1% annually relative to sales. The base year for the target is 2019. When it comes to reducing hazardous waste (in the context of waste management) ZF is adapting processes, optimizing procedures and replacing hazardous substances used in operations. The disposal of hazardous waste by ZF is organized locally and movement across national borders is only permitted in the absence of local disposal options, taking into account the Basel Convention.<sup>24</sup>

ZF has adopted the substance declarations and prohibitions of the Global Automotive Declarable Substance List (GADSL), which defines requirements for prohibited and/or declarable substances (some of which are required for ZF products). Substances listed in the GADSL must be identified and reported. The selection of Substances of Very High Concern (SVHCs) from the REACH Regulation Candidate List (CL) with a mass fraction of more than 0.1% is restricted for newly developed ZF products, including purchased parts and carry-over parts for new projects. ZF requires suppliers to use the most suitable substitutes for CL substances.

ZF is a member of the initiative for sustainable supply chains in the automotive industry called Responsible Supply Chain Initiative e.V. (RSCI), which has developed a standard and central platform for a standardized sustainability assessment of production locations. The initiative also carries out on-site assessments and tracing.

**5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA**

See g)







**6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA**

See h)



<sup>24</sup> Basel Convention: <https://www.basel.int/>

c) 3.18 Manufacture of automotive and mobility components

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>25</sup>	ALIGNMENT WITH THE EU TAXONOMY'S TECHNICAL SCREENING CRITERIA
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION	
<p>The eligible portfolio includes passenger cars (M1 and M2) and commercial vehicles (M3, N1, N2, and N3). ZF participates in the manufacture, repair, maintenance, retrofitting, repurposing, and upgrade of mobility components for zero-emission personal mobility devices, and of zero-emissions automotive and mobility systems, components, separate technical units, parts, and spare parts as defined in the Market Surveillance Services Regulation (Regulation 2018/858).<sup>26</sup> ZF only refers to vehicles with direct tailpipe CO<sub>2</sub> emissions of zero.</p>	
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA	
See e)	
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA	
See f)	
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA	
<p>ZF has a long history of remanufacturing. In 2023, ZF sold over 1.6 million parts globally, and has more than 5,500 single products in its product range globally. Up to 90% of material are saved per “reman” product compared to “newly produced” products.<sup>27</sup></p> <p>The selection of sustainable materials is of central importance for an optimized use of resources and further waste reduction. Based on the total material volume, ZF has developed a concept to test and evaluate materials produced with new process technologies and higher recycling contents. The results form the basis of a ZF-wide roadmap that includes alternative material concepts and production routes for main material groups.</p>	

<sup>25</sup> This column is based on input provided by the Issuer.

<sup>26</sup> Market Surveillance Services Regulation (Regulation 2018/858): <https://eur-lex.europa.eu/eli/reg/2018/858/oj>

<sup>27</sup> Cradle-to-cradle (C2C) standard: <https://c2ccertified.org/the-standard>



Together with Product Development, ZF Product Stewardship ensures that ZF products comply with changing legal requirements for materials and substances of concern. Key elements of this collaboration are the ZF Global Development and Product Evolution Process (GDPEP) and various internal standards for life cycle and circular aspects (GDPEP DCF 23-0168 in conjunction with ZFN 9005), as well as risk reduction for people and the environment by minimizing hazardous substances in products according to GDPEP ZFN 9005 and ZFN 9003. ZF Company Standard ZFN 9003 also regulates corresponding reporting obligations for all deliveries procured by ZF and products manufactured by ZF. ZF has revised the ZF Company Standard 9005 (ZFN 9005)<sup>28</sup> for sustainable product design and expanded it to include aspects of the circular economy. This includes design criteria such as more sustainable material selection, including recycled content and critical raw materials, modularity, durability, reparability and remanufacturing. Aside from metals, polymers are also an important material group for ZF products. Widely used in the manufacturing of components in the automotive industry (among others), ZF is working on processing methods with reduced emission intensity and innovative polymer designs for increased functional integration and reduced party weight.

ZF's environmental management system is aimed at continuously reducing the amount of waste generated. ZF channels a high percentage of waste from production processes back into the external recycling processes. This applies mainly to scrap metal and metal chips, waste oil, paper, and cardboard as well as wood. As a result of their material composition and design aspects, ZF products have a high recycling rate, resulting in a contribution to meeting the recycling quotas stipulated in the EU End-of-Life Vehicles Directive. In 2023, the recycling rate of waste was 90%. The total amount of waste increased by 5.6%. The specific amount of waste for disposal (tons per EUR million sales) was again lower in 2023 than in the previous year, and meeting the annual reduction target. The target for all ZF locations is to reduce the waste for disposal volume by 1% annually relative to sales. The base year for the target is 2019. When it comes to reducing hazardous waste (in the context of waste management) ZF is adapting processes, optimizing procedures and replacing hazardous substances used in operations. The disposal of hazardous waste by ZF is organized locally and movement across national borders is only permitted in the absence of local disposal options, taking into account the Basel Convention.<sup>29</sup>


