Automaker Supply Chain Leaderboard - Methodology

1. Overview

The aim of this scorecard is to establish a new expectation – and competitive advantage – for what a clean car really is. Not just an EV, but an EV with a just, equitable, fossil-free and environmentally sustainable supply chain.[1]

As the transition to BEVs takes place, eliminating overall tailpipe emissions, it is also crucial to reduce GHG and toxic emissions, human rights risks and impacts on biodiversity and ecosystem resilience throughout the supply chain. This is essential not only to ensure a just transition to EVs but also in order to get ahead of irresponsible supply chain expansion that could potentially undermine the EV transition overall.

This scorecard has been designed to complement rather than duplicate existing EV scorecards. As such, it focuses on companies' EV supply chains, rather than their own operations, given there are other scorecard initiatives on those topics. We note that this distinction is not always clear cut (for example, where auto manufacturers manufacture their own battery cells). As detailed below, this is addressed by designing indicators that are focused on capturing levers that buyers can use to drive change throughout their supply chain.

The following ambitions are built into the scorecard:

- A clean car will not only produce zero tailpipe emissions but will also have a fossil-fuel free supply chain.
- A clean car will have a supply chain with the lowest possible negative impact on biodiversity, natural resources and ecosystem resilience, including by maximising resource circularity.
- A clean car will have a supply chain throughout which human rights are respected.
- A clean car will ensure justice for Indigenous Peoples
- A clean car will ensure justice for workers

This is the third year that the scorecard has been produced. Following feedback and to develop and strengthen its design there have been some amendments. These amendments are integrated into this document and reference is made where there have been changes.

The first and second editions of the Leaderboard were developed and scored by Pensions & Investment Research Consultants Ltd (PIRC), Europe's largest independent corporate governance and shareholder advisory consultancy. The third edition of the Leaderboard was developed and scored by Gabriela Quijano and Bowen Gu, independent consultants with expertise in the areas of ESG, sustainability, and business and human rights.

2. Scorecard Design and Structure

The scorecard is presented in three parts:

1. A summary scorecard with percentage scores against key themes to be published on the website and used as a tool by a wide range of stakeholders;
2. A downloadable format with the full set of indicators and more detailed scoring assessment for partners and consumers seeking more background on how scores were derived; and

[1]Note: for the purpose of this scorecard, we are only considering the transition to battery electric vehicles.

3. A comparative analysis of company performance in the form of a written report

The scorecard is divided into the following sections and subsections:

Fossil-free and Environmentally Sustainable supply chains (climate and environment):

- Fossil-Free and Environmentally Sustainable Supply Chains (General)
- Fossil-Free and Environmentally Sustainable Steel
- Fossil-Free and Environmentally Sustainable Aluminium
- Fossil-Free and Environmentally Sustainable Batteries
- Climate Policy Engagement

Human Rights & Responsible Sourcing:

- Respect for Human Rights (General)
- Responsible Sourcing of Transition Minerals
- Respect for Indigenous Peoples' Rights and Free Prior and Informed Consent
- Respect for Workers' Rights

Note: The "General" indicators measure commonalities across the other indicator themes, evaluating overall policies and practices related to supply chain decarbonization, sustainability and due diligence in order to provide a baseline score.

The grouping of the indicators under the Climate and Environment themes is derived from the SBTi report *Value Change in the Value Chain: Best Practices in Scope 3 Greenhouse Gas Management,* namely:

- Disclosure
- Target setting and progress
- Use of supply chain levers

Note: Although the SBTi report is exclusively focused on GHG emissions, their approach to how companies can achieve change in their supply chain is relevant to other environmental impacts. For this reason, we are adopting their structure to include "other significant air emissions", water management, biodiversity and resource depletion, among others.

The grouping of the indicators under the Respect for Human Rights theme is derived from the UN Guiding Principles on Business and Human Rights (UN Guiding Principles), namely:

- Commitment to human rights
- Identify human rights risks in the supply chain
- Prevent, mitigate and account for adverse human rights impacts
- Remedy adverse human rights impacts in the supply chain

The full set of indicators is provided in appendix 1.

As provided in appendix 2, scoring has been weighted towards "implementation" indicators over "commitment" and "disclosure" indicators.

In addition to the above indicators, the Leaderboard section on the Lead the Charge website also includes human rights and environmental controversies that have occurred over the review period as “red flags” against each company, as well as “green flags” for more recent developments that indicate positive progress (see 6.3.5 for more details). These red and green flags are designed to be illustrative and do not portend to represent a comprehensive list of all controversies / advances.

2.1. Exclusions and future developments

The scorecard is in its third year. While the structure and methodology remain consistent with previous years, allowing assessment of year-on-year progress, there have been some important additions and amendments, explained in section 4 of this document.

The scope of the scorecard will continue to be expanded in future iterations to ensure that it remains aligned and up to date with emerging supply chain issues and relevant international standards, frameworks and best practices. Indicators will also be further refined in order to deepen the understanding of company practices in certain key areas, and to better differentiate between the practices of top performers and their peers.

The following issue areas are being explored as additions and/or refinements for future editions of the Leaderboard:

- Additional criteria related to offtake agreements for green steel and aluminum.
- Incentives and requirements for existing steel and aluminum suppliers, including key component suppliers, to accelerate GHG emissions reductions.
- Progress on advancing GHG emissions data collection and transparency with steel, aluminum and battery suppliers (e.g. through EPDs, LCAs, battery passports, etc.).
- Rights-holder engagement and participation in supply chain due diligence activities. This is in line with international standards such as the UN Guiding Principles, the OECD Guidelines, the OECD Due Diligence Guidance for Responsible Business Conduct, and the recently approved EU Corporate Sustainability Due Diligence Directive, all of which require rightsholders’ participation in key decision-making and stages of the human rights due diligence process.
- Effective supply chain grievance mechanisms and measures of reparation for human rights abuses. These relate to the UN Guiding Principles’ effectiveness criteria for non-judicial grievance mechanisms (Principles 31 of the UN Guiding Principles).
- Company commitments not to source from territories occupied or inhabited by Indigenous Peoples in voluntary isolation, initial contact, or uncontacted.
- Disclosures on the findings of salient human rights risks assessments as they relate to risks from conflict minerals, transition minerals, Indigenous Peoples’ rights and workers’ rights.
- Additional sub-indicators seeking quantitative and/or qualitative information or evidence to support or substantiate the relevant company statements.
- Supply chain tracing / mapping.

- Responsible contracting practices with suppliers.
- Improved practices and disclosures related to auditing of suppliers.

These additions and amendments seek to encourage companies to align their policies and procedures with international best practices, disclose greater levels of detail about their due diligence efforts and results, and support their statements with practical evidence. All in all, the additions and amendments will allow for a deeper understanding of companies' practical efforts to operationalise stated policies and commitments. This will also help companies demonstrate the extent and effectiveness of their efforts to reduce emissions, protect the environment and ensure respect for human rights in their supply chains.

3. Indicator Development

When originally designing the scorecard methodology, we conducted a review of existing benchmarking initiatives, reporting standards and best practice supply chain initiatives to develop the indicators.

We also reviewed current legislative requirements in two of the largest EV markets: the European Union and the United States. It was our assumption that while not all car manufacturers were headquartered in either of these locations, if they wanted to sell into these markets, they would either be required to comply with local regulation and legislation *or* be competing against companies with higher standards.

Where possible, climate indicators were aligned with advice from:

- Science Based Targets Initiative (SBTi)
- Task Force on Climate-Related Financial Disclosures (TCFD)
- Carbon Disclosure Project (CDP)
- International Energy Agency (IEA)
- Global Reporting Initiative (GRI)
- Industry specific indicators or targets, as discussed below.

Environmental indicators were aligned with the following:

- Global Reporting Initiative's Sustainability Reporting Standards
- CEO Water Mandate
- CDP Water Survey
- EU Taxonomy
- UK Government's Environmental Reporting Guidelines[2]
- Accountability Framework
- Science-Based Target Network (SBTN)
- UN's High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities
- IFC Guidance Notes

[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850130/Env-reporting-guidance_inc_SECR_31March.pdf

Human Rights indicators were aligned with the relevant international norms, and their integration into existing benchmarking initiatives and guidelines. Including:

- UN Guiding Principles
- UN Guiding Principles Reporting Framework
- OECD Guidelines for Multinational Enterprises on Responsible Business Conduct (OECD Guidelines)
- OECD Due Diligence Guidance for the Responsible Supply Chains of Minerals from CAHRAs
- The Global Reporting Initiative (GRI)
- Corporate Human Rights Benchmark (CHRB)
- World Benchmarking Alliance
- Know the Chain
- Worker-Driven Social Responsibility Network's principles for effective due diligence.

3.1. Related scorecard initiatives

In developing the scorecard and indicators, we considered, but did not adopt, the option of directly referencing the scores from existing scorecard initiatives. Doing so could have leveraged existing work and minimised potential duplication, but would have proven difficult for a number of important reasons. Firstly, at the time of evaluation, the data from other relevant scorecards was not yet updated with more recently published data and, given the rapid pace of change in the auto industry, evaluating the most up-to-date data was prioritised. Secondly, referencing existing scorecards would likely have resulted in different approaches for different categories (climate, environment, and human rights), and we determined consistency of the evaluation approach was necessary. Thirdly, given the extent of the existing auto supply chains and the rapidly growing EV supply chain, there were important indicators that warranted more explicit inclusion and categorisation, such as supply chain-specific indicators and Indigenous Peoples' rights indicators.

The only exception to this was InfluenceMap's Automotive Climate Tool scorecard on the climate lobbying record of automakers which was directly integrated into our scoring methodology - see below for further details.

Nonetheless, in developing the indicators, we endeavoured to ensure our approach was aligned and not conflicting with other scorecard and benchmark initiatives, such as those listed above, to ensure consistency across results, which we further validated as part of the company evaluations.

4. Updates and Amendments for the 2025 edition

This is the third iteration of the Leaderboard. To improve and strengthen the scorecard while also seeking to ensure consistency between years, a small number of additional indicators and amendments or expansions to existing indicators have been made. These changes are outlined throughout the rest of the methodology document, but for ease of reference are brought together here. For an exhaustive record of additions and amendments please refer to text highlighted in red within appendix 1.

Fossil free and environmentally sustainable supply chains:

- Additional indicators on managings deforestation risks and impacts with the company's supply chain. These indicators follow the same structure as the indicators on other issue areas evaluated in these sections (GHG emissions, air pollution and water): disclosure, target setting and use of supply chain levers to drive progress.
    - In order to ensure consistency across the indicators in this section, existing indicators on reducing negative impacts to water resources have also been modified.
- Additional scoring criteria have been added to the indicators on disclosure of GHG emissions for steel, aluminum and battery supply chains; and the quantity of low-carbon steel/aluminum used in the company's annual production cycle, in order to allow for partial points for disclosures related to part of the company's production cycle and ensure consistency between these indicators and the equivalent indicators on the use of recycled steel and aluminum.
- Definitions of "low—carbon" steel and aluminium have been updated to reflect the present day consensus on what constitutes a sufficiently ambitious but technically feasible (with currently available technologies) carbon footprint for these materials.
- Indicators on the use of third party assurance schemes have been further modified in order to ensure greater consistency across these indicators.
- Additional scoring criteria on steel and aluminum offtake agreements have been added in order to better differentiate between more impactful practices and high performers on this issue.
- Indicators on battery circularity have been further refined, in particular to integrate the important area of battery reuse / repurposing in addition to battery recycling.

Human rights

- Indicators on human rights requirements in supplier codes of conduct have been modified to differentiate between automakers that have universal / across-the-board requirements and those with only more limited requirements.
- Additional explanation has been added to the indicators on salient human rights risks disclosure in order to provide greater clarity regarding expectations for the descriptions of risks.
- Indicators on assessing risks with suppliers have been modified in order to more clearly distinguish between risk assessment of(potential) new suppliers and existing suppliers, as well as between (quantitative) assessment methods and on-site audits, in order to address instances of some companies scoring points against the different scoring criteria for disclosing the same data.
- Additional explanations have been added to provide greater clarity on the expectations for scoring criteria on indicators related to corrective action plans, grievance mechanisms and remedy / reparations provided to those affected. Additionally, the language of the indicator

on the practical operation of supply chain grievance mechanisms has been made explicit in order to rule out the possibility of awarding points for disclosures related to grievances that are not related to the company's supply chain.

- The language of the indicator on requirements for suppliers to undertake due diligence of their mineral supply chains has been refined in order to provide greater precision and clarity regarding the requirements of the different scoring thresholds.

4.1 Third-party auditing and accreditation schemes

It is common in various industries to use third-party certifications or similar to set standards for industry actors. However, certifications and assurance processes can vary in multiple ways. A recent report from Germanwatch[3] criticised existing voluntary standards, for being "marked by a series of systematic, content-related and methodological shortcomings." Their study concludes that "industry initiatives contribute to very different extents towards implementing due diligence obligations, and … they can never be applied as a sole instrument to this end."

Recognising the potential limitations of such schemes and given the differing efficacy of third-party certification / assurance initiatives prevalent in the automotive supply chain, during 2023 a methodology was developed to evaluate the robustness of the different schemes. This includes an assessment of the governance of the standard, the veracity and transparency of the certification process, the role of impacted rights holders in the process as well as expectations relating to the content of the standard itself. This assessment is then used to apply a modifier to the respective scores in the Leaderboard related to these schemes, with the aim of raising awareness amongst automakers of the strengths and weaknesses of different schemes, and to encourage automakers to use more robust schemes.

Following the assessment of the initiatives and their respective certification schemes, it remains the case that the use of third-party certifications in indicators' scoring criteria does not constitute an endorsement of that certification, but a recognition of existing certifications in use and their potential role in improving supply chains. Similarly, the inclusion of certifications does not constitute an endorsement of certifications over regulation.

