



## Planet

### Metrics and results:

#### Reducing Scope 1 & 2 GHG Emissions

| Metric   | Results   |
|--|---|
| Percent Reduction of Scopes 1+2 Emissions Since Base Year* | <b>34 %</b> <input checked="" type="checkbox"/> |

#### Engaging Suppliers towards Scope 3 GHG Reduction

| Metric  | Results   |
|---|---|
| Percentage Scope 3 Emissions [Categories 1, 2 and 4] from Suppliers Committed to Adopting Science-Based GHG Emissions Reduction Targets | <b>45 %</b> <input checked="" type="checkbox"/> |

### GHG Note 1 – General

The underlying Greenhouse Gases (“GHG”) emissions used to calculate the two Planet Corporate Philosophy (“CP”) metrics have been prepared in accordance with accepted GHG accounting principles as further described below. If not specifically noted, Statements and Notes, which are related to CP metrics, have been prepared based on the fiscal reporting year 2022, which runs from 1 April 2022 through 31 March 2023 at Takeda Pharmaceutical Company Limited and its consolidated subsidiaries (referenced hereafter as “Takeda” or “the Company”). Where applicable, base year environmental data has also been reported based on the applicable fiscal year (1 April through 31 March).

## **Basis of Presentation**

As used in this document, GHG Inventory refers to the lists of emission sources and associated emissions quantified using standardized methods. The Scope 1 GHG Emission Inventory, which includes all GHG emissions that occur from sources under the Company's operational control, was developed in accordance with World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition.

The Scope 2 GHG Emission Inventory, which accounts for all GHG emissions from the generation of purchased energy (for example, electricity, steam) consumed by the Company was prepared in accordance with the WRI/WBCSD GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard.

Scope 3 GHG Emission Inventory, which includes the indirect emissions occurring both upstream and downstream within the Company's value chain, was prepared in accordance with WRI/WBCSD Corporate Value Chain (Scope 3), Accounting and Reporting Standard.

Collectively, the GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition, the GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard and the GHG Protocol: Corporate Value Chain (Scope3) Accounting and Reporting Standard are referred to as the "GHG Protocol" in this document.

## **Estimation Uncertainties**

Data used in the preparation of the Planet CP metrics related to GHG Emissions and Supplier Engagement are subject to measurement uncertainties resulting from limitations inherent in the nature and methods for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

The preparation of the metrics requires management to make estimates and assumptions that affect amounts reported. We base these estimates, including methodologies to calculate GHG emissions, on available information and various other assumptions that it believes to be reasonable. For example, scopes 1 and 2 emissions from small offices with less than 100 full-time occupants are estimated using emission factors from the Commercial Building Energy Consumption Survey (CBECS) (EIA, 2018).

## **GHG Note 2 – Organizational and Operational Boundaries**

### **Organizational Boundaries**

The Company has selected the operational control approach as the consolidation approach to define the organizational boundaries for its GHG Inventory.

Accordingly, the Company includes GHG emissions from all owned sites and leased facilities over which Takeda has operational control to introduce and implement operating policies (except where specifically excluded as described in our operational boundaries below) and excludes those from minority-owned joint ventures over which the company does not have operational control for scopes 1 and 2 reporting.

### **Operational Boundaries**

#### **Scopes 1-2 Inventory**

##### **- Takeda Owned Assets**

The Company's GHG Inventory includes scopes 1 and 2 emissions from Takeda-owned commercial and industrial assets including manufacturing sites, R&D facilities, plasma collection centers, office spaces, and warehouses. This includes associated scope 1 emissions from the on-site use of fossil fuels and refrigerants, and scope 2 emissions from purchased electricity, heat, steam, and cooling.

##### **- Leased Assets**

The Company includes leased assets that fall under the "right-of-use" definition (as defined by the International Accounting Standards Board in International Financial Reporting Standard 16) in scope 1 and 2 emissions reporting. Except for the BioLife subsidiary, which includes all leases regardless of duration or value, short-term leases (duration less than 12 months) and small value lease contracts (total value less than \$5,000 USD/668,000 JPY) are excluded from the inventory.

##### **- Exclusions**

Excluded from the inventory are residential properties, undeveloped land, improved land with no recognized GHG emissions sources, and newly constructed or under construction facilities that are not yet under the Company's operational control.