ZF has adopted the substance declarations and prohibitions of the Global Automotive Declarable Substance List (GADSL), which defines requirements

<sup>28</sup> ZF Company Standard 9005: [https://www.zf.com/site/supplierboard/en/quality\\_guidelines/quality\\_guidelines.html](https://www.zf.com/site/supplierboard/en/quality_guidelines/quality_guidelines.html)

<sup>29</sup> Basel Convention: <https://www.basel.int/>

<p>for prohibited and/or declarable substances (some of which are required for ZF products). Substances listed in the GADSL must be identified and reported. The selection of Substances of Very High Concern (SVHCs) from the REACH Regulation Candidate List (CL) with a mass fraction of more than 0.1% is restricted for newly developed ZF products, including purchased parts and carry-over parts for new projects. ZF requires suppliers to use the most suitable substitutes for CL substances.</p> <p>ZF is a member of the initiative for sustainable supply chains in the automotive industry called Responsible Supply Chain Initiative e.V. (RSCI), which has developed a standard and central platform for a standardized sustainability assessment of production locations. The initiative also carries out on-site assessments and tracing.</p>	
<p><b>5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA</b></p>	
<p>See g)</p> <p>ZF confirms that components and parts do not contain lead, mercury, hexavalent chromium and cadmium.</p>	
<p><b>6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA</b></p>	
<p>See h)</p>	

d) 3.19 Manufacture of rail rolling stock constituents

<p><b>PROJECT CHARACTERISTICS AND SELECTION PROCESSES<sup>30</sup></b></p>	<p><b>ALIGNMENT WITH THE EU TAXONOMY'S TECHNICAL SCREENING CRITERIA</b></p>
<p><b>1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION</b></p>	
<p>ZF participates in the manufacture, installation, retrofitting, upgrade, repair, maintenance, and repurposing of products, equipment, systems, and software related to rail constituents as referenced in the 4<sup>th</sup> Railway Package Directive (EU) 2016/797.<sup>31</sup> For products for rail vehicles, ZF focuses on electrification, digitalization, and automation.</p>	

<sup>30</sup> This column is based on input provided by the Issuer.

<sup>31</sup> 4th Railway Package Directive (EU) 2016/767: [https://transport.ec.europa.eu/transport-modes/rail/railway-packages/fourth-railway-package-2016\\_en](https://transport.ec.europa.eu/transport-modes/rail/railway-packages/fourth-railway-package-2016_en)

2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA	
See e)	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA	
See f)	✓
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA	
<p>ZF has a long history of remanufacturing. In 2023, ZF sold over 1.6 million parts globally, and has more than 5,500 single products in its product range globally. Up to 90% of material are saved per “reman” product compared to “newly produced” products.<sup>32</sup></p> <p>The selection of sustainable materials is of central importance for an optimized use of resources and further waste reduction. Based on the total material volume, ZF has developed a concept to test and evaluate materials produced with new process technologies and higher recycling contents. The results form the basis of a ZF-wide roadmap that includes alternative material concepts and production routes for main material groups.</p> <p>Together with Product Development, ZF Product Stewardship ensures that ZF products comply with changing legal requirements for materials and substances of concern. Key elements of this collaboration are the ZF Global Development and Product Evolution Process (GDPEP) and various internal standards for life cycle and circular aspects (GDPEP DCF 23-0168 in conjunction with ZFN 9005), as well as risk reduction for people and the environment by minimizing hazardous substances in products according to GDPEP ZFN 9005 and ZFN 9003. ZF Company Standard ZFN 9003 also regulates corresponding reporting obligations for all deliveries procured by ZF and products manufactured by ZF. ZF has revised the ZF Company Standard 9005 (ZFN 9005)<sup>33</sup> for sustainable product design and expanded it to include aspects of the circular economy. This includes design criteria such as more sustainable material selection, including recycled content and critical raw materials, modularity, durability, reparability and remanufacturing. Aside from metals, polymers are also an important material group for ZF products. Widely used in the manufacturing of components in the automotive industry (among others), ZF is working on processing methods with reduced emission intensity and innovative polymer designs for increased functional integration and reduced party weight.</p>	✓

<sup>32</sup> Cradle-to-cradle (C2C) standard: <https://c2ccertified.org/the-standard>

<sup>33</sup> ZF Company Standard 9005: [https://www.zf.com/site/supplierboard/en/quality\\_guidelines/quality\\_guidelines.html](https://www.zf.com/site/supplierboard/en/quality_guidelines/quality_guidelines.html)

ZF’s environmental management system is aimed at continuously reducing the amount of waste generated. ZF channels a high percentage of waste from production processes back into the external recycling processes. This applies mainly to scrap metal and metal chips, waste oil, paper, and cardboard as well as wood. As a result of their material composition and design aspects, ZF products have a high recycling rate, resulting in a contribution to meeting the recycling quotas stipulated in the EU End-of-Life Vehicles Directive. In 2023, the recycling rate of waste was 90%. The total amount of waste increased by 5.6%. The specific amount of waste for disposal (tons per EUR million sales) was again lower in 2023 than in the previous year, and meeting the annual reduction target. The target for all ZF locations is to reduce the waste for disposal volume by 1% annually relative to sales. The base year for the target is 2019. When it comes to reducing hazardous waste (in the context of waste management) ZF is adapting processes, optimizing procedures and replacing hazardous substances used in operations. The disposal of hazardous waste by ZF is organized locally and movement across national borders is only permitted in the absence of local disposal options, taking into account the Basel Convention.<sup>34</sup>