Finally, while some certifications may currently lack broad civil society endorsement, it is also recognized that automakers can and should use their influence and participation to continually raise the standards of such initiatives. It is envisaged that this assessment can be utilised as a tool for automakers to be able to more effectively use their influence as members of third-party schemes to drive up standards and address the shortcomings of the different schemes that this assessment reveals.

The full methodology of this assessment can be found in Appendix 3 and the results can be found in sheet 8 of the Leaderboard dataset.

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[3] https://www.germanwatch.org/sites/default/files/germanwatch_abstract_an_examination_of_industry_standards_in_the_raw_materials_sector_2022-09.pdf

5. Points Deductions

The disclosure companies provide in their reporting can vary year-on-year. In instances where corporate disclosure reflects regression in transparency, ambition or implementation, points can and will be deducted in line with the scoring criteria. However, if the scoring threshold for an indicator is no longer met as a result of changes in disclosure related to an initiative, process, or program of work that are, or can be presumed to still be, underway (for example, because they are explicitly mentioned or referenced), such as a company's general due diligence processes, investment in a new facility, or an offtake agreement that is still in force, the score will be maintained based on previous recent disclosures.

Points will not be maintained if new or updated information is expected regularly or year-on-year, such as the results of annual risk assessments, or data relating to the practical operation of a grievance mechanism. This is in line with international reporting frameworks, guidance, and legislation which expect or require disclosure of up-to-date information to enable an understanding of a company's performance over the reporting period.[4] As explained by the UN Guiding Principles Reporting Framework, this is important "to provide the reader with general evidence, from within the reporting period, of how each salient issue is evolving and to demonstrate [the company's] ongoing due diligence.[5]

6. Analysis of Company Reporting

Companies have been scored primarily on publicly available official policies and reporting which has received board level sign-off. From the third edition onwards, information from companies' websites can also be used, provided the companies' reports expressly refer to them and provide the relevant link and/or heading. Company documents reviewed included (at a minimum):

- Annual Reports
- Sustainability Reports
- Raw Materials Reports
- Conflict Minerals Reports
- TCFD reports
- Supplier Codes of Conduct
- Modern Slavery Statements

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[4] See, e.g., the UN Guiding Principles Reporting Framework (in particular, Questions B1, C2.2, C2.3, C6.4, C6.5, each requiring fresh information from within each reporting period), https://www.ungpreporting.org/framework-guidance/reporting-principles/ and the EU's Corporate Sustainability Reporting Directive (requiring a description of principal risks each reporting cycle) https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ%3AL%3A2022%3A322%3ATOC&uri=uriserv%3AOJ.L_.2022.322.01.0015.01.ENG ; See also Principle 21 and Commentary, UNGPs, and the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, Disclosure Chapter, p. 21-24.

[5] https://www.ungpreporting.org/reporting-framework/management-of-salient-human-rights-issues/assessing-impacts/

- Human Rights Policies
- Responsible Mineral Sourcing Policies
- Whistle-blower Policies

The cut-off date for information to be included in our analysis was 1 July 2024. Press releases and similar announcements do not qualify as official board-approved reporting but where relevant, have been included as "green flags" on the Leaderboard's webpage (see 6.3.5 for details).

The companies evaluated were provided with an opportunity to comment on the analysis of their reporting and provide additional information to challenge our assessment of their policies and/or practices. However, this information was only used to revise a company's score if it was in the public domain by the above cut-off date and qualified as official board-approved reporting.

Company controversies are also identified on an ongoing basis via the Red Flags section of the Leaderboard's webpage.

Climate and Environment

6.1. Fossil-Free and Environmentally Sustainable Supply Chains: Background

"Clean cars" require more than a reduction in tailpipe emissions that will occur through the transition to electric vehicles. The production of EVs is emissions intensive, and may have other, significant environmental impacts. It is crucial that "clean cars" decarbonise and reduce toxic pollution and environmental impacts in their entire supply chain, from the point of extraction through to final production, as well as recycling and reuse.

Recognising that Scope 3 emissions often represent the largest portion of companies' GHG inventories, SBTi produced best practice guidance for downstream companies on how they can reduce indirect emissions throughout their value chain.[6] They identify a number of levers whereby buyers can influence their supply chain, we have identified the following as relevant to this scorecard:

- Supplier Engagement
- Procurement Policies and Choices
- Product and Service Design

These levers are also very relevant to how companies can reduce the broader environmental footprint of their supply chain, including achieving improvements in water management, reductions in toxic pollutants, and reducing biodiversity and land use impacts in their supply chain.

6.2. Fossil-Free and Environmentally Sustainable Supply Chains: Areas of Focus

The research identified three areas in which the environmental and/or climate impact were significant, and the materials involved comprised large proportions of a final vehicle's composition:

- Steel manufacturing
- Aluminium manufacturing

[6] https://sciencebasedtargets.org/resources/files/SBT_Value_Chain_Report-1.pdf

- Battery manufacturing (including minerals extraction and smelting/refining), which is currently lower in overall emissions, but carbon-intensive and rapidly growing

As discussed below in section 7, these areas may also be associated with significant human rights impacts.

Building on SBTi value chain guidance, we have grouped indicators into three groups:

- Disclosure of GHG emissions, "other significant air emissions", and water management.[7] Note: this establishes the status quo of a companies' emissions. This is not comparable between companies due to differences in how each company structures its operations and supply chain, and how they are disclosed or not.[8]
- Target setting and progress towards fossil-free and environmentally sustainable supply chains: this measures a company's ambition and progress towards that ambition
- Use of supply chain levers to achieve fossil-free and environmentally sustainable supply chains: this measures the policies and practices that companies have put in place to achieve that ambition, for example through tendering practices and supplier agreements / engagement through to extraction.

In measuring company ambition and progress, we recognise that it is not enough to simply decarbonise mineral and metal production. A fossil-free and environmentally sustainable supply chain would also need to reduce the use of primary materials in order to reduce (in addition to the impacts noted above) biodiversity and land use impacts. This is measured through attention to:

- Recycling and increased use of secondary materials, particularly battery minerals, in order to create more closed loop supply chains and reduce continual extraction.

In furthering our assessment of biodiversity and land use impacts, new indicators were developed regarding deforestation and conservation. The additional indicators have been developed in line with other indicators which focus on disclosures, targets or commitments, and how supply chain levers are used. These new indicators were not counted towards the companies' public scores, but will be in subsequent years.

6.3. Themes: Background, Overview of Indicators and Scoring Methodology

The following is a high level discussion of decisions underpinning the indicators and scoring methodology for each focus area or theme.

6.3.1. Fossil-free and Environmentally Sustainable Supply Chains (General)

These are baseline indicators that apply across all supply chains. They evaluate companies for disclosing aggregate data and targets on emissions (GHG and other significant air emissions), water management and deforestation in their supply chains. This section also evaluates companies' actions

[7] The definition of "other significant air emissions" has been taken from the GRI 305: Emissions Standard.
[8] For example: some auto manufactures will have their own battery cell manufacturing plants, while others won't.

to incentivize and/or require suppliers to improve their performance on reducing their climate and environmental impacts, for example through their tender and contracting processes and/or supply chain management practices for existing suppliers. Additional supply chain levers are evaluated under subsections on each individual supply chain, as the more relevant actions for focused engagement may differ substantially between supply chains.

6.3.2. Fossil Free and Environmentally Sustainable Steel

The bulk of GHG associated with the production of steel occurs during smelting. As such, transitioning from coal-based steel production with blast furnaces and decarbonizing the electricity used during the smelting process are critical in creating sustainable steel supply chains for the auto industry. In this regard, automakers have an important role to play in unlocking investments in new, or upgraded, steel facilities that utilise innovative technologies that can move the industry towards fossil-fuel free steel manufacturing.

Indicators in this, and the following, sub-section have been structured around the demand signal framework presented in Mission Possible Partnership's Steeling Demand report[9], which illustrates how demand signals from major steel buyers (such as automakers) to steel manufacturers can help unlock investment decisions and bring to market the next generation of breakthrough technologies needed for primary steel to become truly net-zero.

This report puts forwards three types of demand signals that can serve this purpose:

- A direct offtake agreement, which is "actual agreement between a steel buyer and a specific steel supplier, intended to give the steel company the certainty needed to invest in a breakthrough production route and the steel buyer the assurance of access to a particular volume of low-CO2 steel meeting its specifications." Such agreements can take the form of bilateral offtake (or advance purchase) agreement or a direct investment in a company or facility. This type of demand signal is evaluated in indicator 2.3.3.
- A future purchase commitment, which is "a commitment that is not directed to any specific supplier, but instead indicates a willingness to buy low-CO2 steel, to the supply market as a whole." This type of demand signal is evaluated in the target-setting indicator 2.2.1.
- And finally indirect demand signals, which "can be sent by a much broader pool of organisations that operate across complex value chains to indicate a willingness to decarbonise their supply chains and encourage their suppliers to engage in green steel demand." These kinds of demand signals are typically mobilized through buyers' groups and other multi-stakeholder initiatives, such as SteelZero, First Movers' Coalition and ResponsibleSteel, and they are evaluated in indicators 2.3.1. and 2.3.2. Automakers can score additional points by joining all three of these initiatives, which are considered complementary as they target different elements of steel decarbonisation.[10]

Additional requirements have been integrated into the indicator on direct offtake agreements in order to differentiate between advance purchase agreements that are more effective in achieving

[9] https://www.energy-transitions.org/publications/steeling-demand/#download-form
[10] SteelZero (2023), *How demand signals work together to decarbonise the steel market: Overview of commonalities and distinctions between First Movers Coalition, SteelZero and the IDDI-Green Procurement Pledge*

the purpose of providing a steel company with the certainty needed to invest in a breakthrough production route,[11] namely:

- Giving preference to binding contracts over non-binding memorandums of understanding
- Giving preference to contracts for which quantities to be purchased and timelines are publicly disclosed, so as to be able to evaluate and compare the levels of ambition and commitment between automakers.
- Giving preference to purchase agreements that are technology forcing, i.e. are used to support investments in breakthrough technologies that are needed for the steel industry to move towards fossil-fuel free steel production. These technologies have been detailed by the IEA[12] and Mission Possible Partnership[13] and include green hydrogen DRI and iron ore electrolysis. Post-consumer scrap-based EAF production routes powered by renewable energy are also considered here due to the technical challenges of using steel scrap for automotive manufacturing.[14] However, CCUS is not considered for scoring since it is not a technology that can support the transition of the industry away from fossil-fuels.

In order for stakeholders to be able to evaluate automakers' actual progress on decarbonizing the steel supply chains, indicators are also included on disclosing disaggregated emissions from the company's steel supply chain and the quantity of low-carbon steel currently used in the company's production cycle. For the latter indicator, the definition of "low-carbon steel" is taken from SteelZero's commitment framework,[15] which is considered to be a sufficiently ambitious carbon footprint threshold that is also achievable with current steelmaking technologies. This definition, which has also been adopted by IIGCC's Steel Purchasers Framework,[16] is < 2 tons CO2e/ton for primary steel with 0% scrap through to < 0.35 tons CO2e/ton for secondary steel with 100% scrap.

Implementing effective means through which to recover and recycle scrap steel is an important consideration for autos in the decarbonisation of steel supply chains. Increasing the amount of secondary relative to primary steel used in the auto manufacturing process reduces the embodied carbon of the BEV, as well as its demands for primary resources (i.e. iron ore).

The IEA Guidance for Heavy Industry has recycling, re-use: scrap as a share of input in steel production as 54% by 2030. As such, the scorecard measures company target setting with regards to recycling. Additionally, the scorecard assesses the extent to which companies are integrating improved recyclability of steel into the design and manufacturing process. Finally, there is additional emphasis on the approach automakers take with regards the closed-loop processes regarding recycling and recovery of steel. A truly closed-loop process should include both pre- and

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[11] https://www.latitudemedia.com/news/ev-makers-have-the-chance-to-catalyze-the-clean-steel-and-aluminum-markets
https://www.latitudemedia.com/news/opinion-green-steel-evs

[12] https://www.iea.org/energy-system/industry/steel

[13] https://www.energy-transitions.org/publications/making-net-zero-steel-possible/

[14] See: https://www.transportenvironment.org/articles/cleaning-up-steel-in-cars-why-and-how

[15] https://www.theclimategroup.org/sites/default/files/2024-06/SteelZero%20Commitment%20Framework%20v1.1_June%202024.pdf.

[16] https://139838633.fs1.hubspotusercontent-eu1.net/hubfs/139838633/Past%20resource%20uploads/IIGCC-Steel-Purchaser-Framework-2023.pdf

post-consumer scrap. Scorecard indicators on this issue are therefore weighted towards recycling and recovery of steel processes including considerations for post-consumer scrap. Companies will still be credited for closed-loop processes utilising recycling scrap from the manufacturing process, albeit to a lesser extent.

Finally, it is noted that steel production - from iron ore mining through to steel manufacturing - can also cause negative environmental impacts beyond producing significant quantities of greenhouse gas emissions.[17] Automakers use of ResponsibleSteel, a highly regarded multi-stakeholder assurance scheme for the steel industry that includes a range of performance measures on environmental impacts, is included as a way to assess their efforts in reducing these impacts in their supply chain.

6.3.3. Fossil-Free and Environmentally Sustainable Aluminium

Decarbonizing the electricity used to produce aluminium is critical in creating sustainable aluminium supply chains for the auto industry, as indirect emissions from power generation for aluminum production account for 70% of aluminium production's total (direct and indirect) emissions. Fortunately, as the IEA explains, because "about 55% of the power consumed by the industry globally is self-generated rather than purchased from the grid, many of these emissions are within the control of the industry itself."[18] The extent to which automakers are supporting the investment of aluminium suppliers in clean energy sources, such as hydro, wind and solar electricity generation, is therefore a key area that is evaluated across this subsection.

