



EUROPEAN PARLIAMENT

Directorate General Internal Policies of the Union

Policy Department Structural and Cohesion Policies

TRANSPORT AND TOURISM

WOMEN AND TRANSPORT

STUDY

PROVISIONAL VERSION

IP/B/TRAN/ST/2005_008

26/06/2006

PE 375.316

EN

This note was requested by the European Parliament's committee on Transport and Tourism.

This paper is published in the following languages:

- Original: EN;
- Translations:FR.

Authors: The University of East London, London, UK¹ and
Wuppertal Institute for Climate, Environment and Energy,
Wuppertal, Germany²

Responsible Officer Eva CASALPRIM-CALVES
Policy Department Structural and Cohesion Policies
RMD06J050
B-1047 Brussels
Tel: +32 (0)2 283 21 18
Fax: +32(0)2 284 69 29
E-mail: eva.casalprim@europarl.europa.eu

Manuscript completed in June, 2006.

Copies can be obtained through:

E-mail: ipoldepb@europarl.europa.eu

Intranet site: <http://www.ipolnet.ep.parl.union.eu/ipolnet/cms/lang/en/pid/456>

Brussels, European Parliament, 2006.

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¹ Prepared by J. Turner and K. Hamilton.

² Prepared by M. Spitzner.



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Content:

This report sets out the nature of the gender imbalance in the transport sector across the newly enlarged Europe. It highlights the nature of travel differences between men and women as transport users and consumers and the implications this has for the planning, operations and management of the transport system. It sets out the challenges faced by institutions within the transport sector to mainstream gender equality. It also highlights the male-domination of employment within all areas of the transport labour force and the few examples of good practice that are trying to overcome women's under-representation in this industry. The report sets out the criteria for a European transport system with gender equality at its core and a series of concrete actions appropriate to start on that journey.

IP/B/TRAN/ST/2005-88

26/06/2006

PE 375.316

EN

EXECUTIVE SUMMARY

This study, the first ever recognising the issue of women and transport across the newly enlarged European Union shows that European transport policy still has deep and structural gender problems. This means that Europe faces a significant challenge of change to meet the legal goals of the European Union concerning Amsterdam treaty and to serve her citizens by **common** policies orientated to **common** public welfare within the area of transport.

This fact unfortunately has been found more or less in all the dimensions concerning women and transport, that is:

- The range of transport policies meeting the mobility of women and men, their respective transport needs and travel patterns.
- The role of institutions in reproducing gender bias in transport policy and
- Gender differences in employment between men and women in the transport labour market.

Travel differences between women and men as European citizens and as users of political generated transport systems

The study of the data on gender differences in transport shows that “Normal” transport research and transport policies emerge to be androcentric.³ Men’s travel patterns are the ones which are represented in transport policy reports and decision making as “common” and seems to be its focus, in spite of significant gender differences, that are relevant to transport operations, management and decision making. To classify differences between gender it’s necessary to reflect on the role of women and their covering of a significantly larger range of society’s diversity of life situations of people than men (looking not only on skills learned by delivering caring work for other people, but also looking on the complexity of work patterns and histories of women), male travel patterns, which transport policy focuses on, are – relative to the whole population - very atypical, particular, different and deviant from the every-day-life situation of the most people and of the population.

This fact has been proven again by this study, through the use of data from a wide range of Europe countries. Thus it makes it necessary to add to the description of the results of the analysis of women’s mobility also the description of the differences men’s mobility shows.

Travel characteristics and the male differences to these are as following:

In terms of the **character of trips** made, women mostly have to deal with trip chaining, the need to link to together a series of activities and destinations in the undertaking of one journey. The trips of some men, however, have a special characteristic: that they mostly are only, largely as a result of men covering a reduced range of households' tasks, single purpose trips within any one journey.

³ **Androcentrism** (Greek *ανδρο*, *andro-*, "man, male", *κεντρον*, *kentron*, "center") is the term for the practice, conscious or otherwise, of placing male human beings or the masculine point of view at the center of one's view of the world and its culture and history (Wikipedia).

Short walking trips also have a high importance for the mobility of women in a wide range of different life situations, only for adult men are longer distance trips significant element of mobility.

In terms of the **meaning of transport**: transport is not sometimes an attractive object, but the cost of achieving **spatial-temporal accessibility**. Travel is undertaken to achieve access to social networks, public services and income opportunities in particular locations and at particular times. Reduction and avoidance of transport in terms of the time it takes was found in the empirically reflected practise of women in Europe, from a wide range of different life circumstances. However, male travel behaviour often shows a different high investment of time in transport. A significant lower cost awareness concerning transport can also be assumed for men, as well as a significant gender specific difference in men's lower time pressure.

Looking at the **means of travel used**, the share of total travel time for travelling by public transport is – over different life circumstances – higher for women and disproportionately lower amongst men. The same is valid for travelling on foot. The reverse is true in the use of cars: while car use as a driver has different importance for the mobility of European women in different life circumstances, only for men is this most important mode of travelling, regardless of life circumstances.

Looking at **travel purposes**; travelling for domestic tasks covers a high percentage and importance within mobility. This travel purpose is – under current transport conditions and transport supply level - very time consuming. The importance and share of this activity is increasing and becoming more important as European societies and economies require use to be more flexible in time and space. Together with the time and cost of normal daily caring for ourselves and mostly one's partner there are ongoing and increasing transport burdens of caring for other often older, more infirm and vulnerable, both within and outside our own home, or often younger, helping with caring work in the household of adult sons or daughters. And the burdens of caring mobility are extremely increasing how data are showing when living with children, especially concerning the unpaid caring transport services for escorting. There is also often additional costs of care workers and personal service workers that are increasing. However, no data could be found in the study of differences in mobility by different life circumstances of the transport impact of caring burdens at all. However, it is clear that the share of caring time and the mobility burden resulting from it is disproportionately low amongst men, even if they become fathers. In contradiction to the travel purpose of travelling for domestic tasks travelling for leisure is spent more time by men than by women.

In addition, issues of dominant modernisation path of economies as well as issues related to the environmental and sustainability challenges faced by transport policy mean that the core indicators of **distances** travelled and **speed levels/ accelerations and slowing downs** of people's mobility, differentiated by sex, needs consideration. Whilst we have been unable to find any direct data, European time use data does indirectly show – in respect of comparable transport modes - a bias towards women's mobility being slower and covering shorter daily distances and spending a shorter duration on travelling; but men's mobility and the modes they use are faster and their distances travelled are longer.

Gender equality problems impact on the way women and men travel and on the respective mobility chances of women and men, on the quality of transport provision that they face and consequently – through a vicious circle of discrimination towards women – the gender specific

opportunities for spatial-temporal accessibility to qualified jobs and the chances to earn income necessary for an existence (more) independent from men.

The asymmetry in assignment of domestic responsibilities for between men and to women and the resulting asymmetry in chances of delegation of the work of caring for oneself (and additional work of caring for others related to you) means that to the situation that men spend a lower and women spend a greater amount of time on caring related work. Not only, burdens but also caring competence and caring economics are segregated from men (as shapers of transport systems as well as users). Furthermore, this results in women travelling by different means, at different times, to different locations over different distances, and with different pressure to produce spatial-temporal-social integration.

Whether these differences nor even any reference to the common well known gender equality problems are addressed systematically by current transport policy and provision. The present transport system has largely been constructed for men by men. The evidence for this is provided by the nature of vehicle design; the extent of radial routing (i.e. routes that run from suburb to centre) in public transport, which means that passengers have to travel to the centre and out again to arrive at an area adjacent to their starting points; and the emphasis on the peak-time periods in the provision of bus and rail services.

Transport professionals are increasingly aware of the social dimension of transport, the public economical dimension of transport and the environmental dimension of transport. There is, however, still a fundamental lack of awareness of the respectively gender-differentiated and the at all gender equality impact of transport policy and provision.

The need to address specifically the different needs of women and men appears not to be understood by transport policy-makers. This may be because it is believed that it is cheaper for public budgets and not expensive for women to do nothing, that gendered transport planning is an 'add-on' to 'proper' transport planning and policy and that gender-awareness does little to improve or substantially re-direct the approach as well as the final outcome of the transport policy.

The role of institutions in reproducing gender bias in transport policy

The study found that the gender-enabling environment found in many of the case study countries is consistently not translated into practice across the transport sector. Given the strength and explicitness of the commitment given to gender in the EU and national frameworks, the absence of gender as a measurable aspect of transport policy can be viewed as a deficit. This deficit is currently visible across the board from the European Commission Transport Directorate General downwards.

In reality, this unintended gender-bias in European transport policy means that more women than men are facing transport problems in accessing a range of public services, in taking up job opportunities, and in engaging in the normal activities of citizens. This disproportionately affects women on low incomes because of their greater use of public transport. It also means that substantial hidden costs in money and time are being placed on women's participation in European society. The failure of transport policy across Europe to take gender issues seriously means that significant amounts of public money are being wasted in a range of service delivery sectors. Government policies on enhancing quality of life, improving the work-life balance, improving skills for employment, reducing social exclusion and health inequalities, all risk

significant policy failure because transport policy does not take gender issues seriously. Furthermore, women's mobility chances are reduced, while men's mobility chances are privileged. In addition, households and individuals are facing an increasing burden in both money and time in order to meet the European economies and societies growing need for flexibility.

However, differences in how people travel should normally be not a problem, especially in societies with a high diversity. But coupling inequality this with transport policy which has:

- a) a strong tendency to the mis-estimation, with mis-valuation of mobility characteristics, **along** existing gender-bias lines, instead of developing policies to challenge and go **against** male transport planning domination and existing non-emancipative mobility conditions that are a result gender bias, and
- b) an ability to **produce quite the contradictory transport conditions** in the form of accessibility constraints and cost and time burdens and poorer quality in using services instead of supporting sustainable transport practises, orientations and rationalities of women, which are the most advantaged, and of compensation to those, who are delivering the caring economy as one of the three basic pillars of all economy in developed countries, and
- c) a propensity to operate not in line with a "polluters pays-principle" in terms of the producer of transport expense and a need for mobility pays for people who are forced to undertake that mobility. The contradictory outcome of this **gender-bias externalisations** is that resources are generated for profit-orientated or public services at the cost of the caring economy, and a continuation of European transport policy's production of gender-specific restrictions on mobility, time burdens, costs and exclusions.

Analysis of selected documents of European transport policy as well as selected core documents of national transport policies in Europe brought the result that astonishingly descriptions of transport, definition of transport problems, considered factors and contexts of mobility, framing, approaches of interpretation, the travel reality and methodologies are basically divergent from reality, but instead present just the very special and disproportionately different characteristic of male mobility.

As a result this study highlights the lack of objective basic information about the gender characteristic of daily mobility, gives recommendations for the "first steps" of overcoming radical androcentrism, building up the basic knowledge base for rational transport policy instead of emotionally-led imaginations of a particular minority, and draws attention to the need to meet legal required responsibility towards duties **not to private or to particular**, but to common **public interests** and how these may be taken forward.

But this also means that by giving information about the directly discriminatory effects on individuals produced by the gender problems of European transport policy and presenting findings to similar studies in gender studies on transport undertaken in some European member states over last 2 decades years it is clear that European transport policies are not fitting in progression in reduction of problems of gender-bias as required from each sector of European policy by European gender equality goals and European Gender Mainstreaming strategy, but keeps reproducing transport gender inequality.

Gender differences in employment between men and women in the transport labour market

The transport sector remains male-dominated; few women are employed in the sector except in travel service occupations (e.g. as travel agents). The great majority of transport drivers and operatives are male, as are those employed in vehicle trades (e.g. as car mechanics). Women are also under-represented in professional and managerial positions within the sector, or in transport-related public bodies; hence their influence over the decision-making process is also very limited.

Recent UK work echoed across many parts of Europe found that hard-to-fill vacancies and skill-shortage vacancies as a percentage of all vacancies were above average in both the transport equipment and transport sectors. Employers in the sector who wish to address skills shortages could usefully place greater focus on targeting women in their recruitment, education and training strategies.

Recommendations:

This study highlights a way forward. It sets out the issues within a possible criterion for a gender-balanced transport system. In addition it sets out a series of concrete actions. Taken together it is hoped that this contributes a significant starting point to developing a gender equitable transport system in the newly enlarged Europe Union. The criteria for this are set out below:

1. Caring economy as a gendered economic sector to be taken as serious as the public sector or private sector economy.

Core Problems:

- There is a gender-biased distribution of the „costs“ and "benefits" of caring work for a partner and maybe additional for children, for other household members, for older or more vulnerable people outside the own home, for adult children's households.
- Gender-biased assignment with regard to who is not engaged in caring and gender-biased distribution of the power within households to delegate the delivery of caring work, impact expense, skills, knowledge etc. to a partner.
- Non-valuation in policies and planning and fade-out in economics and economical policies.
- Exploitation and undermining of the caring economy and of the ones engaged in this sector.
- Actual harassments of production of additional caring work and risks to caring economy's vulnerability caused by externalisations empowered by privatisation/ transformation of public transport services, especially by a lack of mandatory duties and warranties of high qualitative standards on one hand and by a lack of regulation for securing public financial resources for these.

Criteria for public authority responsibility in transport policy:

- Re-Internalisation and limitation of Externalisations of „costs“ (time burdens, expenditure of transport, risks, responsibilities for impacts, time, unpaid work, one-sided attention etc.) from profit-orientated or/and from public services debiting caring economy, by selective measures - especially within privatisation regulations and regulations concerning public services.

- Adequate inclusion of caring economy in cost-benefit-analysis within transport decision-making.
- Explicit aims of reducing the caring work load and caring economy burden in transport programmes and plans.
- Regulations for mandatory orientation of the planning of transport services towards the needs of the caring economy.

2. Sexual harassment as manifestation of Society's gender-bias and representation of male superiority and centrism

Core Problems:

- male relationship to women as objects/ things/ the „other“ – instead of „same level“ or partnership,
- male readiness to border-spread or invade personal space – instead of respect towards individuality of women and her normal human dignity,
- societal menship: societal attitude towards sexual aggression.

Criteria for public interests responsibility in transport policy:

- (infrastructural, institutional) Focus on limiting potential for sexual harassment,
- Introduction of mandatory public sanctions against male readiness to border-spread in public space and transport,
- Introduction of mandatory gender awareness and women empowerment orientation of public and private security services.

3. Androcentrism within institutions and their knowledge base

Core Problems:

- Representation of male interests over and above representation of gender equality interests (and representation of interests of a wide diversity of women) in the knowledge production and „competence“ for advising decision making bodies.
- Share of knowledge within decision-making processes, which is said to be gender neutral, but unproved, is higher than a small niche.

Criteria for public authority responsibility within transport policy:

- (infrastructural, institutional, procedural, methodological) Reduction of one-sided orientation (and common interest opaque) of criteria, terms, approaches, definitions, agenda settings, framing, priorities and characterisations of „transport“, of „mobility problems“ and of „transport solutions“.
- Data production towards gender problems in mobility and transport systems and in (transport) infrastructural planning, and introduction of mechanism for accelerated, continuous and stabile progress in the knowledge base, through:
 - gender impact assessment of all transport decision making,
 - enhancing capacity of existing gender competent knowledge about mobility and transport, and
 - the development of gender equality oriented methodologies.
- relation of transport data and statistics as clear for the caring economy as it is clear for the public sector and private sector economies - producing transparency between all three relevant economy sectors and over-coming the phasing out of the economy delegated to women.

4. Male-dominated Gender Composition of Institutions and decision making bodies

Core Problems:

- Representation of male interests as opposed to representation of gender equality interests (and representation of interests of a wide diversity of women) in decision-making mechanisms.
- Procedures and implicit rules of institutions that are a reflection of androcentrism as opposed to gender-neutrality of decision making.

Criteria for public interests responsibility in transport policy:

- Representation of gender-equality-competence and gender-equality-interest within transport operations, transport planning and decision making bodies (independent from participation quotas by sex).
- Procedures of reporting and auditing a transport institution's progress on gender equality.

5. Reproduction of male gender-bias symbolic order as a constraint against development and against the effectiveness of efforts to reduce Society's gender bias

Core Problems:

- Lack of substantial privileges given to women visibly in a segregated manner.
- Lack of visible limitation of male privileges as a representation of a serious approach to gender equality.

Criteria for public interests responsibility in transport policy:

- Visible actions and wider initiatives producing projects to counter-act gender bias symbols undertaken by infrastructural or management or public transport advertising operators.

6. Gender-bias distribution of resources

Problem indicators:

- *Appropriation of public space:*
 - gender-specific constraint to independent freedom of individual move in public space.
- *Appropriation of public money:*
 - gender-bias in decision making processes attached the use of public budgets, of public spaces and of public infrastructures.
- *Appropriation of macroeconomic measures:*
 - gender-bias in the development of financial measures such as tax policies, of road pricing policies, of aviation tax policy, of public services policy, of liberalisation policies and of consumer rights policy etc.

Criteria for public interests responsibility in transport policy:

- Political and legal actions to guarantee and to improve individual move in public space for girls and women of all different life circumstances - free from any androcentric deprivation of freedom to move by giving physical and/or legal and/or ideological space to other transport means (for instance reductions of pedestrian space by giving it to traffic flow or parking) and actions to against disproportionate male appropriation of public space.
- Introduction of gender budgeting in European transport policy.

- Political and legal actions on gender equality mainstreaming of public services policy and of liberalisation/privatisation policies within the transport sector (and outside, when effecting accessibilities and mobility of women), especially concerning necessary definition of mandatory high minimum standards for service qualities, expansion of so-called universal services by gender equality dimensions, consumer rights related to women's mobility patterns etc., as well as in areas such as consumer rights policy, aviation tax policy, of road pricing policies, and other transport related elements of wider financial, tax and macro-economic policy.

These dimensions could serve as *core criteria for the rationality and gender evaluation of future and upcoming European transport policy*, its processes and its documents and directives. It can be taken together with a series of concrete actions recommended by this study.

These are:

Mainstreaming Gender in Transport Institutions

Gender is frequently missing from official transport documentation from the EU.

1. Greater recognition is needed for gender to be a prominent part of EU documentation where appropriate. The Commission of the European Communities (2005) revised proposal for a Regulation of the European Parliament and of the Council on public passenger transport services by rail and by road COM(2005)/0319 endg. - COD 2000/0212 is lacking the gender dimensions. This important directive of new performance concerning directives 1191/69 und 1893/91 structuring the long-term conditions just for the women's main transport mode presents a central chance for integration of gender into transport policy. It would be a good approach to accommodate the gender criteria set out above in this directive.
2. Recent discussions on the preparation within the European Union of the introduction of Urban Environment Transport Plans and the decision making processes around on these plans, present an opportunity for the integration of gender into transport policy using the criteria set out above.
3. The planned European Commission Green Paper on Urban Transport should mainstream gender into policy set, using the knowledge and criteria set out in this study.
4. Auditing is, therefore, necessary to ensure the integration of gender at the meso level. For example, European, national and regional transport policy institutions had no clear process of identification of the gendered nature of the transport sector, how many men and women and how many persons with professional gender competence were working in the transport sector, who was planning the transport sector, in which extension a professional representation of gender equality knowledge is in- or excluded, what were women and men's transport needs and how were they met. Auditing to the very lowest levels of the implementation hierarchy is also clearly required. The gap between rhetoric and implementation of gender mainstreaming action can be described by factors such as lack of capacity to implement gender actions, lack of monitoring indicators and resistance to change all feature in this disappearance. The use of the Public Transport Gender Audit, as produced in the UK, should be a necessary requirement to highlight compliance by transport institutions across with the needs of Gender Mainstreaming.

Improving the knowledge base on gender differences in European daily mobility

5. The production of new knowledge is central to the mainstreaming of gender in the European transport sector. As a result, the newly founded Gender Institute of the European Commission should be supported and encouraged to cooperate with gender focussed transport specialists. In addition, the newly formed EPWS European Platform for Women in Science should be encouraged to support projects on gender and transport.
6. The **European transport research programme of DG TREN**, should include a gender and transport activity. For example, the current programme of research which is called EIE=Energy Intelligent Europe, includes energy and transport research and just the working programme is published and the calls will be published in May this year. But ALL working projects, calls and tasks are very gender-specific (male) and at the same time giving no consciousness about gender, giving themselves unproven gender neutral status, which is a contradiction to Gender Mainstreaming. Some projects on gender have to be included in such transport research programmes. For example, the upcoming new designed research programme “**Competitiveness of industry and enterprises: Competitiveness and Innovation Framework Programme CIP, 2007-2013**” should be revised concerning gender dimensions and in the earliest possible stage been gendered.
7. Being able to understand the differences in travel between men and women and being able to understand travel needs of women as users and consumers of transport is severely limited by the lack of sex-disaggregated data on daily mobility across Europe. The lack of inclusion of daily mobility statistics into the European Statistical System and the heterogeneity of formats, definitions and methodologies for collecting daily mobility data across European member states limits the ability to develop coherent policy to address gender inequality in the transport sector. However, the recently developed European Harmonised Time Use Survey that now provides data for 15 of the 25 member states is a major advance in our ability to represent gender differences in travel and a major tool for coherent policy development in this area. This dataset must be analysed more fully by EUROSTAT for the gender differences in travel and for the connections with other household time uses, showing the whole range of caring mobility for all and showing the transport impact of the overall caring burden.
8. It is increasingly obvious that household structure and employment status do not impact on men in the same way as they do on women. According to Claudia Nobis and Barbara Lenz “...single men and women share many similarities. Gender differences reach the highest level for the group of multi-person households. As long as only sex and household type are taken into account, the gender differences found are consistent with the literature. However, the additional distinction of employment status reveals a more differentiated view on gender differences in travel patterns. Men are rarely part-time employees or homemakers. But once they have this role they often have even more strongly pronounced travel characteristics than normally are ascribed to women. By contrast, the travel patterns of full-time employed women are still very different in comparison to their male counterparts. In addition when working full-time, women are to a higher degree responsible for household duties and child care.”

A more radical approach to data collection is called for. There is little or no data on caring work and the travel it dictates. This needs to be rectified. The systematic gathering of data on travel needs and travel patterns should place caring work at its centre.