#### **Scope 3 Inventory**

The Company's scope 3 emissions to calculate the supplier-related Planet CP metric includes emissions from the following GHG Protocol categories: Category 1: Purchased Goods and Services, Category 2: Capital Goods, and Category 4: Upstream Transportation and Distribution.

### **GHG Reporting Period and Base Year**

#### **Reporting Period**

The reporting period for current year GHG emissions is fiscal year 2022.

#### **Base Year**

For the scope 1 and 2 GHG emissions, the Company selected fiscal year 2016 (i.e., 1 April 2016 through 31 March 2017) as its base year in accordance with the GHG Protocol.

**Recalculation and Restatement of Previous Year Emissions Data**

In accordance with the GHG Protocol, the Company established a process for recalculating GHG emissions for previous years and set a significance threshold of +/- 5% for aggregated scope 1 and scope 2 (location-based) emissions. The Company reviews prior year emissions on an annual basis and has restated previous years’ emissions (including its base year) to account for structural changes in the company (for example, acquisitions and/or divestitures) and revisions in accounting methodologies or emissions factors. This recalculation of GHG emissions is performed in accordance with the GHG Protocol “same-year/all-year” approach.

**GHG Included in the Inventory**

Emissions data are provided in metric tonnes (MT) for each GHG separately and reported as aggregated totals emissions using thousand MT CO<sub>2e</sub>. The company assesses the emissions from all applicable Kyoto GHGs which are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and hydrofluorocarbons (HFC’s). Other Kyoto GHGs, including perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>), are not considered as they are not applicable the Company’s operations.

The Global Warming Potentials from the Intergovernmental Panel on Climate Change (IPCC) fifth assessment report (AR5), 100-year time horizon were used to convert the gases into CO<sub>2e</sub>, if not otherwise specified.

**GHG Metrics Definition, Emissions Factors, and Calculation Methods**

**Metric Definitions**

The tables below describe relevant definitions, the GHG emission factors used by the Company, the applicable reference sources cited, and calculation methods used for each emission source included within the operational boundary.

| Metric                  | Description  |
|-------------------------|--|
| Total Scope 1 Emissions | Sum of total GHG emissions from company-owned generators, heaters, boilers, vehicles, and refrigerants |

|  |  |
|--|--|
| Total Scope 2 Emissions – Market-Based                                 | Market-based purchased electricity plus emissions from all other purchased energy (for example, steam, district heat or cooling water)   |
| Total Scopes 1+2 <b>(market-based)</b> Emissions                       | Sum of Total Scope 1 Emissions plus Total Scope 2 Emissions (market-based)   |
| Total Scopes 1+2 <b>(market-based)</b> Emissions <b>for</b> Base Year* | Sum of Total Scope 1 Emissions plus Total Scope 2 Emissions (market-based) for the fiscal year 2016 (1 April 2016 through 31 March 2017) |
| Reduction of Scopes 1+2 Emissions Since Base Year*                     | Percent difference between Total Scopes 1+2 Emissions from the current year versus Total Scopes 1+2 Emissions from the base year         |

#### Scope 1 and Scope 2 Emission Factors and Calculation Methods

| Emissions Scope | Source Description and Underlying Data   | Emission Factors  | Calculation Method and Assumptions   |
|-----------------|--|---|--|
| <b>Scope 1</b>  | Stationary combustion sources (for example, boilers, generators)<br><br>Service invoices consolidated in the Company's environmental metrics | (EPA, 2022),<br><a href="https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf">https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf</a> | Emissions from generators, heaters, and boilers under the Company's operational control are calculated by multiplying fuel volumes consumed by the corresponding emission factors. |

