

# **ŠKODA AUTO UNIVERSITY**

**Report**

**Group: 5**

**Topic: Sustainability performance  
management in automotive supply chains**

**Sustainable Vehicle Design and Supply Chain  
Management**

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## Contents

Summary .....	3
Introduction.....	4
1 Analysis of EU and country laws on sustainability reporting and its relevant aspects for product design and SCM .....	5
1.1 Analysis of EU directives concerning sustainability reporting.....	6
1.2 Analysis of the legislation in the different countries concerning sustainability reporting for SCM .....	9
1.3 Comparison of the different directives and legislation .....	14
1.4 Analysis of the evaluation criteria of rankings for sustainability reports...	15
2 Comparison of the sustainability reporting with focus on design and SCM....	19
2.1 Analysis of the sustainability reporting of four different companies .....	19
2.2 Evaluation of best practices and points of improvement .....	45
Conclusion.....	48
References .....	49
List of figures and tables .....	51

## **List of abbreviations and symbols**

SCM    Supply chain management

NFDR   Non-Financial Reporting Directive

ESG    Environmental, social, and governance issues

SFDR   Sustainable Finance Disclosure Regulation

RoHS   Restriction of Hazardous Substances

REACH      Registration, Evaluation, Authorisation and Restriction of Chemicals

CSR    Corporate Social Responsibility

Coll.   Collection

## **Summary**

Our job was to do analysis of EU and country laws on sustainability reporting, as well as sustainability reporting rankings and four different companies' sustainability reports. The analysis covers topics such as the SFDR and NFDR EU directives, country legislation on sustainability reporting, evaluation criteria for sustainability rankings, sustainability reporting for design and SCM. Also, critical evaluation of best practices and points of improvements.

The analysis highlights the importance of transparency, stakeholder engagement and addressing supply chain sustainability comprehensively in sustainability reporting.

## **Introduction**

Sustainability reporting refers to the practice of companies reporting on their environmental, social and governance (ESG) performance.

The importance of the topic sustainability and especially sustainability reporting has increased in recent years due to rising expectations from a wide range of stakeholders. More and more companies are recognizing the importance of sustainability and ESG factors to their business strategy and are looking for ways to communicate their performance in a transparent and understandable way.

In this context, the quality and credibility of sustainability reports is gaining importance in promoting corporate transparency, accountability and sustainability.

## **1 Analysis of EU and country laws on sustainability reporting and its relevant aspects for product design and SCM**

The EU has implemented several laws and regulations related to sustainability reporting that are relevant for product design and supply chain management (SCM). These laws aim to promote sustainability in business practices and provide transparency and accountability to stakeholders, including investors, consumers, and regulators. In this analysis, we will discuss some of the key aspects of EU laws on sustainability reporting and their relevance for product design and SCM.

- **Non-Financial Reporting Directive (NFRD):** The Non-Financial Reporting Directive is an EU directive that requires large companies to report on their policies, risks, and outcomes related to environmental, social, and governance (ESG) issues. The directive requires companies to report on issues such as greenhouse gas emissions, energy efficiency, social and employee-related matters, respect for human rights, anti-corruption and bribery issues. The NFRD is relevant for product design and SCM because it requires companies to disclose information about their environmental and social impacts, which can help identify areas for improvement and guide sustainable product design and supply chain management practices.
- **Sustainable Finance Disclosure Regulation (SFDR):** The Sustainable Finance Disclosure Regulation is an EU regulation that requires financial market participants to disclose information about the sustainability of their investments. The SFDR requires financial market participants to disclose information on how they integrate sustainability risks into their investment decision-making processes, as well as information on the environmental and social characteristics of their investment products. Its relevant for the topic because it provides transparency and accountability on the sustainability of investments, which can help guide sustainable product design and SCM practices.
- **Restriction of Hazardous Substances (RoHS) Directive:** The Restriction of Hazardous Substances Directive is an EU directive that restricts the use of certain hazardous substances in electrical and electronic equipment. The directive restricts the use of substances such as lead, mercury, cadmium,

and hexavalent chromium in electrical and electronic equipment. The RoHS promotes the use of safer and more environmentally friendly materials in products.

- **Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation:** The REACH Regulation is an EU regulation that regulates the use of chemicals in products. The regulation requires companies to register the chemicals they use in their products, evaluate the risks associated with those chemicals, and obtain authorization for the use of certain chemicals that pose a high risk. In conclusion it promotes the use of safer chemicals in products.

Overall EU laws on sustainability reporting provide transparency and accountability on environmental and social impacts, promote the use of safer and more sustainable materials, and help guide sustainable investment decisions. These laws can help companies identify areas for improvement and guide sustainable product design and SCM practices.

## **1.1 Analysis of EU directives concerning sustainability reporting**

This section discussed about main EU directives concerning to sustainability reporting. The following have been selected for this section: Sustainable Finance Disclosure Regulation, Non-Financial Reporting Directive.

### **SFDR**

The Sustainable Finance Disclosure Regulation is a regulation adopted by the European Union (EU) in 2019, which aims to promote sustainability in financial markets. The SFDR requires financial market participants, including investment managers, investment advisers, and fund distributors, to disclose information about the sustainability of their investments.

The SFDR has two main objectives:

- Firstly, it requires financial market participants to disclose information on how they integrate sustainability risks into their investment decision-making processes. This includes information on how they assess and manage the risks of climate change, biodiversity loss, and other environmental, social, and governance factors.

- Secondly, the SFDR requires financial market participants to disclose information on the sustainability of their investments. This includes information on the environmental and social characteristics of their investment products, such as their carbon footprint or exposure to companies with high ESG risks.

The SFDR applies to financial market participants that operate in the EU, including EU-based investment managers and advisers, as well as non-EU managers that market their funds in the EU. The regulation came into effect on 10. 3. 2021, and requires financial market participants to make their first disclosures in 2021. The SFDR aims to increase transparency and accountability in the financial industry, and to encourage investors to make more sustainable investment decisions.

SFDR includes the following:

- Integration of sustainability risks: Financial market participants must disclose information on how they integrate sustainability risks into their investment decision-making processes, including the assessment and management of risks related to climate change, biodiversity loss, and other ESG factors.
- Principle adverse impacts: Financial market participants must disclose information on the principal adverse impacts of their investments on sustainability factors, including the environment, social issues, and governance.
- Sustainable investments: Financial market participants must disclose information on the environmental and social characteristics of their investment products, including the methodology used to assess and measure sustainability, as well as the percentage of the portfolio that meets certain sustainability criteria.
- Transparency and reporting: Financial market participants must provide clear and concise information to investors on how sustainability risks and factors are integrated into their investment decision-making, and how they assess and measure the sustainability of their investments. They must also report on the impact of sustainability factors on their investment returns and the long-term value of their investments.



The SFDR also includes specific disclosure requirements for financial products that claim to have a sustainable investment objective or that promote environmental or social characteristics. These requirements include disclosure of the methodology used to assess and measure the sustainability of the investment, as well as the percentage of the portfolio that meets certain sustainability criteria.

Overall, the SFDR aims to increase transparency and accountability in the financial industry, and to encourage investors to make more sustainable investment decisions.

## **NFDR**

The Non-Financial Reporting Directive is a regulation adopted by the European Union in 2014, which requires large public-interest companies with more than 500 employees to disclose non-financial information in their annual reports. The directive aims to increase transparency and accountability of companies by requiring them to report on a range of environmental, social, and governance issues, such as human rights, anti-corruption, diversity and inclusion, and environmental impacts.

Under the NFRD, companies are required to include a non-financial statement in their annual report, which must provide information on the company's policies, outcomes, and risks related to ESG issues. The NFRD also requires companies to disclose information about their supply chain, including any risks of human rights violations or environmental damage.

