

Access to basic services in rural/urban communities

Dimension - Social Developments

Associated Key Factor:

Social policy and cohesion standards

Data Source:

European Environmental Agency

http://themes.eea.eu.int/all_factsheets_box

www.eea.eu.int/

General Availability:

Reporting unit: individuals

Reporting level: Select Countries

Reporting period: regularly

Data available from 2001 to

The indicator:

Access to basic services such as work, education, commuting, leisure and shopping in both the rural and urban areas.

Description

The accessibility issue is governed by many factors - spatial planning (urban and regional planning) and transport planning (public and private). Thus this indicator could help in understanding the way the spatial planning and transport planning are influencing access. This also increases in importance in the rural areas where most of the commuting is undertaken by cars.

How is it measured?

There is no standard measure for access to basic services. But average length of journey by purpose can be used as a proxy. The purpose of the journey can be shopping, leisure, commuting, education. Another proxy are subjective assessments in surveys (of individuals).

What are the disadvantages of the Indicator?

There are no comparative surveys with consistent quantitative measures. More research is still needed to elaborate a useful methodological framework.

What is the policy relevance of the indicator?

Regional policy and social policy. Basic services

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Decentralization and effects on regional passenger transport	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Access to information

Dimension - Institutional Arrangements

Associated Key Factor:

Civil society and participation

Data Source:

Privacy International

Freedom of Information and Access to Government Records Around the World. Report 2003

<http://www.privacyinternational.org/issues/foia>

<http://www.privacyinternational.org/issues/foia>

General Availability:

Reporting unit:

Reporting level:

Reporting period: annually

Data available from 2000 to 2003

Data Source:

University of Frankfurt

http://www.rz.uni-frankfurt.de/~sobotta/FOI_European_Union.htm

<http://www.rz.uni-frankfurt.de/>

General Availability:

Reporting unit:

Reporting level: EU, national

Reporting period:

Data available from 0 to 0

The indicator:

Existence of information laws and access to information.

Description

Establishes whether in principle information is accessible. Access to information is the first step towards citizen involvement in policy-making.

At the European level, freedom of access to information with regard to European institutions is guaranteed by the Charter of Fundamental Rights. Violations may be brought to the attention of the European Court or the European Ombudsman.

At the national level, most countries have information laws that ensure that citizens have access to policy information.

How is it measured?

Monitoring of European, national legislation as well as of legal cases with national / European Courts or European Ombudsman concerning information access.

What are the advantages of the indicator?

The existence of information laws guaranteeing access to information is indicative of the commitment of different levels of government to democratic participation.

What are the disadvantages of the Indicator?

Alone the existence of information laws says little about institutional practices in this respect and citizen participation in policy-making more generally. Indicator must therefore be enlarged with case study material at the policy / institutional level and at different levels of government (European, national, sub-national).

What is the policy relevance of the indicator?

Taps on the democratic openness of political systems and willingness of specific policy sectors to engage in decision-making involving citizen participation

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
More openness and participation in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Access to Internet

Dimension - Science & Technology

Associated Key Factor:

Extent to which technological changes revolutionize the way we live, trade, are mobile & produce

Data Source:

Eurostat New Chronos

http://www.eu-datashop.de/datenba/EN/allgem/nc_them.htm

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Households and enterprises in thousands

Reporting level: national

Reporting period: annually

Data available from 1991 to 2001

Availability by country:

1991 - 2001: EU-15+AC

The indicator:

Number or share of households who have internet access at home. Number or share of enterprises, which have access to the Internet.

How is it measured?

Based on self-reporting through surveys.

What are the disadvantages of the Indicator?

The indicator does not reveal the way in which the access to the internet is used (pleasure, communication, work, etc.), nor does it necessarily give an indicator of the user (white, middle-class, well-educated males are the group with highest internet access). Additionally, the technology used for access may differ considerably (old modem vs. DSL), with implications for the usefulness of access for certain activities, such as tele-working.

What is the policy relevance of the indicator?

Access to ICT (i.e. internet access) is important in an anticipated knowledge-based society. It forms increasingly part of analyses of living conditions and social inclusion/exclusion.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Activation policies

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Publication

Ivar Lodemel and Heather Trickey (eds.), *An Offer you Cannot Refuse*, Refer to publisher details at indicator level

General Availability:

Reporting unit:

Reporting level: national

Reporting period:

Data available from 0 to 0

Data Source:

Organisation for Economic Co-operation and Development

Ivar Lodemel and Heather Trickey (eds.) "An offer you cannot refuse".

<http://www.oecd.org/dataoecd/39/49/2492163.xls>

<http://www.oecd.org>

General Availability:

Reporting unit: percentage of GDP

Reporting level: national

Reporting period:

Data available from 1985 to 2001

The indicator:

Activation policies are policies that aim to re-activate persons in long-term unemployment and/or dependent on social assistance through education and training as well as policies that aim at increasing worker flexibility and mobility.

Description

Activation policies are today central to social and labour policies.

The ultimate objective is to make the welfare system more effective by limiting spending and improving outcomes. External pressures include changes in the organisation of working life and the threat of rising welfare expenditures in view of the ageing of society.

Activation policies have their origin at the so-called 'workfare' policy regime which required individuals to work in return of social assistance benefits.

How is it measured?

Include a range of programmes such as education and training, skill improvement, subsidies for firms that employ long-term unemployed as well as programmes tailored to the needs of specific sub-groups (women, older workers, persons with disability, etc.). The expenditures on such programmes (as a percentage of the GDP or governmental total expenditures or government social expenditures) provide a basis for establishing the importance assigned to such programmes, especially in comparison with expenditures on passive labour policies.

What are the advantages of the indicator?

Provides qualitative information about labour market policies. In conjunction with time series data on labour market policy, on the one hand, and levels of unemployment and/or labour demand / supply, on the other, it can be used as a benchmarking indicator for establishing the commitment of any particular government level to revitalising the labour market.

What are the disadvantages of the Indicator?

The long-term impact of activation policies on the labour market (in terms of supply / demand as well as unemployment levels) has still to be established. The success of such policies with regard to reducing unemployment appears to depend on the extent to which such policies are tailored to the needs of specific groups and the structural characteristics of the labour market. Activation policies are also often used to 'hide' real unemployment in the short-term and this aspect needs to be controlled for in social policy analysis.

What is the policy relevance of the indicator?

Helps chart labour market policy and trends towards labour flexibilisation.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Age at first job

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

European Community Household Panel

Eurostat, Unit E2, L-2920
Luxembourg

<http://www.statistics.gov.uk/STATBASE/Source.asp?vlnk=1311&More=Y>

General Availability:

Reporting unit: individual
Reporting level: national, EU
Reporting period: annually
Data available from 1994 to 2002

The indicator:

The age at which the first job was obtained.

How is it measured?

Measured on the basis of answer to survey question 'How old were you when you first began working?' or equivalent. These are then aggregated. Reference population or socio-economic group estimates are presented as mean or median values.

What are the advantages of the indicator?

At the aggregate and in historical perspective, this indicator provides information on the labour market structures and how these change over time. Thus progressively during the twentieth century, the average age at first job has increased albeit to a different extent and a different degree across countries.

What are the disadvantages of the Indicator?

None specific.

What is the policy relevance of the indicator?

Provides contextual / background information on the characteristics of the labour market, both with regard to supply and demand.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flexibility in working hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Age structure in European and accession countries

Dimension - Demographics

Associated Key Factor:

Population age groups

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Individual

Reporting level: Country

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2001: EU-15+AC

The indicator:

Measures the proportion/percentage of people in each age group as part of the population as a whole.

Description

Six age categories are usually reported.

1) 0-14

2) 15-24

3) 25-49

4) 50-64

5) 65-79

6) 80+

How is it measured?

Information is taken from national statistical offices using census data. Usually the numbers are estimates based on census round of 1990/91 and the applying the component method.

What are the advantages of the indicator?

There are six categories of age, which means the indicator is fairly descriptive.

What are the disadvantages of the Indicator?

Eurostat alters its use of categories, which explains why there are gaps in this data. More recent data tends to be more analytical, thus have more categories.

What is the policy relevance of the indicator?

A key demographic variable of relevance for socio-economic analyses relevant for social, family and labour policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Changing household structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Aircraft accidents

Dimension - Transport

Associated Key Factor:

Contribution of transport to negative externalities

Data Source:

ICAO

Civil Aviation Statistics of the World,
ICAO Statistical Yearbook

http://www.icao.int/icao/en/atb/sea/yea_rbk.htm

www.icao.int/

General Availability:

Reporting unit: Commercial carriers

Reporting level: International routes / countries

Reporting period: annually
Data available from 1997 to 1999

Availability by country:

1997 - 1999: EU-15+AC

The indicator:

Aircraft accidents in commercial operations.

Description

According to ICAO Annex 13, an accident is any event which causes death or serious injury and/or substantial damage to the aircraft from the time the first person boards with intention of flight until the last person leaves after flight.

How is it measured?

Annual data collected from Air companies (World Statistics)

What is the policy relevance of the indicator?

As above.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Aircrafts of commercial air carriers

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

ICAO

ICAO Statistical Yearbook; Civil Aviation Statistics of the World, 1998-1999

http://www.icao.int/icao/en/atb/sea/yea_rbk.htm

www.icao.int/

General Availability:

Reporting unit: Commercial carriers

Reporting level:

Reporting period: annually

Data available from 1997 to 1999

Availability by country:

1997 - 1999: EU-15+AC

The indicator:

Number of Aircraft of Commercial Air Carriers by category of aircraft

Description

Measures the quality of the fleet which, in turn, is relevant for assessing the degree of modernisation and competitiveness of a specific airline or -- on the aggregate -- of the air mode. Fleet quality is also a relevant indicator of air safety and environmental effects.

How is it measured?

Annual data collected from Air Carriers (World Statistics) on number and type of aircraft and fleet size.

What are the advantages of the indicator?

An indicator that taps on several dimensions: the characteristics of the sector (and implications of this for competitiveness); safety; environmental effects.

What is the policy relevance of the indicator?

Relevant for charting development of transport industry (within and across modes). The modernisation of the aircraft technologies is closely linked with the environmental impacts of air transport.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Airline profitability

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

International Air Transport Association

Airline Economic Results and Prospects of Airline Economic Task Force (AETF)

www.iata.org

<http://iata.org>

General Availability:

Reporting unit: International routes air traffic

Reporting level: Airlines

Reporting period: yearly

Data available from 2000 to 2003

Availability by country:

1997 - 2003: EU-15+AC

The indicator:

Airline revenues, costs, profitability and return on investments

Description

Detailed breakdown of passenger and cargo revenues and costs by route area, type of operation and class of service.

Unit cost and yield trends for passenger and cargo operations by route area and class of service.

Specific analysis of route area profitability.

Analysis and commentary on key industry operating cost factors.

Analysis and breakdown of key wide and narrow-bodied aircraft costs.

Analysis of the impact of exchange rate fluctuation on yields and costs.

Expansive and detailed financial analysis by route and regional area.

Commentary on future financial performance prospects

(See

http://www.iata.org/air/productsandservices/aerp.htm?BreadCrumb=%2FChannels%2Fair%2Ffinancial_results)

How is it measured?

Data is collected annually from the airlines for each defined international route.

What are the advantages of the indicator?

This is quite an exhaustive source. IATA members account for 98,4 % of all air traffic

What is the policy relevance of the indicator?

Financial profitability is a key economic / financial assessment indicator.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Annual national growth of GDP at constant prices

Dimension - Economics

Associated Key Factor:

GDP growth and distribution

Data Source:

Eurostat

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=1-structur-EN&mode=download-Genecobgind>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: monetary values

Reporting level: national and regional

Reporting period: annually

Data available from 1995 to 2003

Availability by country:

1995 - 2003: EU-15+AC

1995 - 2003: EU-15-avg

1995 - 2003: EU-25

Data Source:

Organisation for Economic Co-operation and Development

<http://europa.eu.int>

<http://www.oecd.org>

General Availability:

Reporting unit: monetary values

Reporting level: national and regional

Reporting period: yearly

Data available from 1980 to 2003

Availability by country:

1980 - 1980: Belgium

1994 - 2003: EU-15+AC

1994 - 2003: EU-15-avg

The indicator:

The calculation of the annual growth rate of GDP at constant prices is intended to allow comparisons of the dynamics of economic development both over time and between economies of different sizes, irrespective of price levels.

Description

Gross domestic product (GDP) is the central aggregate of National Accounts. GDP at market prices is the final result of the production activity of resident producer units. (ESA 1995, 8.89). It can be defined in three ways: GDP is the sum of gross value added of the various institutional sectors or the various industries plus taxes and less subsidies on products (which are not allocated to sectors and industries). It is also the balancing item in the total economy production account (output approach); GDP is the sum of final uses of goods and services by resident institutional units (actual final consumption and gross capital formation), plus exports and minus imports of goods and services (expenditure approach); GDP is the sum of the uses side in the generation of income account for the total economy (i.e. compensation of employees, taxes on production and imports less subsidies, gross operating surplus and mixed income of the total economy) (income approach). (Eurostat: 2003)

How is it measured?

National Accounts are compiled in accordance with the European System of Accounts (ESA 1995) adopted in the form of a Council Regulation dated 25 June 1996, N° 2223/96 and published in the Official Journal L310 of the 30/11/1996. Data are expressed as growth rates in percent based derived on national data expressed in Euro (ECU before 1999).

What are the advantages of the indicator?

Many sources opinionated that economic growth and transport development directly correlate with each other. Therefore, it can be assumed that whatever policy influences economic growth, will at the same time have an impact on the transport development.

What are the disadvantages of the Indicator?

The indicator does not differentiate between the different economic sectors. Additionally, data comparability before 1994 is difficult, since GDP growth at constant prices uses 1995 as the benchmark (1995=100) for changes to the previous year.

What is the policy relevance of the indicator?

The decoupling strategy sets out to achieve a continuing upturn in national product in the future together with a diminishing increase in traffic (Baum et. al. 1994). It is essential that decoupling is not detrimental to economic growth. The idea is to get an increased output of the productive sectors of the economy with less traffic and without restricting prosperity. Market pricing policy and policy on infrastructure are important in this context.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trends regarding renewable energy source (RES) and rational use of energy (RUE)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Annual population growth by country

Dimension - Demographics

Associated Key Factor:

Migration flows

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Individual

Reporting level: country

Reporting period: annually

Data available from 1980 to 2000

Availability by country:

1980 - 2000: EU-15+AC

The indicator:

Annual population increase by country per 1,000 people.

Description

This relates to the critical factors on migration trends and fertility trends

How is it measured?

Information is taken from national statistical offices using census data. Usually the numbers are estimates based on census round of 1990/91 and the applying of the component method.

What are the advantages of the indicator?

Population growth by country is the standard background demographic indicator used in socio-economic analyses. In time series and comparative perspective it provides important information on the dynamics of demographic change.

What are the disadvantages of the Indicator?

There are gaps in the data for accession countries.

What is the policy relevance of the indicator?

Population growth is a key demographic characteristic of relevance for social, health, pension and other policies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Migration and seasonal mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Changing household structures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attitude surveys on the Euro

Dimension - Politics

Associated Key Factor:

Extent and scope of issue-based politics

Data Source:

Eurobarometer

http://europa.eu.int/comm/public_opinion/

europa.eu.int/comm/public_opinion/

General Availability:

Reporting unit: Individual

Reporting level: national

Reporting period: regularly

Data available from 1995 to

The indicator:

Public attitude towards the single European currency

How is it measured?

Annual survey based on questionnaires by Eurostat. Eurobarometer test a sample population of about 1,000 people in each European country. The data available before 2001 relates to attitudes towards joining the single currency, as opposed to attitudes to how it is functioning. This is obviously the same for accession countries.

What are the advantages of the indicator?

The data is available for every country every year. Also, there are a wide number of questions about the Euro, and not just simple positive or negative support.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attitudes to science and technology

Dimension - Attitudes

Associated Key Factor:

Attitudes to Technology

Data Source:

Eurobarometer

All special Eurobarometers.
Specifically: No. 169: 'Energy: Issues, Options and Technologies' (2002); No. 154, 76, 11 'Europeans, Science & Technology' (2001, 1992, 1978); No. 141, 123, 'The Information Society' (2000, 1998) No. 134, 108, 61 'Europeans and Modern Biotechnology' (1999, 1996, 1991)

http://europa.eu.int/comm/public_opinion/

europa.eu.int/comm/public_opinion/

General Availability:

Reporting unit: Individual

Reporting level: EU-15

Reporting period: every 3 years

Data available from 1991 to 2002

Availability by country:

1991 - 1992: EU-15

1991 - 1992: Member States (EU-15)

1996 - 1996: EU-15

1996 - 1996: Member States (EU-15)

1998 - 2002: EU-15

1998 - 2002: Member States (EU-15)

The indicator:

This indicator measures attitudes within the EU-15 to various issues connected to S&T.

Description

This is related to the critical factor, 'attitudes towards technology.'

How is it measured?

On the basis of survey questions, for instance of Eurobarometer.

What are the advantages of the indicator?

A wide range of S&T issues are investigated.

What are the disadvantages of the Indicator?

The data comes from Special, not Standard, Eurobarometers, and many of these are only recorded once. This means that much of the data is not directly comparable, and certainly not over a short period of time

What is the policy relevance of the indicator?

It is very important to consider how people will respond to new technologies, especially ones that may be of a sustainable benefit.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Environmental concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trends regarding renewable energy source (RES) and rational use of energy (RUE)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Attitudinal surveys on enlargement

Dimension - Politics

Associated Key Factor:

Extent and scope of issue-based politics

Data Source:

Eurobarometer

http://europa.eu.int/comm/public_opinion/

europa.eu.int/comm/public_opinion/

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from 0 to 0

The indicator:

Measuring the support for people both within the EU-15 and the accession countries for the coming enlargement of the European Union.

How is it measured?

Eurobarometer question a sample population of about 1,000 people in each European country.

What are the advantages of the indicator?

Data available for every country each year. There are frequently a large number of questions asked on enlargement, however the basic question of support for enlargement is comparable across EU-27.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Average national price for diesel

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat

L-2920 Luxembourg

http://europa.eu.int/comm/energy_transport/etif/energy_prices/diesel.html

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Euro/liter (current/constant) prices

Reporting level: national

Reporting period: regularly

Data available from 1980 to 2002

Availability by country:

1980 - 2002: EU-15

1980 - 2002: EU-15-avg

1980 - 2002: Member States (EU-15)

1990 - 2000: Czech Republic

1990 - : EU-12

1990 - 2000: Hungary

1990 - 2000: Poland

1990 - 2000: Turkey

1995 - : Austria

1995 - : Sweden

1996 - : EU-15

1996 - : Finland

1996 - : Member States (EU-15)

Data Source:

International Environmental Agency

<http://www.iea.org>

General Availability:

Reporting unit: EURO/liter

Reporting level: national

Reporting period: annually

Data available from 1989 to 2000

Availability by country:

1989 - 2000: Czech Republic

1989 - 2000: Hungary

1989 - 2000: Poland

1989 - 2000: Turkey

The indicator:

Average national price for diesel related to PPS per person.

Description

This indicator is measured in Euro/litre (current/constant) prices. The original measure units are: ECU, market prices (until 1998), Euro, market prices (from 1999 onwards) Conversion factors applied: corrected for inflation rate.

How is it measured?

Information is gathered frequently (e.g. quarterly) at national level from national statistical bureaus. EU fuel prices are an average of individual countries' prices weighted by their consumption.

What are the disadvantages of the Indicator?

This indicator should be seen in relation to how the price of diesel is build up (level of tax etc.)

What is the policy relevance of the indicator?

The price of diesel could be used as a policy instrument to encourage or discourage transport. Moreover, a crucial precondition for reaching sustainable transport is the principle to let users pay for the real costs of transport. Fuel taxes can contribute to reaching this principle, in particular because they provide incentives to reduce fuel consumption and hence CO2 emissions. However, they are certainly not the only way towards fair pricing (see TERM 2002 26 EU – Internalisation of external costs of transport for more 'fair pricing tools') (TERM 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input 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"/>

Data Source:

International Environmental Agency

<http://www.iea.org>

General Availability:

Reporting unit: EURO/liter

Reporting level: national

Reporting period: annually

Data available from 1989 to 2000

Availability by country:

1989 - 2000: Czech Republic

1989 - 2000: Hungary

1989 - 2000: Poland

1989 - 2000: Turkey

Average national price for unleaded fuel

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat

L-2920 Luxembourg

http://europa.eu.int/comm/energy_transport/etif/energy_prices/petrol_95_ron.html

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Euro/liter (current/constant) prices

Reporting level: national

Reporting period: regularly

Data available from 1992 to 2002

Availability by country:

1980 - 2002: EU-15

1980 - 2002: Member States (EU-15)

1990 - 2000: Czech Republic

1990 - 2000: Hungary

1990 - 2000: Poland

1990 - 2000: Turkey

1992 - : EU-12

1995 - : Austria

1995 - : Finland

1996 - : EU-15

1996 - : Member States (EU-15)

1996 - : Sweden

Data Source:

International Environmental Agency

<http://www.iea.org>

General Availability:

Reporting unit: EUR/liter

Reporting level: national

Reporting period: annually

Data available from 1990 to 2000

Availability by country:

1989 - 2000: Czech Republic

1989 - 2000: Hungary

1989 - 2000: Poland

1989 - 2000: Turkey

The indicator:

Average national price for unleaded fuel petrol related to PPS per person

Description

This indicator is measured in Euro/litre (current/constant) prices. The original measure units are: ECU, market prices (until 1998), Euro, market prices (from 1999 onwards) Conversion factors applied: corrected for inflation rate.

How is it measured?

Information is gathered frequently (e.g. quarterly) at national level from national statistical bureaus. EU fuel prices are an average of individual countries' prices weighted by their consumption.

What are the disadvantages of the Indicator?

This indicator should be seen in relation to how the price of diesel builds up (level of taxes etc.)

What is the policy relevance of the indicator?

The price of fuel could be used as a policy instrument to encourage or discourage transport. Moreover, a crucial precondition for reaching sustainable transport is the principle to let users pay for the real costs of transport. Fuel taxes can contribute to reaching this principle, in particular because they provide incentives to reduce fuel consumption and hence CO2 emissions. However, they are certainly not the only way towards fair pricing (see TERM 2002 26 EU – Internalisation of external costs of transport for more 'fair pricing tools') (TERM 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Data Source:

International Environmental Agency

<http://www.iea.org>

General Availability:

Reporting unit: EUR/liter

Reporting level: national

Reporting period: annually

Data available from 1990 to 2000

Availability by country:

1989 - 2000: Czech Republic

1989 - 2000: Hungary

1989 - 2000: Poland

1989 - 2000: Turkey

Average petrol/diesel use per unit i.e.car (overall new)

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

European Project on Energy Efficiency Indicators

<http://www.odyssee-indicators.org>

www.odyssee-indicators.org/Overview/overview.html

General Availability:

Reporting unit: l/100 km

Reporting level: national

Reporting period: annually

Data available from 1990 to 2000

Availability by country:

1990 - 2000: Austria

1990 - 2000: Denmark

1990 - 2000: Spain

1990 - 2000: EU-15

1990 - 2000: Finland

1990 - 2000: France

1990 - 1999: Greece

1990 - 2000: Italy

1990 - 2000: Member States (EU-15)

1990 - 2000: Netherlands

1990 - 2000: United Kingdom

1995 - 2000: Germany

1995 - 2000: Ireland

The indicator:

This indicator measures the average fuel use of petrol and diesel vehicles.

How is it measured?

National registration offices collect information on the number of vehicles registered by engine size and motive power.

What are the disadvantages of the Indicator?

Research has shown discrepancies between 'on road' fuel consumption and emission rates (i.e. real driving circumstances) and test emission values, resulting from poor driving behaviour, worsening traffic conditions and other problems, not generally taken into account in policy making. This emphasises the need for regular maintenance and inspection programmes, improvement of traffic management and changes in driving behaviour. (TERM 2002)

What is the policy relevance of the indicator?

The introduction of enforcement to renew the vehicle park can have an impact on the energy efficiency and intensity of transport, as well as on the related indicators.

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

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

Average size of non-fragmented land

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Eurostat

Corine land cover data: CLC database version 6/2000 re-sampled to 1 km² grid cells produced by ETC/LC, 8/2000 (EEA-ETC/LC, 2000), Eurostat GISCO reference database version 2000;

L-2920 Luxembourg

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit:

Reporting level: national

Reporting period: regularly

Data available from 1998 to

The indicator:

Fragmentation of ecosystems and habitats by transport infrastructure

How is it measured?

Fragmentation of land is based on a combination of NUTS and infrastructure data. The fragmentation of forest is based on the forest patch sizes using grid cells (usually 1 km²). Land cover is measured using satellite data as its basic data source.

What is the policy relevance of the indicator?

Preserve biodiversity and ensure connectivity between nature areas.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Environmental concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CO2 emissions by sector (except transport sector)

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

United Nations Framework Convention on Climate Change

ghg.unfccc.int
<http://unfccc.int>

General Availability:

Reporting unit: gigagrams
 Reporting level: country
 Reporting period: annually
 Data available from 1990 to 2000

Availability by country:

1990 - 2000: Austria
 1990 - 2000: Belgium
 1990 - 1999: Bulgaria
 1990 - 2000: Czech Republic
 1990 - 2000: Germany
 1990 - 2000: Denmark
 1990 - 2000: Estonia
 1990 - 2000: Spain
 1990 - 2000: EU-15
 1990 - 2000: Finland
 1990 - 2000: France
 1990 - 2000: Greece
 1990 - 2000: Hungary
 1990 - 2000: Ireland
 1990 - 2000: Italy
 1990 - 2000: Latvia
 1990 - 2000: Member States (EU-15)
 1990 - 2000: Netherlands
 1990 - 2000: Poland
 1990 - 2000: Portugal
 1990 - 1994: Romania
 1990 - 2000: Sweden
 1990 - 1990: Slovenia
 1990 - 2000: Slovak Republic
 1990 - 2000: United Kingdom
 1995 - 1998: Lithuania
 1999 - 2000: Luxembourg

The indicator:

Is part of the national greenhouse gas inventories in accordance to the Articles 4 and 12 of the Climate Change Convention; differentiated by the following sectors: agricultural, household and services, industry.

Description

Data available for different processes not necessarily differentiated by sector.

How is it measured?

Emission estimates are presented in accordance with the source categories of the Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories (1996).

What are the advantages of the indicator?

Process related data.

What are the disadvantages of the Indicator?

It should be noted that the national total does not include emissions resulting from fuel sold to ships or aircraft engaged in international transport (international bunker fuel emissions). Moreover, the national total does not include emissions from biomass burning or emissions or removals from the land-use change and forestry sector.

What is the policy relevance of the indicator?

The Global Warming Potential (GWP) based of emissions is directly related to climate change policies (e.g. Kyoto Protocol).

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Environmental concerns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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"/>
Conflicts on land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CO2 emissions of transport sector

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

United Nations Framework Convention on Climate Change

ghg.unfccc.int

<http://unfccc.int>

General Availability:

Reporting unit: gigagrams

Reporting level: country

Reporting period: annually

Data available from 1990 to 2000

Availability by country:

1990 - 2000: Accession Countries (w/o Malta, Cyprus, Turkey)

1990 - 2000: EU-15

1990 - 2000: Member States (EU-15)

The indicator:

Transport accounts for around a quarter of total CO2 emissions (see TERM 2002 02 EU – Transport emissions of greenhouse gases). Energy efficiency improvements in transport can therefore result in enormous reduction in energy consumption and CO2 emission.

The average energy efficiency of passenger and freight transport is determined by the fleet composition (number and type of vehicles), vehicle utilisation (occupancy rates and load factors) and driving characteristics (speeds, distances).

Note: For goods transport energy use per tonne kilometre also depends on the characteristics of the goods transported by the modes (heavier or less heavier goods). Part of the difference in energy use per tonne kilometre can therefore also be explained by differences in goods transported.

Description

The average energy efficiency of passenger and freight transport is determined by the fleet composition (number and type of vehicles), vehicle utilisation (occupancy rates and load factors) and driving characteristics (speeds, distances).