| Emissions Scope | Source Description and Underlying Data  | Emission Factors   | Calculation Method and Assumptions  |
|-----------------|---|--|---|
|                 | database  |  |   |
|                 | <p>Mobile combustion sources (Vehicles, mobile generators)</p> <p>Service invoices consolidated in the Company's environmental metrics database</p> | <p>(EPA, 2022),<br/> <a href="https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf">https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf</a></p>   | <p>Vehicle emissions are calculated by multiplying fuel volumes consumed by the corresponding emission factors.</p>   |
|                 | <p>Fleet (Company-owned or operated vehicles that are fueled offsite)</p> <p>Fuel usage or mileage driven reported by country fleet managers</p>    | <p><b>(EPA, 2022),</b><br/> <a href="https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf">https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf</a></p> <p>(U.S. Department of Transportation, 2019),<br/> <a href="https://www.fhwa.dot.gov/policyinformation/statistics/2019/vm1.cfm">https://www.fhwa.dot.gov/policyinformation/statistics/2019/vm1.cfm</a></p> | <p>Vehicle emissions are calculated by multiplying fuel volumes consumed by the corresponding emission factors. Where fuel volumes consumed are not available, emissions are estimated based on the vehicle distance driven and an estimated fuel economy taken from the US Department of Transportation.</p> |
|                 | Refrigerants  | GWP from IPCC (see reference Greenhouse Gases Included in the  | Emissions from refrigerants are estimated based on the quantity of refrigerants used to replace   |

| Emissions Scope | Source Description and Underlying Data  | Emission Factors  | Calculation Method and Assumptions  |
|-----------------|---|---|---|
|                 | Quantity of refrigerants used to replace refrigerant losses as reported by sites and consolidated in the Company's environmental metrics database | Inventory section)  | refrigerant losses as reported by sites and consolidated in the Company's environmental metrics database. The quantity of each refrigerant is multiplied by the respective GWP100 AR5 value to calculate the CO <sub>2e</sub> .   |
| <b>Scope 2</b>  | Purchased Electricity<br><br>Utility invoices consolidated in the Company's environmental metrics database  | EPA, <a href="https://www.epa.gov/egrid">https://www.epa.gov/egrid</a><br><br>International Energy Agency, 2023 ( <a href="#">Accessed</a> through The Company's environmental metric database) | Location-Based emissions are calculated by multiplying electricity usage at the location with geographical emission factors; US: EPA; all other countries: IEA.<br><br>Market-based emissions are estimated for companies that use contractual instruments, and the Company utilizes the data hierarchy outlined in the GHG Protocol. The instruments used include RECs, green electricity certificates and PPA's.<br><br>The Company uses the market-based method for tracking progress towards its GHG emissions reduction goals. |
|                 | District Heating Water  | (EPA, 2022),<br><a href="https://www.epa.gov/system/files/docu">https://www.epa.gov/system/files/docu</a>   | This is calculated by multiplying the energy quantity purchased by a supplier specific emission   |

| Emissions Scope | Source Description and Underlying Data  | Emission Factors  | Calculation Method and Assumptions   |
|-----------------|---|---|--|
|                 | Utility invoices consolidated in the Company's environmental metrics database                               | <a href="#">ments/2022-04/ghg_emission_factors_hub.pdf</a>  | factor, if available, or the EPA factors divided by 0.8 to account for transmission loss.  |
|                 | Purchased Steam<br><br>Utility invoices consolidated in the Company's environmental metrics database        | Supplier Provided Factors<br><br>EPA 2022,<br><a href="https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf">https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf</a>                                 | Emissions from Steam are calculated by multiplying the energy quantity purchased by a supplier specific emission factor, if available, or the EPA factors.   |
|                 | District Cooling Water<br><br>Utility invoices consolidated in the Company's environmental metrics database | EPA, <a href="https://www.epa.gov/egrid">https://www.epa.gov/egrid</a><br><br>International Energy Agency, 2023 (Accessed through The Company's environmental metrics database)<br><br>(Thomas Hartman, 2001) All-Variable Speed Centrifugal Chiller Plants | This is calculated by multiplying the energy quantity purchased by the IEA or EPA emission factor divided by the coefficient of performance, 5.<br><br>* The emissions calculation assumes a Coefficient of Performance (COP) factor of five for the chiller (including pumps and fans) (Thomas Hartman, |



| Emissions Scope | Source Description and Underlying Data  | Emission Factors   | Calculation Method and Assumptions  |
|-----------------|---|--|---|
|                 |   |  | 2001).  |
|                 | Third-Party Operated On-Site Fuel Cells<br><br>Third party reported energy consumed | EPA 2022,<br><a href="https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf">https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf</a> | Calculated using the vendor provided emissions and included in Total Scope 2 Emissions (market and location based). |

