EMISSIONS OF MICROPOLLUTANTS

AIR 5

Micropollutants in the ambient air are primarily trace metals (TMs) and persistent organic compounds. In view of their potentially toxic effects on health and ecosystems, their air emissions should be minimised as much as possible, in accordance with the agreement protocols concluded at European and international level.

Emissions sources

According to the inventories available in Wallonia, TM[1] air emissions were 50.7 t in 2014. The industrial sector (steel, metal processing, etc.) was the main source of emissions (25.1 t) followed, to a lesser extent, by road transport (14.8 t).

Emissions of dioxins and furans were 10.7 g TEQ and polycyclic aromatic hydrocarbons (PAH)[2] emissions were 5.9 t. These were the result of combustion phenomena occurring mainly in the residential sector (heating). The balance of PAH emissions was mainly from the energy sector.

Reduction efforts pay off

Overall, TM emissions in Wallonia decreased by 80% between 1990 and 2014. This reduction can be explained by several factors: (i) the economic climate and especially the closure of steel companies, (ii) the increased control of industrial installations and the capture of fumes, (iii) abatement measures of particulate matter (sleeve filters and/or activated carbon filters) taken as a result of environmental permits for industries and energy producers. It is also the result of the phasing-out of leaded petrol and the gradual switch from coal (rich in TMs) to natural gas[3].

The reduction in emissions of dioxins and furans (-92%) is mainly due to the installation of activated carbon filters on household waste incinerators and a continuous emission control network for these incinerators (more stringent standards[4]).

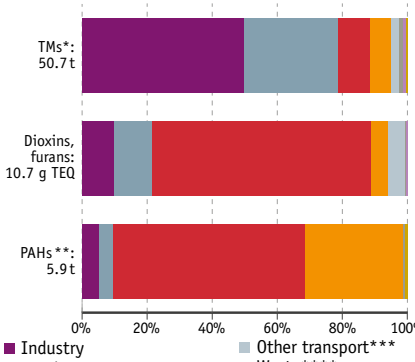
The 91% drop in PAH emissions between 1990 and 2014 was due, *inter alia*, to the gradual phasing-out of coal-fired power stations, the closure of coking plants and agglomerates plants, and the installation of more efficient filters.

Regulatory tools

Most of the measures taken to limit emissions of micropollutants stem from European legislation (the IED[5] Directive: use of best available techniques e.g.) and the international LRTAP[6] and Stockholm Conventions. They are applied in Wallonia mainly through the granting and revision of environmental permits. Measures are also included in the Air Climate Energy Plan 2016-2022 (*Plan air climat énergie 2016-2022 - PACE*)[7].

[1] Zn, Cu, Pb, Cr, Se, Ni, Hg, As and Cd | [2] Excluding industrial wood impregnation/preservation activities | [3] → ENER 1 | [4] Walloon Government Decree of 03/12/1998 and http://environnement.wallonie.be/data/air/dioxines/index.htm | [5] Directive 2010/75/EU | [6] Convention on Long-Range Transboundary Air Pollution | [7] → AIR Focus 3

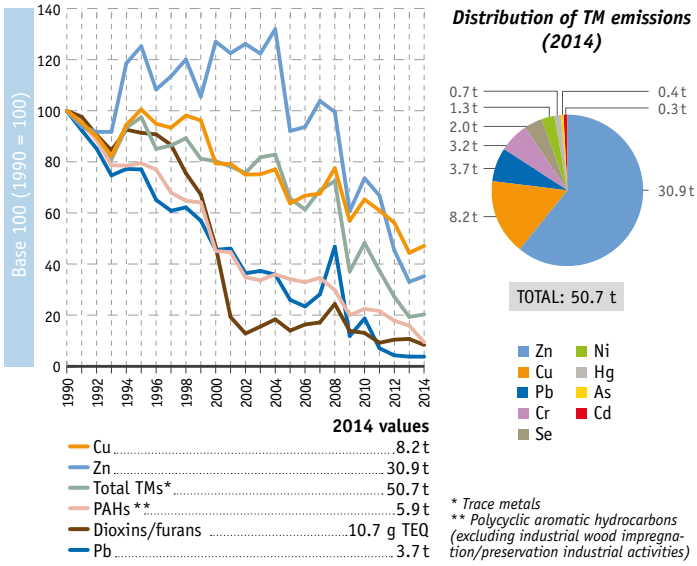
Fig. AIR 5-1 Sectoral breakdown of atmospheric emissions of TMs*, PAHs**, dioxins and furans in Wallonia (2014)



* *Trace metals*
** *Polycyclic aromatic hydrocarbons (excluding industrial wood impregnation/preservation activities)*
*** *Military, aviation, by rail and by waterways*
**** *Including household waste incinerators*
***** *Including agricultural transport*

SOERW 2017 – Sources: SPW - AwAC (report carried out in February 2016, provisional data 2014)

Fig. AIR 5-2 Evolution of emissions of the main atmospheric micropollutants in Wallonia



* *Trace metals*
** *Polycyclic aromatic hydrocarbons (excluding industrial wood impregnation/preservation industrial activities)*

SOERW 2017 – Sources: SPW - AwAC (report carried out in February 2016, provisional data 2014)