

Press release

THE ENVIRONMENT

“Achieving digital sustainability”: Arcep publishes the first edition of its annual inquiry

Paris, 25 April 2022

In this first edition of its annual inquiry into “Achieving digital sustainability”, Arcep is publishing the first indicators collected from France’s four main telecoms operators, to track the evolution of their environmental footprint. This publication is part of Arcep’s commitment to “Achieving digital sustainability” – bringing to fruition one of the 11 proposals contained in its December 2020 report, namely the introduction of an environmental barometer.

A tool to support a low-carbon strategy for digital

A tool designed to help inform public debate and investigations into a low-carbon strategy for digital, this annual inquiry also seeks to identify levers for action, as much from the economic actor as the user side of the equation. For this first edition, three types of indicators were collected from the four main operators:

- greenhouse gas emissions;
- the amount of energy consumed by their networks;
- their mobile phone sales, recovery, refurbishment and recycling operations.

Greenhouse gas emissions: beware of the optical illusion of reduced global emissions in recent years

The four main electronic communications operators’ greenhouse gas emissions are decreasing, reaching 362,000 tonnes of Co2 equivalent in 2020. This reduction began in 2019 with the gradual optimisation of company vehicle fleets and thanks to steadily more energy-efficient buildings. The trend continued on through 2020, but was clearly amplified by the Covid-19 crisis, especially during the lockdowns.

Greenhouse gas emissions generated by operators’ energy consumption – which account for two thirds of operators’ total emissions – have increased, however, chiefly due to mobile network deployments but also to increased traffic on these networks.

Mobile consumes twice as much energy as fixed access, and copper networks four times more than fibre ones

Fixed and mobile networks’ energy consumption increased steadily between 2016 and 2020 – by an average 6% a year – to reach 3,800 GWh. Overall, access networks, whether fixed or mobile account for 85% of electronic communications networks’ total energy consumption (excluding data centres), including 58% for mobile local loops and 27% for fixed local loops.

Copper access networks consumed an average of around 35 kWh per subscription in 2020, compared to under 10 kWh on fibre networks, which translates into a ratio of close to 1:4.

Operators are beginning to recover old devices for refurbishment, but second-hand devices account for only a tiny fraction of sales

Devices (televisions, computers, telephones...) account for the vast majority of digital’s carbon footprint (79%)¹, which is why they are a key area of focus when analysing digital’s environmental footprint. Increasing the lifespan of this hardware is thus a potential avenue for reducing digital’s footprint.

¹ Source: Ademe Arcep report on evaluating the digital environmental footprint – 22 January 2022

Data on the four main electronic communications operators' mobile phone sales and recovery programmes reveal that, in 2020, mobile phones sold directly by operators represent a minority (38%) of total handset sales in France², but also that amongst business customers this percentage is estimated at close to 80%.

Operators' refurbished phone sales (155,000 in 2020) represent only a tiny fraction (2%) of the 8.1 million mobile handsets sold that year. To compare: of the total 21.4 million mobile phones sold in France³, thirteen percent – or 2.8 million⁴ – were refurbished.

To increase the lifespan of mobile devices, through a second-hand market and using old devices for spare parts, the four main operators recovered 870,000 telephones, which marks a significant decrease in 2020, due to the Covid-19 crisis, compared to an upwards trend the year before. Among those devices, 710,000 were recovered for the purpose of refurbishment.

Most unused smartphones (53%)⁵ are kept by their owners. In a great many cases, these old phones could be reused, either sold as second-hand devices or used for spare parts to repair or produce other equipment.

Future editions of this inquiry will delve deeper

With the newfound powers it was given in 2021, Arcep will gradually expand its data collection – which, up until now, has been confined to only telecom operators – to include other digital industry players such as device manufacturers and data centre operators.

The addition of new indicators, to achieve a more detailed measurement of digital's environmental footprint and to track its evolution over time, must also be addressed during the "Achieving digital sustainability" workshops that are held with associations, institutions, digital market stakeholders and civil society representatives.

Arcep's commitment to "Achieving digital sustainability"

In June 2020, Arcep launched the "Achieving digital sustainability" platform, calling on associations, institutions, operators, tech companies and experts to participate. After the first six months, which were punctuated by five thematic workshops and two "big discussions," in which 127 participants took part, Arcep published a progress report on the work done up to that point, containing written contributions from 42 of the participating stakeholders. In the report, the regulator sets forth 11 proposals for successfully combining the ongoing increase in the use of digital tech and reducing its environmental footprint.

To find out more: Key issues – "Achieving digital sustainability"

Associated documents *(in French only)*

- [Annual inquiry's infographics of key "Achieving digital sustainability" figures](#)
- ["Achieving digital sustainability" annual inquiry – 2022 edition](#)

Arcep at a glance

The Regulatory Authority for Electronic Communications, Postal Affairs and Print Media Distribution (Arcep), a neutral and expert arbitrator with the status of independent administrative authority (IAA), is the architect and guardian of internet, fixed and mobile communications and postal networks in France.

² Source: GfK, "Smartphone: decreased sales in 2020 but already a bright outlook for 5G", 25 February 2021

³ Source: GfK, "Smartphone: decreased sales in 2020 but already a bright outlook for 5G", 25 February 2021

⁴ Source: Recommerce – Kantar, Annual market report, February 2021

⁵ Source: Digital market barometer – 2021 Edition – Credoc on behalf of Arcep, CGE and ANCT

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