Achieving digital sustainability
Milestones and publications

2019

2020

Digital represents **3 to 4%** of global greenhouse gas emissions[1]

BEREC

ENVIRONMENTAL DATA COLLECTION

MARCH

Arcep begins a 1st information-gathering campaign on telecoms' (networks, devices) environmental footprint.

BRIEF ON THE DIGITAL CARBON FOOTPRINT

OCTOBER

Arcep publishes a brief as part of its work on "Future networks".

EUROPE

MARCH

Arcep co-chairs the BEREC (Body of European Regulators for Electronic Communications) "Sustainability" working group devoted to examining telecom networks' environmental footprint and devising solutions for curbing it.

WORK DOCUMENT ON THE PARIS ACCORD AND CLIMATE EMERGENCY

MAI

Public and independent administrative authorities publish their thoughts on their role in and datadriven regulation tools for tackling environmental challenges.

ANNUAL REPORT ON THE STATE OF THE INTERNET IN FRANCE

JUNE

Arcept devotes a chapter to the digital sector's impact on the environment.

CNNUM[2] ROADMAP ON THE ENVIRONMENT AND DIGITAL TECHNOLOGY

JULY

This report contains 50 proposals, drafted in concert with more than 50 stakeholders, including Arcep.

ADEME & ARCEP MISSION STATEMENT

AUGUST

The Government entrusted the two organisations with a joint task: to identify and assess the different factors that make it possible to quantify the digital environmental footprint.

ACHIEVING DIGITAL SUSTAINABILITY REPORT + 11 PROPOSALS

DECEMBER

Arcep publishes a report and 11 concrete proposals for combining the development of digital technology uses and reducing its environmental footprint.

INTERNATIONAL

JUNE

Arcep joins international bodies' work on tackling telecoms and digital's environmental footprint, notably OECD.

"ACHIEVING DIGITAL SUSTAINABILITY" PLATFORM

JUNE

Arcep launches a collaborative platform and invites stakeholders to contribute to discussions and the publication of a 1st report.

"Digital must play its part in the low-carbon strategy"

SÉBASTIEN SORIANO

DECEMBER

Arcep Chair from 2015 to 2020

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1. According the Shift Project report, *Lean ICT : Towards digital sobriety,* March 2019, and the GreenIT.fr study, *The environmental footprint of the digital world*, September 2019.

2. *Le Conseil national du numérique*/French National Digital Council.

2021

LAURE DE LA RAUDIÈRE

JANUARY

Arcep Chair

"I am fully committed to the ambition of combining the increased use of digital technologies and reducing their environmental footprint"

DIGITAL & THE ENVIRONMENT ROADMAP

FEBRUARY

The Government publishes a roadmap designed to converge the digital and Green transitions. It entrusts Arcep with new responsibilities.

ENGAGEMENT LETTER ON MOBILE DEVICES

MARCH

The Government tasks Arcep with producing a report on handset subsidies and replacement rates.

ENVIRONMENTAL DATA COLLECTION

MARCH

Arcep begins a new information-gathering campaign on telecoms' (networks, devices) environmental footprint.

Digital accounts for **2.5%** of the carbon footprint in France

Estimated length of use of a smartphone in France: **between 23 & 37 months**

MOBILE DEVICE REPLACEMENT RATES

JUNE

Arcep submits a report to the Government on the impact that smartphone sales and distribution practices have on replacement rates.

DIGITAL MARKET BAROMETER

JULY

Arcep, the Economic Council (CGE) and the National Agency for Territorial Cohesion (ANCT) publish an annual study on digital device ownership and changing user habits including, for the 1st time, environmental considerations.

84% of smartphones in circulation are **less than 3 years old**

COLLABORATIVE WORKSHOPS ON THE 26 GHZ BAND

NOVEMBER

To study how to take environmental issues into account in 26 GHz band awards for 5G, Arcep hosts two "Achieving digital sustainability" workshops.

