SASB STANDARDS

Now part of IFRS Foundation

Automobiles

Sustainability Accounting Standard

TRANSPORTATION SECTOR

Sustainable Industry Classification System® (SICS®) TR-AU

Under Stewardship of the International Sustainability Standards Board

INDUSTRY STANDARD | VERSION 2023-12

IFRS Sustainability

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ABOUT THE SASB STANDARDS

As of August 2022, the International Sustainability Standards Board (ISSB) of the IFRS Foundation assumed responsibility for the SASB Standards. The ISSB has committed to maintain, enhance and evolve the SASB Standards and encourages preparers and investors to continue to use the SASB Standards.

IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* (IFRS S1) requires entities to refer to and consider the applicability of disclosure topics in the SASB Standards when identifying sustainability-related risks and opportunities that could reasonably be expected to affect an entity's prospects. Similarly, IFRS S1 requires entities to refer to and consider the applicability of metrics in the SASB Standards when determining what information to disclose regarding sustainability-related risks and opportunities.

In June 2023, the ISSB amended climate-related topics and metrics in the SASB Standards to align them with the industry-based guidance accompanying IFRS S2 *Climate-related Disclosures*. In December 2023, the ISSB amended the non-climate-related topics and metrics in connection with the International Applicability of SASB Standards project.

Effective Date

This version 2023-12 of the Standard is effective for all entities for annual periods beginning or after January 1, 2025. Early adoption is permitted for all entities.

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INTRODUCTION

Overview of SASB Standards

The SASB Standards are a set of 77 industry-specific sustainability accounting standards ("SASB Standards" or "Industry Standards"), categorised pursuant to the Sustainable Industry Classification System® (SICS®).

SASB Standards include:

1. **Industry descriptions** – which are intended to help entities identify applicable industry guidance by describing the business models, associated activities and other common features that characterise participation in the industry.

2. **Disclosure topics** – which describe specific sustainability-related risks or opportunities associated with the activities conducted by entities within a particular industry.

3. **Metrics** – which accompany disclosure topics and are designed to, either individually or as part of a set, provide useful information regarding an entity's performance for a specific disclosure topic.

4. **Technical protocols** – which provide guidance on definitions, scope, implementation and presentation of associated metrics.

5. **Activity metrics** – which quantify the scale of specific activities or operations by an entity and are intended for use in conjunction with the metrics referred to in point 3 to normalise data and facilitate comparison.

Entities using the SASB Standards as part of their implementation of ISSB Standards should consider the relevant ISSB application guidance.

For entities using the SASB Standards independently from ISSB Standards, the *SASB Standards Application Guidance* establishes guidance applicable to the use of all Industry Standards and is considered part of the Standards. Unless otherwise specified in the technical protocols contained in the Industry Standards, the guidance in the SASB Standards Application Guidance applies to the definitions, scope, implementation, compilation and presentation of the metrics in the Industry Standards.

Historically, the *SASB Conceptual Framework* set out the basic concepts, principles, definitions and objectives that guided the SASB Standards Board in its approach to setting standards for sustainability accounting.

Use of the Standards

SASB Standards are intended to aid entities in disclosing information about sustainability-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term. An entity determines which Industry Standard(s) and which disclosure topics are relevant to its business, and which associated metrics to report. In general, an entity should use the SASB Standard specific to its primary industry as identified in SICS® . However, companies with substantial business in multiple SICS® industries should refer to and consider the applicability of the disclosure topics and associated metrics in additional SASB Standards.

The disclosure topics and associated metrics contained in this Standard have been identified as those that are likely to be useful to investors. However, the responsibility for making materiality judgements and determinations rests with the reporting entity.

Industry Description

Automobiles industry entities manufacture passenger vehicles, light trucks and motorcycles. Industry players design, build and sell vehicles that use a range of traditional and alternative fuels and powertrains. They sell these vehicles to dealers for consumer retail sales as well as sell directly to fleet customers, including car rental and leasing entities, commercial fleets and governments. Because of the industry's global nature, nearly all entities have manufacturing facilities, assembly plants and service locations in several countries around the world. The Automobiles industry is concentrated, with a few large manufacturers and a diversified supply chain. Given the industry's reliance on natural resources and sensitivity to the business cycle, revenue is typically cyclical.

