



Sustainability@
Automotive
7 ESG challenges
to cope with

MARCH 2023

Major ESG driver

A company's sustainability performance and transparency have a direct influence on cost structures, sales volumes and access to capital - making it a key element of corporate strategy.



New regulations

- The Paris Agreement sets the agenda: legally binding climate protection agreement of 197 states
- Climate targets will be further tightened by cross-industry regulations (e.g. EU Green Deal) and industry specific regulations (e.g. EU Fleet Regulation, ICE ban 2035, CBAM)
- The LkSG and CSDDD require companies to implement due diligence practices
- Extended reporting obligations with the introduction of the CSRD
- National Net Zero targets and increasing carbon market mechanism
- Growing ESG requirements in accounting standards such as IASB, DRSC, IDW, SEC



#1 Risk for companies

- Climate change is the number 1 global long-term risk – considering likelihood (extreme weather events) and impact (climate action failure)¹
- Companies fear weakened or reduced production capacity, increased capital and operational costs as well as resource scarcity²
- Unchanged climate change could cost the global economy \$178 trillion in net present value terms from 2021-2070³



Societal pressure

- Social movements and NGOs (e.g. Fridays for Future, Extinction Rebellion, Amnesty, etc.)
- Sustainability is increasingly important for purchase decisions
- Employees and civil society are number three of the top stakeholder groups demanding a sustainability transformation⁴



ESG⁵ focus in investments decisions

- EU Action Plan for Financing Sustainable Growth (incl. Taxonomy)
- Investors urge companies to set 1.5°C aligned science-based targets⁶
- How a company manages climate risk and prepares for long-term value creation majorly impacts BlackRock's capital allocation⁷
- Taskforce on Climate-related Financial Disclosures (TCFD) increases reporting demands



7 ESG challenges to cope with

External pressures like regulation, requirements of investors, society and the environment lead to a high relevance of sustainability in the automotive sector, creating 7 major ESG challenges.

Drivers



New regulations



#1 Risk for companies



Societal pressure

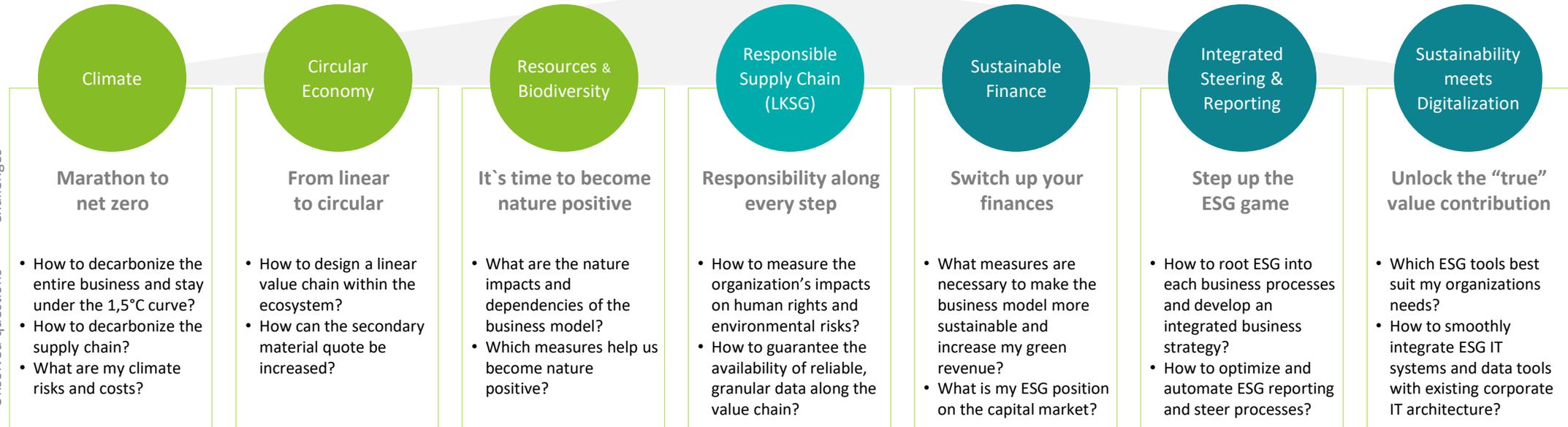


ESG focus in investments decisions



Challenges

Unsolved questions



● Environmental Challenge ● Social Challenge ● Governance Challenge

1 | Marathon to net zero

Managing and reducing the carbon footprint in the entire value chain is vital to stay under the 1,5°C decarbonization curve and secure a license to operate in the decades to come.