New directions for transport policy

9. The means of capturing the accessibility of everyday destinations needs to be systematically employed. Information is needed on how the various places used in everyday living are reached. Travel maps to schools, colleges, areas of employment, shops and markets and other places routinely used should be available to the travelling public using public transport and should include information for pedestrians and cyclists. The use of the Accessibility Planning approach as utilised in the UK should be encouraged
10. In addition, it is clear that time use in households and the time burden for women trying to maintain a work-life balance under changing economic and technological conditions has a major impact upon how women travel. We argue that the keys to the alleviation of women's time poverty are twofold: the ability to substitute tele- journeys for real journeys and the ability to summon low cost flexible and responsive transport on demand. Focus and resources should be placed on the development of widely-available tools that allow journeys to interact with public agencies and for healthcare to be easily substituted with tele-journeys. Focus should also be placed in the development of a widespread network of demand-responsive public transport across Europe as seen in cities such as Florence and rural areas such as South Finland.
11. The technologies which would enable women to organise and undertake tasks necessary for the survival and welfare of their households from within their own homes are already existent: at present, the tools have been put to use for the benefit of other groups - fleet management techniques for commercial transport; networked terminals for intelligent homes for professional communities; real time transport information for particular communities in Europe; internet reservations of travel facilities by long distance travellers, etc. Whether these different components are brought together by social policy agencies and civic authorities in a way that makes them amenable to use by low income women is now the issue.
12. A further recommendation is that work is undertaken to understand the effects of the privatisation of transport on women's lives. Few studies have been undertaken in this area yet it is an ongoing process and could yield some opportunities to address the unsatisfactory situation regarding women and mobility. The current models of liberalisation in the transport sector have no gender concern integrated into their development. There is an urgent need to develop models of liberalisation within the sector that do not have potentially substantial and disproportionate impact on women.
13. Planning for cities and towns has rarely taken into account the needs of women to physically access the various buildings and services, yet if the planning authorities had a remit to ensure that provision of easy access for women was provided, it would inevitably provide good access for all citizens. It is clear from Germany that mandatory requirements for gender equality in public involvement and consultation strategies connected to local and regional transport plans are an effective way of ensuring gender-balanced involvement of users in transport operations and policy
14. A final recommendation is that the EU provides the opportunity to create a European discourse on gender and transport which could bring together those already engaged in the field but could also widen the interest in this subject and increase awareness of its importance.

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1. Daily mobility and time use of men and women

It is clear from a variety of research studies that there are gender differences in how men and women travel. The study of the data on gender differences in transport shows that “Normal” transport research and transport policies emerge to be androcentric.⁴ Men’s travel patterns are the ones which are represented in transport policy reports and decision making as “common” and seems to be its focus, in spite of significant gender differences, that are relevant to transport operations, management and decision making. To classify differences between gender it’s necessary to reflect on the role of women and their covering of a significantly larger range of society’s diversity of life situations of people than men (looking not only on skills learned by delivering caring work for other people, but also looking on the complexity of work patterns and histories of women), male travel patterns, which transport policy focuses on, are – relative to the whole population - very atypical, particular, different and deviant from the every-day-life situation of the most people and of the population.

A long tradition in transport studies has demonstrated that women have different transport and travel patterns to men in the developed world. A key difference in the developed world is the propensity of women to combine a set of activities relating to their extensive range of household tasks within the overall structure of one journey period (**trip chaining**) whereas men are more likely to make a single purpose trip.

These differences in transport and travel patterns are generated out of the differential accesses of the genders to economic resources, social resources and time resources. The evidence is clear from a wealth of sociological studies that in most cultures, women are **time poor** as a consequence of the disproportionate level of household tasks they are required to perform within present social structures [30;21] as compared with men. The increasing number of single parent households operates to increase the time poverty of women: and female headed households are typically poorer with less financial resources available to them to buy in assistance to reduce the burden of their time poverty.

1.1. Availability of sex-disaggregated daily mobility data

Developing a picture of daily mobility by gender across Europe is not easy. Daily mobility statistics are not part of the European Statistical System. As work by the EUROSTAT working group on daily mobility statistics has discovered, information on daily mobility is very heterogeneous. Data collected across the member states is not easily comparable. It is possible to make some cross-country analysis of daily mobility using this data, however, many of the national travel surveys do not present gender-differentiated analysis. An article in the EUROSTAT newsletter Statistics in Focus [14] suggests that the data from national travel surveys are not comparable in their current form. The information collected and the definitions used are not common across countries. For example, short walking trips are included or not included depending on which country you are looking at. Trip distances can also vary between

⁴ **Androcentrism** (Greek *ανδρο*, *andro-*, "man, male", *κεντρον*, *kentron*, "center") is the term for the practice, conscious or otherwise, of placing male human beings or the masculine point of view at the center of one's view of the world and its culture and history (Wikipedia). The problem of A. - especially concerning resulting problems of framing objectives - is wellknown and ascertained, first formulated by Charlotte Perkins Gilman (The Man Made World or Our Androcentric Culture. London 1911): „Androcentrism takes male values or practices as the norm, and then explains female values or practices as deviations from, or unsuccessful aspirations towards, male ways of doing things“.

countries where the distance reported by the respondent is used to those where it is synthetically calculated. The year of data collection also varies by country as do the indicators of daily mobility and all this makes comparative analysis very difficult.

However, this is only the case for countries with a history of National Travel Surveys. There are many new member states where there is no national travel survey. The table does not indicate whether for the purposes of this study the data is sex-disaggregated and it is clear from some national travel surveys that data is not always sex-disaggregated. This makes the ability to develop gender aware transport policy very difficult.

This study is a testament to the disparate level of daily mobility statistics available and particularly the availability of gender-disaggregated statistics. It was difficult to find national gender-disaggregated travel survey for Germany. Slovenia had national sex-disaggregated data but mostly within specific transport studies, not within a national travel survey.

1.2. Potential of European Harmonised time-use data

It is suggested that a more productive approach than seeking uniformity in national travel surveys may be to use the European Harmonised Time Use Survey [14]. This is a sample survey of individuals within households across a number of member states which have chosen to take part. The surveys cover all time spent undertaking all activities, not just travel. It initially surveyed 10 member states, 4 of which are new member states. 5 more countries, of which 3 are new member states have since completed national time use surveys following the European guidelines. The results of these 5 later studies were published during the course of this project. The national time use surveys, following as they do a common set of guidelines on how they are conducted, at least provides a consistent and comparable way of asking about travel. It is also a gender-differentiated survey, thus providing us with, we think, the best dataset for understanding gendered patterns of mobility that is available in Europe today. It is also the main dataset that we will quote from in this section.

The time use data cannot, however, be used unquestioningly as the time at which the survey was undertaken and the general economic climate within the member state at that date will reflect on the time use picture that is presented. This is particularly the case for some new member states which are characterised by dynamic social and economic change in recent years, as our Hungarian partner notes concerning the viability of using the Hungarian time use data for cross-European comparison.

In the 2000 Hungarian time use survey, our partner noted, a break of the economic development trend, the growing poverty and unemployment changed the previous, general trend of the use of time. Time used for money-earning activities had decreased, and free time not constructively used had increased. This change in the balance in the use of time was shown by the increase of the so called complementary activities (extra income earning activities), passive (the TV watching, that covered 60 percent of free-time), or smaller efficiency (money-sparing home-work) activities which was followed by the decrease of active, basic functional, more efficient time spending activities. The data of the year 2000 in every researched phenomenon – in the use of time – presented, our Hungarian partner reported, a beginning of the return to the previous trend. It thus may be presenting a false picture of low travel time that is not reflected in a revitalised Hungarian economy.

1.3. Differences in how men and women travel

This having been said, the picture presented by these surveys highlight that women spend less time on travel than men. On average, it was found that men travel 13 minutes more than women do per day [14].

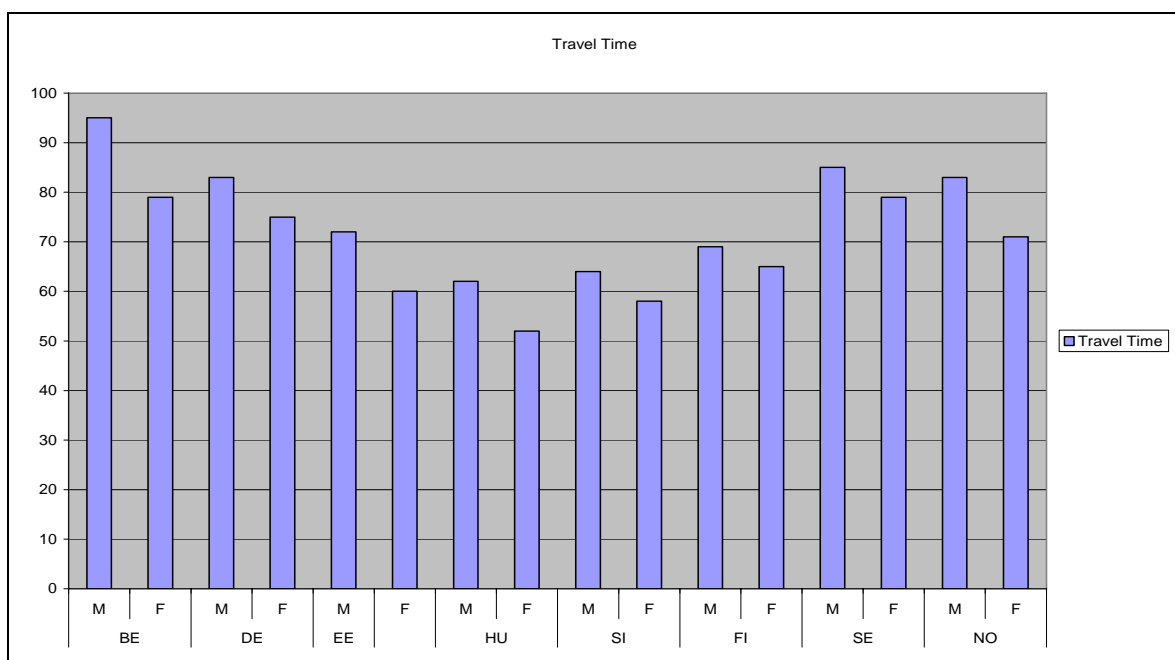
In all countries surveyed, men travel by car more than women do. This is the case whether the amount of time spent or the share of total travel time is considered. It was reported that women and men spend however almost the same amount of time on public transport and on foot or by bicycle, although these means of transport both represent a higher share of their total travel time for women than for men [14].

Comparing women and men, differences in the share of travel time related to leisure activities are minimal, even though men tend to spend more time on leisure trips than women. The essential dissimilarity between men and women is that travel connected to gainful work and study accounts for a larger part of total travel time for men than for women, while women’s trips intended for domestic tasks are more time consuming than for men’s.

The Time Use data clearly highlight the differences of how men and women travel across member states. Despite some differences between member states, no country exhibits anything other than the fact that men spend more time travelling than women.

Unfortunately, time use data does not provide information regarding distance travelled. However, even assuming similarity of mode use and time use suggests that there is a bias towards women using slower modes, women travel shorter daily distances than men, due to the shorter duration they spend travelling.

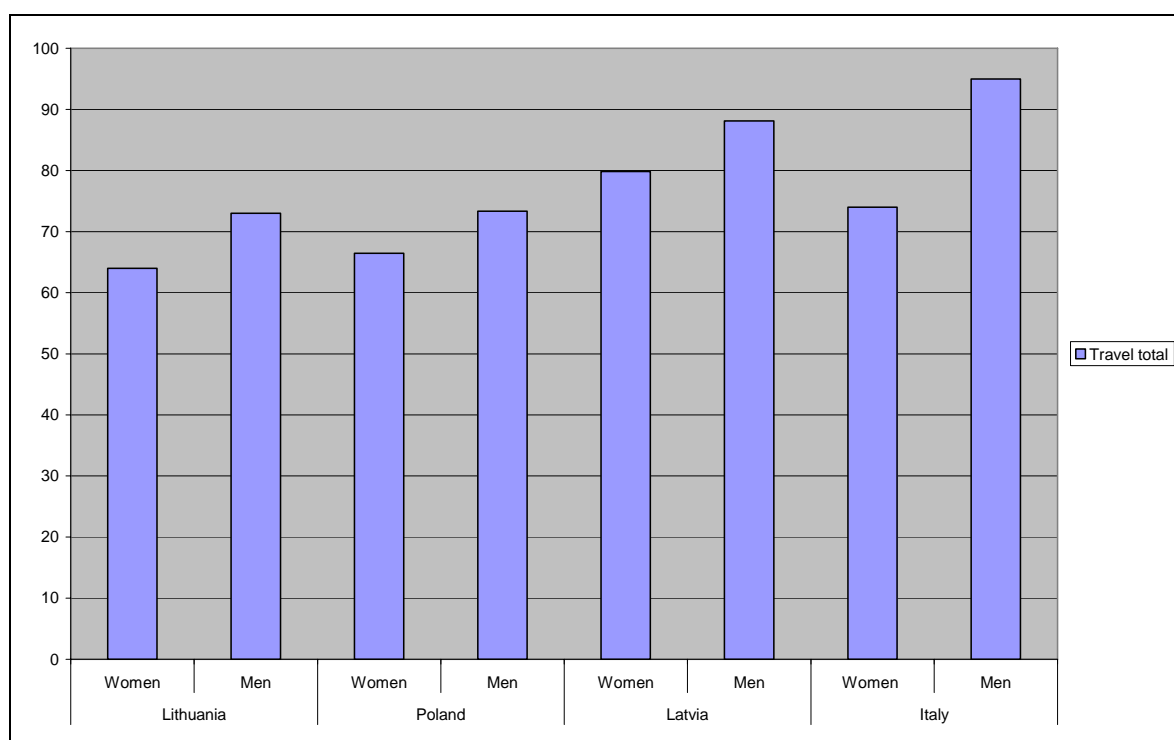
FIG 1. Travelling time per person aged 20 to 74 per day by gender



The table above highlights that whilst the overall time spent travelling varies significantly between the new and old member states, now there moves away from the consistent picture of men travelling for more time per day than. There are some noticeable examples, such as

Hungary where there is a substantial variation between men and women, but which may be explained by the year within the economic cycle, the survey was undertaken, to Belgium where no explanation is valid.

FIG 2. Travelling time per person aged 20 to 74 per day by gender



Source: Eurostat (TUS).

The same pattern is repeated if we look at a further collection of countries. Most represented are new member states at a different level of economic activity to Italy, but all report greater male travelling time with Italy actually showing a greater proportionate difference than Lithuania (women travel for 77 per cent and 78 per cent of the time of men in Italy and Lithuania respectively)

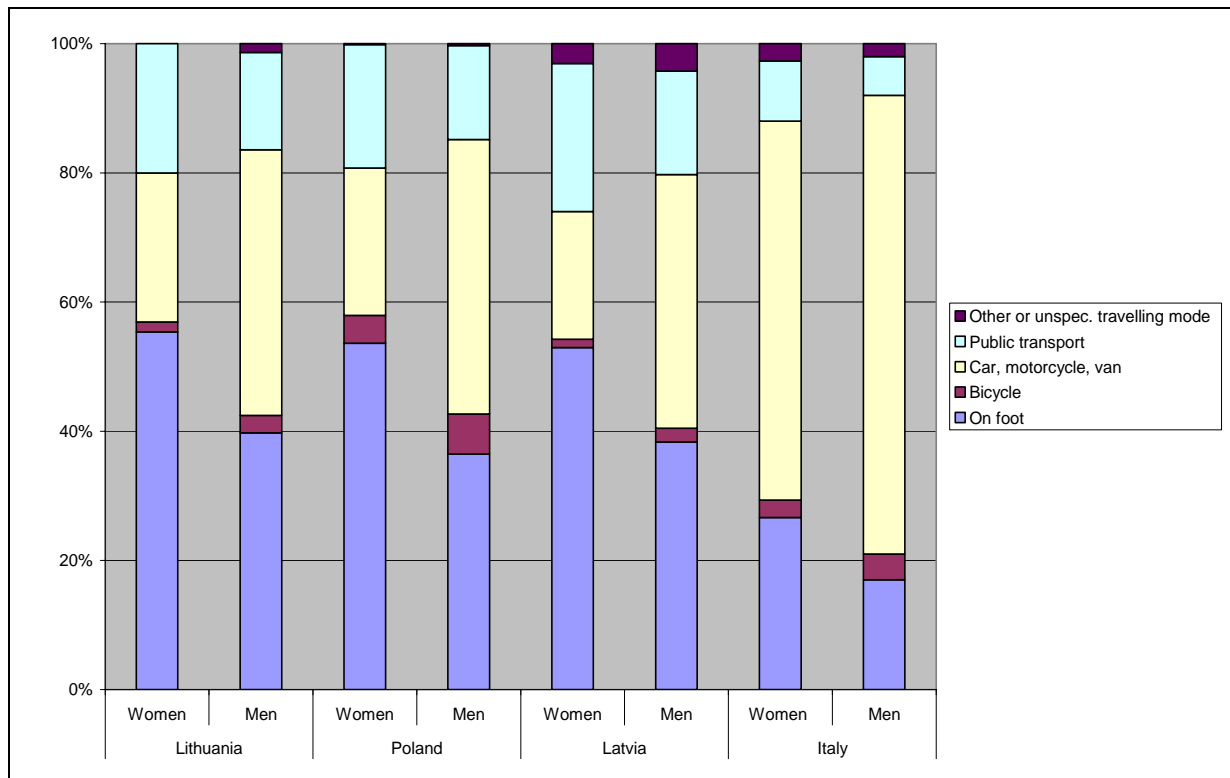
Table 1. Time in minutes spent on travel per person aged 20 to 74 by gender and mode of travel

Country	BE	DE	EE	HU	SI	FI	SE	UK	NO
Men									
Car	65	60	30	21	52	61	60	57	63
Public Transport	10	12	14	16	4	12	14	12	12
On foot or bicycle	18	16	25	24	28	11	16	16	14
Other	2	1	4	1	5	2	4	6	4
Women									
Car	52	48	13	9	36	38	44	49	48
Public Transport	8	12	17	16	7	13	12	12	11
On foot or bicycle	17	19	28	26	30	17	22	18	15
Other	3	1	3	0	4	2	3	5	2

Source: EUROSTAT.

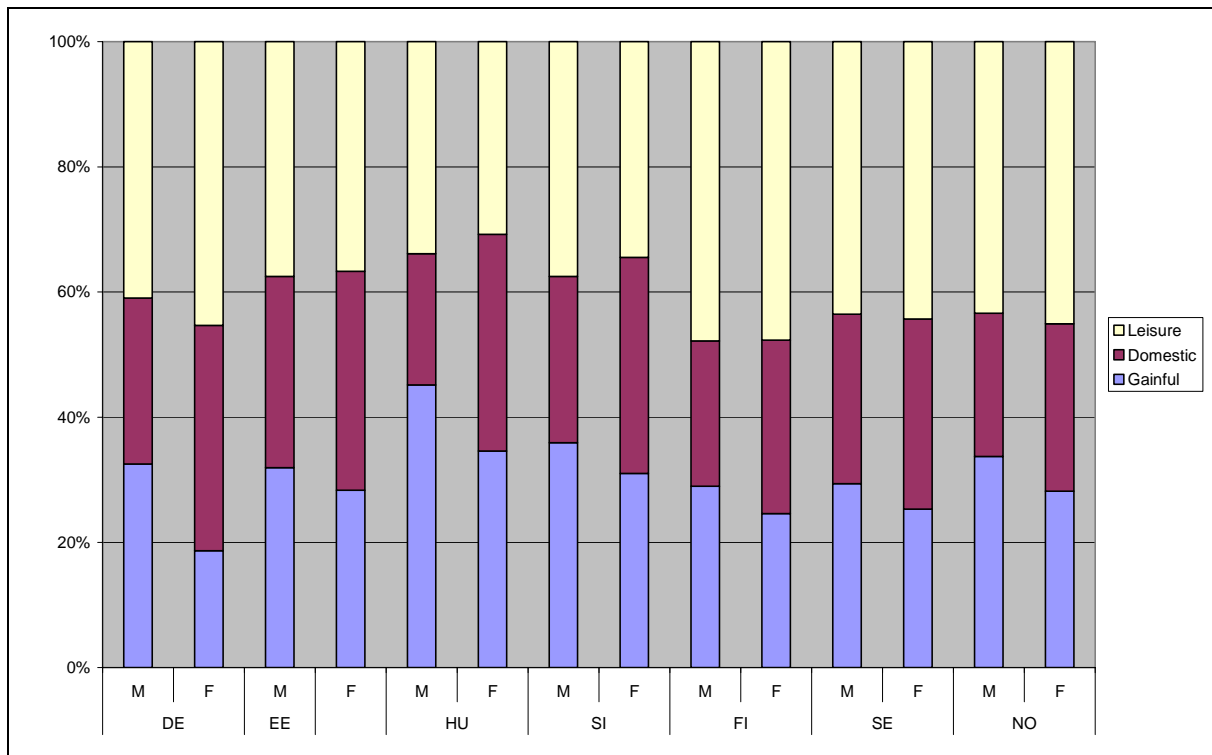
The table above and the graph below highlight that women travel by slower modes than men. They spend more time travelling bus and on foot across the EU. Men by contrast spending more time travelling by car, bicycle and by train. Because, the surveys used measure time use, it is not possible to say anything about the number of journeys made, but again a consistent pattern is building up of women using modes that take longer to complete any individual journey. The variations between member states are again characterised by differences in car ownership levels, with new member states with car ownership levels reporting less inequality in mode use than some older member states. This may a source of greater gender inequality in mobility as car ownership levels rise in the new member states in the coming years.

FIG 3. Distribution of time spent on travel by gender and mode of travel amongst people between 20 and 74



Source: EUROSTAT.

