



# *Digital Emission Tracker*



Cofinancé par  
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Erasmus+  
FRANCE  
JEUNESSE & SPORT



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This booklet is based on the project Disconnect to Reconnect, part of the Erasmus+ program submitted in 2023, led by the association Regain (France) in partnership with Robycode (Germany) and Kocaturk (Turkey), and co-funded by the European Union.

Inside, you will find simple ideas to implement every day to help build a better future for our planet!

The views and opinions expressed in this booklet are solely those of the authors and do not necessarily reflect those of the European Commission.

Graphic facilitation was done by Maité Gayet, the logo by Lucille Le Brun, and the explanatory texts by Veronica Castro.



# *Project Objective*

## *Disconnect to reconnect*



### **What is digital pollution?**

It's the environmental impact of technology—often invisible to the eye. It stems from the manufacturing of devices, their energy consumption, and the electronic waste they produce. Every click, search, and video stream leaves an unseen footprint on the environment.

The Disconnect to Reconnect project aims to raise young people's awareness about ways to reconnect with themselves, with others, and with the ecosystem, while reducing excessive use of digital tools. This guide, created as part of the initiative, offers simple and accessible ideas to put into practice daily, in order to contribute to a more sustainable future for our planet.

Reducing our digital footprint is a shared responsibility—both personal and collective. By changing our habits to adopt more sustainable practices and choosing technologies that are more environmentally friendly, everyone can help support the ecological transition.

**Let's join forces to build a digital world that is more sustainable and respectful of our planet.**





# The Hidden Footprint of Our Gadgets



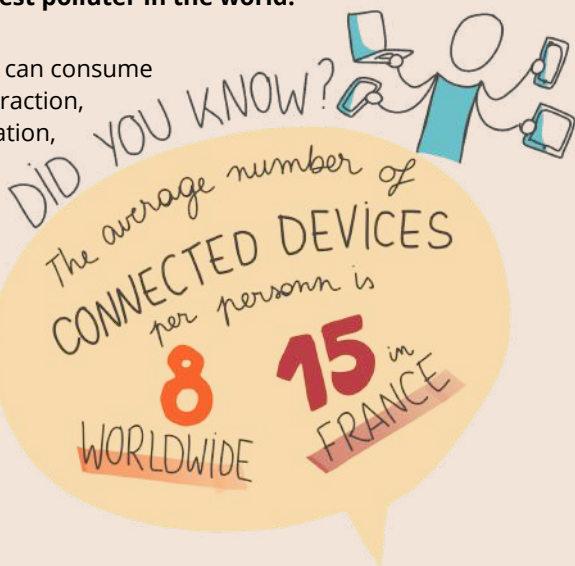
DATA STORAGE  
USAGE  
TRANSPORT  
ASSEMBLY  
MANUFACTURING  
MINERAL EXTRACTION

Our devices account for the majority of the environmental impact of digital technology: 60% of greenhouse gas emissions. **If digital technology were a country, it would be the third largest polluter in the world.**

The manufacturing of a smartphone can consume up to 800 liters of water (mineral extraction, manufacturing, assembly, transportation, etc.): the equivalent of one person's water consumption over 4 months.

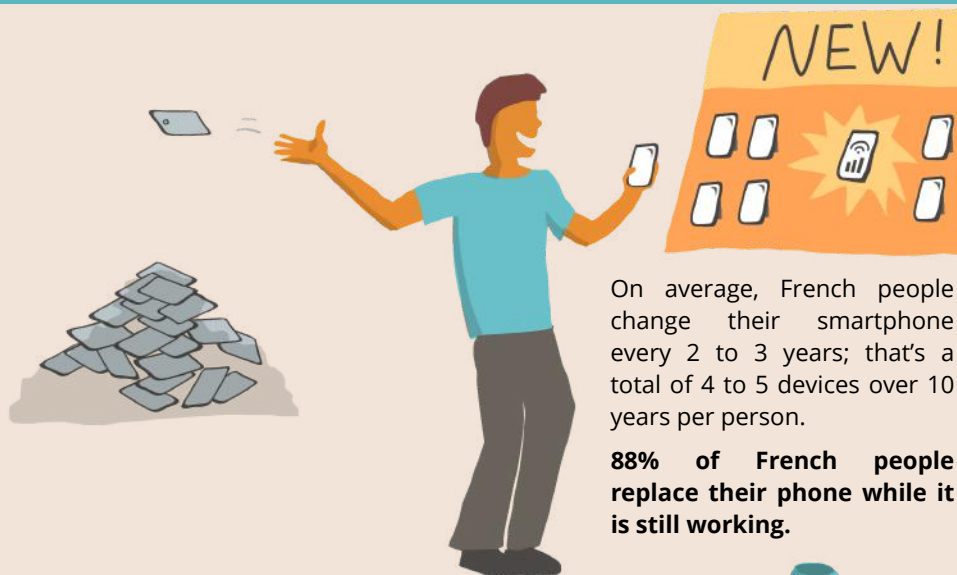
**A standard data center can consume as much energy as a city of 50,000 inhabitants.**

This is due to the large amount of data they continuously store and process.