ZF has adopted the substance declarations and prohibitions of the Global Automotive Declarable Substance List (GADSL), which defines requirements for prohibited and/or declarable substances (some of which are required for ZF products). Substances listed in the GADSL must be identified and reported. The selection of Substances of Very High Concern (SVHCs) from the REACH Regulation Candidate List (CL) with a mass fraction of more than 0.1% is restricted for newly developed ZF products, including purchased parts and carry-over parts for new projects. ZF requires suppliers to use the most suitable substitutes for CL substances.

ZF is a member of the initiative for sustainable supply chains in the automotive industry called Responsible Supply Chain Initiative e.V. (RSCI), which has developed a standard and central platform for a standardized sustainability assessment of production locations. The initiative also carries out on-site assessments and tracing.

**5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA**


See g)

ZF confirms that components and parts do not contain lead, mercury, hexavalent chromium and cadmium.




**6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA**

<sup>34</sup> Basel Convention: <https://www.basel.int/>

See h)	
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e) Generic Criteria for DNSH to Climate Change Adaptation

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>35</sup>	ALIGNMENT WITH THE EU TAXONOMY
<b>2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA</b>	
<p>In alignment with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) to identify, manage, and report climate-related risks, ZF Group conducted first climate risk scenario analyses in 2022. Early results from qualitative scenario analysis indicated that flooding events and tropical cyclones might be material physical hazards along ZF’s value chain.</p> <p>Throughout 2024, the Issuer is enhancing and updating the scenario analysis in compliance with the climate-risk related requirements declared in the Corporate Sustainability Reporting Directive (CSRD), more precisely the European Sustainability Reporting Standard E1 Climate Change (ESRS E1).</p> <p>For physical risks, ZF screens its exposure to physical climate hazards as classified in the Corporate Sustainability Reporting Directive (CSRD), including acute risks linked to extreme weather events and chronic risks related to long-term shifts in climate patterns. For transition risks and opportunities, ZF tracks all transition risks and opportunities relevant to the Group’s business and value chain across the core categories defined by the TCFD, captured in a longlist. These categories include transition risks including policy and legal, market, technology and reputation, and transition opportunities including resource efficiency, energy sources, products/ services, markets and resilience.</p> <p>As part of the identification and assessment process, the Issuer evaluates its exposure, the expected degree of change and the potential impact on the business in relation to each physical and transition risk or opportunity considering future climate scenarios. ZF engages with various stakeholders to prioritize risks and opportunities with a potential material impact. Those then are further assessed using climate scenario analysis.</p> <p>To understand the potential impacts and resilience of the business model and strategy, ZF evaluated transition risks and opportunities considering a +1.5°C scenario, using the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario (NZE) as a reference scenario. Physical risks are evaluated considering a +2.7°C scenario and a +4°C scenario, corresponding to SSP2-4.5</p>	

<sup>35</sup> This column is based on input provided by the Issuer.

<p>and SSP5-8.5, respectively. Relating to time projection, ZF considers three different time horizons: short-term (2025), medium-term (2030), and long-term (2050).</p> <p>ZF is working for November 2024 to integrate climate risk analyses into the overall Governance, Risk and Compliance (GRC), which includes both Enterprise Risk Management (ERM) and the Internal Control System (ICS) as well as into the production resilience process for handling process risks and to ensure reliable reporting. Additionally, by integrating the results into the ERM system, ZF is developing comprehensive processes to identify, assess, and manage climate-related risks and opportunities. This integration aims to strengthen organizational resilience, reporting and ensure compliance with regulatory requirements and stakeholder expectations.</p> <p>ZF Group has developed a proprietary ESG rating model, integrated with its ERM approach. This model aligns with the environmental targets defined in the ZF Sustainability program, including technical responses. It also incorporates insights from the Environmental, Health, and Safety (EHS) Management System. Suitable precautionary measures are taken to minimize the increased risk of losses at the locations and in the supply chain caused by extreme weather situations and natural disasters.</p> <p>For assets located globally, ZF’s ESG rating model covers the assessment of potential catastrophic events linked to specific geographical areas. Various physical risks, such as droughts, floods, and tropical cyclones, have been taken into consideration.</p> <p>ZF conducts environmental risk assessment on site level and group level according to ISO 14001 and is working on expanding its climate risk and vulnerability assessments to all pertinent assets and the development of adaptation solutions.</p>	
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f) Generic Criteria for DNSH for to Sustainable Use and Protection of Water and Marine Resources