PROGRESS REPORT

OCTOBER

Arcep hosts a webinar for "Achieving digital sustainability" platform participants (associations, institutions, operators, tech companies, experts) and delivers a progress report on its achievements and ongoing work.

DATA COLLECTION LAWS & POWERS

NOVEMBER – DECEMBER

The REEN[3] Act of 15 November assigns Arcep new responsibilities, and the Act of 23 December 2021 expands its data collection powers to other digital sector players.

2022

Devices account for **65 to 90%** of the digital environmental footprint

5G

ARCEP & ADEME STUDY ON DIGITAL'S CARBON FOOTPRINT

JANUARY

The Government had tasked the two organisations with measuring the digital environmental footprint in France and finding levers for action and best practices to reduce it. Arcep and ADEME publish the 1st two volumes of this study.

ASSESSMENT OF A 4G VS 5G DEPLOYMENT

JANUARY

Thanks to the Mobile Technical Experts Committee, Arcep publishes a report comparing the energy consumption of a 4G vs. 5G deployment.

ANNUAL "ACHIEVING DIGITAL SUSTAINABILITY" SURVEY

APRIL

In this 1st edition, Arcep publishes the initial indicators collected from the country's four main telecoms operators[4] to monitor the progression of their environmental footprint – and so making manifest one of the 11 proposals set forth in the December 2020 report, which aimed to introduce a Green Barometer.

"ENVIRONMENTAL" TRAINING

MAY

Three-day training programme for Arcep directors and staff, to deepen their awareness of environmental issues, providing keys to understanding and concrete actions to take.

3. Act No. 2021-1485 of 15 November 2021 on reducing the digital environmental footprint in France.
4. Altice France - SFR, Bouygues Telecom, Iliad- Free and Orange France.

2022

EUROPE

JUNE

European telecoms regulators lay out their 1st shared targets for reducing the digital environmental footprint in a draft BEREC report, from the "Sustainability" working group cochaired by Arcep.

ANNUAL REPORT

JULY

Arcep assesses the environmental footprint of the electronic communications sector, devices and data centres.

EUROPE

NOVEMBER

The European Regulators Group for Postal Services (ERGP) studies the sector's impact on the environment. It analyses the measures that postal operators have taken to reduce it, and those set out in the European Green Deal.

PUBLIC DEBATES

JUNE

Arcep participates in public debates on environmental issues, such as the Digital Assembly, organised under the French Presidency of the Council of the European Union.

INTERNATIONAL

OCTOBER

Arcep takes part in investigations into how international bodies, notably the ITU and OECD, can take telecoms and ICT's environmental impact into consideration, as part of the G7 work on the digital tech sector.

L'Arcep et les marchés régulés

TOME 1

FRANCE NATION VERTE ›

Agir · Mobiliser · Accélérer

HIGH COMMITEE FOR GREEN ICT

NOVEMBER

The Government tasked the High Committee for Green ICT with establishing a decarbonisation roadmap for the digital sector. Arcep contributes regularly to the Committee's working groups.

2023

ENVIRONMENTAL DATA COLLECTION

JANUARY

Arcep extends its data collection to include device suppliers (smartphones, computers, smart TVs, etc.) and data centre operators.

80% of devices' carbon footprint is tied to their production

et je coupe ma box
arcep
et je remets ma box

DAILY BEST PRACTICES

JANUARY

Arcep publishes a tutorial for digital device users, offering tips and best practices for curtailing their environmental footprint.

DIGITAL MARKET BAROMETER

JANUARY

Arcep, the Economic Council (CGE), the National Agency for Territorial Cohesion (ANCT) and, for the 1st time, Arcom, publish a new edition of the Digital Market Barometer, including a close-up look at TVs' environmental footprint.

If nothing is done, **the digital carbon footprint in France** will increase **45%** by 2030 compared to 2020

ROUTER & STB CONSUMPTION

JANUARY

Arcep publishes a protocol for measuring ISP routers, Wi-Fi extenders and STBs' power consumption. It explains what influences these devices' consumption.