### Scope 3 Emission Factors and Calculations Methods

| Category                                 | Description of the types and sources of data used to calculate the emissions   | Emission factors   | Calculation Method and Assumptions   |
|--|--|--|--|
| Category 1: Purchased Goods and Services | Includes all purchases related to goods and services not otherwise included in the other categories of upstream scope 3 emissions (i.e., category 2 through category 8).<br><br>The Company's procurement databases are used as the data source. | Ingwersen, W., & Li, M. (2022). USEEIO, Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. Retrieved March 28, 2023, from <a href="https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&amp;Lab=CESER">https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&amp;Lab=CESER</a><br><br>Ecoinvent. (2021). Ecoinvent 3.8. Retrieved March 28, 2023, from <a href="https://ecoinvent.org/the-ecoinvent-data-base/data-releases/ecoinvent-3-8">https://ecoinvent.org/the-ecoinvent-data-base/data-releases/ecoinvent-3-8</a> | The direct and indirect purchasing activity of the reporting year were used to calculate the emissions by applying a combination of a spend-based and activity-based methodology.<br><br>The activity-based approach was the preferred method for direct purchasing activity of "BioLife" and "Raw Materials," as well as indirect purchase of "Professional Services". For raw materials and BioLife, the material mass associated with the spend was multiplied by applicable emission factors (emission factors were derived from ecoinvent 3.8, using the IPCC |

| Category | Description of the types and sources of data used to calculate the emissions | Emission factors  | Calculation Method and Assumptions   |
|----------|--|---|--|
|          |  | <p>Pré. (2023). SimaPro. Retrieved March 28, 2023, from <a href="https://simapro.com/">https://simapro.com/</a></p> <p>Life Cycle Assessments (LCAs) or carbon footprint analyses performed on Takeda’s (or similar) products and raw materials</p> <p>European Commission. (2016). Environmental Sustainability Assessment of Bioeconomy Products and Processes – Progress Report 2. Retrieved from <a href="https://publications.jrc.ec.europa.eu/repository/handle/JRC100766">https://publications.jrc.ec.europa.eu/repository/handle/JRC100766</a></p> <p>ABPI. (2023). Retrieved March 28, 2023, from <a href="https://www.abpi.org.uk/r-d-manufacturing/abpi-blister-pack-carbon-footprint-tool">https://www.abpi.org.uk/r-d-manufacturing/abpi-blister-pack-carbon-footprint-tool</a></p> <p>Settanni, E. S. (2017). Exploring Generalisations for Sustainability Assessment in Medicine Manufacturing Networks. EurOMA. Retrieved March 30,</p> | <p>2013GWP<sub>100</sub> method, from information in the public domain, and from previous LCAs or carbon footprint studies).</p> <p>For professional services, when possible, emissions were estimated using supplier-specific emission factors based on publicly available supplier emissions and revenue data (typically obtained via CDP or other environmental sustainability reports, and financial statements), subject to certain validation criteria, or an average factor of the supplier-specific factors recalculated using the location-based method.</p> <p>The spend-based method was used for the remaining population, which accounted for estimating the emissions associated with ~85% of the spend. An environmentally extended input-output (EEIO) model was used to estimate emissions. The spend value was multiplied by the EEIO factor relevant for that category of purchase.</p> |

| Category                     | Description of the types and sources of data used to calculate the emissions  | Emission factors   | Calculation Method and Assumptions   |
|------------------------------|---|--|--|
|                              |   | <p>2023, from <a href="https://doi.org/10.17863/CAM.11308">https://doi.org/10.17863/CAM.11308</a></p> <p>Alviz, P., &amp; Alvarez, A. (2017). Comparative life cycle assessment of the use of an ionic liquid ([Bmim]Br) versus a volatile organic solvent in the production of acetylsalicylic acid. Retrieved March 30, 2023, from <a href="https://doi.org/10.1016/j.jclepro.2017.02.107">https://doi.org/10.1016/j.jclepro.2017.02.107</a></p> <p>Supplier specific factors derived from publicly reported data (i.e., GHG emissions and revenue) for high-spend suppliers of the category “Professional Services”</p> |  |
| Category 2:<br>Capital Goods | <p>Includes all purchases related to capital goods</p> <p>The Company’s procurement databases are used as the data source</p> | <p>Ingwersen, W., &amp; Li, M. (2022). USEEIO, Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. Retrieved March 28, 2023, from <a href="https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&amp;Lab=CESER">https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&amp;Lab=CESER</a></p>  | <p>Emissions from capital goods were estimated using a spend-based approach and applying the EEIO factors from USEEIO Supply Chain (2020) on the direct purchasing activity associated with Capital Goods.</p> |