Note: For goods transport energy use per tonne kilometre also depends on the characteristics of the goods transported by the modes (heavier or less heavier goods). Part of the difference in energy use per tonne kilometre can therefore also be explained by differences in goods transported.

How is it measured?

Emission estimates are presented in accordance with the source categories of the Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories (1996). The transport sector share of CO2 emissions is measured in per cent in relation to all other economic sectors.

What are the disadvantages of the indicator?

This indicator is directly linked with energy efficiency in the transport sector and should therefore always be seen in jointly with this indicator.

What is the policy relevance of the indicator?

In connection with the importance of the transport sector as percentage of GDP the indicator can show, if the produced emissions stand in congruence with the overall importance of the sector for a country's economy. Furthermore, the Global Warming Potential (GWP) based of emissions is directly related to climate change policies (e.g. Kyoto Protocol).

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Environmental concerns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technological innovation and diffusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>
Conflicts on land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Combined transport road-rail

Dimension - Transport

Associated Key Factor:

Intermodal capacity of transport networks

Data Source:

UIRR

International Union of Combined Road-Companies, Annual Statistics 2002

<http://www.uirr.com/download/Profil-stat-2002.pdf>

www.uirr.com/

General Availability:

Reporting unit: Shipment of CT companies

Reporting level: National / International routes

Reporting period: annually

Data available from 1994 to 2002

Availability by country:

1994 - 2002: EU-15+AC

The indicator:

Freight sent by combined transport by combined road-rail company

Description

Combined road-rail transport includes transport covered by both road and rail.

The most widespread form of combined transport is the unaccompanied transport of containers, swap bodies and semi-trailers. In the case of accompanied transport, the whole lorry is driven up the ramp onto a special wagon (horizontal loading).

How is it measured?

This indicator is collected annually from the combined transport societies. Unit of measurement is the shipment. An UIRR shipment corresponds to the transport capacity of one lorry on the road (equivalent to 2.3 EVP/TEU), meaning one semi-trailer, two swap bodies less than 8.30 m and less than 16t, one swap body more than 8.30 m or more than 16t, one vehicle on the Rolling Road (Source UIRR).

What are the disadvantages of the Indicator?

Unit of measurement (shipment) makes it difficult to precisely specify the development of this transport sector in terms of shifting road transport onto rail (at least for part of the trip).

What is the policy relevance of the indicator?

There is strong commitment by the EU and Members States to further develop this mode of transport, especially in environmentally sensitive areas like the Alps.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comparative ratios of employment in public administration at different levels

Dimension - Institutional Arrangements

Associated Key Factor:

Institutional capacity

Data Source:

Official Journal of the European Union

http://publications.eu.int/general/en/oj_en.htm

<http://europa.eu.int/eur-lex/en/index.html>

General Availability:

Reporting unit: employee

Reporting level: European institutions

Reporting period: regularly

Data available from 2002 to 2003

Availability by country:

2002 - 2002: EU-15

2002 - 2002: Member States (EU-15)

2003 - 2003: EU-15

2003 - 2003: Member States (EU-15)

The indicator:

Comparative ratios of employees working for public administration at different government levels, derived from the national and regional estimates of civil servants and from the employee records in European institutions with reference to total employment force.

Description

The comparative assessment of the number of public sector employees at European, national, regional level says something about the allocation of power in a multilevel governance context and, in that, the degree of centralisation vs. federalisation. The indicator is also informative with regard to institutional capacity.

How is it measured?

Number of public sector employees at the European, national and regional levels with reference to the actively engaged employment force at each level.

What are the advantages of the indicator?

A sociological indicator on the allocation of power in a multilevel governance context which can be used to validate claims on the allocation / sharing of power as well as benchmark institutional and organisational reforms.

What are the disadvantages of the Indicator?

Correct interpretation requires knowledge about the constitutional environment at national and European level regarding degree of federalisation and competencies of different levels.

What is the policy relevance of the indicator?

Sociological indicator on operationalisation of multilevel governance and institutional capacity.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Data Source:

Organisation for Economic Co-operation and Development

OECD Public Management Service, 2001, Copyright OECD 2001. Public Management Statistics. Series of tables, including total public employment (distinguishing between federal government and municipalities) and share of public employment over total employment.

http://www.oecd.org/topicstatsportal/0,2647,en_2825_495698_1_1_1_1_1,00.html

<http://www.oecd.org>

General Availability:

Reporting unit: Civil service employee, FT equivalent

Reporting level: Country

Reporting period: regularly

Data available from 1985 to 1999

Availability by country:

1985 - 1998: Czech Republic

1985 - 1999: Germany

1985 - 1999: Spain

1985 - 1998: Finland

1985 - 1997: France

1985 - 1998: Ireland

1985 - 1999: Netherlands

1985 - 1998: Portugal

1985 - 1999: United Kingdom

1990 - 1990: Luxembourg

1997 - 1999: Hungary

1997 - 1999: Italy

1998 - 1998: Greece

Data Source:

The World Bank Group

<http://www1.worldbank.org/publicsector/civilservice/development.htm>

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

General Availability:

Reporting unit: Civil service employee, FT equivalent

Reporting level: Country

Reporting period: regularly

Data available from 1996 to 2000

Availability by country:

1980 - 1980: EU-15+AC

1991 - 1995: EU-15+AC

1996 - 2000: EU-15+AC

Construction as of regional gross value

Dimension - Economics

Associated Key Factor:

GDP growth and distribution

Data Source:

Eurostat

Datashop: New Cronos: Regio database: Regions Statistical yearbook 2001: yb_ec ec_t1

L-2920 Luxembourg

<http://www.datashop.org/en/bases/newcronos.php?parent=90>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: percentage

Reporting level: regional

Reporting period: annually

Data available from 1995 to 2000

Availability by country:

1995 - 2000: Belgium

1995 - 2000: Bulgaria

1995 - 2000: Czech Republic

1995 - 2000: Germany

1995 - 2000: Denmark

1995 - 2000: Estonia

1995 - 2000: Spain

1995 - 2000: EU-27 (w/o certain country)

1995 - 2000: Finland

1995 - 2000: Hungary

1995 - 2000: Ireland

1995 - 2000: Italy

1995 - 2000: Lithuania

1995 - 2000: Luxembourg

1995 - 2000: Latvia

1995 - 2000: Malta

1995 - 2000: Netherlands

1995 - 2000: Poland

1995 - 2000: Portugal

1995 - 2000: Romania

1995 - 2000: Slovenia

1995 - 2000: Slovak Republic

The indicator:

Gross value-added at basic prices by NACE branches: total and each.

Description

All economic activities in a country or a region form the national / regional gross value. This indicator measures especially focuses on the percentage of regional gross value from manufacturing industries / construction as of overall regional gross value.

How is it measured?

Data is taken from national accounts

What are the advantages of the indicator?

It gives an idea of market structure and the transport intensity of the economy. It also is available on regional level in most countries.

What are the disadvantages of the Indicator?

National gross value is not the same as GDP - thus, the data needs to be collected separately which is not done in all member states.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Corporate Social Responsibility

Dimension - Institutional Arrangements

Associated Key Factor:

Corporate social responsibility

Data Source:

Business for Social Responsibility

Corporate Social Responsibility Guidebook: A Guide to Better Business Practice, BSR, 2002

www.bsr.org

<http://www.bsr.org>

General Availability:

Reporting unit: Corporation

Reporting level:

Reporting period:

Data available from 2002 to

The indicator:

Corporate social responsibility is the integration of business operations and values whereby the interests of all stakeholders including customers, employees, investors, the community, and the environment are reflected in the companies' policies and actions.

Description

Is indicative of the degree of acceptance among key economic stakeholders of issues relating to social responsibility, including the provision of basic services, environment, social issues. Monitored regularly, it provides background information about degree of acceptance among large corporations of policies that might to some extent undermine profit-making activities.

How is it measured?

Expert judgements based on reviews of CSR strategy and implementation plans of major corporations

What are the advantages of the indicator?

Provides a quick overview of how corporations differ with regard to dealing with social and environmental issues.

What are the disadvantages of the Indicator?

Depends on the criteria defined as comprising CSR strategy and related performance criteria and these are often defined from the business itself. Furthermore, it is often not strongly enough linked to outcome impacts, for instance with regard to sustainability of products.

What is the policy relevance of the indicator?

Indicative of the integration of environmental and social concerns in the economic / business environment.

Data Source:

Corporate Social Responsibility Newswire

'Indicators that Count' (especially revised indicators list). See <http://www.csrwire.com/pdf/indicators-that-count.pdf>

<http://www.csrwire.com/>

<http://www.csrwire.com/>

General Availability:

Reporting unit:

Reporting level: national, EU, corporation

Reporting period:

Data available from to

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Environmental concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conflicts on land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Data Source:

Dow Jones Sustainability Group
Index

<http://www.sustainability-index.com/html/publications/guidebooks.html> & <http://www.sustainability-index.com/html/data/>

<http://www.sustainability-index.com/html/>

<http://sustainability-index.com/>

General Availability:

Reporting unit: Corporation

Reporting level: National
European / US

Reporting period: annually

Data available from 1999 to

Corruption perception index

Dimension - Politics

Associated Key Factor:

Political attitudes

Data Source:

Transparency International

<http://www.transparency.org/cpi/2002/cpi2002.en.html>

www.transparency.org/

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

The corruption perception index provides perceptions of corruptions within countries as seen by business people, academics and risk analysts.

Description

The corruption perception index for each country would tell you about the degree of confidence in the decision-making institutions.

How is it measured?

The corruption index is computed from various survey and country analysts. 10 means highly 'clean' and 0 means highly corrupt.

What is the policy relevance of the indicator?

The corruption index can be used for assessing the degree of confidence in political system which in turn says something about the quality of decisions taken by various polities.

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

Crime Rates by Country

Dimension - Attitudes

Associated Key Factor:

Collective and individual rights and obligations

Data Source:

European Source Book

European Source Book of Crime and Criminal Justice Statistics.

www.europeansourcebook.org/esb/

www.europeansourcebook.org/esb/

General Availability:

Reporting unit: individual crime by category

Reporting level: national

Reporting period: regularly

Data available from 1990 to 1996

Availability by country:

1990 - 1996: EU-15+AC

1990 - 1996: EU-15+AC-avg

1990 - 1996: EU-15-avg

1990 - 1996: EU-25

The indicator:

The changing levels of crime within the EU-27

Description

The data allows us to detect small changes in many different crimes

How is it measured?

Estimated on the basis of Police, Prosecution, Conviction and Correctional Statistics. Rates are reported as per 1,000 or 100,000 population.

What is the policy relevance of the indicator?

Crime statistics are input / assessment indicators for the justice / police / internal security system of a country.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Migration policy and border control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Valorization of time and speed and daily mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Valorization of time and speed and tourism/business travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Cross-border mergers and acquisitions (by sector)

Dimension - Economics

Associated Key Factor:

Trade patterns

Data Source:

European Commission

http://europa.eu.int/comm/competition/mergers/review/multiple_filings_1999.html

europa.eu.int/comm/index_en.htm

General Availability:

Reporting unit: mergers

Reporting level: national

Reporting period:

Data available from 1998 to 1999

Availability by country:

1998 - 1999: EU-15

1998 - 1999: Member States (EU-15)

The indicator:

Measures the number of cross-border mergers within the EU.

How is it measured?

Is based on reports from national business registers.

What are the disadvantages of the Indicator?

Since there are no official statistics available on the main economic sectors, which are affected by these mergers, it is hard to differentiate on the impact on the transport development

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Degree of monopolisation

Dimension - Economics

Associated Key Factor:

Industrial and business structures and patterns

Data Source:

European Commission

http://europa.eu.int/comm/competition/index_en.html

europa.eu.int/comm/index_en.htm

General Availability:

Reporting unit: number

Reporting level: national / by company

Reporting period: monthly

Data available from 1980 to 2003

Availability by country:

1980 - 2003: EU-15

1980 - 2003: Member States (EU-15)

The indicator:

Measures the number of antitrust cases.

Description

The Commission publishes various notices in antitrust cases announcing the reception of notifications in certain cases or inviting comments from third parties in ongoing investigations. These notices are published in the Official Journal of the European Communities C series. Links to the Official Journal texts of notices are added to this listing. The most commonly published notices are:

Publication pursuant to Article 19(3) of Council Regulation No 17 "19(3) notices" define the Commission's preliminary orientation in a case and invite any further comments from third parties. "Carlsberg" notices concerning structural cooperative joint ventures

A "Carlsberg Notice" is an announcement of notifications received in certain antitrust cases. The notices give a brief description of the case notified and asks for comments on the case from third parties

How is it measured?

Information received from national competition authorities and law courts.

What are the disadvantages of the Indicator?

It should be discriminated between closed and open cases. Moreover, the simple number does not make a lot of sense, it should be set in correlation with the market share of the involved companies.

What is the policy relevance of the indicator?

An enterprise holding a dominant position may be tempted to abuse its position by, for example, charging exorbitant purchase or selling prices or by conferring discriminatory benefits on certain customers in order to control their behaviour or to keep competitors out of the market.

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"/>

Development of core European institutions

Dimension - Institutional Arrangements

Associated Key Factor:

Political systems

Data Source:

European Convention

Background literature: Wallace and Wallace (1996), Policy-Making in the European Union, OUP

<http://european-convention.eu.int>
european-convention.eu.int/

General Availability:

Reporting unit: European institutions
Reporting level: European Union
Reporting period: regularly
Data available from 2002 to 2003

The indicator:

The development of the core European institutions is a qualitative indicator. It can be measured in terms of their decision-making powers and the rules of voting and participation for different policy areas.

Description

The development of core European institutions shows how the decision-making powers are allocated between the European institutions. At the EU level there are frequent institutional reforms in this regard. A monitoring of these provides information about the state and character of European integration which provides the framework for policy formulation and implementation.

How is it measured?

It is a qualitative indicator. According to the legal basis, the legislative power in the Community is exercised by the Council or jointly by Parliament and the Council. The Commission has virtual monopoly of the initiative. As a general rule the council and parliament can act only on a commission proposal. The European Parliament with the codecision procedure shares the legislative power with the Council; within the cooperation procedure, Parliament may influence Council decisions by exercising its amending power. The Council representing the member states can act on the unanimity principle or a qualified majority voting (QMV) depending on the type of decision. The field of action of the institution's relates to the three "pillars" of the EU, namely, the European Communities, common foreign and security policy, and police & judiciary cooperation in foreign matters. The development of the core institutions can be measured by the inclusion of certain policy areas for decision-making at the supra-national level vs. national level; type of voting procedures like the unanimity principle and the Qualified Majority Voting principle (QMV) in the Council and the co-decision procedure between the Council and the Parliament; number of votes assigned to each member state.

What are the advantages of the indicator?

The European Union is not a polity in the traditional sense. Nevertheless it displays state-like functions. These can be better understood through the monitoring of core European institutions.

What are the disadvantages of the Indicator?

Requires background political science knowledge about state functions and decision procedures.

What is the policy relevance of the indicator?

The development of the core European institutions, namely Commission, Council, Court and Parliament largely influences the allocation of decision-making powers between the Member states, between the supra-national, national and regional level and also between the European institutions.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Development of European parties

Dimension - Politics

Associated Key Factor:

Role of political elites and parties

Data Source:

European Liberal, Democratic and Reform Parties

<http://www.eldr.org>

<http://www.eldr.org>

General Availability:

Reporting unit:

Reporting level: European

Reporting period:

Data available from to

The indicator:

Information of the development and growth of European party fractions over time.

Description

European party fractions include the European Greens, Liberals, Socialists and People's Party amongst others.

How is it measured?

Records on party developments are kept by the parties and are based on membership numbers and growth rates.

What are the disadvantages of the Indicator?

This qualitative indicator is based on individual parties histories and developments is virtually impossible to compare.

What is the policy relevance of the indicator?

This indicator can tap onto the political system development in a multilevel governance context. It will have a policy relevance as it will help show the beliefs of travellers.

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

Data Source:

European People's Party

<http://www.eppe.org>

<http://www.eppe.org>

General Availability:

Reporting unit:

Reporting level: European

Reporting period:

Data available from to

Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
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Greater power for European level of decision making

Data Source:

Federation of Green Parties

<http://www.europeangreens.org>

<http://www.europeangreens.org>

General Availability:

Reporting unit:

Reporting level: European

Reporting period:

Data available from to

Data Source:

European Socialists

<http://www.eurosocialists.org>

<http://www.eurosocialists.org>

General Availability:

Reporting unit:

Reporting level: European

Reporting period:

Data available from to

Diffusion of ICT within public administration

Dimension - Institutional Arrangements

Associated Key Factor:

Institutional capacity

Data Source:

Network for the Growth of Territorial Economics

<http://www.re-set.it/documenti/0/400/420/427/schedepaese/>

<http://www.re-set.it/documenti/0/400/420/427/schedepaese>

General Availability:

Reporting unit: Public administration

Reporting level: National / regional

Reporting period:

Data available from 2001 to 2002

The indicator:

Corresponds to the number of employees in public administration using computers, e-mails and other ICT related technology.

Description

Diffusion of ICT in public administration is indicative of openness of public administration to new innovations but also an indicator of institutional capacity with regard to reform and policy design and implementation.

How is it measured?

The diffusion of ICT within public administration can be measured by the number of employees in public administration using computers, e-mails and other ICT-related technologies.

What are the advantages of the indicator?

Comparatively straightforward and easy to interpret indicator on institutional capacity. It should however not be used in isolation.

What are the disadvantages of the indicator?

Available mostly at the country / regional level but not disaggregated by policy sector (for instance type of ministry).

What is the policy relevance of the indicator?

Taps on modern management in public administration

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
More power for the cities in urban transport	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

EBRD indices on institutional change

Dimension - Institutional Arrangements

Associated Key Factor:

Institutional capacity

Data Source:

European Bank for Reconstruction and Development

See working paper # 20 'A framework for a development strategy in a market economy: objectives, scope, institutions and instruments' (N. Stern and J. Stiglitz, date unknown). See also working paper # 60. See <http://www.ebrd.com/pubs/econ/worki ngp/60.pdf>

www.ebrd.com

www.ebrd.com/

General Availability:

Reporting unit: Country

Reporting level: Country

Reporting period: every 5 years

Data available from 1984 to 1999

The indicator:

The EBRD indices of institutional change track institutional changes in transition economies.

Description

The indices are only available for transition economies

Based on assessment across four dimensions:

- A. enterprises & households which are responsible for decisions concerning production and consumption;
- B. markets where agents interact and resources are allocated;
- C. financial institutions which determine how transactions occur & budget constraints are reinforced;
- D. legal systems which underpins the system of contracts and investments.

The latter is translated into 5 subjective ratings by EBRD pertaining to institutional change during transition, namely:

1. Governance and enterprise restructuring;
2. competition policy;
3. Banking reform and interest rate liberalisation;
4. securities markets and non-bank financial institutions
5. overall legal effectiveness and extensiveness.

How is it measured?

Subjective ratings on the dimensions rating from 1 to 4+.

A score of 1 indicates very little institutional change relative to a situation in centrally planned economy. A score of 4+ indicates that the creation of market-supporting institutions in this area is largely complete as the standards of developed market economies have been reached.

What are the advantages of the indicator?

Easy to understand and use indicator on institutional change.

What are the disadvantages of the Indicator?

Only available for transition economies. Insofar as it is based on expert judgement, the selection of experts carrying out the evaluation is of major importance. Says little about the meso-level of institutional reform at either the government or economy level and leaves out major areas, like civil society and democracy.

What is the policy relevance of the indicator?

This indicator assesses the level of institutional development in transition economies, i.e. to what degree have the institutions adapted themselves to the demands of market economies, thus have moved away from centrally planned economies.

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"/>

Electoral turnout at national parliamentary elections

Dimension - Institutional Arrangements

Associated Key Factor:

Legitimacy

Data Source:

Electronic Directory of the European Institutions

Voter Turnout since 1945: A Global Report, IDEA, 2002

<http://www.idea.int/vt/index.cfm>

<http://europa.eu.int/idea/index.htm>

General Availability:

Reporting unit: Voter

Reporting level: Country

Reporting period: regularly

Data available from 1980 to 2000

Availability by country:

1980 - 1999: Austria

1980 - 2002: Germany

1980 - 1999: Finland

1980 - 2001: Italy

1980 - 1999: Luxembourg

1980 - 2002: Portugal

1980 - 2002: Sweden

1980 - 2000: Slovenia

1980 - 2001: United Kingdom

1981 - 1999: Belgium

1981 - 2001: Cyprus

1981 - 2001: Denmark

1981 - 2002: France

1981 - 2000: Greece

1981 - 2002: Ireland

1981 - 1998: Malta

1981 - 2002: Netherlands

1989 - 2000: Spain

1989 - 2001: Poland

1990 - 2002: Czech Republic

1990 - 1999: Estonia

1990 - 2002: Hungary

1990 - 1998: Latvia

1990 - 2002: Slovak Republic

1991 - 2001: Bulgaria

1992 - 2000: Lithuania

1992 - 2000: Romania

The indicator:

Electoral turnout is the number of voters that voted divided by the total number of eligible voters, defined in turn as either registered or of voting age

Description

Electoral turnout is a good indicator for level of political interest, trust and political participation. Low electoral turnouts are often interpreted as evidence for the alienation of voters from the political system and, hence, a legitimacy or democratic deficit.

How is it measured?

IDEA calculates electoral turnout by dividing the total number of votes by the voting age population. The data is collected mostly from the electoral offices of the various countries.

What are the advantages of the indicator?

Easy to establish and by now a standard indicator on the legitimacy of democratic political systems.

What are the disadvantages of the indicator?

Contextual information on political system is necessary to correctly interpret the results. Analyses should take into account variation depending on:

A. Type of electoral system used.

B. Whether voting is compulsory or not - In Belgium, Greece, Italy and Luxembourg a compulsory voting system is used.

C. Socio-economic factors such as literacy rate, wealth of nations, population size, human development level.

D. Competitiveness and plurality of the political system, i.e. the extent to which different political ideologies / programmes are represented by political parties

What is the policy relevance of the indicator?

In democratic systems, the policy process must be evaluated with reference to both policy output and democratic input. Electoral turnout says something about democratic input at the general level.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Electoral turnout at the European Parliamentary elections

Dimension - Institutional Arrangements

Associated Key Factor:

Legitimacy

Data Source:

European Parliament

http://www3.europarl.eu.int/election/results/en/maps_en.htm

www.europarl.eu.int/

General Availability:

Reporting unit: Voter

Reporting level: EU Member States

Reporting period: regularly

Data available from 1979 to 1999

Availability by country:

1981 - 1999: Greece

1984 - 1999: Belgium

1984 - 1999: Germany

1984 - 1999: Denmark

1984 - 1984: France

1984 - 1999: Ireland

1984 - 1999: Italy

1984 - 1999: Luxembourg

1984 - 1999: Netherlands

1984 - 1999: United Kingdom

1987 - 1999: Spain

1987 - 1999: Portugal

1989 - 1999: France

1995 - 1999: Sweden

1996 - 1999: Austria

1996 - 1999: Finland

2005 - 2005: EU-15

2005 - 2005: Member States (EU-15)

The indicator:

As in the indicator. Reference population is the population of eligible voters. This includes citizens of other EU Member States.

Description

The comparison of the electoral turnout at the national elections with that of the European Parliamentary elections says something about the legitimacy of the European Parliament which is a key European institution.

How is it measured?

Number of valid votes as a ratio of number of eligible voters.

What are the advantages of the indicator?

Easily derived indicator which is a standard for the analysis of political processes.

What are the disadvantages of the Indicator?

The data for four European Union countries, namely, Belgium, Greece, Italy and Luxembourg is skewed by the fact that voting is compulsory in these countries.

What is the policy relevance of the indicator?

Electoral turnout in European Parliament elections says something about the legitimacy of the European Parliament and the European Union more generally. Low turnouts in the last years have been interpreted as indicative of a low EU legitimacy. This in turn makes the implementation of policies at EU level more difficult.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
More openness and participation in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Emissions of air pollutants by road

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Co-operative Program on Long Range Transboundary Air Pollution

<http://webdab.emep.int/>

<http://www.emep.int>

General Availability:

Reporting unit: Gigagrams

Reporting level: national or 50km x 50km grid

Reporting period: annually

Data available from 1980 to 2000

Availability by country:

1980 - 2000: EU-15

1980 - 2000: Member States (EU-15)

The indicator:

Acidification is caused by emissions of sulphur dioxide, nitrogen dioxide and ammonia into the atmosphere, and their subsequent chemical reactions and deposition on ecosystems and materials.

Description

Many different estimates have been published of truck air pollutant emissions, based on miles travelled, ton-kilometres of goods transported, quantity of energy consumed, and other measures. They are expressed in grams per mile, rather than grams per ton-kilometre. Emissions of some pollutants vary with speed of travel, while for others the variation across vehicle types is more important.

How is it measured?

All published statistics of air pollutants are based on complex estimation and modelling procedures and are subject to several sources of error. The calculations are typically based on activity or fuel consumption data multiplied by an emission factor. (for details see Europe's Environment Statistical compendium; Eurostat 1995)

What are the disadvantages of the Indicator?

Even when calibrated in the same units, they vary substantially. Nevertheless, they give a general sense of the importance of the air pollution produced by trucks.

It is useful to bear in mind the many points at which differing assumptions may underlie the available data, which limit the comparability across estimates or across countries. Vehicle emission factors are based on vehicle tests conducted under protocols established by the European Community, the US EPA, and the Japanese government (Cucchi and Bidault 1991). The test cycles vary according to assumptions about truck idle modes, engine speeds, and other driving conditions. The test data are further adjusted to take into account variations in temperature, grade, speed, weight of load, and so on.

What is the policy relevance of the indicator?

Data is officially submitted by the Parties to the CLRTAP Convention on Long Range Transboundary Air Pollutants to the EMEP project via the UNECE secretariat. For some emissions the Global Warming Potential (GWP) is related to climate change policies (e.g. Kyoto Protocol).

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Emissions of air pollutants by air traffic

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Co-operative Program on Long Range Transboundary Air Pollution

<http://webdab.emep.int/>

<http://www.emep.int>

General Availability:

Reporting unit: Gigagrams

Reporting level: national or 50km x 50km grid

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2001: EU-25

Data Source:

US Department of State

www.state.gov/

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Low-altitude aircraft emissions include nitrogen oxides, carbon monoxide, and hydrocarbons. They are converted into ozone and other compounds that comprise smog. While aircraft emissions are minor relative to road traffic, and even relative to other means of transporting goods, they are rising faster than other emission sources, with the growth of air travel and air freight. (Vedantham and Oppenheimer 1994, p 1). Global Air Pollution Aircraft emissions during high-altitude flight are a significant source of greenhouse gases, although both their quantity and their exact impact are still matters of considerable scientific debate (Vedantham and Oppenheimer 1994, pp. 4-13; Crayston, personal communication).

Description

Air transportation can threaten the environment in three important ways. Aircraft emissions at take-off and landing contribute to both conventional air pollution and global warming. Emissions during flight contribute to global warming.

Low-level pollution is emitted during the aircraft's landing and take-off cycle (LTO). An LTO comprises the descent or approach of the plane from 915 meters (3000 feet), its touchdown, landing run, taxi in, idle and shutdown, start-up and idle, checkout, taxi out, takeoff, and climb out to 915 meters.

How is it measured?

Emissions are based on accurate estimates (limited types of engines and engine powers and strict statistics on age of aircraft and trips are available for the estimates). All published statistics of air pollutants are based on complex estimation and modelling procedures and are subject to several sources of error. The calculations are typically based on activity or fuel consumption data multiplied by an emission factor. (for details see Europe's Environment Statistical compendium; Eurostat 1995)

What are the disadvantages of the Indicator?

Little is known about the quantity of aircraft emissions at these altitudes. Vedantham and Oppenheimer 1994 (pp. 35-40) have made some rough estimates based on anticipated fuel usage and the CO₂ and NO_x content of jet fuel. Using their emission factors and an International Civil Aviation Organisation (ICAO) estimate that civil aviation consumes an average of 510 grams of fuel per tonne kilometre², we can arrive at the following emission factors per ton-kilometre.