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Product Safety	Percentage of vehicle models rated by NCAP with an overall 5-star safety rating, by region	Quantitative	Percentage (%)	TR-AU-250a.1
	(1) Number of safety-related defect complaints, (2) percentage investigated	Quantitative	Number, Percentage (%)	TR-AU-250a.2
	Number of vehicles recalled [1]	Quantitative	Number	TR-AU-250a.3
Labour Practices	Percentage of active workforce employed under collective agreements	Quantitative	Percentage (%)	TR-AU-310a.1
	(1) Number of work stoppages and (2) total days idle [2]	Quantitative	Number, Days idle	TR-AU-310a.2
Fuel Economy & Use-phase Emissions	Sales-weighted average passenger fleet fuel economy, by region	Quantitative	Mpg, L/km, gCO_2/km, km/L	TR-AU-410a.1
	Number of (1) zero emission vehicles (ZEV), (2) hybrid vehicles and (3) plug-in hybrid vehicles sold	Quantitative	Number	TR-AU-410a.2
	Discussion of strategy for managing fleet fuel economy and emissions risks and opportunities	Discussion and Analysis	n/a	TR-AU-410a.3
Materials Sourcing	Description of the management of risks associated with the use of critical materials	Discussion and Analysis	n/a	TR-AU-440a.1
Materials Efficiency & Recycling	(1) Total amount of waste from manufacturing, (2) percentage recycled	Quantitative	Metric tonnes (t), Percentage (%)	TR-AU-440b.1
	(1) Weight of end-of-life material recovered, (2) percentage recycled	Quantitative	Metric tonnes (t), Percentage (%)	TR-AU-440b.2
	Average recyclability of vehicles sold [3]	Quantitative	Percentage (%) by sales-weighted metric tonnes (t)	TR-AU-440b.3

[1] Note to **TR-AU-250a.3** – The disclosure shall include a discussion of notable recalls, such as those that affected a significant number of vehicles of one model or those related to a serious injuries or fatalities.

[2] Note to **TR-AU-310a.2** – The disclosure shall include a description of the reason for each work stoppage, impact on operations and any corrective actions taken.

[3] Note to **TR-AU-440b.3** – The disclosure shall include a description of the entity's approach to optimising vehicle recycling and recovery rates.

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of vehicles manufactured	Quantitative	Number	TR-AU-000.A
Number of vehicles sold	Quantitative	Number	TR-AU-000.B

Product Safety

Topic Summary

Driving is a risky activity, since factors such as distracted driving, drunk driving, speeding and dangerous weather conditions may result in accidents that expose drivers, passengers and bystanders to injuries and deaths. Defective vehicles may also cause accidents, and failure to detect defects before vehicles are sold may result in significant financial repercussions for auto manufacturers. In many countries, defective vehicles that do not meet safety requirements must be recalled and repaired or replaced at the manufacturer's cost. Recalls may damage brand value, which may reduce revenues and growth potential and increase an entity's risk profile and cost of capital. Entities that ensure vehicle safety and respond quickly when they identify defects may reduce the risks of regulatory action or customer lawsuits that may adversely affect their margins. Through effective management of vehicle safety, entities may improve brand value and sales over the long term.

Metrics

TR-AU-250a.1. Percentage of vehicle models rated by NCAP with an overall 5-star safety rating, by region

1 The entity shall disclose the percentage of its vehicle models rated by a New Car Assessment Program (NCAP) with an overall 5-star safety rating, by geographical region.

1.1 The percentage shall be calculated as the number of its vehicle models rated by an NCAP with an overall 5-star rating divided by the total number of its vehicle models rated by an NCAP.

1.2 The scope of the disclosure includes existing vehicles and newly introduced vehicles that have received a rating by an NCAP, including carry-over vehicles.

1.2.1 Carry-over vehicles are defined as vehicles tested under an NCAP in previous years and the vehicle design remains unchanged and has retained the safety rating.

