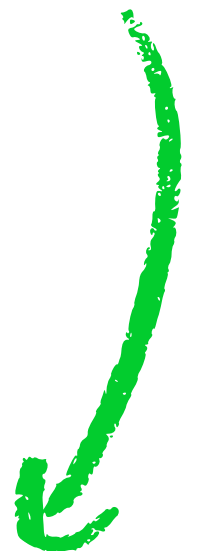


APPLE'S GREENHOUSE GAS EMISSIONS ANALYSIS





Contents

Introduction

- 3 Greenhouse Gas Emissions
- 4 Problem Definition

Data preparing

- 5 Data collection
- 6 Data cleaning

Data Analysis

- 7 1st Analysis
- 8 2nd Analysis
- 9 3rd Analysis

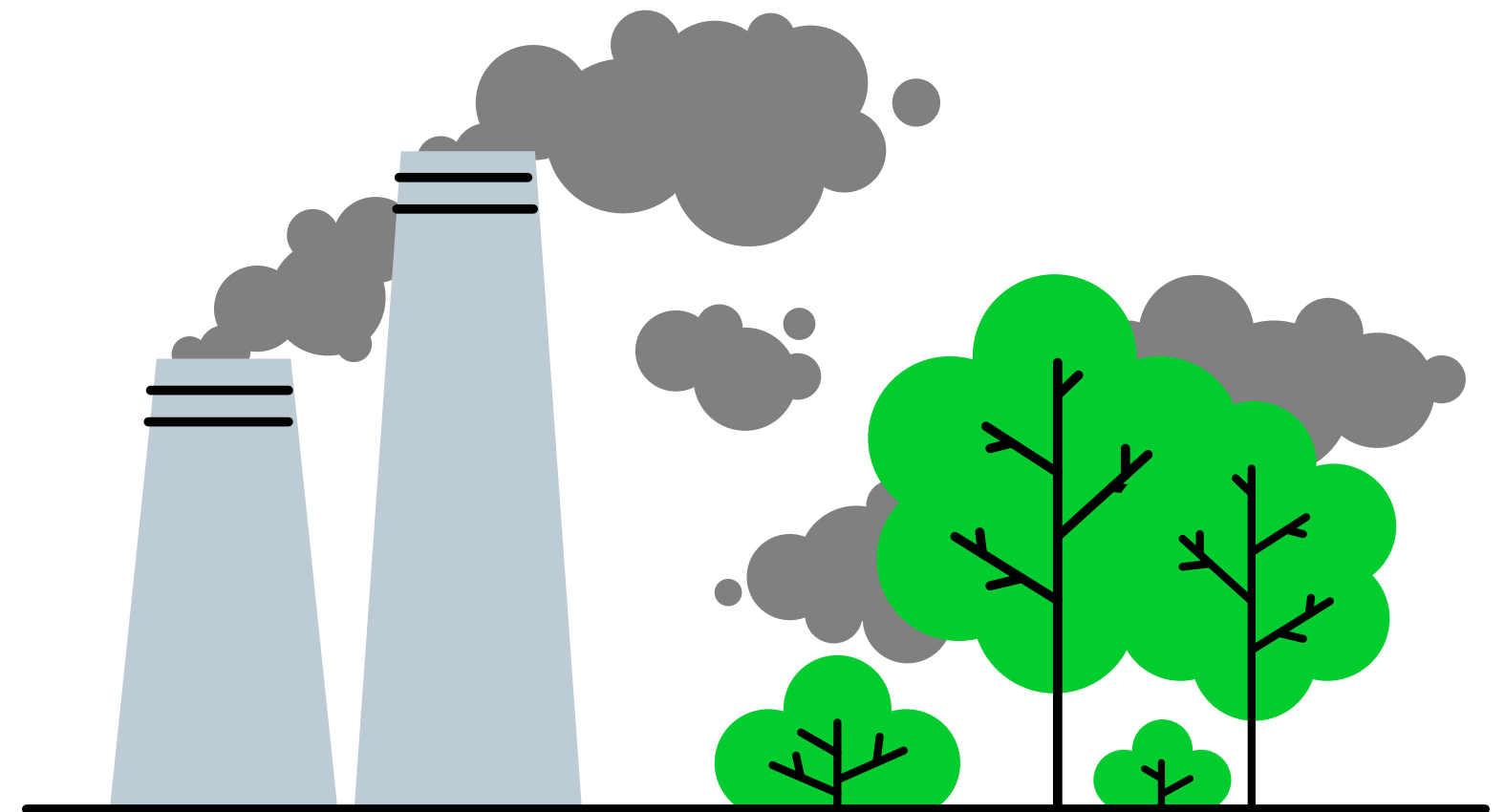
Data visualisation

- 10 Final Dashboard

Greenhouse Gas Emissions

Greenhouse gases (also known as GHGs) are gases in the earth's atmosphere that trap heat.

