Methodology for calculating the

Environmental Profit & Loss statement and Material Flow 2024

PHILIPS

The Environmental Profit & Loss (EP&L) statement is an economic valuation in EUR of the impact that Philips has on the environment, or in other words: an environmental footprint of Philips' complete value chain expressed in monetary terms with some exclusions mentioned later in the report. It is based on LCA methodology.

Philips has been performing Life-Cycle Assessments (LCAs) since 1990. These LCAs provide insight into the lifetime environmental impact of our products. They are used to steer our EcoDesign efforts by reducing the environmental impact during the lifetime of our products and to grow our Green/EcoDesigned/EcoHero and Circular portfolio.

As a next step, for the eighth year, we have measured our environmental impact on society at large via a so-called EP&L statement, which includes the hidden environmental costs associated with our activities and products. It provides insights into the main environmental hotspots and innovation areas to reduce the environmental impact of our products and solutions.

The EP&L is based on LCA methodology, in which the environmental impacts are expressed in monetary terms using conversion factors developed by CE Delft. These conversion factors are subject to further refinement and are expected to change over time. We used expert opinions and estimates for some parts of the calculations. The figures reported are Philips' best possible estimates. As we gain new insights and retrieve more and better data, we will enhance the methodology, use-cases and accuracy of results in the future.

The current EP&L statement only includes the hidden environmental costs. It does not yet include the benefits to society that Philips generates by improving people's health and well-being through our products and solutions. We have a well-established methodology to calculate the number of lives we positively touch with our products and solutions. We aim to look into valuing these societal benefits in monetary terms in the future.

EP&L Scope

The scope of the EP&L statement comprises three parts:

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Scope of Environmental Profit & Loss statement 2024

1 **Business activities**
All business activities and markets are included in scope except software, hardware servicing during use phase (parts replacement), consumables and accessories.

2 **Value chain**
The scope of the EP&L statement is 'cradle to grave'. It includes raw material, component and packaging production and processing; Philips' own operations (manufacturing, offices, business travel and logistics); usage of our products, production related waste, and; disposal at the end of life.

3 **Environmental impact**
The choice of environmental impacts is related to the LCA methodology ReCiPe and the monetary valuation methodology that has been chosen. Further explanation is given under 'Methodology'.

This document describes the methodologies we used to calculate the 2024 EP&L statement and the material flow, including information on the scope, assumptions and data sources. As described in the material flow section, certain inputs to the material flow come directly from the EP&L and therefore rely on the EP&L methodology. The 'EP&L' metric and material flow metrics are part of the assurance assignment of EY. EY's assurance report can be found here: chapter 9.3.3 "Limited assurance report of the independent auditor on the sustainability statement" of the Annual Report 2024.

EP&L Business activities

For Personal Health, 97% of the product portfolio revenue is covered in the EP&L. Non covered products consist of accessories, spare parts, and products with relatively low sales revenue. Consumables that are directly connected to consumer electronic products, such as brush heads for toothbrushes, have been included. Consumables and accessories not directly attached to the product (e.g. shaving gel) are not included. Reason for the exclusion of consumables and accessories is that due to the large variety it is not yet possible to accurately determine the overall material composition and weight.

For Philips segments Diagnosis and Treatment, Connected Care, and Other, 83% of the revenue is included in scope when the sales from products described as "Not Assigned" by finance and products with Material IDs that have "0" quantities are excluded from this calculation. All medical systems and most monitors are included in the calculation with the exception of Lumify, and product (spare) parts.

Consumables, accessories, and hardware upgrades are excluded from the scope with the exception of masks, cuffs, and selected cables (including ECG cables). Reason for the exclusion of consumables (e.g. sensors, etc.) and accessories is that due to the large variety it is not yet possible to accurately determine the overall material composition and weight.

Hardware upgrades and parts replacement (repair) of medical equipment during the use phase of medical equipment are difficult to trace back to material composition and are thus not included yet in scope for the EP&L. However, the environmental impact of business travel of the service engineers is included in scope of the EP&L. Additionally, parts replacement (repair) is included in our material flow.