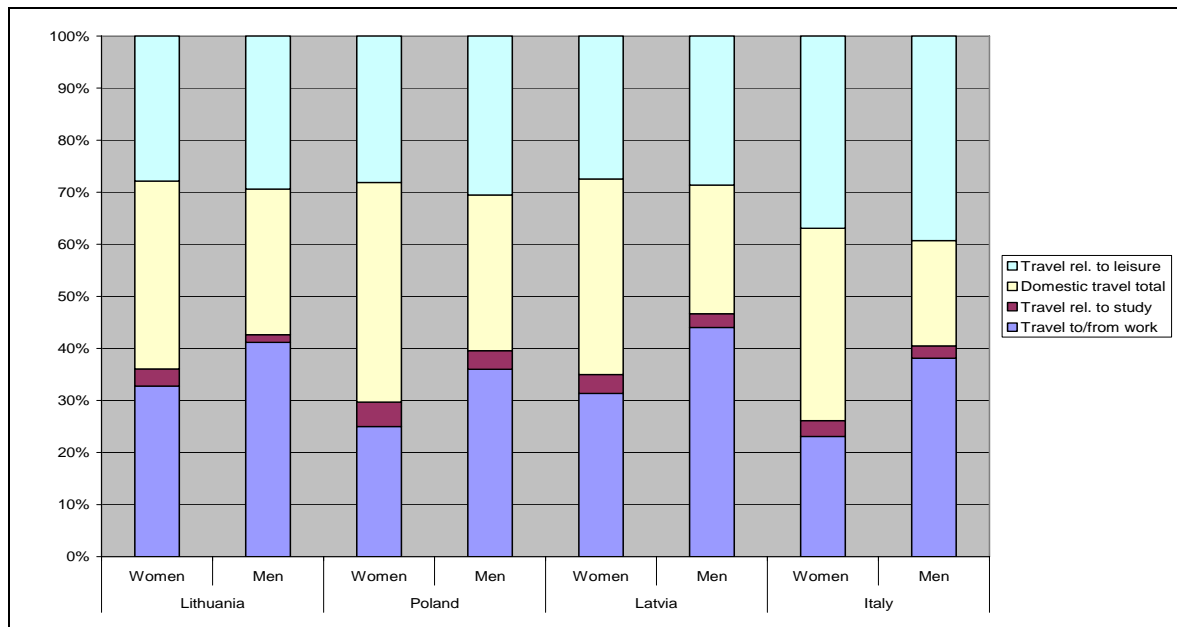
FIG 4. Distribution of daily travelling time by trip purpose and gender among persons aged 20 to 74 for 8 west European countries



Source: EUROSTAT.

The figures above and below highlight the role of different daily activities in influencing our mobility. In particular is the importance of domestic related or caring economy travel to women across the member states and the relative unimportance this journey has to men. This includes journeys made to escort young children and other vulnerable people and trips associated with their care. As societies demand increasing flexibility on households, the need to place children in childcare outside the home and work increases the amount of travelling and it appears this burden falls disproportionately on women. It is an area that transport policy needs to develop solutions to accommodate.

FIG 5. Distribution of daily travelling time by trip purpose and gender among persons aged 20 to 74



Source: EUROSTAT.

The picture in individual countries highlights the same phenomena. In Germany, the overall situation is that whether women are full-time employed or part time, whether they are a student or a housewife - women are less wedded to non-sustainable transport modes

1.4. Key differences between groups of women

Women do not form an homogenous group. In terms of how different categories of women travel and the differences between groups of women, it has been even more difficult to develop a robust picture. The most robust analysis amongst national travel surveys we have been able to find, has been the work done as part of the UK National Travel Survey [40]. This present a good practice example of how gender-disaggregated travel data should be analysed and presented. We have included a copy of the gendered analysis from the UK National Travel Survey as an example of good practice in the Appendix. The European Harmonised Time Use survey does however present significant data for most members states that allows an analysis of the differences amongst groups of women. This study presents some of the beginnings of that analysis. **However, it is necessary that a detailed analysis of the travel time by gender is presented through EUROSTAT**

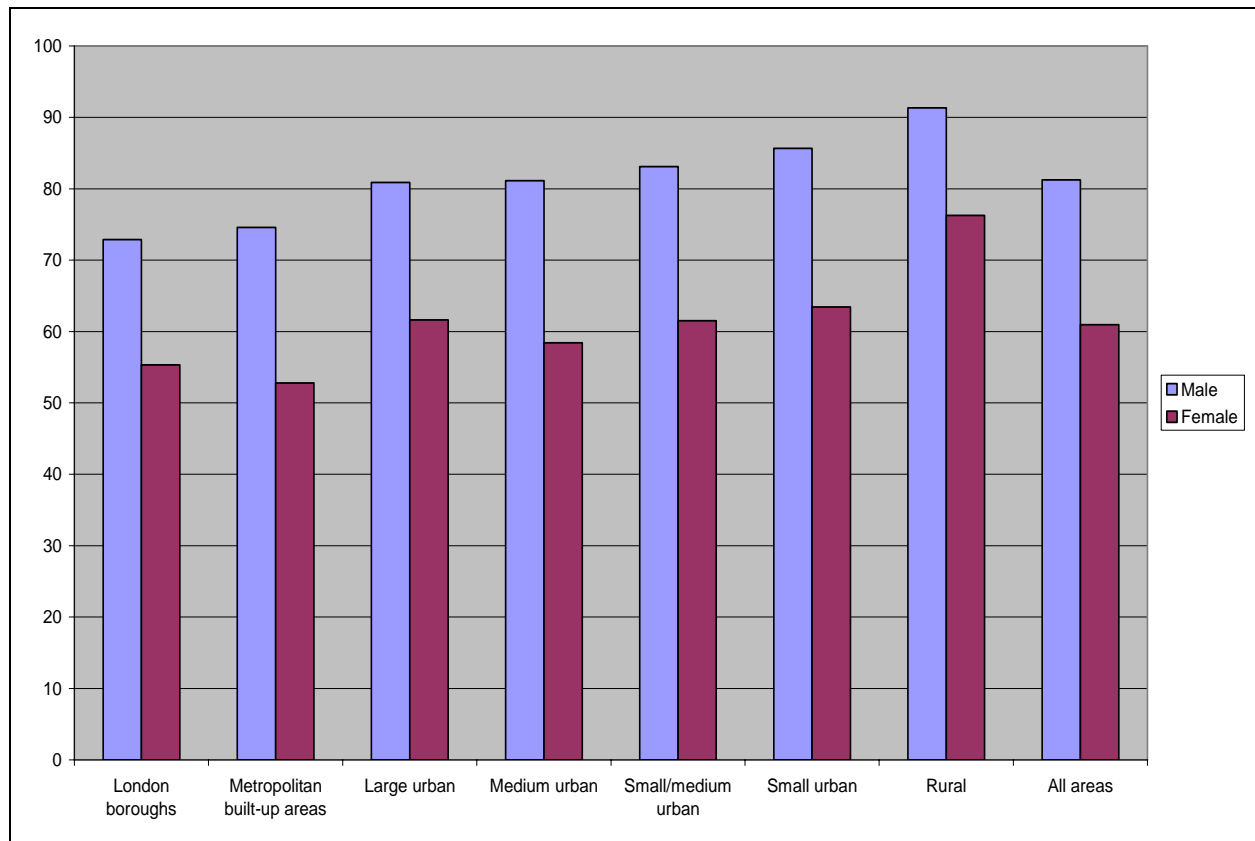
1.4.1. Women in urban and rural areas

The UK National Travel Survey is the only national travel survey we have been able to find amongst the member states that presents data by geographical area type, differentiating between London, large conurbations, small towns and rural areas. It is also the only national travel survey that presents some of this analysis on a sex-disaggregated level. This is only data that has been able to be found that makes a distinction between women's travel patterns in urban and rural areas. The time use data reported earlier appears to make analysis of where the respondents are geographically located.

However, even with this enlightened approach to reporting data, the UK National Travel Survey only present sex-disaggregated analysis for driving licences. The figure below clearly shows that women in rural areas have a higher level of driving licence holding than in any other area of the UK. This it could be assumed relates to the much lower level of public transport available in these areas.

There is clearly a need to be able to investigate differences between travel patterns between women in urban and rural areas.

FIG 6. UK Full car driving licence holding by area and gender 2002/3



Source ONS 2005.

The European Harmonised Time Use Survey data set does not appear to differentiate respondents by residential area. Residential location is not data that it collects and thus it would be difficult for it to differentiate it in any subsequent analysis.

1.4.2. Pregnant women and women with children, compared to those without

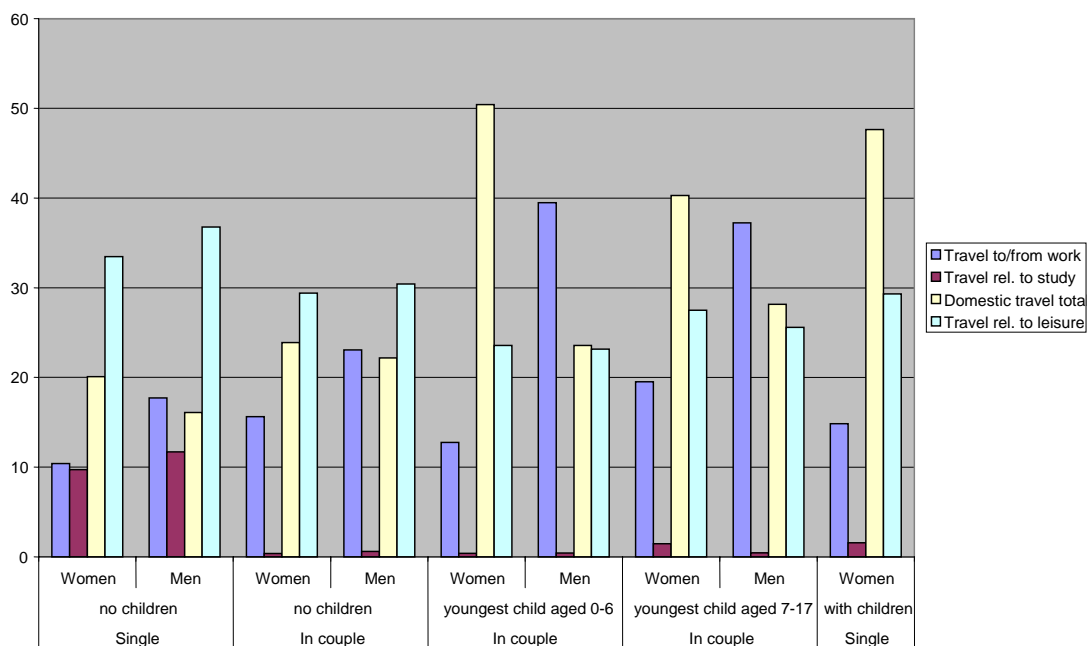
The European Harmonised Time Use Surveys do present data on travel time for individuals differentiated by lifecycle stage. This means that whether one is living alone, in a relationship with no children, in a family with young children, in a family with older children attending school or in a single parent family, will make significant impact on time use and social roles. It is therefore possible to expect that the travel pattern and the gendered nature of the travel pattern will look differently as you change from one life-stage to another.

We have taken the picture presented by the UK data by way of an example of observed differences. It is clear from this data that women with children have significantly different travel

patterns from women without children either living alone or with a partner. They spend less travelling for work purposes than women with no children, but noticeably more time spent on domestic, household reproduction tasks such as shopping and escorting children. Another noticeable feature is the unbalanced nature of travel time between men and women, women enter a life-stage that involves them bringing up children. In life-stages with children, women spend much more travel time undertaking journeys for domestic reproduction than men in the same life-stage. By comparison, women in life-stages that do not involve bringing up children have a more balanced travel time pattern compared with their male counterparts.

The most striking differences is between women and men in families with children and single parent households. There is a significantly greater time spent undertaking domestic related travel than any other category and less time spent travelling for work purposes than women without children. This is important as single parent households are often some of the lowest income households in the country.

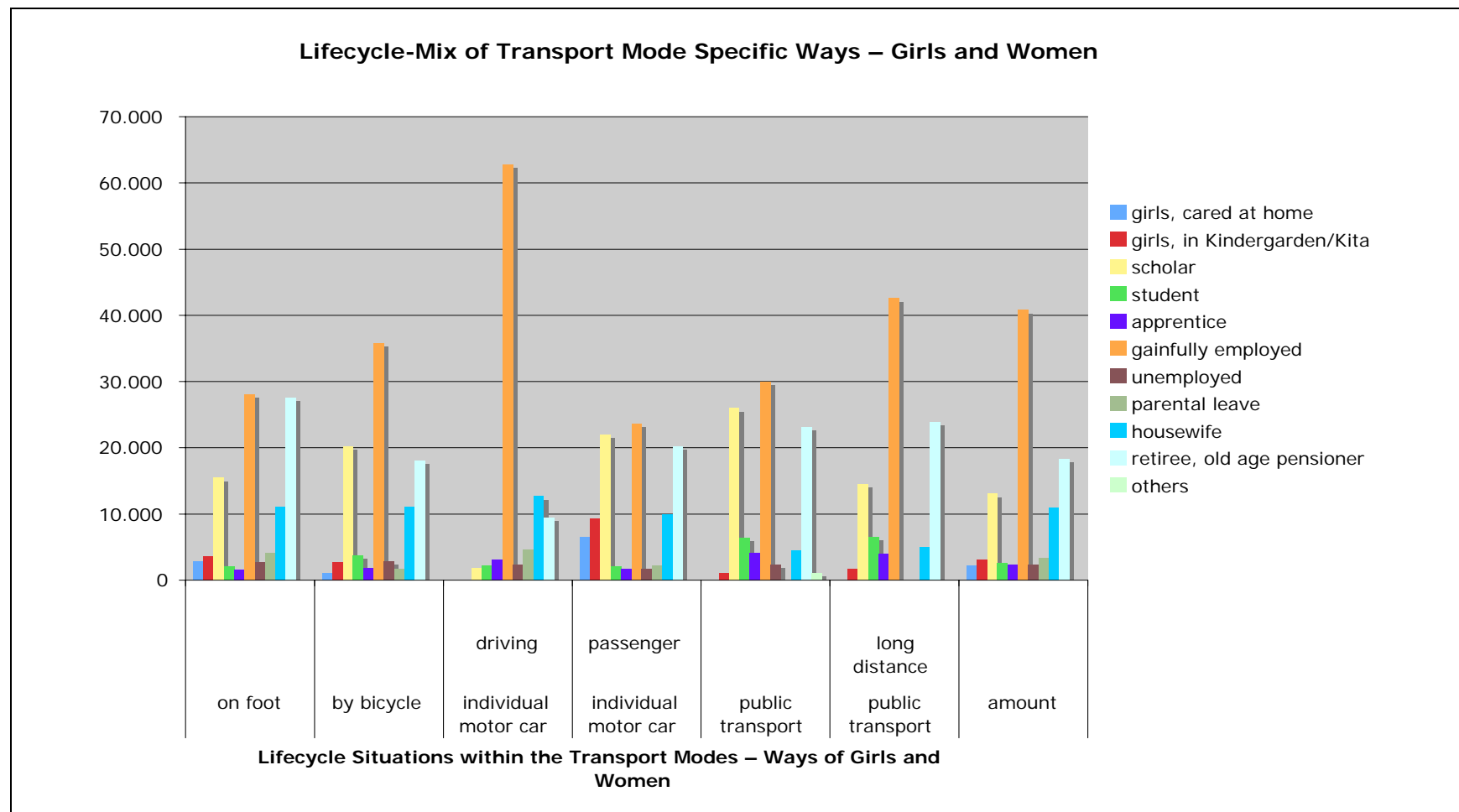
FIG 7. UK Travel time from Time Use survey by Lifecycle and gender



Source: EUROSTAT.

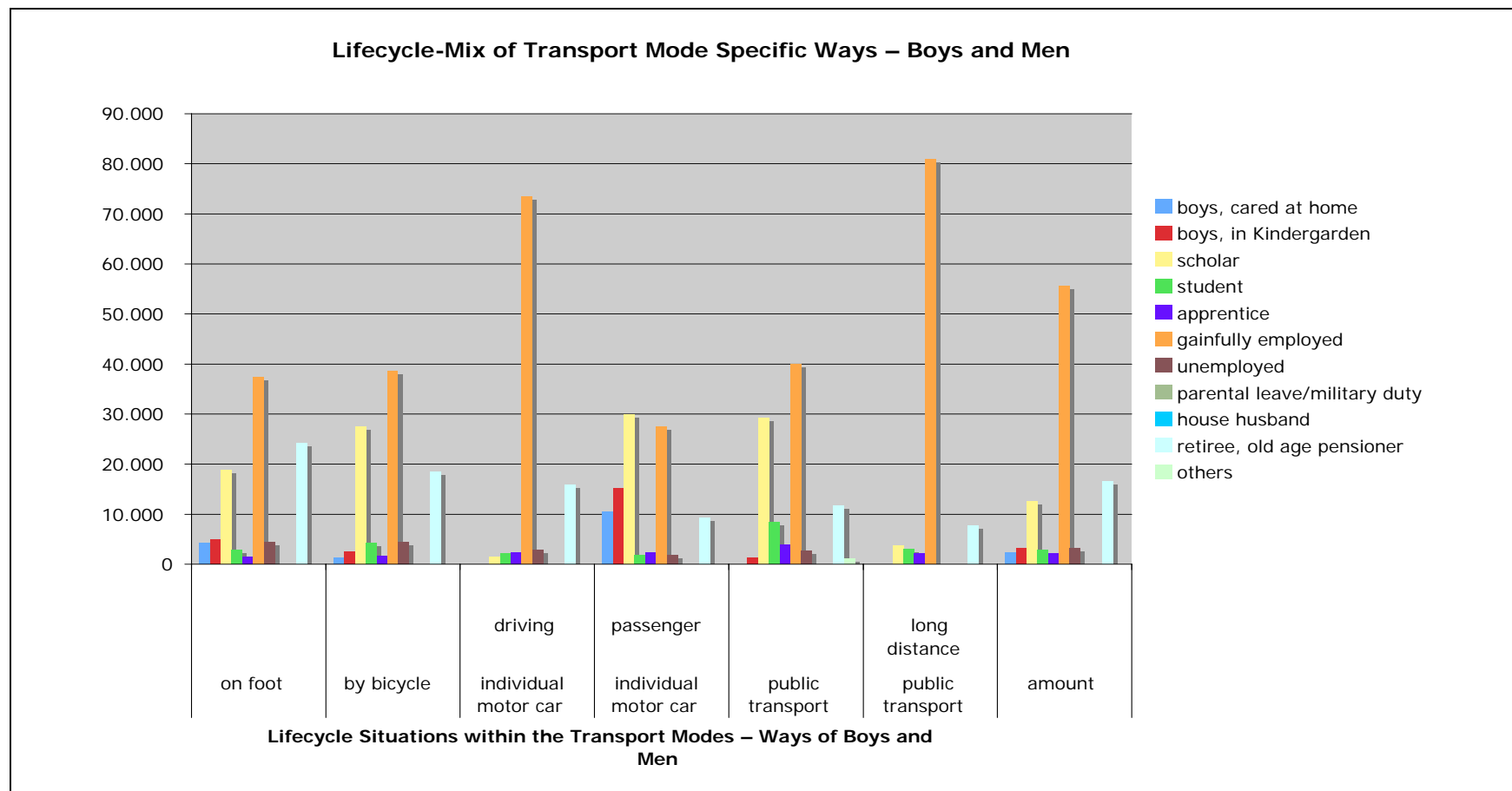
An analysis was also specially prepared of German daily mobility by lifecycle stage as shown below in Figures 8 and 9.

FIG 8. Transport mode by lifecycle for girls and women in Germany



Source: Own Calculations by Spitzner 2006 on original database MiD Mobilität in Deutschland, 2002.

FIG 9. Transport mode by lifecycle for boys and men in Germany



Source: Own Calculations by Spitzner 2006 on original database MiD Mobilität in Deutschland, 2002.

Some of the findings on the differences in domestic and work related travel are reinforced by the analysis that is made by EUROSTAT of the Harmonised Time Use survey. This highlights that parents with small children have longer working hours. Their total working time (paid and unpaid including domestic work) per day is between one and two hours longer than the average for persons aged 20 to 74. Mothers do more total hours than fathers in Estonia, Finland, Hungary, Slovenia, France and Belgium. Fathers work more hours in Sweden, Norway, the United Kingdom and Germany. It also says that others with small children spend between 70 and 85 % of their total working hours on domestic tasks. In this family phase, they seem clearly to reduce their hours in paid work. A similar connection between gainful and domestic work cannot be seen in fathers' time use. They work mainly full-time irrespective of the age of the children. In France, Estonia, Sweden and Germany, however, fathers with small children work shorter hours in gainful work than fathers with children aged above seven. The opposite seems to be the case in Slovenia, the United Kingdom and Finland, where fathers with small children work longer hours than fathers with older children [13].

