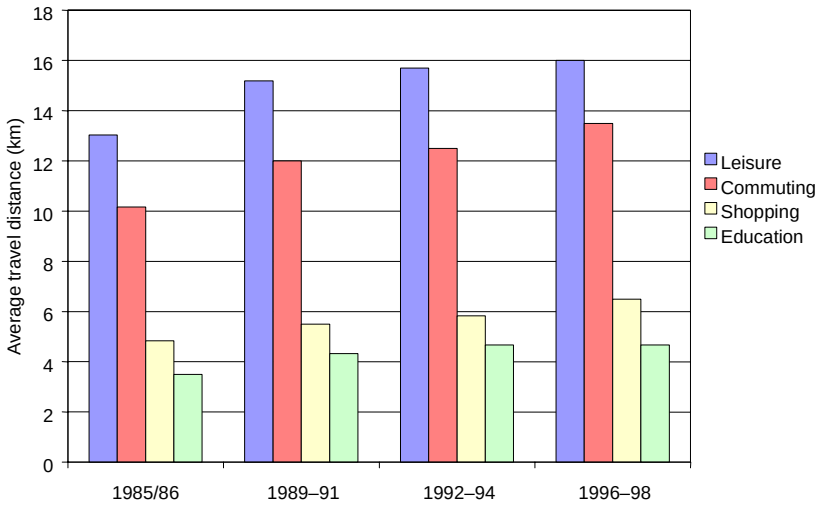
Indicator fact sheet

TERM 2001 14 EU — Access to basic services (average journey length)

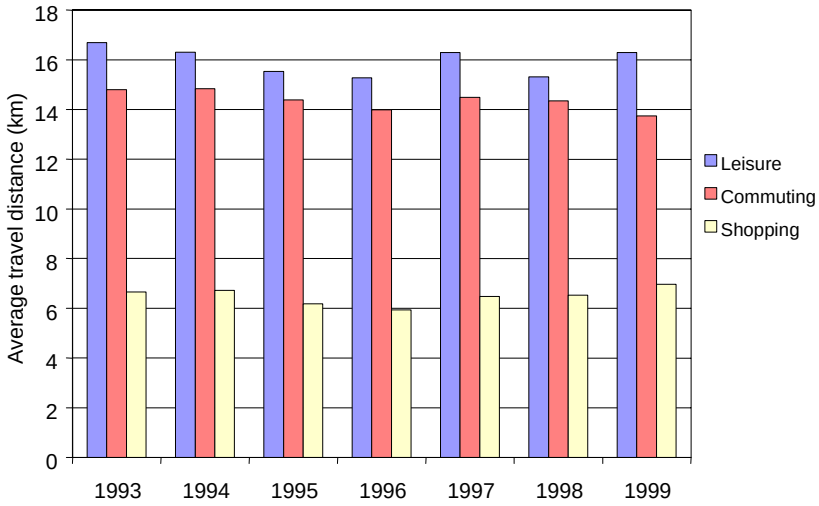
☹ **Urban sprawl, growing car ownership, the concentration of work and shopping in out-of-town locations have resulted in continuing increases in journey length for all purposes, but particularly for commuting. Access to basic services is becoming more and more dependent on cars.**

Figure 1: Average journey length by purpose (Great Britain)



Source: DETR, 1999.

Figure 2: Average journey lengths by purpose (Denmark)



Source: Denmark Statistics, 2001.

Results and assessment

Policy relevance

Locations of offices, residential areas, schools, etc., can (at least to some extent) be influenced by policy-makers in such way that travel distances are lessened and/or environment friendly modes are promoted (e.g. building shopping areas close to train and bus stations). By doing so, the incentive for using cars to reach everyday destinations can be taken away or minimised. Accessibility to everyday destinations should be guaranteed to all, and be equal for people with and people without a car.

Policy context

Easy access to work, education, shopping and leisure is an essential component of economic and social development. Providing such access for everyone, at low cost to the environment, should therefore be the key objective of any transport policy.

