## Explanation of Key Trends - Fine Particulate Matter (PM<sub>2.5</sub>)

## **Obligations**

Germany has made a commitment to reduce particulate matter emissions. The revised Gothenburg Protocol and the revised NEC Directive both define emission reduction targets relative to a 2005 base year, mandating 26% (2020) and 43% (2030) reductions respectively.

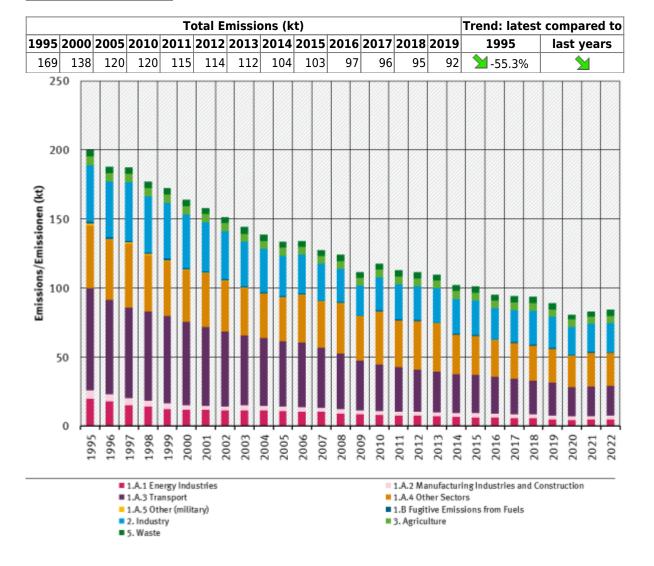
While Germany's complicance with these obligations is not discussed here, further information on this subject can be found in Chapter 9 - Projections and Chapter 11 - Adjustments and Emission Ceiling Exceedance.

## Main drivers

Total PM<sub>2.5</sub> emissions dropped by 55.3% between 1995 and 2019. The Main Drivers for PM<sub>2.5</sub> emissions are Fuel Combustion (NFR 1.A) with 72.5% of total 1995 emissions and a 63% reduction between 1995-2019 and as a sum the Industrial Processes (NFR 2) with about 21% of total 1995 emissions and a 41% reduction between 1995-2018.

Within both National totals and NFR 1.A, **Transport (NFR 1.A.3)** is responsible for the biggest part of PM<sub>2.5</sub> emissions. Here, about 77% of 2019 PM<sub>2.5</sub> emissions are induced by **Road Transport (NFR 1.A.3.b)**, caused by two third directly by fuel consumption (**NFR 1.A.3.b.i - v**) and the other third by road abrasion and tyre and brake wear (**NFR 1.A.3.b.vi - vii**).

PM<sub>2.5</sub> Emissions 1990-2019



## PM<sub>2.5</sub> trend by sector