The NFRD applies to large companies in the EU that are listed on a regulated market, banks, and insurance companies, as well as other companies designated by EU member states. The reporting requirements of the NFRD are mandatory, and companies that fail to comply with the directive may face penalties or sanctions.

The NFRD includes the following non-financial information that companies are required to disclose:

- **Environmental issues:** This includes information on a company's environmental impact, resource use, and emissions. Companies must report on their policies, risks, and outcomes related to environmental issues.
- **Social issues:** This includes information on a company's impact on employees, customers, suppliers, and the wider community. Companies

must report on their policies, risks, and outcomes related to social issues such as human rights, labour standards, diversity and inclusion, and community engagement.

- Human rights: Companies must report on their policies and actions related to human rights, including any risks of human rights violations in their operations or supply chain.
- Anti-corruption and bribery: Companies must report on their policies and actions related to preventing corruption and bribery, including any risks of corruption.
- Supply chain issues: This includes information on a company's suppliers, including their policies and practices related to social and environmental issues, as well as any risks or impacts of the company's supply chain.
- Diversity: Companies must report on their policies and actions related to diversity and inclusion, including any measures taken to promote diversity and reduce discrimination.

The specific requirements of the NFRD depending on the nature and size of the company and the industries in which they operate.

## **1.2 Analysis of the legislation in the different countries concerning sustainability reporting for SCM**

### **Specific reporting for selected countries**

In the next part has been selected special laws for selected countries, such as the Czech Republic, Belgium, Germany and Finland.

#### *The Czech Republic*

The Czech Republic has implemented its own laws and regulations related to sustainability reporting. In this analysis, we will discuss some of the key laws and regulations related to sustainability reporting in the Czech Republic and their relevance for product design and SCM.

- Act No. 411/2012 Collection (Coll.) on the disclosure of information on the environment: This act requires companies to disclose information on their environmental impacts, including gas emissions, waste management, and water consumption. The act applies to companies that meet certain criteria,

including those with more than 250 employees or with an annual turnover of more than 500 million CZK. Simply it requires companies to disclose information on their environmental impacts, which can help identify areas for improvement and guide sustainable product design and supply chain management practices.

- Act No. 90/2018 Coll. on waste: This act regulates the management of waste in the Czech Republic, including waste prevention, reuse, and recycling. The act requires companies to take measures to prevent waste and to ensure the proper treatment and disposal of waste. Overall, it promotes the use of sustainable materials and waste reduction.
- Act No. 106/1999 Coll. on the protection of air against pollutants: This act regulates air pollution in the Czech Republic and sets limits on the emission of pollutants. The act requires companies to take measures to reduce their emissions of air pollutants, including greenhouse gases. This act promotes the use of sustainable materials and energy-efficient practices.
- Act No. 586/1992 Coll. on income taxes: This act allows companies to deduct expenses related to environmental protection and energy efficiency from their taxable income. This motivates companies to invest in sustainable practices and technologies. It incentivizes companies to adopt sustainable practices and technologies in their product design.

In conclusion, these laws and regulations promote sustainable practices in product design, supply chain management, waste management, and pollution prevention. Companies in the Czech Republic are required to disclose information on their environmental impacts and can receive tax incentives for investing in sustainable practices and technologies.

### *Germany*

Germany has implemented its own laws and regulations related to sustainability reporting such as the Czech Republic.

- CSR Directive Implementation Act: This act requires large companies to include non-financial reporting in their management reports. The non-financial reporting must cover environmental, social, and employee matters, respect for human rights, and anti-corruption and bribery matters. The act

applies to companies that meet certain criteria, including those with more than 500 employees and those that are publicly listed.

- **Circular Economy Act:** This act aims to promote the transition to a circular economy by reducing waste and increasing the reuse, repair, and recycling of products. The act requires producers to take responsibility for the end-of-life management of their products, including the collection, recycling, and disposal of waste.
- **Product Safety Act:** This act regulates the safety of products and requires producers to ensure that their products are safe for consumers. The act also requires producers to provide information on the safe use and disposal of their products. In conclusion it promotes the use of sustainable materials and ensures that products are safe for consumers throughout their lifecycle.
- **Energy Efficiency Act:** This act regulates energy efficiency and requires companies to implement energy-saving measures in their operations. The act also provides incentives for companies to invest in energy-efficient technologies. Simply it promotes the use of sustainable materials and energy-efficient practices in product design and supply chain management practices.

Companies in Germany are required to disclose information on their environmental and social impacts, and to take responsibility for the end-of-life management of their products. Germany also provides incentives for companies to invest in sustainable practices and technologies.

#### *Germany – LkSG*

The "Act on Corporate Due Diligence Obligations in Supply Chains" ("Lieferkettengesetz" = LkSG) came into force on 1 January 2023.

With the LkSG, entrepreneurs in Germany are required to comply with human rights in global supply chains for the first time.

Companies in Germany with at least 3,000 employees (from 2024: with 1,000 employees) are obliged to comply with this law.

Businesses are required to respect human rights by complying with defined due diligence requirements.

These include establishing a risk management system to identify, prevent or minimize the risks of human rights violations and environmental damage. The law regulates which preventive measures are necessary and requires regular reporting.

The LkSG contains eleven internationally recognized human rights conventions. These include, for example, the prohibition of slavery, child labour and forced labour, the disregard of occupational health and safety or the withholding of a decent wage.

The requirements also apply to the actions of a business partner or other suppliers. Thus, the responsibility exists along the entire supply chain.

In case of non-compliance with the legal obligations, companies face fines of up to 8 million euros or up to 2 percent of their annual global turnover.

### *Belgium*

For Belgium is situation with laws similar as for the previous countries.

- **Belgian Corporate Governance Code:** This code requires companies to disclose information on their social and environmental impact as well as their efforts to promote sustainability in their operations. The code applies to listed companies and large companies.
- **Circular Economy Action Plan:** This plan aims to transition Belgium to a circular economy by reducing waste and increasing the reuse, repair, and recycling of products. The plan includes measures such as the development of circular procurement guidelines and the promotion of eco-design.
- **Product Policy Framework Law:** This law aims to promote the sustainable use of products by requiring companies to take a life cycle approach to product design, including the use of sustainable materials and energy-efficient production processes. The law also requires companies to provide information on the environmental impact of their products to consumers.
- **Energy Performance of Buildings Directive:** This directive aims to promote the energy-efficient design and construction of buildings. The directive requires member states to set minimum energy performance standards for new and existing buildings.

In conclusion, Belgium has implemented laws and regulations related to sustainability reporting that are relevant for product design and SCM. These laws

and regulations promote sustainable practices in product design, supply chain management, waste management, and energy efficiency. Companies in Belgium are required to disclose information on their environmental and social impacts and take a life cycle approach to product design, including the use of sustainable materials and energy-efficient production processes. Belgium also provides incentives for companies to invest in sustainable practices and technologies.

### *Finland*

As a member of the European Union, Finland is subject to EU laws and regulations related to sustainability reporting that are relevant for product design and SCM. In addition, Finland has implemented its own laws and regulations related to sustainability reporting. In this analysis, we will discuss some of the key laws and regulations related to sustainability reporting in Finland.

- **Corporate Social Responsibility Act:** The CSR Act requires large companies to disclose information on their social and environmental impacts and their efforts to promote sustainability in their operations.
- **Climate Change Act:** The Climate Change Act requires the Finnish government to prepare a national climate change plan that includes measures to reduce greenhouse gas emissions.
- **Waste Act:** The Waste Act regulates waste management practices in Finland and aims to promote the reuse, recycling, and recovery of waste.
- **Energy Efficiency Act:** The Energy Efficiency Act aims to promote energy efficiency in various sectors, including buildings and industry. The Act requires companies to carry out energy audits and implement measures to improve energy efficiency.

In conclusion, these laws and regulations promote sustainable practices in product design, supply chain management, waste management, and energy efficiency. Companies in Finland are required to disclose information on their environmental and social impacts and take measures to reduce greenhouse gas emissions, promote the reuse and recycling of waste, and improve energy efficiency.