During the day, the sun shines through the atmosphere, warming the earth's surface. At night the earth's surface cools, releasing heat back into the air. But some of the heat is trapped by the greenhouse gases in the atmosphere. That's what keeps the earth's temperature at an average 14°C (57°F).



Problem Definition

Understanding Apple's Greenhouse Gas Emissions and Trends for Sustainability

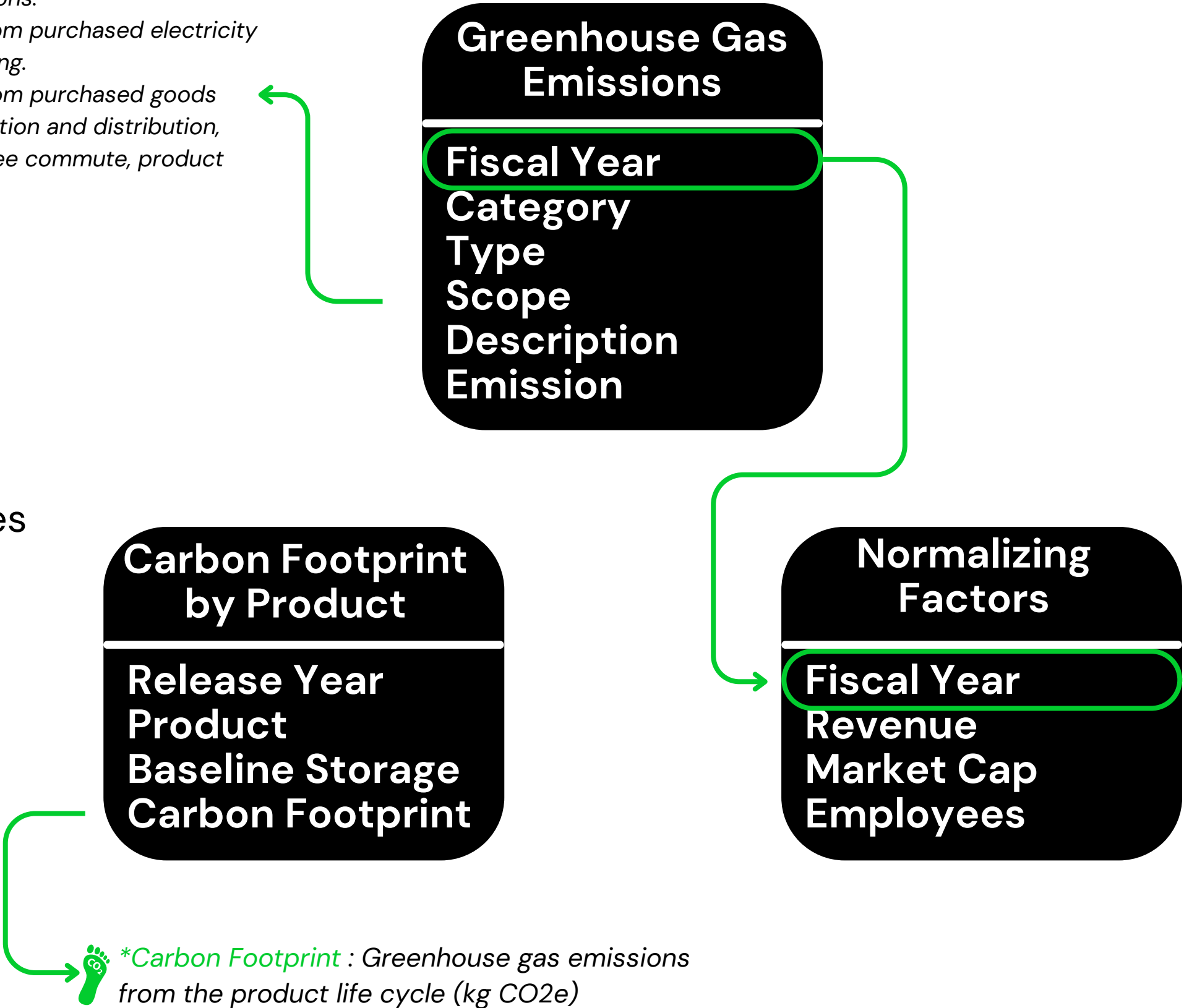
1. How much has Apple reduced their emissions from 2015 to 2022?
2. How does this trend compare to their revenue & market cap trend in the same period?
3. Which areas have seen the most improvement? What about the least?
4. Is Apple on track to meet their 2030 goal of net zero emissions?