1.3 The scope of the disclosure excludes vehicles that do not have an applicable NCAP rating.

2 The entity shall disclose the percentage by geographical region.

2.1 Geographical regions are defined as the regions for which the entity conducts segment financial reporting and in which vehicles are subject to an NCAP or an applicable jurisdictional equivalent.

3 If a low number of the entity's vehicle models are rated in a region, the entity may disclose this information to provide necessary context for the percentage.

4 The entity may discuss the use of advanced collision avoidance technologies in its vehicles and features that are not considered as part of NCAP ratings such as electronic stability control, lane departure warning and forward collision warning.

TR-AU-250a.2. (1) Number of safety-related defect complaints, (2) percentage investigated

1 The entity shall disclose (1) the total number of safety-related defect complaints.

1.1 A safety-related defect is a problem that exists in a vehicle or an item of vehicle equipment that (a) poses a risk to vehicle safety and (b) may exist in a group of vehicles of the same design or manufacture, or in an item of equipment of the same type and manufacture.

1.2 The scope of the disclosure includes safety-related defect complaints received by the entity, or by the applicable jurisdictional legal or regulatory authority.

2 The entity shall disclose (2) the percentage of safety-related defect complaints that were investigated.

2.1 Investigated complaints include any complaint investigated by the applicable jurisdictional legal or regulatory authority, including complaints in any of these stages of the investigative process:

2.1.1 screening, which is a preliminary review of consumer complaints and other information related to alleged defects to determine whether an investigation should be opened;

2.1.2 petition analysis, which is an analysis of any petitions calling for defect investigations or reviews of safety-related recalls;

2.1.3 investigation, which is the investigation of alleged safety defects; and

2.1.4 recall management, which is the investigation of the effectiveness of safety recalls.

2.2 The percentage shall be calculated as the number of its safety-related defect complaints investigated divided by the total number of its safety-related defect complaints.

TR-AU-250a.3. Number of vehicles recalled

1 The entity shall disclose the total number of its vehicles subject to voluntary or involuntary recalls it issued during the reporting period.

1.1 Voluntary recalls are those initiated by the entity to remove products from the market for safety-related concerns.

1.2 Involuntary recalls are those requested or mandated by applicable jurisdictional legal or regulatory authorities when (i) a vehicle or item of vehicle-related equipment does not comply with governmental vehicle safety regulations, or (ii) when a safety-related defect in vehicle or vehicle-related equipment is identified.

2 The entity may disclose the percentage of recalls that were (a) voluntary and (b) involuntary.

Note to **TR-AU-250a.3**

1 The entity shall discuss notable recalls such as those that affected a significant number of vehicles of one model or those related to serious injuries or fatalities.

1.1 A recall may be considered notable if it is mentioned in periodic jurisdictional recall reports.

2 For such recalls, the entity may provide:

2.1 corrective actions;

2.2 description and cause of the recall issue;

2.3 the total number of vehicles recalled;

2.4 the cost to remedy the issue;

2.5 whether the recall was voluntary or involuntary; and

2.6 any other significant outcomes (for example, legal proceedings or fatalities).

Labour Practices

Topic Summary

Collective bargaining agreements cover many workers in the Automobiles industry guiding fair wage discussions, safe working conditions and freedom of association, which are among basic workers' rights. Because of the global nature of the industry, auto entities may also operate in countries where workers' rights are inadequately protected. Effective communication by management regarding issues such as pay and working conditions may prevent conflicts between workers and management that may result in strikes, which slow or suspend manufacturing, reduce revenues and increase operational risk. Auto manufacturers that manage workers' rights effectively may improve the long-term financial sustainability of their operations by enhancing worker productivity.

Metrics

TR-AU-310a.1. Percentage of active workforce employed under collective agreements

1 The entity shall disclose the percentage of employees in the active workforce covered under collective agreements during any part of the reporting period.

1.1 The number of employees in the active workforce of an entity is calculated as the maximum number of unique employees it employed at any time during the reporting period.

1.2 Collective agreements are defined as agreements between an entity and an employees' organisation on behalf of some or all employees of the entity concerning the engagement of employees, termination of employment, terms of employment, labour relations, and the rights and obligations of the organisations which are parties to the agreement.

