



29/01/2024

# Consumption-based emissions

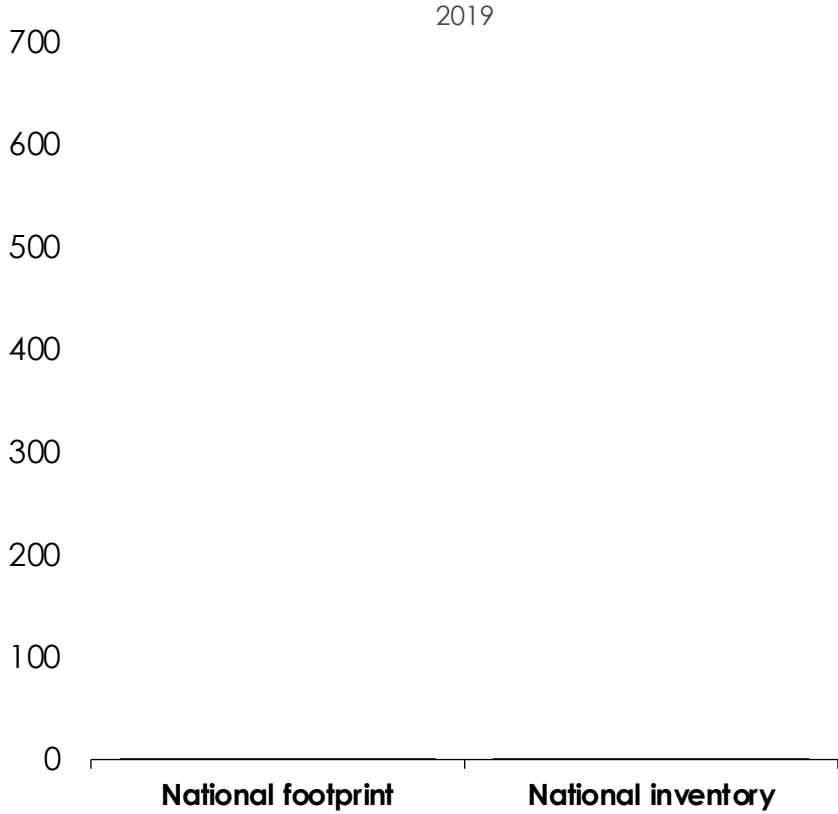
Overview of the French case study

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César DUGAST

# France's carbon footprint is significantly higher than its domestic emissions

COMPARISON OF FRANCE'S CARBON FOOTPRINT AND DOMESTIC EMISSIONS



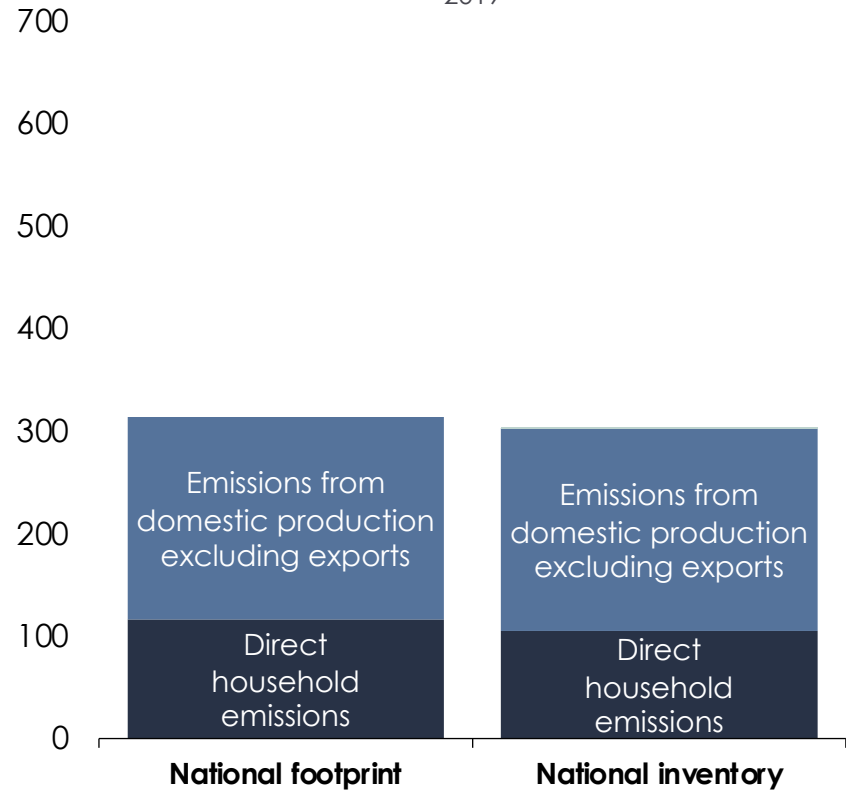
- In 2019, imported emissions accounted for 48% of France's carbon footprint. **More than half of France's consumption-based emissions are imported.**
- **Domestic emissions** (2019) amount to 423 MtCO<sub>2</sub>eq, while France's **carbon footprint** is 625 MtCO<sub>2</sub>eq