1.4.3. Professionally active women, compared to those without a job

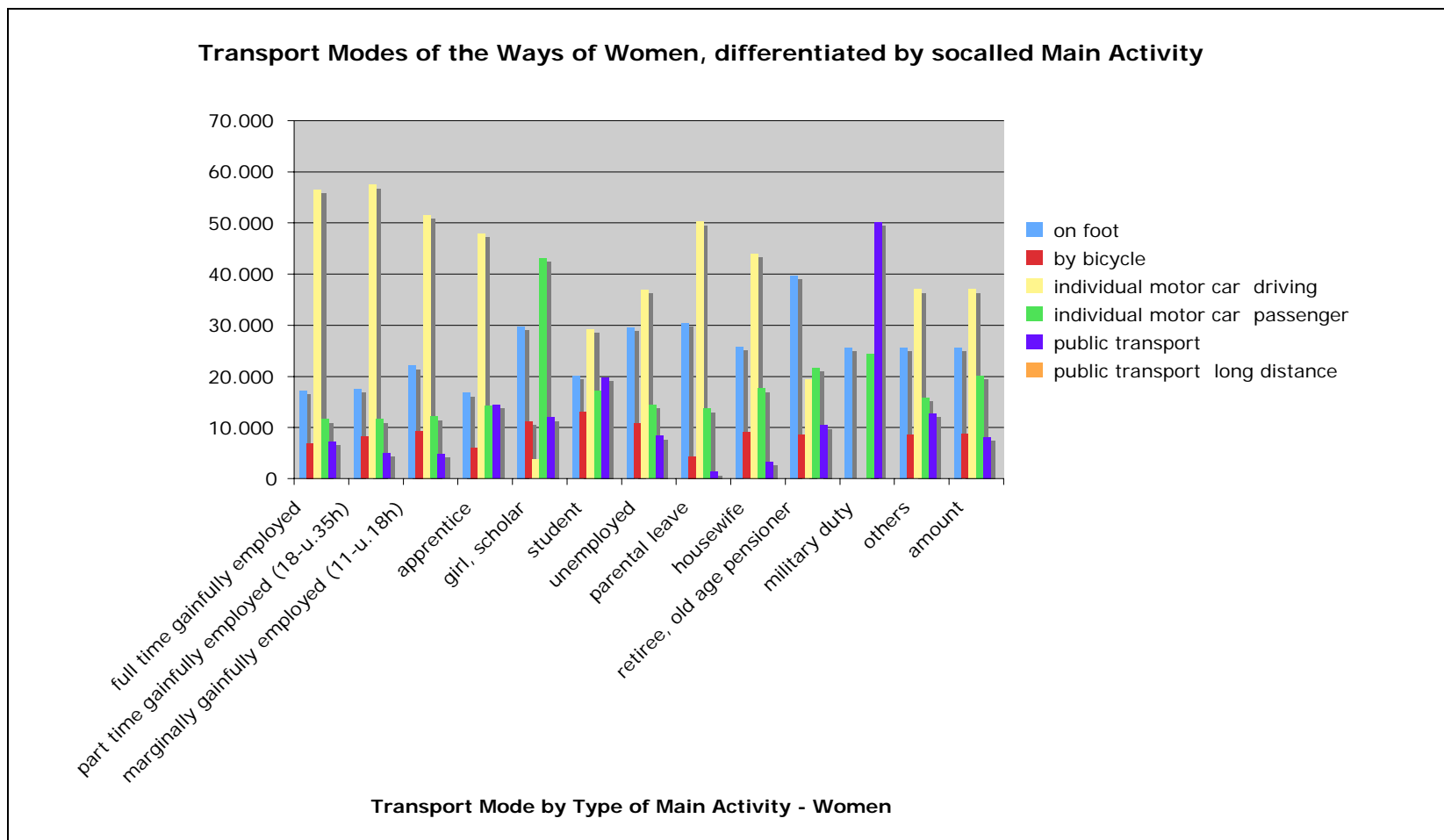
It has not been possible to find any Time Use Survey data that differentiates women's travel patterns by their employment status. However, it is reasonable to suggest that women's greater domestic responsibilities coupled with their weaker access to household resources have significant consequences for their transport and travel status. The lower the income of a household, resulting from one or more members of the household being without a job, the more probable it is that women within that household will experience greater transport deprivations as compared with men.

Transport deprivation may take the form of women's use of inferior modes of transport as compared with men or it may take the form of women's journeys having multiple purposes and thus generating greater anxiety in the travel context as to whether all purposes or goals can be met within the schedule.

Women are to be found as the users of the less expensive and slower modes of transport when their intensive household schedules would be better served by access to faster modes and this can only be exacerbated for women in workless households compared with those who are economically active. Traditionally, income constraints (or put differently women's weak bargaining position for household resources) have placed the most flexible transport forms outside of women's routine reach whilst the urban planning practices of society have increasingly centralised vital local services and moved them to disparate locations within the city. Women encumbered with children wait at the bus stops to travel first in one direction to the school, then in another to the shops, then in yet another to work and in yet another to the doctors or chemists and organise their round of journeys to escort children back from the school to the local area.

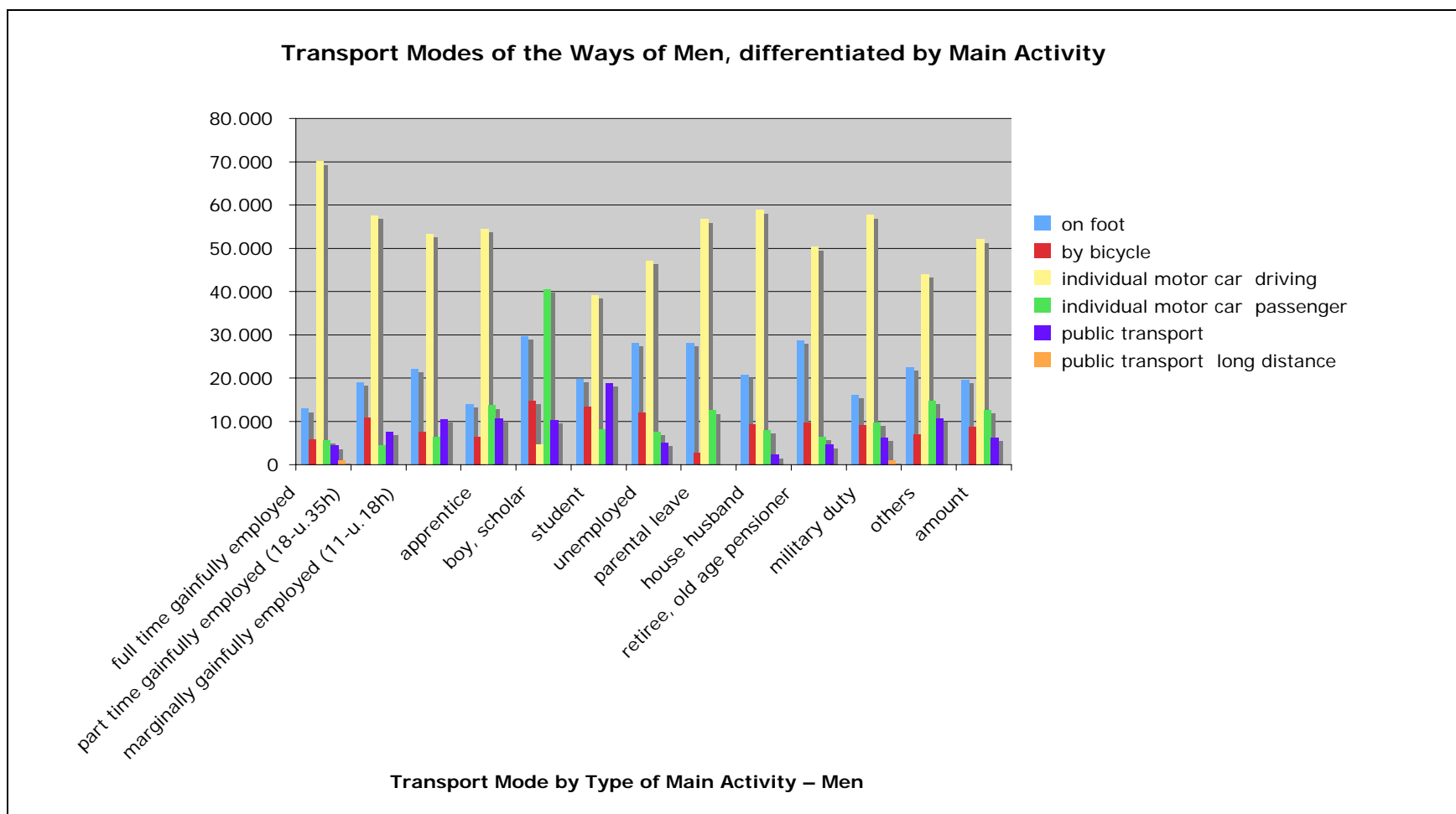
In support of this there has been some analysis of German national travel data by economic activity and gender that highlights the impact of different levels of economic activity. This highlights that those women who are not economically active appear to undertake less travel than those who are active economically. It also that car passenger is a more significant mode for women who are economically inactive, through unemployment, domestic responsibilities or retirement. Walking is also a less significant mode for women who are economically active than for those are not. This is shown below in Figures 10 and 11.

FIG 10. Transport mode by economic activity for women in Germany



Source: Own Calculations by Spitzner 2006 on original database *Mobilität in Deutschland*, 2002.

FIG 11. Transport mode by economic activity for men in Germany



Source: Own Calculations by Spitzner 2006 on original database MiD Mobilität in Deutschland. 2002.

The gendered impact of access to transport and time poverty caused by domestic and social roles can also have an impact upon job search patterns as work from Czech Republic case study demonstrates. This work explored the gendered impact of travel time on job search.

Representative sociological studies conducted by the case study team point to differences in the behaviour and preferences of women and men with regard to the distance of the place of employment from the place of residence. A study on work behaviour in 2005 showed that men are considerably more willing than women to make a longer commute to work for a good job opportunity. 56% of men are somewhat or definitely willing to commute over an hour to work in such a case as opposed to 39% of women (see Table 1). More than one-half of women (57%) are (somewhat or definitely) not willing to commute over an hour to work for a good job opportunity.

Table 2. Responses to the question – If you found a good job opportunity would you be willing to do the following? Commute for an hour or more to work each day – by sex, in %. [28]

	Men	Women
Definitely yes	16 %	9%
Somewhat yes	40%	30%
Somewhat no	27%	34%
Definitely no	14%	23%
Don't know	3%	3%
Total	100%	100%

N men: 2776.

N women: 2730.

Furthermore, a representative sociological study of parents who have children up to the age of 18 in the household conducted in 2005 indicated that mothers work closer to their place of residence than fathers do. 80% of mothers commute to work in less than a 30-minute period as opposed to 75% of fathers (see Table 2), and one-quarter of fathers commute for over half an hour to work as opposed to just one-fifth of mothers. These differences are not as large as the differences in the willingness of men and women to commute to work (see above), which points to the influence of parenthood on the length of the commute to work; this effect is stronger among women.

Table 3. Responses to the question: How long does it take you to get to work? (by sex, in %).[29]

	Men	Women
Under 10 min.	24 %	31 %
Under 30 min.	51 %	49 %
Under 1 hour	20 %	18 %
More than 1 hour	5 %	2 %
Total	100 %	100 %

N Men: 768.

N Women: 770.

Direct questioning on how important individual aspects of travel to work are in choosing one's employment indicates how important the length of a commute to work is. The research showed

that for mothers the issue of travel to work is a more important factor in considerations about their choice of employment than it is for fathers. For 93% of mothers the distance in time of the place of employment from the place of residence is an important factor (definitely and somewhat) in their choice of job as opposed to 80% of fathers (see Table 3). The importance of transit connections is ranked very similarly and follows the pattern of the importance of the distance of the place of employment from the place of residence according to the gender of the parents (see Table 4).

Responses to the question – **How important for you are the following conditions when you are choosing a job?** (by sex, in %)

Table 4. Distance from the place of residence [29]

	Men	Women
Very important	35 %	55 %
Somewhat important	45 %	38 %
Not very important	17 %	6 %
Of no importance at all	2 %	1 %
Don't know	1 %	0 %
Total	100%	100 %

N Men: 827.

N Women: 1161.

Time constraints and access to inferior modes may very well constrain the job search patterns of unemployed women compared to men and this may have a significant negative impact upon the employment opportunities available to women.

1.4.4. Older women compared to younger women

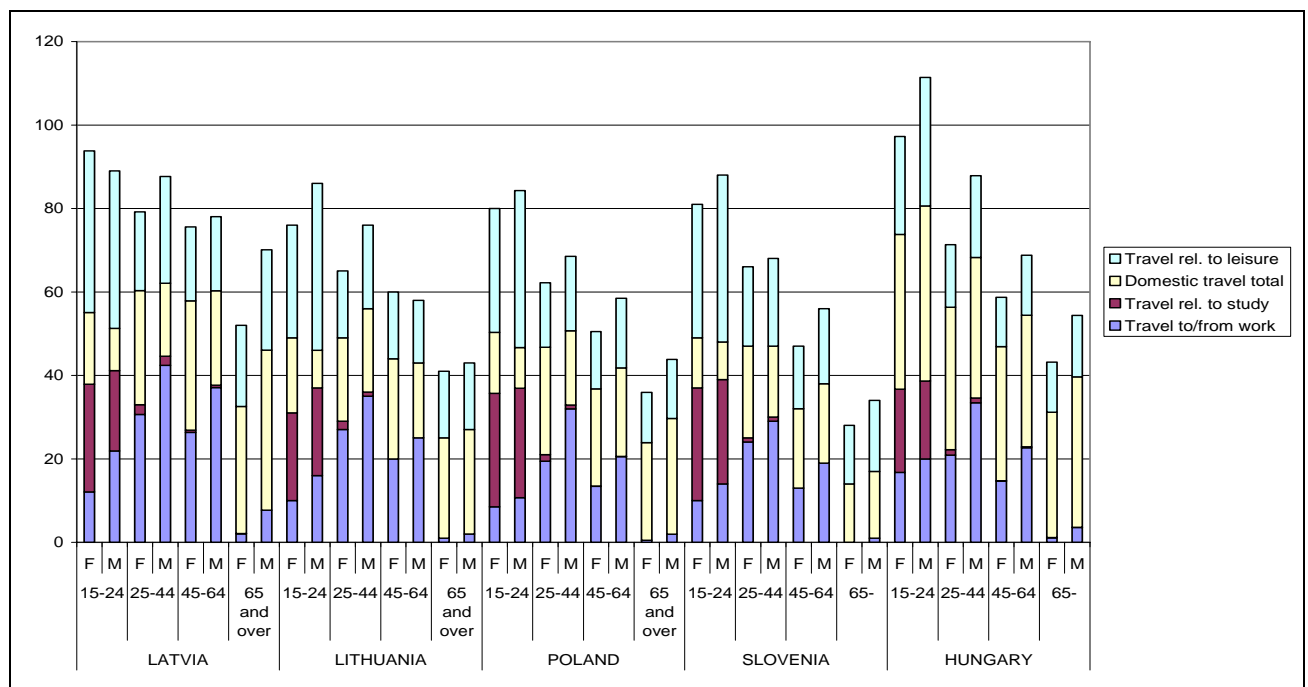
As has been noted that the European population is stabilising, or even decreasing in some Member States, and its overall structure is changing. In the next 30 years, the number of people over 65 years of age will double and those over 80 will treble in the member and associate member countries of the European Conference of Ministers of Transport (ECMT) [15]. It has also been highlighted that older people will increasingly expect to maintain the high level of mobility they have grown accustomed to previously, though this will be more difficult as they age [16]. More people will retain their driving licences as long as possible and licence holding will be more prevalent amongst older people, especially older women. Public transport will become more important for this older population; however its use will only be an option for many people, if the levels of access, information and personal security are improved. In addition, the increasingly frailty of the European population as it grows older will mean that accidents will become more damaging and severe.

In future, the mobility needs of the ageing population are likely to influence the pattern of transport provision and movement. At present, people entering into their 60s have grown up with increasing mobility, particularly by car, and more recently by air. Therefore, it is likely that they will continue to demand higher levels of mobility for longer than previous generations. Meeting those demands in a safe, accessible and sustainable way will have implications throughout the transport sector.

European Harmonised Time Survey data can be disaggregated by both age and gender and thus it is possible to provide a quite detailed picture of the travel patterns of older women for some member states. The Time Use data highlights that older people across Europe travel less than their more youthful counterparts. It is also clear from the figure below that even as one gets older the gender difference in travel patterns between men and women are maintained. Across the new member states highlighted below older men travel more than older women.

As highlighted earlier, the time use data must be used with care in some of the new member states as the timing of the surveys may have been during a period of economic instability and thus unrepresentative of either previous trends or future progress. In the case of Hungary, for example, it is suggested that free travel for older people during a time of economic recession produced significantly more travel amongst older women associated with finding affordable provisions than would normally be the case.

FIG 12. Travel purpose from Time Use Surveys by gender and age for new EU member states



Data from the UK also gives an example of travel data being disaggregated by age and sex [40]. The UK data breaks the journey purposes down even further. It can be seen from this analysis that older men make more journeys for organised leisure and even work and less journeys for shopping than women of the same age group.

Table 5. UK Trips per person per year by age, gender and purpose 2002/03

	Percentage/miles									Average trip length
	All ages	<17	17-20	21-29	30-39	40-49	50-59	60-69	70+	
Males										
Commuting	18	1	25	32	30	27	24	10	1	10.3
Business	5									
Education	7	28	14	3						3
Escort education	3	4	1	1	3	4	2	1	1	2.7
Shopping	18	7	11	15	16	16	19	28	37	4.3
Other escort	9	15	4	5	7	10	9	8	6	5.5
Other personal business	10	8	6	8	8	9	11	15	19	4.8
Visit friends at home	11	16	15	12	9	8	8	10	10	9.9
Visit friends elsewhere	5	3	9	7	5	5	5	6	6	5.3
Sport/entertainment	7	10	9	7	6	5	6	7	8	5.3
Holiday/day trip	4	4	2	2	3	3	4	5	4	27.2
Other including just walk	4	3	2	2	3	4	5	7	7	1.1
Females										
Commuting	12	1	19	21	15	19	20	6	1	6.2
Business	2		1	2	3	4	3	1		13.7
Education	6	27	14	3	1					3.2
Escort education	7	5	1	7	15	10	2	2		2.0
Shopping	22	9	17	20	19	21	26	34	39	4.3
Other escort	10	16	5	8	13	11	6	5	3	4.6
Other personal business	11	8	7	9	10	10	12	16	21	4.0
Visit friends at home	13	17	19	15	11	9	11	13	12	8.7
Visit friends elsewhere	4	3	8	5	4	4	4	4	5	6.0
Sport/entertainment	6	8	5	5	5	5	6	8	8	6.5
Holiday/day trip	3	4	2	2	3	3	4	5	4	25.5
Other including just walk	4	3	3	3	3	4	6	6	6	1.0

Source: ONS National Travel Survey, 2005.

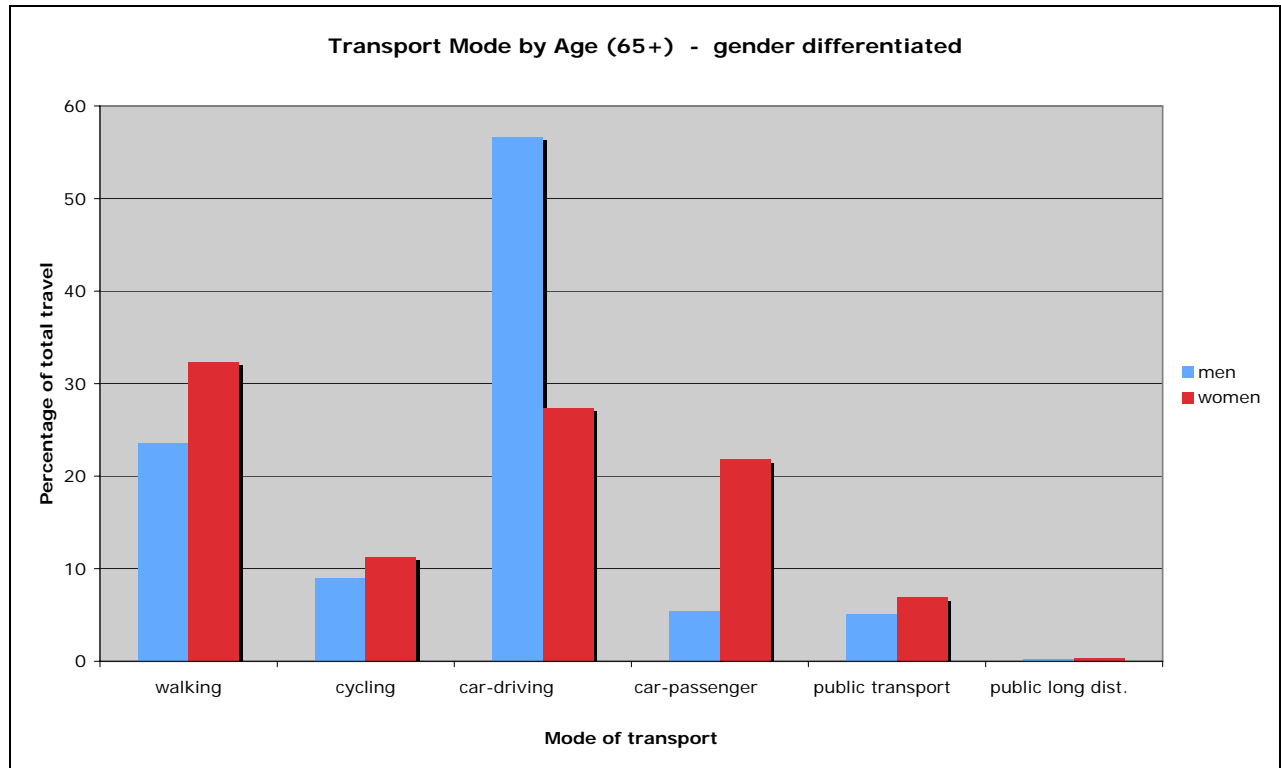
This table also shows that trip purposes mirror how people spend their lives, and different work, social and family responsibilities are clearly reflected in the travel patterns of men and women [40]. The table above illustrates travel within the UK by broad categories for people aged 21 and over, separating also escort trips which are such a feature for some age groups. The UK reports that up to the age of 17, differences in travel purpose between young men and women are slight, but are becoming more noticeable for young people aged 17–20. Women make a greater proportion of shopping trips, and are more likely to visit friends in their homes than men. Men make a greater proportion of commuting trips. [40]

These differences persist through all age groups. By the time women reach their 20s, ‘escort education’ trips (taking children to school) are becoming more apparent, and together with general escort trips, these account for over a quarter of all trips for women in their 30s. This age group of women also makes the smallest proportion of commuting trips among those of working ages. Trips to visit friends tend to decline for both women and men aged between 21 and 49, increasing again in their 50s. Once women are in their 50s, they make fewer trips than men, and the proportion of escort trips declines considerably, and men make more escort trips than

women. For both men and women aged 60 and over, shopping, personal business, and visiting friends are the main trip purposes, and the trip patterns of men and women aged over 70 are similar.