As with the previous section, automakers are assessed for their disclosure of disaggregated scope 3 emissions from their aluminium supply chains and of the quantity of low carbon aluminum currently used in their annual production cycle. Due to the importance of increasing renewable energy use for aluminum production, a more flexible definition of low-carbon aluminium is used for the latter indicator, which can be defined as aluminum produced with 100% renewable energy and/or aluminium with a carbon footprint of less than 4 CO2e/t Al, a common reference used by the industry as it represents "the very lowest achievable with currently available technologies."[19]

Sending demand signals to the aluminium industry to unlock investments in low-carbon and, eventually, zero-carbon aluminum production is also evaluated in this subsection. Indicators in this subsection are also structured around the Mission Possible Partnership's demand signals framework which, although developed for steel decarbonization is also applicable to aluminium decarbonization.

Beyond the scope 2 emissions from electricity production, additional process emissions, such as those resulting from the reduction of aluminium oxide in the presence of carbon anodes, must also be eliminated from the aluminum production process for the industry to be able to obtain fossil-fuel free aluminum production. New technologies need to be brought to market to achieve this which, according to the Mission Possible Partnership[20] and the IEA[21], include using inert anodes for smelting, electric or hydrogen boilers, mechanical vapour recompression or concentrated solar thermal for

[17] https://edlc.org/wp-content/uploads/2024/04/The-Real-Cost-of-Steel.pdf
[18] https://www.iea.org/energy-system/industry/aluminium
[19] https://aluminium-stewardship.org/low-carbon-aluminium
[20] https://3stepsolutions.s3-accelerate.amazonaws.com/assets/custom/010856/downloads/Making-1.5-Aligned-Aluminium-possible.pdf
[21] https://www.iea.org/energy-system/industry/aluminium

digestion, hydrogen calciners for calcination. As with the equivalent indicator in the steel subsection, CCUS is not considered for scoring here.

Improving recovery and recycling of scrap eliminates much of the energy-intensive production of primary aluminium and is therefore an important consideration for automakers in the decarbonisation of aluminium supply chains, whilst reducing their demand for primary resources (i.e. bauxite). The IEA projects that the combined share of aluminium produced from recycled new and old scrap needs to reach nearly 40% (at least 70% of this from old scrap) by 2030 to meet net zero.[22] There is additional emphasis on the approach companies take with regards to circular economy and closed-loop processes for aluminum, that should include both pre- and post-consumer scrap. As with steel, greater points will therefore be allocated to automakers that can demonstrate progress with pre-consumer *and* post-consumer scrap recycling.

As referenced in the indicator development section above, the scorecard recognises the importance of company participation in initiatives to collaborate with other buyers to incentivise investment in and production of fossil free aluminium at scale, as well as to provide assurances relating to environmental and human rights impact. The Aluminium Stewardship Initiative (ASI) is an industry-led certification scheme which assesses both human rights and environmental performance. The ASI certification process has been criticised by Human Rights Watch with regards to the robustness of the certification process.[23] Notwithstanding the concerns raised, Human Rights Watch further outlines the potential benefits membership to ASI could have if standards are raised and encourages leading automakers to remain, or become, members and to use their influence to drive up these standards with the ASI. The efficacy of the Aluminium Stewardship Initiative is considered as part of the scorecard's third-party certification schemes assessment.

6.3.4. Fossil-Free and Environmentally Sustainable Batteries

Battery production is a significant source of GHG emissions in auto supply chains. The majority of emissions occur in extraction, smelting & refining stages, with cell manufacturing being a smaller proportion.[24] Further, as with steel and aluminum production, additional environmental impacts can occur at each of these stages in the battery supply chain, including loss of biodiversity, water pollution and tailings. Indicators in this section therefore evaluate automakers' efforts to reduce GHG emissions and other environmental impacts across their battery supply chains, from mineral extraction to cell and battery pack manufacturing.

This subsection of the scorecard focuses in particular on three transition minerals highlighted in the EU Battery Regulations: Nickel, Lithium and Cobalt.[25]

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[22] "New scrap refers to scrap created during product manufacturing, while old scrap refers to end-of-life scrap. [...] Scrap-based production tends to cost less than primary production, so the key constraint is scrap availability. In 2019, collection rates for aluminium were over 95% for new scrap and just over 70% for old." https://origin.iea.org/reports/aluminium

[23] https://www.hrw.org/report/2021/07/22/aluminum-car-industrys-blind-spot/why-car-companies-should-address-human-rights

[24] Panasonic estimate, CAR MBS 2022 conference: 86% of emissions from minerals, 14% from manufacturing; Tesla estimate, Tesla 2021 Impact Report, p104: 77% of emissions from minerals, 23% from manufacturing

[25] https://www.lexology.com/library/detail.aspx?g=a6b6c70b-c571-4841-8b27-d3ab3a0dfd1b

With regards to battery mineral extraction and refining, automakers can also sign direct purchase agreements to unlock supplies of low/zero carbon battery minerals, as they can do with steel and aluminum. Sending indirect demand signals for fossil-fuel free battery production, through the setting of emissions reductions targets specific to the company's battery supply chains, is also considered for scoring in this subsection. Finally, automakers can reduce broader environmental impacts of their battery supply chains by leveraging their purchasing power to drive up environmental standards for battery mineral extraction / refining through direct engagement with extractives companies and multistakeholder initiatives.

With regards to battery manufacturing, a key intervention is utilising renewable energy sources for this process, particularly for the energy intensive cathode/anode and cell production process.[26]

Innovations in battery designs and chemistries can also play an important role in reducing the climate and ecological footprints of EV batteries, in particular by reducing the use of minerals that are more emissions[27] and resource[28] intensive to extract and refine, as is the case for nickel, lithium and cobalt. New battery chemistries such as lithium-ion phosphate, sodium-ion and metal-sulphur batteries all hold potential in this regard,[29] as do solid-state batteries.[30]

Another core issue that was identified for these indicators was battery supply chain transparency and traceability. The EU Batteries Regulation requires that a battery's environmental footprint be disclosed for the entire supply chain (via a "battery passport") in order to be put on the EU market.[31] Companies are therefore assessed for disclosing this information for their battery supply chains and for joining the Global Battery Alliance, a leading multi-stakeholder initiative that is developing a comprehensive battery passport for the industry.

Finally, battery circularity is also a critical issue - not only for reducing the carbon footprint of batteries but also for reducing demand for battery minerals.[32] The EU Batteries Regulation imposes important requirements on automotive companies with regards to battery recycling, establishing increasingly stringent minimum levels of recycled content for new EV batteries sold in the EU market and minimum thresholds for mineral recovery in battery recycling processes (90% recovery rate for cobalt & nickel and 35% lithium by 2025 and 95% recovery for cobalt & nickel with 70% lithium by 2030).

Automaker performance in this area is assessed on different levels. Firstly, whether automakers have set targets to reduce the quantity of primary sources of battery minerals (lithium, nickel and cobalt) used in their batteries and to increase the recovery rates from their battery recycling processes. Secondly, automakers are investing in R&D to increase the recyclability of their batteries and, through this R&D, are making progress towards achieving the minimum recovery rates mandated by

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[26] https://www.nature.com/articles/d41586-021-02222-1
[27] https://elements.visualcapitalist.com/the-carbon-emissions-of-producing-energy-transition-metals-charted/
[28] https://www.sustainabilitybynumbers.com/p/energy-transition-materials
[29] https://www.isi.fraunhofer.de/content/dam/isi/dokumente/cct/2023/abt-roadmap.pdf
[30] https://www.transportenvironment.org/articles/will-future-batteries-be-greener
[31] https://www.europarl.europa.eu/news/en/headlines/economy/20220228STO24218/new-eu-rules-for-more-sustainable-and-ethical-batteries
[32] https://rmi.org/insight/the-battery-mineral-loop/

the EU Battery Regulations. And finally, whether automakers have established closed-loop systems to collect, reuse/repurpose and, ultimately, recycle used batteries from their EVs according to a zero-waste hierarchy.[33] Driving innovation in recycling processes that can shift battery recycling away from inefficient and emissions-intensive battery recycling methods based on incineration processes (pyrometallurgy)[34] and towards more sustainable methods is also considered.

6.3.5. Climate Policy Lobbying

An assessment carried out by InfluenceMap (IM), a think tank that analyses corporations' and their industry groups' influence on policy needed to address climate change, found that the automotive sector remains a major opponent of climate policy globally.[35] Given the importance a global 1.5 degree aligned policy framework has in facilitating the decarbonisation of the automotive value chain, for instance incentivising reduction and elimination of fossil fuels in industrial inputs via a carbon pricing mechanism, the integration of the IM assessment into the scorecard was considered important. Notwithstanding the extent to which an automotive company's approach to lobbying impacts its overall climate strategy, the scoring is weighted to reflect this evaluation's focus on the climate and environmental impact of the industry's supply chain. Therefore, scores available under the other sections of the scorecard outlined above (supply chains (general), steel, aluminium and batteries) are weighted higher, with the IM scoring integrated using a multiplier. Company overall score for the Climate & Environment section of the scorecard received a positive or negative multiplier depending on the individual company IM score. In addition, IM scores parent companies (e.g. Hyundai rather than Kia). Companies which are part of the same parent company will be attributed the matching scores. It is also worth noting that IM does not currently score China-headquartered automotive companies, some of which are included in the scope of the scorecard. As a result, the IM multiplier for the four companies not currently covered (BYD, GAC, Geely and SAIC) will not be applied.

Using InfluenceMap's Performance Bands (A+ to F), which "is a full measure of a company's climate policy engagement, accounting for both its own engagement and that of its industry associations",[36] the following multipliers have been applied to each company's total score for this section:

- A = 1.3
- B = 1.2
- C =1.1
- N/D = 1 (Per above, companies that have not been analysed and scored by InfluenceMap receive no change in their Climate & Environment score)
- D = 0.9
- E = 0.8
- F = 0.7

[33] https://www.no-burn.org/resources/zw-hierarchy-for-batteries/
[34] See: https://leadthecharge.org/resources/ev-battery-recycling-burning-batteries-is-not-the-way-to-go/; https://blog.ucsusa.org/jessica-dunn/how-are-ev-batteries-actually-recycled/ and https://sdgs.un.org/sites/default/files/2022-05/2.4.8-18-Ali-Hydrometallurgy%20for%20EV%20batteries.pdf
[35] https://automotive.influencemap.org/
[36] https://lobbymap.org/page/About-our-Scores

7. Respect for Human Rights

7.1. Respect for Human Rights: Background

Under the UN Guiding Principles and the OECD Guidelines, companies have a responsibility to respect human rights, and to seek ways to prevent or mitigate adverse human rights impacts that are directly linked to their business operations, products, or services by a business relationship, even if they do not contribute to those impacts.

To meet this responsibility, the UN Guiding Principles specify that companies must have in place:

a) A policy commitment to meet their responsibility to respect human rights.
b) A human rights due diligence process to identify, prevent, mitigate and account for how they address their impacts on human rights.
c) Processes to enable the remediation of any adverse human rights impacts they cause or to which they contribute.[37]

The indicators have been developed to measure the extent to which companies are managing this responsibility.

7.2. Respect for Human Rights: Areas of Focus

In consultation with NGO partners, we identified three core, salient human rights issues for auto supply chains as the industry transitions to electric vehicles:

- Responsible Sourcing of Transition Minerals
- Indigenous Peoples' Rights, with a focus on Free, Prior, and Informed Consent (FPIC)
- Workers' Rights

We note that many human rights norms also explicitly or implicitly include environmental rights. For example, the UN Committee on Economic, Social and Cultural Rights has been unequivocal that the International Covenant on Economic, Social and Cultural Rights imposes obligations to respect, protect, and fulfil the right to water, which includes the following essential elements:

- Availability – The water supply for each person must be sufficient and continuous for personal and domestic uses.
- Quality - The water required for each personal or domestic use must be safe (free from microorganisms, chemical substances and other hazards that endanger a person's health) and of an acceptable colour, odour and taste.
- Accessibility - Water and water facilities and services have to be accessible to everyone without discrimination.[38]

Similarly, the International Covenant on Civil and Political Rights (ICCPR) recognises:

- the right to freely dispose of natural resources

[37] https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf
[38] https://www.refworld.org/pdfid/4538838d11.pdf

- the particular rights of 'ethnic, religious or linguistic minorities' to not be denied 'the right, in community with the other members of their group, to enjoy their own culture'.[39]

In addition, the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) includes "Indigenous access, conservation and economic development of water" and "right to conservation and protection of Indigenous lands and resources with state assistance". This includes conservation of biodiversity and protection against adverse impacts such as environmental degradation and pollution.

The importance of guaranteeing the right to a clean and healthy environment was also recently affirmed by the UN General Assembly in its resolution 76/300, which recognizes "the right to a clean, healthy and sustainable environment as a human right" and affirms that "the promotion of the human right to a clean, healthy and sustainable environment requires the full implementation of the multilateral environmental agreements under the principles of international environmental law."[40]

While the scorecard does not include environmental rights as standalone categories, nor does it name the full range of civil, political, economic, social, and cultural rights, these are all implicitly included in the generic human rights indicators.