Accessibility is governed by many factors. Spatial (land-use) planning (i.e. urban and regional planning) and transport planning (public and private) can influence travel times and distances, for people and goods, and the modes used. A better integration of spatial and transport planning is therefore a key to achieving better accessibility and managing the need for travel. At the urban planning level, this can be achieved, for example, by a better spatial mix of economic activities backed by improvements in public transport, cycling and walking facilities, and by restrictions on parking. This can improve accessibility while reducing the demand for energy-consuming mobility. The need to provide accessibility by conventional transport means may be progressively reduced by developments in telecommunications and e-commerce which provide other important ways of accessing services.

The European spatial development perspective (ESDP) (European Commission, 1999) was endorsed by the European ministers for spatial planning at an informal meeting at Potsdam in May 1999. Its objectives and measures should be implemented at EU and all subsidiary levels. It identifies the economic and social cohesion of Europe as a key objective. Measures proposed as options in the ESDP imply that access to basic services should be improved without creating more (car) transport than necessary.

- ‘Promotion of better accessibility in cities and metropolitan regions through an appropriate location policy and land use planning that will stimulate mixing of urban functions and the use of public transport.’
- ‘Better coordination of spatial development policy and land use planning with transport and telecommunications planning.’

Available instruments

Governments could apply the following instruments, many of which are mentioned in the European spatial development perspective:

- better integration of spatial and transport planning;
- at the urban planning level, a better spatial mix of economic activities backed by improvements in public transport, cycling and walking facilities, and by restrictions on parking;
- sustaining a basic level of services and public transport in small and medium-sized cities in rural areas.

Spatial planning actions at national level

Some countries (and cities) have taken initiatives to improve the coordination of regional, urban and transport planning by increasing accessibility while reducing the demand for car transport. This can be done, for example, by mixing urban functions, introducing zoning and parking policies and improving public transport.

- The Dutch Government has adopted a policy aimed at concentrating employment-intensive land use around public transport routes and interchanges. The target (by 2000) is to keep

the ratio of journey-to-work travel times by public transport compared with private car below 1:5 on all main commuter routes.

- The UK Government has a policy of reducing demand for transport through appropriate land-use and development planning. The government encourages local authorities to take account of the need to improve accessibility when determining the location of new developments and the need for improved public transport infrastructure.
- The UK also aims to achieve a one-third increase in the proportion of households in rural areas within about 10 minutes' walk of an hourly or better bus service by 2010 (DETR, 2000).
- Accessibility is an important part of the proposed Finnish national public transport strategy, which aims to ensure access to public transport services for all citizens by creating 'door-to-door' public transport services. The Ministry of Transport and Communications, in cooperation with regional councils and municipalities, will ensure the balanced regional availability of public transport services, although these services are initially being planned and operated by transport companies.
- Germany aims to reduce transport demand by improving urban and regional planning through integrated spatial and transport planning. Transport flows can be reduced by combining different functions (work, leisure, living, shopping) in concentrated areas.
- In Denmark, offices and commercial services must be shifted towards the points that are best served by public transport (Danish Ministry of Transport, 1996).

Environmental context

Easy access to everyday destinations like schools, shops and work should be guaranteed for all EU citizens. This access should exist not only for car owners, but also for people who do not own a car. Sufficient availability of alternative modes (both in vehicles and infrastructure) and careful spatial planning by locating everyday destinations at places that are easily accessible, especially without a car, can significantly benefit the environment by shifting transport volumes away from private and towards public transport.

