

Final energy consumption by fuel

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat New Chronos

New Cronos Database Theme 8

<http://www.eu-datashop.de/download/EN/klassifi/ncronos/thema8/sirene.pdf>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Thousands tons of oil equivalent (TOE)

Reporting level: national

Reporting period: annually

Data available from 1985 to 2000

Data Source:

International Environmental Agency

Key World Energy Statistics - IEA

<http://www.iea.org/>

<http://www.iea.org>

General Availability:

Reporting unit: per cent

Reporting level: national

Reporting period: annually

Data available from 1973 to 2001

The indicator:

Final energy consumption embraces the energy received by consumers and businesses. It does not include the energy loss in the conversion sector, and from distribution. The indicator evaluates the participation of each type of fuel (solid fuels, oil, gas electricity derived heat, renewables).

How is it measured?

Data is obtained from balance sheets compiled by the International Energy Agency (IEA). For EU member states Eurostat has their own balance sheets.

What are the disadvantages of the Indicator?

The indicator does not state the participation of each individual transport mode for each type of fuel source, which could be an indicator for the environmental soundness of a mode.

What is the policy relevance of the indicator?

Fossil fuel consumption is directly linked with CO₂ (the primary greenhouse gas). The links with other pollutant emissions (e.g. NO_x, HC, NMVOC, etc.) and noise also depend on vehicle technology (Euro and noise classes) and trip conditions, as well as the type of fuel. Therefore fuel taxes, originally instruments of fiscal policy, are also seen as instruments to reduce emissions from transport, in particular CO₂. First, fuel taxes stimulate reductions of fuel consumption, e.g. by stimulating fuel efficiency within all modes. Secondly, they can stimulate a shift towards cleaner fuels, for example from leaded towards unleaded petrol, or to low-sulphur fuels (see the fact sheet 'Internalisation of external costs'). Reduction of the impacts of fossil fuel consumption by transport can be achieved by reducing energy use per transport movement (through improvement of energy efficiency and by shifting transport demand towards less energy consuming modes, such as, for example, rail and shipping) and by increasing the share of alternative sources of energy (bio fuels, wind and solar energy) (TERMS 2002).

The Indicator is relevant for the following pathways of the FORESIGHT FOR TRANSPORT exercise:

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Trends regarding renewable energy source (RES) and rational use of energy (RUE)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>