

# 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 compliance 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

Between 1995 and 2024, **Total PM<sub>2.5</sub> emissions declined by 62.0%**.

The Main Drivers for PM<sub>2.5</sub> emissions are **Fuel Combustion (NFR 1.A)** with 73 % of total 1995 emissions and a 69% reduction between 1995 and 2024 and, as a sum, the **Industrial Processes (NFR 2)** with about 21 % of total 1995 emissions and a 52 % reduction between 1995 and 2024.

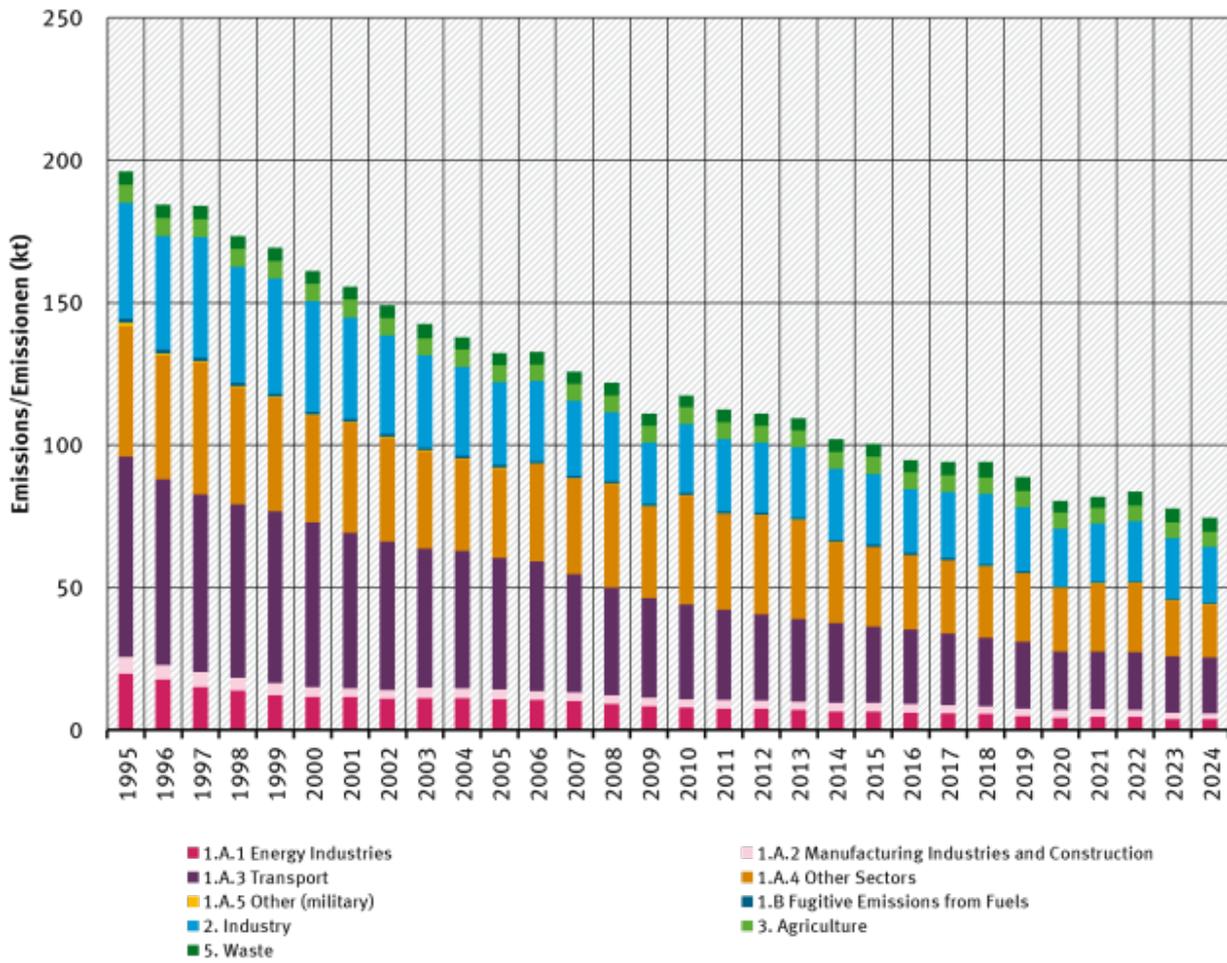
Within both National totals and NFR 1.A, **Transport (NFR 1.A.3)** is responsible for the biggest part of PM<sub>2.5</sub> emissions. Here, about 77 % of 2024 PM<sub>2.5</sub> transport emissions are induced by **Road Transport (NFR 1.A.3.b)**, caused by two third directly by fuel consumption (**NFR 1.A.3.b.i-iv**) and the other third by road abrasion and tyre and brake wear (**NFR 1.A.3.b.vi - vii**).