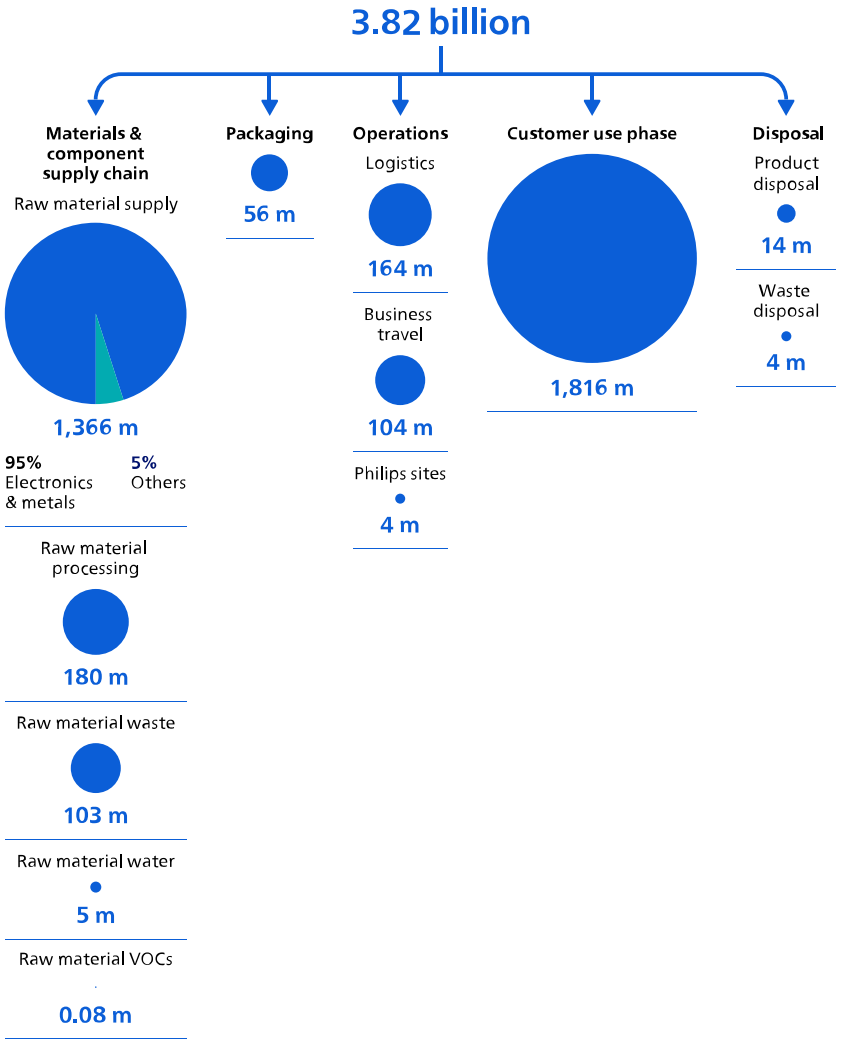
The Philips products subject to the Respironics recall was evaluated as part of the 2024 EP&L calculation. In accordance with the EP&L methodology, products replaced during the recall by new products with lifetime guarantees were included in the 2024 EP&L calculation for all life cycle stages. Refurbished products and repair kits were not included.

EP&L Out of scope

Not included in the EP&L, besides the above mentioned out-of-scope business activities, are inputs- and outputs that are difficult to assess and have a relatively low contribution:

- Inbound transport of subassemblies[1]
- Hazardous emissions to air and water, and process chemicals at Philips manufacturing sites
- Waste and water consumption of non-industrial Philips sites (e.g. offices and warehouses)
- Bulk packaging for Personal Health

Philips Group
Environmental Profit & Loss statement in EUR
2024



[1] For raw materials and components, the EcoInvent 'market for' datasets are used which include all required logistics to make a material available on the market, where possible. However, the last mile transport from tier 1 suppliers to Philips is not included in our EP&L calculation.

Value chain

The scope of the EP&L contains all lifecycle stages of a Philips product. In the subsequent sections, more information is provided on the key contributors, e.g. the use phase and purchased goods.

For extraction and production of components (e.g. plastics and printed circuit boards), generic environmental impact data from the LCI database EcoInvent v3.9.1 have been used. EcoInvent references associated with Global (GLO) or Rest of World (ROW) values are primarily used since the origin of the materials is not easily determined given the many intermediate suppliers. Forming of metal and plastic materials into parts, e.g. with metal extrusion or injection moulding, is included in scope as the raw material processing lifecycle stage.