Data Collection

The data used in this analysis has been sourced from Maven Analytics (www.mavenanalytics.com). The dataset contains a breakdown of Apple's greenhouse gas emissions from 2015 to 2022 as they aim to reach net zero emissions by 2030. This includes every source of emissions from both their corporate operations and their product life cycle, the carbon footprint of their baseline iPhone in the same period, and normalizing factors like sales, market cap, and employees.

**Scope 1: Direct emissions.*
**Scope 2: emissions from purchased electricity steam heating and cooling.*
**Scope 3: emissions from purchased goods and services, transportation and distribution, business travel, employee commute, product use and end of life.*



Data Cleaning

- Deleting blank and duplicated rows
- Deleting unuseful columns

Greenhouse Gas Emissions	
Fiscal Year	
Category	
Type	
Scope	
Description	
Emission	

Carbon Footprint by Product	
Release Year	
Product	
Baseline Storage	
Carbon Footprint	

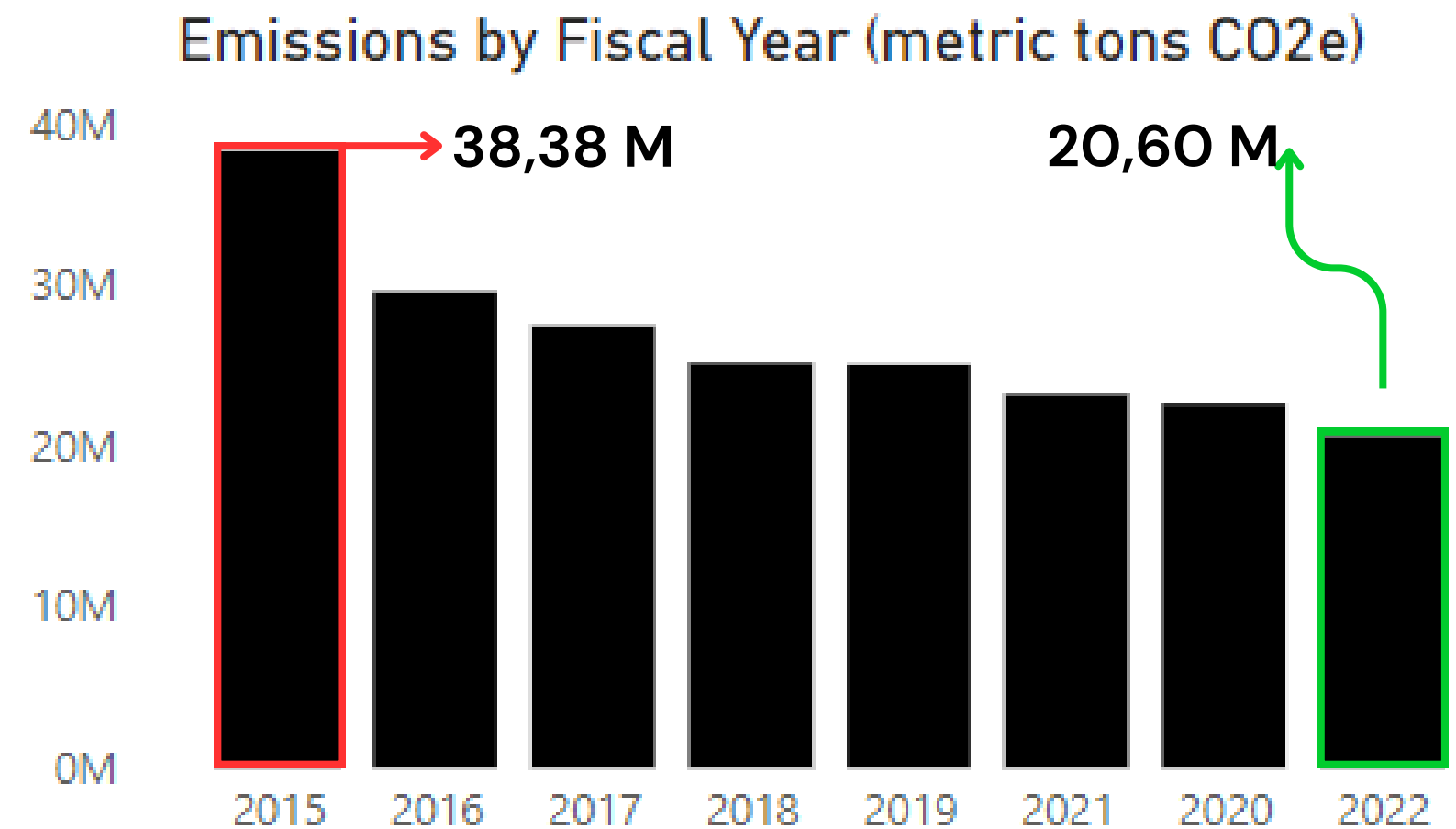
Normalizing Factors	
Fiscal Year	
Revenue	
Market Cap	
Employees	

Data Analysis

1st Analysis : How much has Apple reduced their emissions from 2015 to 2022?