### **1.3 Comparison of the different directives and legislation**

While all four countries (Czech Republic, Belgium, Germany, and Finland) are subject to EU laws and regulations related to sustainability reporting, there are some differences in their implementation and enforcement. Additionally, each country has its own specific laws and regulations.

- One of the main differences between these countries is their approach to implementing EU regulations related to sustainability reporting. For example, Belgium has implemented the EU's NFRD and the SFDR, while Germany has implemented the NFRD and has its own national law on sustainability reporting. Finland has also implemented the NFRD and has specific laws related to waste and energy efficiency, while the Czech Republic has implemented the NFRD and has its own national law on CSR reporting.
- Another difference is the level of enforcement and penalties for non-compliance. For example, Belgium has a system of administrative fines for non-compliance with sustainability reporting regulations, while Germany has criminal penalties for false reporting. Finland has a system of voluntary agreements and incentives to encourage companies to adopt sustainable practices, while the Czech Republic has a system of fines for non-compliance with CSR reporting.
- Additionally, there may be differences in the specific areas of focus in each country's sustainability reporting regulations. For example, Germany's national law on sustainability reporting places particular emphasis on human rights and labour rights, while Finland's regulations focus on waste management and energy efficiency.

In summary, while there are some commonalities in the sustainability reporting regulations across these countries, there are also differences in their implementation, enforcement, and areas of focus. Companies operating in these countries will need to be aware of the specific regulations that apply to them and take steps to ensure compliance.

## 1.4 Analysis of the evaluation criteria of rankings for sustainability reports

Even after hours of research, unfortunately only one ranking could be found in which the sustainability reports of companies are evaluated. This is the ranking of IÖW and future.

Since the original comparison of the evaluation criteria is no longer possible, the ranking "Corporate Knights Global 100 Index" is now used as an alternative for comparison. This is a ranking in which only the sustainability efforts of the companies are evaluated and the sustainability reports.

Therefore, in the following, the evaluation criteria of a ranking of sustainability efforts will be compared with the evaluation criteria of a ranking of sustainability reports.

### Ranking of sustainability reports by IÖW and future:



Source: (IÖW und future, n.d.)

**Figure 1: Ranking IÖW and future**

A very well-known and recognized ranking of sustainability reports is the ranking by IÖW and future. The reasons for this are the high level of expertise and many years of experience. In this ranking, sustainability reports of companies from Germany, Austria and Switzerland are evaluated.

The evaluation of sustainability reports is based on a large number of criteria, which are very extensive and can also vary in part depending on the issue.

Nevertheless, there are some typical criteria that are considered in every evaluation.

In the following chapter, you will see the criteria of the IÖW and future ranking from 2021.

#### *Top criteria in Ranking 2021:*

The criteria of the 2021 ranking by IÖW and future are divided into block A with "material reporting requirements" and block B with criteria on "general reporting quality".



The following table shows the upper criteria.

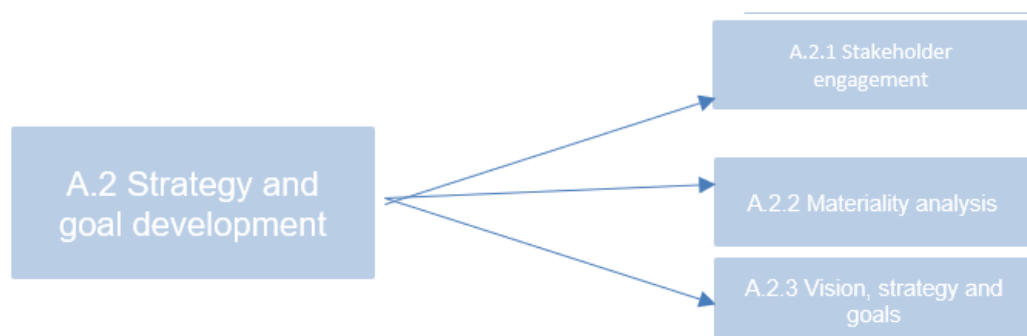
**Table 1: Upper criteria ranking IÖW and future**

<b>A Material requirement for reporting</b>	<b>B General reporting quality</b>
A.1 Company profile	B.1 Credibility
A.2 Strategy and goal development	B.2 Significance and comparability
A.3 Governance and Compliance	B.3 Communicative quality
A.4 Responsibility for the employees	
A.5 Ecological responsibility at the sites	
A.6 Product responsibility	
A.7 Responsibility in the supply chain	
A.8 Social environment	

Source: (IÖW and future, 2022)

Most of the upper criteria are then subdivided into several sub-criteria.

The following chart shows, for example, the breakdown of point “A.2 Strategy and goal development” into its sub-criteria.



Source: IÖW and future, 2022

**Figure 2: criteria of ranking IÖW and future**

The various sustainability reports are then evaluated in the individual criteria, which in turn are weighted differently. In the end, a result can be drawn from this and a valid ranking can be created.



Source: Corporate Knights, 2023

**Figure 3: The 2023 Global 100**

## **Corporate Knights Global 100 Index**

Another ranking is the Corporate Knights Global 100 Index, published by Corporate Knights, a Canadian sustainable development company. The ranking evaluates companies worldwide according to their sustainability performance.

This rating also includes a comprehensive number of evaluation criteria.

In the following, the seven main criteria of the ranking are shown:

- Energy and carbon productivity
- Water use
- Waste and emissions management
- Innovation capacity
- Employee relations
- Supplier relations
- Financial strength

Each main criterion in turn has sub-criteria and specific indicators that are used for the evaluation.

For example, the point “Waste and Emissions Management” is divided into the following sub-criteria:

- Prevention of waste
- Waste reduction and recycling
- Avoidance of hazardous waste

- Reduction of:
  - Carbon emissions
  - Nitrogen oxide emissions
  - Sulphur oxide emissions
  - Dust emissions

All these criteria are weighted differently and are then included in the ranking.

### **Comparison of these two rankings:**

Basically, many of the evaluation criteria of both rankings are quite similar. A major similarity in the evaluation criteria of the two rankings can be found in the environmental sustainability topics, such as energy and water management or emissions.

However, topics such as employee relations or responsibility in the supply chain are also considered in both rankings.

The big difference in the evaluation criteria is that the ranking of Löw and future also looks at the reporting quality of the sustainability report, which does not play a role in the ranking of Corporate Knights.

Here, topics such as credibility, informative value or communicative quality are considered.

## 2 Comparison of the sustainability reporting with focus on design and SCM

### 2.1 Analysis of the sustainability reporting of four different companies

#### BMW

In the text down below, you can find an analysis of the BMW group report. This is the general report that is published every year. This report is a combined sustainability and general report for the company. The BMW group report is published on 15.03.2023 and is the latest available report.



Source: Title of BMW Group Report

**Figure 4: BMW AG Group Report**

#### *Stakeholder*

BMW's report targets a wide range of stakeholders who are all interested in different parts of the company. A dialogue with their stakeholders is done through forums and group meetings.

The main stakeholders are their employees, consumers, investors, and government bodies. These groups are all interested in different parts of the companies. That's why it is important that the report contains a wide variety of topics so all groups can find the information that's critical for them.

#### *Human rights*

BMW has respect for human rights and is actively involved in the well-being of their employees.

#### *Reduction of CO2 emissions*

The company is working hard to reduce their carbon dioxide emissions. They were involved in numerous projects like the race to zero campaign to become CO2

neutral. They set the goal to reduce their CO2 emissions on producing vehicles by 80 % and the CO2 emissions in their supply chain by 20 % by the year 2030. The company is achieving this by using alternative drivetrain technology, renewable energy and the use of sustainable materials.

BMW is also in favor of circularity of products. This means that they recycle the absolute most they can. For example, the new Mini has 100 % recycled wheels made from Coke cans.