# Reduce Your Digital Footprint



On average, French people change their smartphone every 2 to 3 years; that's a total of 4 to 5 devices over 10 years per person.

**88% of French people replace their phone while it is still working.**

Choosing a refurbished smartphone or computer helps reduce resource extraction and waste production. It's a win-win for both the environment and your wallet.

**At least 30 million mobile phones are lying unused in our drawers.**

We tell ourselves we might still use them...  
But will we ever use them again?



## Fairphone

Since 2013, Fairphone has been designing durable, repairable phones made with over 70% recycled or fair-trade materials.

WHAT ABOUT YOU?  
How MANY  
WORKING PHONES  
DO YOU HAVE  
AT HOME?



# Using Digital Technology...



Every day, 333 billion emails are sent worldwide. The carbon footprint of these emails is equivalent to that of 7 million cars.



50% of the emails sent are spam.

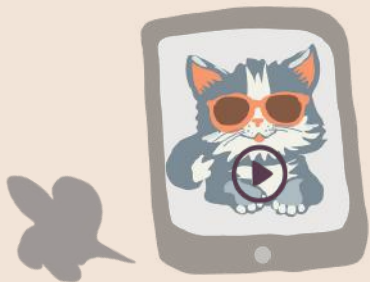


An email without attachments generates 4 grams of CO<sub>2</sub>.



An email with an attachment can generate up to 19 grams of CO<sub>2</sub>.

**The environmental impact of sending an email depends not only on attachments but also on the number of recipients and the length of time it is stored in mailboxes...**



Streaming a video on your phone using 4G consumes 23 times more energy than on Wi-Fi, because mobile networks rely on cell towers.



A one-hour Zoom video call emits about 1.2 kg of CO<sub>2</sub>, which is equivalent to a 10 km car trip.



...without excess!



## What is the carbon impact of social media on mobile?

165.6 g CO<sub>2</sub> **per day** per person, equivalent to driving **1.4 km** by car  
60 kg CO<sub>2</sub> per user **per year**, equivalent to driving **535 km** by car

## Comparison of Carbon Emissions from Various Applications

APPLICATIONS	AVERAGE EMISSIONS FOR 1H OF USE (gCO <sub>2</sub> Eq)	CARBONE EQUIVALENT (km in car) <small>for 1 YEAR</small>
LinkedIn	28	91
Facebook	38	122
Snapchat	39	126
YouTube	52	168
TikTok	57	185

(ADEME)



Artificial intelligence (AI) is transforming many economic sectors, from healthcare and finance to marketing, logistics, and ecology. However, this technological revolution comes with a downside: its environmental impact.

**Training the GPT-3 model generated 550 tonnes of CO<sub>2</sub> — equivalent to 500 transatlantic flights.**



DID YOU KNOW?  
A SINGLE REQUEST  
ON CHATGPT  
consumes  
3 to 10 times  
more ENERGY  
than a  
GOOGLE SEARCH

Artificial intelligence requires vast amounts of energy, mainly due to the complexity of its algorithms and the large volumes of data being processed



# Hooked on Screens: Ideas to Take Back Control!



## Becoming aware of your screen time:

using Digital Wellbeing (Android) or Screen Time (iOS).



## Turn off unnecessary notifications to avoid constant distractions.

Use tools like StayFocusd or Freedom on your computer.



## Enable Focus Mode: block certain apps during specific times.

You can also use website-blocking extensions to stay focused.

## Enable monochrome mode (black-and-white screen)

to make your phone less visually appealing and reduce temptation.



## Use a traditional alarm clock to avoid the temptation of scrolling in bed.

Avoiding screens for 1 hour before sleep improves rest, as blue light disrupts the sleep hormone: melatonin.

## Replace screen time with alternative activities:

Read a book or listen to a podcast instead of endless scrolling. Engage in sports or hands-on activities (cooking, drawing, music, gardening).



## Prioritize face-to-face social interactions:

Call instead of texting, meet in person rather than chatting online.



## Challenge!



**Set yourself a time limit**—for example, 30 minutes on social media, no phone during meals or for 1 hour in the morning, and no phone in the bedroom before sleeping.

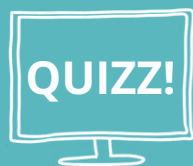
**Start by gradually** reducing your screen time rather than quitting all at once!