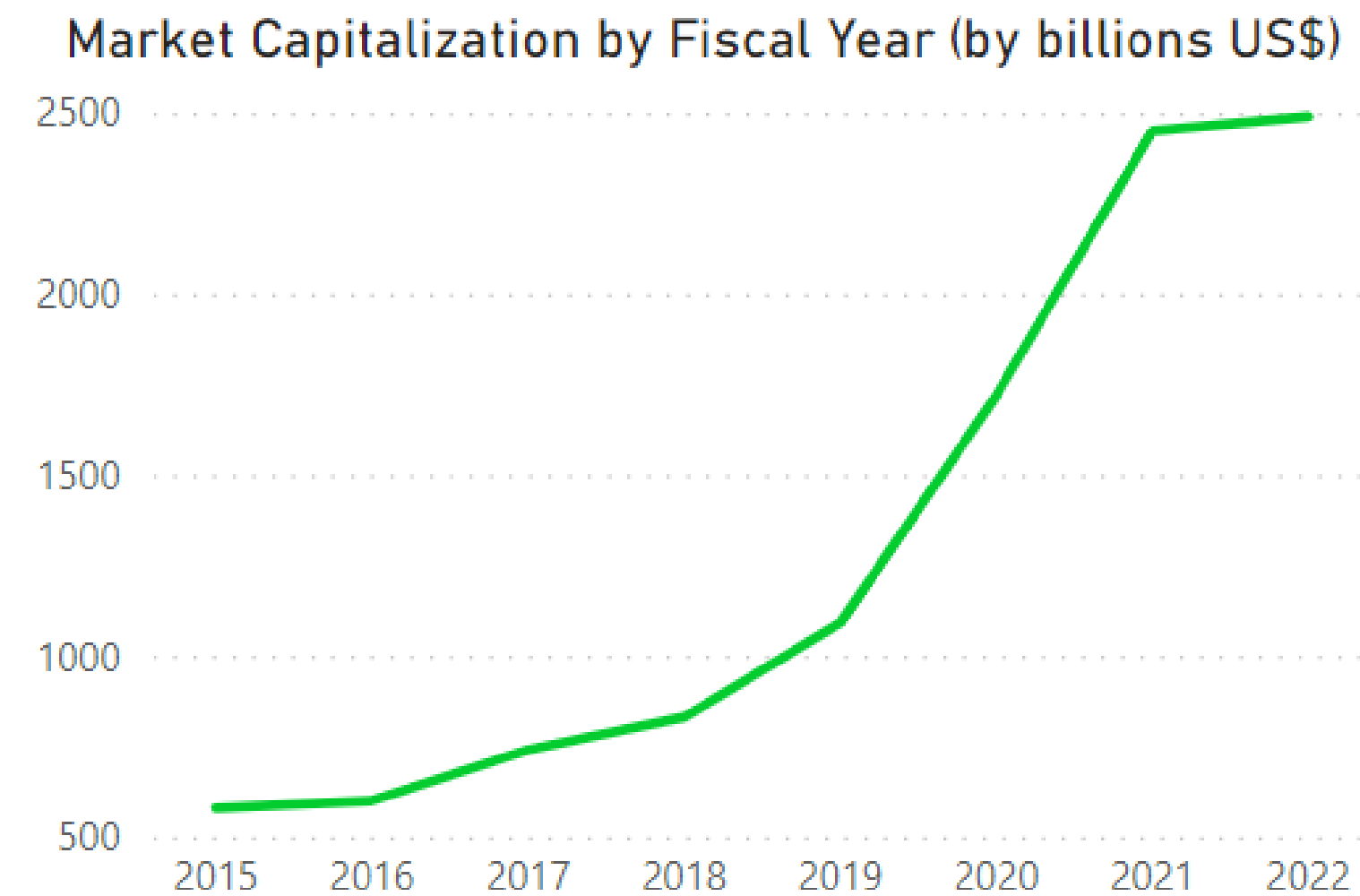