Selected drivers:

§ GER: climate neutral 2045 and 2030 -65% (1990)

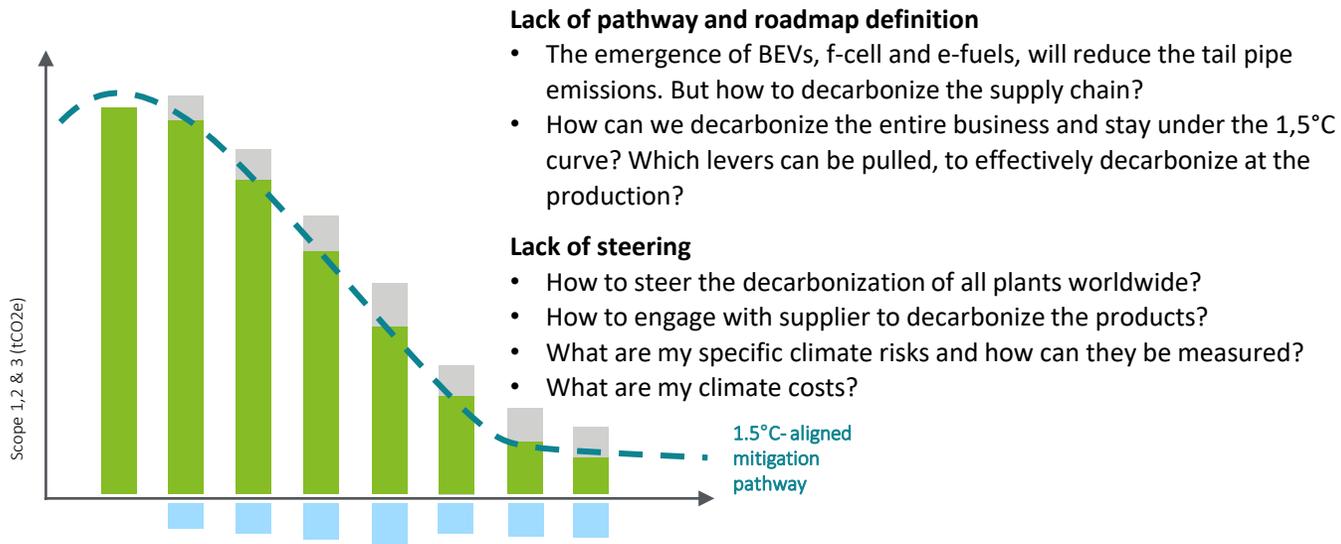
§ EU: climate neutral 2050, CSRD (2024) & Taxonomy (2021)

§ EU: CO2 emission standards for fleet (2019)

Actions already taken by companies:

- ✓ **Scope 1 & 2:** Emissions calculated and reduction measures in place
- ✓ **Science based climate targets:** e.g. 2040 climate neutral, 2050 climate neutral
- ✓ **Switch to BEV strategy (EU)**

Open questions: How to reach Net Zero and stay within the 1,5°C path?



How to start your Decarbonization Journey

1

Understand

Understand your climate impact & dependencies

- Calculate the carbon footprint (Scope 1, 2 & 3)
- Assess the physical and transitional climate risks and opportunities

2

Decarbonize

Develop climate strategy and plan actions for change within the time frame

- Assess and prioritize avoidance, reduction, removal and compensation measures – abatement cost curve
- Develop net zero roadmap which is 1,5°C aligned
- Start the implementation

3

Integrate & Manage

Embed climate change in management approaches and reporting

- Set up a climate governance structure
- Introduce an internal carbon pricing
- Manage and steer the reduction progress



Green Light
Tech-driven decarbonization insights for sustainable growth



The 2030 decarbonization challenge
Path to the Future of Energy: Chemicals (2020)



The turning point
Time to act - accelerating to net zero (2022)

2 | From linear to circular

Closing the material loop illustrates significant potential in minimizing resource usage and is thus an essential step in reaching the net zero goals.

Selected drivers:

EU: Circular Economy Action Plan (2020)

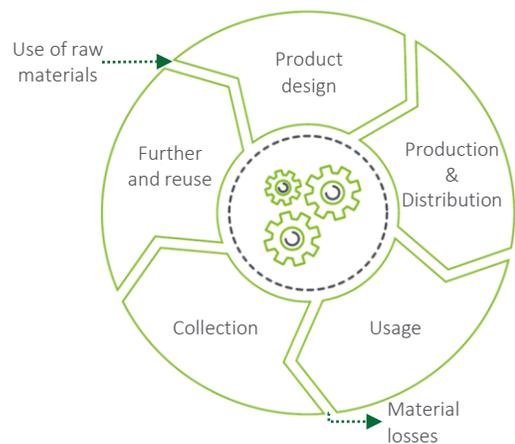
§ EU: CSRD (2024) - comprehensive ESG information limited assured

§ EU: Updated directive on batteries and accumulators (2024)

Actions already taken by companies:

- ✓ Circularity became a **material topic for the company**
- ✓ First set of **waste, secondary material indicators** defined

Open questions: How to move from linear to circular?



