

**Scope of report and  
methodology for Emmi  
environmental figures 2023**

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## 1 Introduction

In order to provide readers of the report on non-financial matters for 2023 with proper guidance, this document sets out the definition, scope, methodology and assumptions applied when reporting on core metrics from Emmi's focus issue environment. It currently presents a selection of non-financial key performance indicators (KPIs).

Emmi will review the methodology and the KPIs selected on an annual basis in order to take account of any changes in its business priorities, regulatory requirements, established practices and industry standards as well as feedback from stakeholders.

## 2 Reporting scope

### "In scope" companies

A company is essentially "in scope" for the purposes of environmental figures if the company's financial performance is consolidated within Emmi Group's annual report and if it operates its own production or warehousing facilities. 100% of the company's consumption and emissions are imputed to Emmi if it holds the majority of the shares in a company, irrespective of the actual level of the shareholding, whereas 0% of the consumption and emissions are imputed if it has a minority shareholding.

Exceptions to this rule apply in the event of the acquisition or sale of a company. According to internal rules, newly acquired companies are incorporated into environmental reporting following the completion of two full financial years (24 months) after closing. No changes took place on this score during the year under review (Emmi Dessert USA, which was acquired in 2021, has not yet been included in the data and will be incorporated as of 2024).

As of this year, any companies sold (during the year under review, Gläserne Molkerei GmbH and Gläserne Molkerei Münchehofe GmbH) will no longer be included in environmental data for the current year.

Any data and figures relating to legal entities other than these "in scope" companies are not covered by the environmental figures contained in this report.

### Collection of data

Each figure mentioned in this report is obtained in accordance with internal guidelines applicable to processes, tools, roles and responsibilities. The most important key points are mentioned in this report. If

data cannot be measured or obtained from third parties, they are estimated to the best of our knowledge and belief.

### **3 Scope 1 greenhouse gas emissions**

#### **Metric**

Absolute greenhouse gas emissions in tonnes (t) of CO<sub>2</sub> equivalent – abbreviated to t CO<sub>2</sub>e

#### **Definition**

Annual scope 1 greenhouse gas emissions resulting from the consumption of combustibles/fuels for our own facilities and/or vehicles as well as the loss from cooling systems of coolant that contributes to the greenhouse effect. The calculation takes account of all greenhouse gases. The IPCC 2013 GWP 100 method was applied in order to calculate emissions, and we follow the GHG Protocol Standard as well as the recommendations of the Science Based Targets initiative (SBTi).

#### **Scope**

Until now, any emissions arising in relation to the processing of wastewater within the company have not been included. Over the course of financial year 2024, the relevance of this item will be assessed and, if appropriate, it will be incorporated into our scope 1 emissions.

#### **Preparation of figures**

At quarterly intervals, production sites enter monthly figures for their energy consumption and coolant losses within our company reporting tool "Magellan" based on calculations or metre readings. Emissions factors are applied at Group level within the system and reviewed/adjusted annually. When doing so, we base our action on country-specific information from authorities such as the FOEN (Federal Office for the Environment, Switzerland) or DEFRA (Department for Environment, Food & Rural Affairs, United Kingdom), where available.

Greenhouse gas emissions are calculated directly within the company's internal system and displayed with reference to consumption/losses and the corresponding emissions factors.

#### **Assumptions**

In order to calculate emissions, we follow the GHG Protocol Standard as well as the recommendations of the SBTi. For instance, in 2024 the baseline targets will be recalculated in accordance with the rules and recommendations of the SBTi.

## 4 Scope 2 greenhouse gas emissions

### Metric

Absolute greenhouse gas emissions (location-based and market-based) in tonnes (t) of CO<sub>2</sub> equivalent – abbreviated to t CO<sub>2</sub>e

### Definition

Annual scope 2 greenhouse gas emissions (location-based and market-based) resulting from the purchase of electricity or district heating. The calculation takes account of all greenhouse gases. The IPCC 2013 GWP 100 method was applied in order to calculate emissions, and we follow the GHG Protocol Standard as well as the recommendations of the SBTi.

### Scope

No further limitations other than those mentioned above.

### Preparation of figures

At quarterly intervals, production sites enter monthly figures for their purchased energy (electricity/district heating) within our company reporting tool “Magellan” based on invoices or metre readings. Emissions factors are applied at Group level within the system and reviewed/adjusted annually. When doing so, we base our action on country-specific information from authorities such as ecoinvent (2018), AIB (2017) or the IEA (2018), where available.

Greenhouse gas emissions (market-based) are calculated directly within the company's internal system and displayed with reference to consumption/losses and the corresponding emissions factors.

### Assumptions

In order to calculate emissions, and we follow the GHG Protocol Standard as well as the recommendations of the SBTi. For instance, in 2024 the baseline and targets will be recalculated in accordance with the rules and recommendations of the SBTi.