1.3 Employees are defined as individuals on the entity's payroll, whether they are full-time, short service, part-time, executive, labour, salary, seasonal, migrant, or hourly employees. Employees excludes contract workers.

1.3.1 Contract workers are defined as individuals who are not on the entity's payroll, but whom the entity supervises or manages, including independent contractors and those employed by third parties (for example, temp agencies and labour brokers).

2 The percentage shall be calculated as the number of employees in the active workforce who were employed under collective agreements during any part of the reporting period divided by the average number of workers employed during the reporting period.

3 The scope of the disclosure includes all employees employed by the entity, including full-time, part-time and temporary employees.

TR-AU-310a.2. (1) Number of work stoppages and (2) total days idle

1 The entity shall disclose (1) the number of work stoppages involving 1,000 or more workers lasting one full shift or longer.

1.1 The scope of work stoppages includes strikes and lockouts.

1.1.1 A strike is defined as a temporary stoppage of work by a group of employees (not necessarily union members) to express a grievance or enforce a demand.

1.1.2 A lockout is defined as a temporary withholding or denial of employment during a labour dispute to enforce terms of employment upon a group of employees.

2 The entity shall disclose (2) the total days idle because of work stoppages.

2.1 'Days idle' is defined as the aggregate number of workdays lost because of work stoppages.

2.2 Total days idle shall be calculated as the sum of the products of the number of workers involved in each work stoppage and the number of days each respective work stoppage was in effect.

Note to **TR-AU-310a.2**

1 The entity shall describe the reason for each work stoppage (as stated by labour), the effect on operations and any corrective actions taken as a result.

Fuel Economy & Use-phase Emissions

Topic Summary

Motor vehicle fossil fuel combustion accounts for a significant share of the greenhouse gas (GHG) emissions contributing to global climate change. Engine exhaust also generates local air pollutants such as nitrogen oxides (NO_x), volatile organic compounds (VOCs) and particulate matter (PM), which can threaten human health and the environment. In this context, vehicle emissions increasingly concern consumers and regulators around the world. Although use-phase emissions are downstream from auto manufacturers, regulations often focus on auto manufacturers to reduce these emissions, such as through fuel economy standards. More stringent emissions standards and changing consumer demands are driving electric vehicle and hybrid market expansion, as well as for high fuel-efficiency conventional vehicles. Moreover, manufacturers are designing innovative vehicles made with lighter-weight materials to improve fuel efficiency. Entities that meet current fuel-efficiency and emissions standards and continue to innovate to meet or exceed future regulatory standards in various markets may strengthen their competitive position and expand their market share, while mitigating the risk of reduced demand for conventional vehicles.

Metrics

TR-AU-410a.1. Sales-weighted average passenger fleet fuel economy, by region

1 The entity shall disclose the average fuel economy of its passenger and light-duty vehicle fleet, weighted for the footprint of vehicles sold, by geographical region.

1.1 The average fuel economy shall be calculated by model year as required for regulatory purposes.

1.2 In the absence of regulatory guidance on calculating a fleet average, the entity shall calculate performance based on the fuel economy of vehicles sold during the reporting period weighted by sales volume.

1.3 The calculation shall be made on a fleet-average basis regardless of whether regulations are based on vehicle weight.

2 The entity shall disclose the percentage by geographic region.

2.1 Geographical regions are defined as the regions for which the entity conducts segment financial reporting and which are subject to fleet fuel economy, fuel consumption or emissions standards.

3 Disclosure may be provided in various units for each geographical region, which may include:

3.1 Grams of carbon dioxide per kilometre (gCO_2/km) for (1) passenger cars and (2) light commercial vehicles sold in the European Union

3.2 Litres of petrol per kilometre (L/km) for passenger vehicles sold in Japan

3.3 Miles per gallon (mpg) for (1) domestic passenger cars, (2) imported passenger cars and (3) light trucks sold in the US and subject to Corporate Average Fuel Economy (CAFE) standards, where these vehicle categories are defined in US 49 CFR Part 523

3.4 Kilometres per litre (km/L) for passenger vehicles sold in New Zealand

4 The scope of disclosure shall include all vehicles subject to national passenger vehicle standards for fleet fuel economy, fuel consumption or emissions.