#### *Alternative drivetrain technology*

Another proof of goodwill is their research about alternative drivetrain technology. By 2030 the company's goal is to have over 50 % of sold cars be completely electrified. Not only is electrification a point of interest for them, but BMW is also heavily investing in hydrogen powered cars.

#### *Diversity and equal opportunity*

BMW is constantly developing new training and methods to improve the knowledge and capabilities of their employees. They truly believe in employee development and equal opportunity as a result of these trainings and education. In their sustainability report they also have a percentile graph for the women in the workspace for every country and country specific governance functions.

#### *Product safety*

Product safety is an important factor for BMW. In their report they mention how they constantly involve the brake systems, driver aid system and passive safety systems such as chassis tuning and stable passenger compartments.

BMW cars are also tested by the European new car assessment programme and their cars prove to have affective safety measurements built in. They have numerous cars that have received the highest possible rating proving their philosophy.

#### *Mapping to SDG's*

BMW has a couple of important SDGs mentioned regarding sustainability. They are following the SDG's composed by the United Nations. In particular they are interested in achieving the 3,8,9,12,13 goals.

#### *BMW's goals:*

### **3. Good health and well-being:**

BMW is achieving this goal in numerous ways. They are involved in the well-being of their employees and insure a safe and enjoyable workplace. They also invest in research of product safety to a great extent to cut down tragic road accidents. Another aspect of this goal is the reduction of pollution to ensure a healthy environment for everyone to live in.



*Figure 5: SDG's target 3*

#### **8. Decent work and economic growth:**



*Figure 6: SDG's target 8*

BMW is building new factories that provide new jobs. The materials they need for the manufacturing of their products are from all over the world and contribute to a diverse balance in economic growth and workload divided over the countries. This will also cut down the production costs.

#### **9. Industry, innovation and infrastructure:**



*Figure 7: SDG's target 9*

BMW is working on a plan to make their manufacturing plants sustainable and reduce CO2 emissions significantly. This also includes the usage of renewable

energy sources. BMW is also pursuing a circular economy approach to minimize waste and maximize resource utilization. Digitalization is also an important factor to optimize corporate operations and product development.

## **12. Responsible consumption and production:**



***Figure 8: SDG's target 12***

This SDG lies close to the previous one in terms of ways to implement this as a company. But the product itself is an important factor too. They ensure customer satisfaction and product quality through responsible production practices. BMW cars are also undergoing more and more electrification and even the use of alternative fuels like hydrogen.

## **13. Climate action:**



***Figure 9: SDG's target 13***

This last SDG is intertwined in all of the above-mentioned SDG's. Every type of sustainability can be traced back in one way or the other to environmental impact. By strictly following the points mentioned above, BMW is greatly reducing its environmental impact and they are further reducing this by researching sustainable mobility solutions and by promoting environmental protection, social responsibility and corporate responsibility.

*Relevant sustainability KPIs (eg. Scope 1/2 CO2 emissions, tons of waste etc.)*

BMW uses Sustainability Key Figures in their report to make its sustainability activities measurable and present them in a transparent way. This is a very detailed section of the BMW Group Report 2022 and is 30 pages long.

The most important ones are listed below:

**Table 2: KPI's BMW**

Revenue:	23,5 million EUR
Total energy consumption:	6.295.990 MWh
Total CO2 emitted (scope 1):	694.057 t
Total CO2 emitted (scope 2):	91.300 t
Total fuel use:	3.270.368 MWh
Total volume of waste	918.387 t
Total freshwater consumption:	4.065.735 m3
Workforce BMW Group:	149.475
Proportion of women:	18.6%

Source: BMW AG Group Report

*Transparency of SC (level of detail eg. Number of direct/indirect suppliers)*

The content in the BMW group report 2022 about the supply chain is relatively detailed but is missing exact figures on some of the parameters. For instance, there isn't an exact figure mentioned for the number of tier 1 and tier 2 suppliers, but there is a percentile indication of the tier 1 suppliers who have contract volume greater than 2 million euros which is 97 %. They also include a percentage of contracts with corrective measures as a result of identified sustainability deficits. These contracts have corrective measures in place to ensure BMW's sustainability conditions. Furthermore, there are a number of suppliers who didn't meet the required sustainability requirements. The exact figure is 98 contracts.

They are very detailed in the operation of their supply chain and the reducing of the environmental impact of the supply chain. For example, they have 427 contracts



with their largest suppliers to reduce CO2 emissions in the supply chain, which is 84% of their supply chain. From there you can make a calculation and find that BMW has around 496 suppliers.

#### *Practices used (Code of conduct, Sustainability evaluations, trainings etc.)*

BMW has a number of codes of conduct for various target audiences, training and evaluations.

#### *Compliance (code of conduct)*

They have a code of conduct for their employees, the BMW Group legal compliance code. This code is meant as an instructive guide for employees to follow.

BMW also has a code of conduct for human rights. This is based on the international standards set by the United Nations.

Furthermore, there is a code of conduct for suppliers accompanied by the suppliers policy regarding sustainability.

#### *Trainings*

BMW offers numerous training courses for their employees, so their knowledge stays up to date and so that the BMW brands stay professional and efficient. There are also training courses on sustainability for their employees.

BMW group has mandatory training for their tier 1 suppliers so that they can act according to the brand's sustainability requirements. A total of 553 suppliers completed this specific training.

#### *Sustainability evaluations*

BMW uses their group supplier policy as an evaluation for the environmental responsibility the suppliers need to take for them to supply to BMW.

#### *Report:*

This last subject contains a brief evaluation of the "BMW Group Report 2022".

**Table 3 Report evaluation BMW**

<b>Frequency</b>	<b>Length</b>	<b>Level of detail</b>	<b>Standards used</b>
Annual  Both are published in march	Complete report: 343 pages  Sustainability part: 30 pages	Reports is very detailed (no precise figures but a lot of topics)  A lot of KPI's	Global Reporting Initiative (GRI)

		5 main SDG's (no detail about approach)  Level of detail (8)	Task Force on Climate-related Financial Disclosures (TCFD)  sustainability accounting standards board (SASB)
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Source: BMW AG Group Report

## Skoda

Skoda Auto publishes the sustainability report for every 2 years. The form of the report is presentation, like a brochure, not as classical report. Last report from Skoda is for years 2019 and 2020.

### *General Content*

Main aim of the report is to give information to all stakeholders. Main stakeholders are partners, suppliers, employees, shareholders, customers, dealers, communities in the neighborhood. For Skoda there is main target group of stakeholders: Employees, community (municipalities), investors, shareholders, analysts, media, government bodies, suppliers, customers, schools and colleges, NGOs, professional organisations. It can be everybody, who is focused on the impact of the company to environment, sustainability, etc.

Main topic discussed in this report are focussed to sustainability and corporate strategy, economy and governance, supply chain, innovation, customer satisfaction, corporate governance, environment programs and impact for environment for the future.

### *Sustainable development goals (SDG)*

Skoda Auto as part of VW group identified as the most relevant SDG aims followings in the Figure 9.