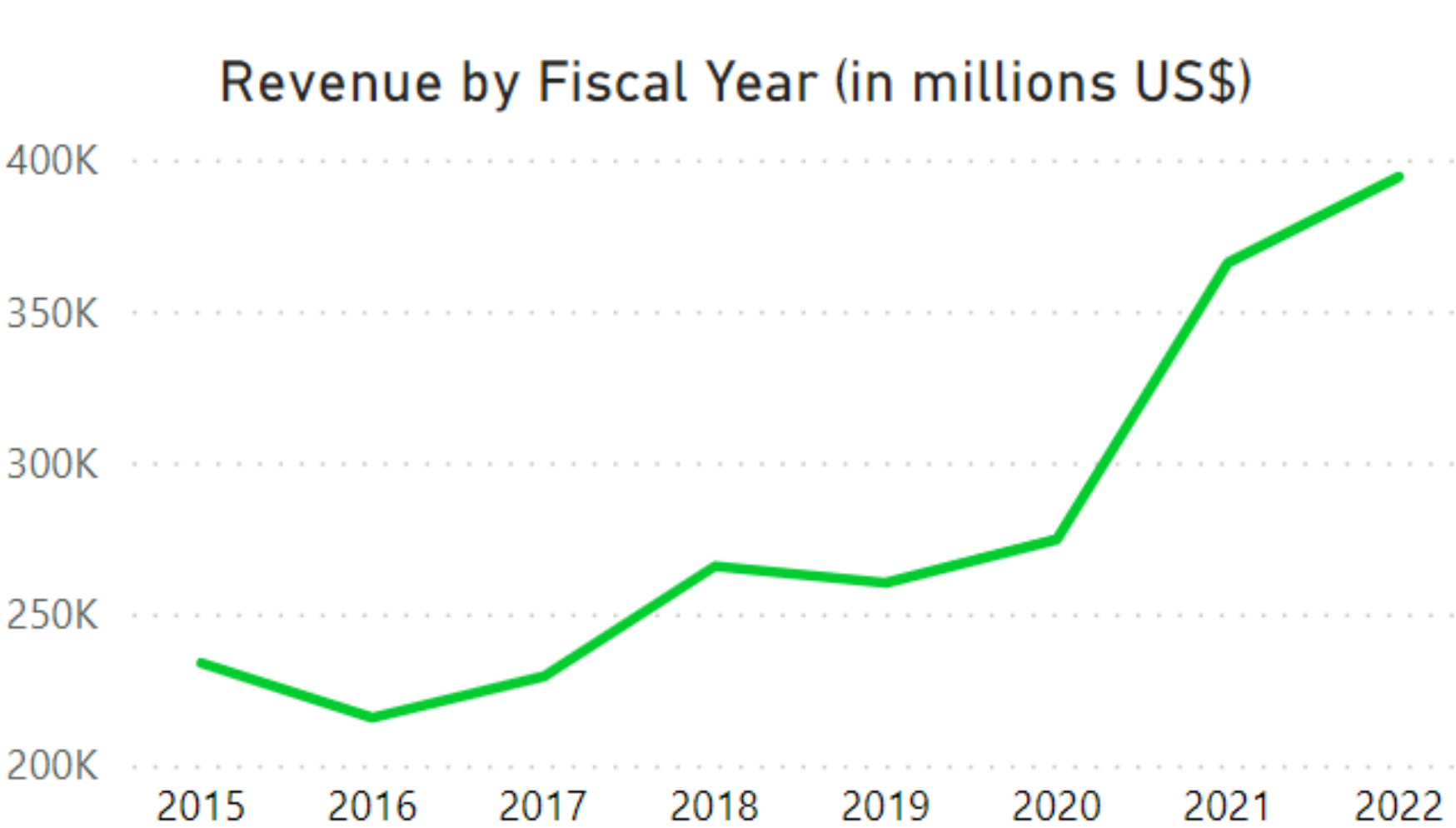
$$38,38 - 20,60 = 17,78$$