Note: the carbon footprint and inventory emissions cover the three main greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O), excluding LULUCF. Because international transport is accounted for differently depending on the approach, the subtotals (household emissions and domestic production emissions) of the footprint and the inventory are not identical.  
Scope: Kyoto perimeter (mainland France and overseas territories belonging to the EU).  
Sources: Citepa; IEA, EDGAR-JRC; FAO; Customs; Eurostat; Insee. Processing: SDES, 2023. Adapted by Carbone 4.

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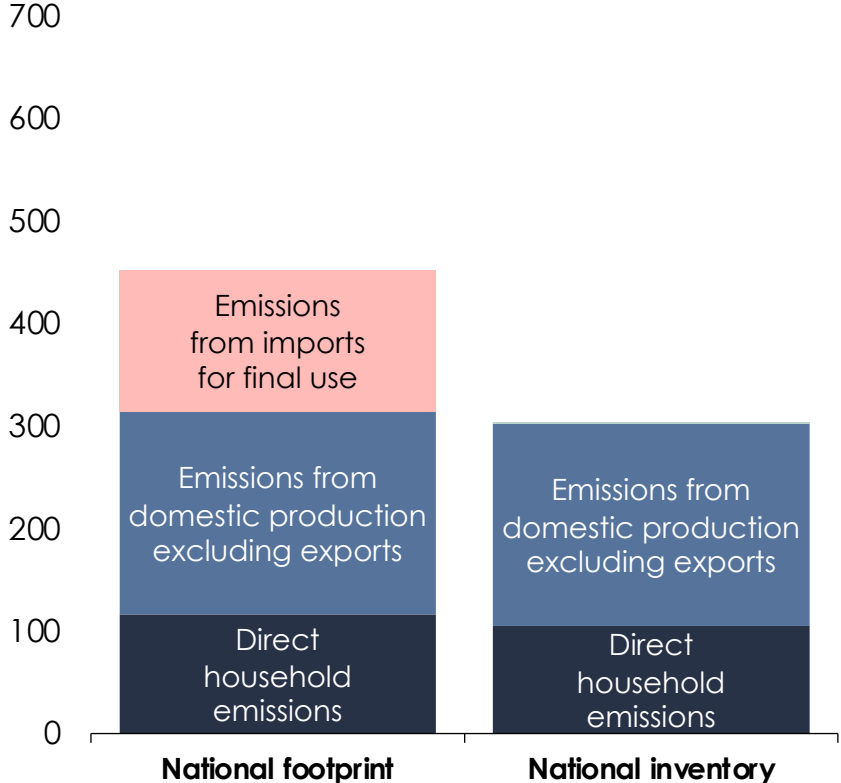
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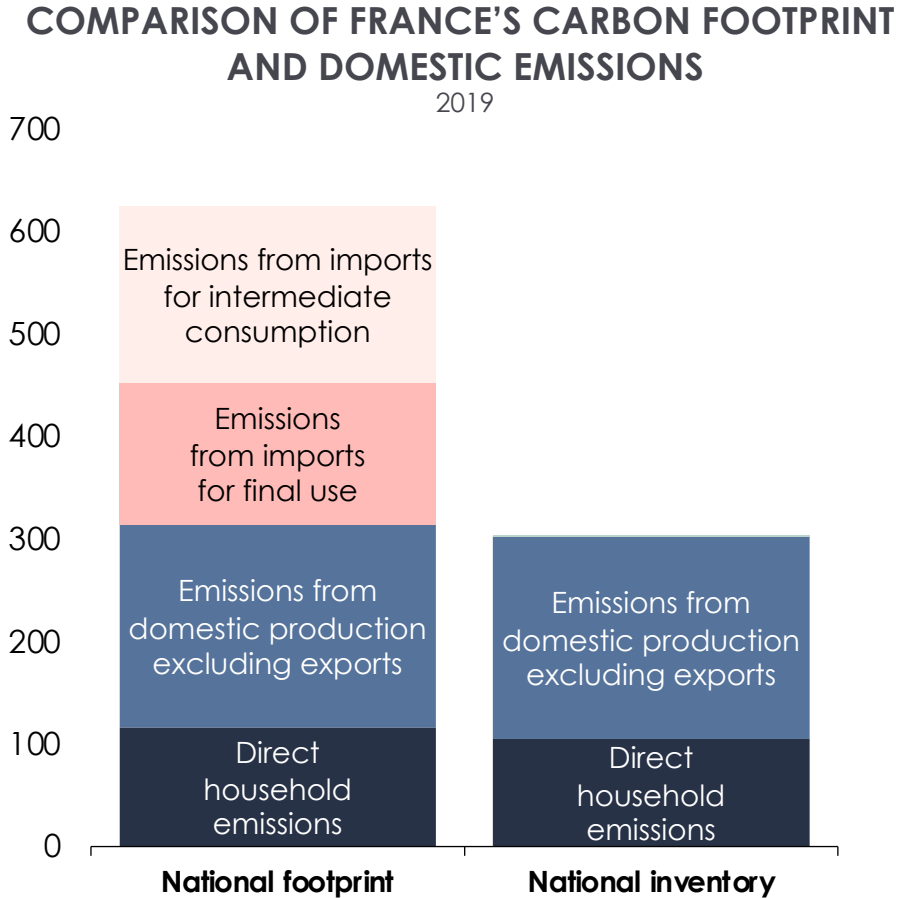
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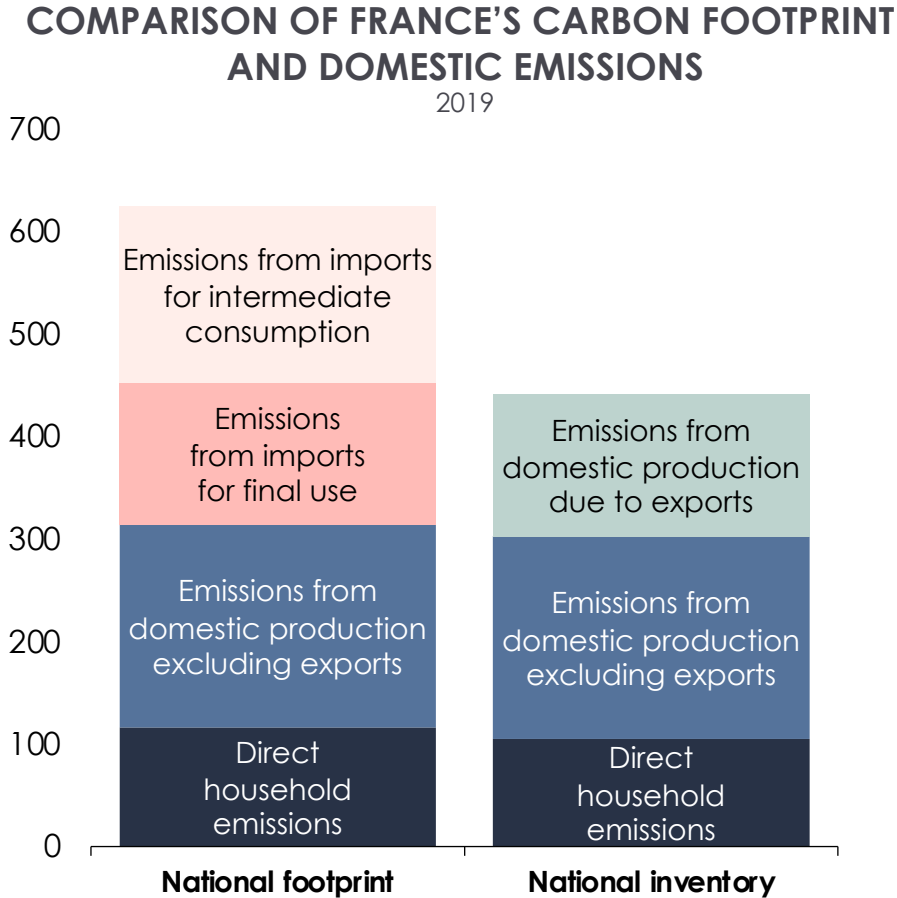