| Category   | Description of the types and sources of data used to calculate the emissions  | Emission factors   | Calculation Method and Assumptions   |
|--|---|--|--|
| Category 4: Upstream Transportation and Distribution | Includes third-party transportation and logistics services purchased by the Company for inbound and outbound transportation, as well as third-party transportation services between Company facilities. | Ingwersen, W., & Li, M. (2022). USEEIO, Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. Retrieved March 28, 2023, from <a href="https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&amp;Lab=CESER">https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&amp;Lab=CESER</a> | The emissions from this category are calculated through a spend-based method by multiplying the spend from direct purchasing activities related to distribution or logistics by the corresponding EEIO factors from USEEIO Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. |

**GHG Note 3 - Suppliers' Commitments to Set Science-Based Targets**

The Company has a supplier engagement target to have suppliers constituting 67% of its scope 3 emissions in categories 1, 2, and 4 adopting science-based GHG emission reduction targets (i.e., aligned with SBTi standards) by 2024.

Sources used to verify that suppliers have adopted science-based GHG reduction targets include the Science-Based Target initiative (SBTi) website and written assertion to the Company from representatives of companies whose emissions are included in the Company's scope 3 categories 1, 2 and 4 emissions.

To measure progress towards the target, the sum of CO<sub>2e</sub> emissions from categories 1, 2, and 4 from suppliers with science-based GHG reduction targets is divided by the total CO<sub>2e</sub> emissions from categories 1, 2, and 4, and multiplied by 100 to obtain the percentage. Takeda attempts to verify all our suppliers with the list available on the SBTi website, but prioritizes the highest emitting suppliers representing 95% of scope 3 Categories 1, 2 and 4 emissions to calculate the metric.

**Metrics and results:**

**Conserving Freshwater**

| Metric   | Results  |
|--|--|
| Percent Reduction of Water Withdrawal from Base Year | <b>7.9 %</b> <input checked="" type="checkbox"/> |

**Water Note 1**

**Basis of Presentation**

The Planet CP metric related to the Reduction of Water Withdrawal includes the Company’s operations as previously described in GHG Note 1. This metric has been prepared in accordance with accepted principles and methods as further described below.

**Takeda Owned Assets**

The Company includes water withdrawals at all owned sites over which Takeda has operational control to introduce and implement operating policies during the reporting year. Specifically excluded from these metrics are offices with less than 400 full time equivalent occupants, residential properties, undeveloped land independent of area (for example, botanical garden), subleased sites, and parking lots and garages.

**Leased Assets**

The Company also includes all leased sites that fall under the “right-of-use” definition (as defined by the International Accounting Standards Board in International Financial Reporting Standard 16) in water reporting. Short-term leases (duration less than 12 months) are excluded as well as low value lease contracts (total value less than \$5,000 USD/668,000 JPY). When a leased asset is divested or acquired during a reporting period, the Company accounts for its water proportionally to the duration it was under its operational control during the reporting period.

**Estimation Uncertainties**

Data used in the preparation of the Planet CP metric related to Reduction of Water Withdrawal are subject to measurement uncertainties resulting from limitations inherent in the nature and methods for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

The preparation of the metric requires management to make estimates and assumptions that affect amounts reported. We base these estimates, including methodologies to calculate water metrics, on available information and various other assumptions that it believes to be reasonable.

**Reporting Period**

The reporting period for these metrics consists of the fiscal year 2022.

**Base Year**

The Company has selected fiscal year 2019 (i.e., 1 April 2019 through 31 March 2020) as its base year for the Planet CP metric related to Water.

**Recalculation and Restatement of Previous Year Water Data**

The Company has established a policy to recalculate water metric for previous years if a significance threshold of +/- 5% is reached for aggregated water withdrawal Metric.