ARCEP & ADEME STUDY ON DIGITAL'S CARBON FOTPRINT

MARCH

Arcep and ADEME publish the 3rd and final volume of their forward-looking assessment of the digital environmental footprint in France, in 2030 and 2050.

EUROPE

MARCH

The Body of European Regulators for Electronic Communications (BEREC) publishes a draft report on environmental indicators for consultation.

METHODOLGICAL GAP ANALYSIS ON MEASURING THE DIGITAL ENVIRONMENTAL FOOTPRINT

APRIL

Co-managed by ADEME and Arcep, the Technical Experts Committee on assessment seeks to identify methodological disparities that can explain the differences in the findings of digital environmental impact studies, and to make recommendations for improving existing standards.

ANNUAL "ACHIEVING DIGITAL SUSTAINABILITY" SURVEY

APRIL

In this 2nd edition, Arcep publishes annual indicators collected from the country's four main telecoms operators.

2024

ARCEP'S EXPERTISE RECOGNISED BY THE WORLD BANK, ITU AND UNCTAD

The World Bank and ITU commended Arcep in their report published in December 2023 and underscored the importance of data collection for tackling environmental issues.

On 10 July 2024, UNCTAD published its Digital Economy Report and showed ICT's considerable impact on the environment and on developing countries. The report cites the work that Arcep did in concert with ADEME.

ENVIRONMENTAL DATA COLLECTION

FEBRUARY

Arcep expands its environmental data collection to include mobile network equipment suppliers.

ANNUAL "ACHIEVING DIGITAL SUSTAINABILITY" SURVEY

MARCH

This 3rd edition now includes data from device manufacturers and data centre operators, and on routers' and STBs' power consumption.

ISP routers and STBs together consume **three times** **more energy** than fixed networks

EUROPE

MARCH

Arcep responds to the European Commission public consultation on generative AI, underscoring the fact that its environmental footprint has yet to be properly assessed.

DIGITAL MARKET BAROMETER

MAY

This new edition of the Barometer queries users on what they are doing to reduce the environmental footprint of their digital practices.

10+ screens per household, of which close to **1/4** are never used

GENERAL POLICY FRAMEWORK FOR THE ECODESIGN OF DIGITAL SERVICES

may 2024

arcep Arcom

in connection with and in collaboration with DINUM, CNIL and INRIA

GENERAL POLICY FRAMEWORK FOR THE ECODESIGN OF DIGITAL SERVICES

MAY

Arcep and Arcom, in tandem with ADEME, present the Ecodesign policy framework on 17 May. Drafted in concert with DINUM, CNIL, Inria and digital industry stakeholders, it aims to reduce digital services' environmental footprint, starting at the design stage.

EUROPE

JUNE

BEREC:

- Publishes its report on sustainable ICT on behalf of users and kicks off a campaign to raise public awareness of devices' environmental footprint;

- Invites the European Commission to take further actions and promote stakeholder accountability in its response to the public consultation on the White Paper "How to master Europe's digital infrastructure needs?".

BEREC

empowering GreenEU

ITU COUNCIL

JUNE

Arcep hosts a satellite event to the ITU Council meeting, devoted to the environment and, as an active member of the French delegation, contributes to the adoption of a resolution to support ITU initiatives to combat climate change.

CONNECTED EQUIPEMENTS THINGS AND DEVICES

JULY

The Technical Experts Committee, under the aegis of Arcep and ADEME, delivers its 2nd rapport: "Scope of IoT devices with respect to ICT (information and communication technologies)".

CONNECTED TERRITORIES CONFERENCE

SEPTEMBER

Arcep's annual "Connected Territories" conference devotes a roundtable to ICT's impact on the environment and the actions territories are taking to reduce their carbon footprint.