What is the policy relevance of the indicator?

Following the Air Quality Framework Directive (96/62/EC (1)), a number of limit values have been set for the atmospheric concentrations of main pollutants, including sulphur dioxide, nitrogen oxides, particulates (PM₁₀), lead, carbon monoxide, benzene and ozone. Limits have been set at levels that should prevent or reduce harmful effects on health and ecosystems. Data is also officially submitted by the Parties to the CLRTAP Convention on Long Range Transboundary Air Pollutants to the EMEP project via the UNECE secretariat

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Emissions of air pollutants by inland navigation

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Co-operative Program on Long Range Transboundary Air Pollution

<http://webdab.emep.int/>

<http://www.emep.int>

General Availability:

Reporting unit: Gigagrams

Reporting level: national or 50km x 50km grid

Reporting period: annually

Data available from 1980 to 2000

The indicator:

Freighters are not a major source of air pollution, nor is air pollution one of the major environmental consequences of shipping. Nevertheless, almost all commercial freighters are powered by combustion engines, so they do emit air pollutants. These occur under two distinct sets of circumstances; while underway and while docked (for light, heat, ventilation, etc.). For ocean-going vessels, emissions while in port are of greater concern than those while underway, because they are more likely to affect adjacent populations; at sea, of course, there is no adjacent population (OECD 1997).

How is it measured?

All published statistics of air pollutants are based on complex estimation and modelling procedures and are subject to several sources of error. The calculations are typically based on activity or fuel consumption data multiplied by an emission factor. (for details see Europe's Environment Statistical compendium; Eurostat 1995)

What are the disadvantages of the Indicator?

Several sets of emission factors are available per tonne-kilometre of freight carried for marine vessels. The sources do not specify whether these factors apply to inland or ocean shipping, or a combination of the two. Air pollutants depend a lot on the type of operation of the ship.

What is the policy relevance of the indicator?

So far, emissions from ships are only regulated in the MARPOL-Treaty (1973).

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 checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Emissions of air pollutants by rail

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Co-operative Program on Long Range Transboundary Air Pollution

<http://webdab.emep.int/>

<http://www.emep.int>

General Availability:

Reporting unit: Gigagrams

Reporting level: national or 50km x 50km grid

Reporting period: annually

Data available from 1980 to 2000

The indicator:

Acidification is caused by emissions of sulphur dioxide, nitrogen dioxide and ammonia into the atmosphere, and their subsequent chemical reactions and deposition on ecosystems and materials.

Description

In Europe most trains are electric only; it is therefore the structure of power generation which determines air pollution characteristics. The table below provides emission factors for rail, in grams per tonne-kilometre. Although, there exists a substantial variation among studies, the large difference between rail and trucking in air pollutant emissions is consistent.

How is it measured?

All published statistics of air pollutants are based on complex estimation and modelling procedures and are subject to several sources of error. The calculations are typically based on activity or fuel consumption data multiplied by an emission factor. (for details see Europe's Environment Statistical compendium; Eurostat 1995)

What are the disadvantages of the Indicator?

Even when calibrated in the same units, they vary substantially. Nevertheless, they give a general sense of the importance of the air pollution produced by trains.

What is the policy relevance of the indicator?

Currently there does not exist an emission directive for diesel engines.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Employment by economic sectors

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Eurostat

EUROSTAT REGIO database gives data at NUTS 3 level on number of employees by NACE 3 sectors and Gross Value Added by factor cost and market prices. The data is available from 1980 onwards.

L-2920 Luxembourg

http://www.eu-datashop.de/datenba/EN/allgem/infoda_1.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: employee

Reporting level: regional, national

Reporting period:

Data available from 1980 to 2001

Availability by country:

1980 - 2001: Accession Countries

The indicator:

Measures the share of total employment in economic sectors (agriculture, industry, services). Usually presented as a percentage.

How is it measured?

Employment as known from register social security data or social surveys is disaggregated according to information obtained on the occupation which, in turn, is classified into economic sector using the NACE classification scheme.

What are the advantages of the indicator?

A standard indicator for describing economic sectors and their development next to value added or share in GDP. From the social policy perspective and over time, this indicator provides information on the structural development of the labour market.

What are the disadvantages of the Indicator?

None specific to the indicator as such. The data source is key here. In cases where this data is derived on the basis of self-reporting social surveys, care is needed with the classification of the occupation following the NACE criteria. Also the level of disaggregation allowed by the data source (be it geographically or with regard to NACE sectors) is an important issue to explore.

What is the policy relevance of the indicator?

Standard socio-economic indicator for measuring the development of different economic sectors.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Employment in High Tech

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

Eurostat New Chronos

<http://www.eu-datashop.de/datenba/EN/thema9/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Individual

Reporting level: national, regional

Reporting period: annually

Data available from to

Availability by country:

0 - 0: EU-15+AC

0 - 0: NUTS-1-EU15+AC

The indicator:

Employed persons in high tech as a share of the total employed population, by gender.

Description

The proportion of people employed in high tech gives an indication of the viability and economic development of the high-tech sector (taking into account the high automation within this sector).

How is it measured?

Based on obligatory survey of enterprises or national register/social security data. Alternatively it can be based on census data.

What are the disadvantages of the Indicator?

The indicator does not differentiate between types of jobs or qualifications of the employees in High Tech.

What is the policy relevance of the indicator?

Standard indicator for assessing innovation potential in knowledge-intensive industries and economies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Employment in public administration at national level

Dimension - Institutional Arrangements

Associated Key Factor:

Institutional capacity

Data Source:

Official Journal of the European Union

<http://europa.eu.int/eur-lex/en/index.html>

General Availability:

Reporting unit: employee

Reporting level: EU

Reporting period:

Data available from to

Data Source:

The World Bank Group

<http://www1.worldbank.org/publicsector/civilservice/development.htm>

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

General Availability:

Reporting unit: employee

Reporting level: various levels and sections

Reporting period:

Data available from to

The indicator:

Comparative ratios of employees working for public administration at different government levels, derived from the national and regional estimates of civil servants and from the employee records in European institutions with reference to total employment.

Description

The comparative assessment of the number of public sector employees at European, national, regional level says something about the allocation of power in a multilevel governance context and, in that, the degree of centralisation vs. Federalisation. The indicator is also informative with regard to institutional capacity.

How is it measured?

Is measured looking at the trend in ratios of number of employees at the European, national level vs. regional level. Population reference, total actively engaged employment force. A. The data is collected from the national government sources; B. The data on public sector employment includes employment data for State-Owned enterprises and general government; C. The employment data covers both full-time and part-time employees; D. The data for State-owned enterprises employees consists of enterprises that are majority owned by government; E. General government refers to employment in all government department offices, organisation and other bodies which are agencies or instruments of the central or local authorities whether accounted for or financed in budgets; F. There are 6 categories under General Government - Armed forces, Civilian central government, Sub national government (encompasses all government administration employees who are not directly funded by the central government. It includes municipalities, as well as regional, provincial or state employment. The distinction between central and sub national government employment is budgetary and not geographic), health employees, education employees and Police.

What are the disadvantages of the Indicator?

Correct interpretation requires knowledge about the constitutional environment at national and European level regarding degree of federalisation and competencies of different levels.

What is the policy relevance of the indicator?

Sociological indicator on operationalisation of multilevel governance and institutional capacity.

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

Employment in road transport by enterprise

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

World Transport Statistics

World Transport Statistics, 1996, 535 pages

<http://www.iru.org/Publications/Welcome.E.html>

www.iru.org/

General Availability:

Reporting unit: Road enterprise

Reporting level: National

Reporting period: regularly

Data available from 1996 to

Availability by country:

1996 - 1996: EU-15+AC

The indicator:

Number of persons employed in road transport enterprises.

How is it measured?

It is a compilation of the most recent official statistical data - it covers 178 countries.

What are the disadvantages of the Indicator?

The employment should be set in relationship with employment in the other transport sectors. Moreover, the employment figures set in relationship with the people moved and/or the freight moved would give insight on the efficiency of the sector.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Employment rates

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Eurostat

European Social Statistics: Labour Force Survey Results 2002

L-2920 Luxembourg

http://www.eu-datashop.de/download/EN/inhaltsv/the_ma3/arbeitsk.pdf

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Individual

Reporting level: NUTS2

Reporting period: annually

Data available from 1985 to 2002

Availability by country:

1990 - 2002: Belgium

1990 - 2002: Denmark

1990 - 2002: Spain

1990 - 2002: Finland

1990 - 2002: France

1990 - 2002: Greece

1990 - 2002: Ireland

1990 - 2002: Luxembourg

1990 - 2002: Netherlands

1990 - 2002: Portugal

1990 - 2002: Sweden

1991 - 2002: EU-15-avg

1992 - 2002: Germany

1993 - 2002: Italy

1994 - 2002: Austria

The indicator:

Employed persons aged 15-64 as a share of the total population aged 15-64

Description

The employment rate can be used to calculate the coefficient of variation of employment rates across regions (Nuts 2 level) within countries. It gives a measure of the regional spread of employment rates.

How is it measured?

The employed persons consists of those persons who during the reference week did any work for pay or profit for at least one hour or were not working but had jobs from which they were temporarily absent. Family workers are also included. The survey covers persons aged 15 years & over living in private households. Persons living in collective households and persons carrying out obligatory military service are not included.

What are the advantages of the indicator?

Standard indicator on labour market supply / demand. Available at national / European level and through (European) comparative surveys.

What are the disadvantages of the Indicator?

Does not on its own provide information on quality of work or diffusion of part-time work.

What is the policy relevance of the indicator?

Key background / benchmarking indicator for labour market policies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

End of life vehicles

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Topic Centre on Waste and Material Flows

Kilde & Laursen (2000), "Scrapping of passenger cars", Risø National Laboratory, Denmark" (EOLife), Statistics on Waste-Phase III (ERM Final Report, Project No. 1312), September 1997 (other uses and recycling

<http://waste.eionet.eu.int/>

<http://waste.eionet.eu.int/>

General Availability:

Reporting unit: 1000 cars (end of life); 1000 tonnes (others)

Reporting level: national

Reporting period: annually

Data available from 1990 to 2000

The indicator:

Defines the number of End-of-Life vehicles which are generated per year. If the End-of-Life vehicles are used in another way the indicator is measured in tonnes.

How is it measured?

Estimated. Information is based on the requirements of car companies to take back old vehicles (restricted to passenger cars) and information from special waste dumps.

What are the disadvantages of the Indicator?

This information, together with monitoring data on the average age of the vehicle fleet, gives better insight in the environmental impact of vehicles in different stages of their lifetime.

What is the policy relevance of the indicator?

For the specific indicator the overall objective is to improve the fleet composition by replacing older, more polluting vehicles with newer, cleaner ones. However, there is no specific target for the average age of the vehicle fleet set by the European Commission neither for the Member States nor for the Accession Countries.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Energy intensity: GDP produced with one unit of primary energy

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat New Chronos

http://europa.eu.int/newcronos/suite/info/notmeth/en/theme1/strind/enviro_ei.htm

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: ratio

Reporting level: national

Reporting period: annually

Data available from 1991 to 2002

Availability by country:

1991 - 2002: EU-15+AC

Data Source:

European Project on Energy Efficiency Indicators

www.odyssee-indicators.org/

www.odyssee-indicators.org/Overview/overview.html

General Availability:

Reporting unit: energy consumption over GDP

Reporting level: national

Reporting period: annually

Data available from 1985 to 2000

Availability by country:

1985 - 2000: EU-15

1985 - 2000: Member States (EU-15)

The indicator:

The ratio between the Gross Inland Consumption of Energy and the Gross Domestic Product calculated for a calendar year. It measures the energy consumption of an economy and its overall energy efficiency.

How is it measured?

The Gross Inland Consumption of Energy is calculated as the sum of the Gross Inland Consumption of the five types of energy: coal, electricity, oil, natural gas and renewable energy sources. In addition, each of these figures is calculated as an aggregation of different data on production, storage, trade (imports/exports) and consumption/use of energy. The GDP figures are taken at constant prices to avoid the impact of the inflation, base year 1995 (ESA95).

The energy intensity ratio is the result of dividing the Gross Inland Consumption by the GDP. Since Gross Inland Consumption is measured in kgoe (kilogram of oil equivalent) and GDP in 1000 EUR, this ratio is measured in kgoe per 1000 EUR.

What are the advantages of the indicator?

Such ratios are favoured by economists to assess energy efficiency improvements at the level of the whole economy or at the sector level. Indeed, they consider that any reduction in the amount of energy used to generate one unit of economic output (i.e. a decrease in energy intensity) reflects an energy efficiency improvement. Energy intensities represent some kind of energy productivity (by analogy to labour productivity). They are therefore mainly interesting to assess overall energy efficiency improvements, without taking into account

whether they come from voluntary energy saving actions or from other factors, not necessarily linked to energy (e.g. structural changes, increase of product value added, etc) (Odyssee: www.odyssee-indicators.org/ : 2003)

What are the disadvantages of the Indicator?

The indicator should be differentiated by economic sectors and the transport sector should differentiate between the different transport modes.

What is the policy relevance of the indicator?

Since this measure is an efficiency measure of the economy, it is important to see how improvements could be realized. If the transport sector cannot be considered to be very productive per unit of primary energy. Policy measures improving this productivity would have to be considered. On the other hand transport might be helpful to improve productivity per unit of primary energy in other sectors.

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"/>

European directives: number per sector and transposition

Dimension - Institutional Arrangements

Associated Key Factor:

Policy formulation and implementation

Data Source:

EUR-Lex

Number of directives by sector AND Progress in notification of national measures implementing directives.

<http://www.europa.eu.int/eur-lex/en/index.html>

<http://www.europa.eu.int/eur-lex/en/index.html>

General Availability:

Reporting unit: Directive

Reporting level: Country

Reporting period: regularly

Data available from to

The indicator:

Sector refers to the policy field or General Directorate in charge. A European directive represents legislation. In order for this to become effective it must be transposed into national legislation.

Description

Community law based on various treaties could take the form of regulations, directives, decisions or recommendations. European directives bind the member states as to the objective to be achieved within a certain time limit while leaving the national authorities the choice of form and means to be used. Directives have to be implemented in national legislation in accordance with the procedure of individual member states.

How is it measured?

Number of European directives transposed in the national legislation. The scope needs to be assessed qualitatively taking into account the number of national legislation over and beyond European directives, disaggregated by policy sector. The latter requires legal / political science knowledge about policy structure and process at the national level as well as the European level (the latter with regard to the various pillars, the various voting procedures -- unanimity vs. qualified majority voting and role of co-decision by EP).

What are the advantages of the indicator?

Advantage derives from how it can be used and policy relevance.

What are the disadvantages of the Indicator?

Disadvantage has to do with the additional background knowledge required to specify the scope.

What is the policy relevance of the indicator?

Throws light on the allocation of powers between different levels of government, the extent of federalisation and character of European integration process.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

European Election and Parties

Dimension - Politics

Associated Key Factor:

Role of political elites and parties

Data Source:

Parties and Elections in Europe

Wolfram Nordsieck is editor of the Internet site 'Parties and Elections in Europe'. See link above for publication reference. With permission from editor.

<http://www.parties-and-elections.de/indexe.html>

General Availability:

Reporting unit: Number of seats and % of seats

Reporting level:

Reporting period: Every election

Data available from 1945 to 2003

Availability by country:

1985 - 1994: Austria

The indicator:

The results of parliamentary elections in European countries since 1945.

Description

Results of number of seats and percentage of seats particular parties have gained during election years in European countries.

How is it measured?

Official election data on number of seats and percentage of seats each party has gained.

What are the advantages of the indicator?

Data available for every election since 1979 for all EU 27 countries. It provides information on length of term of chamber representative and the full list of parties for each country.

What are the disadvantages of the Indicator?

There is no easy accessible information on the political direction of each party (e.g. left/right wing, centre)

What is the policy relevance of the indicator?

Indicates national variations over time of political dominance of parties.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Decentralization and effects on regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

European social agenda

Dimension - Social Developments

Associated Key Factor:

Social policy and cohesion standards

Data Source:

European Commission DG Social

National Action Plans for Employment; National Action Plans for Social Inclusion and related synthesis reports.

http://europa.eu.int/comm/employment_social/news/2001/oct/socpolag/social_policy_agenda.pdf.

http://europa.eu.int/comm/employment_social/

General Availability:

Reporting unit: policies

Reporting level: country

Reporting period: regularly

Data available from 0 to 0

The indicator:

Qualitative indicators on the progress of the European Social Agenda. The agenda forms part of the integrated European approach by seeking to ensure a positive and dynamic interaction of economic, employment and social policy. The strategic goal of the European social policy agenda for the next decade is to "become the most competitive & dynamic knowledge based economy capable of sustained economic growth with more and better jobs and a greater social cohesion".

Description

Informs us about the degree and pace of harmonisation of social policy at European level.

How is it measured?

Monitoring of social policy at European level -- in particular of European Employment Strategy (EES) and of National Action Plans on Employment and of National Action Plans on Social Inclusion

What are the disadvantages of the Indicator?

Monitoring of developments requires expertise in the field and is labour-intensive.

What is the policy relevance of the indicator?

The extent and way of harmonisation / coordination of social policy at European level says something fundamental about the type of polity the EU will be. Besides, harmonisation of social conditions are considered important for economic harmonisation.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input 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"/>

European topics in the media

Dimension - Politics

Associated Key Factor:

Extent and scope of issue-based politics

Data Source:

European Institute for the media

'The European Institute for the Media'. With bases in Dusseldorf and Paris.

www.eim.org

<http://www.eim.org>

General Availability:

Reporting unit:

Reporting level: European

Reporting period:

Data available from to

The indicator:

Coverage of European topics in sub-European media

How is it measured?

There is no detailed measurement method, just information on communication policies, events and research.

What are the advantages of the indicator?

Gives up to date information.

What are the disadvantages of the Indicator?

The source of the indicator doesn't really measure the description of the indicator very well, but instead gives information on wide scope of media in Europe issues.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Exchange rate of vehicle fleet

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Eurostat

EEA: TERM 2002 33 EU — Average age of the vehicle fleet (see further Information)

L-2920 Luxembourg

http://themes.eea.eu.int/Sectors_and_activities/transport/indicators/technology/age/tab_relations_ILR

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: age in years

Reporting level: national

Reporting period: annually

Data available from 1985 to 2000

Availability by country:

1985 - 2000: EU-15

1985 - 2000: Member States (EU-15)

Data Source:

Regional Environmental Centre for Central and Eastern Europe

www.rec.org/

General Availability:

Reporting unit: age in years

Reporting level: national

Reporting period: annually

Data available from 1996 to

Availability by country:

1996 - 1996: Accession Countries

The indicator:

Defines the exchange rate of vehicle fleet and the penetration rate of more modern technologies.

Description

The indicator is measured by the number of scrapped vehicles against the number of new registrations of vehicles.

How is it measured?

Measures the average age of the circulating passenger vehicles. Is based on data of new registrations at national level and information on scrapped vehicles. (see as well respective indicators)

What are the disadvantages of the Indicator?

This information, together with monitoring data on the age of scrapped vehicles, gives better insight in the environmental impact of vehicles in different stages of their lifetime.

What is the policy relevance of the indicator?

Policies can give incentives to improve the fleet composition by replacing older, more polluting vehicles with newer, cleaner ones.

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

Existence of institutional mechanism for long-term planning

Dimension - Institutional Arrangements

Associated Key Factor:

Policy formulation and implementation

Data Source:

Cordis

Science and Technology Foresight. Run by Unit 'Science and Technology Foresight, Links with IPTS' of DG-Research of the European Commission.

http://www.cordis.lu/foresight/actors_nat.htm.

<http://www.cordis.lu/en/home.html>

General Availability:

Reporting unit: Foresight exercises

Reporting level: Country

Reporting period: regularly

Data available from 2000 to

The indicator:

Existence of institutional mechanisms like foresight for long-term planning

Description

Measures commitment of political systems to long-term planning and cross-sectoral integration of policies

How is it measured?

It is a qualitative indicator and can be assessed by the existence of long term planning mechanisms in different policy areas at the national, regional and European levels.

What is the policy relevance of the indicator?

Measures extent to which policy is evidence-based and forward looking

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Expenditure on education

Dimension - Science & Technology

Associated Key Factor:

Technological innovation

Data Source:

Eurostat New Chronos

http://www.eu-datashop.de/datenba/DE/allgem/nc_them.htm

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Monetary

Reporting level: national

Reporting period: annually

Data available from 1991 to 2001

Availability by country:

1991 - 2001: EU-15+AC

The indicator:

Total public expenditure on education as a percentage of GDP

Description

"Generally, the public sector funds education either by bearing directly the current and capital expenses of educational institutions (direct expenditure for educational institutions) or by supporting students and their families with scholarships and public loans as well as by transferring public subsidies for educational activities to private firms or non-profit organisations (transfers to private households and firms). Both types of transactions together are reported as total public expenditure on education." (Eurostat)

How is it measured?

"Countries provide data coming usually from administrative sources on the basis of commonly agreed definitions. Data are collected through the joint UNESCO-OECD-EUROSTAT data collection (UOE) questionnaires on educational finance. The final submission of the data is done by the National Statistical Institutes or by the Ministry of Education." (Eurostat)

What are the disadvantages of the Indicator?

"Public expenditure on education as percent of GDP or GNI puts the expenditure on education in relation to the GDP or GNI. If GDP or GNI grows faster than the public expenditure on education (as, for instance, in the case in fast growing economies), public expenditure on education as percent of GDP or GNI will decrease even though the total public expenditure on education may be increasing. In order to measure the evolution of public expenditure on education an indicator indexing the public expenditure on education in constant prices is necessary." (Eurostat)

What is the policy relevance of the indicator?

Expenditure on education is closely linked to a knowledge-based society and economy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Expenditure on Information and Communication Technologies

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

Eurostat New Chronos

http://www.eu-datashop.de/datenba/DE/allgem/nc_them.htm

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: percentage

Reporting level: national

Reporting period: annually

Data available from to

The indicator:

Expenditure on information and communications technology (ICTs) equipment as a share of the gross product.

Description

ICT equipment is defined as computer and office equipment and communication equipment

How is it measured?

Data is collected through surveys.

What are the disadvantages of the Indicator?

The indicator does not define the origin of the expenditure (private households, companies, institutions).

What is the policy relevance of the indicator?

Diffusion of, and therefore expenditure on, ICT is important in an anticipated knowledge-based society and economy.

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

Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
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Technological innovation and diffusion

Data Source:

Eurostat

L-2920 Luxembourg

http://europa.eu.int/comm/eurostat/newchronos/info/notmeth/en/theme1/stringd/innore_ict_sm.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Monetary

Reporting level: national

Reporting period: regularly

Data available from 1992 to 2002

Availability by country:

1992 - 2002: EU-15

1992 - 2002: Member States (EU-15)

Expenditure on Research and Development

Dimension - Science & Technology

Associated Key Factor:

Research and Development

Data Source:

Eurostat New Chronos

<http://www.eu-datashop.de/datenba/EN/thema9/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Monetary

Reporting level: national

Reporting period: annually

Data available from 1980 to 2002

Availability by country:

1980 - 2002: EU-15

1980 - 2002: Member States (EU-15)

1991 - 2002: Accession Countries

Data Source:

United Nation Development Programm

http://www.undp.org/hdr2003/indicator/indic_107_1_1.html

<http://undp.org>

General Availability:

Reporting unit: Monetary

Reporting level: national

Reporting period: annually

Data available from to

Availability by country:

1980 - 2003: EU-15+AC

The indicator:

Measures the gross domestic expenditure on Research and Development (GERD).

Description

Composed of four types of expenditure: Business enterprise expenditure in R&D (BERD), Higher Education expenditure in R&D (HERD), Government expenditure in R&D (GOVERD) and Private Non-profit expenditure in R&D (PNRD).

How is it measured?

Compilation of expenditures on RTD by government, higher education institutions and business -- the latter on the basis of surveys. This is then presented as a percentage of GDP.

What are the advantages of the indicator?

Strongly correlates with output indicators on innovation. It is particularly relevant in time-series to trace S&T policy. Available for most countries.

What are the disadvantages of the Indicator?

The correct interpretation of the indicator should consider background knowledge of the economic structure of the countries being compared. In particular, care is needed when comparing / assessing the BERD as it often includes double counting of government expenditures.

What is the policy relevance of the indicator?

Standard input indicator regarding S&T and innovation.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

Expenditure on structural/cohesion funds

Dimension - Social Developments

Associated Key Factor:

Social policy and cohesion standards

Data Source:

European Commission

DG Regional Policy

http://europa.eu.int/comm/dgs/regional_policy/index_en.htm

europa.eu.int/comm/index_en.htm

General Availability:

Reporting unit: Regional policy and funds

Reporting level: Country / region

Reporting period: annually

Data available from 1991 to

The indicator:

Expenditure on structural / cohesion funds, the two main instruments of EU regional policy.

Description

The European Union's regional policy is based on financial solidarity to the less prosperous regions and social gaps. There are mainly two funds: structural funds which finance community structural aid and the cohesion fund which finances poorer community countries. The total aid budget for the period 2000-2006 for these funds is €213 billion. Of this € 195 billion is for structural funds and € 18 billion is spent on cohesion funds. A part of both structural and especially cohesion funds is spent on transport infrastructure or environmental projects.

How is it measured?

Structural funds and cohesion funds form part of the regional policy of the European union.

The structural funds are funds for special policy areas: a. 70% of the funding goes to the regions whose development is lagging behind, i.e. Objective 1 region; b. 11.5% of the funding assists economic and a social conversion in areas experiencing structural difficulties, i.e. Objective 2 region; c. 12.3% of the funding promotes modernisation of training systems & creation of employment, i.e. objective 3; d. four community initiatives that spend 5.3 % of the funding for structural funds.

Cohesion funds provide direct finance for specific projects related to environmental and transport infrastructure in the cohesion countries - Spain, Greece, Ireland & Portugal. The ISPA provides assistance along the same lines to the 10 CEEC which have applied for Union membership.

What are the disadvantages of the Indicator?

Regular reports of the European Union provide ample information on how funds are allocated and used but often lack comparative information for specific policy analyses.

What is the policy relevance of the indicator?

Taps on goals and scope of regional policy.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
Decentralization and effects on regional passenger transport	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

External costs (by mode of transport)

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Conference of Ministers of Transport

ECMT, 1998b. Efficient Transport for Europe, Policies for Internalisation of External Costs.

European Conference of Ministers of Transport (ECMT). Paris, France.

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: Euro/(10) vehicle km

Reporting level: national

Reporting period: regularly

Data available from 1995 to

Availability by country:

1995 - 1995: EU-15

1995 - 1995: Member States (EU-15)

Data Source:

Institute

INFRAS, 2000. External costs of transport (accidents, environmental and congestion costs) in western Europe. Paris. INFRAS Zurich, IWW, University of Karlsruhe.

<http://www.infras.ch>

General Availability:

Reporting unit: Euro/(10) vehicle km

Reporting level: national

Reporting period: regularly

Data available from 1995 to

Availability by country:

1995 - 1995: EU-15

1995 - 1995: Member States (EU-15)

The indicator:

The external costs of transport are large and uncertain. The most important categories of external cost are accidents, air pollution and climate change. Congestion is the largest component in many urban areas. The variation of the marginal external costs is as great within transport modes as between modes. This indicates that the level of marginal costs depends heavily on the type of vehicle and the traffic situation considered. In general they main categories of external costs relate to: noise, accidents, air pollution, climate change, nature, urban effects and upstream process. Moreover the indicator differentiates between the different modes of transport.

How is it measured?

Is measured as minimum and maximum marginal costs per transport mode (not including congestion) (Euro/10 vehicle km for road freight; Euro/vehicle km for other modes) these figures are based on estimations on the costs of damage through emissions etc.

What is the policy relevance of the indicator?

The reduction of external costs of transport is a main policy goal of EU environment and transport policies.