**Water Withdrawal Metric Sources and Calculation Methods**

| <b>Metric</b>                                     | <b>Description of the types and sources of data used to calculate water volumes</b>                                  | <b>Calculation Method and Assumptions</b>   |
|---|--|---|
| Total Freshwater Withdrawal in Current Year       | Water volume data from site metering and water invoices are reported to the Company's environmental metrics database | <p>Calculated as the sum of all reported freshwater withdrawal during the reporting period.</p> <p>Freshwater is defined as having less than or equal to 10,000 mg/L of total dissolved solids. If not specified otherwise, the Company considers all water obtained from surface waters, groundwater, or third parties to be freshwater.</p> <p>Recycled wastewater and other non-freshwater are excluded.</p> |
| Total Freshwater Withdrawal in Base Year (FY2019) | Water volume data from site metering and water invoices are reported to the Company's environmental metrics database | <p>Calculated as the sum of all reported freshwater withdrawal during FY2019.</p> <p>Freshwater is defined in "Total Freshwater withdrawal in Current Year" and the same exclusions apply.</p>  |

| <b>Metric</b>                      | <b>Description of the types and sources of data used to calculate water volumes</b>                                  | <b>Calculation Method and Assumptions</b>  |
|------------------------------------|--|--|
| Percent Water Withdrawal Reduction | The percent reduction of Total Freshwater withdrawal in the current year (FY2022) compared to the base year (FY2019) | Calculated by the difference of “Current Year Total Freshwater Withdrawal” to “FY2019 Total Freshwater Withdrawal” divided by “FY2019 Total Freshwater Withdrawal” and multiplying by 100. |

**Metrics and results:**

**Diverting Waste from Landfill**

| Metric                               | Results   |
|--------------------------------------|---|
| Percent Waste Diverted from Landfill | <b>78 %</b> <input checked="" type="checkbox"/> |

**Waste Note 1**

**Basis of Presentation**

The Planet CP metric related to Waste Diverted from Landfill includes the Company’s operations as previously described in GHG Note 1. This metric has been prepared in accordance with accepted principles and methods as further described below.

**Takeda Owned Assets**

The Company includes waste generated from all owned sites over which Takeda has operational control to introduce and implement operating policies during the reporting year.

**Leased Assets**

The Company includes leased assets that fall under the “right-of-use” definition (as defined by the International Accounting Standards Board in International Financial Reporting Standard 16) in water reporting. Short-term leases (duration less than 12 months) are excluded as well as low value lease contracts (total value less than \$5,000 USD/668,000 JPY). When a leased asset is divested or acquired during a reporting period, the Company accounts for its waste proportionally to the duration it was under its operational control during the reporting period.

**Exclusions**

Specifically excluded from this metric is waste generated as part of construction, demolition, and environmental remediation activities, and waste generated in offices with occupancies less than 400 full time employees. Residential properties, undeveloped land independent of area (e.g., open space, botanical garden), subleased sites and parking garages are also excluded.

**Estimation Uncertainties**

Data used in the preparation of the Planet CP metric related to Waste Diversion from Landfill are subject to measurement uncertainties resulting from limitations inherent in the nature and methods for determining such data. The selection of different but acceptable measurement techniques can result in



materially different measurements. The precision of different measurement techniques may also vary.

The preparation of the metric requires management to make estimates and assumptions that affect amounts reported. We base these estimates, including methodologies to calculate waste metrics, on available information and various other assumptions that it believes to be reasonable.

**Waste Reporting Period**

The reporting period for this metric consists of the fiscal year 2022.