## 5 Scope 3 greenhouse gas emissions

### Metric

Greenhouse gas emissions in tonnes (t) CO<sub>2</sub> equivalent as a proportion of the quantity of milk purchased in tonnes (t) – abbreviated to t CO<sub>2</sub>e per t milk

### Definition

Scope 3 annual greenhouse gas emissions caused by the purchase of raw materials or outsourced services. The calculation takes account of all greenhouse gases. The IPCC 2013 GWP 100 method was applied in order to calculate emissions, and we follow the GHG Protocol Standard as well as the recommendations of the SBTi.

### Scope

Scope 3 emissions are calculated according to the categories of the GHG Protocol. The categories “use of sold products”, “downstream leased assets”, “franchises”, “purchased services” and “investments” are not included in the calculation. The categories “capital goods”, “upstream leased assets” and “processing of sold products” (B2B) are included in the calculation.

### Preparation of figures

As mentioned above, energy and media consumption are recorded via the internal company reporting tool (Magellan). The quantities of purchased raw materials and packaging materials are obtained from country companies by central procurement and consolidated. Emissions factors are based on the recalculation carried out by Quantis in 2019 with reference to IPCC 2013 GWP 100. We use figures from WFLDB 3.0/3.4, ecoinvent v3.3, Agribalyse, WIOD, DEFRA 19, the BAFU 14 and Treeze 17. Methane emissions (biogen) are calculated with a factor of 27.7, and nitrous oxide with a factor of 265.

Greenhouse gas emissions are calculated and reported from the quantities and the respective emissions factors using an Excel tool based on the GHG Protocol.

### Assumptions

The categories “capital goods”, “upstream leased assets” and “processing of sold products” (B2B) were calculated for the baseline year 2019 and retained at the same level for subsequent years.

If no specific information is available for international facilities, values (based on information from Division Switzerland) are extrapolated in relation to sales volumes.

## 6 Water consumption (in own facilities)

### Metric

Intensity of water consumption in cubic metres (m<sup>3</sup>) as a proportion of saleable goods produced in tonnes (t) – abbreviated to m<sup>3</sup> water per t product

### Definition

Fresh water consumption in m<sup>3</sup> (communal, groundwater, own source) in accordance with incoming freshwater metre readings (sum total of individual readings) on the first day of each month. If water pumped from a stream needs to be processed (for instance by filtration), the relevant amount is the input amount, not the output amount. Wastewater that is recycled/purified for cooling purposes, surface water and cold water extracted from rivers are not included.

For the purposes of our internal company targets we draw a distinction between water risk areas and water non-risk areas. We have applied the WWF's water risk filter to distinguish between these and have assessed all production facilities. For this purpose, we have set an internal company threshold of three. Companies with a score higher than or equal to three are deemed to fall within water risk areas.

### Scope

Companies in water risk areas include our facilities in Mahdia (Tunisia), Mexico City (Mexico), Sebastopol (California), Turlock (California), Petaluma (California) and Calera de Tango (Chile).

All other facilities are deemed to lie within non-risk areas.

### Preparation of figures

At quarterly intervals, production sites enter monthly figures for their water consumption within our company reporting tool "Magellan" based on calculations or metre readings.

The water intensity rate is calculated directly within the company's internal system and displayed with reference to consumption and product quantities.

### Assumptions

None

## 7 Waste quantities (in own facilities)

### **Metric**

The intensity of waste designated for incineration or landfill in kilogrammes (kg) as a proportion of saleable goods produced in tonnes (t) – abbreviated to kg waste per t product

Quantity of waste designated for landfill in tonnes (t).

### **Definition**

Quantity of waste brought to an incineration facility, in tonnes (t).

Quantity of waste that cannot be recycled or incinerated, and that is therefore brought to landfill, in tonnes (t).

### **Scope**

This figure does not include quantities that are recycled, organic waste that is used as animal feed or biomass as well as special waste.

### **Preparation of figures**

At quarterly intervals, production sites enter monthly figures for their quantities of waste within our company reporting tool "Magellan" based on calculations or their own measurements.

The waste intensity rate is calculated directly within the company's internal system and displayed with reference to these waste and product quantities.

### **Assumptions**

Estimates are used if it is not possible to determine weight at regular intervals (either internally or externally). For this purpose, four annual measurement campaigns are carried out (e.g. weight of waste containers for one day is recorded), and quantities are grossed up based on the resulting average and the number of containers.



## 8 Food waste (in own facilities)

### Metric

Quantity of dry matter food waste in tonnes (t) absolute

Food waste intensity from the quantity of dry matter food waste in tonnes (t) in terms of the quantity of product (output) in tonnes (t), indicated as a percentage (%)

### Definition

We operate according to the global "Food Loss and Waste Accounting and Reporting Standard".