Finally, this scorecard has adopted a broad approach to "just transition". Namely, it considers how the actual and potential adverse impacts of the transition to a fossil-free economy and society are addressed, and how "justice" is delivered to all potentially impacted communities. The themes and indicators outlined below can contribute to a "just transition", both individually and cumulatively, but should not be viewed as a comprehensive definition of how "justice" may be delivered in totality.[41]

7.3. Themes: Background, Overview of Indicators and Scoring Methodology

The following section provides a high-level discussion of decisions underpinning the indicators and scoring methodology for each focus area or theme. The indicators have been structured as follows:

- Generic human rights indicators that apply across all three of the salient human rights issues
- Specific indicators relevant to each of the salient human rights issues

A risk-based approach was taken in developing these indicators and assessing each company against the key focus areas. In other words, the indicators take into account where auto manufacturers had the greatest leverage in their supply chain to effect change *and* the areas in their supply chain potentially exposed to the highest risks.

The indicators have been grouped into four areas, reflecting the guidance provided by the UN Guiding Principles, specifically:

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[39] https://humanrights.gov.au/sites/default/files/content/social_justice/nt_report/ntreport08/pdf/chap6.pdf

[40] https://digitallibrary.un.org/record/3983329?ln=en

[41] Examples include but are not limited to:
https://www.industriall-union.org/sites/default/files/uploads/images/FutureOfWork/JustTransition/guide_of_practice_en_web.pdf
https://earthworks.org/wp-content/uploads/2021/09/Just-Minerals-FINAL.pdf
https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf
https://climatejusticealliance.org/just-transition/
https://www.amnesty.org/en/documents/act30/3544/2021/en/

- A **commitment** to respect human rights
- Processes to **identify** salient human rights risks
- Processes to **prevent, mitigate and account for** adverse human rights impacts
- Processes for the **remediation** of adverse human rights impacts

For each area as described above, the scorecard looks at whether there is a policy or process in place. Secondly, it looks at whether the company provides a description, explanation, or further detail about the policy or process in practice; and thirdly, it evaluates quantitative and qualitative data to allow for an assessment of the efficacy of that policy or process.

7.3.1. Respect for Human Rights (General)

These are indicators that will provide a baseline for more specific scoring of transition minerals, Indigenous Peoples' rights, and workers' rights. The indicators look at the company's overall approach (commitment, policies, processes and systems) to responsible sourcing and conducting human rights due diligence across its supply chain.

7.3.2. Responsible Sourcing of Transition Minerals

The transition to BEVs requires significant quantities of "transition minerals" like cobalt, nickel, lithium, copper, manganese, and zinc. Some of these minerals are sourced from areas that are characterised by "armed conflict, widespread violence or other risks of harm to people", otherwise known as conflict-affected or high risk areas (CAHRAs).[42] The US and European Union (EU) have brought in specific legislation that imposes supply chain due diligence obligations regarding tin, tantalum, tungsten, and gold (3TGs) from CAHRAs, because of the risk that these minerals finance armed groups, human rights abuses, and corruption.

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas takes a broader approach. It provides a "framework for detailed due diligence as a basis for responsible global supply chain management of minerals".[43] The third edition, published in 2016, clarifies that this framework is meant to apply to all minerals, and is not limited to tin, tantalum, tungsten, and gold.[44] Indicators in this section have been derived from this Guidance, including the scope of its application to all minerals rather than just just 3TG.

Significantly, the OECD Guidance notes that due diligence is "an ongoing, proactive and reactive process through which companies can ensure that they respect human rights and do not contribute to conflict".[45] The Guidance includes specific recommendations for downstream companies (like auto manufacturers) for conducting this due diligence, recognising that they have the greatest leverage over the supply chain from Tier 1 to smelters/refiners, and that they may have to collaborate with other buyers to drive change in the supply chain. This includes the participation in industry-wide schemes to assess smelter/refiner compliance with the Guidance, introducing "a supply chain transparency system that allows the identification of the smelters/refiners in the company's mineral supply chain through which the following information on the supply chain of minerals from 'red flag locations of mineral origin and transit' should be obtained: the identification of all countries of

[42] https://single-market-economy.ec.europa.eu/system/files/2021-09/2._what_are_cahras.pdf
[43] https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf, p. 12
[44] https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf, p. 3.
[45] https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf, p. 8.

origin, transport and transit for the minerals in the supply chains of each smelter/refiner".[46] In order to drive change at the level of extraction, companies may choose to enter into binding agreements with mining companies.

They may also join third party schemes. The Initiative for Responsible Mining Assurance (IRMA) is at present the only third-party certification of industrial-scale mine sites for all mined materials that is governed equitably by the private sector, local communities, civil society, and workers.[47]

Companies who only undertake due diligence on their CAHRA supply chains receive lower scores than companies that seek to conduct due diligence on all mineral supply chains.

An important consideration in the responsible sourcing of transition minerals is a responsible approach to managing waste (tailings) from extractive activities. Tailings facilities are designed by extractive companies to store processed waste from mining activities. Mismanagement of these facilities has in recent years resulted in a number of catastrophic collapses, leading to significant loss of human life. In response to these disasters, the Global Industry Standard on Tailings Management (GISTM) was created with the aim of promoting responsible tailings management. The GISTM has been strongly criticised in how it was developed[48] and as such use of this standard is not used as a framework for assessing performance in this scorecard. The IRMA standard is considered a more robust mechanism in relation to tailings management. Given this, assessing supply chain risks related to mining tailings is not included as a standalone indicator in the scorecard but is evaluated through companies' use of the IRMA standard in their supply chain.

Finally, it is also important to note that one way to reduce the adverse human rights impacts of materials extraction is to reduce reliance on primary materials. Indicators on recycling and reuse are included in the "Fossil-free and Environmentally Sustainable Supply Chains" section of the scorecard.

7.3.3. Respect for Indigenous Peoples' Rights

The UNDRIP was used as the basis for indicator development. The primary focus of these indicators is on respecting Indigenous Peoples' right to self-determination, specifically through respect for their FPIC right in relation to projects and activities in auto-supply chains to be carried out on their lands and territories. FPIC must be understood as a continuous process, allowing for consent to be withdrawn at any time, ensuring that information is continually and proactively provided to meet the baseline for "informed", and involving Indigenous Peoples in key decisions and stages of the due diligence process.

These indicators also recognise that while the primary risks to FPIC are at extraction sites, they may also occur at other points in the supply chain where operations are adjacent to or on Indigenous lands. As such, auto manufacturers may need to adjust their supplier codes of conduct and collaborate with other buyers in order to signal the importance of FPIC to upstream suppliers. For example, the Initiative for Responsible Mining Assurance (IRMA) invites "purchasing companies" to

[46] https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf, p. 39
[47] https://responsiblemining.net/
[48] Credibility Crisis: Brumadinho and the Politics of Mining Industry Reform (2021)

express an interest in sourcing from IRMA assessed mines, even if they haven't fully mapped their supply chains to the source of extraction.[49]

7.3.4. Respect for Workers' Rights

The ILO Declaration on Fundamental Principles and Rights at Work identifies five fundamental principles and rights:

1. freedom of association and the effective recognition of the right to collective bargaining;
2. the elimination of all forms of forced or compulsory labour;
3. the effective abolition of child labour;
4. the elimination of discrimination in respect of employment and occupation; and
5. a safe and healthy working environment.[50]

Companies are scored on their commitment to these principles, and whether adherence to these principles is required of their suppliers.

In addition to these core rights, we have scored companies on whether they have a commitment to a living wage in their direct operations and supply chain. The ILO defines a living wage as:

- "the wage level that is necessary to afford a decent standard of living for workers and their families, taking into account the country circumstances and calculated for the work performed during the normal hours of work;
- calculated in accordance with the ILO's principles of estimating the living wage;
- to be achieved through the wage-setting process in line with ILO principles on wage setting."[51]

A living wage may be greater than the legal minimum wage.

Beyond a commitment to and recognition of the relevant unions, companies should seek a positive relationship with the relevant trade union as a core part of their processes to prevent, mitigate and remedy workers' rights abuses, up to, and including, forced labour.

Trade unions can provide greater legal protections and support to workers who are seeking to raise issues with management. Often, vulnerable workers will only raise issues with independent organisations with which they have developed a relationship of trust (i.e. their union), and where that independent organisation is able to act on the workers' behalf. Vulnerable workers are less likely to use reporting mechanisms operated by an entity that has either the power to hire or fire them, or to cancel a contract under which they work.[52] Workers' representatives are referenced alongside formal trade unions not as an alternative to trade union engagement, but in recognition that trade unions might be banned in certain countries. Where this is the case, companies must commit to, respect, and engage with legitimate workers' representatives.

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[49] https://responsiblemining.net/what-you-can-do/purchasing-companies/

[50] https://www.ilo.org/declaration/lang--en/index.htm#:~:text=the%20elimination%20of%20all%20forms,safe%20and%20healthy%20working%20environment.

[51] https://www.ilo.org/resource/news/ilo-reaches-agreement-issue-living-wages

[52] Ford and Nolan (2020). "Regulating Transparency on Human Rights and Modern Slavery in Corporate Supply Chains: The Discrepancy between Human Rights Due Diligence and the Social Audit" Australian Journal of Human Rights 26(1), pp. 27–45.

While this scorecard is focused on a company's supply chain, not its direct operations, we have assessed whether the company actively works with IndustriALL and/or the trade union in their headquartered country to identify and manage workers' rights risks in their supply chains.

7.3.5. Controversies and Red Flags; Progress and Green Flags

The methodology for this scorecard relies on an assessment of each company's own reporting on their human rights policies and practices. This approach has inherent limitations and can lead to incomplete or biased results. For this reason, it is crucial that the scorecard includes the possibility of flagging external complaints that have been made about the company over the reporting period.

On the website where the Leaderboard is hosted, we have elected to identify and flag controversies related to the actual impacts of automakers' supply chains. These are referred to as "red flags" on the website. However, such controversies are not included in the overall scoring of the company, as we do not have scope to investigate and verify allegations and the company's and impacted stakeholders' responses to these allegations.

Company controversies have been identified via a search of the Business and Human Rights Resource Centre (BHRRC) company dashboards.[53] The dashboard collects media articles, NGO reports, and other sources of information related to controversies, allegations, and findings against specific companies, and presents them alongside engagement between BHRRC and the company. Note: the absence of red flags in the scorecard or allegations or controversies related to a company in the BHRRC dashboards doesn't mean that there are no issues in their supply chain - simply that they have not been included in the BHRRC database or have otherwise been unintentionally overlooked.

Additionally we have included "green flags" against each company's page on the website to highlight more recent developments that indicate progress towards a just, equitable, fossil-free and environmentally sustainable supply chain. These include new commitments, disclosures, or implementation actions announced via press releases or public statements, but which have not yet been included in formal company reporting (see section 4 above) published before the cutoff date. Similar to red flags, they are not included in the overall scoring of the company.

Company announcements are identified on an ongoing basis via tracking of relevant media sites and company press / public statements. Note: the absence of announcements or their inclusion under "green flags" does not mean that there is no progress by companies scored towards a just, equitable, fossil-free and environmentally responsible supply chain - simply that progress beyond formal company reporting has not been made public to date, or relevant announcements have been unintentionally missed.

8. Company Selection

A mixed methodology is used to select the companies in order to identify the players that had the most potential to drive change in the sector. The final selection includes a mix of "pure play" manufacturers, who are already producing 100% electric vehicles within their fleets, high volume EV

[53] https://www.business-humanrights.org/en/companies/

manufacturers that are not “pure play”, as well as the largest auto manufacturers across all propulsion types. While many of the largest auto manufacturers are lagging on the transition from internal combustion engines to BEVs, their size means that they have the potential to drive significant supply chain action and investments in their transition to EVs.

For the third edition, we used the EV Volumes YTD figures for 30 June 2024[54] to identify the top 10 auto manufacturers in the following categories:

- Largest auto manufacturers by total number of cars sold - Global
- Largest auto manufacturers by total number of BEVs sold - China
- Largest auto manufacturers by total number of BEVs sold - Europe
- Largest auto manufacturers by total number of BEVs sold - US
- Largest auto manufacturers by total number of BEVs sold - Canada
- Largest auto manufacturers by total number of BEVs sold - Korea
- Largest auto manufacturers by total number of BEVs sold - Australia
- Largest auto manufacturers by total number of BEVs sold - Israel
- Largest auto manufacturers by total number of BEVs sold - Singapore
- Largest auto manufacturers by total number of BEVs sold - Thailand
- Largest auto manufacturers by total number of BEVs sold - Hong Kong

Markets were included where BEVs had a market share above 5%, which has been identified by Bloomberg analysis as a market tipping point for EV adoption.[55]

Note: the EV Volumes data groups companies together where there are significant joint venture partnerships or other formal partnerships between companies that impact on manufacturing. For example, they treat Nissan-Renault and Hyundai-Kia as single entities, while Geely Group and Volvo Car Group are treated as independent entities..

For the purposes of reviewing company documentation, these have all been treated as single entities, acknowledging that in some cases they may have some common supplier policies, have joined multi stakeholder initiatives together, may share some manufacturing plants, etc.

Using this mixed methodology above, the companies selected for evaluation in the 2025 edition remain the same as the companies evaluated in the previous edition of the Leaderboard.

List of Companies:

- BMW
- BYD
- Ford
- GAC
- Geely Auto
- GM

[54] This date was chosen over other common cutoff dates, such as end of the calendar year, given the EV market is rapidly evolving and expanding and data even a few months past can vary greatly, and to better align with the August 1 2022 cutoff date for reviewing official company reporting.