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>36</sup>	ALIGNMENT WITH THE EU TAXONOMY
<b>3. SUSTAINABLE USE AND PROTECTION OF WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA</b>	
ZF Group confirms that all existing and future assets have or will have valid permits or authorizations, ensuring they comply with specific objectives and	

<sup>36</sup> This column is based on input provided by the Issuer.



requirements of all legal prescriptions, including the EU Water Framework Directive (2000/60/EC).<sup>37</sup>

The EU Water Framework Directive was transposed into German national law via amendments to the Federal Water Act (WHG)<sup>38</sup> and water legislation of the Lander, as well as the adoption of ordinances at the Lander level. The amended Federal Water Act entered into force in June 2002, and all Federal Lander have adapted their water legislation to implement the Directive. In 2020, ZF assessed all production locations for their water risk - an updated assessment of all locations is currently being prepared, in order to take into account definitions and specifications of CSRD reporting.

With the internal environmental management-system in place ZF manages the identification, management and mitigation of water-related risks, threats and opportunities resulting from operating our locations. Internal and external audits are inspecting and verifying the implementation and taken approach and actions on a regular basis. Checking if the location is legal compliant is an essential part of our internal and external auditing-process.

ZF does neither withdraw sea water nor discharge water into the sea and thus doesn't have a direct impact on the ecological marine environment according to point 5 of Article 3 of Directive 2008/56/EC.<sup>39</sup> Each ZF location has water discharge permits, maintains constant contact with relevant authorities and operates its own waste-water-treatment-facilities. Compliance and environmental risk mitigation are ensured through internal and external audits. In a 2020 water risk assessment, ZF focused on water scarcity as the primary operational risk, considering reputational and regulatory risks, and flooding. Locations in water-risk areas received stricter water-withdrawal targets. Despite not being a water-intensive company, ZF prioritizes the responsible use of water.

**g) Generic Criteria for DNSH for Pollution Prevention and Control to Air, Water or Land**


PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>40</sup>	ALIGNMENT WITH EU TAXONOMY
4. POLLUTION PREVENTION AND CONTROL TO AIR, WATER OR LAND – DO NO SIGNIFICANT HARM CRITERIA	

<sup>37</sup> EU Water Framework Directive (2000/60/EC): <https://eur-lex.europa.eu/eli/dir/2000/60/oj>, [https://environment.ec.europa.eu/topics/water/water-framework-directive\\_en](https://environment.ec.europa.eu/topics/water/water-framework-directive_en)


<sup>38</sup> German national law via amendments to the Federal Water Act (WHG): <https://www.bmu.de/en/topics/water-management/overview-water-management/policy-goals-and-instruments/water-protection-policy-in-germany>

<sup>39</sup> Directive 2008/56/EC: <https://eur-lex.europa.eu/eli/dir/2008/56/oj>

<sup>40</sup> This column is based on input provided by the Issuer.

<p>ZF Group requires for its production processes and products to comply with relevant EU and national legislative requirements for hazardous chemicals and pollutants. Adequate standards and processes are implemented, are updated on a regular basis and verified for effectiveness by ISO 14001 certification. For complying with limit values for pollutants at ZF production sites the legal compliance is reviewed and confirmed at least semi-annually based on results of third-party EHS legal compliance audits. To implement substance restrictions of all market countries worldwide incl. substances of concern regulated by REACH,<sup>41</sup> ZF uses the Global Automotive Declarable Substance List (GADSL)<sup>42</sup> as company standard incl. supplies.</p> <p>ZF reports conformity of ZF products with substance restrictions according to GADSL to stakeholders by using the IMDS material data reporting tool. This tool and the data is also relevant for type approvals. A process with suppliers on the qualification of substituted substances is in place.</p>	
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**h) Generic Criteria for DNSH to Protection and Restoration of Biodiversity and Ecosystems**

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>43</sup>	ALIGNMENT WITH THE EU TAXONOMY
<b>5. PROTECTION AND RESTORATION OF BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA</b>	
<p>At this stage, there is no complete picture of the impact of ZF’s own business and supply chain on biodiversity. ZF complies to local legal requirements related to the protection of nature and is at the beginning of activities in this field of ESRS E4 on biodiversity, comparable to early measures of climate protection that informed the current ZF climate strategy and roadmap. To prepare for regulatory assessments under the EU Taxonomy and the CSRD, activities have been launched that integrate aspects of biodiversity into the business within the next two years.</p> <p>To raise the awareness in the value chain ZF included biodiversity aspects in the ZF Business Partner Code of Conduct:</p> <p>ZF’s activities and that of its value chain depend on biodiversity and have an impact on it. Therefore, ZF endorses the draft of the Kunming-Montreal Global Biodiversity Framework (GBF) adopted at the 2022 United Nations Biodiversity Conference in Montreal (COP15). ZF complies with the legal requirements regarding the protection of biodiversity and expects the same from its business partners. ZF expects business partners to analyze the interrelation</p>	

<sup>41</sup> REACH: <https://www.umweltbundesamt.de/themen/chemikalien/reach-chemikalien-reach>

<sup>42</sup> Global Automotive Declarable Substance List (GADSL): <https://www.gadsl.org/>

<sup>43</sup> This column is based on input provided by the Issuer.