There are two sets of policy tools that aim to reduce external costs:

1. 'Command and control' measures that directly reduce emissions (e.g. the Auto-Oil programmes), or other kinds of external impact (e.g. traffic bans in urban neighbourhoods);
2. Pricing mechanisms (e.g. taxes, charges, subsidies) that give incentives to change users behaviour towards 'cleaner' transport. In most cases the internalisation of external costs refers to this set of policy tools.

Internalisation policies are dealt with in the fact sheet on "Internalisation of External Costs", which focuses in particular on pricing instruments.

The main principles for internalising (uncovered) environmental costs are set out in various international agreements (Vancouver, 1996; CEI, 1997; UN, 1997; ECMT, 1998a; UNCEC/WHO, 1999):

Pollution Prevention: transport needs must be met without generating emissions that threaten public health, global climate, biological diversity or the integrity of essential ecological processes.

Health and Safety Protection: transport systems should be designed and operated in a way that protects the health (physical, mental and social well-being) and safety of all people, and enhances the quality of life in communities.

Nature-saving Land and Resource Use: transport systems must make efficient use of land and other natural resources while preserving vital habitats and maintaining biodiversity.

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

Extra EU trade by continent

Dimension - Economics

Associated Key Factor:

Industrial and business structures and patterns

Data Source:

Eurostat

L-2920 Luxembourg

<http://europa.eu.int/com/eurostat>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: EURO

Reporting level: national

Reporting period: annually

Data available from 1976 to 2001

Availability by country:

1976 - 2001: EU-15

1976 - 2001: Member States (EU-15)

1988 - 2001: EU-25

1995 - 2001: EU-15

1995 - 2001: Member States (EU-15)

The indicator:

Extra-EU trade by continent e.g. says something about Portugal's trade with America, but also with Eastern Europe or Switzerland, which would imply the use of certain transport modes throughout Europe

How is it measured?

Is measured in the sum of value FOB of products exported in Million/EUR collected by national trade institutions.

What are the disadvantages of the Indicator?

A general disadvantage of the indicator is that it does not discriminate products groups or classes, which define an affinity to a certain transport mode, and in result influence the modal split.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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"/>

Final energy consumption by sector

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat New Chronos

<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 1980 to 2000

Availability by country:

0 - 1999: Accession Countries

0 - 2000: EU-15

0 - 2000: Member States (EU-15)

1985 - 2000: EU-12

1990 - 1999: Accession Countries

The indicator:

Is a measure of energy delivered to the final user. The sectors industry (with sub-categories (ISIC/NACE)), households and others and transport are considered.

Description

It therefore includes energy sources which are to delivered to the final users, including electricity, but excluding energy, which is lost in the process of transforming primary energy sources into delivered energy.

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 advantages of the indicator?

In general, energy statistics are considered reliable.

What is the policy relevance of the indicator?

Is relevant for environmental policies regarding energy efficiency.

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"/>

Final energy consumption by the transport sector (diesel and petrol)

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat

L-2920 Luxembourg

http://www.eu-datashop.de/formular/EN/ord_nc_e.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Thousands tons of oil equivalent (TOE)

Reporting level: national

Reporting period: annually

Data available from 1980 to 2000

Availability by country:

1980 - 2000: EU-12

1980 - 0: EU-15

1980 - 0: EU-15+AC

1980 - 0: Member States (EU-15)

1990 - 2000: EU-15+AC

Data Source:

International Environmental Agency

Eurostat Compendium, Transport and Environment: Statistics for the Transport and Environment Reporting Mechanisms (TERM) for the European Union. Data 1980 - 1999. Theme 8 Environment and Energy. 2002 edition. Electronic update January 2002 and IEA, 2001 for total transport sector energy consumption (without mode split)

<http://www.iea.org>

General Availability:

Reporting unit: tonnes oil equivalents

Reporting level: national

Reporting period: annually

Data available from 1980 to 1999

The indicator:

Measures the final energy consumption of the transport sector converted into million tonnes oil equivalents.

Description

Transport is nearly fully dependent on fossil fuels (98 % of transport consumption, representing 67 % of final oil consumption in EU-15) and contributes significantly to emissions of CO₂ and other air pollutants (European Commission, 2000a).

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?

These indicators should be read in combination with indicators on the structure of fuel prices, energy prices and taxes, the structure of the road vehicle fleet and transport related air pollution. They should further be complemented with data on fuel quality. A further breakdown of road fuel consumption i.e. leaded vs. unleaded gasoline would also be desirable. Depending on the use of these indicators at national level, it might also be useful to complement them with more detailed information about the energy efficiency of cars.

What is the policy relevance of the indicator?

The consumption of energy by transport activities is an important determinant of the transport sector's contribution to air pollution. World-wide, the transport sector consumes more than 60 per cent of oil products, which constitute about 98 per cent of transport energy use. The structure of energy consumption by transport is directly related to the composition of pollutant emissions. Changes in the fuel quality accompanying the introduction of road vehicles equipped with three-way catalytic converters further influence the level and composition of exhaust emissions.

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"/>

Financing and redistribution for cohesion

Dimension - Enlargement

Associated Key Factor:

Regional policy (ENL)

Data Source:

European Commission

Data is available in various annual reports of the before mentioned programmes.

<http://europa.eu.int/comm/enlargement/pas/phare/programmes/index.htm>

europa.eu.int/comm/index_en.htm

General Availability:

Reporting unit: monetary values

Reporting level: national and at project level

Reporting period: annually

Data available from 1990 to 2002

The indicator:

In order to help the countries that have applied to become members of the European Union to carry out the reforms required, the Union is providing financial assistance in different areas.

Description

This indicator includes the following financial instruments for pre-accession - PHARE (Poland and Hungary Assistance to Economic Restructuring); ISPA (Instrument for Structural Policies for preaccession) As far as the candidates from central and eastern Europe are concerned, these include institutional building measures through the 'Phare' programme; environment and transport investment support under the ISPA programme; and agricultural and rural development support by means of the SAPARD' programme. The applicants from the Mediterranean region, i.e. Malta, Cyprus and Turkey receive support via different budgets, which you can learn about in this section. Information on cofinancing with the International Financial Institutions (IFIs) is also available. (http://europa.eu.int/comm/enlargement/financial_assistance.htm)

How is it measured?

Grants decided and globally committed by the European Commission in the field of external aid are subject to an annual work programme adopted by the Commission.

What is the policy relevance of the indicator?

Regional policy and transport policy.

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"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Flow OD

Dimension - Transport

Associated Key Factor:

Regional distribution of transport networks

Data Source:

EUROSTAT, COMEXT

Eurostat database COMEXT in NSTR

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product>

<http://www.eu-datashop.de/datenba/EN/thema6/knverz.htm>

General Availability:

Reporting unit: tons and value (1000 Euros)

Reporting level:

Reporting period: annually

Data available from to

The indicator:

This indicators concerns flow of goods in NSTR.

Description

This indicator allows to have an idea of the degree of development of an economy. If the country exchanges more raw than technological products it allows to describe the nature of its economy.

How is it measured?

Data are collected through the system INTRASTAT for the European Commission and at national level through the companies declarations (each month) and from VAT declaration (quarterly). For the extra EU data through the DAU (Unique Administrative document).

What are the advantages of the indicator?

Allows to measure the economic activity in a region or country.

What are the disadvantages of the Indicator?

The quality of the collection of data, lack of homogeneity of the data makes it difficult to use without any other data support.

What is the policy relevance of the indicator?

It is an element which helps policy makers to elaborate their transport policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Flows OD transalpine flow

Dimension - Transport

Associated Key Factor:

Regional distribution of transport networks

Data Source:

Trans-Alpine Freight Transport Survey

A comparative survey on the CAFT for 1994-1999 will be published by the ALP-NET network in the course of 2004. This will be available for downloading at the above address.

www.alp-net.org

<http://www.iccr-international.org/alp-net/>

General Availability:

Reporting unit: traffic freight flows
Reporting level: Alpine countries
Reporting period: every 5 years
Data available from 1994 to 1999

Availability by country:

1994 - 1994: Austria
1994 - 1994: Switzerland
1994 - 1994: France
1999 - 1999: Austria
1999 - 1999: Switzerland
1999 - 1999: France

The indicator:

Transalpine exchange region to region in NST

Description

Cross Alpine Freight Transport (CAFT) is part of a larger survey which concerns transit road flows through France. These data are combined with railways data. It has been decided to use this large survey to focus on flows which cross natural barriers as Alps and Pyrenees. CAFT fits into the mechanism of harmonised observation created with Austrian and Swiss transport ministries.

How is it measured?

In the case of road transport information is collected through automatic road counts and toll statistics. Information on railways is supplied by railway companies and operators. Missing information is supplemented through a survey of truck drivers through the area.

What are the advantages of the indicator?

The first comparative survey and information database on trans-Alpine transport flows.

What are the disadvantages of the Indicator?

Italy does not as of yet participate in the CAFT survey.

What is the policy relevance of the indicator?

Of relevance for transport, environmental and economic (tourism) policies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Freight Commercial Traffic of Railways

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

International Railway Union

http://www.uic.asso.fr/d_stats/liste/liste_comp_en.html

www.uic.asso.fr/

General Availability:

Reporting unit: tons and tons-km

Reporting level: National

Reporting period: annually

Data available from 1970 to 2002

Availability by country:

1970 - 2002: EU-15+AC

The indicator:

Amount of commercial traffic of freight transported by railways in tons and tons-km

How is it measured?

Data is reported on a monthly basis from railway companies to the national statistical bureaus.

What is the policy relevance of the indicator?

EU transport policy put a strong stress on the necessity to reequilibrate the modal share in favour of other modes than road, and rail can benefit from this policy.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Freight transport on national network - Inland Waterways (IWW)

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the Transport Sector
1970 - 2001 (annual publication)

<http://www1.oecd.org/cem/pub/pubann.htm> - Trends

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: tonnes-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2002

Availability by country:

1970 - 2002: EU-27

The indicator:

Flows of goods transported in a country during the reference year. The data are given in ton-km

Description

It is used to establish the volume of traffic which is transported by inland waterways by economic activity / commodity.

How is it measured?

It is collected yearly by the Ministries of Transport of ECMT countries.

What are the advantages of the indicator?

Wide geographical scope / coverage (EU-27, CIS, Asian Republics).

What are the disadvantages of the Indicator?

Data is not available at regional level. This makes the modelling of flows at the network level difficult.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Freight transport on national network - pipelines

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the Transport Sector 1970 - 2001 (annual publication)

<http://www1.oecd.org/cem/pub/pubann.htm> - Trends

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: tonnes km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2002

Availability by country:

1970 - 2002: EU-27

The indicator:

It describes the flows of goods transported in a country by pipelines during the reference year. The data are given in ton-km

Description

It is used to establish the volume of goods / traffic that is transported by pipelines by economic activity / commodity.

How is it measured?

It is collected yearly from the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical scope / coverage (EU-27, CIS, Asian Republics)

What are the disadvantages of the Indicator?

Data is not available at the regional level. This makes the modelling of flows at the network level difficult.

What is the policy relevance of the indicator?

As above.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Freight transport on national network - rail

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the Transport Sector 1970-2001 (annual publication)

<http://www1.oecd.org/cem/pub/pubann.htm> - Trends

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: tonnes-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2002

Availability by country:

1970 - 2002: EU-27

The indicator:

Flows of goods transported by rail in a country during the reference year. The data are given in ton-km

Description

Used to establish the volume of goods / traffic transported by rail by economic activity / commodity.

How is it measured?

It is collected yearly by the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical scope / coverage (EU-27, CIS, Asian Republics)

What are the disadvantages of the Indicator?

Data is not available at the regional level. This makes the modelling of flows at network level difficult.

What is the policy relevance of the indicator?

As above.

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"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Freight transport on national network - road

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the Transport Sector 1970 - 2001 (annual publication)

<http://www1.oecd.org/cem/pub/pubann.htm> - Trends

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: tonnes-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2002

Availability by country:

1970 - 2002: EU-27

The indicator:

Describes the flows of goods transported by a road in any given country during the reference year. The data are given in ton-km

Description

Used to establish the volume of road traffic by economic activity / commodity.

How is it measured?

Collected yearly by the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical scope and coverage (EU-27, CIS, Asia)

What are the disadvantages of the Indicator?

Data is not available at regional level. This reduces their usefulness for modelling and the production of O-D matrixes.

What is the policy relevance of the indicator?

As above.

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"/>

Freight transport on national network - total

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the Transport Sector (1970-2002) annual publication

<http://www1.oecd.org/cem/stat/transport/index.htm>

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: tonnes-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2002

Availability by country:

1970 - 2001: EU-27

1980 - 2001: Austria

1980 - 2001: Belgium

1980 - 2001: Bulgaria

1980 - 2001: Czech Republic

1980 - 2001: Germany

1980 - 2001: Denmark

1980 - 2001: Estonia

1980 - 2001: Spain

1980 - 2001: EU-15+AC-avg

1980 - 2001: EU-15-avg

1980 - 2001: Finland

1980 - 2001: France

1980 - 2001: Greece

1980 - 2001: Hungary

1980 - 2001: Ireland

1980 - 2001: Italy

1980 - 2001: Lithuania

1980 - 2001: Luxembourg

1980 - 2001: Latvia

1980 - 2001: Netherlands

1980 - 2001: Poland

1980 - 2001: Portugal

1980 - 2001: Romania

1980 - 2001: Sweden

1980 - 2001: Slovenia

1980 - 2001: Slovak Republic

1980 - 2001: United Kingdom

The indicator:

Describes the flows of goods transported in a country during the reference year. The data are given in ton-km. The total includes international water ways, pipe, rail and road.

Description

Used to establish the volume of total traffic by mode and commodity type.

How is it measured?

It is collected yearly by the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical scope and coverage of database (EU-27, CIS, Asia)

What are the disadvantages of the Indicator?

Data is not available at the regional level. This makes their direct use in the modelling of flows and O-D matrixes difficult.

What is the policy relevance of the indicator?

As above.

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"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GDP growth per sector

Dimension - Economics

Associated Key Factor:

GDP growth and distribution

Data Source:

Eurostat New Chronos

<http://www.eu-datashop.de/datenba/EN/thema1/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: change in monetary values

Reporting level: national

Reporting period: annually

Data available from 1995 to 2002

Availability by country:

1995 - 2002: EU-15

1995 - 2002: Member States (EU-15)

The indicator:

The calculation of the annual growth rate of GDP for the different sectors at constant prices is intended to allow comparisons of the dynamics of economic development both over time and between economies of different sizes, irrespective of price levels. The Indicator differentiates between the following sectors: agricultural, industry, services.

How is it measured?

Based on national accounts. National accounts are based on ES 95 (see data quality of this indicator for reference).

The economy is usually divided in two ways for the purpose of analysis.

— By institutional sector, i.e. legal entities such as households, government, companies, etc.

The sectors follow the nomenclature shown in ESA 95, Attachment IV.

— By branch of activity, i.e. homogeneous units of production like agriculture, fishing, chemicals, etc.

The branches follow NACE Rev. 1, the new version of the NACE classification, the statistical classification of economic activities in the European Community (the European Union since 1994). The acronym NACE comes from the French 'nomenclature des activités conomiques dans la Communauté européenne'. (Eurostat yearbook: 2003)

Data are expressed as growth rates in percent. They are derived from data expressed in Euro (ECU before 1999).

What are the disadvantages of the Indicator?

To investigate the linkages between transport and the rest of the economy, the individual sectors' dependence on transport-driven demand have to be analyzed.

How can the amount of transport services each sectors consumes directly and indirectly be measured?

What is the policy relevance of the indicator?

Structural change and organisational and technological development can be fostered by policies and therefore take influence in the development of transport.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trends regarding renewable energy source (RES) and rational use of energy (RUE)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Gini coefficient

Dimension - Social Developments

Associated Key Factor:

Inequality and Social Exclusion

Data Source:

Luxembourg Income Study

See various working papers of the Luxembourg Income Study, www.lisproject.org/publications

Luxembourg & University of Syracuse, USA

<http://www.lisproject.org/keyfigures/ineqtable.htm>

<http://www.lisproject.org/keyfigures/ineqtable.htm>

General Availability:

Reporting unit: Household

Reporting level: National

Reporting period: regularly

Data available from 1980 to 2000

Availability by country:

1980 - 1990: Spain

1981 - 2000: Germany

1981 - 1994: France

1981 - 2000: Sweden

1983 - 1994: Netherlands

1985 - 1997: Belgium

1985 - 1994: Luxembourg

1986 - 1995: Italy

1986 - 1999: Poland

1986 - 1998: United Kingdom

1987 - 1997: Austria

1987 - 1997: Denmark

1987 - 2000: Finland

1987 - 1996: Ireland

1991 - 1999: Hungary

1992 - 1996: Czech Republic

1992 - 1996: Slovenia

1992 - 1996: Slovak Republic

1995 - 1997: Romania

2000 - 2000: Estonia

The indicator:

The Gini coefficient (GC) is one of most widely used indicator of income inequality.

Description

The Gini coefficient may be expressed as a proportion or as a percentage. The Gini coefficient will be equal to 0 when the distribution is completely egalitarian. If the society's total income accrues to only one person/household unit, leaving the rest with no income at all, then the Gini coefficient will be equal to 1, or 100%

How is it measured?

Households are first ranked from lowest to highest according to income level. The Gini index incorporates these detailed shares into a single statistic.

What are the advantages of the indicator?

The Gini coefficient is based on the mean of the income distribution. This means it implicitly gives a higher weight to the middle income classes. This makes it more resistant against the underestimation of very high and very low income earners.

What are the disadvantages of the Indicator?

For the same attributes as above, the Gini coefficient has been criticised as tending to underestimate the amount of inequality (because of the lower weights for values on the edge of the distribution).

What is the policy relevance of the indicator?

As the Gini Coefficient measures the extent of income inequality it is widely used for social policy analysis to provide information on the redistributive effect of taxation and other governmental distributive means.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Valorization of time and speed and daily mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Valorization of time and speed and tourism/business travel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Changing household structures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input 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"/>

Government expenditure on social protection

Dimension - Social Developments

Associated Key Factor:

Social policy and cohesion standards

Data Source:

Eurostat

Population and Social conditions department. This data is provided in the EUROSTAT yearbook 2002 which can be purchased for €40. Available in English, French and German. Includes CD-ROM

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http://www.eu-datashop.de/veroeffe/EN/thema1/jahrb_03.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Expenditures as % of GDP

Reporting level:

Reporting period: regularly
Data available from 1980 to 1999

Availability by country:

1980 - 1999: EU-15

1980 - 1999: EU-15-avg

1980 - 1999: Member States (EU-15)

The indicator:

Expenditure on social protection includes expenditure on sickness/health care, disability, old age, survivors, family/children, unemployment, housing, and social exclusion not excluded elsewhere.

Description

Provides information about the welfare regime of a country

How is it measured?

Social protection encompasses all interventions from public or private bodies intended to relieve households and individuals of the burden of a defined set of risks or needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved. The social benefits are payments for old age, survivors, family/children, sickness/health care, unemployment, disability, housing and social exclusion. These payments could be in cash or kind. Payments in cash do not require evidence of actual expenditure while benefits in kind are reimbursements in the form of goods or services. Payments in cash are pensions, paid sick leave, parental leave benefit, family allowance etc. Benefits in kind are like reimbursements for health care, funeral expenses, child care housing allowances etc.

What are the disadvantages of the Indicator?

Interpretations of this indicator differ depending on whether one focuses on financial aspects or on social integration aspects.

What is the policy relevance of the indicator?

Social policy / Economic policy

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Gross Domestic Expenditure on RD

Dimension - Science & Technology

Associated Key Factor:

Research and Development

Data Source:

Eurostat New Chronos

<http://europa.eu.int/comm/eurostat/structuralindicators>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: annually

Data available from 1980 to

Availability by country:

1980 - 2002: EU-15

1980 - 2002: Member States (EU-15)

The indicator:

Total amount of expenditures on research and development.

Description

Total expenditure on R&D (GERD) is composed of: Business enterprise expenditure in R&D (BERD), Higher Education expenditure in R&D (HERD), Government expenditure in R&D (GOVERD) and Private Non-profit expenditure in R&D (PNRD).

How is it measured?

Data for EEA and Candidate countries are collected through the Annual Eurostat R&D questionnaires. Data on GERD by source of funds for EEA countries and data for Japan and the US are provided to Eurostat by the OECD. (source: MSTI 2003/2)

What are the advantages of the indicator?

The indicator shows technological innovation and diffusion of new technologies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Gross Value Added (GVA)

Dimension - Enlargement

Associated Key Factor:

Economic convergence (ENL)

Data Source:

Eurostat New Chronos

<http://europa.eu.int/comm/eurostat/PUBLIC/datashop>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit:

Reporting level:

Reporting period: regularly

Data available from to

Data Source:

Eurostat

Eurostat yearbook 2003, The statistical guide to Europe - Data 1991-2001

Paper publication (± 330 pages) + CD-ROM, 50.00 EUR
Catalogue No: KS-CD-02-001-EN-C

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<http://europa.eu.int/comm/eurostat/PUBLIC/datashop/print-product/EN?catalogue=Eurostat&product=yearbook03-EN&file=ind.html>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: monetary values

Reporting level: national and regional

Reporting period: regularly

Data available from 1991 to 2001

Availability by country:

1991 - 2001: EU-15

1991 - 2001: Member States (EU-15)

1995 - 2000: Cyprus

1995 - 2000: Lithuania

1995 - 2000: Latvia

1995 - 2000: Malta

1995 - 2000: Slovenia

The indicator:

Gross value added is recorded at basic prices. It is the net result of output valued at basic prices less intermediate consumption valued at purchasers' prices (ESA 95, 9.23). Gross value added at current basic prices and current exchange rates.

Description

The basic price is the price receivable by the producers from the purchaser for a unit of a good or service produced as output minus any tax payable on that unit as a consequence of its production or sale (i.e. taxes on products), plus any subsidy receivable on that unit as a consequence of its production or sale (i.e. subsidies on products). It excludes any transport charges invoiced separately by the producer. It includes any transport margins charged by the producer on the same invoice, even when they are included as a separate item on the invoice (ESA 95, 3.48).

How is it measured?

Based on national accounts. National accounts are based on ESA 95 (see data quality of this indicator for reference).

The economy is usually divided in two ways for the purpose of analysis.

— By institutional sector, i.e. legal entities such as households, government, companies, etc.

The sectors follow the nomenclature shown in ESA 95, Attachment IV.

— By branch of activity, i.e. homogeneous units of production like agriculture, fishing, chemicals, etc.

The branches follow NACE Rev. 1, the new version of the NACE classification, the statistical classification of economic activities in the European Community (the European Union since 1994). The acronym NACE comes from the French 'nomenclature des activités économiques dans la Communauté européenne'. (Eurostat yearbook: 2003)

What are the advantages of the indicator?

It is a standard indicator to describe the economic situation of a country.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Human Resources in Science and Technology (HRST)

Dimension - Science & Technology

Associated Key Factor:

Technological innovation

Data Source:

Eurostat New Chronos

<http://www.eu-datashop.de/datenba/EN/thema9/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Individual

Reporting level: national

Reporting period: annually

Data available from 1990 to 2002

Availability by country:

1990 - 2002: EU-15+AC

The indicator:

People trained for and working in the field of science and technology.

How is it measured?

Employment figures collected by survey.

What are the disadvantages of the Indicator?

The classification 'Science and Technology' can be rather ambiguous and present difficulty of categorizing interdisciplinary employment groups. The innovative

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Data Source:

United Nation Development Programm

http://www.undp.org/hdr2003/indicator/indic_108_1_1.html

<http://undp.org>

General Availability:

Reporting unit:

Reporting level: national

Reporting period: annually

Data available from 2003 to

Availability by country:

0 - 2003: EU-15+AC

1994 - 2003: EU-15+AC

International trade in service

Dimension - Enlargement

Associated Key Factor:

Economic convergence (ENL)

Data Source:

World Trade Organization

http://www.wto.org/english/res_e/status_e/status_e.htm

<http://www.wto.org>

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: yearly

Data available from 1980 to 2002

Availability by country:

1980 - 2002: EU-27

The indicator:

Developments of international trade in services at aggregate level, broken down by country, region and economic grouping.

How is it measured?

Based on national accounts. (for details see: System of National Accounts 1993 and the fifth edition of the International Monetary Fund's Balance of Payments Manual).

What are the advantages of the indicator?

The level of trade in services gives direct insight on the intensity of economic ties between countries and regions.

What are the disadvantages of the Indicator?

The indicator does not differentiate the used mode of transport.

What is the policy relevance of the indicator?

Trade has to respect some rules fixed in international agreement as World Trade Organisation.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Internet users per 1000 people

Dimension - Science & Technology

Associated Key Factor:

Extent to which technological changes revolutionize the way we live, trade, are mobile & produce

Data Source:

United Nation Development Programm

http://www.undp.org/hdr2003/indicator/indic_103_1_1.html

<http://undp.org>

General Availability:

Reporting unit: Individual

Reporting level: national

Reporting period: annually

Data available from 1990 to 2002

Availability by country:

1990 - 2003: EU-15+AC

The indicator:

Number of internet users per 1000 inhabitants

How is it measured?

Aggregates calculated on the basis of surveys by the World Bank.

What are the advantages of the indicator?

The number of internet users includes people who do not have access to the internet in their homes and use the access in schools, libraries, work etc. It therefore gives a more accurate picture on the number of people engaging with the technology and its content.

What are the disadvantages of the Indicator?

Doesn't give a profile of the user (education, sex, age etc.) or the type of use (work, shopping, entertainment, etc.)

What is the policy relevance of the indicator?

Internet users gives an implications for the developmental status of a country and social exclusion. It is used for the analysis of the Human Development Report.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Intra-EU trade per country

Dimension - Economics

Associated Key Factor:

Trade patterns

Data Source:

EUROSTAT, COMEXT

http://www.eu-datashop.de/datenba/EN/allgem/infoda_1.htm

<http://www.eu-datashop.de/datenba/EN/thema6/knverz.htm>

General Availability:

Reporting unit: million EUR

Reporting level: national

Reporting period: monthly

Data available from 1980 to 2000

Availability by country:

1988 - 2000: EU-15

1988 - 2000: Member States (EU-15)

1995 - 2000: Accession Countries

The indicator:

Illustrates the volume of imports and exports per country in the European Union of on intra-EU trade. The imports of a country gives information on the degree of integration of this particular economy and about its relative economic prosperity within Europe. It also gives information of the regional distribution of growth and economic activity

How is it measured?

Is measured in the sum of value FOB of products exported in Million/EUR collected by national trade institutions.

What are the disadvantages of the Indicator?

Since the indicator does not discriminate the different products traded. It is difficult to draw direct conclusions on the impact of imports on transport. A discrimination between products would offer the possibility to also take the various affinities of products to certain transport modes.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Land take by transport infrastructure

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Eurostat

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<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Hectares per km²

Reporting level: national and cities

Reporting period: every 10 years

Data available from 1998 to

Availability by country:

1998 - : EU-15+AC-13

The indicator:

Fragmentation of Land due to the expansion of transport infrastructure networks and the continuous growth in traffic, poses an important threat to biodiversity from direct impacts from proximity and disturbance, and by fragmenting and isolating habitats and creating barriers to wildlife (TERMS 2002).

Description

Land transportation systems are a cause of habitat fragmentation, the disruption of wildlife habitats and their division into smaller area (van Bohemen). Habitat fragmentation has four components. First, transportation lines cause direct destruction of habitat by replacing it with roads, rails, or other infrastructure. Second, a transport right-of-way will disturb adjacent habitat through chemical pollution, noise, light, or other impacts. Third, the right-of-way creates a barrier separating functional areas within a habitat. Many plants or animals will not cross such a barrier, so a road can have the effect of cutting their ecosystem in two. Ecosystem species diversity is a function of the total size of the area of uninterrupted habitat; thus dividing an area with a road could cut diversity in half rather than reducing it only by the actual area used by the road. Fourth, a transport right-of-way can lead to direct collisions between animals and moving vehicles.

How is it measured?