We take "food waste" to refer to food that is unavoidably wasted. This covers all organic waste originally intended for human consumption that was not however consumed, and that must therefore be designated for alternative uses. The term "food" covers any substance, irrespective of the degree of processing, that is intended for human consumption. This also includes food that is spoiled and no longer suitable for consumption. We do not regard inedible substances that are not fit for human consumption (such as coffee grounds, cheese rind or laboratory samples) as food waste. We regard all wasted food that can no longer be repurposed for human nutrition as food waste. This also includes wasted food, largely in the form of side streams, which are used as animal feed. We do not apply this approach where animal feed is expressly produced according to the customer's order. In order for this exception to apply, an order must be placed and the production process must involve various production steps. In such cases, the quantity is not classified as "food waste". In our case, this only applies in relation to the production of animal feed in the form of skimmed milk powder, whey protein and whey powder. We classify all other side streams directed to animal feed producers as wasted food.

### Scope

All food waste generated between the receipt of incoming raw materials and the dispatch of finished products/by-products is considered. Any food wasted upstream in the production of incoming raw materials or semi-finished products is not considered. Similarly, any food wasted downstream is also not included within our scope (trade, sales, charity organisations etc.). A large proportion of our excess or defective products that can still be consumed without any problem end up in our Emmi Outlet Shops. This means that only a small proportion of goods remain unsold.

At present, food waste reporting is carried out exclusively for the Division Switzerland, taking account of the Emmen, Ostermundigen, Dagmersellen, Kaltbach, Landquart, Saignelégier, Kirchberg, Langnau, Suhr and Bischofszell locations as well as logistics. The integrated locations cover 93–95% of the milk processed in our Swiss facilities.

### **Preparation of figures**

Quantities are recorded twice each year by operations controllers, based on data from SAP. A centrally produced Excel template, which is adjusted in line with the circumstances of the location, is used for the assessment.

The assessment is based on a quantity statement indicating all incoming and outgoing raw materials, semi-finished products, finished products and by-products as well as transfers to other locations.

The quantity statement is based on the quantity of dry matter (TS). In order to enable quantities of materials to be converted, the percentage share of dry matter must be indicated for all materials. The impact of the standard deviation for dry matter content of incoming milk is reviewed.

Local data are consolidated and validated for Emmi Switzerland.

### **Assumptions**

If no measured/laboratory values for dry matter are available, then figures provided within specifications or the literature are used.

## **9 Plastic packaging**

### **Recyclability**

#### **Metric**

Average recyclable material as a percentage (%) of all consumer packaging containing plastic that is placed on the market

#### **Definition**

The RecyClass method as well as the German minimum standard are used as a basis for calculations. This method enables the proportion of recyclable material to be calculated, thus facilitating comprehensive analysis of recycling options for our packaging.

#### **Rigid packaging:**

PP and PE are deemed to be recyclable.

PET (not bottles) and PS are deemed to be recyclable to a limited extent, and appropriate infrastructure is being built up. We therefore classify these materials as recyclable within our future projection, provided that the threshold of 70% recyclable materials is reached.

#### **Flexible packaging:**

PP and PE film larger than DIN A4 are deemed to be recyclable, and smaller sheets recyclable to a limited extent. Composite film is not recyclable. We classify all flexible film as non-recyclable.

Beverage cartons: beverage cartons are recyclable. In future, beverage cartons will also be collected in Switzerland. We classify beverage cartons as recyclable.

### **Scope**

At present, this figure refers exclusively to the Division Switzerland.

The figure for recyclability refers to plastic packaging – beverage cartons are not currently included.

### **Preparation of figures**

Calculations are based on the SAP master data material presented within an MIS report. This is used as a basis for calculating the quantity of packaging material used with reference to the bill of materials and packaging master data, based on the total quantity of finished products sold.

### **Assumptions**

The recyclability of representative consumer units (such as for instance K3 packaging, moulded trays or bottles) is determined manually in RecyClass or Cyclos and grossed up for packaging units overall.

### **Proportion of recycled material**

#### **Metric**

Recycled material in tonnes (t) is given as a proportion of the total quantity of material used in tonnes (t); reported as a percentage

#### **Definition**

The figure for the proportion of recycled materials relates to plastic packaging. The figures also take account of the proportion of recycled material within secondary plastic packaging (such as shrink-wrap film).

### **Scope**

At present, this figure refers exclusively to the Division Switzerland.

### **Preparation of figures**

The proportion of recycled material is calculated with reference to the packaging weights recorded in packaging specifications in SAP. Packaging specifications are drawn up by packaging suppliers and are binding. The proportion of recycled material by weight and percentage is determined within an MIS report.

### **Assumptions**

None