<p>between their dependencies and impacts on nature and set an adequate level of ambition for their business to support the targets of the Kunming-Montreal Global Biodiversity Framework (GBF) and not contribute to deforestation or the degradation of natural forests and include the preservation of ecosystems or species protection. All suppliers are required to endorse ZF’s Business Partner code of conduct.<sup>44</sup> Its acceptance is mandatory for awards to existing suppliers and for the registration of new suppliers. ZF reserves the right to scrutinize business relations and take appropriate action if deviations or violations are identified. Business partners should protect ecosystems, especially key biodiversity areas, impacted by their operations, avoid illegal deforestation and minimize land-use in accordance with international biodiversity regulations, including the IUCN Resolutions and Recommendations on Biodiversity. Where appropriate, business partners should monitor and control their impact on soil quality to prevent soil erosion, nutrient degradation, subsidence and contamination.</p> <p>Systematic environmental management according to ISO 14001:2015 is the standard for all production and main development locations. External inspections and audits confirm an effective EHS management system and compliance with current legislation by the ZF locations. All locations follow the “prevention before reaction” and precautionary principle. The evaluation and minimization of potential risks are core elements of ZF’s EHS management system.</p>	
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**Minimum Safeguards**

The alignment of the project characteristics and selection processes in place with the EU Taxonomy Minimum Safeguards as described in Article 18 of the Taxonomy Regulation<sup>45</sup> have been assessed. The results of this assessment are applicable for every Project Category financed under this framework and are displayed below:

PROJECT CHARACTERISTICS AND SELECTION PROCESSES <sup>46</sup>	ALIGNMENT WITH THE EU TAXONOMY REQUIREMENT
ZF has a Code of Conduct <sup>47</sup> and Business Partner Code of Conduct <sup>48</sup> in place to uphold their commitment to human rights regulations, aligning with the	✓

<sup>44</sup> Business Partner Code of Conduct

[https://www.zf.com/master/media/corporate/m\\_zf\\_com/company/corporate\\_governance/compliance/zf\\_bpc\\_en.pdf](https://www.zf.com/master/media/corporate/m_zf_com/company/corporate_governance/compliance/zf_bpc_en.pdf)

<sup>45</sup> Article 18 of the EU Taxonomy Regulation: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0852>

<sup>46</sup> This column is based on input provided by the Issuer.

<sup>47</sup> Code of Conduct, page 17,

[https://www.zf.com/master/media/corporate/m\\_zf\\_com/company/corporate\\_governance/compliance/coc\\_all\\_languages/1\\_ZF\\_Comppliance\\_Code\\_of\\_Conduct\\_EN.pdf](https://www.zf.com/master/media/corporate/m_zf_com/company/corporate_governance/compliance/coc_all_languages/1_ZF_Comppliance_Code_of_Conduct_EN.pdf)

<sup>48</sup> Business Partner Code of Conduct, page 5,

[https://www.zf.com/master/media/corporate/m\\_zf\\_com/company/corporate\\_governance/compliance/zf\\_bpc\\_en.pdf](https://www.zf.com/master/media/corporate/m_zf_com/company/corporate_governance/compliance/zf_bpc_en.pdf)

principles of the UN Global Compact and adhering to recognized international labor and social standards, such as those set by the International Labor Organization (ILO) and the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, and the Universal Declaration of Human Rights. Signing the United Nations Global Compact (UNGC) in 2012 marked ZF Group's commitment to socially responsible behavior. Since then, the Company has actively engaged with initiatives such as the Global Compact Network Germany, participating in discussions surrounding core labor standards defined by the German Corporate Governance Code (DCGK), and the UN Guiding Principles on Business and Human Rights.

ZF has implemented a Human Rights Due Diligence (HRDD) process, that is based on the Corporate Compliance methodology across the Group, production sites, and the supply chain. The HRDD approach encompasses five core elements: Policy and Governance, Assessing Risk and Impacts, Embedding and Integration, Tracking and Communication, and Complaint Management and Remedy. This approach ensures early identification of the potential impact of business activities on human rights through effective risk management, thereby preventing negative consequences. The Company has appointed a dedicated Human Rights Officer responsible for overseeing the adequacy and effectiveness of risk management and implementing risk-based control measures. Reporting directly to the member of the Board of Management overseeing Human Resources, Legal, and Compliance, the Human Rights Officer operates independently, free from instructions.<sup>49</sup>

Upon the implementation of the German Supply Chain Due Diligence Act on January 1, 2023, ZF undertook a comprehensive analysis of its supply chain and all associated locations. Furthermore, ZF utilizes a risk management process to assess and prioritize potential negative impacts on human rights. This process involves:

1. Identifying risks based on country-specific human rights risks.
2. Assessing and prioritizing risks based on criteria such as probability of occurrence, severity, and ZF's potential causal contribution measured by purchase quantities.