PUBLIC DEBATE ACTOR

JULY

In her capacity of Vice-chair of BEREC for 2024, Laure de La Raudière delivers a keynote at the 'Sustainability in Telecommunications and Space' conference hosted as part of Hungary's presidency of the Council of the EU.

« We can build desirable digital technologies that will not only fulfill our needs today, but also for generations to come, within our planet boundaries. »

Laure de La Raudière, President of Arcep

INTERNATIONAL
SEPTEMBER

Arcep unit head, Sandrine Elmi Hersi, presents the Authority's environmental work to UNCTAD.

PUBLIC DEBATE
NOVEMBER

In a joint Op-ed in *Les Echos,* ADEME, Arcom and Arcep call for European supervision of digital technology sustainability.

ENVIRONMENTAL DATA COLLECTION
MARCH

Arcep expands its environmental data collection to fixed network equipment suppliers manufacturing fibre optic cables.

DIGITAL MARKET BAROMETER
MARCH

The 2025 edition reveals that people spend an average 25% of their waking hours on a digital device for personal use. Premature smartphone replacement is decreasing, but rates of reuse remain low.

EUROPE
APRIL

The BEREC Sustainability working group, co-chaired by Arcep policy officer, Tom Nico, hosts an external workshop on the ecodesign of digital services, promoting the RGESN in particular. An external workshop hosted in September 2025 on the environmental impact of satellites.

ECODESIGN OF DIGITAL SERVICES
MAY

Arcep and Arcom, in collaboration with ADEME, bring digital ecosystem stakeholders and ecodesign experts together in a new body: the digital ecodesign stakeholder Forum (or «RGESN Forum»). Arcep promotes the RGESN at national and international events. It promotes ecodesign when drafting a new OECD recommendation on digital technologies and sustainability in June.

UNITED NATIONS UNCTAD

User devices, and especially **TVs** have the **biggest environmental** impact

Measuring National ICT Sector Environmental Impact
ARCEP CASE STUDY – FRANCE
A Joint ITU / World Bank Report

BEREC

Mobile network equipment represents **2.4 tonnes** of precious metals, **79,000 tonnes** of CO_2 eq.

GENERAL POLICY FRAMEWORK FOR THE ECODESIGN OF DIGITAL SERVICES may 2024
arcep Arcom

AUDIOVISUAL MEDIA USE
OCTOBER

The environmental impact of French people's audiovisual media use is assessed for the first time in a study conducted by Arcom and Arcep, in collaboration with ADEME, in accordance with the «Climate and Resilience» Act.

2025

AI SUMMIT
FEBRUARY

Arcep participates in an event hosted by Usbek & Rica as part of the AI Summit at the Sorbonne alongside eight other public institutions. The Authority contributes to the Sustainable AI task force in preparation for the Summit. In a joint Op-ed with ADEME and Inria, it calls for the design of a more frugal and transparent European AI.

WORLD BANK & ITU WORKING GROUP
MARCH

A report from the World Bank and ITU commends Arcep's groundbreaking work on digital technology's environmental footprint. ITU creates a new sustainability working group, chaired by Arcep.

«ACHIEVING DIGITAL SUSTAINABILITY» SURVEY
APRIL

In this 4th edition, the environmental footprint of mobile network equipment suppliers is assessed. Data centre operators and telcos' footprint continues to grow.
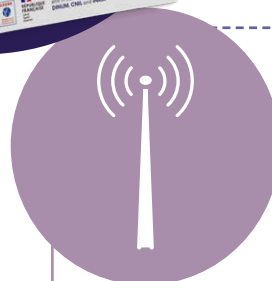
ENVIRONMENAL TRAINING
APRIL

Arcep staff undergo a threeday training course, to deepen their awareness of environmental issues, with keys to understanding and concrete actions.

NETWORK SHARING
JUNE

BEREC publishes its report on network infrastructure sharing and its environmental benefits. The report examines the impact of infrastructure sharing on the sustainability of electronic communications networks and services, in accordance with the EU's broader objectives of reducing the ICT sector's impact on the environment.