

Digital Waste - How to integrate Digital Data in your efforts of reducing your carbon footprint?



Carina Möller, Hardik Mhatre, Ibrahim Kalil, Raeesa Ummer, Spoorthi Gudagunti, Vaisakh Mohan

WHAT IS DIGITAL CARBON EMISSION?

Digital carbon emissions represent the available CO2 emissions rate resulting from generic digitization concepts. Digitization can be described as several processes that contribute to making life easier which include internet communication, cloud computing, server backup, real-time analytics and visualization, and video entertainment.

In an increasingly digital world, our day to day lives have transformed with the use of technology. From endless remote meetings to a multitude of apps and streaming services to choose from, we're consumed with being online and connected. As a result, the use of electrical devices and the volume of data we generate is booming.



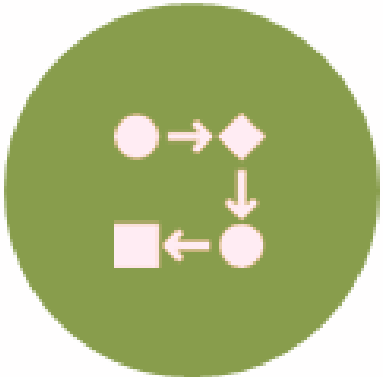

Reference: <https://www.capgemini.com/gb-en/insights/expert-perspectives/are-you-aware-of-your-digital-carbon-footprint/>

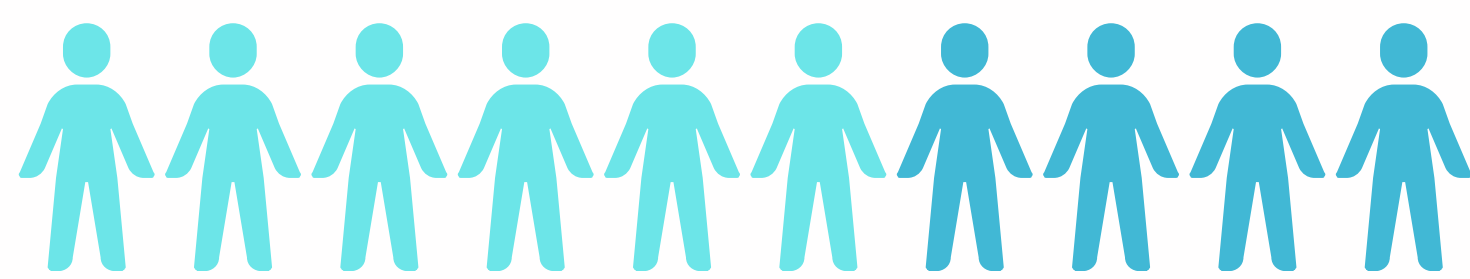
OBJECTIVE AND PAIN POINT

To enhance sustainability, companies need a holistic view of their carbon footprint, incorporating Digital Data Usage. Our project focuses on developing a CO2 calculator for Data Usage, enabling companies to optimize their practices with a sustainability emphasis.

Companies may lack awareness of their complete carbon footprint, particularly regarding their Data Usage. The absence of a straightforward solution for calculating and monitoring their impact hinders their ability to take a data-driven approach to reduce CO2 emissions associated with Digital Data.