metric tons CO2e



Data Analysis

2nd Analysis : How does this trend compare to their revenue & market cap trend in the same period?



Data Analysis

3rd Analysis : Is Apple on track to meet their 2030 goal of net zero emissions?

2015 – 2022

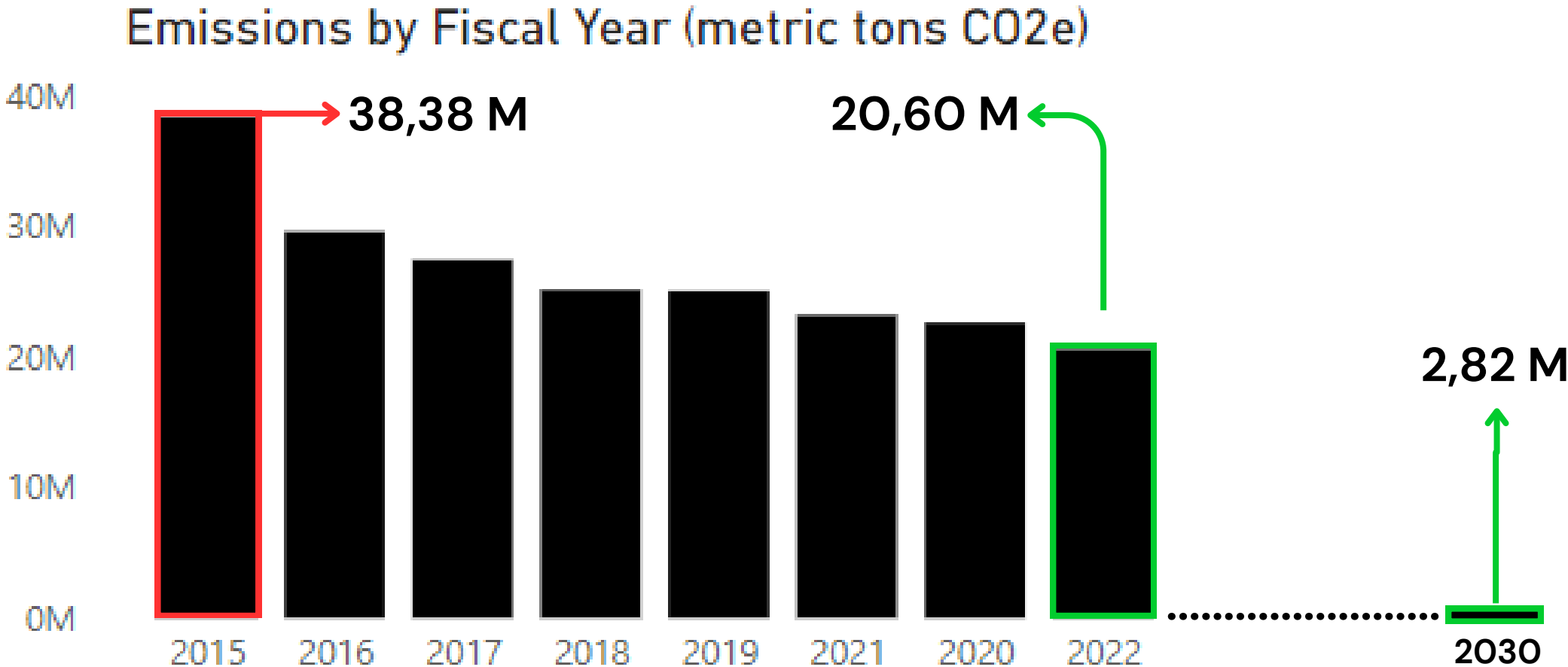
17,78 tons reduced

2023 – 2030

if 17,78 tons reduced

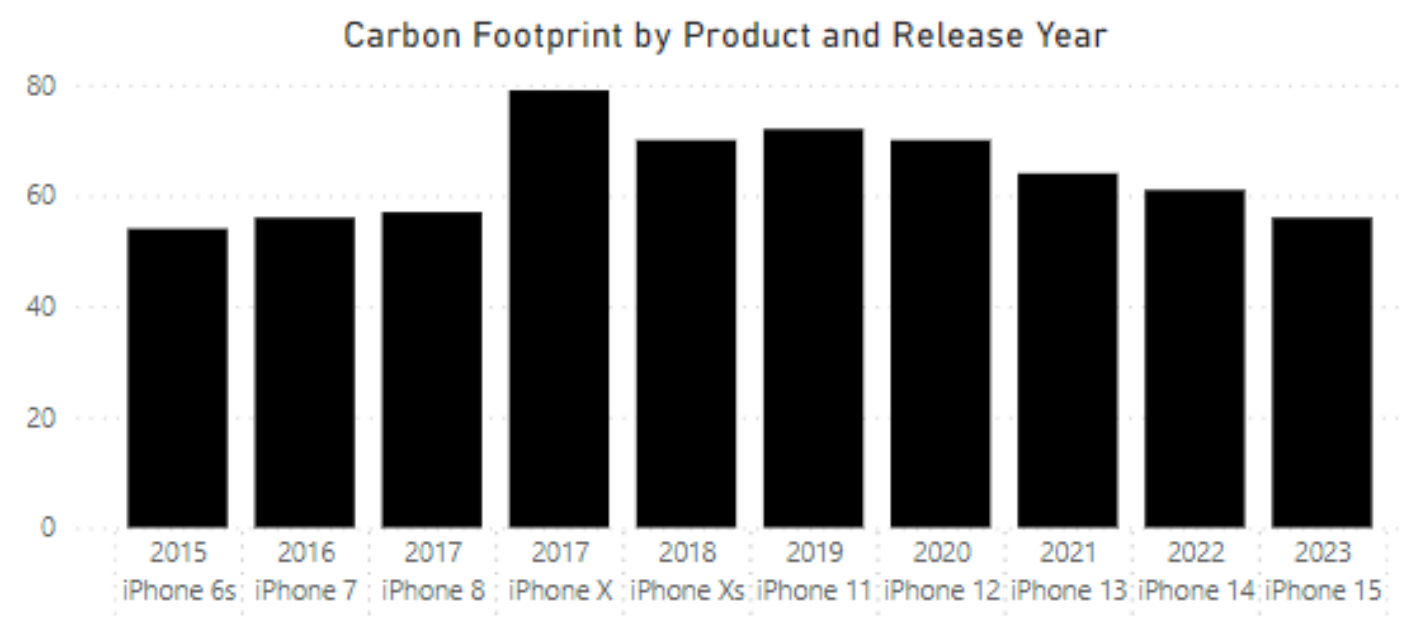
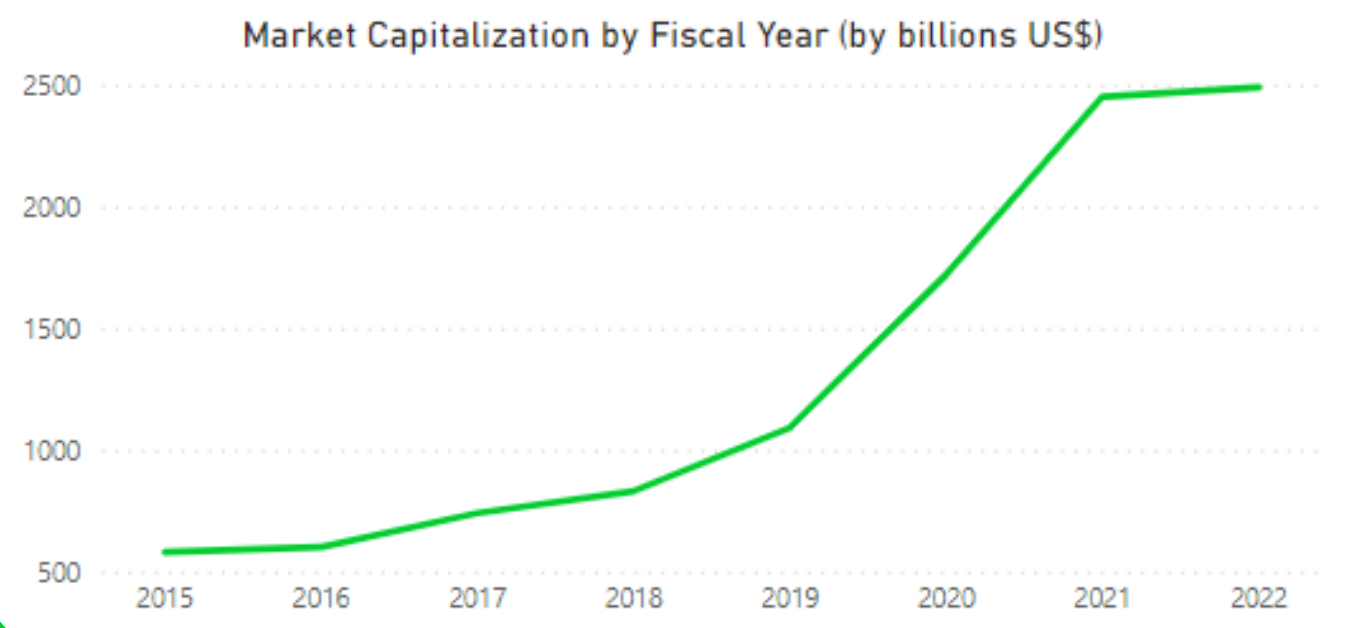
