

Email Environmental Footprint



Out of the 320 billion emails sent worldwide every day, 45.6% of them are spam. This accounts for 231 million tonnes of CO2 emissions.

THE HIDDEN COSTS OF EMAIL

- Servers and data centres consume electricity that contributes to greenhouse gas emissions.
- Metals and minerals used in servers and devices cause environmental damage due to extraction & processing.

WHAT INCREASES EMAIL FOOTPRINT?

- **Number of recipients**
- **Size** of the email
- **Attachments**
- **Distance** traveled by data

What can you do ?

CLEANUP YOUR INBOX REGULARLY

- **Remove** old conversation threads
- **Delete** larger emails first
- **Empty** trash and spam folders
- **Unsubscribe** from unread newsletters.

PREVENTION TACTICS

- Use **file-sharing** services for large files
- Use a **simple signature**
- **Avoid “Reply All”** unless necessary.

SMART CHOICES

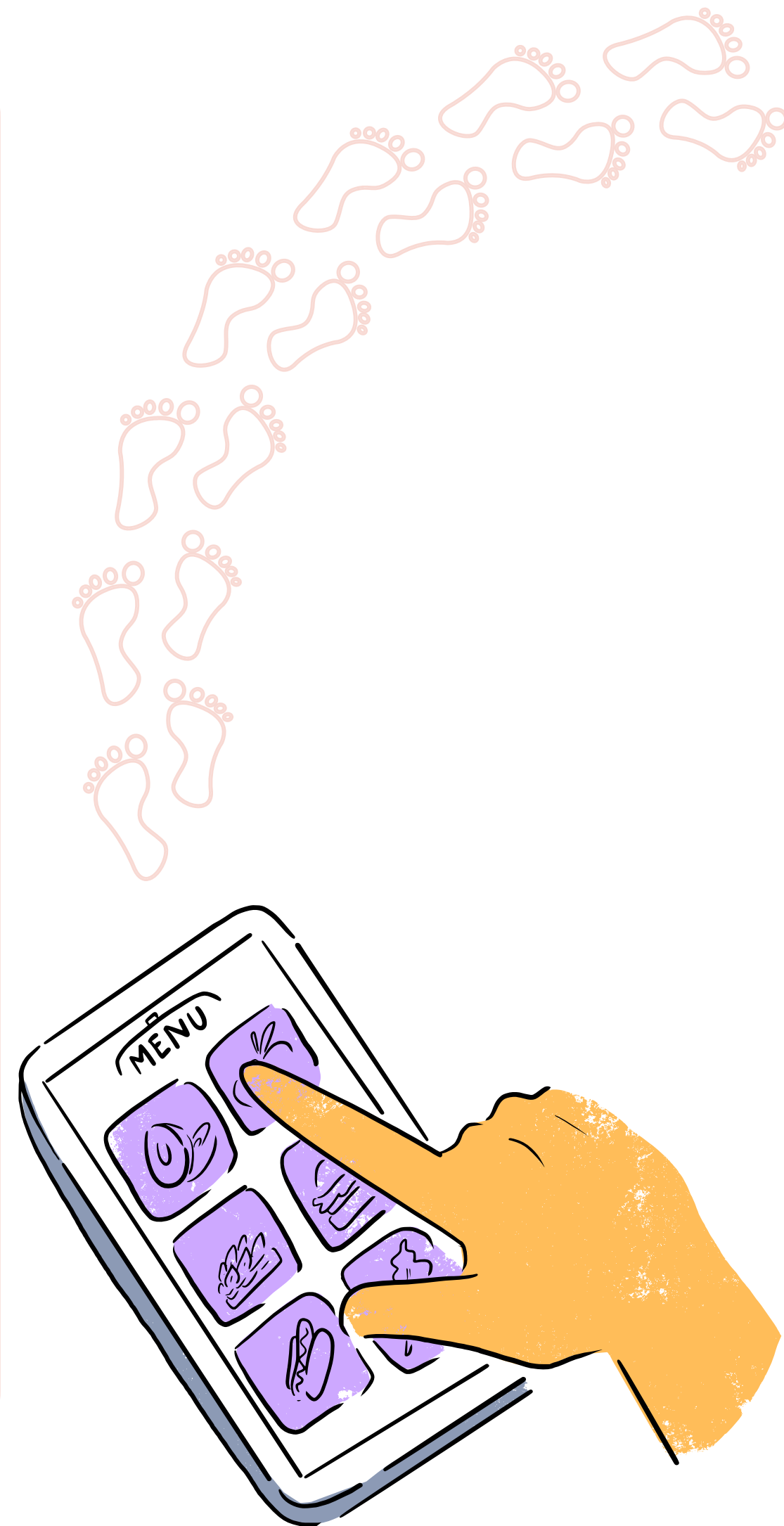
- Respond quickly to simple emails (**2-minute rule**)
- Prefer **instant messaging** or phone communication.

Smartphone Environmental Footprint

60% OF A PHONE'S LIFETIME ENVIRONMENTAL FOOTPRINT OCCURS DURING PRODUCTION

WHAT IMPACT?

- It takes **80 times more energy** to produce 1 gram of a smartphone than 1 gram of a car.
- **Overmining:** The raw materials (over 70 different materials) needed for one smartphone weigh as much as 1340 smartphones.
- An increasing amount of **electronic waste:** 53.6 million tonnes in 2019, of which only 17.4% were recycled properly.
- **Unsafe recycling of smartphones,** which can release up to 1000 unsafe chemicals.
- A **short service life:** used on average for 2.5 years



What can you do ?

SMART CHOICES

Choose **eco-labelled** manufacturer or **buy refurbished phones:** A secondhand device will save 77kg of raw material and reduce greenhouse gas by 87%.