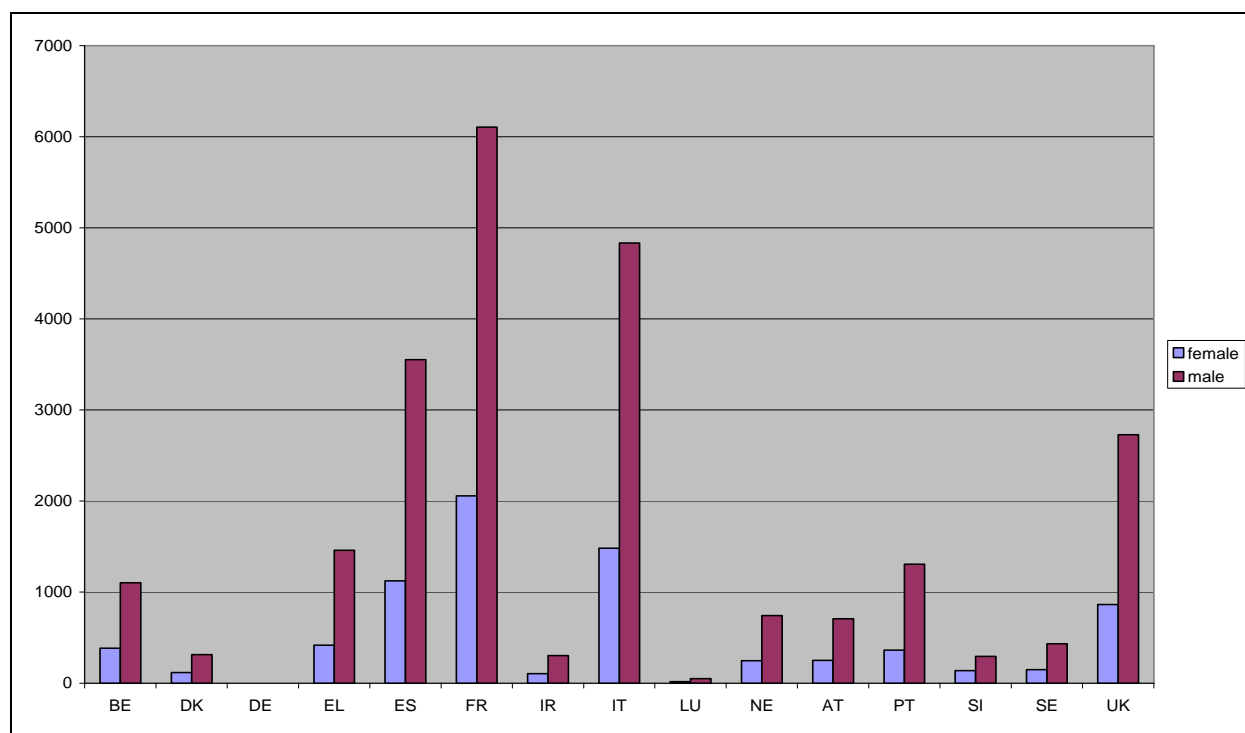
In Germany also the differences in travel patterns between older men and women is clearly set out. The chart below sets out the travel differences between men and women over the age of 65. Women are bigger users of walking, public transport and travelling as a car passenger than men within this age group. This is shown in Figure 13 below.

FIG 13. Transport mode in Germany for men and women over 65 years old



1.4.5. Safety of travel

Road Safety is another of the few areas in the transport sector where there appears to be easily available EU-wide comparable data that is gender disaggregated and that is available through the European Commission. DG TREN holds the database (called CARE) for accident data across the member states. Further they provide sex-disaggregated analysis of it. This demonstrates that more men than women are likely to be killed in road accidents across all countries of the EU-15. Unfortunately it does appear that this data is not yet available as an easily accessible database for the new member states. Data is available from each of the member states and the situation in the Czech Republic for example is that by comparison in 2005 a total of 1286 people died on Czech surface transport routes (roads, rail, etc.). Of this number 298 people were female (i.e. including children) and 988 were of male gender.

FIG 14. Fatal Accidents across the EU-15 by sex in 2001

Source: CARE database DG-TREN.

One of the key areas of travel safety for both men and women is that of personal security and the fear of crime. The perception that we live in a climate of increasing crimes against the person, to which women are especially vulnerable, is one of the most salient factor impacting on women's travel behaviour. The Scottish Household Survey (SHS), 2001-02, found that women in Scotland were much more likely than men not to feel safe when travelling on buses or trains. Thirteen per cent of women who were bus users said that they felt not particularly safe, while 4 per cent said that they did not feel safe at all. This compared with only 7 per cent and 1 per cent respectively of male bus users. Many women simply avoid travelling after dark. For example, the same survey found that 42 per cent of women (compared with 29 per cent of men) in Scotland never walked in their local neighbourhood after dark [27].

This deep concern about personal security has important implications for a number of issues, including the design of transport interchanges and waiting areas and for staffing. For example, a qualitative study undertaken in West Yorkshire region of England in the 1980s found that bus stations were disliked for being in places where women felt unsafe in the evenings; they were also thought to be bleak, inconveniently located and lacking in facilities [23]. Moreover, the removal of ticket conductors, as a result of One Person Operation on buses and trains, which was introduced in the 1980s and was generally commonplace by the 1990s, resulted in reduced personal security for passengers, especially women. This was one reason why many women's groups in the UK have called for the reinstatement of conductors.

There are also indications that women are relatively more sensitive than men to signs of social disorder. Rowdy behaviour among other passengers, as well as the witnessing of assaults on others, appears to be even more threatening and off putting for women passengers than for men [17]. This has important implications for the quality and level of staffing on vehicles and at bus and rail stations. The more recent reversal in some quarters of a previous trend towards staff

reductions is welcome in this respect. However, another study showed that almost all of Scotland's bus fleet remain driver-only operated and over half of railway stations are unstaffed [42].

1.5. Work-life balance

As the gendered nature of travel is connected to the gendered social roles and time use patterns within European society, changes in those roles will have an impact upon gendered travel patterns. One of the most substantial changes within European society has been the changing involvement of women in the labour market. The table below highlights some of the changes. The table shows that whilst men's involvement over the last 12 years has stayed constant.

Table 6. Employment rate for men and women over the last decade in different parts of Europe

		1992	1999	2004
EU-15	Male	72.8	72.1	72.7
	Female	49.7	53	56.8
New members states	Male		65.6	62
	Female		52.5	50.2

Source: EUROSTAT.

The analysis is that changes in female labour force participation across Europe will change the work-life balance. It will impact upon time use and travel patterns. As European work-life balance changes gendered transport data needs to reflect this.

2. Gender, Travel and ICT

2.1. A technical revolution: domestic tools for reducing women's time poverty.

Women's greater domestic responsibilities coupled with their weaker access to household resources have significant consequences for their transport and travel status. The lower the income of a household the more probable it is that women within that household will experience greater transport deprivations as compared with men. Transport deprivation may take the form of women's use of inferior modes of transport as compared with men or it may take the form of women's journeys having multiple purposes and thus generating greater anxiety in the travel context as to whether all purposes or goals can be met within the schedule.

Women are to be found as the users of the less expensive and slower modes of transport when their intensive household schedules would be better served by access to faster modes. Traditionally, income constraints (or put differently women's weak bargaining position for household resources) have placed the most flexible transport forms outside of women's routine reach whilst the urban planning practices of society have increasingly centralised vital local services and moved them to disparate locations within the city. Women encumbered with children wait at the bus stops to travel first in one direction to the school, then in another to the shops, then in yet another to work and in yet another to the doctors or chemists and organise their round of journeys to escort children back from the school to the local area.

As neighbourhood based facilities gave way to centralised welfare and urban services, women were the urban losers. Their schedules became more complex and yet went largely unstudied, neglected and rarely regarded as a fit topic of interest for transport planners. This may seem a harsh argument but at present, new hospitals get built without any gender analysis of accessibilities. Yet it is women who are the major escorts of patients to hospitals. Indeed as a profession, transport planners have failed to produce systematic methodologies which incorporate gender analysis for the purpose of urban development and planning. At present it would be fair to argue that there are no systematic gender inclusion procedures for transport either in terms of the training of professionals, in terms of the participation of users or in terms of the design and planning of transport systems, transport services and transport equipment.

Yet new informatics technologies are available which readily permit the capture and harnessing of gender data for transport and travel systems which better service women and most particularly low income women. Instead of standing and waiting with children at poorly serviced and poorly supervised unsafe bus stops, low income women could through new technology call demand responsive services to get them to hospitals in time with efficiency benefits for the overall urban system. Only because we do not cost for women's wasted time travelling to over-centralised urban facilities or because we do not cost for the imposition of poor health on those who are discouraged by the epic quality of low income transport journeys do we arrive at costings which favour large hospitals on the periphery of urban space, hospitals which rarely have any customised transport to service routine low income needs.

Data clearly shows that the use of such technologies becoming a significant part of the fabric of everyday European life. The data below shows the prevalence across the sexes of internet and computer use. The key indicator of gendered mobile phone use appears not to be available, but would reinforce the case even more strongly.

Table 7. Percentage of people who have accessed e-government internet services in the last 3 months

	Male	Female
EU-15	28	22
EU-25	25	20

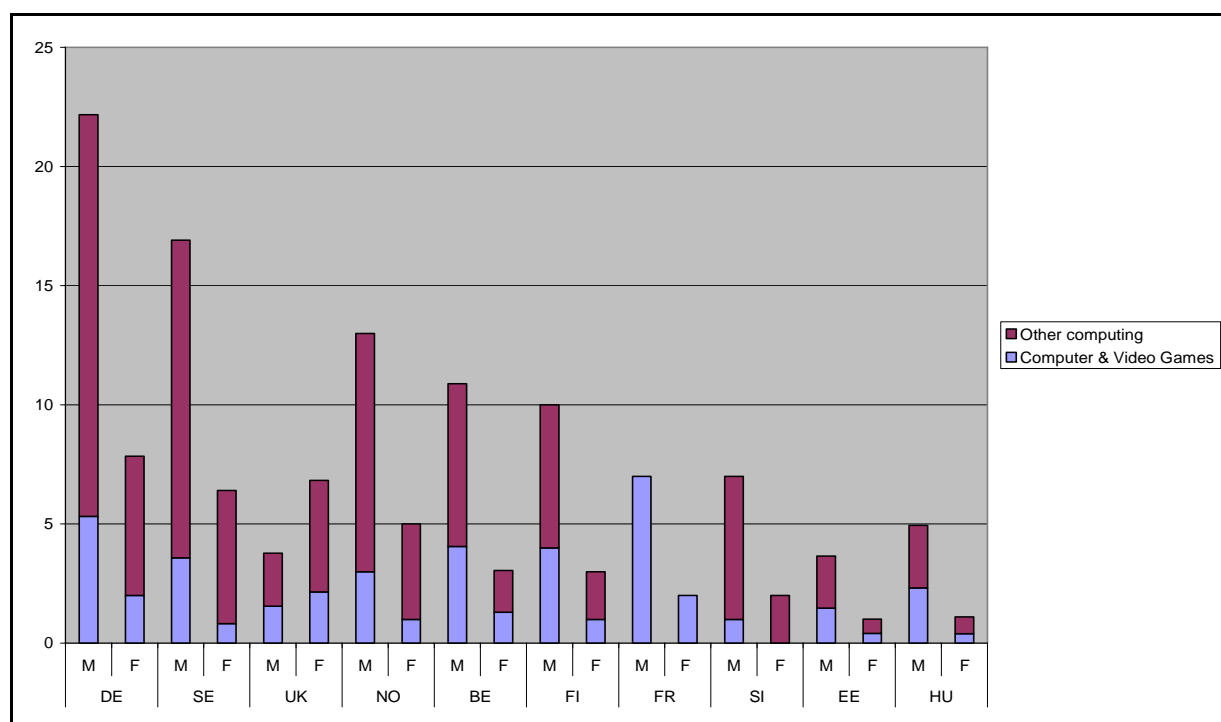
Source: EUROSTAT.

Table 8. Percentage of individuals who accessed Internet, on average, at least once a week and who used a computer in the last year across Europe

	Use of internet		Use of computer	
	Male	Female	Male	Female
EU-15	52	40	68	60
Eu-25	48	38	65	58

Use of technology is gendered however and data from the European Harmonised Time Use surveys show that men may view technology use as a hobby or leisure pursuit more than a utilitarian activity to aid activity scheduling, maintain social contacts or replace activities for which travel would be otherwise involved. This is shown in Figures 15 below.

FIG 15. Time Use of Computer games and other computing activity by gender across European States



Source: EUROSTAT 2004.

Within the transport sector, there are new fleet management technologies which have been developed on the basis of state of the art information and communication technology which permit a greatly expanded flexibility in the routing and unit load size characteristics of commercial loads. Within the commercial sector, new technology has brought the instantaneous matching of customers with loads to transport and transport operators who can move those loads (within a system where goods are continuously tracked by tagging technologies): intelligent commercial delivery systems are now a common feature of reality.

The matching of public transport passengers and public transport vehicles could, if the policy vision were suitably applied, operate along similar intelligent principles matching passenger journey requirements with vehicle availabilities within the system. Historically, customers went to common collection points to join the motorised public transport system - an arrangement which emerged in a period when intelligent communications with their capability for making real time matches between customers and operators were not yet available. The advent of new intelligent technologies creates an opportunity for a differently designed system - or at least for the redesigning of a part of the public transport system so that it can better meet the needs of women with young children, older persons and people with disabilities. For these target groups, new intelligent technologies similar to those used for the transportation of commercial loads could be brought into use in the public transport system so as to provide the journey flexibility, including home pick ups, required by the least mobile categories of society.

Many EU supported research developments taken together show us a path through which the development of in-home communication technologies connected to the services of local public transport operators could help reduce the time poverty of low income women. In-home networked terminals have very low communications costs; they would permit women to make reservations, on both routine and crisis services, giving exact details of the journeys which they need to make to meet their survival needs. Within an intelligent system, these requirements can be rapidly aggregated and integrated with similar journeys to be made by others: there is no need for efficiency to be lost, indeed efficiency may be gained. For example, the availability of in-home scheduling or communication technologies for low income mothers would permit the better integration of hospital appointments, easier access to the transport necessary to reach those appointments and the reservation of the child care provision necessary to meet those appointments.

At present in-home networked terminals are viewed as a feature to be developed in higher income homes so as to enable the remote control of the domestic environment by professionals who enjoy frequent, long distance travel. However, the exact same technologies could very well service the needs of those who are on low income with restricted mobility. We commenced this section with drawing attention to the way in which urban development had dispersed vital local functions over the greater urban space as a consequence of centralisation; we noted that women were losers in this arrangement and that those with the greatest need to be in the greatest number of locations and to access and perform their business in these locations quickly were the very group which were confined to the slow modes. Intelligent communications via the in-home domestic scheduling technology mode presents a potentially new solution to this problem: the tele-strategy solution. Tele-strategies are fast solutions to women's time problems: women's local constraints can be greatly ameliorated by access to the information highway. Functions which could only previously be performed by being physically present in dispersed urban locations can now be accomplished by communicating through information technology: reserving medical appointments and cancelling them with the immediate print out of the

information in hand; electronic banking and money transfers; electronic shopping and delivery of goods; tele-working; virtual conferencing with school authorities; electronic voting; electronic distance education for sick or disabled children. At present, there has been no major policy agency involved in investigating how the various functions performable through new technology can be integrated into a format that better serves the time poor woman; but clearly the potential is there.

Single mothers who can work through new technology from home, who can summon safe transport to service their children's health and educational needs, who can make vital reservations, cancellations and purchases from within their own home save themselves the zig-zag of multipurpose journeys through ill designed urban space. The ability to interact with welfare services electronically rather than through the time expensive face to face modes of present organisation can release time for single mothers who can greatly benefit both their own welfare and that of their children.

2.2. Intelligent societies: the societal and institutional benefits of tele-strategies.

In order to reduce single mothers dependence on welfare, we would argue, it is necessary to take active steps to reduce their time poverty: whilst low income, single mothers are time poor because of their heavy domestic task load and their lack of access to appropriate, timely and efficient transport, their ability to perform as reliable employees is impaired and the long terms prospects of removing them from the welfare roles is diminished.

The keys to the alleviation of women's time poverty in Europe are twofold: the ability to substitute tele- journeys for real journeys and the ability to summon low cost flexible and responsive transport on demand. The current vogue in urban planning is to try and reduce the volume of motorised journeys in order to meet the problems created by congestion and environmental pollution [20]; enabling low income women to join the information revolution and make use of tele-strategies would assist in meeting these environmental goals, similarly, providing appropriately flexible transport for low income women may very well reduce the number of journeys they are required to make by providing them with better control over their schedules in the context of the extensive range of their tasks.

The technical instruments which would enable low income women to organise and undertake tasks necessary for the survival and welfare of their households from within their own homes are already existent: at present, the tool have been put to use for the benefit of other groups - fleet management techniques for commercial transport; networked terminals for intelligent homes for professional communities; real time transport information for particular pilot communities in Europe; internet reservations of travel facilities by long distance travellers, etc. Whether these different components are brought together by social policy agencies and civic authorities in a way that makes them amenable to use by low income women is now the issue.

3. The role of institutions in reproducing gender-bias in transport policy

3.1. EU-wide Gender Policy Context

Using the macro-meso-micro approach set out in the methodology, it is firstly necessary to explore the macro policy context in which transport policy is made and to explore the gendered nature of that policy.

The highest level of policy context in the EU wide level, both in terms of gender equality policy and transport. The European-wide policy level is a key level in policy development in member states and thus on individual lives both men and women. It is important to note at this level, the level of sectoral policy from the European Commission, there is a clear commitment to gender equality and gender mainstreaming. It is also clear that there is commitment to mainstreaming gender throughout all policy area of the Commission. The European Union bases its engagement with gender equality and gender mainstreaming on a number of statements of formal commitment, and has been strengthened in the foundation by the commencement of the terms of the Treaty of Amsterdam in May 1999 [52].

However, when it comes to action within individual sectors, there appears to be a gap between policy aspirations at the highest levels and reality within EU sectoral policy. This is the case in the transport sector. the Common Transport Policy '*European Transport Policy for 2010: Time to decide*' [8] set out in 2001 does not mainstream gender within it. Nowhere is there mention of gender, women (or men for that matter) and no acknowledgement of the gendered nature of mobility and the need to address in policy terms.

Furthermore as part of the commitment to gender equality and mainstreaming, each service of the European Commission has to report on yearly progress made towards the goal of gender mainstreaming. Set out in Appendix 4 is the report for DG Transport & Energy (TREN) for 2005 [9].

However, this report is far from satisfactory. The basic premise made in this progress report and used repeatedly as a reason for limited action on gender and transport, that transport is gender neutral, needs to be challenged. It is clear that DG-TREN do not fully understand what gender-mainstreaming means to their organisation. It is clear that either they don't have the capacity to understand the implications of gender mainstreaming for change in their organisation or there is a deliberate approach to remove greater gender scrutiny from much of their existing policy (See Appendix 5).

If gender mainstreaming were to be effectively taking place in the transport sector at the European level, you would at least expect to see more profile of it from the work of the Commission Service responsible for transport and from the policy it develops. There however, appears to be a gap between the rhetoric and action around gender mainstreaming within the transport sector at the EU-wide level.

The gap between rhetoric and reality within the transport sector is also evident at the member state level. For instance, the Czech, German and UK case studies undertaken for this project highlights the lack of action in the transport sector connected with the implementation of national Gender Policies.

3.2. Country reports

3.2.1. Czech country report

The Czech case study points out that, at the national gender policy level it is reported that documents of the government of the Czech Republic commit them to the promotion of equality for men and women. Within this one fundamental domestic document is the Priorities and Procedures of the Government in the Promotion of Equality for Men and Women, adopted as Government Resolution No. 236 in April 1998 as the first programme document relating to the promotion of equal opportunities for men and women. With Government Resolution No. 456 of 9 May 2001 the government assigned all ministries effective as of 2002 to draw up their own internal ministry procedures for promoting the equality of men and women. The document is regularly updated and each year a summary report on compliance with the procedures is prepared.

The coordination of domestic policy relating to the position of women in society, pursuant to Government Ruling No. 6/98, is the responsibility of the Ministry of Labour and Social Affairs of the Czech Republic (MLSA). Other ministries are required to provide the MLSA with necessary cooperation. It is also stipulated that all ministries are to cooperate with women's NGOs.

However, in terms of the transport policy, there appears little movement towards the promotion of equal opportunities. Therefore, although in *Transport Policy of the Czech Republic for 2005-2013*, mention is made of the promotion of equal rights for men and women being included in the document, in that very same document there is no mention of women at all, nor are women mentioned in the document *Research and Development Plan for the Ministry of Transport for the Period 2005–2010*.

Despite this lack of policy promotion, senior officials do argue for some activity within the Ministry, albeit in particular areas. They argue that as part of the media policy of the Ministry of Transport the principle of equality for men and women is actively promoted in a number of media products with reference to the Government Resolution of May 2005.

It is also claimed that, the assertion of equality is most vivid in the activities of the BESIP department (an abbreviation of *BEzpečnost Silničního Provozu* = Road Transport Safety) at the ministry, but alongside it at the ministry there is also the BESIP Foundation (which has a 'Women behind the Wheel' project, and the 'Women-Drivers' campaign). The department conducted several campaigns in 2005 focusing primarily on women. One of these campaigns focused on highlighting the need to use child safety seats. Mothers-to-be were able to learn about the campaign in gynaecologists' offices and maternity wards. A video developed as part of a campaign focusing on observing maximum speed limits in municipalities was also centred on a female figure.

The Ministry of Transport was keen to highlight that they actively promote a policy of equality for men and women in the area of human resources in the selection procedure for appointments to ministry posts. However, they argue that achieving a larger number of women in top positions in the ministry is prevented by the predominantly technical nature of the Ministry of Transport's sector. Here again there appears a lack of understanding and awareness of how mainstreaming impacts upon the work of the transport sector.

The Ministry also argued that they were involved in promoting equality in the activities of the ministry unrelated to legislation; including making provisions for the issue of equal treatment and for protection from discrimination, not only in internal documents (e.g. the Labour Code, the Code of Ethics for Employees in Public Administration), but also in hiring and appointment procedures. It also provides information as part of entry training for new employees at the Ministry of Transport and educates, for example, employees on an ongoing basis. This takes the form of on-line courses on the issue of equal opportunities for men women on the topic of gender mainstreaming. This training, called “Equal Opportunities for Men and Women” was organised for senior employees and selected planning and development employees. Altogether 24 employees took the course, 21 of which are in appointed posts and 3 were planning and development employees. Gender breakdown: M – 13, F – 11 (of the 21 senior employees, 9 were women, of the 3 planning and development employees 2 were women).