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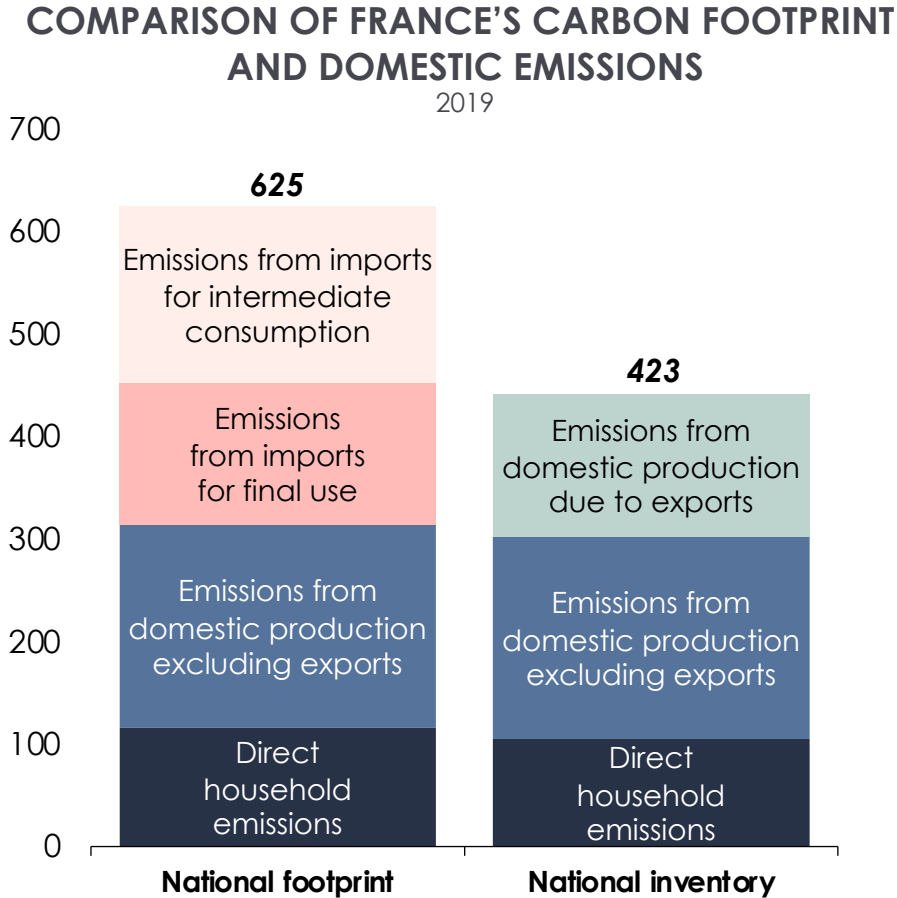
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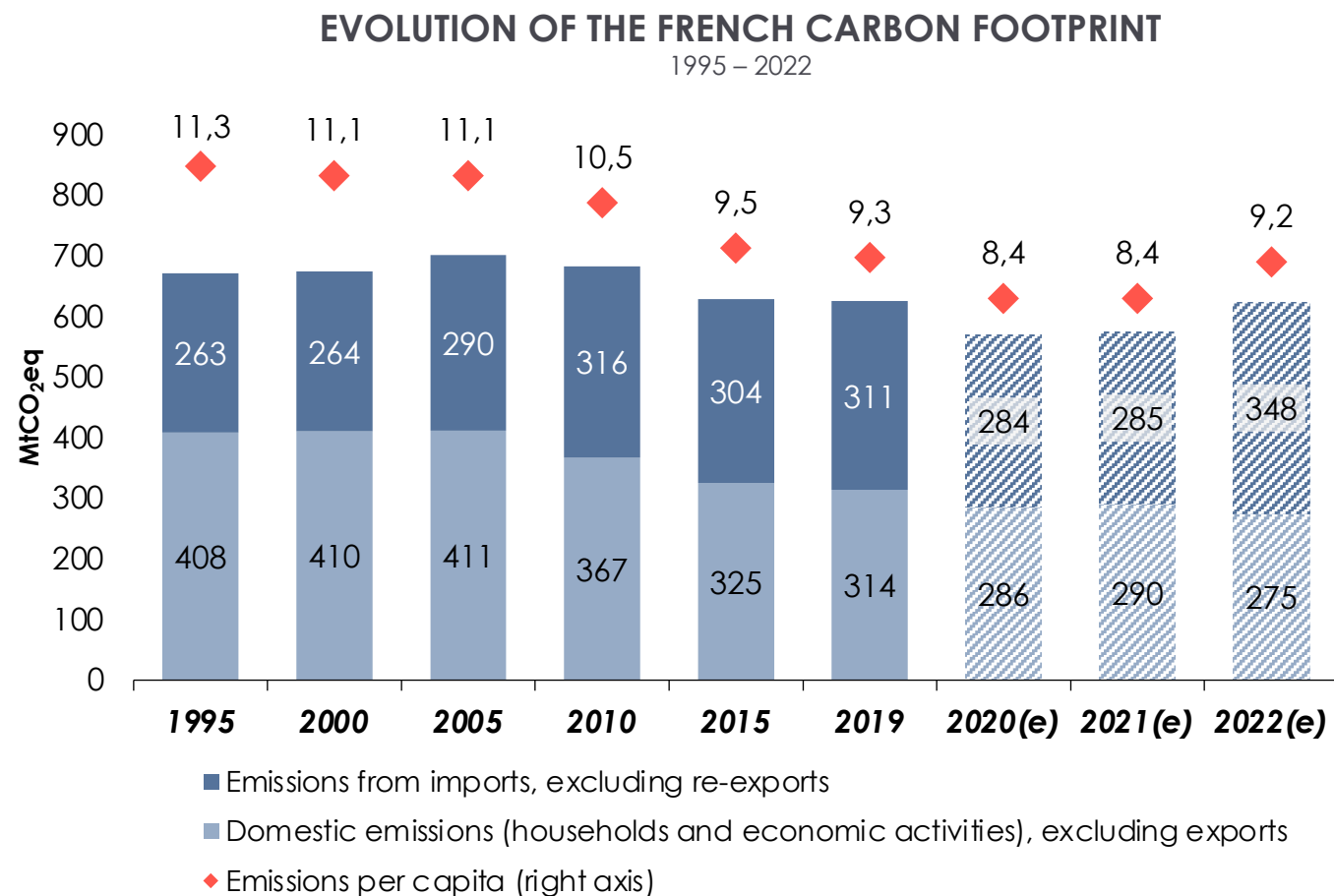
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# France's carbon footprint has decreased by 7% since 1995, but reflects two competing trends