5 The entity may disclose fleet performance for other vehicle segments such as:

5.1 Cargo vehicles in Japan

5.2 Heavy-duty vehicles in the US

5.3 Light commercial vehicles in the EU

TR-AU-410a.2. Number of (1) zero emission vehicles (ZEV), (2) hybrid vehicles and (3) plug-in hybrid vehicles sold

1 The entity shall disclose the number of vehicles sold during the reporting period classified as: (1) zero emission vehicles (ZEV), (2) hybrid vehicles and (3) plug-in hybrid electric vehicles.

1.1 ZEVs are vehicles driven only by an electric motor that are powered by advanced-technology batteries or hydrogen fuel cell, and they have no tailpipe emissions over their entire lifetime under all possible operational modes and conditions.

1.2 Hybrid vehicles (hybrid electric vehicle or HEVs) are vehicles that can draw propulsion energy from both of these on-vehicle sources of stored energy: (a) a consumable fuel and (b) an energy storage device such as a battery, capacitor or flywheel.

1.3 Plug-in hybrid electric vehicles are vehicles that offer electric driving with an electric motor powered by a large battery pack that is charged by plugging into a source of electricity.

2 The scope of disclosure includes all vehicles sold globally that are eligible to be classified in accordance with the above guidance.

TR-AU-410a.3. Discussion of strategy for managing fleet fuel economy and emissions risks and opportunities

1 The entity shall discuss its strategy for improving the fuel economy and reducing the use-phase emissions of its fleet.

1.1 Use-phase emissions include greenhouse gases and air pollutants such as carbon dioxide, nitrogen oxides, volatile organic compounds, and particulate matter.

2 Relevant aspects of the strategy include improvements to existing vehicles and technologies, the introduction of new technologies, research and development efforts into advanced technologies, and partnerships with peers, academic institutions or customers.

3 Relevant technologies may include those related to materials design and engineering, advanced powertrains, renewable fuels, energy storage and batteries, aerodynamic design, fuel injection systems, particulate filters, and products and fuels that otherwise result in reduced emissions.

3.1 Advanced powertrain technologies include vehicles and vehicle components that are electric, hybrid electric, plug-in hybrid, dual-fuel and zero-emissions (for example, fuel cell).

3.2 Renewable fuels and energy technologies are those that operate on sources capable of being replenished in a short time through ecological cycles, including biomass (including ethanol, first-generation biofuels and advanced biofuels).

3.3 Products that result in reduced emissions include any vehicle or technology that achieves a significant reduction in fuel consumption.

3.4 Fuels that result in reduced emissions include biodiesel, ethanol, natural gas, propane and hydrogen.

3.5 Internal combustion engines include those equipped with technology (for example, selective catalytic reduction) to reduce nitrogen oxide emissions.

3.6 Particulate filters (for example, wall-flow filter or partial-flow filter) include those that reduce emissions (including carbon monoxide, hydrocarbons and particulate matter).

3.6.1 If relevant, the entity shall discuss the technologies it is prioritising to improve the fuel economy and reduce emissions of its vehicles, such as the specific type of fuel systems it is developing (for example, hybrid, electric or fuel cell).

4 The entity shall discuss the factors influencing fuel economy and emissions efforts, such as meeting customer demand or meeting regulatory requirements of the markets it operates in or plans to operate in.

4.1 Relevant programmes and initiatives may include:

4.1.1 California Low-Emission Vehicle Program – LEV III

4.1.2 China VI emission standard

4.1.3 Euro 6 standards for light duty vehicles

4.1.4 US Clean Air Act

4.1.5 US Corporate Average Fuel Economy (CAFE) standards

5 The entity shall discuss whether it is complying with fuel economy and use-phase regulatory obligations, whether such existing regulations require future improvements, progress towards meeting such regulations and strategies to maintain compliance with emerging regulations.