The ministry, it argues, has also been trying to achieve a balanced representation of men and women in top posts for a long time in its hiring and appointment procedures. All senior employees who have decision-making authority over hiring new employees are informed about the principles of appropriate gender behaviour. This is reinforced by the presence of a representative from the human resources department in the appointment committees who oversees that the prescribed principles are observed in hiring and appointment procedures.

In the preparation and publication of planning and development, decision-making, and evaluative materials (on behalf of the Ministry of Transport, i.e. in particular the Transport Policy of the Czech Republic for 2005-2013) the promotion of the equality of men and women is taken into account. The perspective of equal opportunities for men and women was applied in 2004 and 2005, for example as part of the evaluation of projects for research and development under the programme “Safe and Economical Transport”.

This demonstrates at least some activity within the Ministry. However, it is not clear whether this amounts to a considered and concerted programme on gender mainstreaming and it is also not clear whether there are significant levels of gender awareness driving the development of this programme of activities.

As the Czech case study highlights, a declaration on the fulfilment of the ideas of equal opportunities for men and women in the area of transport in the Czech Republic is limited to only the highest level of state administration. However, even here it remains only a declaration, which is evident from the interview with the employee at the Czech Ministry of Transport and the unambiguous reinforcement of gender stereotypes. At the lower levels not even this formal level of awareness of gender issues is achieved.

3.2.2. Germany country report

The German situation confirms the problems of the gap between rhetoric and reality within the transport sector on the national level.

In terms of Gender and transport, there has been research done in Germany since the late 1980^s. This was very much intensified by initiatives such as the national network on gender and transport science, planning and policies “Women on the Move”, which existed between 1989 and 1999. A wide range of issues connected to gender and transport were found and a lot of initiatives were developed to enable national and countries policies to integrate gender and

transport. However, the outcome of all this research activity was that not very much changed, and the integration of gender equality into transport policy was only taken up in a very few number of places (6).

Even the new German public transport laws - following the consequences of European decisions on transformation of the public transport in all European member states (EU directive 1191/69 and 1893/91), the privatisation of the national railways and the regionalisation of the public transport – which for the first time took serious notice of the policy recommendations of the network “Women on the Move” and made explicit mention that the needs of women have to be regarded, though these have not yet been implemented.

There is however a strong national gender policy framework which the transport sector should be working within. In Germany, the national government in 1999 accepted the strategy of Gender Mainstreaming as a cross-sectoral strategy of the whole national government, including all national ministries. In 2000, 26th of July, the government changed its own rule in that way (§2 GGO “Gemeinsamen Geschäftsordnung der Bundesregierung”). In the autumn of the same year an IMA – inter-ministries commission, on “Gender Mainstreaming” was set up. This commission decided that every national ministry will follow the gender Mainstreaming strategy, will organise gender training for the senior positions in each ministry and will commission a pilot study on implementation of gender mainstreaming within their areas of responsibility.

The national ministry for transport, building and housing decided not to chose, from the several authorities and areas of responsibilities, which are working under the ministry, the one appropriate to transport, but instead chose the organisations who’s tasks are questions of city development, city building: the national office for building and spatial order BBR. This office ordered in 2003 a pilot study on “Implementation of Gender Mainstreaming within the National City building policy”. Within this study transport and gender also was elaborated, but in the end nearly all transport dimensions were cut out (except within the keyword structured bibliography of the 400 most important publications).

The national ministry for transport, building and housing in 2003 organized two, one day training events on gender Mainstreaming in the transport sector by external gender and transport experts. No recognizable outcome has resulted from that event.

The IMA – inter-ministries commission “Gender Mainstreaming” in 2003 published two ordinances as implementation regulations to the Gender Mainstreaming paragraphs of the national executive government. The first was the ordinance “Arbeitshilfe zu §2 GGO ‘Gender Mainstreaming bei der Vorbereitung von Rechtsvorschriften’” (Gender Mainstreaming within the preparation of laws), which takes the European request, that nothing is gender neutral and therefore gender neutrality has to be explicitly proven within the normal professional task by exclusion of gender bias effects, which means here: within the preparation of laws by the ministry. The second one was the ordinance “Arbeitshilfe zu §2 GGO ‘Gender Mainstreaming in Forschungsvorhaben (Ressortforschung)’ “(Gender Mainstreaming within Research Projects – research of the ministry). (19)

Since the development of these ordinances, all ministries are under a duty to implement them. However, with respect to the national transport ministry, transport authorities, transport policies and executive processes, there is no known implementation of these two Gender Mainstreaming ordinances.

In addition to this policy context, professional activity within the transport sector does not support greater gender integration. The case study of Germany highlights that the German transport planning sector has an **extremely one-sided gender compositions**. The most recent study, which was completed in 1989 and has not been updated since, highlighted that 98,2% of senior management positions in the transport planning sector were occupied by men.

Germany has however developed a series of new **participation forms** to involve users and communities in the development of traffic and transport planning which have lit up possibilities for greater involvement of women in planning local transport. One such initiative was that of the development of "passenger adviser", to inform all levels of institutions up to the national Ministries. These bodies were supposed to be made up of approximately 60% women. However, participation approaches were viewed critically after numerous experiences in land-use planning and town development over the last twenty years and in the traffic planning sector in the last ten years. Whilst they were viewed as indispensable, they were at the same time found wanting with regard to their changing effectiveness.(28) This was despite conditions being developed to try and prevent the negative experiences of earlier attempts. Attempts were also undertaken to go beyond local community and develop regional participation forms. An evaluation of the first generation of public (at suburban/ urban/ regional levels) Transport Plans highlights the result that as long as gender equality is made obligatory within these processes, a regulated and efficient participation of citizens within local transport planning was possible.

However, for this to be successful, it was noted that these participatory processes require **switching expenditure** (resources for learning the needs of users, particularly of non-male users and their needs etc.). More effort is therefore needed for appropriate, continuous, substantial monitoring of the travel needs of women transport users by public organisations.

To overcome the problem connected with the securing of switching expenditure, much research has instead focused on the **development of procedural possibilities** (in particular for the range of suburban traffic planning), which aimed at making more obligatory the integration of gender equality into the regular planning procedures. Focus has particularly turned to the "gap analysis" and 'user needs analysis' from a gender equalization perspective - what traffic research now terms "accessibility analysis". This was already planned as a graduated process of inventory analysis, prognosis, measure planning within the Local Transport Plans production process. It was already embodied in preparation of Germany's new planning instrument, the Local Transport Plan (NVP), as a more systematic and a more extensive mechanism to allow feedbacks with citizens and which in cases such as the national suburban traffic law of Saxonia-Anhalt, was made legally binding. There were differences in its use across individual municipalities in different Lands of the Federal Republic, of which Bielefeld is considered as exemplary.

The German case study also highlights that **mechanisms of exclusion** and strategies also become effective not only in relation to gender equality elements of transport policy, but also in the employment of women within the transport planning sector. However, this has been examined only superficially so far and is in need of much more work. For example, specialized women networks on gender dimensions have been developed, in Germany, to work on numerous topics within the range traffic or transport-referred planning. However, such specialized women's networks need to be maintained and developed and the continuity of such networks is of central importance.

Despite this involved history of activity in the area, the German case study reports that in transport planning and administration there is an urgent need for positive adjustment which secures the removal of **structure barriers to the integration** of gender issues in the transport sector. In particular, these barriers are:

- a) **a continuous and itself aggravating lack of appropriate resource and equipment.** The problem lies in the fact that gender is wide task area and life is made more difficult as it is a cross cutting topic in an area where distinct sectors predominate and that;
- b) appropriate integration of gender as a cross-cutting activity is undermined by the fact that the division of labour between the specialized transport planning divisions and the tasks of the woman office/the office for gender equality within local and national authorities does not take place in the local authorities according around this task.

A more efficient and an adequate division of labour would be if the transport specialized divisions were to compile the investigation of gender problem dimensions within their specialist areas and a gender-knowledge based technical preparation of planning and measures, and the women's office/the office for gender equality were to carry out the evaluation of the effectiveness of the technical preparation and of the integration of gender into planning processes, based on a measurement of gender inequalities (Controlling functions). The evaluation of the technical preparations would then take place according to criteria defined by the gender equality department.

From these discourses, it is clear that in Germany and elsewhere a more efficient integration is urgently required in the resources of the offices for gender equality in local authorities to enable integration of gender within the transport sector as well as an increasing legal obligation on transport planning to incorporate gender into the work of the sector to enable a better distribution of the division of labour between technical transport divisions and offices for equalization to be achieved.

Furthermore, the German case study highlights that **Conditions of gender balance** amongst the membership of transport decision-making bodies and/or professional positions of the infrastructure organization need to be addressed as means of the improved integration of gender-equality within such organizations (34). This is even more the case where transformation and privatization is developing more complicated organisational forms such as quasi-autonomous operating divisions of public authorities.

3.2.3 UK Country Report

Since the election of the Labour Government in 1997, a new policy landscape has come into play in the UK transport sector. It has been characterised by the production of a series of policy documents, guidance and guides to best practice.

The country report explored the extent to which the new policy framework has considered gender issues in policy and provision. It examines consultation and participation in transport policy and assesses the degree to which this is gender-aware. It then considers what steps are needed and what opportunities may be available to increase the gender-sensitivity in consultation around transport policy and provision. The study has identified a number of relevant policy documents, guidance and guides to best practice. These include:

- The 1998 White Paper on the future of transport policy.
- Transport guidance specific to Scotland and Wales.
- Guidance on Multi-modal studies of travel along strategic routes within England and Wales.

- Guidance on the production of Local Transport Plans (LTPs) produced by local authorities to describe the planning for transport in their area.
- Guidance on the appraisal of Local Transport Plans.
- Planning and consultation for major road and rail schemes.
- The public enquiry process connected to planning for transport investments.
- Guidance on the analysis of the costs and benefits of major transport.
- Investments.
- Transport-related elements of land use planning and development control.
- The development of strategies related to specific modes, such as cycling.

The issue of the involvement of users in transport planning and policy is of Paramount importance, particularly if gender-bias within a transport sector that is predominately male-dominated is to be addressed (especially in the areas of policy and decision-making). However, it is clear from the work undertaken for this study and elsewhere, that the involvement of users is still an undeveloped area of transport thinking and consideration of the gender differences connected with such involvement even less so [51][26]. As a result, this chapter only begins to set out some of the issues connected to user involvement and gender in the transport sector. Thus there is a need for much more study of the potential for better user consultation for identifying and addressing issues of gender equality in transport policy provision.

User involvement in transport policy provision

UK government policy formation in transport prior to 1998 has been described as one of 'decide-announce-defend', that is experts would decide what was best, announce their decision and then defend it against criticism [1]. Since the publication of the Transport White Paper in 1998, the government has given increasing emphasis to the need to involve users in the formation of policy in the form of public participation. This is an integral part of the government's rhetoric about agendas to modernise local government, to renew local democracy, to develop more open government, more accountability, more representative institutions and to strengthen citizens' rights. It is now widely argued that involving users makes for better service delivery. For example, a report by the National Consumer Council (NCC) states that consumer involvement is a vital component of good policy-making [37].

There has been increasing recognition of this argument in government departments in recent years. For example, the Transport White Paper of 1998 makes a clear case for public participation in the future of transport policy and provision. It stated that local people and businesses should have a real influence over transport [3].

More recent guidance issued by the UK Department for Transport goes on to identify a clear need for a gendered public understanding of involving users [4].

The document goes on to identify groups of users and names women as a specific group with particular needs and interests [4].

In detailing the benefits of involving the public, the guidance looks more specifically at the benefits to the local authorities and any subsequent policy, rather than to the benefits which are more generally related to national government's aspirations for modernising local government. Public participation in this context has a number of aims. First, the intention is to gain support for what are potentially unpopular policy developments. These include new spatial restrictions on city centre access and the introduction of new transport charges. Secondly, it is seen as a way

of acquiring more information on problems and solutions. Thirdly, it forms a key stage or phase in campaigns designed to encourage travel behavioural change such as the national 'Travelwise' campaign.

Limitations of gender involvement

Despite the laudable aspirations in the Transport White Paper, there are some distinct deficiencies in the policy framework in the transport sector on participation. The Transport White Paper does not define gender issues very well and fails in many instances to identify and define women as a specific group to be involved. It thus fails to define women's needs, interests, behaviour and culture as important to the process of involvement in governance. Different social roles, time use patterns and levels of access to the transport system also affect how men and women engage in consultation and decision-making processes. For example, a study on urban regeneration found evidence that planners often overlook women's concerns; because of unquestioned assumptions about the social and economic roles of women and men, and that this reduces the effectiveness of urban regeneration initiatives [32]. The report also highlights the different participation approaches required to engage different sections of the community and the need for gender-sensitive involvement procedures. Similarly, in transport, in order to deliver public services that are shaped around the needs of women and men, policy-makers need to integrate a gender perspective into their every day work from the outset. Early action can then be taken to correct any negative impacts on one group over another. Shaping services around men and women's needs is best done with the involvement and participation of men and women transport users. The business case for doing so is user or customer satisfaction. The user base in the transport sector is not homogenous and, as shown in Chapter 2, women often have distinctly different travel needs from men and so different groups should be represented in efforts to involve the user.

Unfortunately, the enthusiasm for participation, as expressed in documents that were produced shortly after the White Paper was published in 1998, seems to have waned considerably. While the focus on public participation does continue into documents around the progress of LTPs and major scheme studies, such as the Multi-Modal Studies and the Major Scheme Guidance, the rhetoric concerned with involving users has been characterised by two changes. The first is that the participatory approach contained in earlier documents is much more 'watered down' and participation is more often replaced with 'consultation'. Secondly, the more general terms, 'users' and the public is replaced with 'stakeholders' or 'stakeholder groups'. Invariably, the stakeholder groups that are familiar to the policy-makers are included, and thus statutory agencies are always well represented, whereas smaller, less visible or well known stakeholder groups tend to be less well represented.

Policy documents on involving users are equally ambiguous concerning specific areas of social inequalities relating to gender, race, ethnicity and disability. When it comes to awareness of the distinct needs and interests of women and men, the policies are by and large gender insensitive, 'blind' or unaware. The documents are astonishingly just as uninformative about race, ethnicity and disability, even though the Disability Discrimination Act 1995 and The Race Relations Act 1976 (General Statutory Duty) Order 2001 requires local authorities, policy-makers and transport operators not to discriminate on the grounds of race or disability. Local authorities all produce documents and statements relating to equality of opportunity and freedom from discrimination, but these aspirational statements are not reflected in the transport policy documents. This lack of awareness is a result of the absence of a clear understanding of the processes involved in equity and discrimination and a lack of (to use that old-fashioned Labour

Government phrase) ‘joined up thinking’. Analyses of policy discourses show that the debate on social exclusion in transport policy often results in a conflation of the concepts of social exclusion and gender, race or disability discrimination [26].

Devolved administrations

The picture is uniform is no longer uniform across the whole of the UK. The transport policy framework in the devolved administrations in the countries of Scotland and Wales is still relatively undeveloped though evolving at a rapid rate.

There is still time for the legislation and policy to avoid the mistakes made in England. For example, the Scottish Executive guidance on the preparation of Local Transport Strategies released in February 2000 highlights the high priority the Executive attaches to effective public involvement in local transport policy and states that should be a key factor in the preparation of such strategies [43]. Updated guidance on these strategies was published in 2005 [44]. In addition, the Transport Scotland Bill (which is soon to be enacted) will set up regionally based transport partnerships. These have to produce regional transport plans which take into account equality issues as per schedule 5 of the Scotland Act.5.

The National Assembly for Wales has also issued guidance that stresses the importance of ‘listening to the needs of local communities and local groups’, though consultation appears to be much less of a focus in this document [35]. In addition, the National Assembly has published a Spatial Plan that will incorporate links between transport and land use development in an overarching way, while the Transport (Wales) Bill, was reintroduced into the House of Commons in May 2005 [36].

4. Gender and Employment in the Transport Sector

4.1. European wide picture of gender disparity

The importance of the transport sector in the EU economy is best illustrated by the number of jobs it is generating: according to the latest available Labour Force Survey (LFS) results (the second quarter of the year 2001), more than 7 million persons were employed in the transport sector at EU-15 level [12].

From the chart below it appears that land transport, largely consisting of road transport, is dominated by male employment. At the EU level, 13 % of the employment is taken up by women, the two extremes consisting of Greece and Germany with 4 % and 17 % female employment respectively. However, with regards to the question of reliability mentioned earlier, the data on land transport by sex for Greece, Ireland, Luxembourg and Portugal should be carefully used. This is shown in more detail in Appendix 5.

Even in air transport and supporting and auxiliary transport activities, such as the travel industry, the headline figure masks significant occupational gender segregation. Baggage handling, pilots and senior management being very male dominated and flight attendants and service staff being still very female dominated.

Recent work undertaken in the Rail Sector looks more closely at male and female employment levels in a particular sub-sector. It shows that the percentage of female employees varies across Europe with the East and Central European countries with a much higher percentage compared with other European countries. In Lithuania for examples, women account for 34.9 % of the workforce compared with Austria where the percentage is 6% and Belgium where it is 7.6%. In fact Germany is the only Western European country where the percentage of women workers in the rail workforce exceeds 20%.

4.2. Evidence on gender segregation from other industrial sectors

Work by members of the study team and other recent work undertaken by the UK's Equal Opportunities Commission begins to highlight some of the factors behind the gender segregation in a variety of industries [24][25][34]. There are a number of different theories and a not insignificant literature on why people chose the jobs they do and the role that gender plays in that choice. Factors include:

- the culture of the workplace,
- the role of parents,
- careers service advice,
- starting pay levels,
- gender stereotyping, and
- national government policy all have an impact.

It is clear from this research that action is needed to:

- address the information we have about gender segregation,
- tackle practices and culture within the workplace,
- inform careers service,
- tackle perception through work placements,
- understand the effect of best practice initiatives.

4.3. Gender segregation in the transport sector

There is little in the sizeable body of literature with specific and direct reference to the transport sector as a whole or even sub-sector of it. What there is appears to address particular sectors. Research undertaken on the gender effects of industrial change found that changes and restructuring within the road freight industry can have both positive affects on women already working within the industry [45]. Unfavourable attitudes have been perceived to be particularly problematic for women in many transport sectors and the findings of this earlier mentioned study support the existence of such a disadvantage. The authors also found that while women tend to experience longer working hours and increased workloads; upon restructuring they encounter fewer barriers and a more positive attitude to women managers in the organisation. They argue that the climate of change may, more importantly, help “unfreeze” and challenge entrenched attitudes and to create a new balance, in which women can compete on a more equal footing to men. This may act as a catalyst and create a greater visible presence of senior females providing incentives for women to enter the industry. Simpson and Holley did comment, however, that with many women concentrated in junior and middle management, de-layering and job cuts at these levels meant that the pool of women managers is reduced: the glass ceiling becomes even more impenetrable with fewer women correspondingly eligible for promotion to senior ranks so restructuring is not necessarily the route to equality

In the US, a survey of 400 women logistics managers found that female logisticians were pessimistic about their career prospects, believing that men were paid more and progressed faster than their female counterparts. Similarly, a study of 300 women transport managers found that 75% believed their careers to have been held back by a ‘glass ceiling’ and a further study found evidence of widespread sexism in the road transport industry. Women in these sectors therefore are coping not only with certain career disadvantages but are also operating in an environment, which has been characterised by restructuring and considerable change.

Several trends have been identified that are related to the career progress of women in transport and female logistics managers. These were:

- Long working hours and performance pressures emerge as perhaps the most negative outcomes of restructuring. The problems caused by the pressures of working long hours and managing the conflicting demands of home and work continue to be pressing for women.
- The effect of restructuring is strongly influenced by the seniority of the post, with senior women feeling more positive about restructuring; expressing more satisfaction with the outcomes and experiencing greater levels of motivation and company loyalty than less senior women. Although senior women work longer hours, are more likely to take work home and express dissatisfaction with hours worked, it is the junior women who identified the negative side effects.
- Senior women are more likely to identify attitudinal barriers in their careers than junior women; they are less likely to identify career barriers arising from restructuring progress. In this respect senior women seem to be better able to accommodate and accept changes brought about by restructuring and to be less critical of the outcomes.
- The study concluded that restructuring can remove some of the managers with entrenched attitudes that are detrimental to women, which could result in sufficiently powerful shift that women experience a more favourable career climate. [46].

Comments have also been made that that in America the freight industry has realised the forthcoming skills shortage and it has been identified that more and more trucking fleets are targeting women in their search for drivers.

Much of the industry realises that women along with other so-called minority groups, such as African-Americans and Hispanics are part of a great under-used labour pool [31]. With the impending driver shortage problems faced by the British haulage industry, the market should follow the American lead in targeting the underused labour pools such as using females to bridge the driver shortage. However in order to attract females in to the industry they have to eradicate common stereotypes about the industry e.g. male dominated, sexist, dirty working conditions.

Other sub-sector analysis has included the European road freight transport industry. This analysis observed that it is clear that the transport sector is male-dominated. The percentages for women appear to be lowest in freight transport by road, and are particularly low among drivers. Those few women who do work in this sub-sector work in other positions. The percentage of women is somewhat larger in transport of persons and larger again in the rest of the sector. Several research based reasons were mentioned as to why women are so poorly represented in this sector, particularly in freight sector by road. The reasons given were that:

- the work is hard to combine with family life;
- the physical workload is high;
- it requires spending too long away from home. (Belgian and UK national reports).

The percentage of women working in the transport sector and particularly in freight transport by road, although low, has remained stable over the years. [15].