Direct and indirect land take by transport infrastructure is based on average land take estimates using infrastructure statistic data (see table 1). Estimates for motorways and high-speed train lines (based on assumptions about the number of lanes or tracks and their average width) may be of variable quality, for example they may not take account of associated facilities such as garages, filling stations and parking areas. Land take by transport infrastructure in urban areas is based on figures for 1950s and 1990s produced in MURBANDY project: land cover mapping for monitoring urban dynamics done for 25 European agglomerations. More about methodology used in MURBANDY can be found on / and (TERM 2002) The importance of road, rail lines, or pipelines as sources of habitat fragmentation will be related to their length and width and to the habitats through which they pass. Direct habitat loss, externalities like pollution and noise, and road kill will be directly affected by the volume of traffic and width of the road. Measures are available to minimise these impacts, by designing infrastructure such as roads and road barriers so as to minimise pollution or light, and so on. These problems are somewhat analogous to the water pollution problems discussed above, in that it may be possible, although difficult, to relate their growth to increased freight use.

What are the disadvantages of the Indicator?

The creation of barriers which divide ecosystems is much harder both to analyse and to manage. Moreover, the importance of such barriers is very much related to the nature of the surrounding environment. A road or rail line running through an urban area is not likely to cause ecosystem harm, since the area is already not in a natural state. Roads through sensitive areas like the Alps, or protected forest areas in the United States, however, can cause significant ecological harm. A rigorous analysis of the impact of different transport modes on land use and habitat fragmentation would require detailed knowledge of local ecology and land use patterns. Even with such information about particular ambient conditions, it is will be hard to establish a direct correlation with increased goods transport. (OECD 1997)

What is the policy relevance of the indicator?

The common transport policy (CTP) advocates an optimal use of existing infrastructure before creating new ones, partly to minimise land taken for transport infrastructure (European Commission, 2001).

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

Length of transport networks by country

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

Eurostat

Panorama of transport - Statistical overview of road, rail, inland waterways and air transport in the European Union - Data 1970-2000; Published 2002.

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<http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat&theme=7-Transports>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Mode

Reporting level: Country

Reporting period: regularly

Data available from 1970 to 2000

Availability by country:

1970 - 1998: EU-15

1970 - 1998: Member States (EU-15)

The indicator:

Km of infrastructures by mode

Description

Modes are: road, rail, inland waterways and air.

Example: km of road infrastructure; km of railway tracks.

How is it measured?

Length of roads, railway tracks, air corridors and inland waterways as reported by infrastructure providers (in the case of road / rail) or operators (in the case of inland waterways and air).

What are the advantages of the indicator?

Standard indicator for describing the transport network at the country level or that of a specific set of links.

What are the disadvantages of the Indicator?

Length on its own is not enough to assess network quality. A series of technical characteristics must be collected and assessed in addition.

What is the policy relevance of the indicator?

As above.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Length/time in office

Dimension - Politics

Associated Key Factor:

Extent and scope of issue-based politics

Data Source:

Publication

Woldendorp et al (1993) Handbook of Democratic Government, Kluwer: Dodrecht

Refer to publisher details at indicator level

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Average length in time a particular leader of a country has been in office (length of survival).

How is it measured?

Studies of days and years of specific individuals terms in office.

What are the disadvantages of the Indicator?

Data only exists on selected examples.

What is the policy relevance of the indicator?

The longer time in office the more of the policies will be put in action. The more upheaval in government with short turn over times will mean that issues and policies will not be implemented before the next person comes in who may have other targets and beliefs.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Life expectancy of females at birth

Dimension - Demographics

Associated Key Factor:

Life expectancy

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

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[www.europa.eu.int/comm/eurostat](http://europa.eu.int/comm/eurostat)

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: years

Reporting level:

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2001: EU-27

The indicator:

Life expectancy measured in years for females from birth.

Description

Along with the age structure, this indicator taps on the critical factor 'ageing' of society.

How is it measured?

Information is taken from national statistical offices using census data. Usually the numbers are estimates based on census round of 1990/91 and the applying the component method.

What are the disadvantages of the Indicator?

As with much demographic data, accession countries don't have continuous data. Some countries, especially Bulgaria and Cyprus only have data over a series of years meaning that frequently there is no accurate EU-27 average.

What is the policy relevance of the indicator?

Along with other population variables, this indicator taps on the dynamics of demographic changes which impact on a range of policies besides transport, including health and pension policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Life expectancy of females from 65

Dimension - Demographics

Associated Key Factor:

Life expectancy

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

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[www.europa.eu.int/comm/eurostat](http://europa.eu.int/comm/eurostat)

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: years

Reporting level:

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2001: EU-27

The indicator:

Life expectancy calculated in years from the age of 65 for females.

Description

Along with the age structure, this indicator taps on the critical factor 'ageing' of society.

How is it measured?

Information is taken from national statistical offices using census. Usually the numbers are estimates based on census round of 1990/91 and the applying the component method.

What are the disadvantages of the Indicator?

As with much demographic data, accession countries don't have continuous data. Some countries, especially Bulgaria and Cyprus only have data over a series of years meaning that frequently there is no accurate EU-27 average.

What is the policy relevance of the indicator?

Along with other population variables, this indicator taps on the dynamics of demographic changes which impact on a range of policies besides transport, including health and pension policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Life expectancy of males at 65

Dimension - Demographics

Associated Key Factor:

Life expectancy

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

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[www.europa.eu.int/comm/eurostat](http://europa.eu.int/comm/eurostat)

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: years

Reporting level:

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2001: EU-27

The indicator:

Life expectancy calculated in years from the age of 65 for males.

Description

Along with the age structure, this indicator taps on the critical factor of 'ageing' of society.

How is it measured?

Information is taken from national statistical offices using census data. Usually the numbers are estimates based on census round of 1990/91 and the applying the component method.

What are the disadvantages of the Indicator?

As with much demographic data, accession countries don't have continuous data. Some countries, especially Bulgaria and Cyprus only have data over a series of years meaning that frequently there is no accurate EU-27 average.

What is the policy relevance of the indicator?

Along with other population variables, this indicator taps on the dynamics of demographic changes which impact on a range of policies besides transport, including health and pension policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Life expectancy of males at birth

Dimension - Demographics

Associated Key Factor:

Life expectancy

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

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[www.europa.eu.int/comm/eurostat](http://europa.eu.int/comm/eurostat)

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: years

Reporting level:

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2001: EU-27

The indicator:

Life expectancy measured in years for males from birth.

Description

Along with the age structure, this indicator taps on the critical factor of 'ageing' of society.

How is it measured?

Information is taken from national statistical offices using census data. Usually the numbers are estimates based on census round of 1990/91 and the applying the component method.

What are the disadvantages of the Indicator?

As with much demographic data, accession countries don't have continuous data. Some countries, especially Bulgaria and Cyprus only have data over a series of years meaning that frequently there is no accurate EU-27 average.

What is the policy relevance of the indicator?

Along with other population variables, this indicator taps on the dynamics of demographic changes which impact on a range of policies besides transport, including health and pension policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Long-term unemployment rate

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Eurostat

Eurostat Statistics, REGIO, General Statistics of the New Cronos Database. See also: Regions; Statistical Yearbook 2003, European Communities 2003

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http://www.eu-datashop.de/datenba/EN/allgem/infoda_1.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: individual

Reporting level: NUTS1 to NUTS3

Reporting period: annually

Data available from 1985 to 2002

Availability by country:

1987 - 2002: Austria
 1987 - 2002: Belgium
 1987 - 2002: Germany
 1987 - 2002: Denmark
 1987 - 2002: Spain
 1987 - 2002: EU-15-avg
 1987 - 2002: Finland
 1987 - 2002: France
 1987 - 2002: Ireland
 1987 - 2002: Italy
 1987 - 2002: Luxembourg
 1987 - 1990: Netherlands
 1987 - 2002: Portugal
 1987 - 2002: Sweden
 1987 - 2002: United Kingdom
 1990 - 2002: Greece

The indicator:

Total long term unemployed (over 12 months) as a percentage of active population aged 15-64.

Description

Unemployment rates reflect the situation and development of the labour market. They also depicts the general economic situation in a country or region.

How is it measured?

Unemployed persons are those aged at least 15 years not living in collective households who are without work but available to start work within the next two weeks and who are seeking work . This is divided by the total active population which is the total number of employed and unemployed population. The duration of employment is defined as the duration of a search for a job or as the length of the period since the last job was held. Where this duration is equal or exceeds 12 months we speak of long-term unemployment.

What are the advantages of the indicator?

Easy self-definition which is independent of registration at the Labour Office.

What are the disadvantages of the Indicator?

ILO / LFS / Eurostat definitions do not always coincide with national definitions

What is the policy relevance of the indicator?

Relevant for social, economic, labour market and regional policy. One of the Laeken indicators of the European social policy agenda

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Migration and seasonal mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibility in working hours	<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"/>

Maritime freight

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

ISL Shipping statistics and Market Review - SSMR

Shipping Statistics and Market Review. A Journal of the Institute of Shipping Economics and Logistics (ISL), now in its 47 volume of publication.

<http://www.isl.org>

www.isl.org/

General Availability:

Reporting unit:

Reporting level:

Reporting period: monthly

Data available from to

The indicator:

Shipping, cargo and container traffic in ports

Description

The data on shipping, cargo and container traffic concern more than 300 leading world ports for the years 1997-2001

How is it measured?

Statistical surveys on ship and goods traffic in selected ports worldwide with a special focus on container traffic and transit traffic volume on the world ship canals. Available for 300 leading world ports.

What is the policy relevance of the indicator?

As above.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Materialism/Post Materialism Index

Dimension - Attitudes

Associated Key Factor:

Attitude to material goods

Data Source:

World Values Survey

Inglehart, R. (1997) Modernization and Post-Modernization: Cultural, Economic and Political Change in 43 Countries. Princeton: University Press.

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

General Availability:

Reporting unit: Individual

Reporting level: National

Reporting period: every 10 years

Data available from 1980 to 2001

Availability by country:

1981 - 1999: Belgium

1981 - 1995: Germany

1981 - 1999: Denmark

1981 - 1999: Spain

1981 - 1999: Finland

1981 - 1999: France

1981 - 1995: Hungary

1981 - 1999: Ireland

1981 - 1999: Italy

1981 - 1999: Netherlands

1981 - 1999: Sweden

1981 - 1999: United Kingdom

1990 - 1999: Austria

1990 - 1999: Bulgaria

1990 - 1995: Switzerland

1990 - 1999: Czech Republic

1990 - 1999: Estonia

1990 - 1999: Lithuania

1990 - 1999: Latvia

1990 - 1999: Portugal

1990 - 1999: Romania

1990 - 1999: Slovenia

1999 - 1999: Greece

The indicator:

The materialism / postmaterialism index taps on the extent to which in a society there is more emphasis granted on material goods as opposed to post-material goods.

Description

Materialism is in this case understood as concern for economic and personal security as measured by economic growth, income, job security, etc. Post-materialism taps on concerns for the quality of life as reflected in increased social and democratic participation and environmental concerns.

How is it measured?

Developed on the basis of a battery of items (attitudinal questions) deriving from the World Values Survey. Relevant questions taken into account include values with regard to the bringing up of children; job-related values / concerns; priorities for one's own country; assessment of democratic institutions; environmental concerns.

The index is constructed on the basis of individual answers to the above questions, confirmatory factor analysis and scores elaborated at the individual level and then aggregated at the country level and/or explored by basic socio-economic categories (like education, socio-economic status, religion, etc.)

What are the advantages of the indicator?

The World Values Survey launched for the first time in 1981 and repeated since in 1990, 1995 and 1999-2001 has in the meantime been extended to over 60 countries. Thus it provides a rich comparative source of information on values and attitudes and how these develop / change over time around the world.

What are the disadvantages of the indicator?

The earlier databases covered only 9 countries of the enlarged European Union.

What is the policy relevance of the indicator?

Trends to post-materialism have been associated with economic growth and prosperity and as leading to greater emphasis for democracy and the environment, hence also for institutional reforms towards deliberative democracy, environmental policy and sustainable development.

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

		Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
1981 - 1999: Belgium	Valorization of time and speed and daily mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1981 - 1995: Germany	Valorization of time and speed and tourism/business travel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1981 - 1999: Denmark	Environmental concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1981 - 1999: Spain	More openness and participation in decision-making	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1981 - 1999: Finland	Trends regarding renewable energy source (RES) and rational use of energy (RUE)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1981 - 1999: France	Conflicts on land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1981 - 1995: Hungary					
1981 - 1999: Ireland					
1981 - 1999: Italy					
1981 - 1999: Netherlands					
1981 - 1999: Sweden					
1981 - 1999: United Kingdom					
1990 - 1999: Austria					
1990 - 1999: Bulgaria					
1990 - 1995: Switzerland					
1990 - 1999: Czech Republic					
1990 - 1999: Estonia					
1990 - 1999: Lithuania					
1990 - 1999: Latvia					
1990 - 1999: Portugal					
1990 - 1999: Romania					
1990 - 1999: Slovenia					
1999 - 1999: Greece					

Migration

Dimension - Demographics

Associated Key Factor:

Migration flows

Data Source:

Eurostat New Chronos

Eurostat yearbook 2003, The statistical guide to Europe - Data 1991-2001

Paper publication (± 330 pages) + CD-ROM, Catalogue No: KS-CD-02-001-EN-C; Eurostat books: European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=yearbook03-EN&file=ind.html>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: individual
Reporting level: national
Reporting period: annually
Data available from 1980 to 2001

The indicator:

Persons arriving or returning from abroad to take up residence in the country for a certain period, having previously been resident elsewhere. Describes immigration by sex and country of previous residence.

Description

According to the 1997 United Nations recommendations on statistics of international migration (Revision 1), such a person is a long-term immigrant if he/she stays in his/her country of destination for a period of 12 months or more, having previously been resident elsewhere for 12 months or more. (Eurostat Yearbook: 2003) However, few countries are able to supply statistics based on these definitions. The statistics shown in this volume are generally based on national definitions that may differ greatly from the UN recommendations. Not all countries collect immigration data, in those that do, data sources and the scope the collection vary. A few countries (e.g. France) exclude national citizens from immigration statistics.

The following categories are included:

Immigration of nationals
Immigration of other EU nationals
Immigration of non-EU nationals
Emigration of nationals
Emigration of other EU nationals
Emigration of non-EU nationals
Grants of refugee status
Population by citizenship. Nationals
Population by citizenship. Other EU nationals
Acquisition of citizenship

How is it measured?

Information is taken from national statistical offices using census'.

What are the disadvantages of the Indicator?

Not all EU Member States produce statistics on immigration and emigration. Although an estimation can be made of net migration for the EU, it is not possible to provide a complete picture of immigration and emigration flows for all Member States or for the EU as a whole. For more information, refer to the glossary entries 'Immigrants' and 'Emigrants'. (Eurostat Yearbook: 2003)

What is the policy relevance of the indicator?

This indicator, along with population growth, helps gauge the important issue of migration within the EU, and where it is most pertinent. Migration is also relevant for scenarios of future demographic developments.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Migration and seasonal mobility	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Migration policy and border control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Minimum income provisions

Dimension - Social Developments

Associated Key Factor:

Social policy and cohesion standards

Data Source:

Bureau of Democracy

Bureau of Democracy, Human Rights and Labour: Section on Worker Rights (Acceptable Conditions of Work)

<http://www.state.gov/g/drl/rls/hrrpt/2002/c8697.htm>

<http://www.state.gov/g/drl/rls/hrrpt/2002/c8697.htm>

General Availability:

Reporting unit: individual

Reporting level: country

Reporting period: regularly

Data available from to

Data Source:

US Department of State

www.state.gov/

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Provisions made in the law for minimum wages. The laws applicable are generally different for different industries

Description

It tells you the minimum wage in every country and if exists also in every industry. It is a good indicator to judge if minimum standards exist or not.

How is it measured?

Structural funds and cohesion funds form part of the regional policy of the European union. The structural funds are funds for special policy areas: a. 70% of the funding goes to the regions whose development is lagging behind, i.e. Objective 1 region; b. 11.5% of the funding assists economic and a social conversion in areas experiencing structural difficulties, i.e. Objective 2 region; c. 12.3% of the funding promotes modernisation of training systems & creation of employment, i.e. objective 3; d. four community initiatives that spend 5.3 % of the funding for structural funds. Cohesion funds on the other hand provide direct finance for specific projects related to environmental and transport infrastructure in the cohesion countries - Spain, Greece, Ireland & Portugal. The ISPA provides assistance along the same lines to the 10 CEEC which have applied for Union membership.

What are the disadvantages of the Indicator?

Minimum wages are often defined politically and/or in the framework of collective bargaining agreements and do not always provide a decent standard of living.

What is the policy relevance of the indicator?

Informs about the structure of labour market

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Mobile phone subscribers per 1000 people

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

United Nation Development Programm

http://www.undp.org/hdr2003/indicator/indic_101_1_1.html

<http://undp.org>

General Availability:

Reporting unit: Individual

Reporting level: national

Reporting period: annually

Data available from 1990 to 2003

Availability by country:

1990 - 2003: EU-15+AC

The indicator:

Number of subscriber to mobile telephone services

Description

Subscribers to an automatic public mobile telephone service, which provides access to the Public Switched Telephone Network (PSTN) using cellular technology.

How is it measured?

Surveys of mobile telephone service providers.

What are the disadvantages of the Indicator?

The frequent use of this indicator as a measure for relative wealth of a society must be treated with caution since mobile phones are sometimes the only communication options in areas that lack landline infrastructure. Therefore it benefits from being analyzed jointly with other indicators such as spreading of main telephone lines etc. Moreover, the indicator cannot give information on geographical distribution.

What is the policy relevance of the indicator?

It gives an implication on the relative wealth of a society and is used for the analysis of the Human Development Report.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Motor vehicle taxation in Europe

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Association of European Automobile Manufacturers

Tax Guide 2003

<http://www.acea.be/ACEA/20030506TaxGuide2003Extract1.pdf>

<http://www.acea.be/ACEA/index.html>

General Availability:

Reporting unit:

Reporting level:

Reporting period: yearly

Data available from to

The indicator:

Taxation of motor vehicles

How is it measured?

Annual data compiled by the Association of motor vehicle manufacturers.

What are the disadvantages of the Indicator?

Different tax systems make this indicator difficult to compare across countries.

What is the policy relevance of the indicator?

As above.

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

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

Net borrowing/lending of consolidated general government sector

Dimension - Enlargement

Associated Key Factor:

Economic convergence (ENL)

Data Source:

European Parliament

<http://europa.int.eu>

www.europarl.eu.int/

General Availability:

Reporting unit: %

Reporting level: national

Reporting period: annually

Data available from 1993 to 2002

The indicator:

The general government sector comprises the sub-sectors of central government, state government, local government, and social security funds. The indicator is calculated as the percentage of GDP.

How is it measured?

Public balance refers to the concept of general government net borrowing (-) /net lending (+) in the European System of Accounts (ESA95). The ESA95 methodology is referred to in Council Regulation 2223/96 and Council Regulation 2558/2001 amending Council Regulation 2223/96 as regards the reclassification of settlements under swaps arrangements and under forward rate agreements. The data are compiled according to the Protocol on the Excessive Deficit Procedure (EDP) annexed to the Treaty on European Union, and Council Regulations 3605/93 and 475/2000. The methodological framework is ESA95 and specific EDP provisions, supplemented by recommendations contained in the Eurostat Manual of government deficit and debt. Candidate Country data are also compiled according to the above methodology but must be considered provisional as they do not yet fully comply with it. Data for Iceland, US and Japan are broadly compatible with EU data, but are not produced in accordance with ESA95 or specific EDP provisions.

What is the policy relevance of the indicator?

The indicator is relevant for taxation and subsidisation policies.

Data Source:

Eurostat

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/PUBLIC/datashop/print-product/EN?catalogue=Eurostat&product=1-eb060-EN&mode=download>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: annually

Data available from 1993 to 2002

Availability by country:

1993 - 2002: EU-15

1993 - 2002: Member States (EU-15)

1998 - 2002: Accession Countries

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

New registrations of vehicles per year

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

Association of European Automobile Manufacturers

<http://www.acea.be/acea/U-1990-2000-Mar.xls>

<http://www.acea.be/ACEA/index.html>

General Availability:

Reporting unit: number of

Reporting level: national

Reporting period: monthly

Data available from 1990 to 2000

Availability by country:

1999 - 2002: EU-15

1999 - 2002: Member States (EU-15)

Data Source:

Eurostat

European Commission (2002)
Statistical Yearbook on Candidate
and South-east European countries,
Eurostat books

L-2920 Luxembourg

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Measures the number of newly registered cars in a country.

How is it measured?

Collected nationally by registration offices.

What are the disadvantages of the Indicator?

Figures on new registrations do not necessarily imply that older cars are replaced by new ones, as second-hand vehicles imported in a country may also be classified as new registrations.

What is the policy relevance of the indicator?

Relevant for policies regarding energy efficiency, emission standards and recycling standards in the transport sector.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Newspaper readership

Dimension - Politics

Associated Key Factor:

Political attitudes

Data Source:

The World Association of Newspapers.

World Press Trends

www.wan-press.org

www.wan-press.org/

General Availability:

Reporting unit:

Reporting level:

Reporting period: annually

Data available from 1995 to 2003

The indicator:

Average circulation of newspapers per 1000 adult population in different European countries

Description

Shows changes in newspaper readership over time.

How is it measured?

Figures collected by WAN (World Association of Newspapers) as reported by publishers.

What are the advantages of the indicator?

A worldwide database of newspapers in 180 countries over 5 continents. Data is easily comparable.

What is the policy relevance of the indicator?

With regard to political attitudes this indicator helps to gauge the role of the media in forming political attitudes.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
More openness and participation in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Non-fuel and fuel related taxes and charges: air pollution

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Association of European Automobile Manufacturers

ACEA, 2001, Motor vehicle taxation in Europe, Association des constructeurs européens d'automobiles, Brussels, Belgium.

<http://www.acea.be/ACEA/index.html>

<http://www.acea.be/ACEA/index.html>

General Availability:

Reporting unit:

Reporting level: national

Reporting period: annually

Data available from 2002 to

Availability by country:

2002 - : EU-15

2002 - : Member States (EU-15)

Data Source:

Boeing

<http://boeing.com/flash.html>

<http://boeing.com/flash.html>

General Availability:

Reporting unit:

Reporting level: national or at airport level

Reporting period: continuously

Data available from 2002 to

Availability by country:

2002 - : EU-15

2002 - : Member States (EU-15)

The indicator:

Gives an overview on the existing non-fuel and fuel related taxes and charges.

How is it measured?

This indicator is rather qualitative and is a collection form different sources, especially while observing more than one specific mode.

What are the advantages of the indicator?

Charges, taxes and tradable permits are theoretically the most efficient instruments — provided they can be implemented at modest cost and are closely related to the choice of mode of transport or travel — because they leave choices to individual transport users. Differentiated kilometre charges (for the internalisation of congestion, accident and environmental costs) and fuel taxes (for the internalisation of the costs of CO₂ emissions) are currently regarded as promising instruments on the road to internalisation. These include i.e. CO₂, noise/lead sulphur.

What is the policy relevance of the indicator?

For about 10 years, internalisation of external costs has been on the agenda of European transport and environment policy, and is increasingly accepted as a target for transport policy. The European Commission stressed this in three policy papers, the Green Paper on fair and efficient pricing (European Commission, 1995), the White Paper on fair payment for infrastructure use (European Commission, 1998), and the White Paper on the European transport policy for 2010 (European Commission, 2001). In the latter paper, it is announced that the Commission will launch in 2002 a proposal for a framework directive on the principles of infrastructure charging, on price structures, on a common methodology for setting price levels, and on the conditions of fair competition between transport modes (TERM 2002).

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

Data Source:

Publication

TRL Ltd et al., 2001, A study on the cost of transport in the European Union in order to estimate and assess the marginal costs of the use of transport, 3 vols, TRL Ltd/IWW/PTV/NEA/UFSIA, Crowthorne, October 2001.

Refer to publisher details at indicator level

General Availability:

Reporting unit:

Reporting level: national

Reporting period:

Data available from to

Number and use of time banks

Dimension - Institutional Arrangements

Associated Key Factor:

Civil society and participation

Data Source:

Information on time banks in the UK

www.timebanks.co.uk

www.timebanks.co.uk

General Availability:

Reporting unit: Time bank as such

Reporting level:

Reporting period:

Data available from to

The indicator:

'Number': as in indicator with reference to geographical field under examination. 'Use' established on the basis of number of persons using time banks as a share of total population of locality under question.

Description

Time banks are institutions where participants deposit their time by giving practical help and support to others and are able to withdraw their time when they need something done for themselves.

A time bank is a type of social innovation or experiment. These do not exist as of yet widely.

How is it measured?

'Head' count and analysis of use as stated under 'definition'.

What are the advantages of the indicator?

Assuming it is widely diffused, it can be used to benchmark innovation with regard to transport and mobility. In a context of low diffusion it is indicative of best practice.

What are the disadvantages of the Indicator?

This is a social innovation which only exists in some countries. Information is scarce.

What is the policy relevance of the indicator?

The emergence of time banks and other social innovations is indicative of changes in behavioural patterns and attitudes regarding time and speed. Also Indicative of the role of voluntary sector in managing transport / environment problems and social exclusion.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Valorization of time and speed and daily mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
More power for the cities in urban transport	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Number of corporate insolvencies

Dimension - Economics

Associated Key Factor:

Industrial and business structures and patterns

The indicator:

Total number of corporate insolvencies per country.

How is it measured?

Data is obtained from law courts and national chambers of commerce.

What are the disadvantages of the Indicator?

However it is difficult to compare European insolvency figures.

Regulations entitled the European Communities (Corporate Insolvency) Regulations 2002 came into effect just recently on 2 July, 2002 These Regulations are intended to facilitate the operation of Council Regulation (EC) No. 1346/2000 of 29 May 2000 on Insolvency Proceedings, insofar as they concern corporate insolvency.

Therefore currently data are mainly available at national levels.

Copies of the Regulations are available from the Government Publications Sales Office, Molesworth Street, Dublin 2. and also from this Department's web site at <http://www.entemp.ie/cr/SI333-2002.doc> .

What is the policy relevance of the indicator?

Given current recessions trends in European economy, insolvencies provide a key indicator on economic stability in general as some specific sectors (manufacturing and construction).

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Number of environmental disasters

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

The Centre for Research on the Epidemiology of Disasters

<http://www.cred.be>

<http://www.cred.be/emdat/>

<http://www.cred.be>

General Availability:

Reporting unit:

Reporting level: national

Reporting period: annually

Data available from 1990 to 2003

Availability by country:

1990 - 2003: EU-25

The indicator:

Sudden calamitous event as in the case of earthquakes, tsunamis, floods, volcanic eruptions, cyclones and landslides, or ongoing misfortune as in conditions or processes such as drought and desertification.

How is it measured?

Detailed information on people affected, the damage caused, type of disaster etc. is derived from insurance claims, statistics kept by civil protection and emergency response organisation.

What are the disadvantages of the Indicator?

The indicator is very vague, in this format it does not allow the user to analyse the relevance of the indicator for transport development. The main source for data found does offer the detailed information from which a transport context can be concluded, such as the number of people affected, damage caused etc.

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

Number of Physicians per 100 000 inhabitants

Dimension - Social Developments

Associated Key Factor:

Inequality and Social Exclusion

Data Source:

Eurobarometer

http://europa.eu.int/comm/public_opinion/

europa.eu.int/comm/public_opinion/

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

The number of physicians there are relative to a segment of the population

How is it measured?

There are slight variations between countries. B DK EL F A S UK figures are for Doctors in Activity. E I NL P FI figures are those entitled to practice. D figures are practicing Doctors. IRL and UK figures are NHS only. CY and SK data includes dentists

What are the advantages of the indicator?

Data is present and comparable for all countries.

What are the disadvantages of the Indicator?