Based on this risk assessment, ZF defines preventive and remedial measures to ensure adherence to its standard across all operations. In 2023, ZF introduced a risk analysis tool capable of automatically, legally, and efficiently

<sup>49</sup> Annual Report 2023, page 36,

[https://www.zf.com/master/media/en/corporate/m\\_zf\\_com/company/bonds\\_relations/financial\\_reports/annual\\_report/2023\\_3/ZF\\_AnnualReport23.pdf](https://www.zf.com/master/media/en/corporate/m_zf_com/company/bonds_relations/financial_reports/annual_report/2023_3/ZF_AnnualReport23.pdf)

identifying risks within global chains. This tool utilizes publicly available data from local news, social media, and other databases, supplemented by internally available supplier information. This enables a holistic risk analysis to identify and prioritize suppliers with potential risks, considering the nature and scope of business activities, severity, and reversibility of violations. For suppliers identified with increased risks, ZF initiates preventive mitigation measures such as on-site assessments to minimize these risks. Additionally, ZF has a Corporate Compliance Prevention Management that identifies risks and prevents rule violations through regular training and education initiatives.

Additionally, ZF has joined the Responsible Supply Chain Initiative e.V. (RSCI), an initiative for sustainable supply chains in the automotive industry. The RSCI has developed a standard and a central platform for standardized sustainability assessments of production locations, conducting on-site assessments and tracing. Utilizing the RSCI standard helps avoid redundant audits and acknowledges third-party audit results. Moreover, notifications and reports on critical issues in the supply chain, such as child labor and human rights violations, are communicated through the ZF Trustline. ZF's suppliers are informed about this notification system through various channels, including the Business Partner Principles.<sup>50 51</sup>

Relevant documents, such as the Code of Conduct,<sup>52</sup> Business Partner Code of Conduct and processes, such as risk assessment, tracking and communication, and complaint management are monitored through ZF's human rights due diligence process. Investigators or expert departments conduct investigations, follow up on necessary measures, and provide feedback to the Examiner for communication with the whistleblower. Furthermore, information regarding how the Group addresses potential risks from suppliers and across operations is disclosed in ZF's Annual Report and company website.

ZF has also established a mechanism that all its employees and business partners can use to address complaints and concerns through the TrustLine,<sup>53</sup> which functions as an electronic mailbox. It ensures anonymity and protection against reprisal, with all submissions treated as confidential.

<sup>50</sup> Business Partner Code of Conduct (BPCoC), page 17,

[https://www.zf.com/master/media/corporate/m\\_zf\\_com/company/corporate\\_governance/compliance/zf\\_bpc\\_en.pdf](https://www.zf.com/master/media/corporate/m_zf_com/company/corporate_governance/compliance/zf_bpc_en.pdf)

<sup>51</sup> Annual Report 2023, page 62,

[https://www.zf.com/master/media/en/corporate/m\\_zf\\_com/company/bonds\\_relations\\_/financial\\_reports/annual\\_report/2023\\_3/ZF\\_AnnualReport23.pdf](https://www.zf.com/master/media/en/corporate/m_zf_com/company/bonds_relations_/financial_reports/annual_report/2023_3/ZF_AnnualReport23.pdf)

<sup>52</sup> Code of Conduct,

[https://www.zf.com/master/media/corporate/m\\_zf\\_com/company/corporate\\_governance/compliance/coc\\_all\\_languages/1\\_ZF\\_CoCompliance\\_Code\\_of\\_Conduct\\_EN.pdf](https://www.zf.com/master/media/corporate/m_zf_com/company/corporate_governance/compliance/coc_all_languages/1_ZF_CoCompliance_Code_of_Conduct_EN.pdf)

<sup>53</sup> ZF Compliance,

[https://www.zf.com/mobile/en/company/corporate\\_governance/compliance\\_the\\_right\\_way/compliance\\_index.html](https://www.zf.com/mobile/en/company/corporate_governance/compliance_the_right_way/compliance_index.html)

## PART IV: CONSISTENCY OF THE GREEN FINANCE INSTRUMENTS WITH ZF'S SUSTAINABILITY STRATEGY

*Key sustainability objectives and priorities defined by the Issuer*

TOPIC	ISSUER APPROACH
<p><b>Strategic ESG topics</b></p>	<p>ZF conducted a materiality analysis in accordance with the requirements of the European Corporate Sustainability Reporting Directive (CSRD) to identify material ESG topics. The strategic ESG topics can be grouped into three focus areas: acting for climate and nature, acting for all people, and acting for lasting values. This has been reported following guidelines such as the Carbon Disclosure Project (CDP) and the Taskforce on Climate-related Financial Disclosures (TCFD).</p>
<p><b>ESG goals/targets</b></p>	<p>To achieve its strategic climate topics, ZF has set the following goals:</p> <ul style="list-style-type: none"> <li>▪ Scope 1 and Scope 2 Emissions: SBTi target of achieving an 80% absolute reduction by 2030 compared to 2019 levels.</li> <li>▪ Scope 3 Emissions: SBTi target of a 40% reduction, measured against sales, by 2030 with 2019 as the base year.</li> <li>▪ Green Energy: Sourcing of 100% renewable electricity in all plants by 2025.</li> <li>▪ Climate Neutrality: SBTi commitment aiming to achieve climate neutrality across all emission scopes by 2040.</li> </ul> <p>These targets are disclosed in ZF's Sustainability Report and Climate Strategy, ensuring transparency and accountability in the company's sustainability efforts</p>
<p><b>Action plan</b></p>	<p>ZF has established different action plans for its manufacturing operations, product development, and supply chain management to achieve its sustainability goals:</p> <ul style="list-style-type: none"> <li>▪ Manufacturing Operations: ZF works to implement carbon emission free plants, Such</li> </ul>