**Figure 10: Most relevant Sustainable Development Goals for SKODA**

The aims for Skoda Auto in the categories are following:

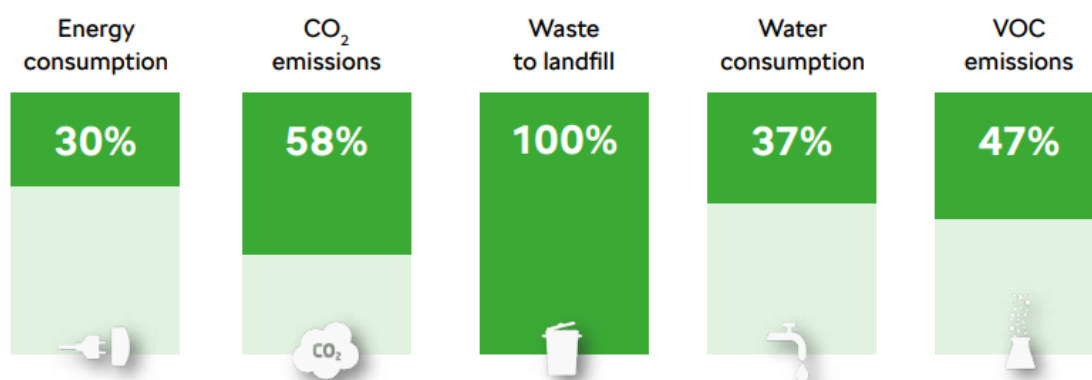
- Goal 3: By 2020 reduce the number of deaths and injuries from accidents on the road
- Goal 4: By 2030 increase the number of people with technical and vocational skills for employment and decent job
- Goal 5: Women's as leaders with the opportunities for decision-making process in political, economic and public life
- Goal 6: Reducing pollutions for improving water quality and increase of recycling
- Goal 7: By 2030 increase the share of renewable energy
- Goal 8: Higher level of productivity by using diversification, technological upgradig and innovations, focus on high value added and labour intensive sectors, by 2030 archieve full and productive employment for women and men and equal pay for work or equal value

- Goal 9: by 2030 upgrade infrastructure and make it sustainable
- Goal 11: new mobility concept, access for safe and sustainable transport for all (include childrens, persons with disabilities, etc.)
- Goal 12: by 2030 archieve sustainable management and efficient use of natural resources and reduce waste generation through reuse, prevention
- Goal 13: improve education in case of climate change
- Goal 16: develop transparent institution at all levels

### *Key Performance Indicators*

The Key Performance Indicators (KPI) including reduction of the production impact on the environment. For Skoda Auto is important progress between last years and for example in last ten years (2010-2020) there is big differencies – as you can see in the Figure 10.

#### **REDUCTION OF THE PRODUCTION IMPACT ON THE ENVIROMENT 2010 – 2020**



**Figure 11: Skoda Auto Reduction of the production impact on the environment 2010-2020**

Source: Skoda Auto Sustainability report 2019/2020

Key performance indicators (KPI) can be presented as numbers – as can be seen in the Table 1.

**Table 4: KPI Skoda Auto**

Revenue:	424.292 million EUR
Total energy consumption:	1.184 GWh

Total CO2 emitted:	41.000 t (direct) + 305.000 t (indirect)
Total volume of waste	1.778.000 t
Total fresh water consumption:	260.000 m3

Source: Skoda Auto Sustainability Report

*Content focus SCM:*

- Transparency of SC (level of detail eg. Number of direct/indirect suppliers)
  - Report is focused on the basic general info, but there is numbers and amounts of the important indicators. It includes data about every topic, which is relevant for the sustainability. Every stakeholder can find the information about specific topic – such as environmental sustainability indicators, electromobility target, etc.
  - Report is online in Czech and English version, so everybody can read it
- Practices used
  - Code of conduct (Compliance): For the company is important to have suppliers with the same aims of the compliance, Skoda Auto as a part of VW group has its own Compliance Management System (CMS) with general principles and most important priorities.
  - Trainings: The company has a lot of ways how to train the employees – they have got ŠKODA Academy, where is a lot of trainings and in the last years there is a lot of possibilities, where the employees can absoluate online training – via videos, e-learning, etc.
- S-Rating – its the sustainability rating of suppliers
- Supply chain resilience and risk management
- Circular economy and supply chain decarbonisation

## Volvo



**Figure 12: Volvo truck**

Source: 1 Volvo, 2023

Volvo publishes sustainability reports combined with its annual reports. Volvo's reports were published on 28.02.2023 and it is going to be analysed below. This is the latest report from Volvo Group.

### *Stakeholders*

The report is aimed to be open for all the stakeholders who are interested in Volvo's yearly progress in sustainability and markets.

For Volvo everyone who is interested in Volvo's products are considered as a valuable stakeholders, but some of the most relevant ones are still shareholder and investors that are interested in Volvo's efforts and progress in sustainability and financial side. Volvo values also it's cutomers that are interested in their quality and path to sustainability goals. Then there is their employees and workplace environment and educational level where they want to put effort on.

Also volvo works really closely with it business and supplier network to guide them to decarbonization of supplychains. Volvo respects globally and locally different authorities, goverments and NGOs.

### *Sustainability*

Volvo is committed to reducing its co2 emissions by 40% per car by year 2025 compared to year 2018 relating levels. Also coming to climate neutral by 2040. To reach these goals Volvo has taken quite a few actions to reach its goals:

- Electrification is one of the biggest ones and they are planning to global sales of 50% on electric vehicles globally by the year of 2025, rest of sold car units should be 50% of hybrid vehicles.

- Carbon-neutral manufacturing. Aims to have its manufacturing processes carbon-neutral also by the year of 2025. To reach this they are trying to use as much as possible of renewable energy sources as possible. they have also started to by fossil-free steel from SSAB.
- Use of sustainable materials like recycled plastics at least 25% and bio-based with 25% also. So fibers and leathers are going to be recycled.
- Circular economy where they try to develop their products to be repurposed after vehicles life span has ended.
- Reduced emissions in supply chains with cooperating with suppliers and guiding them to decarbonization too by setting them some goals.
- Diversity of board and employees by setting goal of having 35% womans in managers.
- Human rights in supply chains and business partners.
- Safety both for customers and workforce.

#### *Sustainability Development Goals (SDGs)*

One global Agenda drives development in Volvo group. These goals were set in 2015 by the United Nations General Assembly this contains total of 17 goals to sustainability development. Volvo has publicly said that they will follow all of 17 of these SDG:s in its operations and business practices.

#### SDG 7:

Affordable and clean energy: The group is investing heavily in electrification and for example aims 50% of sales to be electric by year 2025

#### SDG 9:

Industry, Innovation and Infrastructure: Focus on developing sustainable solutions to transportation. Autonomous and electric vehicles included.

#### SDG 12:

Responsible Consumption and Production: Volvo is working on to reduce waste levels on its production lines and it also explores new ways to reuse and recycle things in "closed loop", so when products lifespan is over they try to figure out where or how to use it.

### SDG 13:

Climate action: Has committed to becoming carbon neutral company by 2040 and is reducing emissions in all over of supply chains with different kind of actions.

### SDG 17:

Partnerships for the goals: Working with governments, NGO:s and other stakeholders to drive sustainable development and promote responsible practices.

This is just a small scratch of Volvo's overall commitment to sustainable development goals and sustainable vehicle market activities. The Volvo group is constantly evolving its working habits and ways to be as sustainable and transparent to all stakeholders as possible.

#### *Relevant sustainability KPIs*

Volvo has many sustainability related Key Performance Indicators that makes their sustainability goals and actions, transparent to stakeholders and businesspartners. Volvos KPI:s shows 3 past years with figures about how they have managed to chance their ESG related sectors. Down below is listed few of the last years most important figures.

**Table 5: Volvo KPI's**

<b>Revenue</b>	42.219 million EUR (473,479 SEK M)
<b>Total Energy cons.</b>	2.367 GWh (Renewable 48%)
<b>Total CO2 emitted</b>	287 000 tons
<b>Total volume of waste</b>	348.292 tons
<b>Total consumption of water</b>	4.566.000 m3
<b>Proportion of women (full time/temporary)</b>	21%/40%
<b>Workforce</b>	102 155

Source: Volvo Annual Report, 2023



### *Transparency of SCM*

Volvos actions for transparency in supply chains are pretty high and accurate level on details and you get a really good view of their actions. Report sets target times what and when things should be near to decarbonization. There is also available knowledge for possible risks and difficulties in supply chains.

Volvo also provides information to environmental, social and governance related topics and clear shares of waste, water and energy usage and carbon footprint. For example there is mentioned that they have over 50 000 suppliers globally and locally. Delivering over 2,5 billion parts worldwide.