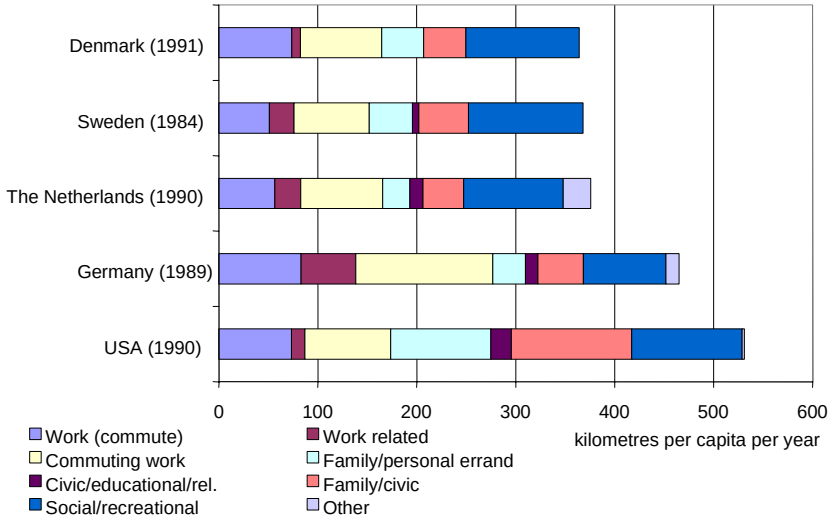
Assessment

Travel surveys in Denmark and the UK have shown that the average journey length is increasing. This is partly related to increasing distances to reach everyday destinations (spatial planning). Additionally, people tend to spend a constant time budget on travel (European Commission, 2000). As transport becomes more efficient, distances increase while the time spent travelling remains constant. Increased car ownership (see Fact sheet TERM 2002 32 EU — Size of the vehicle fleet) therefore results in increased travel distances, and general mobility increases (see Table 2 and Box 2). However, this might not result in better access to basic services if these services are located further away.

Travel surveys from the USA and a number of European countries (Figure 3) show the following trends.

- Work travel (mostly commuting, but some trips within work) accounts for 20–30 % of travel; services, civic, educational, and family business accounts for about 25 % (except in the USA, where this share was higher); leisure (including culture, sports and outdoor activities) makes up the rest.
- The average trip by car is about 13–15 km for all the European countries studied. Even though cars are increasingly built for higher speeds and longer trips, they are still used mainly for local transport (about 80 % of all trips are less than 20 km and 60 % are less than 10 km). Since car trips are about the same length in the US as they are in the Netherlands, the higher US kilometre per capita figures arise from more trips per person.

Figure 3: Passenger travel by purpose (selected countries and years)



Source: Schipper et al., 1995.

Trends in trip lengths in the United Kingdom, Denmark and Belgium show a growth in travel during recent decades. Increases in income and car ownership have led many people to choose to live out of town. Working places and shopping areas are increasingly located on greenfield sites. This development (urban sprawl) has led to longer trips with people living further away from work, leisure activities, shopping centres and schools.

In the UK, the length of the average commuting journey increased from 10 km in 1985/86 to 13 km in 1996–98. An increasing number of commuting journeys are made by private car and fewer by public transport. Cars account for around 59 % of all journeys and for 71 % of commuting trips.

The length of the average shopping journey in the UK increased from 4.2 km in 1985/86 to 6.2 km in 1996–98. This is a result of the growth and success of out-of-town shopping centres and retail parks. The average education trip increased from 3.2 km in 1985/86 to 4.4 km in 1996–98 (Figure 1).

Access to services has become increasingly dependent on the car, so a large fraction of the population has difficulty in accessing even basic services. Data from a recent United Kingdom survey indicates the extent to which people in no-car households are disadvantaged. Data from the Netherlands shows that, often, public transport is not a realistic alternative to the car (Box 1). About 26 % of EU households do not own a car, either because they do not want to (16 %) or because they cannot afford one (10 %). The percentage of small households with people who are too old to drive is likely to increase rapidly.

National differences are enormous: for example, only 4 % of households in Italy and Luxembourg cannot afford a car, whereas for Portugal and Greece the figure is more than 20 % (see Table 1).