	<p>plants set new standards for sustainable production, utilizing heat pumps for heating and cooling, energy-efficient lighting, and wastewater management. Additionally, ZF aims to supply all its plants with green electricity by 2025.</p> <ul style="list-style-type: none"> <li>▪ <b>Product Development:</b> ZF focuses on developing and localizing new electric mobility solutions, expanding capacity for wind turbine gearbox production, and creating circular products to reduce waste and improve resource efficiency. Significant investments are being made in sustainable technologies, including green steel, to support these initiatives.</li> <li>▪ <b>Supply Chain Management:</b> ZF has entered into a binding contract with H2 Green Steel to supply almost emission-free steel starting from 2026. This agreement is expected to save approximately 475,000 tons of CO2 annually. Furthermore, ZF is committed to ensuring that human rights are upheld across its entire value chain, and has established the position of Human Rights Officer to oversee compliance.</li> </ul> <p>These action plans are part of ZF’s comprehensive approach to drive its transformation and achieve its sustainability objectives, ensuring long-term growth and resilience.</p>
<p><b>Climate Transition Strategy</b></p>	<p>ZF’s climate targets are as follows: by 2030, direct Scope 1 and Scope 2 GHG emissions are to be reduced by 80% compared to 2019 levels. For Scope 3 emissions, ZF aims to achieve a 40% reduction, measured against sales, by 2030 with 2019 as the base year. In addition, ZF aims to supply all its plants with green electricity by 2025 and targets to further mitigate climate risks and promote energy efficiency. The company has entered into a binding contract with H2 Green Steel to supply almost emission-free steel starting from 2026, which is expected to save approximately 475,000 tons of CO2 annually. These targets are disclosed in ZF’s Sustainability Report,</p>

	<p>ensuring transparency and accountability in their sustainability efforts.</p> <p>Additionally, the Board of Management oversees and manages climate-related risks and opportunities, ensuring alignment with global climate strategies and commitments, such as the Science Based Targets initiative (SBTi) and the Paris Agreement.</p>
<p><b>ESG Risk and Sustainability Strategy Management</b></p>	<p>ZF's sustainability strategy management is integrated into its organizational structure through a comprehensive framework. The Sustainability Steering Board, which includes senior management from various divisions, regions, and functions, is responsible for overseeing sustainability efforts. This board supports the Board of Management in monitoring sustainability and corporate social responsibility aspects, regularly reviewing the effectiveness of the sustainability strategy and targets, ensuring the strategy is embedded in relevant processes and structures, and updating key topics as necessary. Additionally, the Sustainability Council, comprised of representatives from different divisions and functions, focuses on integrating the sustainability strategy into core business processes. It has the authority to establish working groups, campaigns, and projects for specific sustainability topics. The central Sustainability Department is tasked with developing the Group-wide sustainability strategy, handling non-financial reporting, managing stakeholder dialogue, and addressing specific issues such as decarbonization, circularity strategy development, and human rights due diligence risk management. This department also provides methodologies for analyzing and controlling product-related sustainability, supporting the implementation of tools and procedures to assess and enhance the ecological impact of products throughout their life cycle.</p> <p>ZF has established a comprehensive risk management system that categorizes risks into strategic risks, financial risks, operational risks, and sustainability risks. The company monitors the impact of climate-related physical risks and categorizes them into critical, high, medium, or low levels. Additionally, ZF's Risk</p>



	<p>Committee oversees the overall impact of risks on the ZF Group and identifies policies to manage these risks.</p> <p>In line with the TCFD recommendations, ZF recognizes both transition and physical risks and identifies corresponding investments to manage and mitigate such risks. These investments include increased funding for renewable energy projects, the development of zero-emission factories, and the use of green steel in its manufacturing processes.</p>
<b>Top three areas of breaches of international norms and ESG controversies in the industry<sup>54</sup></b>	Resource-conserving production, product safety, and social challenges in the supply chain.
<b>Breaches of international norms and ESG controversies by the Issuer</b>	At the date of publication and leveraging ISS ESG Research, no controversy in which the Issuer would be involved has been identified.
<b>Sustainability Reporting</b>	ZF reports on its ESG performance and initiatives on a yearly basis. The report is prepared according to the Global Reporting Initiative (GRI) guidelines. Furthermore, ZF discloses information on governance, strategy, risk management, metrics, and targets in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). The company also aligns its reporting with the Sustainability Accounting Standards Board (SASB) standards and the World Economic Forum (WEF) index to ensure comprehensive and transparent disclosures.
<b>Industry associations, Collective commitments</b>	ZF is a signatory of the UN Global Compact. The Issuer is also a member of the Alliance of CEO Climate Leaders of the World Economic Forum, and a founder member and active partner of the Steel Sector Working Group of the World Economic Forum’s First Movers Coalition (FMC).
<b>Previous sustainable/sustainability-linked issuances or transactions and publication of sustainable financing framework</b>	ZF has a track record in “green financing”, including the issuance of its first “Green Bonds” (2021). In 2024, ZF has issued three Green Bonds, a EUR Green Bond in an amount of EUR 800 million which will mature in 2029 and two USD Green Bond tranches maturing in