CY and SK figures include dentists. It doesn't have any direct impact on transport either

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Number of telephone mainlines per 1 000 people

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

United Nation Development Programm

http://www.undp.org/hdr2003/indicator/indic_99_1_1.html

<http://undp.org>

General Availability:

Reporting unit: mainline

Reporting level: national

Reporting period: annually

Data available from 1990 to 2003

Availability by country:

1990 - 2003: EU-15+AC

The indicator:

Number of telephone mainlines per 1000 inhabitants

Description

Mainlines are telephone lines connecting a customer's equipment to the public switched telephone network.

How is it measured?

Data aggregated from telecommunication companies and infrastructure projects.

What are the disadvantages of the Indicator?

It does not give any information on access the user (gender, social class, age etc.) or type of use.

What is the policy relevance of the indicator?

Telephone mainline connection is a basic technology and in some places considered a right by law. It is used by the Human Development Report to give an indication of poverty.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Packaging waste and recycling

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Topic Centre on Waste and Material Flows

www.waste.eionet.eu.int/

<http://waste.eionet.eu.int/>

General Availability:

Reporting unit: 1000 tonnes

Reporting level: national

Reporting period: every 3 years

Data available from 1997 to

Availability by country:

1997 - 1997: EU-15

1997 - 1997: Member States (EU-15)

The indicator:

Defines the amount of packaging waste generated and the amount of packaging waste treated in recycling industries. The indicator as well differentiates between the different types of waste such as: metal plastic etc.

How is it measured?

Based on surveys, information gathered from by waste dumps and recycling companies at national level.

What are the advantages of the indicator?

The indicator can be helpful, if the material flows of recycling and waste processing are set into relationship with the production of new articles.

What are the disadvantages of the Indicator?

It is not clear to what extent the creation of waste and recycling create transport.

What is the policy relevance of the indicator?

Policies regarding material flows in an economy have an influence on the development of transport demand. Therefore these materials flows should be considered when applying policies regarding minimum recycling shares.

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

Paper waste and recycling

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Recovered Paper Association

http://www.erpa.info/statistics/recycling_rates_2000.htm

<http://www.erpa.info>

General Availability:

Reporting unit: per cent
Reporting level: national
Reporting period: annually
Data available from 1998 to 2000

Data Source:

European Topic Centre on Waste and Material Flows

<http://waste.eionet.eu.int/>

General Availability:

Reporting unit: 1000 tonnes
Reporting level: national
Reporting period: annually
Data available from 1983 to 2001

The indicator:

Indicates how much waste paper and cardboard is produced and which quantities are recycled.

Description

Means percentage of recovered paper utilisation compared to the total paper consumption. The recycling rate definition used by the industry differs from the one introduced in the Packaging and Packaging Waste Directive (94/62/EC). The latter does not take into account the recycling of converting losses (clippings, shavings, etc.). Furthermore, the calculation used by the industry only takes into account the recycling taking place within Europe. In other words, recovered paper collected in Europe but exported outside Europe to be recycled there does not contribute to the recycling rate as calculated in connection with the European Declaration.

How is it measured?

Based on surveys, information gathered from by waste dumps and recycling companies.

What are the advantages of the indicator?

The indicator can be helpful, if the material flows of recycling and waste processing are set into relationship with the production of new articles.

What are the disadvantages of the Indicator?

It is not clear to what extent the creation of waste and recycling create transport.

What is the policy relevance of the indicator?

Policies regarding material flows in an economy have an influence on the development of transport demand. Therefore these materials flows should be considered when applying policies regarding minimum recycling shares.

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

Part-time employment

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

European Foundation for the Improvement of Living and Working Conditions

European Survey of Working Conditions implemented by European Foundation for the Improvement of Living and Working Conditions

Dublin, Ireland

<http://www.eurofound.ie>

<http://www.eurofound.ie/>

General Availability:

Reporting unit: Individual

Reporting level: Country

Reporting period: every 5 years

Data available from 1990 to 2001

Availability by country:

1990 - 1990: EU-15

1990 - 1990: Member States (EU-15)

1995 - 1995: EU-15

1995 - 1995: Member States (EU-15)

2000 - 2000: EU-15

2000 - 2000: Member States (EU-15)

2001 - 2001: Accession Countries

Data Source:

Eurostat

Eurostat year book 2002; Results from Labour Force Survey

L-2920 Luxembourg

<http://www.datashop.org/en/bases/newcronos.php?parent=2069>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: individual

Reporting level: national

Reporting period: annually

Data available from 1983 to 2002

Availability by country:

1983 - 2002: EU-15+AC

The indicator:

Percentage of the labour force working less than 30 hours per week

Description

This indicator helps in assessing the working hours trend in the society, i.e. whether the society is moving towards a lower working - more leisure society or vice-versa. Part-time employment is also considered a way to 'hide' low labour market demand or unemployment.

How is it measured?

Number of people working less than 30 hours a week divided by the total labour force. Statistics on type of employment are kept by social security offices and census.

What are the advantages of the indicator?

An important indicator to consider in conjunction with employment rates as well as unemployment.

What are the disadvantages of the Indicator?

In societies moving towards the so-called '35-hour' week, it is questionable whether the 30-hour represents a good threshold for part-time.

What is the policy relevance of the indicator?

Important for understanding labour market supply and demand and designing labour market policies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibility in working hours	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Party membership

Dimension - Politics

Associated Key Factor:

Political attitudes

Data Source:

Party Membership Data

Webb, P. Farrell, D. Holliday, I. (Ed.)(2002) Political Parties in Advanced Industrial Democracies Oxford University Press: Oxford / Katz R.S. & Mair P. (Eds.) (1992) Party Organizations: A Data Handbook Sage Publications: London / Mair P. & van Biezen I. (2001) Party Membership in Twenty European Democracies 1980-2000 in Party Politics 7 pp5-22 / Wesolowski, W. (1996) 'The formation of political parties in post-communist Poland' in Pridham, G. & Lewis, P.G. (Eds.) Stabilising Fragile Democracies Routledge: London / Jacobs F. (1989) Western European Political Parties Longman: Harlowe / Day, A.J., East, R. and Thomas, R. (2002) A Political and Economic Dictionary of Eastern Europe Europa Publications: Cambridge

The indicator:

Number of direct members with party membership

Description

This is an indicator to the critical factor of the role of political elites

How is it measured?

Taken both from observers and party records annually

What are the advantages of the indicator?

The data is frequently very specific, allowing analysis of slight changes.

What is the policy relevance of the indicator?

This indicator reveals levels of mainstream political participation as well as where in the political spectrum this is changing

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
More openness and participation in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

General Availability:

Reporting unit:

Reporting level:

Reporting period: annually

Data available from to

Passenger commercial traffic by rail

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

International Railway Union

http://www.uic.asso.fr/d_stats/online/docs/2etrim2003.xls

www.uic.asso.fr/

General Availability:

Reporting unit: Passenger and passenger-km

Reporting level:

Reporting period: monthly

Data available from to

The indicator:

Passenger and passenger-km - Information given by railway companies

Description

This indicator is useful to measure the modal share of the rail transport.

How is it measured?

Data is reported to national statistical bureaus from railway companies.

What is the policy relevance of the indicator?

EU transport policy put a strong stress on the necessity to reequilibrate the modal share in favour of other modes than road, and rail can benefit from this policy. This policy is also available for accession countries where the modal share of rail has also decreased during the last decade.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Passenger transport on national network - rail

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the transport sector 1970-2001 (annual report)

<http://www1.oecd.org/cem/stat/transport/index.htm>

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: passenger-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2001

Availability by country:

1970 - 2001: EU-27

The indicator:

Billion passenger-km transported by rail in a year

How is it measured?

It is collected yearly by the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical coverage (EU-27, CIS, Asia)

What are the disadvantages of the Indicator?

Data is not available at regional level. This makes it more difficult to use it for the estimation of O-D flow matrixes.

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"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Passenger transport on national network - road

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trend in the transport sector 1970-2001 (annual report)

<http://www1.oecd.org/cem/pub/pubann.htm>

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: passenger-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2001

Availability by country:

1970 - 2001: EU-27

The indicator:

Billion passenger-km transported by road in a year

How is it measured?

It is collected yearly by the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical scope / coverage (EU-27, Asia, CIS)

What are the disadvantages of the Indicator?

Data is not available at the regional level.

What is the policy relevance of the indicator?

As above.

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"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Passenger transport on national network - total

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

European Conference of Ministers of Transport

Trends in the transport sector (1970-2001) Annual reports

<http://www1.oecd.org/cem/pub/pubann.htm>

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: Passenger-km

Reporting level: national

Reporting period: annually

Data available from 1970 to 2001

Availability by country:

1970 - 2001: EU-27

1980 - 2001: United Kingdom

The indicator:

Billion passenger-km transported in a year by road and rail.

How is it measured?

It is collected yearly by the Ministries of Transport of ECMT countries

What are the advantages of the indicator?

Wide geographical coverage / scope.

What are the disadvantages of the Indicator?

Data is not available at the regional level.

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"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Patent applications

Dimension - Science & Technology

Associated Key Factor:

Technological innovation

Data Source:

Eurostat

L-2920 Luxembourg

http://europa.eu.int/comm/eurostat/news/wcronos/info/notmeth/en/theme1/string/innore_pat.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Patents

Reporting level: national, regional, european

Reporting period: annually

Data available from 1989 to 2000

Availability by country:

1989 - 2000: EU-15+AC

The indicator:

Patents applications to the European Patent Office (EPO)

Description

Patent applications are counted per country and per million inhabitants per country.

How is it measured?

"Patent applications are counted according to the year in which they were filed at the EPO from national bureaus and are broken down according to the International Patent Classification (IPC). They are assigned according to the inventor's place of residence, using fractional counting if multiple inventors or IPC classes to avoid double counting." (Eurostat)

What are the advantages of the indicator?

The fixed definition of a patent makes this indicator very comparable across EU countries.

What are the disadvantages of the Indicator?

The existence of a patent does not give an indication on whether or when the invention is realised or applied.

What is the policy relevance of the indicator?

Patent applications is a standard measure for innovation.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Patent applications per million inhabitants

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

Eurostat

Eurostat: Research and Development: Annual Statistics

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=1-structur-EN&mode=download>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit:

Reporting level: national, regional, european

Reporting period: annually

Data available from 1989 to 2000

Availability by country:

1989 - 2000: EU-15+AC

Data Source:

United Nation Development Programm

http://www.undp.org/hdr2003/indicator/indic_105_1_1.html

<http://undp.org>

General Availability:

Reporting unit:

Reporting level: national

Reporting period: annually

Data available from to

The indicator:

Number of patent applications filed annually at the European Patent Office (EPO) per million inhabitants per country

Description

Data are provided by the EPO according to yearly extraction defined by Eurostat.

Data refer to applications filed directly under the European Patent Convention or to applications filed under the Patent

Co-operation Treaty and designating the EPO (Euro-PCT). Patent applications are counted according to the year in

which they were filed at the EPO and are broken down according to the International Patent Classification (IPC).

They are assigned according to the inventor's place of residence, using fractional counting if multiple inventors or

IPC classes to avoid double counting.

How is it measured?

Patent applications are counted according to the year in which they were filed at the EPO and are broken down according to the International Patent Classification (IPC).

They are assigned according to the inventor's place of residence, using fractional counting if multiple inventors or

IPC classes to avoid double counting.

What are the advantages of the indicator?

Widely used indicator to measure innovation in a society/country.

What are the disadvantages of the Indicator?

Provisional data may differ, for the Patent- Cooperation Treaty applications, the data on the country of residence of the applicant(s) and/or inventor(s) is imputed into the EPO database only after their international publication. This means that data are only final 18 months after the priority date. Different criteria are chosen to count patents.

What is the policy relevance of the indicator?

Patent applications per million inhabitants is related to the Lisbon Strategy to make the EU "the most competitive and dynamic knowledge-based economy with improved social cohesion by 2010"

As the indicator represents somehow the "inventiveness" of a population, positive effects can be expected.

Therefore fostering of "inventiveness" can be expected to lead towards the reaching of sustainability goals i.e.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Percentage of country with acidification exceedance

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Environmental Agency

Air quality database AirBase (ETC/ACC).

<http://air-climate.eionet.eu.int/databases/airbase.html>

www.eea.eu.int/

General Availability:

Reporting unit: yg/m³

Reporting level: country and city level

Reporting period: annually

Data available from 1990 to 1999

Availability by country:

1990 - 1999: Accession Countries

1990 - 1999: EU-15

1990 - 1999: Member States (EU-15)

Data Source:

Eurostat

Air quality database AirBase (ETC/ACC).

L-2920 Luxembourg

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: yg/m³

Reporting level: country and city level

Reporting period: annually

Data available from 1990 to 1999

Availability by country:

1990 - 1999: EU-15+AC

The indicator:

Defines the area of a country as percentage of total country with acidification exceedance.

How is it measured?

Monitoring stations in certain urban areas.

What are the disadvantages of the Indicator?

The total percentage does not show the geographical distribution of these areas and the size of areas affected. Additionally the data are generally not representative for the total urban population in a country.

What is the policy relevance of the indicator?

This indicator is relevant information for the 'Clean air for Europe' (CAFE) programme.

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

Populations exposed to traffic noise

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Publication

i.e. RIVM, 2000: Milieubalans 2000, Bilthoven, http://www.rivm.nl/milieu/nationaal/mb2000_s/

Refer to publisher details at indicator level

General Availability:

Reporting unit: DB(A)

Reporting level: all levels from city to national

Reporting period:

Data available from to

The indicator:

Defines the percentage of population exposed to four transport noise exposure levels. Moreover it reveals the percentage of population highly annoyed by traffic noise from various modes.

How is it measured?

Measuring the magnitude of noise pollution is complex. Volume is measured in A weighted decibels [dB(A)]; a level above 65 dB(A) is considered unacceptable and incompatible with certain land uses in OECD countries. However, a number of different parameters must be factored into an indicator of noise; volume, pitch, frequency, duration, and variability. Noise indicators are typically an average of volume and duration over a fixed period of time. The context in which the noise occurs is important; a noise which may be considered acceptable in a working environment during the day would be unacceptable in a residential neighbourhood at night. Similarly, noise which is expected, for example the acceleration of a truck which is visible, may be less annoying than that which is unexpected, such as the same truck when the auditor cannot see it (Filippi p. 129). In addition, the same volume of noise may be more tolerable when it is intermittent than when it is constant; thus railway noise can be more acceptable than quieter but more constant noise from road traffic (Kürer p. 494). Exposure is also frequently qualified by the number of people or share of the population exposed to this level of noise, or exposed to it for more than a fixed per cent of the time. However, obtaining data on actual exposures to noise is difficult. In addition, it is somewhat difficult to compare noise from different modes of transportation as these are measured with different metrics.

What is the policy relevance of the indicator?

Noise affects people physiologically and psychologically: noise levels above 40 dB LAeq 2 can influence well-being, with most people being moderately annoyed at 50 dB LAeq and seriously annoyed at 55 dB LAeq. Levels above 65 dB LAeq are detrimental to health (WHO, 2000). Overall, the external costs of road and rail traffic noise have been estimated at some 0.4 % of GDP (ECMT, 1998).

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

Poverty rate

Dimension - Social Developments

Associated Key Factor:

Inequality and Social Exclusion

Data Source:

European Community Household Panel

European Social Statistics: Income, Poverty and Social Exclusion; 2nd report -- data 1994-1997

Eurostat, Unit E2, L-2920 Luxembourg

<http://forum.europa.eu.int/irc/dsis/echpanel/info/data/information.html>

<http://www.statistics.gov.uk/STATBASE/Source.asp?vlnk=1311&More=Y>

General Availability:

Reporting unit: individual/household

Reporting level:

Reporting period: annually
Data available from 1994 to 2002

Availability by country:

1994 - 1999: EU-15

1994 - 1999: Member States (EU-15)

Data Source:

US Department of State

www.state.gov/

General Availability:

Reporting unit: individual/household

Reporting level:

Reporting period:
Data available from to

The indicator:

Poverty rate is the percentage of population the household income of which falls below a certain level, called the poverty line.

Description

Following Eurostat guidelines, the poverty line is fixed at 60 per cent of the average median income in a society. Individuals found living in households with income below this are said to be at-risk-of-poverty. The poverty line definition varies across countries and over time. Other definitions used in the past include 50 or 70 per cent of the average media income. In some countries the mean is used instead.

How is it measured?

Household income is first constructed. Each individual is then linked to its household income. The poverty threshold is determined with reference to the average but also taking into account the size of household and equivalence scales.

What are the advantages of the indicator?

The poverty rates can be measured for different social groups and also by country/region or type of community (rural/urban). Different socio-economic groups can be defined according to gender, age, citizenship, education, social class, household types, etc.

What are the disadvantages of the Indicator?

Care is needed to ensure that sources are compatible and use the same definition of poverty line across countries. More generally, the problem with any threshold is that it is not discriminatory enough with regard to those that are to be found just above or just below the threshold.

What is the policy relevance of the indicator?

One of the Laeken indicators of the European Social Policy Agenda and for the National Action Plans for Social Inclusion

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Migration and seasonal mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Valorization of time and speed and daily mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Valorization of time and speed and tourism/business travel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Changing household structures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input 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"/>

Public and private R&D expenditures on renewables

Dimension - Attitudes

Associated Key Factor:

Attitude to time and speed

Data Source:

Publication

COMMISSION STAFF WORKING PAPER(2002): Inventory of public aid granted to different energy sources (see further information for document)

Refer to publisher details at indicator level

<http://library.iea.org/rdd/eng/TableView/er/Wdsview/disviewp.asp?ReportId=1>

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Measures public and private R&D expenditures on renewables.

Description

Renewables include the following categories:

Combustible Renewables and Waste* (CRW):

Solid Biomass and Animal Products: Biomass is defined as any plant matter used directly as fuel or converted into other forms before combustion. Included are wood, vegetal waste (including wood waste and crops used for energy production), animal materials/wastes, sulphite lyes, also known as "black liquor", and other solid biomass. It also includes charcoal produced from solid biomass.

Gas/Liquids from Biomass: Biogas is derived principally from the anaerobic fermentation of biomass and solid wastes and combusted to produce heat and/or power.

Municipal Waste:* Municipal waste consists of products that are combusted directly to produce heat and/or power and comprises wastes produced by the residential, commercial and public services sectors that are collected by local authorities for disposal in a central location. Hospital waste is included in this category.

Industrial Waste:* Industrial waste consists of solid and liquid products (e.g. tyres) combusted directly, usually in specialised plants, to produce heat and/or power and that are not reported in the category solid biomass.

Hydro Power: potential and kinetic energy of water converted into electricity in hydroelectric plants. It includes large as well as small hydro, regardless of the size of the plants.

Geothermal Energy: Energy available as heat emitted from within the earth's crust, usually in the form of hot water or steam. It is exploited at suitable sites for electricity generation after transformation or directly as heat for district heating, agriculture, etc.

Solar Energy: Solar radiation exploited for hot water production and electricity generation.

Wind Energy: Kinetic energy of wind exploited for electricity generation in wind turbines.

Tide/Wave/Ocean Energy: Mechanical energy derived from tidal movement or wave motion and exploited for electricity generation.

* Some of the waste (the non-biodegradable part of the waste) is not considered renewables as such. However, proper breakdown between renewables and non-renewables is often not available.

(IEA 2002: RENEWABLES IN GLOBAL ENERGY SUPPLY: An IEA Fact Sheet)

How is it measured?

Data is received reported to national statistical bureaus.

What are the disadvantages of the Indicator?

The indicator should differentiate in which renewables the investment has been realized. Moreover, the indicator should be set into relation with the current participation of renewables in energy production.

What is the policy relevance of the indicator?

The indicator is relevant for energy production policies and in the estimation of total emissions by transport modes, which depend as well on the type of energy production (esp. Rail transport)

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Environmental concerns	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Public participation as measured by Participatory technology assessment (PTA)

Dimension - Institutional Arrangements

Associated Key Factor:

Civil society and participation

Data Source:

Publication

Simon Joss and Sergio Bellucci (eds), Participatory Technology Assessment; European Perspectives, London, CSD/TA Swiss, 2002

Refer to publisher details at indicator level

<http://www.wmin.ac.uk/csd/Publications/pubs.htm>

General Availability:

Reporting unit: Country; Policy Sector

Reporting level:

Reporting period:

Data available from to

The indicator:

Participatory technology assessment (PTA) refers to those methods and procedures that are used in the assessment of socio-technological issues for involving social actors (including civil society organisations and citizens) in the decision-making process.

Description

Existence and use of PTA across policy sectors reflects the commitment of policy to an open process of decision-making that involves citizens and civil society organisations besides experts, governments and stakeholders.

How is it measured?

Methods and procedures covered by PTA include: consensus conferences, citizen juries, scenario workshops, Delphi surveys and voting conferences. Existence of PTA mechanisms can be established per policy sector through the review of legal / policy documentation and interviews with key actors. The scope and success of PTA can be established through case studies and participatory observation. Quantitative performance criteria have still to be defined.

What are the advantages of the indicator?

Useful in tapping the openness of specific policy sectors to multi-level governance, including participation.

What are the disadvantages of the Indicator?

Collection of relevant information is both labour and time-intensive as it is policy / country specific. Quantitative descriptive and performance criteria have still to be defined.

What is the policy relevance of the indicator?

PTA throws light on the existence of a dialogue between the decision-makers and the citizens.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Environmental concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Public sector gross debt as percentage of GDP

Dimension - Enlargement

Associated Key Factor:

Economic convergence (ENL)

Data Source:

Eurostat

eurostat: "Money, finance and the euro: statistics - N° 01/2003"

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/PUBLIC/datashop/print-product/EN?catalogue=Eurostat&product=1-eb070-EN&mode=download>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: annually

Data available from 1993 to 2002

Availability by country:

1993 - 2002: EU-15

1993 - 2002: Member States (EU-15)

1998 - 2002: Accession Countries

Data Source:

The World Bank Group

World Development Indicators 2003

<http://www.worldbank.org/data/wdi2003/cdrom/loi.html>

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

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from 1960 to 2001

Availability by country:

1960 - 2001: EU-15+AC

The indicator:

Defines the public sector gross debt as the percentage of GDP. This indicator is one of the stabilisation criteria in the EU.

Description

The data are expressed in percent of GDP and in euro (ECU prior to 1999). All data are end-year stock values. For EU, Norway, and the Candidate Countries, debt is valued in nominal terms rather than market value. Other accounts payable and financial derivatives (as defined in ESA95) are excluded from the definition. Debt is valued at nominal (face) value, and foreign currency debt is converted into national currency using end-year market exchange rates (though special rules apply to contracts). The national data for the general government sector are consolidated between the sub-sectors. Basic data are in national currency, converted into euro using end-year exchange rates for the euro provided by ECB. Data are compiled on an accrual basis.

How is it measured?

Country data are also compiled according to this methodology but must be considered provisional as they do not yet fully comply with it. Data for Iceland, US and Japan are broadly compatible with EU data, but are not produced in accordance with ESA95 or specific EDP provisions. The indicator government debt is measured as % of GDP

What is the policy relevance of the indicator?

The indicator is relevant for taxation and subsidisation policies.

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"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Rail fleet strength

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

International Railway Union

International railways statistics 2001

<http://www.uic.asso.fr>

www.uic.asso.fr/

General Availability:

Reporting unit:

Reporting level:

Reporting period: annually

Data available from 1997 to 2001

Availability by country:

2000 - 2000: EU-15+AC-13

The indicator:

Average annual fleet strength of rail

How is it measured?

Data is reported to national statistical bureaus from railway companies.

What are the advantages of the indicator?

The indicator shows the capacity of the rail companies to move people.

What is the policy relevance of the indicator?

Has relevance for transport policy and privatisation of European railways.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Rate of net migration

Dimension - Demographics

Associated Key Factor:

Migration flows

Data Source:

Eurostat

Eurostat books: European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Individual

Reporting level: Country

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1995 - 2001: EU-15+AC

The indicator:

Net migration represents the balance of immigration and emigration. Reported as annual rate per 1,000 people.

Description

If positive, this means that there were more people immigrating to country X than there were people emigrating from country X.

If negative, this means that there were more people emigrating from country X than there were people immigrating to country X.

How is it measured?

Information is taken from national statistical offices using census'.

What are the disadvantages of the Indicator?

Gaps in the data for accession countries.

What is the policy relevance of the indicator?

Relevant for issues / policies such as migration, multiculturalism, brain drain / gain etc.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Migration and seasonal mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Migration policy and border control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Raw material input into vehicle production

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Publication

e.g. Schweimer, Georg und Marcel Levin: "Life Cycle Inventory of the Golf AF". Volkswagen AG (also 3 Litre Lupo and Seat Ibiza)

Refer to publisher details at indicator level

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Defines the raw material input into vehicle production and at the same time indicates the use of recycled materials in vehicle production.

How is it measured?

The indicator is measured as the percentage of raw materials used in vehicle of the total material used in vehicle production.

What are the disadvantages of the Indicator?

The indicator does not define the type of raw material used in vehicle production. Moreover it is not clear whether monetary values, weight measures or other should be used.

Measuring of this indicator can only be realized at type of vehicle basis. Vehicle production mainly relies on global sourcing strategies, therefore an indicator measuring the raw material input at national level does not make a lot of sense.

An indicator which measures the raw vehicle input by type of car and then relates to the numbers of this car sold by country does seem the better choice. It would give insight on the market integration of environmental sound production in the transport sector.

What is the policy relevance of the indicator?

The indicator is relevant for policies relating to recycling standards for certain products.

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

Retirement patterns

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Organisation for Economic Co-operation and Development

Task Force on Pension Statistics & OECD Glossary of Pension Terms, 2003, See

<http://www.oecd.org/dataoecd/5/4/2496718.pdf>

<http://www.oecd.org/dataoecd/39/49/2492163.xls>

<http://www.oecd.org>

General Availability:

Reporting unit: individuals

Reporting level: Country

Reporting period: regularly

Data available from 1983 to 1999

Availability by country:

1983 - 1988: Austria

1983 - 1988: Belgium

1983 - 1988: EU-15

1983 - 1988: Member States (EU-15)

1994 - 1999: Austria

1994 - 1999: Belgium

1994 - 1999: EU-15

1994 - 1999: Member States (EU-15)

The indicator:

Retirement patterns show the number of people retiring at the retirement age, people taking early pensions and people taking late pensions

Description

The working age population i.e. between 15-64 years is on the decline. The effect of a decline in working population could be offset by an increase in employment rate amongst the working age population and in the older population (65+).

How is it measured?

Average age of retirement, disaggregated by gender and/or economic sector (NACE classification) and/or occupation (ISCO classification). Alternatively tabulations on share of persons retiring at legal age of retirement, share retiring early, share retiring late.

What are the advantages of the indicator?

Provides information on both the situation in the labour market (in terms of supply / demand) and the sustainability of pension systems.

What are the disadvantages of the Indicator?

A correct interpretation of the data must take into account contextual information like distribution of economic sectors / occupational groups in a particular society and economic situation.

What is the policy relevance of the indicator?

Labour-market, pensions, social policy

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Revenues from e-commerce

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

Publication

European Information Technology Observatory 2003. Can be ordered at: <http://www.eito.com/prices.html>

Refer to publisher details at indicator level

General Availability:

Reporting unit:

Reporting level: national, european

Reporting period: annually

Data available from 1993 to 2003

Availability by country:

1993 - 2003: EU-15+AC

Data Source:

Eurostat

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=1-structur-EN&mode=download-Genecobgind>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: annually

Data available from 2000 to 2002

Availability by country:

2000 - 2002: EU-15

2000 - 2002: EU-15-avg

2000 - 2002: Member States (EU-15)

The indicator:

Share of turnover sold via the internet by enterprises with 10 or more persons employed.

How is it measured?

The indicator is collected by the NSI according to Eurostat's model questionnaire in the annual survey of ICT usage in enterprises. Or the data is collected from task force experts and leading market research companies (www.eito.com).

What are the disadvantages of the Indicator?

Moreover, the indicator does not discriminate the geographical distribution within a country neither does it give information on access to ICT for different social classes.

What is the policy relevance of the indicator?