Use Phase

Energy consumption of our products (~48%) is the largest Philips' environmental impact. The energy consumption during the lifetime of the products sold in 2024 is included. As shown in Table 2 below, lifetime for Personal Health products is based on Lives Improved data and lifetime for Health Systems products is based on the lifetime of the products, e.g. 10 years in the case of a MRI.

For example, the environmental impact of electricity needed to use a Diamond Clean toothbrush during its full lifetime of an estimated five years, so until 2029, is included in the 2024 EP&L statement. This is a significant overestimate of the 2024 impact; however, as the life-cycle impact is 'generated' in 2024 it has been decided to account for this impact in the year that the products are sold. The only exception is Reference Products identified as rentals since they are billed annually. The energy consumption of one year of rental and a one year allocation of materials are included in the 2024 EP&L calculation.

The use-case scenarios, defined by the power consumption, duration and frequency of use, has a significant impact on the result, especially for consumer products, which have large sales volumes, long lifetimes and frequently high energy consumption (e.g. haircare products). The impact of the electricity consumption of our products is measured based on the specific energy mix of the country where the products are sold. For those countries without an emission factor, the market data is first used and if the market data is not available, then the world average is being used.

For Philips segments Diagnosis and Treatment and Connected Care, we calculate the energy consumption either according to Philips' proposal to COCIR methodology for Business Units CT AMI, DXR, and Ultrasound or according to the average use case for business units MR and IGT. In 2025, we plan to continue to work with COCIR to align use cases across the sector. The COCIR standards (versions 1.0 and 2.0,) describe how a power measurement should be carried out and what use case scenario to apply as to number of hours per day in ready-to-scan, standby, off and scanning mode. In the current EP&L statement, the worst case scenario is applied for the average use case (e.g. 10 hours of scan mode instead of 10 hours of alternating between scan and ready to scan mode), which provides an overestimation of the impact.

The total energy impact is also determined by the number of days that a medical system is used per year and the total lifetime. For the use frequency we apply 250 to 365 days per year for diagnostic medical systems assuming usage during normal working hours only (5 days per week and including 2-week holiday) or usage every day of the year. Actual number of days that diagnostic equipment is being used will depend on patient schedules and emergency situations which will differ per hospital. As to lifetime for medical systems, an average of 10 years is used for patient monitors, X-ray, CT-, MR- IGT- and Ultrasound equipment and between 5 and 10 years for S&RC equipment. The lifetime is based on our expected service lifetime.

Purchased Goods

For 2024 EP&L reporting, Philips has included the following lifecycle stages associated with Purchased Goods: Raw Material Supply, Packaging, Raw Material Processing, Raw Material Waste, and Raw Material VOCs. The impact of purchased goods relative to the total Philips' environmental impact is ~45%.

For the materials in the reference products, the Bill of Material (BOM) provided from the business is used. The BOM information is received from businesses either manually or in the case of PH Mother & Childcare via Windchill (Product Lifecycle System). For packaging in the reference products, the BOM provided manually by HS businesses is used. For PH, with the exception of certain PH Mother & Childcare products, the packaging BOM is determined using the WEEE packaging data from the businesses and an average weight is determined per material. These average weights are aggregated into the reference product packaging BOM. This methodology, including averaging weights across large portfolios and aggregating per material, is the best estimate by Philips. Philips allows a 5% deviation in total weight.

The weight per material per reference product for products and packaging are multiplied by the quantity sold of that reference product. Each material is mapped to an EcoInvent reference associated with processing to determine the impact of upstream (supplier) processing.

The Raw Material Waste, Raw Material VOC, and Waste Disposal life cycle stages in the EP&L include a subset of the Philips industrial sites (i.e. those that have adopted automated waste reporting) plus two non-industrial sites (Mount Pleasant and Murrysville – B1). Therefore, 83% of the total Philips waste (15,998 tonnes out of 20,157 tonnes of total Philips waste from industrial sites + 697 tonnes of Philips waste from Mount Pleasant) is captured in the EP&L reporting. For the waste included in the EP&L reporting, 65% is considered to be "in scope" with remaining 35% considered "out of scope". The In Scope Items include: production related waste; and Batteries, Metals (Iron and Steel), Paint, and Printing Ink associated with Chemical Waste. Philips will continue to expand the reporting on raw material waste in 2025.