<sup>54</sup> Based on a review of controversies identified by ISS ESG over a 2-year period, the top three issues that have been reported against companies within the [Auto Components] industry are displayed above. Please note that this is not a company specific assessment but areas that can be of particular relevance for companies within that industry.

	2030 (USD 800 million) and 2032 (USD 700 million). The Green Financing Framework received a Second Party Opinion by ISS-Corporate. <sup>55</sup>
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*Rationale for issuance*

ZF has established the Green Finance Framework to demonstrate its alignment with recognized sustainability criteria. Sustainability is an integral part of ZF Group's strategy. ZF believes that the use of green finance can help facilitate the transition to a low-carbon and more sustainable economy and serve as a tool to bring additional transparency and commitment to sustainability matters. With this Framework, ZF intends to follow up on the previously established 2021 Green Finance Framework and continue its track record in applying Green Finance Instruments.

**Opinion:** *The key sustainability objectives and the rationale for issuing Green Bonds are clearly described by the Issuer. All project categories financed are in line with the sustainability objectives of the Issuer.*

<sup>55</sup> ZF Second Party Opinion: <https://www.iss-corporate.com/file/documents/spo/spo-20210423-zf.pdf>

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## ANNEX 1: METHODOLOGY

The ISS-Corporate SPO provides an assessment of labelled transactions against international standards using ISS-Corporate proprietary methodology. For more information, please visit: <https://www.iss-corporate.com/file/publications/methodology/iss-corporate-green-social-and-sustainability-bond-loan-spo-methodology-summary.pdf>

### EU Taxonomy

The assessment evaluates whether the details of the nominated projects and assets or project selection Selection Criteria included in the Green Finance Framework meet the criteria listed in relevant Activities in the EU Taxonomy Climate Delegated Act (June 2023).

The evaluation shows if ZF's project categories are indicatively in line with the entirety (or some of) the requirements listed in the EU Taxonomy Technical Annex.

The evaluation was carried out using information and documents provided on a confidential basis by ZF (e.g. Due Diligence Reports). Further, national legislation and standards, depending on the project category location, were drawn on to complement the information provided by the Issuer.

## ANNEX 2: QUALITY MANAGEMENT PROCESSES

### SCOPE

ZF commissioned ISS-Corporate to compile a Green Finance Instruments SPO. The Second Party Opinion process includes verifying whether the Green Finance Framework aligns with the ICMA GBP and to assess the sustainability credentials of its Green Finance Instruments, as well as the Issuer's sustainability strategy.

### CRITERIA

Relevant Standards for this Second Party Opinion:

- Green Bond Principles (GBP), as administered by the International Capital Market Association (ICMA) (as of June 2021 with June 2022 Appendix 1)
- EU Taxonomy Climate Delegated Act, Annex I (as of June 2023)

### ISSUER'S RESPONSIBILITY

ZF's responsibility was to provide information and documentation on:

- Framework
- Selection criteria

### ISS-CORPORATE'S VERIFICATION PROCESS

Since 2014, ISS Group, of which ISS-Corporate is a part of, has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI approved verifiers.

This independent Second Party Opinion of the Green Finance Instruments to be issued by ZF has been conducted based on a proprietary methodology and in line with the ICMA GBP.

The engagement with ZF took place in June and July 2024.

### ISS-CORPORATE'S BUSINESS PRACTICES

ISS-Corporate has conducted this verification in strict compliance with the ISS Group Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behavior and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.

## About this SPO

Companies turn to ISS-Corporate for expertise in designing and managing governance, compensation, sustainability and cyber risk programs that align with company goals, reduce risk, and manage the needs of a diverse shareholder base by delivering best-in-class data, tools, and advisory services.

We assess alignment with external principles (e.g. the ICMA Green / Social Bond Principles), analyse the sustainability quality of the assets and review the sustainability performance of the Issuer themselves. Following these three steps, we draw up an independent SPO so that investors are as well informed as possible about the quality of the bond / loan from a sustainability perspective.

Learn more: <https://www.iss-corporate.com/solutions/sustainable-finance/bond-issuers/>

For more information on SPO services, please contact: [SPOsales@iss-corporate.com](mailto:SPOsales@iss-corporate.com)

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