Table: PM<sub>2.5</sub> Emissions 1990-2024, in kilotonnes [kt]

|      |      |      |      |      |      |      |      |      |      |      |      |      |      | Trend: latest year compared to... |                  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------------------------|------------------|
| 1995 | 2000 | 2005 | 2010 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | ...BY (1995)                      | ...previous year |
| 196  | 161  | 132  | 118  | 100  | 95   | 94   | 94   | 89   | 80   | 82   | 84   | 78   | 74   | -62.0%                            | -4.4%            |

## Fine Particulate Matter / Feinstaub (PM<sub>2.5</sub>)

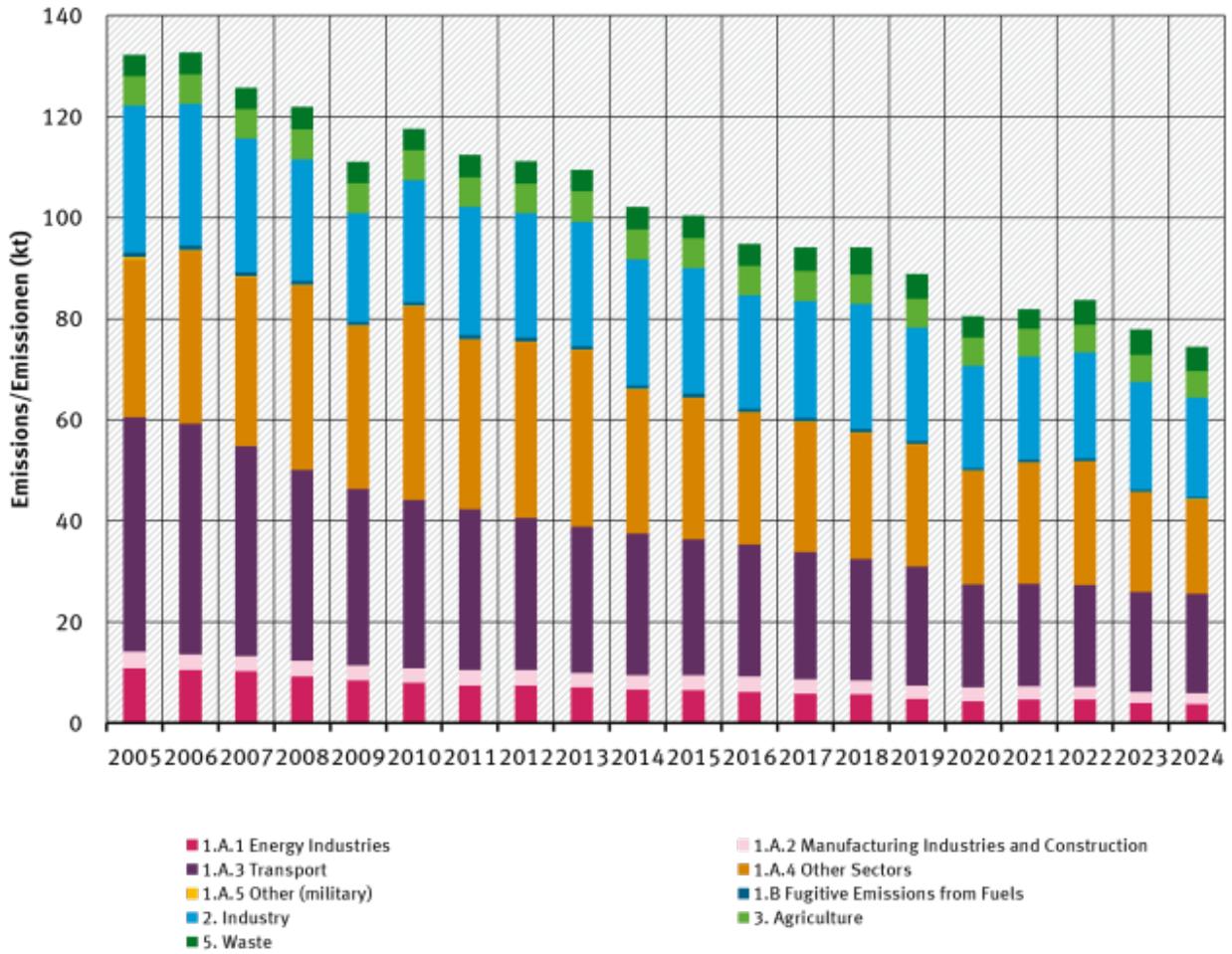
### Emissions per Sector / Sektorale Emissionen



Quelle: German Emission Inventory (04.02.2026)

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