

Explanation of Key Trends - Fine Particulate Matter (PM_{2.5})

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.

Further details can be found in [Chapter 9 - Projections](#) and [Chapter 11 - Adjustments and Emission Ceiling Exceedance](#).

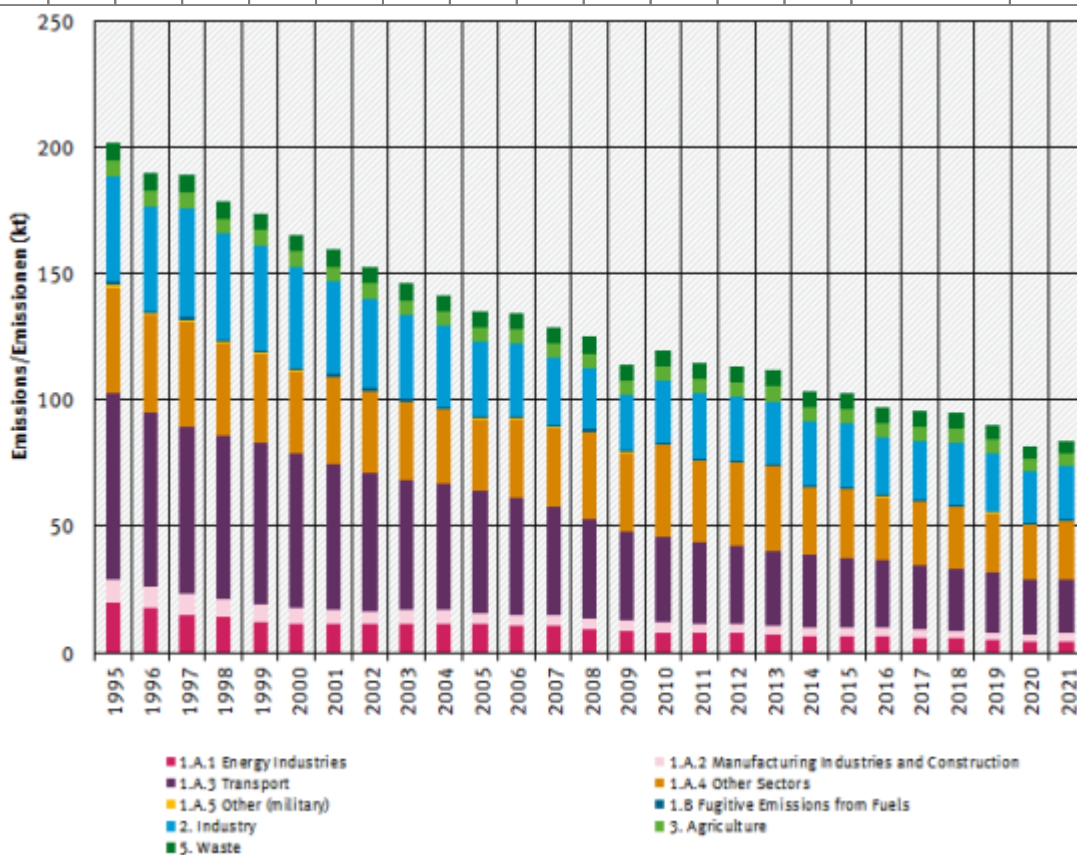
Main drivers

Total PM_{2.5} emissions dropped by 55.3% between 1995 and 2019. The Main Drivers for PM_{2.5} 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_{2.5} emissions. Here, about 77% of 2019 PM_{2.5} 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_{2.5} Emissions 1990-2019

| Total Emissions (kt) | | | | | | | | | | | | | Trend: latest compared to | |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------------|------------|
| 1995 | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 1995 | last years |
| 169 | 138 | 120 | 120 | 115 | 114 | 112 | 104 | 103 | 97 | 96 | 95 | 92 | ▼ -55.3% | ▼ |



PM_{2.5} trend by sector