- In 2022, the estimated carbon footprint is 623 MtCO<sub>2</sub>eq. It has increased by 8% compared to 2021.
- Since 1995, **France's CBE has decreased by 7%**, while the domestic final demand grew by 51%. It hides two competing effects:
  - Domestic emissions decreased by 33%
  - Imported emissions increased by 32%
- The 2022 carbon footprint is estimated at **9.2 tCO<sub>2</sub>eq per capita**. It decreased by 19% compared to 1995, but increased by 10% compared to 2021.

(e) = estimations.

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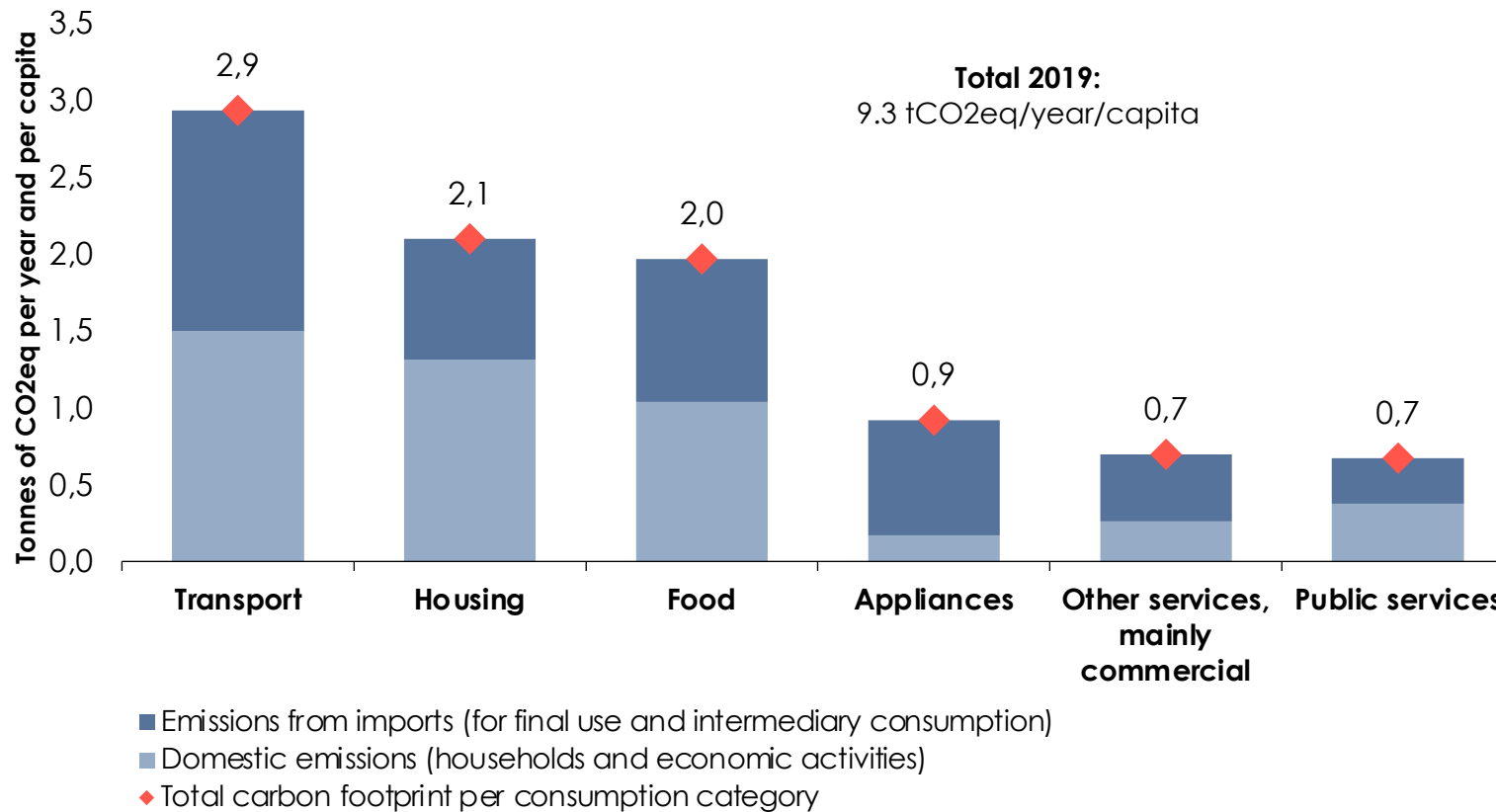
Source: Citepa, Eurostat, Insee, Customs, IEA, EDGAR-JRC FAO. Processing: SDES, 2023. Adapted by Carbone 4.



# The breakdown of the carbon footprint shows different contributions for each consumption category

## BREAKDOWN OF FRANCE'S CARBON FOOTPRINT BY CONSUMPTION CATEGORY

tonnes of CO<sub>2</sub>eq per year and per capita (2019)



- Transport accounts for one-third (32%) of the average French individual carbon footprint
- Transport, housing and food represent 75% of the total carbon footprint.
- Imported emissions account for:
  - Half of the **Transport, Food, and Public services** emissions
  - Most of the **Appliances and Other services** emissions
  - A minority of **Housing** emissions

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# Recommendations of the High Council for Climate (HCC) to tackle France's carbon footprint (2020)

1. **Improve** monitoring of the emissions related to international exchanges



*The French administration has switched from a SRIO model to a MRIO model for its carbon footprint calculation*

2. **Adapt** the existing setup, inform demand, oversee trade and support global ambition

3. **Reduce** the carbon footprint in line with the objectives of the Paris agreement



*The next version of the French national climate strategy will include a target on consumption-based emissions*



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