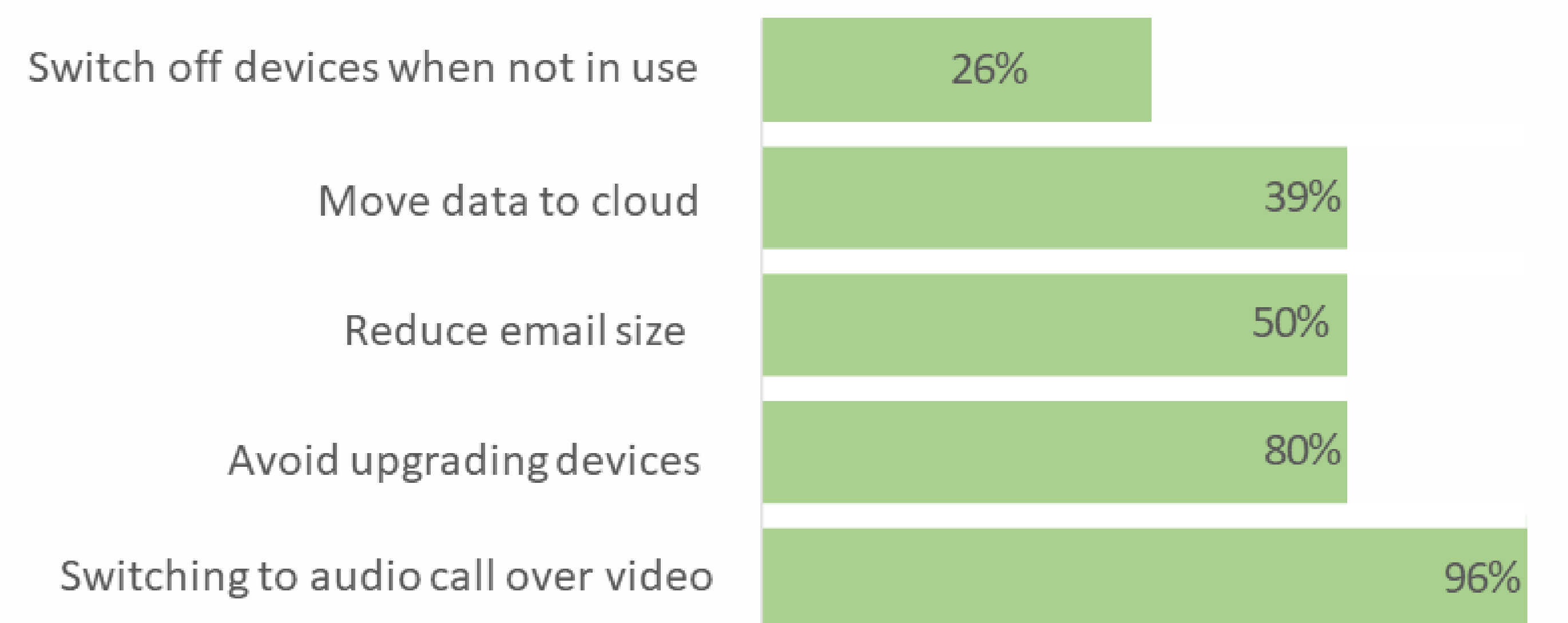
TASKS

-  Analyze the data set shared by the company with all the vendors supplying the systems in various countries with their energy consumption rate.
-  Design an user interface which calculates digital carbon emission considering the energy consumption, emission factor of each vendor
-  Develop the user interface showing the visual representation of digital carbon emission of each vendor in each geographic region.
-  Implement an efficient digital carbon calculator to visualize the digital carbon emission so far.



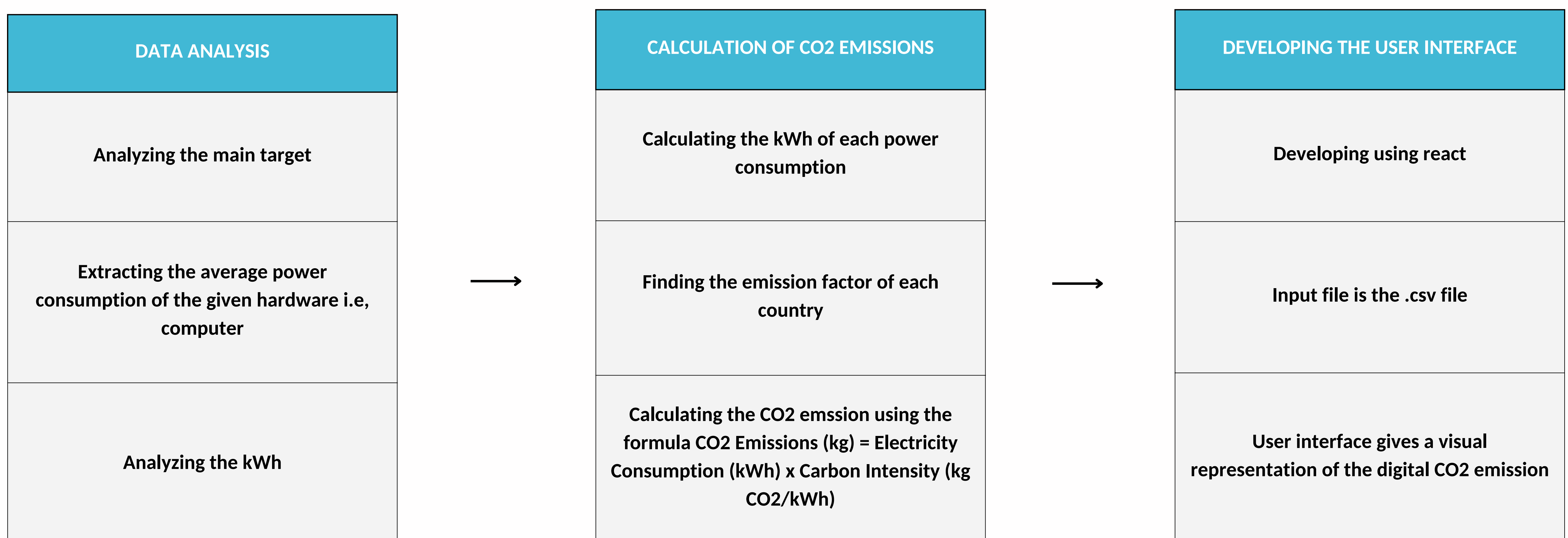
FINDINGS

How companies can reduce Digital CO2 Emission*



*Reference: Research by Capgemini

SOLUTION APPROACH



OUTCOME