6 The scope of disclosure includes all vehicles subject to national and local vehicle standards.

7 The entity may discuss the benchmarks used to measure improvements in fuel economy and emissions reductions, including targets for fuel economy improvements and emissions reductions.

Materials Sourcing

Topic Summary

Entities in the Automobiles industry commonly rely on rare earth metals and other critical materials as important inputs. Many of these inputs have few substitutes and often are sourced from a few countries, many of which may be subject to geopolitical uncertainty. Other sustainability impacts related to climate change, land use, resource scarcity and conflict in regions where the industry's supply chain operates are also increasingly shaping the industry's ability to source materials. Additionally, increased competition for these materials because of growing global demand from other sectors may result in price increases and supply risks. These materials play a crucial role in clean energy technologies, such as electric and hybrid vehicles. As regulators strive to reduce greenhouse gas emissions and consumer demand grows for more fuel-efficient vehicles, the share of hybrids and zero emission vehicles (ZEVs) produced by the Automobiles industry may continue to increase in the future. Entities that limit the use of critical materials, secure their sourcing and develop alternatives may mitigate supply disruptions and volatile input prices, which could adversely affect their margins, risk profile and cost of capital.

Metrics

TR-AU-440a.1. Description of the management of risks associated with the use of critical materials

1 The entity shall describe how it manages the risks associated with the use of critical materials in its products, including physical limits on availability and access, changes in price and regulatory and reputational risks, in which:

1.1 a critical material is defined as a material both essential in use and subject to the risk of supply restriction; and

1.2 examples of critical materials may include:

1.2.1 antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum and tungsten;

1.2.2 platinum group metals (platinum, palladium, iridium, rhodium, ruthenium and osmium); and

1.2.3 rare earth elements, which include yttrium, scandium, lanthanum and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium).

2 The entity shall identify the critical materials that present a significant risk to operations, the type of risks they represent and the strategies the entity uses to mitigate the risks.

2.1 Relevant strategies may include diversification of suppliers, stockpiling of materials, development or procurement of alternative and substitute materials, and investments in recycling technology for critical materials.

3 All disclosure shall be sufficient such that it is specific to the risks the entity faces, but that disclosure itself would not compromise the entity's ability to maintain confidential information.

3.1 For example, if an entity determines not to identify a specific critical material that presents a significant risk to its operations because of the competitive harm that could result from the disclosure, the entity shall disclose the existence of such risks, the type of risks and the strategies used to mitigate the risks, but the entity is not required to disclose the relevant critical material.

Materials Efficiency & Recycling

Topic Summary

Auto manufacturing involves the use of significant amounts of materials (including steel, iron, aluminium and plastics) and can generate substantial amounts of waste (including scrap metal, paint sludge and shipping materials). As the rate of vehicle ownership expands globally and millions of vehicles reach the end of their useful lives each year, automobile lifecycle environmental impacts are increasing. Automobile entities may focus on innovation in design as well as process and technological improvements to mitigate these impacts and achieve financial benefits. Entities that improve materials efficiency in their production processes, including reducing waste and reusing or recycling waste and scrapped vehicles, may reduce vehicle lifecycle environmental impacts. Through such innovation, entities may achieve cost savings by reducing input costs and mitigating potential regulatory fines or penalties. They may also mitigate production input price fluctuations from periodic or long-term resource scarcity.

Metrics

TR-AU-440b.1. (1) Total amount of waste from manufacturing, (2) percentage recycled

1 The entity shall disclose (1) the total weight of waste generated, in metric tonnes, from manufacturing operations.

1.1 Waste is defined as material for which an entity has no further use that is discarded or released to the environment.

2 The entity shall disclose (2) the percentage of waste generated, by weight, from manufacturing operations that has been recycled.

2.1 The percentage shall be calculated as the weight of waste generated from manufacturing operations that has been recycled divided by the total weight of waste generated from manufacturing operations.

2.2 Recycled waste (including remanufactured waste) is defined as waste material reprocessed or treated through production or manufacturing processes and made into a final product or a component to be integrated into a product.

2.3 The scope of recycled waste includes reused material.

2.3.1 Reused material is defined as recovered products or components of products used for the same purpose for which they were conceived.