### *Practices used (Code of conduct, Sustainability evaluations, trainings etc.)*

Volvo has set some strict guidelines to themselves and to suppliers and businesspartners also so that everyone in supply chain are committed to Volvo's ambition in sustainability acts and mindset.

### *Compliance (Code of conduct)*

Volvos main points in code of conducts are fair and lawfully business, safeguarding information and assets, respect and care of one another, separating personal interests from business activities and communication transparently and responsibly.

Volvo demands same kind of values from business and wants to make sure that businesses works towards together setted goals for sustainable supply chains and social acts.

### *Trainings*

Volvo organizes different variations of training to own workforce but also to their supplier and businesspartners so that everyone in supply chain can recognize environmental, social and business ethics and goals. For example they have held training for suppliers where they kept lessons for sustainable purchasing and another was to recognize bribery and corruption. All trainings are held during workhours and workforce can openly join time.

### *Report*

The Volvo Group provides annual reports combined with everything else. Report is mainly published around February or March. Report lenght changes over the years but it-is around 200-250 pages where 30-35 of them are sustainability notes. Report gives you very detailed information about groups code of conduct, figures, Key Performance Indicators and Sustainable development goals. There are different

standards mentioned but main ones are UN Global Compact, GRI, SBTi, TFCD-and these SDGs.

Overall, if this is needed to give some kind of schoolrate between 1-10 it would be 9. There is always place for some improvements and clarifications.

## Audi



Source: Audi AG, 2022

**Figure 13: Cover Audi Report 2021**

Audi publishes its sustainability report as a combined version with its annual report. The Audi Report 2021- Combined Annual and Sustainability Report, which was published on 17.03.2022, is analyzed below. This is the latest sustainability report from Audi.

### *Stakeholder*

Overall, the Audi Report 2021 is aimed at a wide range of stakeholders who are interested in the company's business activities and sustainability efforts.

Some of the most relevant stakeholders are:

- Audi shareholders and investors who are interested in the company's sustainability strategy and financial performance.
- Audi customers and consumers with an interest in the quality and safety of the products and the company's sustainability efforts.
- Audi employees who are looking for information about working conditions and training and development opportunities at the company.
- Audi suppliers and business partners who are aware in the company's cooperation and sustainability efforts.

- Governments, authorities and non-governmental organizations interested in compliance with environmental, social and governance standards.

#### *Reduction of CO2 emissions:*

Audi has set itself the goal of achieving a climate-neutral balance by 2050. The company has launched Mission: Zero and with this they want to reduce the CO2 emissions of the Audi AG along the entire supply chain to net zero by 2050.

With Mission: Zero Audi is also pursuing the vision of producing its cars in only net CO2-neutral plants in 2025. This not only takes emissions into account, but also all other site-related environmental aspects of operational value creation.

To achieve this, the company intends, among other things, to rely more on renewable energies, optimize its production processes and use sustainable materials.

#### *Electrification:*

Audi is investing heavily in electrification and aims to achieve around one third of its sales with electrified vehicles by 2025.

Until this date, Audi plans to launch at least 20 fully electric and plug-in hybrid models. In addition, the electrification of the model range is to be continuously driven forward.

Audi is also committed to clean electricity. They are driving renewable power generation by creating new wind and solar farms in Europe by 2025.

#### *Resource efficiency:*

Audi's goal is the reducing of resource consumption and environmental impact along the entire supply chain. They want to improve resource efficiency and promote a circular economy.

Audi plans to reduce material use and the CO2 footprint in vehicle production by 25 percent by 2025. Till this deadline, the reuse and recycling of materials is also to be improved.

#### *Diversity and inclusion:*

Audi is committed to a diverse and inclusive working environment and promotes equal opportunities for all employees. They want to promote diversity and inclusion and create an inclusive working culture.

























Until 2025 they plan to increase the proportion of women in management positions to 30 percent and want to increase the proportion of employees with a migration background. In addition, awareness of the issue of diversity and inclusion is to be raised throughout the workforce.

#### *Social commitment:*

Audi would like to remain involved in various areas of society in the future, for example in environmental education & protection or in the field of art and culture. The focus is to be placed increasingly on local projects and initiatives.

#### *Audi Sustainability Programme:*

The Audi sustainability programme combines strategic goals in the area of sustainability with concrete measures. It is divided into four key topics. They are "Economy and Integrity", "Products and Services", "Value Creation and Production" and "Employees and Society".

Goal	Measure	Target date	Comparison of SDGs
Integrate sustainability into supplier relationships	Training for all procurement employees in order to raise awareness of sustainability standards in supplier relationships	Continuous development	   
	Training for suppliers in order to raise awareness of sustainability standards in the supply chain	Continuous development	   
	Sustainability rating (S-Rating) as a mandatory criterion for awarding contracts	Continuous development	   
	Involvement in industry standards and Group tools to ensure compliance with environment-related and social standards in the supply chain	Continuous development	   
	Further development of the supply chain grievance mechanism; grievance channel is publicly accessible <sup>4</sup>	Continuous development	   
	Development of preventive measures relating to ESG risks in the supply chain	Continuous development	   

Source: Audi report 2021, 2022

**Figure 14: Audi Sustainability Program**

For each key topic, there are many individual sub-goals. Concrete measures and an estimated target date are indicated for each of these. In addition, the SDG to which the sub-goal is assigned can also be seen.

Audi lists almost 50 sub-goals in its report. It is not possible to mention all of these objectives. For illustration purposes, the following Illustration will give you an overview of one sub-goal from "**Value creation and production**".

#### *CO2 program in the supply chain:*

In 2018, Audi introduced the "CO2 program in the supply chain" with the aim of successively decarbonizing the supply chain.

In order to be able to implement this, Audi Procurement relies on green energy, CO2-reduced aluminum, CO2-reduced steel and recycling concepts at various points.

Audi is in close contact with its suppliers. They regularly ask suppliers questions about their CO2 emissions and their sustainability strategy. Suppliers are now required to prove that they are reducing their CO2 emissions and minimizing their environmental impact.

Audi also offers training and workshops for its suppliers to help them introduce measures to reduce CO2 emissions.

Thus, more than 480,000 tones of CO2 could be saved in 2021.

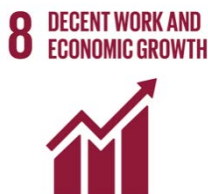
#### *Mapping to SDGs*

At the 2015 United Nations General Assembly, 193 states adopted the "Agenda 2030", which contains the 17 goals- the Sustainability Development Goals (SDG).

In an internal workshop, Audi worked out where the company can make the greatest impact and which SDGs are most compatible with its core business. Audi focuses on five sustainability goals, but of course also tries to make a comprehensive contribution and can therefore also contribute to other SDGs than the five mentioned.

#### *Audi is focused on the following five sustainability goals:*

##### **8. Decent work and economic growth:**



**Figure 15: SDG's target 8**

Audi champions long-term, wide-scale economic growth, full and productive employment and humane work for everyone.

Audi is committed to creating a responsible supply chain and ensuring that its suppliers adhere to social and environmental standards.

Audi encourages the commitment and development of its employees through continuous training and development programs.

They also rely on an innovation and growth strategy that is geared towards sustainable growth and positive economic development.

## **9. Industry, innovation and infrastructure:**



**Figure 16: SDG's target 9**

Audi is working on a robust infrastructure, promoting sustainable industrialization and supporting innovations.

To achieve this, Audi invests in research and development to develop innovative and sustainable products.

They also focus on sustainable production and promote the reduction of energy and resource consumption in its factories.

Audi is also committed to developing innovative mobility solutions that enable a sustainable future.

## **11. Sustainable cities and communities:**



**Figure 17: SDG's target 11**

Audi meets the challenges of urbanization with intelligent, sustainable and urban mobility concepts.

