

## ECO-EFFICIENCY OF THE TRANSPORT SECTOR

The transport of people and freight results in emissions of various pollutants into the air, mainly related to energy consumption. These pollutants have an impact on air quality, with consequences for climate change, public health and environmental degradation.

### Stabilised energy consumption since 2004

In 2014, transport activities (including international transport and excluding air transport) consumed 32.6 TWh of energy, or 30% of final energy consumption in Wallonia. However, between 1990 and 2009<sup>1</sup>, the increase in energy consumption (+25.2%) was less than the increase in demand for passenger transport (+39.4%) and freight transport (+49.8%). This is mainly due to improvements in road transport (optimisation of truck loading, renewal of the car stock, decrease in average vehicle engine capacity, etc.). It should be noted that the energy consumption of the air transport sector has been growing strongly in Wallonia in recent years, linked to the development of these activities within the territory<sup>2</sup>. It was estimated at just over 4 TWh in 2014 compared to 1.1 TWh in 2000.

### Decoupling of emissions, except for GHGs

Road transport is the most widely used mode of transport in Wallonia, yet it is still largely dependent on traditional fuels<sup>3</sup>. As a result, greenhouse gas (GHG) emissions from transport evolve in a similar pattern to energy consumption<sup>4</sup>. However, since 1990, a decoupling has been observed between emissions of acidifying substances, ozone precursors and trace metals on the one hand, and energy consumption on the other. This is mainly due to:

- improved engine performance (*inter alia* through the introduction of increasingly stringent EURO standards, which have gradually reduced pollutant emissions from new vehicles);

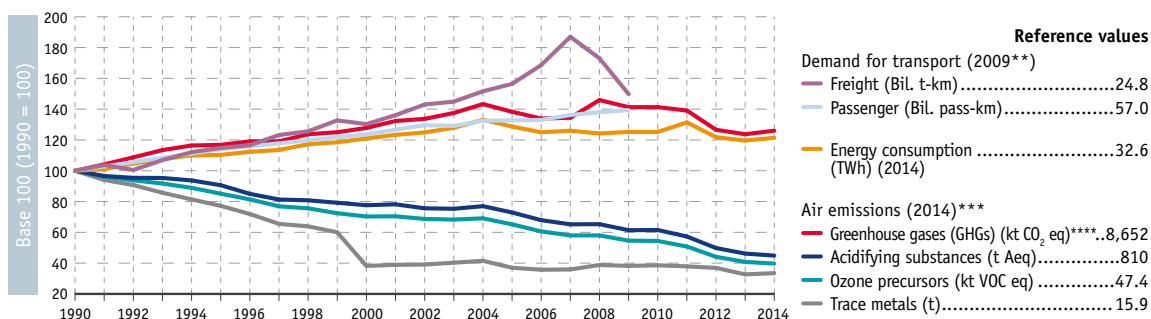
- the installation of catalytic converters to meet the above standards;
- the imposition of changes in the composition of fuels as a result of Directive 98/70/EC which banned leaded petrol and led to the desulphurisation of fuels.

### Renewable fuels and a range of measures to reduce emissions

Directive 2009/28/EC on the promotion of the use of energy from renewable sources<sup>5</sup> has a target of 10% biofuels or electricity<sup>6</sup> in the gross final energy consumption of the transport sector by 2020 in Europe. This share was estimated at 4.6% in Wallonia in 2014<sup>7</sup>, mainly thanks to the use of biofuels (90%). The Air Climate Energy Plan 2016-2022 (*Plan air climat énergie 2016-2022*)<sup>8</sup> also sets out a range of measures to reduce GHG emissions and transport-related air emissions. They are structured around three strands: (i) a rationalisation of mobility needs, (ii) the encouragement of modal shifts and (iii) an improvement in vehicle performance.

<sup>[1]</sup> The most recent regional data available for rail date from 2009; the demand for passenger and freight transport cannot be calculated for the following years. | <sup>[2]</sup> → TRANS 2 & TRANS 3 | <sup>[3]</sup> → TRANS 5 | <sup>[4]</sup> The emissions and energy data are calculated according to different methodologies, which may explain some divergent developments (e.g. 2008) complicating an interpretation of the recent period. | <sup>[5]</sup> → ENER 4 | <sup>[6]</sup> The share produced from renewable energy sources | <sup>[7]</sup> ICEDD, 2016b | <sup>[8]</sup> → AIR Focus 3

Fig. TRANS 6-1 Eco-efficiency of the transport sector in Wallonia\*



\* Road, rail and inland waterway transport. Excluding air transport

\*\* Last year available for railway data

\*\*\* Excluding emissions related to the production of electricity consumed by rail transport

\*\*\*\* Excluding CO<sub>2</sub> from biomass

SOERW 2017 – Sources: SPW - AwAC (report carried out in February and June 2016, provisional data 2014); FPS Mobility and Transport; IWEPS; SNCB; SPW - DGO2; SPW - DGO4 - DEBO