Travel restrictions due to the COVID-19 pandemic led to much-reduced CO₂ emissions from flights across Europe in 2020, down 56.9% on 2019. Following global standards, all CO₂ emissions from a flight are assigned to the country of departure. These departing flights declined by a similar amount to CO₂: 54.5% compared to 2019 overall.

The map shows that there was considerable variation between countries in their CO₂ reductions, driven by differences in the local fleet (lighter or heavier, younger or older aircraft), flight distances (shorter- or longer-haul), mix of market segments (cargo, scheduled, business aviation etc), and by the extent of the COVID-19 decline in flights.

For example, in Belgium departing flights were down by about half in 2020, similar to the European average. CO₂ however, was down only 30%. A major reason for this was the high proportion of cargo flights operating from Belgium, which increased from 11% to 25% in 2020 compared to 2019. Cargo flights use larger aircraft and fly further than the Belgian average, and therefore generate above-average CO₂ emissions. A second reason was that, due to short-haul cancellations, the average scheduled flight was much longer than in 2019, so emitted more CO₂.

Technical Bits: Underlying flight data sourced from EUROCONTROL Central Route Charges Office (CRCO). The CO₂ emissions growth as shown is based on all flights departing from EUROCONTROL Member States taking into account aircraft type and route. As Israel, Morocco and Ukraine are not integrated in the multilateral route charges system they cannot be shown.

The efforts made by air traffic management to optimize the network and reduce emissions are largely hidden by these much larger COVID-related changes.

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