For the Raw Material VOC life cycle stage, 100% of the total Philips VOC emissions (69.2 tonnes out of 69.2 tonnes of total Philips VOC emissions) are captured in the EP&L reporting. For the VOC emissions included in the EP&L reporting, 92% (63.7 tonnes) is considered to be "in scope" with remaining 8% considered "out of scope". The In Scope Items include the top 16 VOC

chemicals used by Philips. Philips will continue to expand the reporting on raw material VOC in 2025.

Other Lifecycle Stages
The Raw Material Water life cycle stage in the EP&L includes water reported from Philips industrial sites and Philips non-industrial sites (including large offices, All Parts Medical, and Agito). Therefore, 100% of the reported total Philips water is captured in the EP&L reporting.

Environmental impacts
The choice of environmental impacts is related to the LCA methodology (ReCiPe) and the monetary valuation method that has been chosen. Further explanation is found under 'Methodology'.

EP&L Methodology

The method used to translate emissions and resource extractions into environmental impacts is the internationally recognized ReCiPe 2016 v1.03, midpoint (H) methodology. The impacts are monetized by use of the environmental pricing as provided by CE Delft. The EP&L calculation uses the environmental impact per reference product multiplied by the quantities of products sold within the specific part of the portfolio that the reference product represents and then expressed in EUR. A "reference product" is defined as a product representative of part of the product portfolio sold by Philips. Reference products are selected because they represent the majority sold (by quantity) in that part of the product portfolio and are similar in terms of product characteristics to the rest of other products in that portfolio. Philips uses references products to simplify the data required for the EP&L statement, while ensuring coverage. Reference products cover almost the entire Philips portfolio (see Business Activities section above). Data models are based on the Swiss national LCI database EcoInvent v.3.9.1, for background as well as foreground data.

The environmental pricing methodology of CE Delft is based on the ReCiPe 2016 methodology for LCA. The prices (see table 1) are so-called damage costs (as opposed to prevention or abatement costs) and represent the willingness of citizens to pay for not having to be exposed to an additional 1 kg of environmental pollution, expressed in EUR per 1 kg of emissions.

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Environmental impact categories

- Climate change
- Ozone depletion
- Human toxicity (carcinogenic and non-carcinogenic)
- Eutrophication (marine and freshwater)
- Photochemical oxidant formation (human health and terrestrial ecosystems)
- Particulate matter formation
- Acidification (terrestrial)
- Ionizing radiation
- Ecotoxicity (terrestrial, marine, and freshwater)
- Agricultural land occupation
- Water depletion
- Fossil depletion
- Material resources metals minerals

As recommended by CE Delft, the environmental price for carbon was adjusted in 2024 with the yearly adjustment (by 4.3% each year).

The European environmental prices have been used for the calculations. Since Philips manufactures and sells products globally. However, global environmental prices are not available. Therefore, EU27 prices are used, as they provide extensive coverage.

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Environmental prices for LCA: ReCiPe 2016 midpoints in $€_{2021}$ per unit for EU27

Environmental impact category	Unit	Environmental price (Central) $€_{2021}$/unit
Global warming	€/kg CO_2-eq.	0.13
Stratospheric ozone depletion	€/kg CFC-11-eq.	29.1
Ionizing radiation	€/kBq Co-60-eq.	0.00422
Ozone formation, human health	€/kg NO_x-eq.	2.17
Ozone formation, terrestrial ecosystems	€/kg NO_x-eq.	0.416
Fine particulate matter formation	€/kg $PM_{2.5}$-eq.	99.2
Terrestrial acidification	€/kg SO_2-eq.	5.27
Freshwater eutrophication	€/kg P-eq.	3.74
Marine eutrophication	€/kg N-eq.	14.25
Terrestrial ecotoxicity	€/kg 1,4-DCB-eq.	0.00064
Freshwater ecotoxicity	€/kg 1,4-DCB-eq.	0.0209
Marine ecotoxicity	€/kg 1,4-DCB-eq.	0.0032
Human carcinogenic toxicity	€/kg 1,4-DCB-eq.	3.99
Human non-carcinogenic toxicity	€/kg 1,4-DCB-eq.	0.071
Land use	€/m^2a crop-eq.	0.099
Mineral resource scarcity	€/kg Cu-eq.	0.014
Fossil resource scarcity	€/kg olie-eq.	0.028
Water consumption	€/m^3	0.407

Material Flow

Our material flow captures the weight-based flow of materials from our products, parts and packaging and sites waste, including Volatile Organic Compound (VOC) emissions, across its lifecycle with Philips. From our material flow, we derive the total weight of materials put to market in the reporting year, including also material attributes related to material inflow, outflow potential and waste. Rather than inspecting the resource inflow we therefore focus on material outflows, and as such assume that total material inflow is equivalent to all material outflows.