As e-commerce will change social and transport patterns, policy has to analyse the positive and negative implications of these changes (i.e. changes in employment)

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibility in working hours	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Data Source:

University of Vienna

<http://www.unet.univie.ac.at/~a9830385/newbusinessc/eCommSt.html>

www.univie.ac.at

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from 1994 to 1998

Availability by country:

1994 - 1998: Euro average

Revenues on retail industries from Sunday trading

Dimension - Economics

Associated Key Factor:

Trade patterns

The indicator:

Measures the revenues from Sunday trading.

What are the disadvantages of the Indicator?

Currently no data basis has been found at the European level. Sunday trading is handled differently and has individual legislative structures in each country. Data for certain countries might be available.

The indicator should be set in context with general opening hours and working hours in general. Transport patterns are far too complex as to simply related future development to this single indicator.

What is the policy relevance of the indicator?

This indicator has especially relevance for labour policies.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Road accident fatalities

Dimension - Transport

Associated Key Factor:

Contribution of transport to negative externalities

Data Source:

European Conference of Ministers of Transport

Road accident fatalities in Europe in 2002

<http://www1.oecd.org/cem/stat/accidents/index.htm>

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: Individual

Reporting level: Country

Reporting period: yearly

Data available from 1993 to 2002

Availability by country:

1975 - 2002: EU-27

The indicator:

Number of dead at road traffic accidents by road user category.

Description

Road user categories include: pedestrians, on bicycles, on mopeds, motorcycles, cars drivers, cars passengers. Data also distinguishes between 'immediate' fatalities or fatalities within 30 days.

How is it measured?

Yearly data compiled at national level on the basis of police records.

What are the advantages of the indicator?

Standard indicator on road safety.

What are the disadvantages of the Indicator?

Does not always or consistently distinguish between types of fatalities (immediately or after a certain time). Changes in numbers of fatalities over years are often interpreted with reference to specific policy measures. However, statistical analysis of this data has shown that they follow a non-typical distribution. This means that any decrease in fatalities from one year to another need not always mean improvement in road safety standards.

What is the policy relevance of the indicator?

As above.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Road accidents

Dimension - Transport

Associated Key Factor:

Contribution of transport to negative externalities

Data Source:

International Road Federation

IRF World Road Statistics 2002 -- Data 1996 - 2000.

<http://www.irfnet.org/wrs.asp>
www.irfnet.org/

General Availability:

Reporting unit: Accident

Reporting level: National

Reporting period: yearly

Data available from 1970 to 2000

Availability by country:

1970 - 2000: EU-27

The indicator:

Number of road accidents

Description

Security and safety are very important in transport policy. Road transport is the transport mode with the highest number of accidents, casualties and injured. Governments in all countries have made an effort to diminish these consequences of road transport development.

How is it measured?

Compiled annually on the basis of policy records by national statistics offices and national road administrations. Available for more than 185 countries.

What are the advantages of the indicator?

It is useful to compare the results of transport policies in several countries and the related road accident statistics.

What are the disadvantages of the Indicator?

The absence of harmonised road safety standards (for instance with regard to speed limitations or alcohol levels in blood) make it difficult to draw conclusions from a comparative overview on road accident statistics. Furthermore the variation over years does not follow a normal distribution and the relationship to transport policy is not linear, thus cannot be modelled easily.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Road user taxes

Dimension - Transport

Associated Key Factor:

Harmonisation of market conditions

Data Source:

International Road Federation

World Road Statistics 2002 -- data 1996-2000

<http://www.irfnet.org/wrs.asp>
www.irfnet.org/

General Availability:

Reporting unit:

Reporting level: national

Reporting period: annually

Data available from 1996 to 2000

Availability by country:

1970 - 2000: EU-27

The indicator:

Road user taxes

Description

Road user taxes are taxes charged for the use of road rather than for the acquisition and ownership of motor vehicles or their operation (with fuel, hence fuel taxes).

Road user taxes is often referred to as pricing.

How is it measured?

Compiled from official sources within national statistics offices and national road administrations in more than 185 countries.

What are the advantages of the indicator?

Road charges vary by default depending on the location / quality of the road, the level of congestion, the time of use, the inclusion or not of negative externalities. There is as of yet no common methodology on road user taxes, not even within the European Union. The information about how such taxes are estimated and where they currently stand is, therefore, important information for charting developments or as input into modelling exercises.

What are the disadvantages of the Indicator?

Not the most user-friendly or well-covering at the current stage.

What is the policy relevance of the indicator?

European Pricing Directive and White Paper on European Transport Policy (2002 - 2003).

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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trends regarding renewable energy source (RES) and rational use of energy (RUE)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input 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"/>

Role of civil society as measured by institutional capacity of NGO's

Dimension - Institutional Arrangements

Associated Key Factor:

Civil society and participation

Data Source:

Developing Cooperation

Cooperating for Cooperation, an organisation established in 1995 for establishing a world directory of development organisations and their programmes thus supporting cooperation and promoting efficiency in development aid. The organisation is based in Como, Italy

<http://www.coop4coop.org>

<http://www.coop4coop.org>

General Availability:

Reporting unit: NGO

Reporting level: World-wide

Reporting period:

Data available from 0 to 0

The indicator:

Role of civil society as measured by the number and institutional capacity of non-governmental or civil society organisations.

Description

Can be used as a proxy of the strength and role of civil society in a particular country or federal state. Where it can be disaggregated by policy sector it provides information on the engagement of civil society in a specific policy process.

How is it measured?

As in indicator. The institutional capacity of NGOs must be established on the basis of criteria such as financing, internal democracy, expertise, etc. Additionally this indicator combines information on activities of NGOs in specific policy fields.

What are the advantages of the indicator?

Very important indicator for assessing the openness to participation of democratic societies -- in general and at the policy level.

What are the disadvantages of the Indicator?

Not available in the same format for all EU countries (future and new). There is more qualitative than quantitative information. Furthermore, such an indicator is only useful if constructed on a regular basis and the costs involved in this are medium- to high.

What is the policy relevance of the indicator?

The indicator is helpful in assessing the level of constructive dialogue between the decision-makers and the citizens'. It throws light on the scope and forms of citizen participation in a polity.

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

Data Source:

Idealist

The Site of the organisation 'Action without borders' with information on 36,000 NGOs in 165 countries and

www.idealists.org

<http://www.idealists.org>

General Availability:

Reporting unit: NGO

Reporting level: National

Reporting period: regularly

Data available from 1995 to 2003

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
More openness and participation in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conflicts on land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Data Source:

The United States Agency for
International Development

The 2001 NGO Sustainability Index
for Central and Eastern Europe and
Eurasia, USAID, Order Number PN-
ACP-212. Previous reports cover all
years since 1997.

<http://www.usaid.gov>

<http://www.usaid.gov/>

General Availability:

Reporting unit: Country

Reporting level:

Reporting period: annually

Data available from 1997 to 2002

Availability by country:

1997 - 2002: Accession
Countries

Sales of new cars by type

Dimension - Environment

Associated Key Factor:

Contribution of technology to solving environmental problems

Data Source:

Association of European Automobile Manufacturers

<http://www.acea.be/ACEA/NewRegPC90-03-byMarket.xls>

<http://www.acea.be/ACEA/index.html>

General Availability:

Reporting unit: number of cars

Reporting level: national

Reporting period: monthly

Data available from 1990 to 2000

The indicator:

Annual statistics monitoring changes in automobile sales by type of car

How is it measured?

The data is available monthly since 1990. Data is broken down to motor vehicles, passenger cars, commercial vehicles and buses. There is also sales by company. Data is received from respective car companies.

What are the advantages of the indicator?

Data taken every month therefore very detailed

What are the disadvantages of the Indicator?

No accession data and the passenger car data isn't broken down. It does have different brands, however.

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

Sense/sources of security or concern

Dimension - Attitudes

Associated Key Factor:

Collective and individual rights and obligations

Data Source:

Eurobarometer

Eurobarometer surveys: 1000 people are interviewed in EU-27, except for LX, CY and MT which has 500, and UK, which has 1000 in Great Britain and 300 in Northern Ireland. Collected through census, therefore estimation.

www.europa.eu.int/comm/public_opinion

europa.eu.int/comm/public_opinion/

General Availability:

Reporting unit: Individuals

Reporting level: Country

Reporting period: biannually

Data available from 1990 to 2002

Availability by country:

1990 - 1999: EU-15

1990 - 1999: Member States (EU-15)

2000 - 2002: EU-15+AC

2000 - 2002: EU-15+AC-avg

2000 - 2002: EU-15-avg

The indicator:

This records changing attitudes to what are sources of concern and how they are being dealt with. It covers a range of topics including terrorism, crime, drug trafficking, illegal immigration and the protection of rights, as well as more general issues such as concern about future employment. It measures whether these should be a priority for the EU and how well the EU is dealing with them.

Description

This indicator includes fears over terrorism, crime, drug trafficking, illegal immigration and the protection of rights. It measures both whether these should be a priority for the EU and the perceived success the EU is having in dealing with them

How is it measured?

Based on survey questions.

What are the advantages of the indicator?

The data is collected twice a year in EU-15 and annually in the accession countries, meaning that fluctuations can be detected quickly. It also details on quite a range of possible issues.

What are the disadvantages of the Indicator?

Accession data only available since 1990 and it is possible that the questions may have changed over time, meaning they are not always directly comparable.

What is the policy relevance of the indicator?

Informs policy of public sources of concern

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Migration policy and border control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Share of different fuels in final energy consumption

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

Availability by country:

1985 - 2000: EU-15

1985 - 2000: Member States (EU-15)

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

Availability by country:

1973 - 2000: EU-27 (w/o certain country)

The indicator:

Measures the share of different fuels in final energy consumption. 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. The indicator is measured as the share per type of fuel in percent.

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. NOx, 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
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"/>

Share of energy consumption from renewable sources in final energy consumption

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

International Environmental Agency

Eurostat, Statistical Office of the European Communities
Unit D4 (Energy Statistics)
Postal: L-2920 Luxembourg.

<http://europa.eu.int/comm/eurostat/structuralindicators>

<http://www.iea.org>

General Availability:

Reporting unit: per cent

Reporting level: national

Reporting period: regularly

Data available from 1990 to 2002

Availability by country:

1990 - 2002: EU-15+AC

The indicator:

Is the ratio between the electricity produced from renewable energy sources and the gross national electricity consumption calculated for a calendar year. It measures the contribution of electricity produced from renewable energy sources to the national electricity consumption.

1. Renewable energy sources.

They are defined as renewable non-fossil energy sources : wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.

2. Electricity produced from renewable energy sources.

It comprises of the electricity generation from hydro plants (excluding pumping), wind, solar, geothermal and electricity from biomass/wastes. Biomass/wastes electricity comprises of electricity generated from wood/wood wastes and other solid wastes of renewable nature (straw, black liquor) burning, municipal solid waste incineration, biogas (incl. landfill, sewage, farm gas) and liquid bio fuels.

How is it measured?

Data is compiled through annual Joint Questionnaires (one for electricity and another one for renewable energy sources). These questionnaires are called « joint » because they are shared by Eurostat and the International Energy Agency (IEA, part of the OECD). The methodology is fully harmonised between both organisations. Estimations are not normally necessary since annual data are complete. EU-15 figures are calculated simply by the addition of national data.

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:

Share of logistics as well as distribution costs in production

Dimension - Economics

Associated Key Factor:

Spatial distribution of economic activity

Data Source:

Publication

Klaus, Peter and Ulrich Müller-Steinfahrt 1999: Die "Top 100" der Logistik 1998/99 mit Europa. Ed.: Gesellschaft für Verkehrsbetriebswirtschaft und Logistik, Deutscher Verkehrsverlag Hamburg

Refer to publisher details at indicator level

The indicator:

Describes the share of logistics as well as distribution costs in production.

How is it measured?

The indicator is measured as the percentage of total production costs.

What is the policy relevance of the indicator?

The indicator is relevant for transport policies and policies regarding spatial distribution pattern of industries and services.

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

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Share of sectors in GDP

Dimension - Economics

Associated Key Factor:

GDP growth and distribution

Data Source:

Eurostat New Chronos

<http://www.eu-datashop.de/datenba/EN/thema1/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: monetary values

Reporting level: national, sector

Reporting period: annually

Data available from 1995 to 2002

The indicator:

The structure of an economy is reflected in the participation of each sector of the GDP. The Monitoring System differentiates the following sectors: agricultural, industry, services, transport.

How is it measured?

Based on national accounts. National accounts are based on ES 95 (see data quality of this indicator for reference).

The economy is usually divided in two ways for the purpose of analysis.

— By institutional sector, i.e. legal entities such as households, government, companies, etc.

The sectors follow the nomenclature shown in ESA 95, Attachment IV.

— By branch of activity, i.e. homogeneous units of production like agriculture, fishing, chemicals, etc.

The branches follow NACE Rev. 1, the new version of the NACE classification, the statistical classification of economic activities in the European Community (the European Union since 1994). The acronym NACE comes from the French 'nomenclature des activités économiques dans la Communauté européenne'. (Eurostat yearbook: 2003)

Data are expressed as growth rates in percent. They are derived from data expressed in Euro (ECU before 1999).

What are the disadvantages of the Indicator?

To investigate the linkages between transport and the rest of the economy, the individual sectors' dependence on transport-driven demand have to be analyzed.

How can the amount of transport services each sectors consumes directly and indirectly be measured?

What is the policy relevance of the indicator?

Economic policy can exert influence

- by promoting technological and industrial innovation.

- by increasing productivity by making full use of economies of scale, learning curve effects and spin-offs from innovations.

- by increasing tertiarisation.

- raising qualifications in the workforce and improving human capital.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input 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"/>

Share of SME by sector

Dimension - Economics

Associated Key Factor:

Industrial and business structures and patterns

Data Source:

Eurostat New Chronos

http://www.eu-datashop.de/datenba/DE/allgem/nc_leitf.htm

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: percentage

Reporting level: national

Reporting period: annually

Data available from 1995 to 2000

The indicator:

Measures the share of Small and Medium Size Enterprises (SME) by sector in an economy.

Description

The share of SME's within a country/sector gives information about the structure of that market (concentration and average company size)

How is it measured?

The indicator is measured as the percentage of SME of the number of total enterprises per sector.

What are the disadvantages of the Indicator?

The indicator does not show the total industry structure of a sector. The relevant size classes have to be defined as well as the relevant economic sectors.

What is the policy relevance of the indicator?

The indicator can illustrate the degree on concentration in an industrial sector and country.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flexibility in working hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technological innovation and diffusion	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technological improvements and alternative fuels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Share of telework

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

European electronic commerce and telework trends (EcaTT project)

ECaTT Final Report, On New Ways of Working and New Forms of Business Across Europe

<http://www.ecatt.com/>

<http://www.ecatt.com>

General Availability:

Reporting unit: Workers

Reporting level: Country

Reporting period: regularly

Data available from 1994 to 1999

The indicator:

Share of teleworkers or workers who work from home at least one day in a week as a percentage of the total labour force

Description

With new technologies growing in importance and more and more people being able to work from home with the computers and other communicating devices, share of telework in total labour force is growing significantly.

How is it measured?

Teleworkers are those that work from home at least one day in a week, use personal computers in the course of their work, use telecommunications link to communicate with their employers. They include both salaried employees and self-employed.

What are the disadvantages of the Indicator?

Data available on this indicator not yet sufficient or consistently collected across countries. Methodology for statistically capturing 'telework' and various types still insufficiently developed.

What is the policy relevance of the indicator?

This indicator is relevant for labour market developments.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibility in working hours	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Share of transport sector in total national energy consumption (by mode of transport)

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat New Chronos

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

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Mtoe

Reporting level: national

Reporting period: annually

Data available from 1985 to 2000

Availability by country:

0 - 1999: Accession Countries

0 - 2000: EU-15

0 - 2000: Member States (EU-15)

1985 - 2000: EU-15

1985 - 2000: Member States (EU-15)

1990 - 1999: Accession Countries

Data Source:

International Environmental Agency

Eurostat Compendium, Transport and Environment: Statistics for the Transport and Environment Reporting Mechanisms (TERM) for the European Union.

<http://www.iea.org>

General Availability:

Reporting unit: %

Reporting level: national

Reporting period: annually

Data available from 1990 to 1999

Availability by country:

1990 - 1998: Accession Countries

1990 - 1999: EU-15

1990 - 1999: Member States (EU-15)

The indicator:

As indicator.

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. The indicator is measured as the percentage of the total national energy consumption.

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:

Social Capital Indicators

Dimension - Social Developments

Associated Key Factor:

Inequality and Social Exclusion

Data Source:

The World Bank Group

Integrated Questionnaire for the Measurement of Social Capital, 2003, Social Capital Thematic Group

<http://www.worldbank.org/poverty/scapital/index.htm>

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

General Availability:

Reporting unit: Community

Reporting level:

Reporting period: regularly

Data available from to

The indicator:

Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Increasing evidence shows that social cohesion is critical for societies to prosper economically and for development to be sustainable (World Bank)

Description

A narrow view of social capital regards it as a set of horizontal associations between people, consisting of social networks and associated norms that have an effect on community productivity and well-being. A broader understanding of social capital accounts for both the positive and negative aspects by including vertical as well as horizontal associations between people, and includes behaviour within and among organizations, such as firms. This view recognizes that horizontal ties are needed to give communities a sense of identity and common purpose, but also stresses that without "bridging" ties that transcend various social divides (e.g. religion, ethnicity, socio-economic status), horizontal ties can become a basis for the pursuit of narrow interests, and can actively preclude access to information and material resources that would otherwise be of great assistance to the community (e.g. tips about job vacancies, access to credit). The broadest and most encompassing view of social capital includes the social and political environment that shapes social structure and enables norms to develop. This analysis extends the importance of social capital to the most formalized institutional relationships and structures, such as government, the political regime, the rule of law, the court system, and civil and political liberties. This view not only accounts for the virtues and vices of social capital, and the importance of forging ties within and across communities, but recognizes that the capacity of various social groups to act in their interest depends crucially on the support (or lack thereof) that they receive from the state as well as the private sector. Similarly, the state depends on social stability and widespread popular support. In short, economic and social development thrives when representatives of the state, the corporate sector, and civil society create forums in and through which they can identify and pursue common goals.

Source: World Bank, <http://www.worldbank.org/poverty/scapital/whatsc.htm>

The origins of the concept of social capital can be traced to Coleman (1960) and Putnam (1993, 2003).

How is it measured?

The most comprehensive definitions of social capital are multidimensional, incorporating different levels and units of analysis. Thus there is no single measure of social capital. Social capital includes dimensions tapping on items such as trust in government, voting trends, memberships in civic organizations, hours spent volunteering, voter turnout, newspaper readership, access to basic services, etc.

What are the advantages of the indicator?

A multidimensional indicator tapping on the 'black box' of community / social life that is the key to economic performance.

What are the disadvantages of the Indicator?

Insofar as this is a multidimensional indicator it is difficult to measure.

What is the policy relevance of the indicator?

Useful for explaining why specific socio-economic reforms are possible in some areas and not in others.

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

Sociological household typology

Dimension - Social Developments

Associated Key Factor:

Household arrangements

Data Source:

European Community Household Panel

Eurostat, Unit E2, L-2920
Luxembourg

<http://forum.europa.eu.int/irc/dsis/echpanel/info/data/information.html>

<http://www.statistics.gov.uk/STATBASE/Source.asp?vlnk=1311&More=Y>

General Availability:

Reporting unit: Household

Reporting level: EU-15, NUTS1 and NUTS2

Reporting period: annually

Data available from 1994 to 2002

Availability by country:

1994 - 1999: Belgium

1994 - 1999: Germany

1994 - 1999: Denmark

1994 - 1999: Spain

1994 - 1999: France

1994 - 1999: Greece

1994 - 1999: Ireland

1994 - 1999: Italy

1994 - 1999: Luxembourg

1994 - 1999: Netherlands

1994 - 1999: Portugal

1994 - 1999: United Kingdom

1996 - 1999: Finland

1997 - 1999: Sweden

The indicator:

Classification of households that takes into account number of household members (or household size), their ages and their relationships.

Description

The following households types are distinguished:

- (a) one-person households aged 65+
- (b) one-person households aged 30-64
- (c) single parent with one or more children
- (d) couples without children
- (e) couples with one or more children
- (f) other households

How is it measured?

On the basis of survey questions that specify household size, the age of household members and their interrelationships. The latter is usually done through a so-called relationships matrix.

What are the advantages of the indicator?

A standard indicator for describing family / household arrangements and for demonstrating the impact of demographic changes on household dynamics

What are the disadvantages of the Indicator?

Not all household surveys and hardly any individual surveys include a relationships matrix. The indicator must often be constructed on the basis of information provided by head of household or reference person.

What is the policy relevance of the indicator?

A standard indicator for describing family / household arrangements. Also a standard discriminatory variable in socio-economic and income analyses.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Changing household structures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Staff of rail operations

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

International Railway Union

International railways statistics 2001

http://www.uic.asso.fr/d_stats/liste/liste_comp_en.html

www.uic.asso.fr/

The indicator:

Number of people by operations (management, technical, etc.)

Description

It can be compared to other companies in order to measure the dynamism of railway companies.

How is it measured?

Data is reported from rail companies to national statistical bureaus.

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from 1997 to 2001

Availability by country:

1997 - 2000: EU-15+AC

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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Statistics on terrorism attacks at country level

Dimension - Politics

Associated Key Factor:

Political attitudes

Data Source:

US Department of State

The information is supplied by the US Department of State. Yet the reference can be found under 'Patterns of Global Terrorism' published by the Department of State 10610 for the relevant year.

<http://www.state.gov/s/ct/>

www.state.gov/

General Availability:

Reporting unit: Descriptive terrorism attacks

Reporting level: national

Reporting period: annually

Data available from 1995 to 1999

Availability by country:

1996 - 1999: Germany

1996 - 1999: Spain

1996 - 1998: EU-15+AC-avg

1996 - 1999: France

1996 - 1999: Greece

1996 - 1997: Ireland

1996 - 1999: Italy

1996 - 1996: Poland

1996 - 1999: United Kingdom

1997 - 1997: Austria

1997 - 1999: Belgium

1997 - 1997: Denmark

1997 - 1997: Sweden

1998 - 1998: Latvia

1999 - 1999: Austria

The indicator:

Statistics on terrorism and attacks in European Union member states.

Description

It gives us information on particular stories and events of terrorist attacks both minor and major in specific countries.

How is it measured?

The information is measured by number of attacks as statistics for Europe as a region. But also by reporting the specific terrorist attacks in detail for the specific country.

What are the advantages of the indicator?

The detailed narratives are quite in depth and gives a good description of the major terrorist attacks in countries that have been affected. The source also gives us information on terrorist attacks for different continents, which is important because it gives us information about external places that individuals travel to from Europe.

What is the policy relevance of the indicator?

It is subject to policies of the war against terrorism, especially relevant for the coalition.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Migration policy and border control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Structure of legal entities

Dimension - Institutional Arrangements

Associated Key Factor:

Political systems

Data Source:

Eurostat

Table: Correspondence between the NUTS level and the national administrative units.

L-2920 Luxembourg

http://europa.eu.int/comm/eurostat/ramon/nuts/introannex_regions_en.html

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit:

Reporting level: Regions

Reporting period: regularly

Data available from 2001 to

The indicator:

The regions of the European Union have been subdivided into NUTS nomenclature. These are based on the basis of institutional divisions currently in force in Member States.

Description

The NUTS division is a division often used for the regional disaggregation of statistics. However, given the context of its emergence it can also be used to provide information about the federal structure and degree of decentralisation.

How is it measured?

The NUTS division has been arrived at by reviewing the tasks allocated to territorial communities and taking into account factors such as the size of the population, historical experience, cultural identity and the economy. The NUTS subdivides each Member state into a whole NUTS 1 region based on major socio-economic regions grouping together basic regions.

NUTS 2 or basic regions are subdivided on the basis of framework generally used by Member states for the application of their regional policies.

NUTS 3 comprise local communities.

The present NUTS nomenclature, valid from 2001 subdivides the economic territory of the EU into 78 regions at NUTS 1 level, 210 regions at NUTS 2 level and 1092 regions at NUTS 3 level.

What are the advantages of the indicator?

Besides providing overview information on the structure of legal entities and the allocation of powers at sub-national level, it is the standard classification scheme in socio-economic analyses for regional differentiation.

What are the disadvantages of the Indicator?

Despite its original intention, the NUTS2 scheme does not always correspond to the political / administrative sub-divisions which in some countries tend to be more oriented to the NUTS3 level.

What is the policy relevance of the indicator?

The NUTS division is a division often used for regional disaggregation of statistics. However given the context of its emergence it can as such be used to provide information about the federal structure and degree of decentralisation.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Greater power for European level of decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A reorientation of European transport policy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Decentralization and effects on regional passenger transport	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
More openness and participation in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sum of imports and exports per country and trading partner for EU27

Dimension - Economics

Associated Key Factor:

Industrial and business structures and patterns

Data Source:

Eurostat

L-2920 Luxembourg

<http://www.europa.eu.int/comm/eurostat>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: EURO

Reporting level: national

Reporting period: monthly

Data available from 1991 to 2001

Availability by country:

1990 - 2001: EU-15+AC

The indicator:

The imports of a country give information on the degree of integration of this particular economy and about its relative economic prosperity within Europe. It also gives information of the regional distribution of growth and economic activity

How is it measured?

External trade statistics are obtained from the customs, exports are recorded at their fob value (fob — free on board) and imports at their CIF value (CIF — cost, insurance, freight). Therefore, and contrary to the balance-of-payments statistics, import value includes charges, such as transport and insurance, relating to that part of the journey which takes place outside the statistical territory of the importing country. Export value corresponds to the value of goods at the time and place where they leave the statistical territory of the exporting country.

What are the disadvantages of the Indicator?

Since the indicator does not discriminate the different products traded. It is difficult to draw direct conclusions on the impact of trade on transport. A discrimination between products would offer the possibility to also take the various affinities of products to certain transport modes.

What is the policy relevance of the indicator?

International trade statistics are an important primary source for most public and private sector decision-makers. For example, they help European companies carry out market research and define their commercial strategy. They enable Community authorities to prepare for multilateral and bilateral negotiations within the framework of the common commercial policy and to evaluate the progress of the single market or the integration of the European economies. Moreover, they constitute an essential source for balance-of-payments statistics, national accounts and studies of economic cycles.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tax share of fuels by type

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat

L-2920 Luxembourg

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: regularly

Data available from 1980 to 2002

Availability by country:

1980 - 2002: EU-15

1980 - 2002: Member States
(EU-15)

Data Source:

International Environmental Agency

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

<http://www.iea.org>

General Availability:

Reporting unit: per cent

Reporting level: national

Reporting period: annually

Data available from 1990 to 2000

Availability by country:

1990 - 2000: Czech Republic

1990 - 2000: Hungary

1990 - 2000: Poland

1990 - 2000: Turkey

The indicator:

Defines the tax share for different types of fuels. It differentiates between (petrol, diesel and alternative fuels)

Description

The indicator is measured as the share of tax of the total petrol price or as the respective tax share is expressed in monetary volumes.

How is it measured?

Data is collected by national statistical office four times a year.

What is the policy relevance of the indicator?

This indicator is relevant for taxation and environmental policies. In the case of environmental policies the indicator can help to estimate the stimulation through taxation measures to use more environmental friendly fuels.

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

Tertiary graduates in Science & Technology

Dimension - Science & Technology

Associated Key Factor:

Technological innovation

Data Source:

Eurostat New Chronos

<http://www.eu-datashop.de/datenba/EN/thema9/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: Individual

Reporting level:

Reporting period: annually

Data available from 1998 to 2002

Availability by country:

1998 - 2002: EU-15+AC

The indicator:

Tertiary graduates in science and technology per 1000 population aged 20 to 29 years

How is it measured?

Data are collected through the questionnaire on graduates of the joint UNESCO-OECD-EUROSTAT data collection (UOE).

What are the disadvantages of the Indicator?

The comparability of this indicator is difficult, since there are large national differences in the structure of the (tertiary) education systems.

What is the policy relevance of the indicator?

