The Project Analyzing Carbon Emission

When factoring heat generation required for the manufacturing and transportation of products, *Greenhouse gas emissions attributable to products, from food to sneakers to appliances, make up more than 75% of global emissions.* -The Carbon Catalogue (https://www.nature.com/articles/s41597-022-01178-9)

Our data, which is publicly available on nature.com (https://www.nature.com/articles/s41597-022-01178-9), contains product carbon footprints (PCFs) for various companies. PCFs are the greenhouse gas emissions attributable to a given product, measured in CO_2 (carbon dioxide equivalent).

This data is stored in a PostgreSQL database containing one table, `prouduct_emissions` , which looks at PCFs by product as well as the stage of production that these emissions occurred. Here's a snapshot of what `product_emissions` contains in each column:

`product_emissions`

field	data type
id	VARCHAR
year	INT
product_name	VARCHAR
company	VARCHAR
country	VARCHAR
industry_group	VARCHAR
weight_kg	NUMERIC
carbon_footprint_pcf	NUMERIC
upstream_percent_total_pcf	VARCHAR
operations_percent_total_pcf	VARCHAR
downstream_percent_total_pcf	VARCHAR

You'll use this data to examine the carbon footprint of each industry in the dataset!

The objective of this project is to find which industry group emits the largest amount of carbon (appears in the data table as carbon_footprint_pcf)

```
/*The SQL query to find the largest amount of carbon footprint in the
recent year,
number of companies and total carbon industry footprint*/

SELECT industry_group, COUNT (DISTINCT company) as num_companies,
        ROUND(SUM(carbon_footprint_pcf),1) as total_industry_footprint
FROM public.product_emissions
WHERE Year =(SELECT MAX(Year) FROM public.product_emissions)
GROUP BY industry_group
```

```
ORDER BY total_industry_footprint DESC
```

So, the insight we can gather from the above is: In 2017, the Materials and Capital Goods industry group emitted the highest amount of carbon as compared to other industry group. Software and services emits the lowest amount of carbon.

```
--Finding the recent year for the query

SELECT MAX(Year) FROM public.product_emissions
```