2.4 The scope of recycled waste excludes portions of products and materials discarded in landfills.

2.5 The scope of recycled waste excludes incinerated materials. Materials incinerated for energy recovery are also to be excluded.

2.5.1 Energy recovery is defined as using combustible waste to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

2.6 The scope of recycled material includes primary recycled material, co-products (outputs of equal value to primary recycled materials), by-products (outputs of lesser value to primary recycled materials) and material sent by the entity to an external organisation for further recycling.

3 The scope of the disclosure excludes end-of-life recovered material disclosed in TR-AU-440b.2.

4 The entity may separately disclose the percentage of waste generated, by weight, that was incinerated.

TR-AU-440b.2. (1) Weight of end-of-life material recovered, (2) percentage recycled

1 The entity shall disclose (1) the weight, in metric tonnes, of end-of-life material recovered.

1.1 The scope of the disclosure shall include products, materials and parts that are collected at the end of their useful life but would have otherwise been discarded as waste or used for energy recovery.

1.2 The scope of recovered material includes materials physically handled by the entity.

1.3 The scope of recovered material excludes materials that the entity did not physically handle but that were collected by a third party for the purpose of reuse, recycling or refurbishment.

1.4 The scope of recovered material excludes materials collected for repair or that are in-warranty and subject to recall.

2 The entity shall disclose (2) the percentage of end-of-life material recovered, by weight, and subsequently recycled.

2.1 The percentage shall be calculated as the weight of end-of-life material recovered and subsequently recycled divided by the total weight of end-of-life material recovered.

2.2 Recycled material (including remanufactured material) is defined as waste material reprocessed or treated through production or manufacturing processes and made into a final product or a component to be integrated into a product.

2.3 The scope of recycled material includes reused or reclaimed material.

2.3.1 Reused material is defined as recovered products or components of products used for the same purpose for which they were conceived, including products donated or refurbished by the entity or by third parties.

2.3.2 Reclaimed material is defined as material processed to recover or regenerate a usable product.

2.4 The scope of recycled material includes primary recycled material, co-products (outputs of equal value to primary recycled materials), by-products (outputs of lesser value to primary recycled materials) and material sent by the entity to an external organisation for further recycling.

2.5 The scope of recycled material excludes portions of products and materials discarded in landfills.

3 The scope of the disclosure excludes waste materials accounted for in TR-AU-440b.1.

TR-AU-440b.3. Average recyclability of vehicles sold

1 The entity shall disclose the average recyclability of vehicles sold as a percentage, by weight.

1.1 The scope of the disclosure is limited to passenger and light-duty vehicle models.

2 The percentage shall be calculated as the weight of components in vehicles sold that are recyclable divided by the total weight of all vehicles sold.

2.1 Material is recyclable if it can be reprocessed for its original purpose or for other purposes at a reasonable cost with technology widely available in the markets in which the vehicles are sold.

2.1.1 Materials that are typically recyclable include ferrous and non-ferrous metals, glass and specific plastics.

2.2 The scope of recyclable material includes material that is either reusable or able to be remanufactured.

2.2.1 Materials and components that are typically reusable or able to be remanufactured include engines, transmissions, catalysts, tyres (including retreadable tyres), batteries and chlorofluorocarbons (CFCs).

2.3 The scope of recyclable material excludes recoverable material and is defined as material that can be salvaged for further use, including for energy recovery.

2.3.1 Energy recovery is defined as the use of combustible waste to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

2.3.2 Materials that are typically discarded as waste or used for energy recovery include fluids, hazardous materials, automobile shredder residue (including glass, foam and fabric), automobile safety glass and specific plastics.

Note to **TR-AU-440b.3**

1 The entity shall describe its approach to optimising vehicle recycling and recovery rates, including in regions where the entity participates in mandatory vehicle end-of-life programmes.

1.1 The scope of the disclosure includes processes, procedures and technologies.

1.2 The disclosure shall include participation in mandatory vehicle end-of-life programmes, design for dismantlability and recyclability, partnerships with dismantling and recycling entities, and research and development focused on vehicle recycling technologies.

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