Material Flow Scope

The scope of the material flow includes total materials related to:

- Products and packaging sold to our customers & consumers (reported as part of EP&L statement);
- Parts for equipment maintenance (provided through other IT systems);
- Production-related waste materials (associated with both materials and packaging) generated from manufacturing operations (reported as part of EP&L statement); and
- Volatile organic compound (VOC) emissions generated from manufacturing operations (reported through Credit 360).

The inputs related to EP&L are obtained across the following life-cycle stages: Raw Material Supply, Packaging, Raw Material waste and Raw Material VOC. See EP&L methodology for more information.

Non-production related materials (e.g., canteen waste), some production-related chemicals, and equipment used in operations are currently excluded.

Methodology

We use an output-based model for our material flow meaning that we report on materials that move outside Philips operational control within the reporting year. Our material flow reporting has been divided into material inflow content and material outflow content.

Material Inflow

For our material inflow, we look at the material content, including whether its renewable, reused or recycled. Moreover, we also quantify the materials that are considered to be either a critical or strategic raw material.

Renewable and Recycled Content, including sustainably sourced renewable materials

Renewable and recycled content is limited to products and packaging in-scope of the EP&L. Materials considered "renewable" have been identified based on material type. This includes for example wood, paper and cardboard.

For our renewable materials, we also determine whether these were sustainably sourced. This was done by verifying an FSC, FSI, or PEFC certificate on-hand from our suppliers, along with a signed declaration confirming the supplier sends certified materials to Philips.

Global values for material recycling rates have been used to determine recycled content in metals and paper/cardboard. For example, we have attributed 37% recycled content to all copper. The metal recycling rates are on global averages from the UNEP report on metals recycling, and for paper/cardboard, the BIR paper report was leveraged.

Re-used Content

The reused content is limited to products and packaging in scope of the EP&L as well as parts for equipment maintenance and reused content in X-ray tubes also in manufacturing. This includes reused parts for our maintenance services and sold to service providers. The reused content has been assessed at a product level instead of per material type. The re-used weights from our refurbished equipment are calculated based on a 1-year average re-use % per equipment multiplied by its original weight. For X-ray tubes, only the re-used material weight is considered. For the re-used and refurbished products from Personal Health, we have assumed that all product and part weight has been re-used. For shavers, however, we assume shaver heads and other accessories are always replaced. The reuse % of SRC rental products is calculated based on the assumption that the product is rented out annually over its lifetime (i.e. five years). Since it is unknown which year of rental the revenues are coming from for annual reporting, 20% of the product is considered 'new', and 80% of the product is considered 'reused'. This leads to a reuse rate in the EP&L of 80%.

It should be noted that the reuse % for our reused content reporting related to EP&L is only applied to the 'raw material supply' lifecycle stage.

Strategic and Critical Raw Materials

We assess which materials can be classified as a critical or strategic raw materials based on the list as defined by the European Commission (Annexes 1 & 2). The total weights of the EcoInvent References associated with these materials are derived from EP&L.

Material Outflow potential

For our material outflow, we look at the potential of materials to re-enter the technical and biological loops of a circular economy. This includes assessing its recyclable content and whether the material can be classified as technical or biological.

Technical vs Biological

Each material type in the EP&L is classified as either technical or biological, based on which loops the materials can go into at end-of-use. This way, we can calculate the weight of materials belonging to each category we put to market each year. A material is mapped to 'biological' if it can theoretically go into biological loops (e.g., anaerobic digestion), and 'technical' if it can theoretically go into technical loops (e.g., reuse). For example, steel can only go into technical loops, and is therefore classified as a technical material. Cardboard can safely go into biological loops, so is therefore classified as a biological material.

For biological materials, we also use the same methodology as for renewable materials to determine whether they are sustainably sourced.

Recyclable content

Based on inputs from our recycling partners & internal experts, rates of recyclable content were attributed to each material. For example, we have applied a rate of 100% recyclable content to lead-acid batteries and 0% recyclable content for lithium ion batteries based on Recycling of Li-Ion and Lead Acid Batteries: A Review | Journal of the Indian Institute of Science. These rates were leveraged to report the weight of recyclable materials we put to market. We assess the recyclable content across all materials including also for the technical and biological ones. While a biological material has the potential to be restored back into nature, these materials can however, also end up in technical cycles, e.g. via reuse or recycling. An example is paper that can be broken down into biological nutrients for nature, but its main recovery pathway today is recycling.