Lack of circular approaches

- How can the product be redesigned to ensure a reuse?
- How to implement sustainability in the product design and the business model?
- How can the secondary material quote be increased?
- How to design a linear value chain within the ecosystem?

Ensure technological integration

- How can the newly defined process be anchored and integrated in systems?
- Are there contradictory effects of CE activities on other sustainability projects?

How to start your Circular Economy Journey

1

Understand

- Understand your circular economy impact & dependencies
 - Read-out on CE potential & CE vision
 - Assess risk and opportunities along the value chain in regards to CE

2

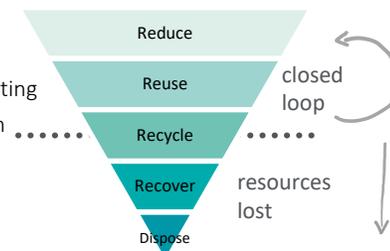
Design

- Develop Design a CE strategy along the entire value chain based on impact and dependency data
 - Evaluate levers along a cost-benefit analysis
 - Design a circular approach
 - Define targets and requirements incl. roadmap and implementation plan

3

Implement

- Embed CE in management approaches and reporting
 - Establish a monitoring and reporting platform
 - Define responsibilities
 - Extent to all BU



Circular economy
Challenges and opportunities for the industrial location Germany



Circular economy
Building systems to reduce, reuse and recycle resources



The circularity gap report 2023
A circular economy to live within the safe limits of the planet

3 | It's time to become nature positive

Biodiversity loss poses a major operational risk for companies. It is time to not only consider people and planet, but also nature.

Selected drivers

§ EU CSRD (2024): some mandatory biodiversity disclosures for all companies

\$44 trillion of economic value at risk as a result of the dependence of business on nature and its services¹

COP 15, 2021 Global Biodiversity Framework Target 15: business disclosures on biodiversity

Actions already taken by companies:

- ✓ Waste, water and air management measures
- ✓ Land use measures
- ✓ Compensation projects, e.g. reforestation

Open questions: How to address biodiversity and become nature positive?

Lack of quantification

- Where along the value chain do our major biodiversity impacts occur?
- How are we dependent on biodiversity and ecosystem services?
- How do we map our operations' proximity to biodiversity hotspots?
- How should we set the boundary of our analysis?

Targets and measures

- What are appropriate targets for biodiversity protection and natural resource management?
- Which measures help us reduce or avoid ecosystem conversion, and even become nature positive?

How to start your Biodiversity Journey

1

Assess

- Identify key biodiversity impacts and dependencies along your value chain
- Perform a materiality assessment and prioritize areas for action
 - Measure relevant impacts and dependencies

2

Strategize

- Consider impacts, dependencies, risks and opportunities to outline your path toward achieving nature-positivity
- Set science-based, time-bound targets for your biodiversity performance
 - Evaluate risks and opportunities, and decide how to manage them
 - Formulate measures to achieve your targets and develop a clear roadmap

3

Act

- Implement your roadmap and realign your organization
- Avoid or reduce negative impacts, and restore damaged ecosystems
 - Monitor progress on targets and make it transparent to external stakeholders through independently assured reporting
 - Revise your business strategy and business model where needed, to fit your new biodiversity agenda



The chairperson's guide to valuing nature



Banking on natural capital
Unlock the true value of nature



Methodology impact statement
Focus Environment

Sources: ¹ [Deloitte & WWF Australia \(2022\)](#)

4 | Responsibility along every step

National and international regulations move due diligence into the spotlight and require companies to set up specific risk management measures along the value chain.