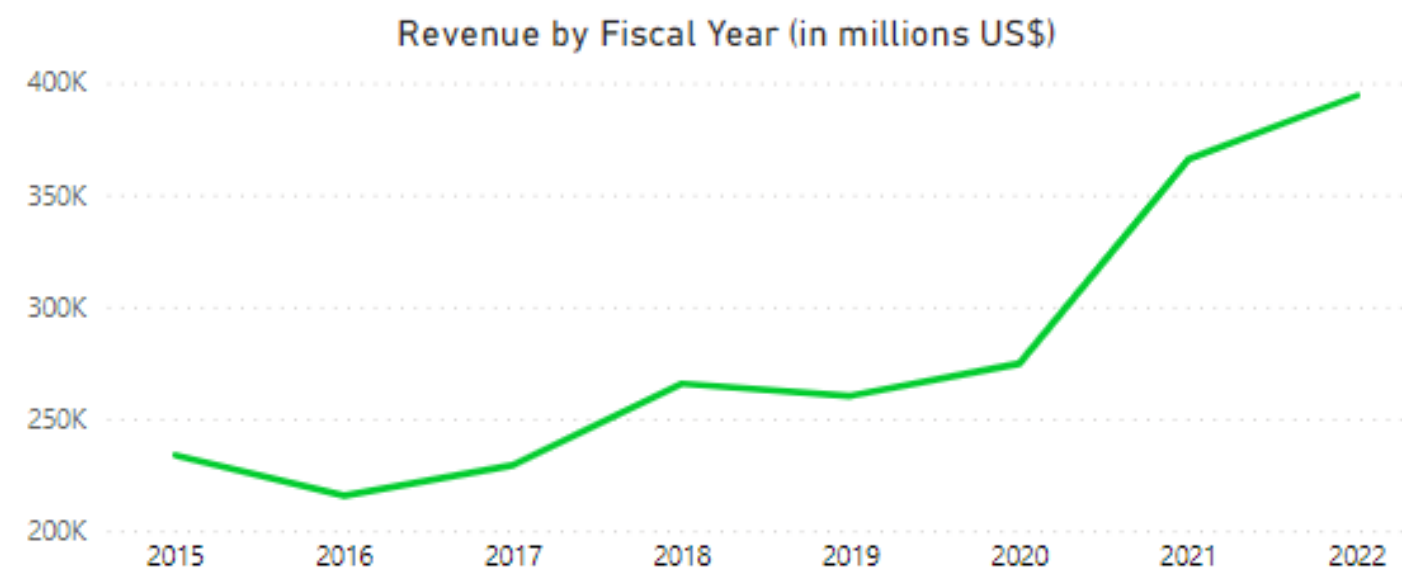
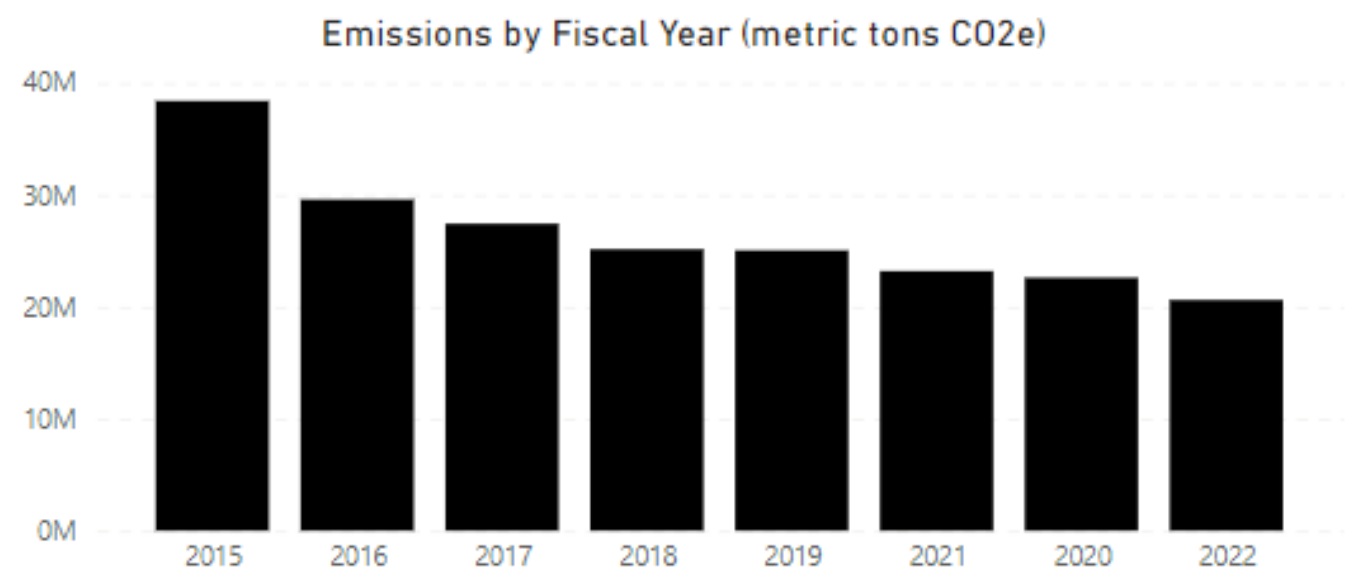
$20,60 - 17,78 = 2,82$
metric tons CO₂e

Relatively yes



Data visualisation

Apple Greenhouse Gas Emissions



**Power BI
Dashboard**