**Waste Metric Sources and Calculation Methods**

| <b>Metric</b>                         | <b>Description of the types and sources of data used to calculate waste volumes</b>  | <b>Calculation Method and Assumptions</b>  |
|---------------------------------------|--|--|
| Total Waste Generated                 | The information provided by waste vendor (for example, invoice or waste manifest) is generally used for data input to the Company’s environmental metrics database | Calculated as the total sum of waste quantities reported.<br><br>Total waste generated is defined as the sum of waste reported at sites where the Company had operational control during the reporting period. Waste generated as part of construction, demolition, and environmental remediation activities is excluded.                |
| Percent Waste Diverted from Landfills | The information provided by the waste vendor on the waste invoice is generally used for data input to the Company’s environmental metrics database                 | Calculated by subtracting the calculated % waste sent to landfill from 100%.<br><br>Landfills are defined as engineered disposal sites where wastes are deposited at or below the ground level.<br><br>Diverted from landfills include all diversion methods including, re-use, recycling, incineration with or without energy recovery. |
| Percent Waste Sent to Landfill        | The information provided by the waste vendor on the waste invoice is generally used for data input to the Company’s metrics database                               | Calculated by dividing the total waste reported as sent to landfill by the total waste generated and multiplying by 100. Waste generated as part of construction, demolition, and environmental remediation activities is excluded.<br><br>See “Percent Waste Diverted from Landfills” for definition of Landfills.                      |

**Metrics and results:**

**Making Paper and Paperboard Packaging from Sustainable Forest Certified or Recycled Content**

| Metric   | Results   |
|--|---|
| Percent of the Company’s secondary and tertiary packaging paper/ paperboard that is recycled content or sustainable forest certified | <b>42 %</b> <input checked="" type="checkbox"/> |

**Secondary and Tertiary Packaging Material Note 1**

**Basis of Presentation**

The Planet CP metric related to Secondary and Tertiary Packaging Material includes the Company’s operations as previously described in GHG Note 1. In scope for these metrics are at least 90% of paper and paper board material (by spend) directly purchased by the Company for secondary and tertiary packaging uses at owned or leased sites where the Company has operational control to pack products intended for sale. Excluded is any packaging material purchased and used by Company’s vendors where the Company does not have operational control. This metric has been prepared in accordance with accepted principles and methods as further described below.

**Estimation Uncertainties**

Data used in the preparation of the Planet CP metric related to Secondary and Tertiary Packaging Material are subject to measurement uncertainties resulting from limitations inherent in the nature and methods for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

The preparation of the metric requires management to make estimates and assumptions that affect amounts reported.

**Reporting Period**

The reporting period for this metric is the fiscal year 2021. The data collection process for fiscal year 2022 will be concluded in fall of 2023 and the metric will be reported in the following year.

**Secondary and Tertiary Packaging Material Metrics Sources and Calculation Methods**

| <b>Metric</b>  | <b>Description of the types and sources of data used to calculate secondary and tertiary packaging material volumes</b>             | <b>Calculation Method and Assumptions</b>   |
|--|---|---|
| Total weight of paper or paperboard procured for secondary and tertiary packaging that is recycled content             | Supplier-provided data from annual questionnaire indicating the weight of paper and paperboard that is recycled content             | <p>Calculated as the sum of total paper and paperboard self-reported by the suppliers to be recycled content.</p> <p>Paperboard is defined as thick paper-based material that is produced from fibrous raw material. Secondary Packaging is defined as the overlaying packaging material that lies outside the primary packaging. Tertiary Packaging is defined as the overpacking material that lies outside the secondary packaging, for example, large cardboard delivery boxes (shippers).</p> <p>Recycled content paper and paperboard is defined as paperboard that includes paper and/or paperboard content that has been recovered and reprocessed into new paper products.</p> |
| Total weight of paper or paperboard procured for secondary and tertiary packaging that is certified forest sustainable | Supplier-provided data from annual questionnaire indicating the weight of paper and paperboard that is forest sustainable certified | <p>Calculated as the sum of paper and paperboard self-reported by the suppliers to be certified forest sustainable.</p> <p>Certifications accepted are FSC, SFI or PEFC.</p>  |

| <b>Metric</b>  | <b>Description of the types and sources of data used to calculate secondary and tertiary packaging material volumes</b>                       | <b>Calculation Method and Assumptions</b>   |
|--|---|---|
| Total weight of paper or paperboard procured for secondary and tertiary packaging  | The Company procurement database tracks and consolidates the total weight of packaging purchased. This is verified by supplier-provided data. | Calculated as the sum of total paper and paperboard procured for secondary or tertiary packaging  |
| Percent of the Company's secondary and tertiary packaging paper/ paperboard that is recycled content or sustainable forest certified |   | Calculated by dividing the sum of total of secondary or tertiary paper & paperboard reported as recycled content or sustainable forest certified with the total secondary and tertiary paper & paperboard purchased and multiplying by 100. |