Selected drivers:

UN Guiding Principles on Business and Human Rights (2011)

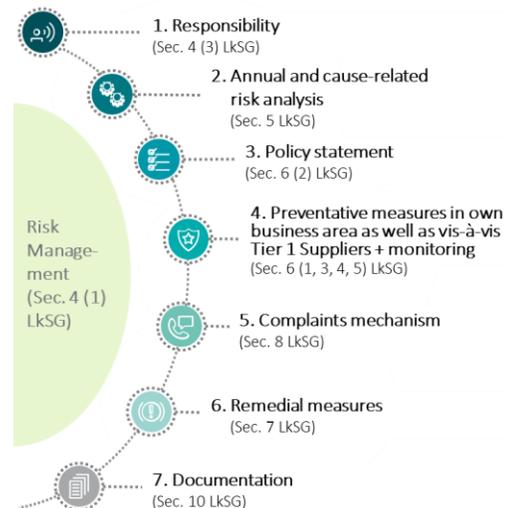
§ EU: CSDDD (2024) - Corporate Sustainability Due Diligence Directive

§ GER: LkSG (2023) - German Supply Chain Act

Actions already taken by companies:

- ✓ **UN Guiding Principles on Business and Human Rights, UK modern slavery act guidelines** in place
- ✓ **Code of Conduct** regarding ESG topics
- ✓ **Good transparency regarding Tier-1**

Open questions: How to safeguard human rights and address environmental risks?



Risk identification and management

- How to measure the impact my organization has in terms of human rights and environmental risks?
- How to implement impactful due diligence measures such as a complaint mechanism?

Lack of depth integration

- Which changes in governance structure can improve knowledge exchange and facilitate due diligence practices?
- How to guarantee the availability of reliable, granular data?
- Could a central, automated data management increase the efficiency of data collection?

How to start your Corporate Due Diligence Journey

1

Understand

Analyze how well your company is prepared for the LkSG or further regulatory developments (EU Corporate Due Diligence Directive)

- Set ambition and define position
- Understand your supplier impacts and dependencies
- Readiness assessment/gap analysis

2

Design

Prioritize relevant measures and develop tailor-made approaches to close the identified gaps

- Prioritize relevant measures to close gaps
- Develop concept
- Implement roadmap

3

Implement

Support your company in the implementation of relevant measures and integration into existing processes

- Support in integrating due diligence obligations into existing corporate units, systems and processes
- Embed sustainability in procurement processes and report progress



Supply Chain Act
The five biggest challenges in the implementation



Compliance risk analysis 2.0
Increase global risk transparency through targeted prioritization of compliance resources



The future of compliance 2021
Challenges and trends

5 | Switch up your finances

Investors are increasingly incorporating ESG elements into their capital allocation decisions. ESG is an inevitable aspect in securing capital.

Selected drivers:

§ EU: Taxonomy (2024*) - proportion of Green Revenue, CapEx, OpEx

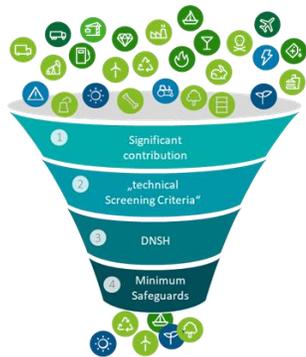
§ EU: SFDR - Sustainable Finance Disclosure Regulation

§ EU: CSRD (2024) - comprehensive ESG information and limited assurance

Actions already taken by companies:

- ✓ Report the proportion of **Revenue, CapEx and OpEx that is Taxonomy-eligible**
- ✓ **First ESG narratives to establish a position on the financial market**
- ✓ **Sustainability linked-loan**

Open questions: How to grant access to capital in the future?



For industrial companies:	Activities
Share of sustainable (ecological) activities %	CapEx/OpEx/Turnover
Turnover =	x%
CapEx =	Y%
OpEx =	z%

Meeting regulatory requirements, e.g. EU Taxonomy

- To what extent is my company affected by the EU Taxonomy and which taxonomy-relevant data are expected from our customers?
- Which indicators are to be reported and how can data collection be ensured at business unit level?
- What measures are necessary to make the business model more sustainable and increase my green revenue?

Utilize ESG ratings and an integrated reporting to create transparency and a clear market position

- Which ESG rating does best cater the needs of the stakeholders and the organization?
- Which levers to pull to optimize my rating results?
- What is my ESG position on the capital market?

How to start your Sustainable Finance Journey

1

Understand

Understand your current stance and set ambitions

- Evaluate capital market and the regulatory requirements for your business
- Status quo analysis of current compliance to regulations and of previous rating results
- Select most relevant rating based on external and internal fit
- Define level of ambition and derive gaps

2

Design

Conceptualize measures to close gaps and reach ambitions

- Derive measures to manage regulatory requirements and improve rating score
- Design an ESG narrative to clarify your position on the capital market

3

Implement

Turn identified measures into action

- Integrate the new practices into your business processes and governance structures
- Communicate ESG narrative and approved rating results to the capital market



Sustainable finance navigator



The CFO as the driver of sustainability



ESG financing for corporates

* Currently under development

6 | Step up the ESG game

Sustainability impacts all business areas and therefore does not only need to be managed but also integrated into governance structure and strategy.