[55] https://www.bloomberg.com/news/articles/2022-07-09/us-electric-car-sales-reach-key-milestone?sref=gPAG2MJ8

- Honda
- Hyundai
- Kia
- Mercedes
- Nissan
- Renault
- SAIC
- Stellantis
- Tesla
- Toyota
- Volkswagen
- Volvo Car Group

Appendices

Appendix 1: Full list of indicators and score attributions

Fossil free and environmentally sustainable indicators

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
1. Fossil Free and Environmentally Sustainable Supply Chains (General)	**1.1. Disclosure of emissions, water and deforestation management**	1.1.1. The company discloses total scope 3 GHG emissions due to purchased goods and services.	The following scores are absolute, not cumulative: **100%:** The company discloses scope 3 GHG emissions due to purchased goods and services. **25%:** The company includes scope 3 GHG emissions including purchased goods and services in overall disclosure, but does not disaggregate. Note: the company may achieve additional points under each of the supply chain areas below, if they provide disaggregated emissions against each supply chain.
		1.1.2. The company discloses "significant emissions" in its supply chain.	Based on GRI 305-7, significant emissions include: i. NOx ii. SOx iii. Persistent organic pollutants (POP) iv. Volatile organic compounds (VOC) v. Hazardous air pollutants (HAP) vi. Particulate matter (PM) vii. Other standard categories of air emissions identified in relevant regulations The following scores are absolute not cumulative: **100%:** the company discloses significant emissions in their supply chain against all of the above categories. **50%:** the company discloses significant emissions in their supply chain against some of the above catetories.
		1.1.3. The company discloses water usage by key suppliers in its supply chain.	According to GRI 303, water usage includes: - water withdrawn - water consumed - water discharged

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
			Companies will need to define "key suppliers" and: **50%:** provide data against some of the above indicators **100%:** provide data against all of the above indicators
		1.1.4. The company discloses deforestation and conversion-free commodity volumes from its supply chain	**50%:** The company discloses the percentage of high-risk hard commodity volumes sourced that are compliant with the company's requirements or policies on deforestation and conversion. OR **25%:** The company discloses deforestation and conversion-free commodity volumes from at least one of its key high-risk hard commodities **50%:** The company discloses the percentage of high-risk soft commodity volumes sourced that are compliant with the company's requirements or policies on deforestation and conversion. OR **25%:** The company discloses deforestation and conversion-free commodity volumes from at least one of its key high-risk soft commodities High-risk commodities are identified with the SBTN's High Impact Commodities List. Relevant commodities for automotive supply chains include Copper, Iron, Lithium, Nickel, Bauxite/Aluminum, Zinc and Manganese (hard commodities), and Leather and Rubber (soft commodities).
	1.2. Target-setting and progress towards fossil free and environmentally sustainable supply chains	1.2.1. The company has set and disclosed a scope 3 SBT (must include reference to upstream/purchased goods & not only 'Well to Wheel')	**100%:** the company discloses a verified science-based scope three target that includes upstream/purchased goods, including 2050 and interim year target(s). **50%:** the company discloses a lifecycle target that includes upstream/purchased goods, including 2050 and interim year target(s) and/or does not indicate if it has been verified as science-based. **25%:** the company only discloses 2050 zero emissions target with no interim target and/or it does not specify upstream/purchased goods.

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		1.2.2. The company commits to having suppliers provide science-based targets for GHG emissions.	The following scores are absolute not cumulative. **100%:** the company requires all its tier 1 suppliers, and their suppliers to set science-based targets. They also require tier 2 suppliers to set science-based targets. **75%:** the company requires all its tier 1 suppliers set science-based targets. **50%:** the company commits to having at least 70% of its key suppliers by emissions setting science-based targets by 2025. **25%:** company commits to having suppliers setting science-based emissions targets, but does not provide a target date or target date is after 2025. **0%:** Company does not have a commitment.
		1.2.3. The company discloses the current percentage of suppliers providing science-based targets.	**25%:** they disclose the current percentage of tier 1 suppliers providing science-based targets. **25%:** they disclose the current percentage of tier 2 suppliers providing science-based targets. **25%:** additional points for over 50% of tier 1 suppliers providing science-based targets **25%:** additional points for all tier 1 suppliers providing science-based targets.
		1.2.4. The company requires all significant suppliers to set water reduction targets and disclose their water usage.	**50%:** the company requires tier 1 suppliers to set water reduction targets **50%:** the company requires tier 1 suppliers to disclose their water usage. According to GRI 303, water usage includes: - water withdrawn - water consumed - water discharged

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		1.2.5. The company has programs in place to monitor suppliers for compliance with GHG emissions targets and other environmental impacts.	**25%:** The company has a process that includes reducing GHGs and other environmental impacts, but lacks targets as a basis for compliance. or **50%**: The company has a process that includes reducing GHGs and other environmental impacts, and includes targets as a basis for compliance. plus **25%:** the company provides quantitative information of the number of suppliers audited and the tiers that are audited. **25%:** the company provides qualitative case studies of how they have engaged suppliers on their targets.
		1.2.6. The company commits to eliminate deforestation and the conversion of all natural ecosystems from their supply chains.	The following scores are absolute, not cumulative: **100%:** The company has time-bound targets to eliminate deforestation and the conversion of natural ecosystems from their supply chain. OR **100%:** The company has time-bound targets to eliminate sourcing of high-risk commodities from areas of High Carbon Stock (HCS) and High Conservation Value (HCV). **75%:** The company has time-bound targets to eliminate deforestation and conversion of natural ecosystems in the supply chain of at least one of its high-risk hard commodities, and at least one soft-commodity. OR **75%:** The company has time-bound targets to eliminate sourcing from areas of High Carbon Stock (HCS) and High Conservation Value (HCV) for at least one of its high-risk hard commodities, and at least one soft-commodity. **50%:** The company has time-bound targets to eliminate deforestation and conversion of natural ecosystems in the supply chain of at least one of its high-risk commodities. OR **50%:** The company has time-bound targets to eliminate sourcing from areas of High Carbon Stock (HCS) and High Conservation Value (HCV) for at least one of its high-risk commodities.

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
			25%: The company has a general commitment or policy to halt deforestation and the conversion of natural ecosystems in its supply chains, which extends beyond illegal deforestation or conversion.
	1.3. Use of supply chain levers to achieve fossil free and environmentally sustainable supply chains	1.3.1. The company incentivises suppliers to reduce GHG and other significant air emissions.	**50%:** the company specifies that sustainability and/or ESG are included as factors for choosing a preferred supplier. **25%:** the company specifies that GHG emissions are included in the tender and contracting process. **25%**: the company specifies that "other significant air emissions" targets are included in the tender and contracting process. As companies are unlikely to publish their contract information, references may be found in sustainability reports, procurement policies, etc.
		1.3.2. The company implements incentives and control systems to improve water management by suppliers	**20%:** The company's Supplier Code of Conduct and / or Responsible Sourcing Policy includes specific requirements for suppliers with regards to water management and conservation (e.g. having in place a water management plan). **40%:** The company implements purchase control systems to incentivize improved water management by (potential) new suppliers (e.g. water management is explicitly taken into account in the tender process and is a factor in selecting suppliers) **40%:** The company has put policies, systems and processes in place to manage risks and address impacts related to water pollution and consumption in its supply chain (e.g. the company risk assessment strategy explicitly addresses water management as a standalone issue, the company provides evidence of how they have engaged with, or suspended, noncompliant suppliers on water management, etc.).
		1.3.3. The company implements incentives and control systems to eliminate deforestation from its supply chain	**20%:** The company's Supplier Code of Conduct and / or Responsible Sourcing Policy includes specific requirements for suppliers with regards to deforestation and land conversion. **40%:** The company implements purchase control systems to incentivize compliance on deforestation and land conversion by (potential) new suppliers (e.g. deforestation is

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
			explicitly taken into account in the tender process and is a factor in choosing a preferred supplier) **40%:** The company has put policies, systems and processes in place to manage risks and address impacts of deforestation and land conversion in its supply chain (e.g. the company risk assessment strategy explicitly addresses deforestation and/or land use conversion as a standalone issue, the company provides evidence of how they have engaged with, or suspended, noncompliant suppliers on deforestation, etc.).
Fossil Free and Environmentally Sustainable Steel	**2.1. Disclosure of scope 3 GHG emissions due to steel supply chains**	2.1.1. The company discloses disaggregated GHG emissions for their steel supply chains.	The following scores are absolute, not cumulative: **100%:** The company discloses scope 3 GHG emissions for purchased goods and services, disaggregated for their steel supply chains **50%:** The company discloses a Life Cycle Assessment (LCA) for at least one electric vehicle model that includes disaggregated data on the embodied GHG emissions from the steel used in that vehicle.
	2.2. Target setting and progress towards fossil free and environmentally sustainable steel supply chains	2.2.1. The company has set targets for the use of fossil free and environmentally sustainable steel.	The scores below are not additive. They indicate specific thresholds for getting that percentage of points: **100%:** the company has a commitment to source 100% fossil free steel by 2050 and 50% fossil free steel by 2030. **80%:** the company has a commitment to source 100% Responsible Steel Level 4 certified steel by 2040 and 50% automotive steel that is ResponsibleSteel level 3 or 4 by 2030 **60%:** the company has set a target that is aligned with First Movers Coalition guidance of 10% "low-CO2" primary steel by 2030 AND/OR aligns with SteelZero Commitment to source 100% net zero steel by 2050, with an interim commitment of using 50% Lower Emission Steel by 2030 **40%:** the company has an emissions reduction target for steel that is aligned with IEA Heavy Industry Guidance (27% emissions reduction by 2030 and 95% by 2050) **20%:** the company has a commitment to net zero steel by 2050 and/or a 2030 emissions reduction target for steel that is below the IEA Heavy Industry Guidance
		2.2.2. The company publishes progress towards	**50%:** The company discloses the current percentage of low-C02 steel in their production cycle (definition of low-CO2 steel taken from SteelZero / ResponsibleSteel, specifically < 2 tons CO2e/ton for primary steel with 0% scrap through to < 0.35 tons CO2e/ton for secondary steel with 100%

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		their target by disclosing the current percentage of low-CO2 steel in their annual production cycle.	scrap). **50%:** the company discloses the current percentage of Responsible Steel certified steel in their supply chain. Note: depending on the level of certification, companies may score points under the first category. MODIFIER: Half points will be awarded if a company discloses information that meets either, or both, of the above criteria but only for some elements in its annual production cycle.
		2.2.3. The company has a target for the use of secondary/ scrap steel by 2030.	**100%:** the company discloses a target for the use of recycled steel that is aligned with IEA Guidance for Heavy Industry has recycling, re-use: scrap as share of input in steel production as 54% by 2030 **50%:** the company discloses a target for the use of recycled steel.
		2.2.4. The company publishes progress towards their target by disclosing the current percentage of recycled steel used in its annual production cycle.	**The following scores are absolute, not cumulative:** **100%:** the company discloses the percentage of recycled steel in their annual production cycle including volumes of both pre- and post-consumer steel. **75%:** the company discloses the percentage of recycled steel in their annual production cycle. **50%:** The company partially discloses the percentage of recycled steel for some elements within their annual production cycle. NB: Total recycled/scrap steel volume is sufficient if total steel volume is disclosed.
	2.3. Use of supply chain levers to achieve fossil free and environmentally sustainable steel supply chains	2.3.1. The company participates in multi-stakeholder procurement initiatives to collaborate with other buyers to incentivise investment in and production of fossil free steel at scale.	**50%:** the company is a member of SteelZero. **50%:** the company is a member of the First Movers Coalition's sector group on steel

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		2.3.2. The company participates in multi-stakeholder standard / certification initiatives to drive investment in and production of socially and environmentally sustainable steel at scale.	**25%:** the company is a member of ResponsibleSteel. **50%:** the company actively engages their steel suppliers regarding ResponsibleSteel certification. **25%:** the company has disclosed purchasing commitments for ResponsibleSteel certified steel. Note: 0.6 points modifier applied due to multistakeholder initiative assessment. See sheet 8.
		2.3.3. The company has entered into formal arrangements with suppliers to incentivise investment in and greater production of fossil free steel.	**50%:** the company states that it has entered into a formal arrangement with at least one steel supplier to invest in and scale-up production of low-C02 steel. **25%:** at least one purchase agreement signed by the company with a steel supplier for the provision of low-C02 steel is a binding contract for which timelines and scale of supply (e.g. volume of steel to be purchased per year) are publicly disclosed. **25%:** at least one purchase agreement signed by the company is for the provision of steel produced with new technologies for fossil-free steelmaking.
		2.3.4. The company integrates improved recyclability of steel into automobile design and manufacture.	**25%:** the company discloses that it is implementing a closed-loop process for steel (no reference to post-consumer scrap). **OR** **50%:** the company provides detail on a closed-loop process it is implementing for steel (must include reference to post-consumer scrap). **PLUS** **50%:** the company provides detail of how it uses automotive and/or component design to improve the recyclability of steel.
Fossil Free and Environmentally Sustainable Aluminium	**3.1. Disclosure of scope 3 GHG emissions due to aluminium**	3.1.1. The company discloses disaggregated GHG emissions for their aluminium supply chains.	The following scores are absolute, not cumulative: **100%:** The company discloses scope 3 GHG emissions for purchased goods and services, disaggregated for their aluminum supply chains **50%:** The company discloses a Life Cycle Assessment (LCA) for at least one electric vehicle model that includes disaggregated data on the embodied GHG emissions from the aluminum used in that vehicle.

