## 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.

Further details 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**).

Quelles German Emission Inventory (01.02.2022)

PM2.5 Emissions 1990-2019

Fine Particulate Matter / Feinstaub (PM2.5)

Total Emissions (kt)													Trend: latest compared to	
1995	5 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	<b>&gt;</b> -55.3%	×

Emissions per Sector / Sektorale Emissionen 250 200 Emissions/Emissionen (kt) 150 100 50 2010 2011 2012 2013 2014 2015 2016 2017 1999 2018 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2019 2020 995 966 1.A.1 Energy Industries 1.A.2 Manufacturing Industries and Construction 1.A.3 Trans 1.A.4 Other Sector: 1.B Fugitive Emissions from Fuels
3. Agriculture 1.A.5 Other (military) 2. Industry 5. Wante