Here, Audi focuses on the development of low-emission and efficient vehicles to reduce traffic in cities and promote sustainable mobility. They also support the development of car sharing and other mobility solutions to reduce traffic in cities and reduce environmental pollution.

Audi also works with cities and communities to promote sustainable mobility solutions and support sustainable urban development.

## **12. Responsible consumption and production:**



*Figure 18: SDG's target 12*

Audi promotes sustainable consumption, in part through its sustainable production.

Audi is working to transform its production processes and design its products to last longer and be more recyclable.

In addition, resources are to be used optimally and energy and resource consumption reduced as a result.

## **13. Climate action:**



*Figure 19: SDG's target 13*

Audi develops and produces products that enable climate-friendly individual mobility.

Audi is working to optimize its production processes in order to reduce energy and resource consumption. The goal is to reduce the CO<sub>2</sub> emissions of its vehicles by 30 percent by 2025 compared to the base year 2015.

They are also committed to developing zero-emission mobility solutions such as hydrogen and battery electric vehicles.

#### *Relevant sustainability KPIs*

Audi uses Sustainability Key Figures in their Sustainability Report to make its sustainability activities measurable and present them in a transparent way. The key figures refer to the Audi Group and are valid for the year 2021.

Audi described all conceivable KPIs in their report on six pages.

**The most important ones are listed below:**

**Table 6: KPI's Audi Report 2021**

<b>Revenue:</b>	53.068 million EUR
<b>Total energy consumption:</b>	2.508.465 MWh
<b>Total CO2 emitted:</b>	233.062 t
<b>Total fuel use:</b>	1.008.240 MWh
<b>Total volume of waste:</b>	94.968 t
<b>Total freshwater consumption:</b>	2.940.141 m3
<b>Volume of wastewater:</b>	1.603.431 m3
<b>Workforce Audi Group:</b>	85.750
<b>Proportion of women:</b>	15,4%

Source: 2 Audi AG, 2022

#### *Transparency of SC (level of detail eg. Number of direct/indirect suppliers)*

The Audi Report 2021 is structured in a very transparent way. The level of detail is comparatively high.

The report sets clear targets and progress for different areas, such as CO2 emissions, social responsibility or electromobility. Difficulties and challenges are also mentioned in a transparently manner.

They also provide insight into their environmental data. Audi provides detailed information about its carbon footprint, the share of renewable energies and its progress in waste and resource management.



Audi also provides detailed information about their suppliers. They have over 14,000 direct suppliers from more than 60 countries.

*Practices used (Code of conduct, Sustainability evaluations, trainings etc.)*

Audi uses some practices to enforce their sustainability mindset throughout the supply chain. Some of these are explained in more detail below.

*Compliance (code of conduct):*

The “Group Essentials”, the “Audi Code of Conduct” and the “Code Of Conduct for Business Partners” serve as the foundation for Audis strategy. Nevertheless, Audi is pursuing the motto: “Control is good, trust is better”. Compliance and integrity are two sides of the same coin, which are inseparable and therefore both play an important role and must not be ignored.

Furthermore, in the area of supply, Audi only works with business partners who are committed to the same values and goals regarding environmental protection, employee rights and compliance.

*Trainings:*

The company has numerous qualification measures on offer to build up the future skills of its employees.

BMW has set aside a training and development budget of 500 million euros until 2025.

In 2021, around 6000 employees were registered on transformation-relevant qualifications.

*Sustainability evaluations (S-rating):*

With the S-Rating (Sustainability Rating), Audi is taking the first step towards greater sustainability throughout the entire supply chain.

With the help of this rating, Audi determines the performance of its potential business partners in the areas of sustainability, the environment and social issues.

The rating is compulsory and cooperation is only considered if the result is positive.

*Report*

The next section provides some general information about the “Audi Report 2021-Combined Annual and Sustainability Report”.

**Table 7: General information Audi Report**

Frequency	Length	Level of detail	Standards used
Annual Sustainability report is published with the annual report in march	Combined report: 139 pages Sustainability part: 37 pages (73-110)	Very detailed Many KPIs Many goals and strategies subjective: 9	Global Reporting Initiative (GRI) Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact ISO 26000

Source: Audi AG, 2022

### *Comparison of the reportings*

There are a lot of similarities between the reports, which is a good thing. There is a need for uniformity between reports so that the reader is able to quickly identify the critical points in the report. BMW and Volvo's reports are the longest ones, at whereas the reports of Skoda and Audi are shorter.

Only Skoda is using a different style of reporting. This is more of brochure style compared to the other reports. This is easy if you need a clear overview of the subjects mentioned in the report, but it is harder to navigate then the other reports.

### *SDGs*

The mentioned companies have a lot of the same SDGs. Down below is a list of the four companies with their according SDGs and ways they are achieving them.

## **BMW**

### *3 Good health and wellbeing*

Since 2011, BMW has an internal health initiative programme to promote health and performance. Some examples are addiction prevention and ways of maintaining good mental health. The safety of the consumer is also a great concern for the company. They achieve this constantly upgrading the safety in their cars.

#### *8 decent work and economic growth*

BMW provides stability to its employees and suppliers and contribute to economic development and quality of life at their locations.

#### *9 industry, innovation and infrastructure*

they are doing research for urban mobility, such as electrification and hydrogen powered vehicles.

#### *12 responsible consumption and production*

BMW is big proponent of circular economy. They use recycled products and recycle their cars to a possible extend.

#### *13 climate action*

By 2030, BMW's goal is to have over 50 % of the total deliveries be electrified vehicles and reduce 80 % of the carbon emissions per produced vehicle.

### **Skoda:**

#### *3 good health and wellbeing*

By 2020, Skoda wants to reduce the number of deaths and injuries from accidents.

#### *4 quality education*

By 2030, they want to increase the number of people with technical and vocational skills for employment and a decent job. They also want to increase the number of youth and adults who have relevant skills for decent jobs and entrepreneurship.

#### *5 gender equality*

Skoda wants women as leaders with the opportunities in the decision-making process in political, economic and public life.

#### *6 clean water and sanitation*

By 2030, the company wants to reduce their pollutions for cleaner water by eliminating dumping and minimizing release of hazardous chemicals and materials. This goal will halve the proportion of untreated wastewater.

#### *7 affordable and clean energy*

By 2030, Skoda would like to increase the share of renewable energy.

#### *8 decent work and economic growth*

Skoda wants to diversify their production, which improves economic productivity. They also want to achieve decent work for all women and men and protect labour rights in the process.

#### *9 industry, innovation and infrastructure*

They not only want to build new manufacturing plants, but also retrofit existing ones to make them sustainable.

#### *11 sustainable cities and communities*

By 2030, they want to provide access to safe, affordable and sustainable transportation, also by providing public transportation.

#### *12 responsible consumption and production:*

By 2030, Skoda wants to reduce waste generation, achieve sustainable management and efficient use of sources minimizing their impact on human health and the environment.

#### *13 climate action*

Skoda will improve education for people on climate change and integrate climate change measures themselves.

#### *16 peace, justice and strong institutions*

They want to reduce corruption and bribery and develop transparent institutions at all levels.

### **Volvo**

#### *7 affordable and clean energy*

Volvo aims for 50 % of their sales to be electric vehicles by 2025

#### *9 industry, innovation and infrastructure*

The company is focussing on sustainable transportation solutions, including autonomous driving and electrifying their vehicles. They are also investing heavily in improving the active and passive safety of their vehicles.

#### *12 responsible consumption and production*

Volvo wants to reduce its waste production by reusing and recycling their products when they are and the end of their lives, a closed loop system. They want to reduce the fuel consumption of their vehicles and want to optimize the usage of resources.

#### *13 climate action*

Volvo wants to achieve the goal of being carbon neutral by 2040. In the process they are reducing their CO2 emissions during production and the usage of the vehicles.

