Methodology for Greenhouse Gas Emissions Accounting

Scope 1

- **Fleet**
  Celonis uses diesel and gasoline fuel for its vehicles. The fuel consumption has been measured, and emission factors have been used from [GLEC (2019): Framework for Logistics Emissions Accounting and Reporting, version 2.0].

- **Air-conditioning**
  Fugitive emissions from air-conditioning are relevant for Celonis' footprint. The leakage amount was estimated based on the office area. Without internal production, no process emissions are relevant for Celonis.

Scope 2

Category 2.01 / 2.02
Electricity consumption or spend data has been taken from electricity bills. Where energy bills were not available, emissions were estimated using employee numbers. The calculations were done with emission factors from the IEA for electricity [International Energy Agency (2021): Emission Factors] for the location-based and market-based approach. For our Munich office, the electricity calculation for the market-based methodology based on an emission factor from the local supplier.

Category 2.03
Heating emissions were estimated based on spend-based activity data where available or, where actual energy bills were not available, square meters. Emission factors for district heating have been taken from the German Environment Agency [Umweltbundesamt (2019): Emissionsbilanz erneuerbarer Energietraeger - Bestimmung der vermiedenen Emissionen im Jahr 2018].

Scope 3

Category 3.01: Procured Goods & Services

- **Consumables**
  Data for the purchases has been collected for the relevant offices; this data has then been assessed with spend-based emission factors from [EXIOBASE (2018): EXIOBASE 3: Developing a Time Series of Detailed Environmentally Extended Multi-Regional Input-Output Tables], which contain environmentally extended input-output (EEIO) emission factors for most countries until 2019.

- **External servers**
  A spend-based model to calculate emissions based on different publicly available information like data center efficiency and electricity emission factors, has been used. The calculation is based on total server expenses which have been collected on a global level.

- **Service providers**
  The expenses for service providers have been assessed with spend-based emission factors from [EXIOBASE (2018) - see above]. These factors are based on macroeconomic models and include complete activities of service providers). This method is recommended by the European Environment Agency (EEA).

- **Water**
  Water consumption has been measured in liters or spend-based where available. Emission factors from [DEFRA (2019): Greenhouse gas reporting: conversion factors 2019 - full set] have been used. Where no information was available, the consumption was estimated based on previous calculations. For the calculation of the climate impact of the water supply and treatment [DEFRA (2019) - see above] has been used.

- **Cooling liquid**
  We also include the production emissions of the used cooling liquid for the office air conditioning. The amount of refilled cooling liquid was estimated and the emissions were calculated with [Cascini, A., Bortolini, M., Botti, L., Gamberi, M., Graziani, A., & Mora, C. (2015): Life Cycle Assessment of a commercial refrigeration system under different use configurations]

Category 3.02: Capital Goods

For Office Equipment total expenses for different equipment categories (e.g. furniture, hardware, etc.) have been collected on a global level and emissions were calculated using emission factors from [EXIOBASE (2018) - see above].

Category 3.05: Waste

- Offices

  The amount of waste was estimated based on FTEs. The emissions were then calculated with emission factors from [DEFRA (2019) - see above].
- Waste water

  Waste water is based on the actual or estimated water consumption (see 3.01). Emissions factors are taken from [DEFRA (2019) - see above].

Category 3.07: Commuting & Home-Office

For commuting and teleworking an employee survey has been used to obtain the data. Emission factors were taken from [UBA (2020) - see above], [BEIS (2021) - see above], [HBEFA (2018): HBEFA Version 4.1] and [IEA (2021) - see above] for commuting. For home-office working, a modeled emission factor for home-office per hour was used to assess the impact of one hour of remote working. The energy consumption is based on the average electricity consumption needed for the use of a laptop, lighting, cooling and gas consumption for the heating of the house.

Category 3.08: Upstream Leased Assets

This category includes emissions from leased cars, leased IT equipment and leased office spaces. The real estate rental fee for some office locations already includes air-conditioning, electricity, heating, waste and water and is charged as a flat fee. These expenses have been collected on a global level, except for the expense for the leased IT equipment. Emissions have been calculated with spend-based emission factors from [EXIOBASE (2018) - see above].

Category 3.11: Use of Sold Products

By spending time on Celonis' software and website, viewers use electrical energy with their end devices, which in turn generate emissions. Emissions have been estimated based on average energy consumption of cell phone or laptop chargers and the electricity mix of the respective customers' countries taken from [IEA (2021) - see above]. The consumption data has been provided by the analytics tool of Celonis' and converted into electricity consumed.

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Category 3.03: Fuel & Energy

Upstream emissions for electricity have been calculated based on the most up-to-date emission factors from [IEA - see above], [Umweltbundesamt 2019 - see above] and [Global Logistics Emissions Council (2019): framework for logistics emissions accounting and reporting, version 2.0].

Category 3.06: Business Travel

Corporate travel emissions data include spend-based travel information from the travel management system TripActions.

- **Flights**

  For flights, distances have been calculated using the distances and emission factors from [BEIS (2021): Greenhouse gas reporting: conversion factors 2021]. For locations where no detailed information was available, emissions have been assessed based on the total costs for all airplane trips with spend-based emission factors from [EXIOBASE (2018) - see above].
- **Train rides**

  Distances for train rides have been calculated based on detailed information regarding train trips and emission factors from [BEIS (2021) - see above] where available. For locations where no detailed information was available, emissions have been assessed based on the total costs for all train trips with spend-based emission factors from [EXIOBASE (2018)- see above].
- **Rental cars:**

  For rental cars, the price for the rental period was given for the relevant locations. These costs were converted to kilometers with [KORD (2019): Durchschnittsverbrauch der in Deutschland zugelassenen Pkw bis 2018]. Emissions have been determined with [DIN (2013): DIN EN 16258 - Methode zur Berechnung und Deklaration des Energieverbrauchs und der Treibhausgasemissionen bei Transportdienstleistungen (Güter- und Personenverkehr)] and [BEIS (2022)].
- **Private cars**

  Use of private cars was either available in kilometers or the kilometers were assumed on the basis of cost reimbursementss.
- **Hotels**

  For hotels the number of nights was extracted from TripActions and emission factors from [CHSB (2020): Greenview - Cornell Hotel Sustainability Benchmarking Index] were used. Where this data was not available, total costs for hotels were used to estimate emissions with [EXIOBASE (2018)- see above].