This is an indicator on the developments of a knowledge-based society and economy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Time between agenda setting, statute and implementation

Dimension - Institutional Arrangements

Associated Key Factor:

Policy formulation and implementation

Data Source:

EUR-Lex

Progress in notification of national measures implementing European directives (as of 28/02/03)

www.europa.eu.int/prelex

<http://www.europa.eu.int/eur-lex/en/index.html>

General Availability:

Reporting unit: European directive

Reporting level: EU Member States

Reporting period: regularly

Data available from 2003 to 2003

Availability by country:

2003 - 2003: EU-15

2003 - 2003: Member States (EU-15)

The indicator:

Time between agenda setting, statute or design of a specific policy or legislative act and the latter's implementation.

Description

Different legislations require different decision-making procedures. At the European level this involves the European Commission, the Council of Ministers and the European Parliament. At national level there are similar procedures involving the executive level of government, the parliament and/or senate. The time taken between agenda-setting, statute and implementation will depend on the policy area and type of procedure required.

How is it measured?

Monitoring of decisions related to specific policy measures and their implementation. A content analysis of directives often supplies information regarding expected time of implementation following transposition. More detailed information should be derived on the basis of expert judgement / policy case studies.

What are the advantages of the indicator?

Transposition is not equivalent to implementation. This indicator provides in-depth information regarding the policy process.

What are the disadvantages of the Indicator?

Time and resource intensive in terms of data collection and analysis.

What is the policy relevance of the indicator?

Provides benchmarking information on the time of implementation of specific policies. This, in turn, is important for the ex-ante evaluation of policy impacts, especially the timing of long-term outcomes.

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

Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
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Time Use in Europe

Dimension - Attitudes

Associated Key Factor:

Attitude to time and speed

Data Source:

Multinational Time Use Study

Electronic International Journal of Time Use Research, See: <http://www.eijtur.org/>

Institute for Social and Economic Research

<http://www.iser.essex.ac.uk/mtus/index.php>

<http://www.iser.essex.ac.uk/mtus/index.php>

General Availability:

Reporting unit: Individual

Reporting level: Country

Reporting period: regularly

Data available from 1965 to 2001

Availability by country:

1961 - 2000: United Kingdom

1965 - 2000: Belgium

1965 - 2001: Bulgaria

1965 - 1979: Czech Republic

1965 - 2000: Germany

1965 - 2001: Denmark

1965 - 1999: Hungary

1965 - 2001: Poland

1966 - 1998: France

1975 - 1995: Netherlands

1979 - 2000: Finland

1980 - 1989: Italy

1981 - 2000: Austria

1991 - 2000: Sweden

1997 - 1997: Greece

1999 - 1999: Estonia

2000 - 2000: Switzerland

2000 - 2000: Slovenia

The indicator:

Time Use in Europe

Description

The Data comes from participant diaries recorded for the research, and represents harmonised cross-national time use data. This includes data on time spent on travel to/from work or related to work; domestic related travel and other non-work travel.

How is it measured?

Data is from the Multi-national Time Use Study (MTUS). 150,000 diaries are collected from 80,000 diarists from 44 studies in 21 countries, of which 11 are in the EU-25. Austria, Belgium, Bulgaria, Denmark, Germany, France, Hungary, Italy, The Netherlands, Poland and UK

What are the advantages of the indicator?

Contains comparative data on a wide-range of topics, particularly ones that are relevant for attitudes to time and speed

What are the disadvantages of the Indicator?

Is about to be superseded by the Harmonised European Time Use Surveys project (HETUS) which will have data from 15 European countries. The data will become available through Eurostat towards the end of 2003.

What is the policy relevance of the indicator?

Besides transport, time use surveys are of relevance for studies of living and working conditions towards a better understanding of how patterns of time use affect lifestyle choices or vice-versa.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Valorization of time and speed and daily mobility	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Valorization of time and speed and tourism/business travel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Total CO2 emissions per country

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Eurostat New Chronos

http://europa.eu.int/newcronos/suite/info/notmeth/en/theme1/strind/enviro_eg.htm

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: index

Reporting level: national

Reporting period: annually

Data available from 1991 to 2001

Availability by country:

1990 - 2001: Accession Countries

1990 - 2001: EU-15

1990 - 2001: Member States (EU-15)

Data Source:

United Nations Framework Convention on Climate Change

<http://unfccc.int>

<http://unfccc.int>

General Availability:

Reporting unit: million tonnes

Reporting level: national

Reporting period: annually

Data available from 1990 to 2000

The indicator:

Measures the total CO2 emissions per country in a certain period. The indicator is part of the national greenhouse gas inventories in accordance to the Articles 4 and 12 of the Climate Change Convention

How is it measured?

GHGs are rarely measured directly ; emissions are more typically calculated on the basis of emissions factors, or are inferred on the basis of observed relationships.

What is the policy relevance of the indicator?

The indicator has relevance to reach the goals of the Kyoto protocol.

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

Total fertility rates

Dimension - Demographics

Associated Key Factor:

Fertility rates

Data Source:

CIA World Factbook

The World Factbook.

<http://www.odci.gov/cia/publications/factbook/index.html>

www.cia.gov/cia/publications/factbook/

General Availability:

Reporting unit: babies per mother

Reporting level: national

Reporting period: regularly

Data available from 1980 to 2000

Availability by country:

1980 - 1996: EU-15+AC

1985 - 2000: EU-15-avg

1986 - 2000: Austria

1986 - 2000: Belgium

1986 - 2000: Germany

1986 - 2000: Denmark

1986 - 2000: Spain

1986 - 2000: Finland

1986 - 2000: France

1986 - 2000: Greece

1986 - 2000: Ireland

1986 - 2000: Italy

1986 - 2000: Luxembourg

1986 - 2000: Netherlands

1986 - 2000: Portugal

1986 - 2000: Sweden

1997 - 2000: Bulgaria

1997 - 2000: Cyprus

1997 - 2000: Czech Republic

1997 - 2000: Estonia

1997 - 2000: Hungary

1997 - 2000: Lithuania

1997 - 2000: Latvia

1997 - 2000: Malta

1997 - 2000: Poland

1997 - 2000: Romania

1997 - 2000: Slovenia

1997 - 2000: Slovak Republic

The indicator:

The average number of babies born to women during their reproductive years over time and by country.

How is it measured?

Information is taken from national statistical offices using census data. Usually the numbers are estimates based on census round of 1990/91 and the applying of the component method.

What are the advantages of the indicator?

In conjunction with ageing (life expectancy at birth and at 65) this is a key indicator for understanding the dynamics of demographic change over time.

What is the policy relevance of the indicator?

A relevant indicator for family and social policy.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Ageing and the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ageing and leisure patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Data Source:

Eurostat

European Commission: Statistical Yearbook on Candidate and South-east European countries (2002), European Social Statistics: Demography (2001), Demographic Statistics: Data 1960-99 (1999), Eurostat Yearbook (1995), Eurostat Yearbook (2001) Statistical Yearbook on Central European Countries (1998)

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: babies per mother

Reporting level:

Reporting period: regularly

Data available from 1980 to

Total foreign direct investment

Dimension - Economics

Associated Key Factor:

Industrial and business structures and patterns

Data Source:

Eurostat New Chronos

eurostat: European Union foreign direct investment yearbook 2001

<http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat&theme=2-Economy%20and%20Finance>
europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: million EURO

Reporting level: national and at sector level

Reporting period: annually

Data available from 1980 to 2001

Availability by country:

1980 - 2000: EU-15

1980 - 2000: Member States (EU-15)

1995 - 2000: Accession Countries

The indicator:

Defines the level of Foreign Direct Investment in a country. FDI statistics give information on the main aspects of globalisation and openness to globalisation of a country.

How is it measured?

FDI activity can be measured in two different ways: financial investment flows and stocks, and "real" activity of foreign affiliates in host countries. Financial FDI data are compiled according to the concepts used for balance of payments (flows) and international investment position (stocks) statistics (OECD, 2001a). Information on the activity of foreign affiliates is collected through national surveys concerning several aspects of business activity, and is compiled by the OECD (OECD, 2001b).

What are the advantages of the indicator?

Foreign direct investment is considered to be an important driver of economic growth in countries.

What are the disadvantages of the Indicator?

The indicator should differentiate between sectors, and should especially focus on the transport sector.

What is the policy relevance of the indicator?

The indicator has policy relevance to trade and investment policies. In consequence, there is a wide consensus that policy should aim at reducing or eliminating hindrances to foreign direct investment (FDI) as long as this does not conflict with other legitimate policy objectives.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Growth of transport demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Total national energy consumption

Dimension - Environment

Associated Key Factor:

Energy use and prices

Data Source:

Eurostat

L-2920 Luxembourg

http://www.eu-datashop.de/datenba/EN/allgem/nc_them.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: MTOE

Reporting level: national

Reporting period: annually

Data available from 1985 to 2000

Availability by country:

1985 - 1998: EU-15

1985 - 1998: Member States (EU-15)

1999 - : Accession Countries

1999 - : EU-15+AC

The indicator:

The combination of this indicator with the regional share of each economic sector, an increasing regional energy consumption can give information on the energy intensity of an economy.

Description

Is a measure of energy delivered to the final user. It therefore includes energy sources which are delivered to final users, including electricity, but it excludes energy which is lost in the process of transforming primary energy sources into delivered energy. (EEA: Statistical Compendium 1995)

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?

Indicator does not include marine bunkers.

What is the policy relevance of the indicator?

This indicator is relevant for policies aiming to reduce GHG emissions in general and to reach targets of the Kyoto protocol.

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

Total Nox emissions per country

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

Co-operative Program on Long Range Transboundary Air Pollution

<http://webdab.emep.int/>

<http://www.emep.int>

General Availability:

Reporting unit: 1000 tonnes

Reporting level: national

Reporting period: annually

Data available from 1980 to 2000

Availability by country:

1980 - 2000: EU-27 (w/o certain country)

The indicator:

NOx damages forests and lakes. It also has human health implications

Description

NOx normally includes the nitrogen oxides NO and NO₂ and other. The greater part of NOx emissions results from fuel combustion in motor vehicles. Good estimates of NOx emissions require detailed information on the operating conditions of the engine or other combustion source.

How is it measured?

Emission data are based upon the best available engineering estimates for a given period.

What are the disadvantages of the Indicator?

Data not always cover emissions from all mobile sources.

What is the policy relevance of the indicator?

By reducing emissions per transport unit (passenger-km or tonne-km), less environmental damage occurs for transportation of the same amount of goods and passengers. Such reduction can be realised by either increasing occupancy rates or load factors (see TERM 2002 29 EU and 30 EU), or by decreasing the emissions per vehicle-kilometre (i.e. setting higher emission standards, see TERM 2002 34 EU — Proportion of the vehicle fleet meeting certain emission standards).

No explicit targets exist on the European level directly addressing specific emissions.

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

Total number of vehicles in use

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

International Road Federation

<http://www.irfnet.org/services.asp>

www.irfnet.org/

General Availability:

Reporting unit: number in million

Reporting level:

Reporting period: yearly

Data available from 1996 to 2000

Availability by country:

1996 - 2000: EU-15+AC

The indicator:

Total number of passenger cars, buses and coaches, lorries, road tractors, two wheelers in use.

How is it measured?

Annual data. It is a compilation of road and vehicles statistics. It is based on data compiled from official sources within national statistics offices and national road administrations in 185 countries.

What are the advantages of the indicator?

The growth in the stock of motor vehicles in use is a major factor in explaining the impact of transport on the environment.

What are the disadvantages of the Indicator?

This information, together with monitoring data on the average age of the vehicle fleet, gives better insight in the environmental impact of vehicles in different stages of their lifetime.

What is the policy relevance of the indicator?

The number of vehicles puts an their use puts pressure in physical infrastructure and influences life quality especially in cities in two ways. Firstly by enabling a society to travel and secondly in creating negative external effects through emissions etc.

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

Transport infrastructure investment

Dimension - Transport

Associated Key Factor:

Competitiveness of modes

Data Source:

DG Tren

The Tran-European Networks TEN-T. Revision Guidelines regarding priority projects and financing. This is also known as the van-Miert Report

http://europa.eu.int/comm/ten/transport/revision/hlg_en.htm

http://europa.eu.int/comm/dgs/energy_transport/index_en.html

General Availability:

Reporting unit: TEN-T projects

Reporting level: Corridors

Reporting period: regularly

Data available from 1985 to 1994

The indicator:

Investment into transport infrastructure (in EURO) per year, country and mode and at the European level.

How is it measured?

Investment plans are reported in national master plans (multimodal or modal).

The European Union contributes to the financing of the trans-European networks in transport (TEN-T). Till recently the share of EU contribution to TEN-T projects amounted to 10 per cent, in the future it will increase to 20 to 30 per cent.

Another source of European financing for transport projects has been the Cohesion Funds (for those countries eligible, namely, Ireland -- till recently -- Spain, Portugal and Greece and in the future the majority of the New Member States).

In the pre-accession period, European funding of transport infrastructure in the new Member States has come from the ISPA fund and the European Investment Bank (EIB)

What are the advantages of the indicator?

Transport infrastructure investment measures the importance given by national / European governments to transport infrastructure. It is also a key input for cost-benefit and network ad-hoc evaluations and forecasting studies.

What are the disadvantages of the Indicator?

Detailed information on transport infrastructure investment is still rather dispersed. The comparative information that exists is either restricted in nature or limited to the TEN-T network.

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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Data Source:

European Conference of Ministers of Transport

ECMT (1999), Recent Trends in Transport Infrastructure Investment 1985-1995. Provides data relative to roads, railways, urban railways, inland waterways, oil pipelines, ports and airports of ECMT member countries.

<http://www1.oecd.org/cem/topics/tti/ttipub.htm>

<http://www1.oecd.org/cem/>

General Availability:

Reporting unit: investment

Reporting level: Country

Reporting period: every 10 years

Data available from 1985 to 1994

Availability by country:

1985 - 1994: Bulgaria

1985 - 1994: Czech Republic

1985 - 1994: Estonia

1985 - 1994: EU-15

1985 - 1994: Hungary

1985 - 1994: Lithuania

1985 - 1994: Latvia

1985 - 1994: Member States (EU-15)

1985 - 1994: Poland

1985 - 1994: Romania

1985 - 1994: Slovenia

1985 - 1994: Slovak Republic

Data Source:

European Commission

TEN-INVEST Final Report, Essen 2003. Authors: PLANCO & Partners, prepared for the European Commission (DG-TREN)

http://europa.eu.int/comm/ten/transport/documentation/index_en.htm

europa.eu.int/comm/index_en.htm

General Availability:

Reporting unit: Investment

Reporting level: Country

Reporting period: regularly

Data available from 1996 to 2010

Availability by country:

1996 - 2010: EU-15+AC

Data Source:

Eurostat New Chronos

Panorama of transport - Statistical overview of road, rail, inland waterways and air transport in the European Union - Data 1970-1999

<http://www.eu-datashop.de/datenba/EN/thema7/bereiche.htm>

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: monetary values

Reporting level: national

Reporting period: annually

Data available from 1989 to 2002

Availability by country:

1989 - 2002: EU-12

Unemployment rate at regional level

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Eurostat

L-2920 Luxembourg

http://www.eu-datashop.de/datenba/EN/allgem/infoda_1.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Individual

Reporting level: national/regional

Reporting period: annually

Data available from 1983 to 2002

Availability by country:

1983 - 2002: EU-25

The indicator:

Number of people unemployed as a percentage of the labour force

Description

Unemployment rates reflect the development of the labour market concerned. They also depict the general economic situation in a country or region.

How is it measured?

The rate is calculated by dividing the number of people unemployed as a percentage of the labour force. The labour force is the total number of people employed or unemployed.

Number of people unemployed comprise persons aged 15 to 74 years who were: A. without work during the reference week, i.e. neither had a job nor were at work in paid employment or self-employment; B. currently available for work, i.e. were available for paid employment or self-employment before the end of 2 weeks following the reference week; C. actively seeking work, i.e. had taken specific steps in the 4 week period ending with the reference week to seek paid employment or self-employment

What are the advantages of the indicator?

Unemployment often varies significantly at the regional level. Thus it is important to have unemployment rates disaggregated as much as possible.

What are the disadvantages of the Indicator?

ILO / Eurostat definitions of unemployment do not always coincide with national definitions

What is the policy relevance of the indicator?

Relevant indicator for social, economic, and regional policy

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

Unemployment rate national level

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

Eurostat

Structural Indicators

L-2920 Luxembourg

<http://europa.eu.int/comm/eurostat/Public/dashop/print-product/EN?catalogue=Eurostat&product=1-structur-EN&mode=download>

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: Percentage

Reporting level: National; NUTS 3

Reporting period: annually

Data available from 1993 to 2002

Availability by country:

1983 - 2002: EU-15+AC

1983 - 2002: EU-15-avg

1993 - 2002: EU-15+AC

1993 - 2002: EU-15+AC-avg

1993 - 2002: EU-15-avg

1994 - 2002: EU-15+AC-avg

The indicator:

Number of people unemployed as a percentage of the labour force

Description

Unemployment rates are a good indicator to see the number of economically inactive people. It also depicts the general economic situation in a country or region.

How is it measured?

The rate is calculated by dividing the number of people unemployed as a percentage of the labour force.

The labour force is the total number of people employed or unemployed.

The unemployed comprise persons aged 15 to 74 years who were: A. without work during the reference week, i.e. neither had a job nor were at work in paid employment or self-employment; B. currently available for work, i.e. were available for paid employment or self-employment before the end of 2 weeks following the reference week; C. actively seeking work, i.e. had taken specific steps in the 4 week period ending with the reference week to seek paid employment or self-employment

What are the disadvantages of the Indicator?

ILO / Eurostat definitions of unemployment do not always coincide with national definitions.

What is the policy relevance of the indicator?

Relevant indicator for social, economic, and regional policy.

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

Urban public transport networks

Dimension - Transport

Associated Key Factor:

Regional distribution of transport networks

Data Source:

International Union of Public Transport

Urban Public Transport - Statistics (2 volumes + disquette)

www.uitp.com/publications/index4.cfm

www.uitp.com/

General Availability:

Reporting unit:

Reporting level:

Reporting period:

Data available from to

The indicator:

Urban public transport networks in five continents.

How is it measured?

Statistical information on 310 urban public transport networks. It is based on the data collected from the surveys sent to public transport operators worldwide.

What are the advantages of the indicator?

Allows to measure the efforts made by the cities or groups of cities to protect their environment, to control the development of their area of influence, and to provide the inhabitants with the public transport services to ensure adequate connectivity throughout the city.

What are the disadvantages of the Indicator?

The indicator is close to the concept of public services and this concept does not have the same importance in all European countries.

What is the policy relevance of the indicator?

It can be part of a general policy of sustainable development of a city or city region with the goal to limit car traffic growth and consequently pollution and nuisance arising from traffic.

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Increase of trade and infrastructure needs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Use of portals

Dimension - Science & Technology

Associated Key Factor:

Diffusion and uptake of technologies by the market

Data Source:

Nielsen Netratings

http://www.nielsen-netratings.com/news.jsp?section=dat_to&country=ge

<http://www.nielsen-netratings.com>

General Availability:

Reporting unit:

Reporting level: national

Reporting period: monthly

Data available from 2003 to

Availability by country:

2003 - 2003: Germany

2003 - 2003: Spain

2003 - 2003: France

2003 - 2003: Netherlands

2003 - 2003: Sweden

2003 - 2003: United Kingdom

The indicator:

Defines the use of internet portals.

Description

Audience to different internet portals by country, percentage of internet users reached and time of visit.

How is it measured?

Internet portal has a system that collects the information on which sites are opened by how many users for what time period.

What are the advantages of the indicator?

The use of the portals gives some indication on the use of the internet by people (e.g. length of time each hit remains on eBay gives an indication on the popularity of this means of e-commerce)

What are the disadvantages of the Indicator?

The indicator does not give very precise information on the way in which the access to the internet is used, since many 'parent companies' or 'websites' provide several services, nor does it give an indicator of the user (white, middle-class, well-educated males are the group with highest internet access).

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

	Transport Impact	External Determining Variable	Intermediate Variable	Contextual Information
Flexibilisation of the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technological innovation and diffusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Waste glass and recycling

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Topic Centre on Waste and Material Flows

http://waste.eionet.eu.int/wastebase/quantities/index_html

<http://waste.eionet.eu.int/>

General Availability:

Reporting unit: 1000 tonnes

Reporting level: national

Reporting period: annually

Data available from 1988 to 2001

Availability by country:

1988 - 2001: EU-12

The indicator:

Describes the amount of waste glass produced and the amount of recycled glass in tonnes per country and per year.

Description

Recycling is defined as any reuse of material in a production process that diverts it from the waste stream, except reuse as fuel. Reprocessing as the same type of product, and for different purpose, are both included. "Recycling rates" are the ratios of the quantity collected for recycling to the apparent consumption (economic notion of domestic production of the respective material + imports - exports). (OECD Statistical Compendium: 2002)

How is it measured?

Data is reported from the European Container Glass Federation.

What are the advantages of the indicator?

The indicator can be helpful, if the material flows of recycling and waste processing are set into relationship with the production of new articles.

What are the disadvantages of the Indicator?

It is not clear to what extent the creation of waste and recycling create transport.

What is the policy relevance of the indicator?

Policies regarding material flows in an economy have an influence on the development of transport demand. Therefore these materials flows should be considered when applying policies regarding minimum recycling shares.

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

Waste oil

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Topic Centre on Waste and Material Flows

http://waste.eionet.eu.int/wastebase/quantities/index_html

<http://waste.eionet.eu.int/>

General Availability:

Reporting unit: 1000 tonnes

Reporting level: national

Reporting period: annually

Data available from 1991 to 2000

Availability by country:

1991 - 1999: France

1995 - 1997: Austria

1995 - 2000: Belgium

1995 - 1997: Germany

1995 - 1997: Denmark

1995 - 1995: Spain

1995 - 1997: Ireland

1995 - 1998: Italy

1995 - 1997: Luxembourg

1995 - 1995: Netherlands

1995 - 1997: Portugal

1995 - 1997: Sweden

1995 - 1997: United Kingdom

1997 - 1997: Finland

1999 - 1995: France

The indicator:

Measures the amount of waste oil produced in tonnes per year.

Description

Waste oil is an indicator categorized in the Basel Convention on the Control of Transboundary movements of Hazardous waste and their disposal.

How is it measured?

Statistics are collected via the OECD reporting procedure for hazardous waste. Accidental oil spills are reported from the police.

What are the disadvantages of the Indicator?

Movements of waste oil are not considered in the indicator, which have a direct impact on the transport,

What is the policy relevance of the indicator?

Waste oil is hazardous. Reglementation on the treatment of waste oil are important to avoid water and soil pollution

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

Waste tyres

Dimension - Environment

Associated Key Factor:

Attitudes and implementation of principles relating to sustainable development

Data Source:

European Tyre Recycling Association

www.etra.eu.com/

<http://www.etra.eu.com/>

General Availability:

Reporting unit: 1 000 tonnes

Reporting level:

Reporting period: every 2 years

Data available from 1996 to 2000

Data Source:

Eurostat New Chronos

THEME 8: Environment
DOMAIN : MILIEU Environment statistics
COLLECTION : WASTE Waste
TABLE : WAQ2B Generation of waste by selected waste streams (1000t)

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

europa.eu.int/comm/eurostat/

General Availability:

Reporting unit: 1 000 tonnes

Reporting level: national

Reporting period: every 2 years

Data available from 1996 to 2000

Availability by country:

1996 - : EU-15

1996 - : Member States (EU-15)

1998 - : EU-15

1998 - : Member States (EU-15)

2000 - : EU-15

2000 - : Member States (EU-15)

The indicator:

Defines the recycling rate or absolute number of waste tyres per year.

Description

EU is on the track to meet the objective to abolish the land filling of waste tyres.

However additional efforts are still needed to find alternative outlets for waste tyres to meet the target in year 2003 and 2006.

How is it measured?

Data collected by ETRA (European Tyre Recycling Association) and national environmental authorities including their agencies.

What are the advantages of the indicator?

The indicator can be helpful, if the material flows of recycling and waste processing are set into relationship with the production of new articles.

What are the disadvantages of the Indicator?

The indicator does not explain the amount of waste tires used in recovery processes.

What is the policy relevance of the indicator?

Too many tyres are landfilled or burnt, but the development in recycling is positive. Landfilling of tyres will be prohibited by the landfill Directive by the year 2006 (Directive 99/31/EC1). This increased recycling will benefit the environment amongst others through CO2 mission reduction. (TERM 2002)

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

Working hours evolution

Dimension - Social Developments

Associated Key Factor:

Labour market and working conditions

Data Source:

European Foundation for the Improvement of Living and Working Conditions

Survey of Working Conditions. Three such surveys have been carried out, the last in 2000, relevant report from 2001. A report on working conditions in Acceding and Candidate countries was published in 2003.

Dublin, Ireland

www.eurofound.ie/publications

<http://www.eurofound.ie/>

General Availability:

Reporting unit: individual

Reporting level: country

Reporting period: regularly

Data available from 1990 to 2000

Availability by country:

1990 - 1990: EU-15

1990 - 1990: Member States (EU-15)

1995 - 1995: EU-15

1995 - 1995: Member States (EU-15)

2000 - 2000: EU-15

2000 - 2000: Member States (EU-15)

2001 - 2001: Accession Countries

The indicator:

Shows the trends in working hours over a period of time.

Description

This indicator helps in assessing the working hours trend in the society, i.e. is the society moving towards a lower working - more leisure society or vice-versa; is the society becoming more flexible with people working part-time.

How is it measured?

It can be measured by recording the number of people working different average weekly working hours, these segments are mainly 40 hours and over, between 35 and 40 hours, between 30 and 35 hours, 30 hours and less which can also be considered as part-time employment. It is calculated as a percentage of the people working under different categories divided by the total number of people employed.

What are the disadvantages of the Indicator?

Not always consistent reporting of overtime (paid or unpaid).

What is the policy relevance of the indicator?

Labour market policies and social policies

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

Data Source:

Eurostat

Labour force survey, EUROSTAT;
The Eurostat year book reports on
the average hours worked per week
for the EU15 countries for the years
1994, 1997 and 2000 for full time
and part time work.

L-2920 Luxembourg

http://www.eu-datashop.de/datenba/EN/allgem/infoda_1.htm

<http://europa.eu.int/eurostat>

General Availability:

Reporting unit: individual

Reporting level: country

Reporting period: annually

Data available from 1983 to 2004

Availability by country:

1993 - 2002: EU-15+AC

1994 - 2000: EU-15+AC

World merchant fleet

Dimension - Transport

Associated Key Factor:

Modal split

Data Source:

ISL Shipping statistics and Market Review - SSMR

Shipping Statistics and Market Review 2003 - SSMT. Journal of ISL

http://www.isl.org/products_services/hop/enindex.htm

www.isl.org/

General Availability:

Reporting unit: Ships

Reporting level: Shippers / countries

Reporting period: monthly

Data available from 1996 to 2002

Availability by country:

2002 - 2002: Belgium

2002 - 2002: Bulgaria

2002 - 2002: Cyprus

2002 - 2002: Germany

2002 - 2002: Denmark

2002 - 2002: Estonia

2002 - 2002: Spain

2002 - 2002: Finland

2002 - 2002: France

2002 - 2002: Greece

2002 - 2002: Ireland

2002 - 2002: Italy

2002 - 2002: Lithuania

2002 - 2002: Latvia

2002 - 2002: Malta

2002 - 2002: Netherlands

2002 - 2002: Portugal

2002 - 2002: Romania

2002 - 2002: Sweden

2002 - 2002: Slovenia

2002 - 2002: United Kingdom

The indicator:

World merchant fleet according to nature and size of ship.

How is it measured?

Merchant and passenger ships of 300 gt and over, and passenger vessel of 1000 gt and over (cruise fleet). Ship characteristics of the world merchant fleet provided by Lloyd's Register/Fairplay and container fleet data is supplied by MDS-Transmodal.

What are the disadvantages of the Indicator?

The indicator does not give any reference in which services the ship is used. Ships might well be flagged under a foreign flag and operate in international transport in European waters.

What is the policy relevance of the indicator?

The world merchant fleet is important for flagging policies in order to stop current trends towards the outflagging of ships to flags of convenience

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