Data	Source	Remark
Company level data collection		
Environmental data Philips sites – Energy, Water, and VOC Emissions	Energy consumption, Water consumption, and VOC emissions as registered in Credit360 software (used by Philips sites)	Waste and non-VOC process chemicals excluded. Geographical scope of EcoInvent datasets: country-specific datasets used for energy processes. For example, for China-based plants, the Chinese electricity mix is used.
Environmental data Philips sites - Waste	Waste weight data was provided by each site's waste service providers in monthly reports/invoices/bill of landing/ manifests/SAP.	Treatment details were confirmed by the service provider via reports or email communication or included in the contract. Waste sources, where waste is generated, were provided by the site data collectors. Waste codes were provided according to the local regulations.
Energy consumption office buildings	Invoices from our energy providers	Aggregated at Corporate level and automated into the EP&L calculations using EcoInvent emission factors.
Outbound transportation supplied and (semi)final goods	Invoices from our logistics providers	This includes transportation between Philips sites and from Philips sites to customers.
Business travel	Internal declaration system as used by Philips employees	Aggregated at Corporate level and automated into the EP&L calculations using EcoInvent emission factors.
Final Product Disposal	WEEE disposal scenario in EcoInvent database	Aggregated at Corporate level and automated into the EP&L calculations using EcoInvent emission factors. Includes the weight of products' materials and packaging. Assumes 30 km transportation by truck from disposal location (e.g. retailer or hospital) to waste treatment / recycling facility.
Waste Disposal	Waste treatment scenarios provided by each site's waste service providers in monthly reports/invoices/bill of landing/ manifests/SAP.	Treatment details were confirmed by the service provider via reports or email communication or included in the contract. Aggregated at Corporate level and automated into the EP&L calculations using EcoInvent emission factors.
Product specific data collection		
Material composition and weight Philips products	Bill of materials (BOM) of reference products and product documentation Philips website	For each business, within the mentioned scope, representative reference products with high sales quantities were identified and the material composition of these products derived. These data were used as proxy for comparable other product categories. Net BOM data have been used. For Raw Material Processing, the EcoInvent References for the materials have been mapped to the following material processing groups: aluminum, chromium, copper, steel, rest of metal, plastics, and other.
Packaging composition and weight Philips products	Bill of materials (BOM) of reference products, WEEE packaging documentation, and product documentation Philips website	For each business, within the mentioned scope, representative reference products with high sales quantities were identified and the packaging composition of these products derived. These data were used as proxy for comparable other product categories. For Raw Material Processing, the EcoInvent References for the materials have been mapped to the following material processing groups: aluminum, chromium, copper, steel, rest of metal, plastics, and other.
Sales Quantities	Sales data from Philips Management Accounting (PMA)	
Use Phase	Based on power (W), duration of usage per day, and frequency (i.e. days per year).	If data was not available, assumptions were made based on use cases of similar products. Geographical scope of EcoInvent datasets: country-specific datasets used for electricity generation when available; For those countries without an emission factor, the market data is first used and if the market data is not available, then the world average is being used.
Material extraction and processing upstream	Generic data from EcoInvent (LCA) database (industry averages)	No specific environmental data from suppliers have been collected. Geographical scope of EcoInvent datasets: Global (GLO) or Rest of World (RoW) data for materials, unless country of origin is known, or if only European dataset (RER) is available.

Data quality

Several factors are influencing the bandwidth of the final EP&L statement and material flow results:

- Accurateness of generic datasets
- Scope of data included
- The choice of reference products as proxies to cover all product categories
- The pattern of use of products to derive the electricity consumption (e.g. time per day, number of days, and lifetime)
- Assumptions made and the quality of the data supporting these assumptions

Availability and quality of data is a challenge inherent to LCA and results in uncertainty of the EP&L outcome. Uncertainty also results from the LCA and monetary valuation methodology used, which is based on assumptions that will vary over time.

The figures reported are Philips' best possible estimate. As we gain new insights and retrieve more and better data, we may enhance the methodology and accuracy of results in the future. The inherent uncertainties relevant to the further development of the EP&L are expressed in the related disclosures in the annual report.

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