

# CHART OF THE WEEK

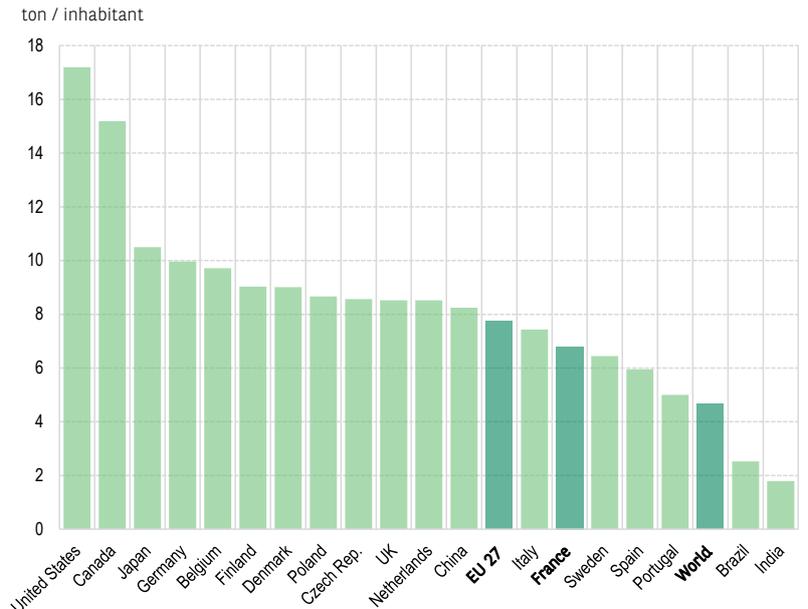


2 May 2024

## FOOTPRINTS COMPARISON

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### CO<sub>2</sub> footprints in 2021



Source: Eurostat (Figaro model), World Bank, BNP Paribas

Paris, Gare de Lyon train station, April 2024. While waiting for his train to Marseille, a traveler wanders through the stores. As he has some time to spare, he lingers in one of them, which sells smartphones. A good opportunity to upgrade? After all, his current device is already four years old, the average age at which it is renewed in France; the latest version, which he has in front of him, incorporates more functionalities; and last but not least, it's his birthday! He buys himself a present... and by doing so, multiplies the carbon footprint of his journey by twenty-five<sup>1</sup>.

Though it might appear trivial, this short story illustrates how difficult it could be for an open economy to achieve climate neutrality. For any country, carbon footprint is measured not only by what it produces (such as TGV travels), but also by what it imports (such as smartphones). Of the 9.2 tons of greenhouse gases (GHG) emitted annually by each French person, more than half (5.1 tons) are attributable to goods and services purchased abroad. Domestic production accounts for much less (2.5 tons per year and per inhabitant for its non-exported share), while direct emissions (1.6 tons per year and per inhabitant from fuel consumption) complete the picture<sup>2</sup>.

9.2 tons is still a long way from the 2 tons target set by 2050, that would comply with the Paris climate agreements. However, France is not the country with the longest way to go. Because it is service-oriented and relies on nuclear power (one-third of the energy mix, a world record), the carbon intensity of its production is relatively low<sup>3</sup>. Taking into account imported CO<sub>2</sub> emissions does actually add to the balance sheet, but without relegating France to the bottom of the class. According to Eurostat estimates, the individual carbon footprint of the French remains one of the lowest in Europe (in terms of CO<sub>2</sub> alone); it also lags far behind American standards (see *Chart*).

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<sup>1</sup> The calculator provided by the « SNCF Connect » website indicates 2.5 kilograms of CO<sub>2</sub> equivalent (kg CO<sub>2</sub> eq) for a Paris-Marseille travel on a TGV train; the carbon footprint of a smartphone would be around 60 kg CO<sub>2</sub> eq over a complete life cycle (manufacture, transport, use, recycling), which corresponds to a low estimate. Cf. Six N. (2023), *Les émissions de CO<sub>2</sub> liées aux smartphones sont largement sous-estimées par les pouvoirs publics*, "Le Monde", 10 March.  
<sup>2</sup> Source : Ministère de la Transition Écologique et de la Cohésion des Territoires (2023), *L'empreinte carbone de la France de 1995 à 2022*, Service des données et études statistiques (SDES), October. Figures refer to 2002 and are estimates.  
<sup>3</sup> 0.15 kg CO<sub>2</sub> eq per \$1,000 GDP in 2021, one of the lowest ratios in the OECD. Cf. Organisation for Economic Co-operation and Development, Greenhouse gas emissions database.

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