CLEVER USAGE

Turn your phone off regularly, let it cool down, and **delete your unused data:** Proper usage prevents breaks by 40%.

LIFELONG MAINTENANCE

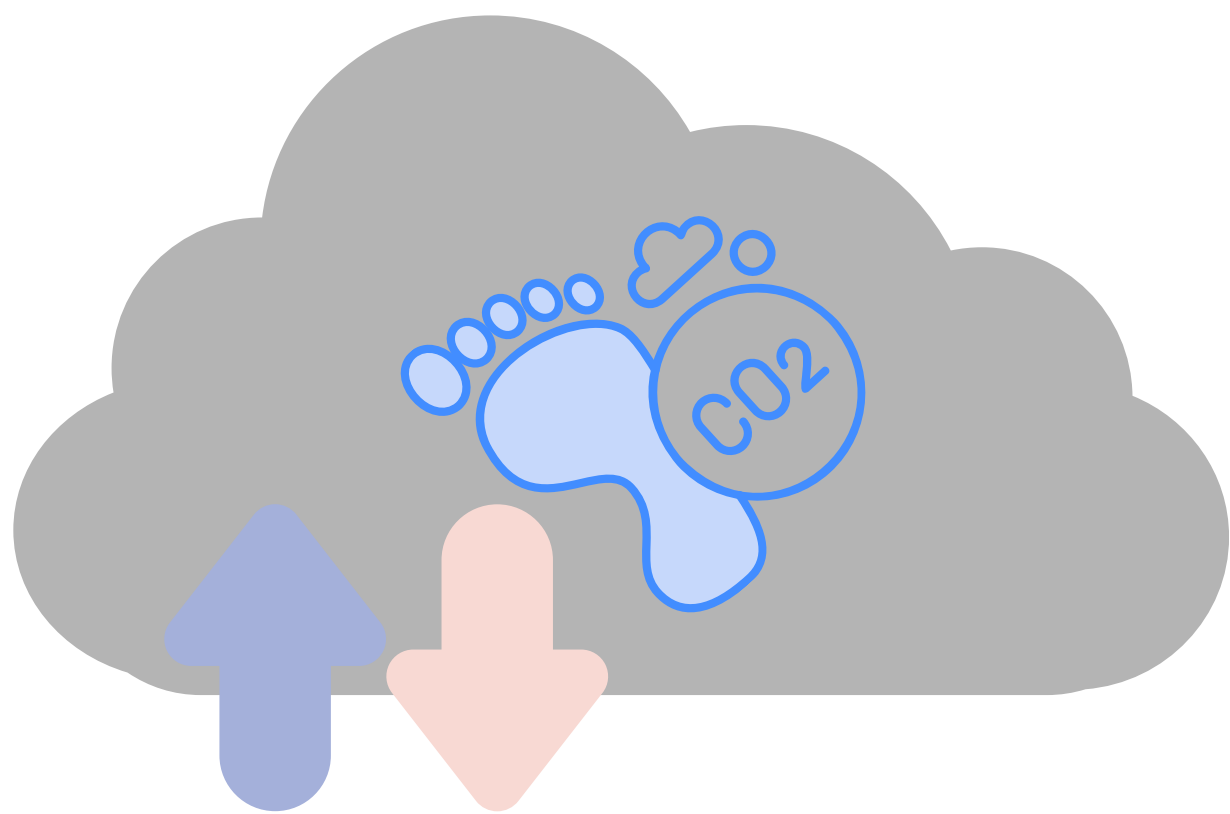
Repair your phone when broken and prefer brands with a good reparability index. Then, **recycle** it in the proper channels.

Cloud Environmental Footprint

**90% OF ALL DATA STORED IS NO LONGER ACCESSED
AFTER 3 MONTHS**

RESOURCE CONSUMPTION OF THE DATA CENTRES

- **Electricity:** Global data centres consumed about 415 TWh of electricity in 2024, roughly 67 times Luxembourg's annual electricity consumption.
- **Water:** They consume 984 billion litres of water annually, what the entire resident population of Luxembourg would use in 23 years.
- **Land:** if all of them were placed in Luxembourg, they would cover 45% of the country.



USER IMPACT

- **46% of the digital carbon footprint** is linked to the **data centre**.
- Hyperscale data centres have **doubled in number** in just five years & new facilities are becoming increasingly large due to AI demand.

What can you do ?

MEASURE YOUR IMPACTS

Consider the environmental impacts every time you want to **store a file** (emissions, water, land)

OPTIMISE STORAGE

- **Delete** blurry/ duplicate photos and useless files.
- **Clear** your cloud monthly.

SMARTER STORAGE

Enable synchronisation only for necessary folders and keep **only essentials** in the cloud.

Internet Environmental Footprint

99% OF DATA WAS CREATED WITHIN LAST 10 YEARS.

USER IMPACT

- **Push notifications** require constant server communication & energy.
- **Streaming:** Online video makes up nearly 60% of global data traffic. Watching a movie offline uses the least power, while streaming increases energy use by up to 38% on Wi-Fi and 64% on mobile network.
- We spend on average 6 hours and 35 minutes on the Internet daily, around 40% of our awake time.



HOW ABOUT AI ?

Each AI request uses 10–100 times more electricity than a Google search, and there are roughly 16.4 billion searches every day.

What can you do ?

NETWORK EFFICIENCY

- Connect to **Wi-Fi** instead of using mobile data.
- Download content for **offline viewing**, choose lower resolutions and disable auto-play.

ECO STREAMING

Turn off your camera during meetings : it reduces the environmental footprint by 96%.

SMART BROWSING

- **Bookmark** websites to reduce searches
- **Close** unused tabs
- **Block ads**
- **Don't rely on AI** for simple searches.