References

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Data

Table 1: Households without a car

Unit: %

	Percentage of households that					
	cannot afford a car		do not want a car		have at least one car	
	1996	1995	1996	1995	1996	1995
Belgium	8.3	8.0	16.5	15.3	75.2	76.7
Denmark	14.1	15.1	23.7	21.9	62.2	63.0
Germany	15.3	4.2	10.7	21.3	74.0	74.5
Greece	20.9	20.2	22.3	23.0	56.8	56.8
Spain	12.8	14.7	18.6	15.6	68.6	69.7
France	6.5	6.7	14.6	15.8	78.9	77.5
Ireland	14.7	15.9	16.0	15.5	69.3	68.6
Italy	3.5	3.7	18.3	16.1	78.2	80.2
Luxembourg	3.6	4.2	13.7	10.9	82.7	84.9
Netherlands	6.3	6.2	26.1	26.4	67.6	67.4
Austria	6.0	5.9	20.8	21.8	73.2	72.3
Portugal	22.9	26.8	16.2	13.6	60.9	59.6
Finland	10.3		23.4		66.3	
United Kingdom	10.5	10.3	17.6	16.9	71.9	72.8
European Union (15 countries)	10.5	8.0	16.2	18.3	73.3	73.7

NB: Data for France in 1995 are considered unreliable.

Source: Eurostat, 2001.

Table 2: General mobility data

Unit: Miscellaneous

Number of trips	About 3 trips per person/day
	About 400 billion trips per year in EU-15
Trip length	About half of trips are up to 3 km
	About half of all car trips are 6 km or less
	Arithmetic average trip length is 13 km
Time spent	About 1 hour per person/day
	About 20 minutes per trip
Travel purpose	About 40 % are leisure trips
	About 30 % are commuting trips (work/education)
	About 20 % are shopping trips

Source: European Commission, 2000.

Table 3: Travel time ratios per distance class in relation to share of movements per distance class, from door to door (Netherlands)

Unit: Miscellaneous

Distance class	Average ratio travel time public transport/car	Percentage of car displacements in this distance class	Share of public transport in this distance class (%)
0–5 km	5:1	38	1 (*)
5–10 km	4:3	20	6
10–15 km	3:7	11	8
15–30 km	2:5	18	11
30–50 km	1:3	7	14
> 50 km	1:1	6	20

(*) Most Dutch people use bicycles rather than public transport for these distances

Source: Dutch Advisory Serviced Transport and Transportation, 2001.

File: TERM 2001 14 EU — Access to basic services.xls

Metadata

Technical information

1. Data source: miscellaneous (see sources and references); households with/without cars directly taken from Eurostat, 2002.
2. Description of data: not applicable due to lack of standard data sets for this indicator.
3. Geographical coverage: various, see (notes under) graphs and tables.
4. Temporal coverage: various, see (notes under) graphs and tables.
5. Methodology and frequency of data collection: not applicable due to lack of standard data sets for this indicator.
6. Methodology of data manipulation, including making 'early estimates': not applicable due to lack of standard data sets for this indicator.

Quality information

7. Strength and weakness (at data level): not applicable due to lack of standard data sets for this indicator.
8. Reliability, accuracy, robustness, uncertainty (at data level): not applicable due to lack of standard data sets for this indicator.
9. Overall scoring (give 1 to 3 points: 1 = no major problems, 3 = major reservations): 3

   Relevancy: 1
   Accuracy: 3 (Only examples available.)
   Comparability over time: 3 (The examples are comparable over time, but have limited significance for the EU as a whole.)
   Comparability over space: 3 (Country examples are possibly not valid for the EU as a whole.)

Further work required

Data on average travel distances is very scarce. Data collection for this indicator will have to be set up if the indicator requires updating each year. Another possibility is to update the indicator, following the frequency in which travel surveys are held.

Box 1: Is public transport a realistic alternative for the private car? — An analysis by the Dutch Ministry of Transport

Car and public transport (bus, tram, subway, train, water taxi (in Amsterdam)) are not always easily interchangeable. The car is available at any desirable moment to any destination, and requires no stopovers. Travel time by car is therefore often less than by bus, tram or train, mainly because of the time needed to travel to and from the pick-up point. Travellers, including car owners, accept longer door-to-door public transport times as long as they do not exceed 150 % of those by car. The public transport share of traffic between larger cities connected by good public transport services can be up to 40 %. However, for 85 % of car trips in the Netherlands, public transport would take more than 150 % of the car travel time. As distance increases, public transport becomes an attractive option more often (see Table 3).