Selected drivers:

SDGs - Sustainable Development Goals	§ EU: NFRD (2017) - ESG information	§ EU: CSDDD (2024) - Corporate Sustainability Due Diligence Directive	§ EU: Taxonomy (2021) - proportion of Green Revenue, CapEx, OpEx
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Actions already taken by companies:

- ✓ Set first **ESG indicators**
- ✓ Formulated primarily **separate sustainability strategy and steering model**
- ✓ **Isolated quantitative targets**
- ✓ **Mainly separate sustainability reports**

Open questions: How to create an integrated ESG management system?



Most relevant ESG matters

- Which ESG matters are material to my organization?
- What are my long-term goals? How can I make my goals measurable? Which steps do I need to take to achieve these?

Root ESG into each facet of your business

- How to distribute responsibilities with regards to ESG management within my organization?
- How to integrate ESG into my corporate strategy and ensure that ESG topics are considered when making business decisions?
- How to efficiently collect ESG data and anchor ESG into my IT infrastructure?
- How to integrate sustainability into my annual report?

How to start your ESG Management Journey

1

Understand

- Understand your status quo regarding regulatory reporting requirements and your ambition
- Conduct CSRD, GRI and EU Taxonomy gap analysis
 - Set ESG ambition and define position
 - Derive sustainability roadmap

2

Design

- Design an ESG performance management system to steer your ESG actions effectively
- Define ESG KPI catalogue
 - Outline ESG steering and operating model

3

Integrate, Automate & Communicate

- Embed ESG within your steering processes
- ESG@GRC
 - Embed ESG performance management into governance structure
 - Roll-out of ESG management
 - Implement ESG tools



Guide for companies - 5 steps to success
Sustainability reporting for SMEs



Climate-related risk assessments and financial disclosure
Our services to answer the challenge of the TCFD recommendations



The sustainability transformation
Look ahead, look inside and look around

7 | Unlock the true value contribution

By facilitating a more efficient collection and management of increasingly granular ESG data, digital solutions can accelerate the corporate transformation towards sustainability.

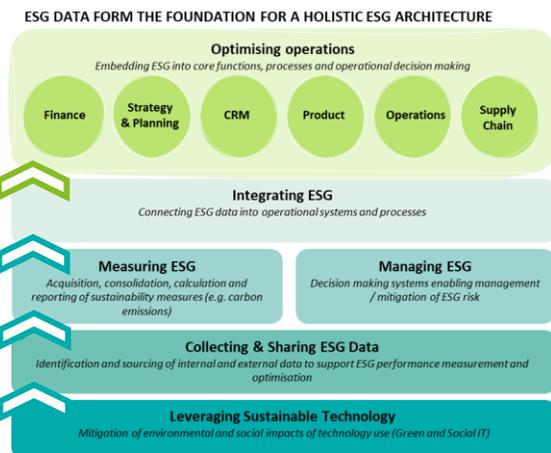
Selected drivers:

- § EU: CSRD (2024) - comprehensive ESG information and limited assurance
- § EU: Taxonomy (2021) - Green Revenue, CapEx, OpEx
- § GDPR: data privacy regulation

Actions already taken by companies:

- ✓ Setting up first **ESG data collection methods using .xls and mail**
- ✓ Specialized ESG tools implemented for **selected sustainability topics**

Open questions: How to utilize the vast opportunities to achieve sustainability goals?



ESG tool Jungle

- Which ESG tools best suit my organizations needs?
- How can individual IT solutions be consolidated?
- How to ensure a seamless interface between manual and automated data collection and reporting processes?
- How to smoothly integrate ESG IT systems and data tools with existing corporate IT architecture?

Ensure that IT Infrastructure is sustainable

- To which extend are my IT systems and processes green and ethical?

How to start your ESG IT Journey

1

Understand

- Turning data into information and knowledge
- Set ESG data objectives
 - Conduct ESG digital maturity assessment

2

Design

- Increase efficiency and effectiveness by improving and connecting processes
- Analyze ESG data requirements (assurance, quality, user stories)
 - Select ESG tools
 - Set up ESG target architecture
 - Implement ESG tools

3

Establish

- Inventing entirely new products, solutions, customer relationships, business models and ecosystems
- Implement ESG data enabled steering
 - Green IT and social IT – Corporate Digital Responsibility (CDR)
 - NEW digital solutions for sustainability



Tech-enabled sustainability
The digital path to sustainability and net zero



The CIO's call to action
Driving an environmentally sustainable tech agenda to accelerate organizational change



GreenLight solution

GreenSpace solution

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