Work by a partnership of operators and social partners in the rail sector found that:

- Women are seriously under-represented in the workforce of the European railway enterprises and employment trends show a further drop in their number due to the accelerated pace of restructuring. Women account for only 18.8% of the total number of employees in the 11 railway companies subject to survey.
- The rail sector is deeply marked by horizontal and vertical segregation. Thus, female workers prevail in clerical jobs while technical occupations are by far male-dominated. Whilst managerial posts are equally shared between men and women, only 1% of the senior executive posts are taken up by women.
- The pay gap (in average wage) in the sector varies from country to country oscillating between 10% to 30 % lower earnings for women.
- With regards to work-life balance, women railway workers share a strong view that maternity leave has a negative impact on career progress and pay.
- The study found that cultural stereotypes feeding into segregation and discrimination; pay inequity affecting job satisfaction, and difficulties in reconciling work and family life are amongst the most critical aspects social partners need to address in order to encourage more women to join the railway professions and to keep their jobs within the sector.[7].

Management culture

A report produced for the UK Department of Education and Employment noted that much of the transport sector is more traditionally managed than most, with clear hierarchies and clear differentiation between management and workers [2]. This observation is also echoed by the finding of more recent research carried out for the Fuirich Transport Development Partnership, an EU-funded employment project seeking to promote equal opportunities in the sector. In-depth interviews with equalities officers indicated that only a few of the many UK passenger operators have equality targets and that even where equality and diversity policies had been introduced, there was a need to address 'management culture issues', notably the persistence of what was termed a 'macho' management culture. Managers were said to have little training in people management skills and to have little knowledge of how to deal with equality issues and harassment. Negative attitudes towards maternity leave were also noted [33].

However, the DfEE report notes that privatisation has brought about a transformation of the transport sector over the preceding 10 to 15 years. This more demanding environment has meant that management now faces a more complex task. In some places, the report argued that this had resulted in the conflict and control model giving way to a more open empowering style of management. Elsewhere, however, the highly competitive environment brought about by privatisation had resulted in many managers, 'cutting corners to win a contract solely on price' [2]. The report argued that this militated against the long term commitment necessary for investing in the skills of the workforce. As a solution, the report called for more career progression, imagination, experimentation, and the replication of good practice.

A second observation is that the majority of managers in the sector are drawn from an operational background and this may mean that the business development aspects such as strategy and marketing receive too little emphasis, and also that the potential value of managers from outside the sector is not recognised.

Again, there is clearly a need for a new approach and this can create new opportunities for women. For example, women's traditionally greater people skills can give them an advantage when modernisation brings in this more open and empowering style of management. A shift of emphasis from the operations side of management towards strategy and marketing could also produce openings that would be relatively more attractive to women.

4.4. Drivers for change

One of the major drivers for possible change in the representation of women in the transport sector workforce in Europe is the changing demographics of the European workforce. An example of that change is highlighted by figures produced by the UK Office of National Statistics that show that:

- Only 20% of the workforce will be white, able-bodied, male and under 45.
- Ethnic minorities will make up 25-50% of the workforce in key metropolitan areas.
- Only 40% of jobs will be full-time.
- Women will comprise more than 50% of the population and increase from 44% to 54% of the workforce.
- 80% of workforce growth will be women.
- 73% of new jobs are predicted to go to women.
- 88% of jobs for women will be in the service sector [39].

In terms of the European workforce it is clear we will see an ageing population and less people of working age across all European countries. It is also clear that the numbers of women in employment will grow by 3%, whilst the number of men in employment will remain static.

The European transport workforce is therefore getting older and increasingly in need of replenishment. Projections published in 2001 indicated that more than half a million additional employees would need to be recruited for the UK transport sector over the next ten years - equivalent to one new employee for every two employed today. For example, UK taxi and private hire sector employment has increased by 25 per cent in the 1990s and was expected to continue to increase in the current decade.

The logistics industry, at the European level, with goods transport growing at 2.7 percent per year, has also predicted a substantial need for extra workers in the sector, which it fears will not be met [47]. Major shortages of drivers already exist for both buses and coaches in many areas of the UK. In addition, these forecasts do not take into account the government's July 2000 ten-year transport strategy which set out plans to achieve a shift towards public transport and raise demand for employees even further [2]. There of course may be employment decline in some sub-sectors within transport such as the rail industry under conditions of increased privatisation and this may have significant gender impacts, but overall employment growth within the sector is predicted to be positive.

4.5. Best practice of women's participation in the transport labour market (public and private setcor)

However, the continuing growth of employment in the sector and the prospect of recruitment shortages, skills gaps and technological change in the sector provide opportunities for this gender-bias to be overcome. The transport sector is not sitting idly by and ignoring the issue of the under-representation of women. There have been a number of initiatives under European Social Fund and the EQUAL programme to address this issue. It was thought useful to set out some of these examples of good practice to document what is and could be done in the sector to tackle the male-domination of transport employment but they are very limited in number and many more examples need to be developed.

Fuirich Transport Development Partnership (<http://www.fuirichtransport.com>)

For example, the Interim Research Report for the Fuirich Transport Development Partnership which is seeking to promote equal opportunities in the land transport sub-sector notes that some companies, notably London Underground, are now striving to present a more positive image and to attract a more diverse workforce [33]. The Partnership's recommendations for the promotion of female employment in the sector include a number of suggested interventions in primary and secondary education, careers services, and apprenticeships and even at the level of media and popular culture.

The Fuirich Development Partnership report also presents the following key recommendations for the industry itself. These could be used as a template for the establishment of a much larger number of initiatives across the sector and include:

- Creating more awareness among prospective female employees, and influencers, of the career prospects and current work environment of the industry.
- Training employers and managers in people management, including recruitment techniques.

- Training managers to work positively with a diverse workforce.
- Training peer groups to work positively with a diverse workforce.

The Fuirich Project also sets out a series of findings including:

- Commitment from management is required to make a difference.
- Employees will allow change to happen if it is driven from the top.
- More role models are required to act as positive figures.
- The realigning of the gender imbalance issue is inevitably a long term process.
- Key stakeholder organisations must engage with the media to ensure stereotyping is avoided.
- The initial recruitment of women into male dominated sectors is only the first step on the ladder, preparation of the workforce to enable integration is imperative.
- Research has identified that mentoring and support systems for women into male dominated roles aids retention.
- Managers need to be prepared to implement change and timing is a key issue.
- The benefits of a diverse workforce needs to be disseminated to employers and employees to make an impact.

In addition, there have been a series of initiatives in the transport sector to tackle under-representation of women and these need further consideration. It is often too early to be conclusive about their impact. However, it is useful to explore these, determine their method of operation and assess whether there are elements that can be transferred across the transport sector. These initiatives include:

Hackney Community Transport (CT) projects to recruit women to the Bus Industry.

These projects in Hackney, London, funded by the European Social Fund, actively seek to encourage women, particularly women from minority ethnic groups, into the bus industry through a series of mechanisms. These include employment-related training, job trials, awareness raising exercises of work in the sector and personal mentoring.

The projects are delivered in partnership with the local transport authority, and operators, Hackney CT's projects are meeting employers' needs with customised job-specific training, including embedded customer service, disability awareness, and communication skills coaching, so that trainees are job ready by the end of their time on the programme. There are many women looking at career options within the transport industry and trying to determine what they want to do. Despite wanting to work with people, many women feel unable to approach a bus company for work. Perceived barriers include the vehicles' larger size, safety and security, whilst real barriers are lack of confidence, and intimidation in a male-dominated environment.

One Hackney CT project offers help and support to women so they can discover more about the bus industry, the ethos of the industry, exactly what to expect, and what career opportunities there are. In addition, the project offers employability skills and entry-level transport-specific training for 6 weeks. This prepares the women for a 2-week work placement with leading bus companies to get the chance to 'try out' the bus industry. The placement programme is funded by the ESF and the Government's Employment Service (JobCentre Plus) and has delivered several success stories since delivery commenced in April 2005.

A second project, which also commenced in April 2005, is funded by the ESF and the Government's Skills Agency (Learning and Skills Council London East) and delivers a higher level programme. Depending on a trainee's career choice, the training programme leads to a

qualification in Customer Service, Call Handling Operations, Passenger Support or a PCV licence, all equivalent to NVQ Level 2. After a 12-week programme of training the trainees are supported to find work in the industry.

Between the two projects, 37 women have been recruited, 22 have completed their learning programme, 11 have attended interviews at bus companies and 6 have been recruited as bus drivers. This translates to a 54.5% success ratio for female interviewees gaining employment, compared to a London-wide industry average for women of 22%. The projects are also acting as a testbed for some of the guidelines drawn up by Transport for London (London's Transport Authority) as part of their action plan to improve gender imbalance in the transport sector. They could provide an interesting model for developments elsewhere in the transport industry.

Female energy - transport and logistics a Finnish project to increase the number of women in a male dominated profession

Women are poorly represented in transport and logistics, with under 30 %. They have many natural skills which will help them to integrate to these fields if they have enough courage to tackle barriers. The project will help women to find out important employment opportunities in transport and logistics. Their career development will be assisted. Women entrepreneurs and experts will build up mentoring circles to help women in a different phase; students on different courses and degrees, employers, women who will start their own companies etc.

The project will also spread information and raise awareness about female talents and resource to companies and society.

The aim of the project is to encourage women to train themselves in professional fields that are largely male dominated and to support the competence of these women in order to advance their careers. The professional fields selected in this particular project are transportation and logistics. The project has a two-dimensional aim: first, it seeks to promote the desegregation of transportation and logistics fields by encouraging women to train and employ themselves in these fields and second, it aims to encourage women that are working in transportation and logistics fields to advance their careers by offering them management training in order to help them achieve executive posts in their companies. In addition, entrepreneurial training is also provided in order to promote female entrepreneurship in non traditional fields of profession.

5. Conclusions and Recommendations

This study, the first ever recognising the issue of women and transport across the newly enlarged European Union shows that European transport policy still has deep and structural gender problems. This means that Europe faces a significant challenge of change to meet the legal goals of the European Union concerning Amsterdam treaty and to serve her citizens by **common** policies orientated to **common** public welfare within the area of transport.

This fact unfortunately has been found more or less in all the dimensions concerning women and transport, that is:

- The range of transport policies meeting the mobility of women and men, their respective transport needs and travel patterns.
- The role of institutions in reproducing gender bias in transport policy and
- Gender differences in employment between men and women in the transport labour market.

This study highlights a way forward. It sets out the issues within possible criteria for a gender-balanced transport system. In addition it sets out a series of concrete actions. Taken together it is hoped that this contributes a significant starting point to developing a gender equitable transport system in the newly enlarged Europe Union. The criteria for this are set out below:

5.1. Caring economy as a gendered economic sector to be taken as serious as the public sector or private sector economy.

Core Problems:

- There is a gender-biased distribution of the „costs“ and "benefits" of caring work for a partner and maybe additional for children, for other household members, for older or more vulnerable people outside the own home, for adult children's households.
- Gender-biased assignment with regard to who is not engaged in caring and gender-biased distribution of the power within households to delegate the delivery of caring work, impact expense, skills, knowledge etc. to a partner.
- Non-valuation in policies and planning and fade-out in economics and economical policies.
- Exploitation and undermining of the caring economy and of the ones engaged in this sector.
- Actual harassments of production of additional caring work and risks to caring economy's vulnerability caused by externalisations empowered by privatisation/ transformation of public transport services, especially by a lack of mandatory duties and warrantees of high qualitative standards on one hand and by a lack of regulation for securing public financial resources for these.

Criteria for public authority responsibility in transport policy:

- Re-Internalisation and limitation of Externalisations of „costs“ (time burdens, expenditure of transport, risks, responsibilities for impacts, time, unpaid work, one-sided attention etc.) from profit-orientated or/and from public services debiting caring economy, by selective measures -especially within privatisation regulations and regulations concerning public services.
- Adequate inclusion of caring economy in cost-benefit-analysis within transport decision-making.
- Explicit aims of reducing the caring work load and caring economy burden in transport programmes and plans.
- Regulations for mandatory orientation of the planning of transport services towards the needs of the caring economy.

5.2. Sexual harassment as manifestation of Society's gender-bias and representation of male superiority and centrism

Core Problems:

- male relationship to women as objects/ things/ the „other“ – instead of „same level“ or partnership,
- male readiness to border-spread or invade personal space – instead of respect towards individuality of women and her normal human dignity,
- societal menship: societal attitude towards sexual aggression.

Criteria for public interests responsibility in transport policy:

- (infrastructural, institutional) Focus on limiting potential for sexual harassment,
- introduction of mandatory public sanctions against male readiness to border-spread in public space and transport,
- introduction of mandatory gender awareness and women empowerment orientation of public and private security services.

5.3. Androcentrism within institutions and their knowledge base

Core Problems:

- representation of male interests over and above representation of gender equality interests (and representation of interests of a wide diversity of women) in the knowledge production and „competence“ for advising decision making bodies,
- share of knowledge within decision-making processes, which is said to be gender neutral, but unproved, is higher than a small niche.

Criteria for public authority responsibility within transport policy:

- (infrastructural, institutional, procedural, methodological) Reduction of one-sided orientation (and common interest opaque) of criteria, terms, approaches, definitions, agenda settings, framing, priorities and characterisations of „transport“, of „mobility problems“ and of „transport solutions“,
- data production towards gender problems in mobility and transport systems and in (transport) infrastructural planning, and introduction of mechanism for accelerated, continuous and stable progress in the knowledge base, through:
 - gender impact assessment of all transport decision making,
 - enhancing capacity of existing gender competent knowledge about mobility and transport, and
 - the development of gender equality oriented methodologies.
- relation of transport data and statistics as clear for the caring economy as it is clear for the public sector and private sector economies - producing transparency between all three relevant economy sectors and over-coming the phasing out of the economy delegated to women.

5.4. Male-dominated Gender Composition of Institutions and decision making bodies

Core Problems:

- representation of male interests as opposed to representation of gender equality interests (and representation of interests of a wide diversity of women) in decision-making mechanisms,

- procedures and implicit rules of institutions that are a reflection of androcentrism as opposed to gender-neutrality of decision making.

Criteria for public interests responsibility in transport policy:

- representation of gender-equality-competence and gender-equality–interest within transport operations, transport planning and decision making bodies (independent from participation quotas by sex),
- procedures of reporting and auditing a transport institution's progress on gender equality.

5.5. Reproduction of male gender-bias symbolic order as a constraint against development and against the effectiveness of efforts to reduce Society's gender bias

Core Problems:

- lack of substantial privileges given to women visibly in a segregated manner,
- lack of visible limitation of male privileges as a representation of a serious approach to gender equality.

Criteria for public interests responsibility in transport policy:

- visible actions and wider initiatives producing projects to counter-act gender bias symbols undertaken by infrastructural or management or public transport advertising operators.

5.6. Gender-bias distribution of resources

Problem indicators:

- *Appropriation of public space:*

- gender-specific constraint to independent freedom of individual move in public space.

- *Appropriation of public money:*

- gender-bias in decision making processes attached the use of public budgets, of public spaces and of public infrastructures.

- *Appropriation of macroeconomic measures:*

- gender-bias in the development of financial measures such as tax policies, of road pricing policies, of aviation tax policy, of public services policy, of liberalisation policies and of consumer rights policy etc.

Criteria for public interests responsibility in transport policy:

- Political and legal actions to guarantee and to improve individual move in public space for girls and women of all different life circumstances - free from any androcentric deprivation of freedom to move by giving physical and/or legal and/or ideological space to other transport means (for instance reductions of pedestrian space by giving it to traffic flow or parking) and actions to against disproportionate male appropriation of public space.
- Introduction of gender budgeting in European transport policy.
- Political and legal actions on gender equality mainstreaming of public services policy and of liberalisation/privatisation policies within the transport sector (and outside, when effecting accessibilities and mobility of women), especially concerning necessary definition of mandatory high minimum standards for service qualities, expansion of so-called universal services by gender equality dimensions, consumer rights related to women's mobility

patterns etc., as well as in areas such as consumer rights policy, aviation tax policy, of road pricing policies, and other transport related elements of wider financial, tax and macro-economic policy.

These dimensions could serve as *core criteria for the rationality and gender evaluation of future and upcoming European transport policy*, its processes and its documents and directives. It can be taken together with a series of concrete actions recommended by this study. These are:

Mainstreaming Gender in Transport Institutions

Gender is frequently missing from official transport documentation from the EU. Greater recognition is needed for gender to be a prominent part of EU documentation where appropriate.

1. The Commission of the European Communities (2005) revised proposal for a Regulation of the European Parliament and of the Council on public passenger transport services by rail and by road COM(2005)/0319 endg. - COD 2000/0212 is lacking the gender dimensions. This important directive of new performance concerning directives 1191/69 und 1893/91 structuring the long-term conditions just for the women's main transport mode presents a central chance for integration of gender into transport policy. It would be a good approach to accommodate the gender criteria set out above in this directive.
2. Recent discussions on the preparation within the European Union of the introduction of Urban Environment Transport Plans and the decision making processes around on these plans, present an opportunity for the integration of gender into transport policy using the criteria set out above.
3. The planned European Commission Green Paper on Urban Transport should mainstream gender into policy set, using the knowledge and criteria set out in this study.
4. Auditing is, therefore, necessary to ensure the integration of gender at the meso level. For example, European, national and regional transport policy institutions had no clear process of identification of the gendered nature of the transport sector, how many men and women and how many persons with professional gender competence were working in the transport sector, who was planning the transport sector, in which extension a professional representation of gender equality knowledge is in- or excluded, what were women and men's transport needs and how were they met. Auditing to the very lowest levels of the implementation hierarchy is also clearly required. The gap between rhetoric and implementation of gender mainstreaming action can be described by factors such as lack of capacity to implement gender actions, lack of monitoring indicators and resistance to change all feature in this disappearance. The use of the Public Transport Gender Audit, as produced in the UK, should be a necessary requirement to highlight compliance by transport institutions across with the needs of Gender Mainstreaming.

Improving the knowledge base on gender differences in European daily mobility

5. The production of new knowledge is central to the mainstreaming of gender in the European transport sector. As a result, the newly founded Gender Institute of the European Commission should be supported and encouraged to cooperate with gender focussed

transport specialists. In addition, the newly formed EPWS European Platform for Women in Science should be encouraged to support projects on gender and transport.

6. The **European transport research programme of DG TREN**, should include a gender and transport activity. For example, the current programme of research which is called EIE=Energy Intelligent Europe, includes energy and transport research and just the working programme is published and the calls will be published in May this year. But ALL working projects, calls and tasks are very gender-specific (male) and at the same time giving no consciousness about gender, giving themselves unproven gender neutral status, which is a contradiction to Gender Mainstreaming. Some projects on gender have to be included in such transport research programmes. For example, the upcoming new designed research programme “**Competitiveness of industry and enterprises: Competitiveness and Innovation Framework Programme CIP, 2007-2013**” should be revised concerning gender dimensions and in the earliest possible stage been gendered.
7. Being able to understand the differences in travel between men and women and being able to understand travel needs of women as users and consumers of transport is severely limited by the lack of sex-disaggregated data on daily mobility across Europe. The lack of inclusion of daily mobility statistics into the European Statistical System and the heterogeneity of formats, definitions and methodologies for collecting daily mobility data across European member states limits the ability to develop coherent policy to address gender inequality in the transport sector. However, the recently developed European Harmonised Time Use Survey that now provides data for 15 of the 25 member states is a major advance in our ability to represent gender differences in travel and a major tool for coherent policy development in this area. This dataset must be analysed more fully by EUROSTAT for the gender differences in travel and for the connections with other household time uses, showing the whole range of caring mobility for all and showing the transport impact of the overall caring burden.
8. It is increasingly obvious that household structure and employment status do not impact on men in the same way as they do on women. According to Claudia Nobis and Barbara Lenz “.....single men and women share many similarities. Gender differences reach the highest level for the group of multi-person households. As long as only sex and household type are taken into account, the gender differences found are consistent with the literature. However, the additional distinction of employment status reveals a more differentiated view on gender differences in travel patterns. Men are rarely part-time employees or homemakers. But once they have this role they often have even more strongly pronounced travel characteristics than normally are ascribed to women. By contrast, the travel patterns of full-time employed women are still very different in comparison to their male counterparts. In addition when working full-time, women are to a higher degree responsible for household duties and child care.”

A more radical approach to data collection is called for. There is little or no data on caring work and the travel it dictates. This needs to be rectified. The systematic gathering of data on travel needs and travel patterns should place caring work at its centre.

New directions for transport policy

9. The means of capturing the accessibility of everyday destinations needs to be systematically employed. Information is needed on how the various places used in everyday living are

reached. Travel maps to schools, colleges, areas of employment, shops and markets and other places routinely used should be available to the travelling public using public transport and should include information for pedestrians and cyclists. The use of the Accessibility Planning approach as utilised in the UK should be encouraged.

10. In addition, it is clear that time use in households and the time burden for women trying to maintain a work-life balance under changing economic and technological conditions has a major impact upon how women travel. We argue that the keys to the alleviation of women's time poverty are twofold: the ability to substitute tele- journeys for real journeys and the ability to summon low cost flexible and responsive transport on demand. Focus and resources should be placed on the development of widely-available tools that allow journeys to interact with public agencies and for healthcare to be easily substituted with tele-journeys. Focus should also be placed in the development of a widespread network of demand-responsive public transport across Europe as seen in cities such as Florence and rural areas such as South Finland.
11. The technologies which would enable women to organise and undertake tasks necessary for the survival and welfare of their households from within their own homes are already existent: at present, the tool have been put to use for the benefit of other groups - fleet management techniques for commercial transport; networked terminals for intelligent homes for professional communities; real time transport information for particular communities in Europe; internet reservations of travel facilities by long distance travellers, etc. Whether these different components are brought together by social policy agencies and civic authorities in a way that makes them amenable to use by low income women is now the issue.
12. A further recommendation is that work is undertaken to understand the effects of the privatisation of transport on women's lives. Few studies have been undertaken in this area yet it is an ongoing process and could yield some opportunities to address the unsatisfactory situation regarding women and mobility. The current models of liberalisation in the transport sector have no gender concern integrated into their development. There is an urgent need to develop models of liberalisation within the sector that do not have potentially substantial and disproportionate impact on women.
13. Planning for cities and towns has rarely taken into account the needs of women to physically access the various buildings and services, yet if the planning authorities had a remit to ensure that provision of easy access for women was provided , it would inevitably provide good access for all citizens. It is clear from Germany that mandatory requirements for gender equality in public involvement and consultation strategies connected to local and regional transport plans are an effective way on ensuring gender-balanced involvement of users in transport operations and policy.
14. A final recommendation is that the EU provides the opportunity to create a European discourse on gender and transport which could bring together those already engaged in the field but could also widen the interest in this subject and increase awareness of its importance.