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
	3.2. Target setting and progress towards fossil free and environmentally sustainable aluminum supply chains	3.2.1 The company has set targets for the use of fossil free and environmentally sustainable aluminium	The scores below are not additive. They indicate specific thresholds for getting that percentage of points: **100%:** The company has a commitment to source 100% fossil free Aluminium by 2050 and 50% fossil free Aluminium by 2030. **80%:** the company has set a target that is aligned with Mission Possible 1.5 scenario all primary aluminium being produced with low-carbon power by 2035 **60%:** the company has set a target that is aligned with First Movers Coalition guidance of 10% "low-CO2" primary aluminium by 2030 (definition of low-CO2 taken from First Movers Coalition, specifically < 3 tons CO2e/ton). **40%:** the company has an emissions reduction target for aluminum that is aligned with IEA Heavy Industry Guidance (27% emissions reduction by 2030 and 95% by 2050) **20%:** the company has a commitment to net zero aluminum by 2050 and/or a 2030 emissions reduction target for aluminum that is below the IEA Heavy Industry Guidance
		3.2.2. The company publishes progress towards their target by disclosing the current percentage of low-co2 aluminium in their annual production cycle	The following scores are absolute, not cumulative: **100%:** the company discloses the percentage of "low-CO2" aluminium in their supply chain (low-CO2 defined as either aluminum with a carbon footprint of less than 4 CO2e/t Al or aluminum that is produced with renewable electricity). **50%:** The company partially discloses the percentage of low-co2 aluminum for some elements within their annual production cycle.
		3.2.3. The company has a target to increase use of secondary/scrap aluminium by 2030.	These scores are not cumulative, they are thresholds for achieving a particular score. **100%:** the company discloses a target for use of secondary or scrap aluminium that is aligned with IEA Net Zero 42% secondary/scrap by 2030. **50%:** the company discloses a target for use of secondary or scrap aluminium that is less than IEA Net Zero 42% secondary/scrap by 2030.
		3.2.4. The company publishes progress towards their target by disclosing	**100%:** the company discloses the percentage of recycled aluminium in their annual production cycle including volumes of both pre- and post-consumer aluminium. **75%:** the company discloses the percentage of recycled aluminium in their annual production cycle.

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		the current percentage of recycled aluminium used in its annual production cycle	**50%:** the company partially discloses the percentage of recycled aluminium for some elements with their annual production cycle. NB: Total recycled/scrap steel volume is sufficient if total steel volume is disclosed.
	3.3. Use of supply chain levers to achieve fossil free and environmentally sustainable aluminium supply chains	3.3.1. The company participates in multi-stakeholder procurement initiatives to collaborate with other buyers to incentivise investment in and production of fossil free aluminium at scale.	**100%:** the company is a member of First Movers Coalition sector group on aluminum
		3.3.2. The company participates in multi-stakeholder standard / certification initiatives to drive investment in and production of socially and environmentally sustainable aluminium	**25%:** the company is a member of the Aluminum Stewardship Initiative (ASI). **50%:** the company actively engages their aluminum suppliers regarding ASI certification. **25%:** the company has disclosed purchasing commitments for ASI certified aluminum. Note: 0.4 points modifier applied due to multistakeholder initiative assessment. See sheet 8.
		3.3.3. The company has entered into formal arrangements with suppliers to incentivise investment in and greater production of fossil free aluminium	**50%:** the company states that it has entered into a formal arrangement with at least one aluminum supplier to invest in and scale-up production of low-C02 aluminium. **25%:** at least one purchase agreement signed by the company with a aluminum supplier for the provision of low-C02 aluminium is a binding contract for which timelines and scale of supply (e.g. volume of aluminium to be purchased per year) are publicly disclosed. **25%:** at least one purchase agreement signed by the company is for the provision of aluminum produced with new technologies for fossil-free aluminum production.
		3.3.4. The company integrates improved recyclability of aluminium	**25%:** the company discloses that it is implementing a closed-loop process for aluminum (no reference to post-consumer scrap). **OR**

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		into automobile design and manufacturing process.	**50%:** the company provides detail on a closed-loop process it is implementing for aluminum (must include reference to post-consumer scrap). **PLUS** **50%:** the company provides detail of how it uses automotive and/or component design to improve the recyclability of aluminum. Note: this could include the development of new alloys.
Fossil Free and Environmentally Sustainable Batteries	**4.1. Disclosure of scope 3 GHG emissions due to battery supply chains**	4.1.1. The company discloses disaggregated scope 3 emissions for their battery supply chains, including a total for the whole battery and disaggregated emissions for key battery minerals (cathode / anode active materials)	The following scores are absolute, not cumulative: **100%:** the company provides scope 3 GHG emissions their battery supply chain, disaggregated for cell production / manufacturing and key cathode / anode active materials (i.e. individual minerals) used in the battery **75%:** the company provides scope 3 GHG emissions their battery supply chain, disaggregated for cell production / manufacturing and cathode and anode active materials (as a total) **50%:** The company discloses scope 3 GHG emissions for purchased goods and services, disaggregated for their battery supply chain. **25%:** The company discloses a Life Cycle Assessment (LCA) for at least one electric vehicle model that includes disaggregated data on the embodied GHG emissions from the battery used in that vehicle.
	4.2. Target setting and progress towards fossil free and environmentally sustainable battery supply chains	4.2.1. The company has set a target to produce fossil free and environmentally sustainable batteries.	The scores below are not additive. They indicate specific thresholds for getting that percentage of points: **100%:** the company has a commitment to produce 100% fossil free batteries by 2050 and 50% fossil free batteries by 2030. **50%:** Alignment with IEA Heavy Industry Guidance (27% emissions reduction by 2030 and 95% by 2050) **25%:** Commitment below IEA Heavy Industry Guidance.
		4.2.2. The company has set a target to reduce reliance on energy intensive minerals in battery	**25%:** statement of intent to reduce high intensity minerals in battery production (which may include a commitment to producing smaller batteries). **25%:** the company has set a disaggregated target for the reduction of primary sources of **nickel** in their supply chain.

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		production.	**25%:** the company has set a disaggregated target for the reduction of primary sources of **lithium** in their supply chain. **25%:** the company has set a disaggregated target for the reduction of primary sources of **cobalt** in their supply chain. Note: The final three scoring criteria can also be met by setting targets for increasing the % recycled nickel/lithium/cobalt used in new batteries.
		4.2.3. The company has set collection and/or recovery targets for high intensity battery metals.	**100%:** the company has a medium term target of 95% recovery for cobalt & nickel with 70% lithium by 2030 (equal to that proposed by the EU) and a short term target of 90% recovery rate for cobalt & nickel and 35% lithium by 2025. **25%:** the company has set collection and/or recovery targets for high intensity battery metals that are lower and/or not disaggregated.
	4.3. Use of supply chain levers to achieve fossil free and environmentally sustainable battery supply chains	4.3.1. The company requires all battery manufacturers to use 100% renewable electricity	**100%:** the company discloses a requirement that all battery manufacturers are required to use 100% renewable electricity. **50%:** the company discloses agreements/requirements for 100% renewable energy with some battery manufacturers **25%:** the company discloses agreements/requirements for reduced emissions with some battery manufacturers or **50%:** the company discloses a requirement that all battery manufacturers are required to be "carbon neutral", "net zero" or similar but does not define how they are using the term.
		4.3.3. Company enters into formal agreements (inclusive of joint ventures and investments) with extractives and other value chain companies to reduce the environmental impact	**25%:** the company has entered into contractual agreements for the purchase of low CO2 lithium. These agreements may include purchasing commitments, and/or other forms of investment, including R&D. **25%:** the company has entered into contractual agreements to reduce other environmental impacts of lithium sourcing, including by incorporating environmental conditions into contracts with suppliers. **25%:** the company discloses the specific areas or requirements that such environmental

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		of lithium sourcing.	conditions included in contracts cover. This may include requirements regarding water usage, biodiversity, tailings management, etc. but the company must explain how these conditions address specific risks associated with lithum sourcing. **25%:** The company engages in multi-stakeholder initiative(s) to reduce impacts on sourcing (e.g. emissions, water, biodiversity etc.). Any such initiatives must be specific to lithium mining / refining.
		4.3.4. Company enters into formal agreements (inclusive of joint ventures and investments) with extractives and other value chain companies to reduce the environmental impact of nickel sourcing.	**25%:** the company has entered into contractual agreements for the purchase of low CO2 nickel. These agreements may include purchasing commitments, and/or other forms of investment, including R&D. **25%:** the company has entered into contractual agreements to reduce other environmental impacts of nickel sourcing, including by incorporating environmental conditions in contracts with suppliers. **25%:** the company discloses the specific areas or requirements that such environmental conditions included in contracts cover. This may include requirements regarding water usage, biodiversity, tailings management, etc. but the company must explain how these conditions address specific risks associated with lithum sourcing. **25%:** The company engages in multi-stakeholder initiative(s) to reduce impacts on sourcing (e.g. emissions, water, biodiversity etc.). Any such initiatives must be specific to nickel mining / refining.
		4.3.5. Company enters into formal agreements (inclusive of joint ventures and investments) with extractives and other value chain companies to reduce the environmental impact of cobalt sourcing.	**25%:** the company has entered into contractual agreements for the purchase of low CO2 cobalt. These agreements may include purchasing commitments, and/or other forms of investment, including R&D. **25%:** the company has entered into contractual agreements to reduce other environmental impacts of cobalt sourcing, including by incorporating environmental conditions into contracts with suppliers **25%:** the company discloses the specific areas or requirements that the environmental conditions included in contracts cover. This may include requirements regarding water usage, biodiversity, tailings management, etc. **25%:** The company engages in multi-stakeholder initiative(s) to reduce impacts on sourcing (e.g. emissions, water, biodiversity etc.)

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
		4.3.6. The company participates in multi-stakeholder initiatives to collaborate with other buyers to incentivise investment in and production of fossil free and environmentally sustainable batteries at scale.	**100%:** the company is a member of the Global Battery Alliance.
		4.3.7. The company invests in the development of new battery chemistries & technologies that reduce their carbon and ecological footprint by reducing the use of critical / emissions-intensive minerals (such as cobalt and nickel) and toxic materials (such as persistent organic pollutants (POPs))	**25%:** the company provides examples of R&D that they are conducting to develop new battery chemistries / technologies that reduce the use of minerals and toxic pollutants. R&D could be done in house or via formal partnerships with battery manufacturers. **25%:** the company provides examples of the systems and processes it is developing to scale this R&D to commercial production. **50%:** the company has brought to market electric vehicles that utilize battery chemistries / technologies that meet the above criteria.
		4.3.8. The company invests in the development of new battery designs, technologies, systems and/or processes to maximize the recyclability of EV batteries	**25%:** the company provides examples of R&D that they are conducting in-house or in partnership with value chain partners to improve the safe and effective recycling of batteries (for example direct recycling). **25%:** the company provides examples of the systems and processes it is developing to scale this R&D to commercial production. **50%:** the company provides examples of battery recycling processes it has developed in-house or in partnership with value chain partners that have achieved recovery rates of at

Theme	Indicator Category	Indicators	Score Attribution (Scores are cumulative unless otherwise specified)
			least 95% cobalt/nickel & 70% lithium. Note disclosed recovery rates achieved at the pilot / R&D stage are valid for points here. Disclosure of recycling rates achieved at commercial scale is evaluated in indicator 4.3.10.
		4.3.9. The company has established processes for battery repair, reuse and repurposing in order to maximize the usable lifespan of its EV batteries.	**25%:** the company indicates that there are processes in place (such as inspection, design, access to battery information, collection and transportation, etc.) for **repairing, reusing and/or repurposing** batteries. **25%:** the company provides qualitative information about processes (including the establishment and operation of collection points) to increase the % of batteries being collected for reuse, repurposing and/or recycling **50%**: the company provides quantitative information about the collection of batteries (i.e total numbers and / or percentages of batteries collected)
		4.3.10. The company has established closed-loop processes in order to maximize the recycling of end-of-life EV batteries	**25%:** the company indicates that there is a closed-loop process in place for **recycling** batteries (that involves recovering raw materials). **25%:** the company provides detail on the battery recycling process / method(s) used and discloses that they do not use incineration / high-temperature combustion processes. **50%:** the company provides quantitative information about the % of batteries currently being recycled (at commercial scale).