#### *17 partnerships for the goals*

Volvo is actively working with government bodies and other stakeholders to promote responsible practices. They are doing everything within their power to make the

above-mentioned points come true, not only for their own company, but on a wide scale.

#### **Audi:**

##### *8 decent work and economic growth*

Audi is aiming for a wide-scale economic growth, which includes productive employment and humane work for everyone. Audi wants to achieve this by providing trainings and development.

##### *9 industry, innovation and infrastructure*

Audi is working towards a sustainable industry through various innovations.

##### *11 sustainable cities and communities*

They are investing in low emission engines and alternative drivetrain technology. This towards a sustainable city with fewer cars and environmental pollution in urban areas.

##### *12 responsible consumption and production*

Audi is designing their cars to last longer, have more recycled materials and be more recyclable. They are opting for more responsible usage of resources and use the energy more efficiently.

##### *13 climate action*

Audi is working on the optimizing their production line and supply chain. As well as reducing the CO2 emission by 30 % by the year 2025 compared to 2015. This is done through electrification and the use of hydrogen as a fuel.

##### *Concerned stakeholders*

Every company has more or less the same stakeholders because they operate with the same philosophy: company growth, sustainability and customer satisfaction. This is a really good basis for a company to operate and you can clearly see their interest in all the categories.

##### *Topics*

There is a very broad range of topics mentioned in the reports.

#### **The main ones are:**

**Financial performance:** Every company has detailed figures and tables of everything financial related. This is targeted to investors and business partners.

**A section dedicated for the stakeholders:** this subject of the reports contains a direct message to the shareholders and brief summary of the most important factors

concerning the shareholders' interests. There also is a risk management part that is mandatory for German based companies as a part of the LKSG in Germany. Skoda has to do this Aswell because the company falls under de Volkswagen Group umbrella.

**Sustainability:** The last part is dedicated to the sustainability topics that are mandatory by the EU. These mostly consist of graphs and tables that are easy and straightforward to read. This subject contains the KPI's, SDGs, waste, CO2 emissions, etc.

They all have a lot of SDGs with their appropriate explanation, clear tables for their KPI's and a well divided table of contents.

#### *Level of detail*

All these company reports have clear and detailed information about these topics. Although some don't give exact figures of the topics they wrote about, like BMW that doesn't specifically mentions the exact number of suppliers. Nevertheless, these are good reports and an important factor for transparency and honesty of the companies.

## **2.2 Evaluation of best practices and points of improvement**

#### *Evaluation of BMW*

Let's start critical evaluation from BMW. BMW has implemented a few of sustainable design practices, such as using lightweight materials to reduce weight and emissions from their products. They are highly focused on electrification on their products to lower the emissions. What comes to supply chain management they have set goals on sustainability to their suppliers that includes things from social and environmental aspects. BMW has set target to reduce its CO2 emissions per vehicle at least 40% by 2025. From SDG:s BMW is mainly focused on 3, 8, 9, 12 and 13. These goals can be found from the section of BMW.

#### *Points of improvement*

There is room for more SDG:s to take more specific consideration, if they want to improve their sustainable development in wider range. As mentioned in "Table 4: report evaluation BMW" they could open up little bit more of their SDG:s in terms of that, how and what they are doing towards these goals.

Also there is always space for a bigger share of recycled material use in production, for example bio-based plastics or recycled metals. It would be good to be more transparent about their actions and supply chains but this doesn't only apply in BMW. This is more wider problem in automotive industry.

#### *Evaluation of Audi*

Audi has a strong commitment to sustainability and it has implemented number of measures to lower its impact to environment. They have a good approach to sustainable design and SCM. For example they have set goal to be climate-neutral by 2050 although this goal is set for 10 years later than rest of these compared companies. Also company is known to use so called closed-loop recycling with their products, sustainable materials in their cars such as recycled plastics or a natural fibers. Electrification is one of the main goals in Audi to cut its vehicles emissions.

#### *Points of improvement*

Although Audi has made a good progress in reducing their emissions in supply chains and production. They still rely pretty much on fossil fuels for manufacturing processes. There is room to reduce its emissions. There can also be said same as for BMW that transparency in their acts is good but not transparent enough. For example opening these sustainability acts and practices better could take transparency in next level with their stakeholders and customers.

#### *Evaluation of Skoda*

Skoda has also strong commitment to sustainable design and supply chain management like other companies have had. Skoda is also known to use lightweight materials and optimizing desing for fuel efficiency. They are also strongly committed to cut emissions with 30% by 2025. They are for example mentioned that they will add renewable energy levels on production and reducing water consumption. They also aim to improve the recyclability of their vehicles, both in terms of parts and technology what comes to products end of life cycle.

#### *Points of improvement*

Main things to improve would to improve in renewable energy sources in their products and bigger range of hybrid and fully electric vehicles. Another could be waste reduction and material sourcing to get rid off regular steel and plastics for example. Information to stakeholders is also one point where improvements can and should be done because they only publish their report every two years and today's

automotive industry is constantly changing so two years is pretty long time. So transparency is little bit weaker than other companies.

#### *Evaluation of Volvo*

Volvo's best practices is electric vehicles where they have pretty ambitious goals that they only produce electric vehicles by 2030 but this can be considered also to points of improvements because of emissions and human right things. Volvo's circular economy is slightly better shape than competitors according to reports. They also have high standards what comes to ethical practices. That means they have zero tolerance for corruption, bribery child and forced labor work. One more good thing relating to SDGs is that they try to do their best in every section.

#### *Points of improvements*

Transparency, there is still holes in available information or they are not clearly presented. Providing more information in progress and practices should be done. There could also be wider area of sustainability initiatives to include other areas such as renewable energy and sustainable transportation infrastructure. Last but not least point is to reduce fossil fuels in manufacturing.

#### *Overall*

All of these four companies has done significant progress in reducing their GHG emissions. There is much of good things in every companies practices, but there is still much to do what comes to sustainability. All of them could reduce their relying in fossil fuels and traditional materials and switch them to recycled ones. Products should be designed to be recycled when they come to end. Area which was coming up in every manufacturer was that their transparency to sustainable acts and practices to stakeholders and suppliers could be done much better. All in all we are going to right direction with acts and sustainability, There is no clear winner in this because there is so many points to consider.



## **Conclusion**

The main objectives were reached by analysis of the report of 4 big companies – Audi, Volvo, BMW and Skoda Auto. Comparison of these reports says main positives and negatives of the reporting and in conclusion there is reached main points of the best practises in the Sustainability reporting.

Firstly there is identified some main points about the topic – there was finished some research of the main key words

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## List of figures and tables

### List of figures

Figure 1: Ranking IÖW and future.....	15
Figure 2: criteria of ranking IÖW and future.....	16
Figure 3: The 2023 Global 100.....	17
Figure 4: BMW AG Group Report.....	19
Figure 5: SDG's target 3.....	21
Figure 6: SDG's target 8.....	21
Figure 7: SDG's target 9.....	21
Figure 8: SDG's target 12.....	22
Figure 9: SDG's target 13.....	22
Figure 10: Most relevant Sustainable Development Goals for SKODA.....	26
Figure 12: Volvo truck .....	29
Figure 13: Cover Audi Report 2021 .....	33
Figure 14: Audi Sustainability Program .....	35
Figure 15: SDG's target 8.....	36
Figure 16: SDG's target 9.....	37
Figure 17: SDG's target 11.....	37
Figure 18: SDG's target 12.....	38
Figure 19: SDG's target 13.....	38

### List of tables

Table 1: Upper criteria ranking IÖW and future.....	16
Table 2: KPI's BMW .....	23
Table 3 Report evaluation BMW.....	24
Table 4: KPI Skoda Auto .....	27
Table 5: Volvo KPI's .....	31
Table 6: KPI's Audi Report 2021 .....	39
Table 7: General information Audi Report.....	40