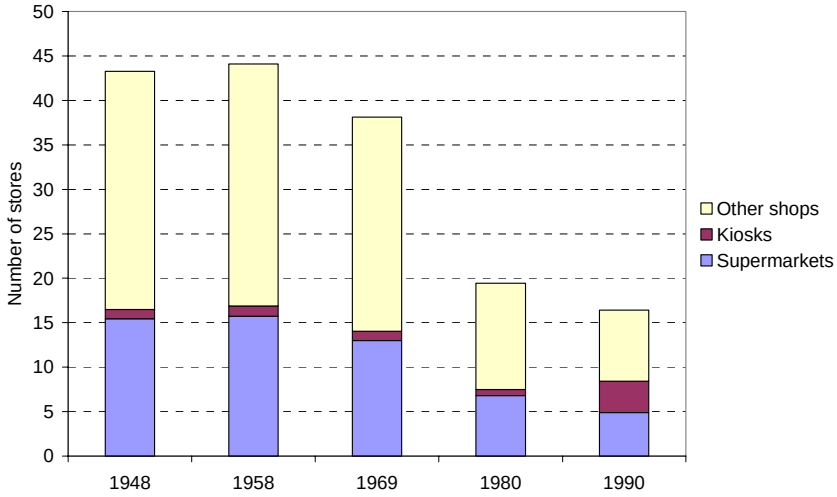
Even when public transport takes no longer than the car (distances more than 50 km), the share of public transport is only 20 %. Factors like comfort, luggage, security and habits, as well as travel time, play a role in decisions.

Source: Dutch Advisory Service for Transport and Transportation, 2001.

Box 2: Locations and travel distances

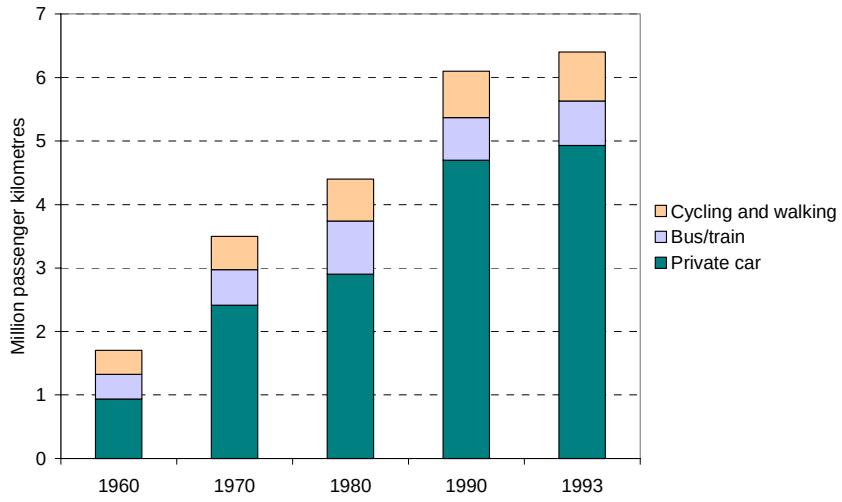
The relationship between socioeconomic activities and transport volume is illustrated by shopping patterns in Denmark. Between 1960 and 1993, the number of shops decreased by 60 %, while shopping-related transport increased by a factor of 3.8. Shopping-related car transport increased even more — by a factor of 7. Thus the concentration of shops into larger units led to increases in transport volumes (Figure 4 and Figure 5).

Figure 4: Number of convenience goods shops, Denmark, 1948–90



Source: Danish Technical University, 1996.

Figure 5: Transport for convenience goods shopping, Denmark, 1960–99



Source: Danish Technical University, 1996.