Human rights and responsible sourcing indicators

Theme	Indicator Category	Indicators	Score Attribution **Note: scores are cumulative unless otherwise specified.**
1. Responsible Sourcing and Human Rights Due Diligence: General Indicators	**1.1. Commit**	1.1.1. The company has a public commitment to human rights.	**100%:** the company has a standalone human rights policy or other formal commitment that it will respect the Universal Declaration of Human Rights and the International Bill of Rights, or commit to the UN Guiding Principles on Business and Human Rights (UNGPs).
		1.1.2. The company extends their human rights commitments to their Tier 1 suppliers and beyond.	**50%:** the company has a Supplier Code of Conduct (SCoC) or equivalent that is easily accessible from their website. The SCoC explicitly references the company's human rights policy or states that suppliers are required to respect and/or uphold all human rights. **OR** **25%:** the company has a Supplier Code of Conduct (SCoC) or equivalent that is easily accessible from their website. The SCoC explicitly references human rights but only requires suppliers to respect a limited selection of human rights listed by the company. **PLUS** **50%:** the company "requires" or otherwise mandates their suppliers to apply the requirements of the SCoC to their own suppliers. **OR** **25%:** the company "expects" or "encourages" their suppliers to apply these standards to their own suppliers.
	1.2. Identify	1.2.1. The company has a process in place to assess salient human rights risks in their supply chain.	**25%:** the company states that there is a process in place for identifying salient human rights risks. **25%:** the company explains its methodology for identifying risks (e.g. desktop review) and prioritising them. **25%:** the company specifies how often they repeat this risk assessment. **25%:** the company specifies if and how they engage with external human rights experts. Note: this engagement must be specific to the company and its supply chains to be scored

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
			here. Simply participating in a multistakeholder initiative that includes human rights experts is not sufficient, unless the company has articulated how it applies the information gained via these initiatives to their own supply chain. Finally, effective risk identification involves consultation with potentially impacted stakeholders. We have included additional indicators under each section below to reflect this.
		1.2.2. The company discloses the salient human rights risks in their supply chain and where they are located.	The following scores are absolute not cumulative: **25%:** the company names the generic, salient risks in their supply chain (e.g. conflict minerals, forced labour, water security, etc.). **50%:** the company discloses where in their supply chain these risks occur, by reference to geographical location, material type, and/or tier. Note: greater level of specificity on all these elements is expected under indicator 2.2.2 on transition minerals risks. **100%:** the company provides additional description of these risks. Note: to score here, the description must be based on findings from the company's due diligence measures, and not constitute a generic description.
		1.2.3. The company has a process for identifying high risk supplier categories in their supply chain.	**50%:** the company outlines the process for how they identify high risk supplier categories in Tier 1 in order to prioritise differential assurance actions. This may include taking into account the leverage that the automotive company has to affect change (e.g. their annual spend, whether they are a primary or majority buyer, etc.), the geography of suppliers, and the severity of the risks that have been identified. **25%:** the company outlines how this process extends beyond tier 1. Note: this does not necessarily have to involve a process that extends to the point of extraction, as this is covered below in the transition minerals section. **25%:** the company outlines the types of differential assurance actions it uses to manage

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
			those risks. Note: to score here, it must do more than indicate that there are differential assurance actions, it must specify what those are.
	1.3. Prevent, Mitigate and Account	1.3.1. The company assesses the risk of adverse human rights impacts with suppliers prior to entering into any contracts.	**25%:** the company outlines the process to assess risks at individual suppliers. This may include supplier questionnaires, audits, etc. Note: it is not enough for companies to state that they assess suppliers prior to entering into any contracts, they must outline how this assessment occurs. Secondly, a requirement that suppliers sign a statement confirming their compliance is not sufficient risk assessment. Similarly, companies must outline how they verify information provided in supplier self-assessment questionnaires. **25%:** the company provides quantitative information of the number of potential new suppliers assessed, and the tier that they belong to. **25%:** the company provides quantitative information on the number of potential new suppliers where non-conformances were found. Note: the action taken to respond to these findings is addressed by indicators below. **25%:** this process extends beyond tier 1 to tier 2 at a minimum.
		1.3.2. The company discloses how it monitors suppliers for compliance with the SCoC during the contract period.	**20%:** the company indicate that there is a process in place to monitor compliance. **20%:** the company provides details on the process (e.g. tools, technologies and sources of information they use, auditing practices, how they select suppliers to audit, how often these audits take place, etc). **20%:** the company provides quantitative information on the number of suppliers assessed for compliance and the tiers that are assessed. Note: this indicator refers to quantitative assessment tools (e.g. surveys). **20%:** the company provides quantitative information of the number of suppliers audited and the tiers that are audited. Note: this indicator refers to on-site audits.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
			20%: the company provides quantitative information on non-conformances found. Note: the action taken to respond to these findings is addressed by indicators below. Notes: Quantitative information on assessments and audits can be provided as a percentage of suppliers assessed / audited or as a number. If the company provides a number of suppliers assessed / audited, they must also provide the total number of suppliers. For due diligence to be effective, it must involve potentially impacted stakeholders and/or their representatives. This is scored under each of the sections listed below.
		1.3.3. The company reports on how it is prepared to respond if it finds non-conformances with the SCoC	This indicator relates to the contractual relationship between suppliers and the auto-manufacturer. It applies to all tiers to the point of extraction where there is, or there might be, a direct relationship between the auto manufacturer and the supplier. **33%:** the company discloses that suppliers will be subject to corrective action plans if non-conformances are identified. **33%:** the company discloses specific actions it will take in response to adverse human rights impacts and/or other human rights related contractual breaches by suppliers (for example, stop-work notices, warning letters, supplementary training, policy revision and termination of the contract). **33%:** the company discloses the number of corrective action plans or equivalent issued during the reporting year. Note: this is distinct from providing remedy to impacted stakeholders.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
		1.3.4. The company discloses how they verify the implementation of corrective actions.	The following scores are absolute, not cumulative: **100%:** the company discloses the types of actions that it undertakes across its whole supply chain to verify whether corrective actions have occurred. **25%:** the company only a subset of the types of actions that it undertakes to verify whether correction actions have occured (e.g. audits) and/or only discloses the types of actions that it undertakes for certain supply chains and/or materials to verify whether corrective actions have occurred. Note: successful corrective measures involve impacted stakeholders and/or their representatives. Their involvement is scored under each section below.
	1.4. Remedy	1.4.1. The company has put in place a formal mechanism whereby workers, suppliers, suppliers' workers (in any tier) and other external stakeholders can raise grievances regarding adverse human rights impacts in their supply chain to an impartial entity.	**10%:** if the company only has an in-house mechanism **20%:** the company has put in place an independent, formal mechanism to report a grievance to an impartial entity regarding human rights in the company's supply chains. **20%:** The mechanism is available to its workers, suppliers, suppliers' workers (in any tier) and other external stakeholders (e.g. whistleblower hotline). **50%:** the company communicates how the existence of the mechanism is communicated to its suppliers' workers and other impacted stakeholders. Note: simply posting it on the website is not enough. The involvement of impacted stakeholders and their legitimate representatives (e.g. workers, indigenous communities, etc.) in the design, review, operation and ongoing improvement of grievance mechanisms is central to their efficacy. As such, additional indicators have been included under each focus area regarding the specific integration of feedback from different stakeholder groups.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
		1.4.2. The company discloses data about the practical operation of their grievance mechanism, such as the number of grievances filed, addressed, and resolved, their type, severity and outcome.	**25%:** The company provides quantitative information about the total number of grievances raised during the reporting year. **50%:** The company provides disaggregated information about the total number of supply chain grievances raised, with detail as to their type, severity and tier **25%:** the company provides information about the number of supply chain grievances resolved. The indicator below seeks greater detail as to the concrete measures of reparation offered.
		1.4.3. The company has put in place a remedy process.	**50%:** the company discloses the process for determining remedy. This should indicate in general terms: - **25%:** how they investigate an issue that is raised and escalate the issue within the company - **25%:** how they determine appropriate remedy **50%:** the company discloses information on the the measures of reparation for human rights abuses provided through its remedy process: - **25%:** The company discloses information about the number of confirmed human rights grievances in its supply chain that resulted in measures of reparation to those affected, or in a request for suppliers to provide reparation. - **25%:** The company provides one or more qualitative case studies to illustrate reparations in action (where there have been no cases resulting in measures of reparation that year, case studies from previous years to illustrate the process will suffice). Note: this information can be anonymised, to protect the identity of those involved.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
2. Responsible Sourcing of Transition Minerals	**2.1. Commit**	2.1.1. The company has a commitment to responsible metals and minerals sourcing.	The following scores are not cumulative, they are absolute: **100%:** the company has a standalone responsible minerals sourcing policy or their human rights policy includes a section on the responsible sourcing of minerals and metals that applies to all minerals and metals. **75%:** the company has a standalone responsible minerals sourcing policy or their human rights policy includes a section on the responsible sourcing of minerals and metals that goes beyond "conflict minerals" to include some other minerals or metals (e.g. includes cobalt). **50%:** the company has a standalone responsible minerals sourcing policy or their human rights policy includes a commitment to the responsible sourcing of "conflict minerals" only.
		2.1.2. The company requires its suppliers to undertake due diligence in accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas (CAHRAs)	**50%: Implementation of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRAs:** - **50%:** the SCoC requires suppliers to undertake due diligence in accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRAs in relation to all salient metals and minerals from anywhere. OR -**25%:** the SCoC requires suppliers to undertake due diligence in accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRAs in relation to all metals and minerals from CAHRAs. OR - **10%:** the SCoC requires suppliers to undertake due diligence in accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRAs in relation to tin, tungsten, tantalum, and gold (3TGs) from CAHRAs. **50%: Implementation of Due Diligence:**

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
			- **25%:** the company requires suppliers to have a due diligence process in place to identify raw materials sources, specifically, conducting due diligence on Smelter or Refiners (SoRs) in their supply chain (this may include the use of third party certification, etc). - **25%:** the company requires suppliers to disclose smelter/refiner information.
	2.2. Identify	2.2.1. The company has a process in place to map transition minerals (e.g. nickel, lithium, cobalt, copper, manganese, zinc) in their supply chains to the point of extraction.	**25%**: the company discloses that they have a process in place to map transition minerals supply chains back to the point of extraction. **25%:** the company provides detail on the processes that they have put in place to map their transition minerals supply chains to the point of extraction. **25%:** the company discloses the portion of the transition minerals supply chain that they have mapped to the point of extraction. Note: this could be by specifying which supply chains they have mapped, a percentage of total suppliers mapped, etc. **25%:** the company discloses concrete information from their mapping (e.g. primary country of origin). MODIFIER: In order to achieve full credit the mapping must cover at least the three focus minerals that are of significant industry and stakeholder focus given outsized volume and/or impacts: cobalt, nickel & lithium. Companies that map two of fewer minerals will receive half scores.
		2.2.2. The company discloses transition minerals risks in their supply chain and where they are located.	**50%:** the company describes the risks of sourcing from CAHRAs in their supply chains, specifying the minerals and countries of origin (potentially) involved. **50%:** the company discloses broader risks from transition minerals in their supply chains and where these are located, by reference to material type, tier, and geographical location.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
		2.2.3. The company publishes a list of smelters or refiners (SoR) in its supply chain	**100%:** the company publishes a complete list of smelters/refiners in their supply chain for at least 3TG minerals. **50%:** the company publishes a partial list of smelters/refiners in their supply chain. Note: to score here, the company must disclose a significant number of SoRs.
		2.2.4. The company discloses which of the SoRs in its supply chain are conformant with the Responsible Minerals Initiative (RMI).	**100%:** the company discloses information on RMI conformance for all of the SoRs identified in their supply chain. **50%:** the company only discloses information on RMI conformance for some of the SoRs in its supply chain or only discloses information on RMI conformance on an aggregate / percentage basis
	2.3. Prevent, Mitigate and Account	2.3.1. The company discloses how it monitors suppliers for compliance with the transition minerals due diligence requirements.	See general HR indicators
		2.3.2. The company formally engages SoRs to build their capacity to conduct due diligence of their own supply chains.	**25%:** the company discloses that it participates in industry wide schemes that engage with smelters/refiners on their compliance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRAs. **25%:** the company specifies that it engages directly with SoRs to build their capacity to conduct due diligence. **50%:** the company provides detail on how it engages with SoRs to build their capacity

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
		2.3.3. The company formally engages extractives companies and includes human rights clauses in any contractual arrangements.	**100%:** the company discloses that it has entered into direct agreements with extractives companies for the sourcing of transition minerals and that these contracts include human rights clauses.
		2.3.4. The company is a member of IRMA and actively engages their suppliers with regards to IRMA mining audits. Note: IRMA does not excuse companies from doing their own supply chain due diligence	**25%:** The company is a member of IRMA. **50%:** The company actively engages their suppliers regarding suppliers' certification by IRMA. **25%:** the company discloses a commitment to source a percentage of metals from IRMA certified mines by a certain date.
		2.3.5. The company reports on how it is prepared to respond if it finds non-conformances associated with its responsible minerals sourcing policy occurring in its operations or supply chains.	See general HR indicators
		2.3.6. The company discloses how they verify the implementation of corrective actions.	See general HR indicators

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
	2.4. Remedy	2.4.1. The company has put in place a formal mechanism whereby grievances can be raised about SoR facilities.	**50%:** the company has put in place an independent, formal grievance mechanism that applies specifically to SoRs. This mechanism may be run in conjunction with other auto manufacturers. Note: this is in addition to any generic grievance mechanism that can be accessed by external stakeholders. **50%:** the company discloses how they review and investigate grievances raised through this mechanism.
3. Indigenous Peoples' Rights and Free Prior and Informed Consent (FPIC)	**3.1. Commit**	3.1.1. The company explicitly commits to respecting the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).	**100%:** the company has an explicit commitment to the UNDRIP in their human rights policy and/or in a standalone Indigenous Peoples' rights policy.
		3.1.2. The company has a public commitment to FPIC.	**100%:** the company has an explicit commitment to FPIC in their human rights policy and/or in a standalone Indigenous Peoples' rights policy. Note: to score full points, the commitment must be unqualified. **25%:** the company has an explicit commitment to FPIC in their human rights policy and/or in a standalone Indigenous Peoples' rights policy, but it is qualified (e.g. it allows for only consultation in practice, it is expected only in certain circumstances, it applies only to certain parts of the supply chain, etc.)
		3.1.3. The company extends their commitment on Indigenous Peoples' rights to their Tier 1 suppliers	The SCoC or responsible sourcing policy explicitly references the UNDRIP (**50%)** and FPIC (**50%**). MODIFIER: Points will be halved if the policy is qualified.
		3.1.4. These commitments are translated into the languages used by the impacted Indigenous Peoples.	**50%:** the company requires suppliers to translate these commitments to the languages of the impacted Indigenous Peoples. **50%:** the company requires that these translations are actively made available to the impacted Indigenous Peoples.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
	3.2. Identify	3.2.1. The company has a process in place to assess risks to Indigenous Peoples' rights in their supply chain to the point of extraction.	**25%:** the company discloses that their process for mapping their supply chains to the point of extraction (row 16) explicitly includes FPIC and other indigenous rights issues. **25%**: the company discloses where in the supply chain these risks occur. **25%:** the company discloses how they use this mapping to identify high risk suppliers. **25%:** the company provides case studies of this process in practice
	3.3. Prevent, Mitigate and Account	3.3.1. The company provides additional discussion regarding the practices by which suppliers must obtain FPIC	**100%:** the company discloses a process. This process must explicitly specify that any FPIC process must reach and engage impacted Indigenous Peoples. **25%:** the company states a process and/or expectation but it is limited in its application.
		3.3.2. The company is a member of a multi-stakeholder group (e.g. IRMA) that includes the participation of Indigenous Peoples to ensure respect of Indigenous Peoples' rights at the point of extraction.	Refer to Responsible Sourcing of Transition Minerals indicators.
		3.3.3. The company has a formal process in place to engage critical upstream suppliers on FPIC (e.g. extractives companies)	This score relates to direct engagement by the company with extractives companies. It is in addition to their membership of IRMA. **25%:** the company formally engages significant suppliers regarding FPIC. **25%:** the company states that they formally review company documents (e.g. meeting minutes) to ensure that Indigenous Peoples' FPIC has been provided.