**Get support from friends, family, or groups** who share your goal.

The goal isn't to eliminate screens completely, but to use them more mindfully and in balance. **Ready to take on the challenge?**



# Digital technology: At what cost?



## 1. What is the major environmental impact of sending large emails ?

- a) Production of plastic waste from server packaging
- b) Deforestation due to paper production for printing emails
- c) Increased water consumption to cool the servers

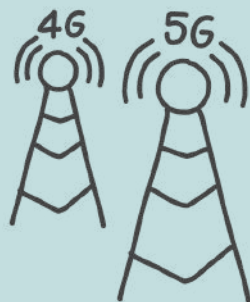


## 2. A Wi-Fi box left plugged in 24/7 consumes as much energy as...

- a) An electric car driving 10 kilometers per day
- b) The wash cycle of 130 washing machines
- c) The production of 12 kg of paper
- d) The production of 500 water bottles (about 0.2 kWh per bottle, including extraction, production, and transport)

## 3. Why can 5G be both more eco-friendly and more polluting?

- a) It consumes less energy per GB but encourages overconsumption of data
- b) It uses renewable energy but requires heavy infrastructure and more modern devices, which pollute more than 4G



## 4. Among French youth under 25, what percentage got their first mobile phone before the age of 12?

- a) 20 %   b) 30 %   c) 35 %   d) 41 %

**5. What syndrome can NOMO (No Mobile Phone Phobia) individuals experience, and what effect does sleeping with their phone nearby have?**

- a)** Phantom vibration syndrome: feeling your phone vibrate when it's not. Linked to decreased memory.
- b)** Imaginary alert syndrome: feeling compelled to check your phone every time there's silence. Linked to increased nightmares.
- c)** Digital illusion: feeling productive while endlessly scrolling cat videos. Linked to a 30% loss in hearing capacity.



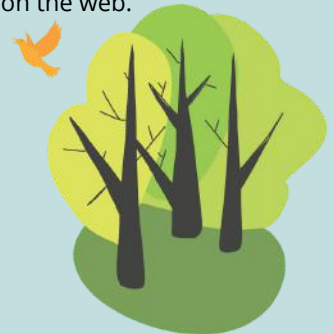
**6. Which tool or website can help you verify a suspicious image or information ?**



- a)** Conspiracy News and Google Images (reverse image search) provide conspiracy theories and reliable fact or image verification
- b)** TinEye is used for searching copied images on the web
- c)** Wikipedia and Snopes: a site that directly verifies the authenticity of information and specializes in the origin of facts and images on the web.

**7. Which eco-friendly search engine helps fund reforestation?**

- a)** Google   **b)** Lilo   **c)** Ecosia   **d)** Bing   **e)** Yahoo



**8. What percentage of people worldwide admit to using their phone in the bathroom?**

- a)** 25%   **b)** 40%   **c)** 55%   **d)** 70%





## Answers and explanations



**1. c)** Sending large emails consumes energy for storage and processing, requiring water cooling of data centers.

**2. c) et b)** A Wi-Fi box left running continuously can consume as much energy as an LED light bulb left on day and night.

**3. a)** 5G is more energy efficient per GB, but it encourages data overconsumption due to its higher speed.

**4. c) and d)** In France, 41% of girls and 30% of boys under 25 had their first mobile phone before the age of 12.

**5. a)** Phantom vibration syndrome: The brain associates vibration signals with awaiting notifications. This can interfere with long-term memory by affecting concentration. About 80% of users have experienced it. Welcome to the era of NOMO!

**6. b)** TinEye is a reverse image search tool that helps track the origin and uses of an image on the web, useful for verifying authenticity.

**7. b) and c)** Ecosia funds reforestation projects with revenue generated by searches. Lilo funds environmental projects by collecting “drops” via searches.

**8. d)** Yes! Between 65% and 90% of people admit to using their phone while in the toilet. In Europe, 53% admit this, with countries like Italy and France exceeding 60%!

### Results: What's your score of correct answers?

**7-8 :** Éco-geek 🌱 → Champion of responsible digital footprint!  
Keep it up, you're doing great!

**5-6 :** Eco apprentice 💡 → On the right track, but there's still room for improvement.

**0-4 :** Energy-hungry tech user 🔌 → It's time to adopt new habits to reduce your impact!



★ **Share your score and invite your friends to test their knowledge!**



# *It's time for a digital cleaning*



## **DAY 1 : Clear your email archive**

Select all > Delete → Lighten the load of data



## **DAY 2 : Remove unnecessary apps**

Apps that you don't use can consume energy in the background.



## **DAY 3 : Simplify your desktop**

A clutter of files tires both the mind and the system.



## **DAY 4 : Review cloud storage**

Check files you backed up but forgot



## **DAY 5 : Adjust your notification settings**

Silence is productive  
Both nature and the screen



## **DAY 6 : Clear your social media history**

It is easy to leave a mark, erasing it requires consciousness



## **DAY 7 : Check your old devices**

If you still have it, either donate it or recycle it.



### ***Other idea !***

Create screen free zones  
keep laptops and  
telephones out of a room



# Notes



# Notes





# *Your turn to play!*

## *Sources and tools*

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## *To go further*

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