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
			50%: the company engages directly with representatives of Indigenous Peoples affected by mining operations to review that regular engagement and consultation take place, community needs are responded to, and there continues to be FPIC.
		3.3.4. The company reports on how it is prepared to respond if it finds FPIC breaches in its supply chain.	The indicators in HR general provide a baseline for this. In addition: **100%:** the company must specify that cutting off sourcing from a particular upstream supplier should only occur if this is sought by the affected indigenous community - it should not be solely determined by the auto manufacturer.
	3.4. Remedy	3.4.1. The company's grievance mechanism has a process for investigating and remedying breaches of FPIC that includes a formal role for impacted Indigenous Peoples.	Grievances and remedy are part of FPIC considered as a process not a point in time. **50%:** the company specifies that the process must reach and engage impacted Indigenous Peoples, not just that there is a process for complaints to be raised with remedy determined externally by the automanufacturer. **50%:** the company provides case studies of FPIC-compliant remedy instances in their supply chain

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
4. Respect for Workers' Rights	**4.1. Commit**	4.1.1. The company has a commitment to workers' rights	**25%:** The company's human rights policy (or similar) includes a specific commitment to the ILO Declaration on Fundamental Principles and Rights at Work and/or the ILO Fundamental Conventions. **OR** **50%:** The company identifies and commits to respecting each of the five Fundamental Principles and Rights at Work as established in the ILO Declaration (companies who do not make explicit and unqualified commitments to all five ILO principles will not be scored): 1. freedom of association and the effective recognition of the right to collective bargaining; 2. the elimination of all forms of forced or compulsory labour; 3. the effective abolition of child labour; 4. the elimination of discrimination in respect of employment and occupation; and 5. a safe and healthy working environment. **PLUS** **25%:** the company has a commitment to a living wage in their human rights policy or in another formal policy document. **25%:** the company outlines how it calculates a living wage.
		4.1.2. The company extends their workers' rights commitments to their Tier 1 suppliers and beyond. Note: only the specific worker rights commitments are evaluated here. Whether or not these commitments	**25%:** The SCoC includes a specific commitment to the ILO Declaration on Fundamental Principles and Rights at work and/or the ILO Fundamental Conventions. **OR** **50%:** The SCoC includes specific requirements on each of the five Fundamental Principles and Rights at Work as established in the ILO Declaration (companies whose SCoCs do not include explicit and unqualified requirements on all five ILO principles will not be scored): 1. freedom of association and the effective recognition of the right to collective bargaining; 2. the elimination of all forms of forced or compulsory labour;

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
		are extended beyond tier 1 suppliers is evaluated in the "General" human rights section.	3. the effective abolition of child labour; 4. the elimination of discrimination in respect of employment and occupation; and 5. a safe and healthy working environment. **PLUS** **25%:** the SCoC requires suppliers to pay a living wage. **25%:** the SCoC prohibits the payment of recruitment fees.
	4.2. Identify	4.2.1. The company consults trade unions and/or workers' representatives in their assessment of salient workers' rights risks in their supply chain.	Generic supply chain indicators provide a baseline score for this. To get additional points here, companies must specify that they consult with labour unions and/or workers' representatives regarding salient workers' rights in the supply chain. This must expressly include labour unions and/or workers' representatives in the supply chain and/or global union federations (GUFs) Note: workers' representatives are not a substitute for trade unions where trade unions are allowed to operate and not limited in their activities.
		4.2.2. The company discloses the salient workers rights risks in their supply chain and where they are located.	**100%:** the company's saliency assessment explicitly identifies workers' rights risks for at least one material / supply chain and the location/s.
	4.3. Prevent, Mitigate and Account	4.3.1. The company actively collaborates with workers and the representative organisation(s) of workers' own choosing to promote respect for workers' rights in its supply chain.	**25%:** the company has a collective agreement with the relevant trade union in the headquartered country. **25%:** the company has a global framework agreement with IndustriALL for neutrality across all its operations. **25%**: the company describes the formal mechanisms it has put in place to consult trade

Theme	Indicator Category	Indicators	Score Attribution Note: scores are cumulative unless otherwise specified.
			unions and/or workers' representatives on the company's workers' rights principles and/or policies. **25%:** IndustriAll was actively involved in the formulation of the company's workers' rights principles and/or policies.
		4.3.2. The company reports on how it is prepared to respond if it finds non-conformances associated with its workers' rights policy occurring in its operations or supply chains.	Refer to general HR indicators.
		4.3.3. The company works with the relevant trade union and/or worker representative organisation to verify the implementation of corrective actions pertaining to workers' rights.	**100%:** the company specifies that it works with the relevant trade union and/or workers representatives to verify implementation of correction actions.
	4.4. Remedy	4.4.1 Workers and the representative organisations of workers' own choosing are formally included in the remedy process.	**100%:** the company specifies that trade unions are formally engaged in any remedy process.

Appendix 2: Weighting methodology

Indicator category	% weighting	Normalized weighting
Fossil free and environmentally sustainable		
Disclose	100%	1.0
Target setting & progress	150%	1.5
Supply chain levers	200%	2.0
Human rights and responsible sourcing		
Commit	100%	1.0
Identify	150%	1.5
Prevent, Mitigate & Account	200%	2.0
Remedy	200%	2.0

Note: Automakers' total scores across both categories were calculated as averages of the two percentages scored for each one

Appendix 3: Assessment of Third Party Auditing and Accreditation Schemes

Objective

This assessment complements the Leaderboard by serving as a mechanism to assess the robustness of the different third-party audit/certification schemes, which are being used by companies to perform their human rights and environmental due diligence obligations within the automotive supply chain. The context of developing the assessment method was the recognition of the inherent limitations of such schemes and the unsuitability for schemes to be understood as a basis for legal compliance. The methodology sets out a number of core principles and minimum expectations relating to the extent to which an industry standard can be considered robust. These include an assessment of the governance of the standard, the veracity of the certification process where one exists, the role of impacted rights holders in the process as well as expectations relating to the content of the standard itself. Each scheme has then been assessed against these criteria and the results of this assessment have been used to develop a point modifier to the corresponding indicators that referenced these schemes, awarding more points to more robust schemes.

The results of the assessment can be found in sheet 8 of the Leaderboard spreadsheet.

Criteria

The following table outlines the criteria for making the assessment of the relevant initiatives:

1. Governance - multi-stakeholder governance and civil society co-creation
Full Credit - 2 points ● Equal governance and involvement of rights-holders and civil society: Affected rights-holders, their representatives and, or civil society organizations are guaranteed 50% representation and decision-making power overall. ● Affected rights-holders, their representatives and/or civil society organisations maintain equal decision-making power with industry regarding the implementation of the standard. ● Evidence of structured stakeholder engagement in the development of the standard.
Partial Credit - 1 point
● Multistakeholder governance where civil society / rights-holders representation is less than 50% overall. ● Evidence of structured stakeholder engagement in the development of the standard.
Insufficient - 0 points
● Participation by industry only without a formal process of stakeholder engagement. ● A formal stakeholder engagement process does exist, but includes no mandatory or binding governance mechanism.

2. Independent Audits & Accreditation, with Rights-Holder Participation
Full Credit - 1 point
● The scheme mandates third party audit of practices, including site-level verification. ● The standard requires that the audit process includes participation of impacted rights-holders, ideally publishing advance notice of audits taking place.
Partial Credit - 0.5 points

● The scheme mandates third party audit of practices, including site-level verification ● Unclear if certification requires participation of affected rights-holders.
Insufficient - 0 points
● The certification allows for self-assessment against the standard and / or third party assessment that does not include site-level verification

3. Transparency of audit findings
Full Credit - 1 point
● The scheme requires the full results of audits, information on the audit processes and findings of noncompliance to be made readily available, at the very least to impacted rights-holders and other stakeholders (and publishes how engagement took place and details which stakeholder groups were engaged).
Partial Credit - 0.5 points
● The scheme only requires partial disclosure or a summary of audit findings to be made public, indicating the company's performance against key criteria but without further explanation.
Insufficient - 0 points
● The scheme only publishes the overall result of the audit / accreditation process, without any explanation or clarity around which criteria was assessed and the company's performance against the criteria. ● The scheme has no requirements with regards to transparency of audit results.

4. Corrective Action Plans (CAP)
Full Credit - 1 point
● The certification scheme standard for CAPs requires rights-holders to be involved in the development, implementation and monitoring of the plans ● The standard requires the results of all CAPs to be disclosed publicly, along with a description of the non-conformances needing to be addressed within an associated time-frame.
Partial Credit - 0.5 points
● The standard requires the results of all CAPs to be disclosed publicly, along with a description of the non-conformances needing to be addressed within an associated time-frame
Insufficient - 0 points
● No public disclosure relating to CAPs necessary to achieve certification. ● No assessment of whether CAPs have been implemented.

5. Grievance mechanism
Full Credit - 1 point
● The grievance mechanism is independently facilitated ● The scheme outlines how grievance mechanism is accessible (details measures taken to ensure it is known by stakeholders, appropriate translation and provision of assistance where necessary) ● The scheme ensures aggrieved parties have access to information, advice and expertise ● Disclosure is provided relating to grievances received as well as remedial action taken in response
Partial Credit - 0.5 points

● The grievance mechanism is internally facilitated ● The scheme provides disclosure relating to recent grievances and the remedial action taken in response.
Insufficient - 0 points
● There is no functioning grievance mechanism

6. ISEAL Compliant
● ISEAL's Codes of Good Practice provide a globally recognised framework, defining practices for sustainability initiatives and their accreditation schemes. The ISEAL Standard-setting Code defines how a standard should be developed, structured and improved over time. The Code addresses multi-stakeholder consultation and decision-making, and ensures the standard contains clear requirements that can be measured and assessed. See here: https://www.isealalliance.org/defining-credible-practice/iseal-codes-good-practice
Full Credit - 1 point
● Initiative is ISEAL code compliant
Partial Credit - 0.5 points
● Initiative is an ISEAL community member
Insufficient - 0 points
● Initiative is neither ISEAL code complaint or a community member

7. Credible standard criteria
The initiative and associated accreditation scheme, where relevant, are aligned with, as a minimum, the following:

Full Credit - 1 point

- Adherence to the UN Guiding Principles on Business and Human Rights.
- Adherence to the ILO Core Convention on the Five fundamental principles and rights at work
- Adherence with UNDRIP and/or ILO 169 and FPIC assessed as part of the certification
- Paris Agreement goal of limiting temperature rise to 1.5 degrees

Scoring and screening

The adequacy of the various schemes will be assessed using the above methodology. The table below outlines how the combined score translates to a points modifier being applied to the relevant indicators with the LtC scorecard. It is important to emphasise that the modifier is applied to individual indicators within the LtC scorecard, for which the scoring criteria is contingent on meeting the requirements of the certification schemes assessed as part of this exercise.

The Global Battery Alliance is included within the scope of this assessment. However, given the initiative's primary accreditation scheme (Battery Passport) has not been finalised, we have not been able to undertake a meaningful assessment. Although analysis is included where relevant, the GBA will not have a modifier applied in the first instance. The scheme will be reviewed following finalization of the scheme.

Total points	Description	Point modifier in scorecard
8 points (full points)	Robust standard that meets minimum criteria for effective governance, auditing / accreditation and implementation of its criteria	Full points
7 points	Robust scheme overall that still has some shortcomings but meets nearly all of the minimum criteria for governance, auditing and / or accreditation against its standard	0.8 modifier
5-6 points	Scheme has made notable progress in meeting most of the minimum criteria but has some significant shortcomings	0.6 modifier
3 - 4 points	Scheme has made progress in some areas but fails to meet multiple criteria for effective governance, auditing and / or accreditation against its standard	0.4 modifier
Below 3 points	Flawed scheme that fails to meet most of the minimum criteria for governance, auditing and / or accreditation	No scoring possible

Further Details Regarding Credible Standard Setting

Human rights

Initiatives and associated accreditation schemes commit to and recognise responsibility to respect human rights:

- References internationally recognised human rights: International Bill of Rights and the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.

Standards for companies are based on UNGPs obligations to have:

- *A policy commitment to meet their responsibility to respect human rights.*
- *A human rights due diligence process to identify, prevent, mitigate and account for how they address their impacts on human rights.*
- *Processes to enable the remediation of any adverse human rights impacts they cause or to which they contribute.*
- *To verify whether adverse human rights impacts are being addressed, business enterprises should track the effectiveness of their response.*
- *To account for how they address their human rights impacts, business enterprises should be prepared to communicate this externally, particularly when concerns are raised by or on behalf of affected stakeholders.*

Climate change

- Standard is aligned to a credible 1.5 degree scenario
    - Covers scopes 1, 2 and 3 emissions
    - Is not reliant on CCUS (e.g. IPCC SR15 pathway 1)
    - Outlines short (up to 3 years), medium (3-10 years) and long-term (11+ years) targets

[Based on UNGPs - guidingprinciplesbusinesshr_en.pdf (ohchr.org). This document provides greater details: arp-note-meeting-effectiveness-criteria.pdf (ohchr.org)]