Bibliography

1. City & Shelter asbl (2002): Synthèse á Mainstreaming du Genre et Mobilité. (Synthesis of Gender Mainstreaming and Mobility. Results of the research project "Gender Mainstreaming and Mobility" in commission to the National Ministry for Transport of Belgium - Supplemented by a Website and by a CD-Rom). In: "The City/ La Ville" series within "City & Shelter" (<http://www.cityshelter.org/>) part „Mainstreaming du Genre et Mobilité“, edited by City & Shelter asbl. Bruxelles.
http://www.cityshelter.org/13_mobil/start-mobil.htm (last accessed 17th June, 2006).
2. Bickerstaff, K., Tolley, R. and Walker, G. (2002) 'Transport planning and participation: the rhetoric and realities of public involvement', *Journal of Transport Geography*, 10: 61-73.
3. Department for Employment and Education (DfEE) (2001) *An assessment of skills needs in transport*. Report for the Transport Sector Skills Dialogue. London: DfEE.
4. Department of Environment, Transport and the Regions (DETR) (1998) *Guidance on enhancing public participation in local government*. London: DETR.
5. Department of Environment, Transport and the Regions (DETR) (2000) *Guidance on full Local Transport Plans*. London: DETR.
6. Deutscher Städtetag, Kommission „Frauen in der Stadt“ (Ed.) (1995) *Frauen verändern ihre Stadt - Arbeitshilfe 2: Verkehrsplanung*. DST-Beiträge zur Frauenpolitik, Reihe L Vol. 3. Köln, 1995 (Federal Association of Local Authorities, Commission “Women in the City” (1995) Women change the City – Handbook 2: Transport Planning).
7. Elson, D., B. Evers and J. Gideon (1997) Gender Aware Country Economic Reports: Concepts and Sources, Working Paper No. 1, GENECON Unit, Graduate School of Social Sciences, University of Manchester, UK.
8. Elson, Evers and Turner (1999) Transport Sector Programmes in Developing Countries: Integrating a Gender Analysis. Report for the Development Assistance Committee, OECD, Paris, April 1999. http://www.geocities.com/transport_research/genecon.htm (last accessed 1st April, 2006).
9. European Transport Workers Federation (2005) *Representation And Better Integration Of Women In The Different Professions Of The Railway Sector* Final Project Report April 2005 EU <http://www.itfglobal.org/etf/women-railway.cfm> (last accessed 1st April, 2006).
10. European Commission (2001) "European transport policy for 2010: time to decide" DG TREN Transport White Paper, Brussels.
http://www.europa.eu.int/comm/transport/white_paper/index_en.htm (last accessed 1st April, 2006).
11. European Commission (2005) Work Programme for 2005 for the implementation of the Framework Strategy on Gender Equality SEC (2005) 1044 European Commission Brussels.

12. EUROSTAT (2003) *European Social Statistics Labour Force Survey Results 2002* EUROSTAT, Brussels.
http://epp.eurostat.cec.eu.int/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-BP-03-001 (last accessed 1st April, 2006).
13. EUROSTAT (2003) *Panorama of transport: Statistical overview of transport*.
14. *In the European Union part 2* EUROSTAT 2003
http://epp.eurostat.cec.eu.int/cache/ITY_OFFPUB/KS-DA-04-001-2/EN/KS-DA-04-001-2-EN.PDF (last accessed 23rd March, 2006).
15. EUROSTAT (2004) *How Europeans spend their time: Everyday life of women and men Data 1998-2002. Statistics Pocketbook*, EUROSTAT, Brussels.
http://epp.eurostat.cec.eu.int/pls/portal/url/page/PGP_MISCELLANEOUS/PGE_DOC_DET_AIL?p_product_code=KS-58-04-998 (last accessed 1st April, 2006).
16. EUROSTAT (2005) *Short Distance Passenger Mobility in Europe* Transport Statistics in Focus No 5/2005 EUROSTAT, Brussels.
17. *EU road freight transport sector: Work and employment conditions*. European Foundation for the Improvement of Working & Living Conditions, 2004.
<http://www.eurofound.eu.int/publications/files/EF03102EN.pdf> (last accessed 1st April, 2004).
18. European Conference of Ministers of Transport, *Transport and the Ageing of the Population*, Paris, 2002, available at: <http://www.cemt.org/pub/pubpdf/Ageing.pdf> (last accessed 1st April, 2006).
19. Gender and Transport - Recommendations. In: National Ministry for Environment, Nature Conservation and Nuclear Safety (BMU); Heinrich-Böll-Foundation; UNED Forum - Forum of the United Nations Environment and Development NGO (Ed.) (2001): *Gender Perspectives for Earth Summit 2002 - Energy, Transport, Information for Decision-Making. Report on the International Conference at Jagdschloss Glienicke Berlin, 10-12 January 2001*. Berlin, S. 6-7. <http://www.earthsummit2002.org/workshop/Berlin%20Full%20Report.pdf> (last accessed 11th April, 2006).
20. Greater London Council (1984) *Women on the move*. London: GLC.
21. Grieco, M. (1995) 'Time pressures and low income families: the implications for 'social transport policy in Europe. *Community Development Journal* Vol 30 No 4.
22. Grieco, M., Apt, N. and Turner, J. (1996) *At Christmas and on rainy days: transport, travel and the female traders of Accra*. Avebury: Aldershot.
23. Grieco, M. and Jones, P.M. (1994) 'A change in the policy climate? Current European perspectives on road pricing. *Urban Studies* Vol 31 No 9.
24. Grieco, M., Pickup, L. and Whipp, R. (1989) *Gender, transport and employment*. Avebury: Aldershot.

25. Hamilton, K. and Jenkins, L. (1989) 'Why women and travel?' in eds Grieco, M. , Pickup, L. and Whipp, R. *Gender, transport and employment*. Avebury: Aldershot.
26. Hamilton, K., Jenkins, L. and Gregory, A. (1991) *Women and transport: bus deregulation in West Yorkshire*. Bradford: Bradford University Press.
27. Hamilton, K., Hoyle, S.R. and Jenkins, L. (1999) *The Public Transport Gender Audit*. Research Report for the DETR. London: DETR.
28. Hamilton, K. Jenkins, L. Hodgson, F. and Turner, J. (2005) 'Promoting Gender Equality in Transport' *Working Paper Series No. 34* Equal Opportunities Commission, Manchester September 2005. http://www.eoc.org.uk/PDF/wp_34_gender_equality_in_transport.pdf (last accessed 1st April, 2006).
29. Hodgson, F.C. and Turner, J. (2003) 'Participation not consumption: the need for new participatory practices to address transport and social exclusion', *Transport Policy*, 10, 4: 265-72.
30. Hope, S., Martin, C. and Dudleston, A. (2003) *Scotland's people: results from the 2001/2002 Scottish Household Survey*. Vol. 7: Annual Report. Edinburgh: The Stationery Office.
31. Institute of Sociology (2005a) The Context of Changes in the Labour Market and Forms of Private and Partnership Life in Czech Society Report for the Ministry of Labour and Social Affairs, Prague.
32. Institute of Sociology (2005b) Work/Life Balance from the Perspective of Gender Relations and Social and Employment Policy in the Czech Republic Report for the Ministry of Labour and Social Affairs, Prague.
33. Jones, P.M., Dix, M.C., Clarke, M.I. and Heggie, I.G. (1983) *Understanding travel behaviour*. Gower: Aldershot.
34. Kilcarr, S (1999) 'Women Answer Call for More Drivers' Transport Topics.
35. May, N. (1997) *Challenging assumptions: gender issues in urban regeneration*. York: York Publishing Services for the Joseph Rowntree Foundation.
36. Meridian (2003). An Investigation into the Cause and Effect of Gender Imbalance in Employment in the Transport Industry Interim Research Report for the Fuirich Transport Development Partnership. http://www.fuirichtransport.com/downloads/word/EQUAL_Research_Interim_Report.doc (last accessed 1st April, 2006).
37. Miller, L., F. Neathey, E. Pollard and D. Hill (2004) Occupational segregation, gender gaps and skill gaps Working Paper 15 Equal Opportunities Commission, London, UK http://www.eoc.org.uk/PDF/occupational_segregation_ph1_report.pdf (last accessed 1st April, 2006).
38. National Assembly for Wales (2001) *the transport framework for Wales*. Cardiff: National Assembly for Wales.

39. National Assembly for Wales (2005a) *The Wales spatial plan: people, places, futures*. Cardiff: National Assembly for Wales.
40. National Consumer Council (1999) *Involving users in the delivery of local public services*. London: Cabinet Office.
41. Netherlands Ministry of Foreign Affairs (1996) Sector Budget Support, Information Department of the Ministry of Foreign Affairs, The Hague, November.
42. Netzwerk "Frauen in Bewegung" (Network „Women on the Move“) (1997) *Regionalisierung des öffentlichen Nahverkehrs - Eine Chance für Frauen? Handreichung für die Nahverkehrsplanung aus feministischer Sicht*. Bonn. (The EU-Reform of Public Transport – A Chance for Women? Handbook for the New Public Transport Planning Procedure from a Gender Perspective).
43. Office for National Statistics (ONS) (2002) 'Labour market spotlight', *Labour Market Trends*, March: 103-08.
44. Office of National Statistics (2005) *Focus on personal travel: 2005 edition*. London: The Stationery Office.
45. Palmer, I. (1995) Public Finance from a Gender Perspective, *World Development*, Vol. 23, No. 11.
46. Reid-Howie Associates (2000) *Women and transport: moving forward*. Report for the Scottish Executive Central Research Unit. Edinburgh: The Stationery Office.
47. Scottish Executive (2000) *Guidance on local transport strategies and road traffic reduction reports*. Edinburgh: Scottish Executive Development Department.
48. Scottish Executive (2005a) *Scotland's transport future: guidance on local transport strategies*. Edinburgh: Scottish Executive, 2005.
49. Simpson. R and Holley. D (2001) 'Can Restructuring Fracture the Glass Ceiling? The case of women transport and logistics manager' *Women in Management Review*, Volume 16 – Number 4, pp 174 –182, October, MCB University Press.
50. Simpson. R and Holley. D (2000) 'Women in Transport and Logistics Management: Career Progress and Career Barriers in Restructured Industries' *Third International Meeting for Research in Logistics*, RIRL.
51. Spitzner, Meike; Beik, Ute (1995/1999) *Reproduktionsarbeitsmobilität. Theoretische und empirische Erfassung, Dynamik ihrer Entwicklung und Analyse ökologischer Dimensionen und Handlungsstrategien*. (Caring Mobility. Theoretical and empirical recognitions, analysis of their dynamic, of sustainable dimensions and strategies of action). In: Spitzner, Meike; Hesse, Markus; Holzapfel, Helmut (Ed.): *Entwicklung der Arbeits- und Freizeitmobilität. Rahmenbedingungen von Mobilität in Stadtregionen*. Forschungsberichte des Forschungsverbands „Ökologisch verträgliche Mobilität“ in commission to the Federal Ministry for Research Germany Vol. 5. Wuppertal.

52. Spitzner, Meike (2004) *Netzgebundene Infrastruktursysteme unter Veränderungsdruck - Genderanalyse am Beispiel Öffentlicher Personennahverkehr*. netWORKS-Papers, Nr. 13. Hg. Forschungsverbund netWORKS. Berlin: Deutsches Institut für Urbanistik, 2004. (ISBN 3-88118-352-11). (Transformation and Privatisation of Infrastructures and Gender. Concept for Gender Analysis, developed by a systematical evaluation of the transformation of public services within the public transport sector. Study commissioned by the Federal Ministry of Research).
53. Spitzner, Meike (2006): Women at the Crossroads with Transportation, the Environment and the Economy. Experiences and challenges in Germany. In: *Women & Environments International Magazine* No.70/71 "Women & Urban Sustainability" - Spring/Summer 2006, pp.31-34. (Link to the Magazine: <http://www.utoronto.ca/wgsi/we.mag/current.html>).
54. Spitzner, Meike; Zauke, Gabriele (2003) *Evaluation of the Involvement of Women in Transport Science, Traffic Planning and Mobility Politics in the Past and in the Present*. English Translation of the overview is in consultation with several local authorities: First published by Federal German Association of Local Authorities, Commission "Frauen in der Stadt" (Women in the City) 1995. First english publication edited by „City & Shelter“, Bruxelles 2003. http://www.cityshelter.org/13_mobil/4.%20bilanz-meike-spitzner.doc.
55. TRILOG (1999) *The Trilateral Logistics Project: Summary Report*. Report for the European Commission, DG VII. <http://www.inro.tno.nl/trilog/> (last accessed 1st April, 2006).
56. Turner, J. and Fouracre, P. (1995) 'Women and transport in developing countries, *Transport Reviews* Vol 15 No 1 pp 77-96.
57. Turner, J. and Grieco, M. (1997) 'Gender, poverty and transport: a call for policy attention Paper delivered to the UN Habitat International Forum on Urban Poverty, Florence.
58. Turner, J. and Kwakye, E. A. (1996) 'Transport and survival strategies in an developing economy: case evidence from Accra, Ghana. *Journal of Transport Geography*, Vol 4 No. 3 September 1996.
59. Turner, J., Apt, N., Grieco, M. and Kwakye, E.A. (1998) 'Users not losers: gender representation in transport design and operation'. Paper presented at the 8th World Conference on Transport Research, Antwerp, July. http://www.geocities.com/transport_research/98wctr.htm (last accessed 1st April, 2006).
60. Woodward A.E. (2001) Gender Mainstreaming in European Policy: Innovation or Deception? Discussion Paper FS I 01 -103 Wissenschaftszentrum Berlin für Sozialforschung 2001. http://www.cityshelter.org/13_mobil/Gender%20Mainstreaming%20in%20European%20Policy.pdf (last accessed 31 March 2006).

APPENDIX 1.

Methodology

The study adopted an approach set out in Elson, Evers and Turner (1999) that encourages the view of the transport sector as a 'gendered' sector. This work argues that "to adequately integrate gender analysis into sector programmes one must consider both the implications of sector policies for men and women but it is also the implications of gender relations for sector level analysis and policy options.

Elson et al (1999) also argue that "rather than looking at women solely as targets or sector beneficiaries, it is important to examine the ways in which gender relations, gendered norms, and gender imbalances affect the performance, priorities and impacts of the transport sector." This involves not only looking at micro-level household travel patterns, but recognising that the institutions that plan, operate and manage the transport operate to rules and norms that are also gendered. As a result, this study has adopted an analysis that examines the macro, meso and micro dimensions of the transport sector across the EU.

Public provision in the sector is constrained by the overall share of public expenditure in GDP, which in turn, is constrained by policies on taxation, user charges, borrowing, money supply and the budget deficit. Preparation of a sector programme support operation always requires an evaluation of overall fiscal and monetary policies to see if these are "sound" (see, for example, Netherlands Ministry of Foreign Affairs, 1996, p. 9). In conventional terms, fiscal and budgetary policy is judged to be "sound" if the budget deficit is approaching a sustainable level (which in practice usually means, if the government has a credible target of reducing the budget deficit as a proportion of GDP).

In judging whether a budget deficit is sustainable, conventional analysis assesses whether a particular budget deficit has a negative impact on private investment ("crowding out" private investment via increases in interest rates); or whether it has a positive impact ("crowding in" private investment via compensating for deficiencies in aggregate demand or providing complementary physical and social infrastructure).

To make analysis of public finance gender-aware, it is essential to bring into the picture the unpaid economy of social reproduction in which women and men (but largely women) provide everyday care and nurture for their families and neighbours (Palmer, 1995). Cutting back public expenditure may appear to be 'sound finance' and lead to sustainable budget deficits. But it may trigger off negative feedbacks which undermine the sustainability of the budget deficit. If cuts transfer too great a burden to the unpaid economy, there is a risk of undermining the ability of women to contribute to productive activities which generate tax revenue; and to maintain activities which promote social cohesion (time to attend effectively to the social needs of children and neighbours, for instance). A reduction in social cohesion frequently results in greater public expenditure on social work, security, policing, health services; and discourages private investment. To put it another way, the problem is that a fall in the budget deficit may result in a rise in the reproduction tax to unsustainable levels. A rise in the reproduction tax can "crowd-out" women's investment in social capital (the label that many economists like to give to social assets, such as level of trust, goodwill, civic responsibility, etc.). This can result in 'false economies', arising from the fact that woman's unpaid provision of complementary or a substitute service is not factored into public finances. This is an example of the way in which

gender-based price distortions hamper the achievement of development goals (See Elson, Evers, Gideon, 1997).

1.1. Project Management Structure

The study decided to adopt a methodology composed of several stages.

It was decided to undertake this study by means of 'network research'. A network of researchers from across Europe, particularly from the new Member States, were assembled to undertake the study. This enabled the study to be developed using not only the knowledge and expertise of the core team, but of a wider range of experts who brought the knowledge of their national contexts into the study in a collaborative manner. The methodology also allowed this interaction to be captured and synergies to be developed within a strong project management structure designed to achieve results.

Study Team

The study team was composed of:

- a core team, and
- a network of case study researchers from a range of countries.

The **core team** (composed of a collaboration of the University of East London and the Wuppertal Institute for Climate, Environment and Energy) was led by the project leader and this team:

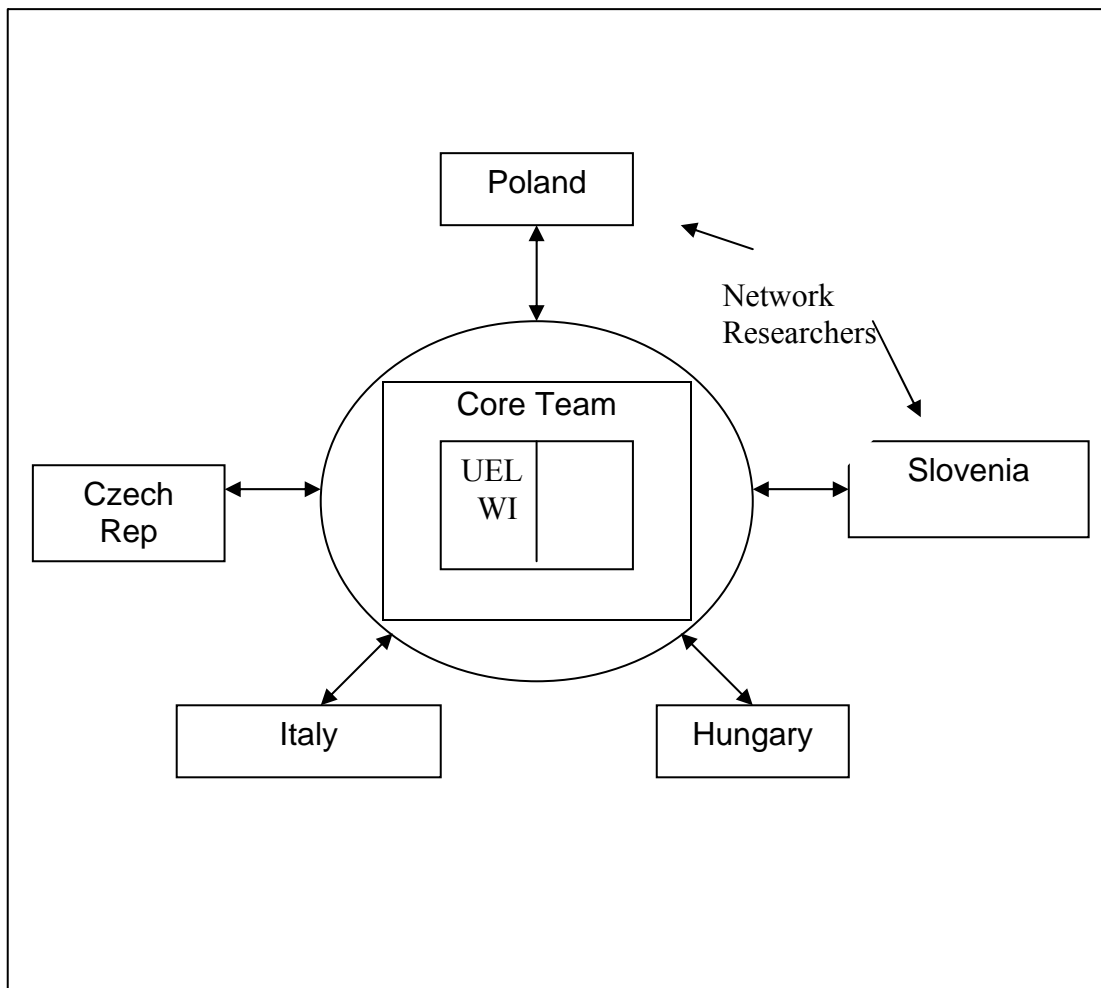
- established consultation and communication processes with network researchers,
- undertook the pan-European review of existing data,
- determined the gaps in data and develop a basis for primary surveys,
- established in consultation the methodology for the country case studies,
- developed a synthesis of the country case studies,
- produced the final report,
- undertook project management functions.

The **network of case study researchers**:

- contributed to the pan-European review of existing data,
- contributed to the development of case study methodology,
- undertook a case study in their country using the methodology developed,
- reported on the findings of the case study,
- contributed to the development of the synthesis.

The network can be represented thus:

FIG A1. The Project Management Structure



1.2. Project activities

Table 1 sets out the tasks undertaken within the study.

Table A1. Project Tasks

Task	Lead Partner	Start Month	End Month
1. Project Management	UEL	1	6
2. Establish Communication Processes	UEL	1	3
3. Pan-European Data Review	UEL	1	2
4. Develop country case study methodology	UEL	1	1
5. Country Case Studies	Network	2	3
6. Synthesis of Case Studies	UEL	3	3
7. Draft Final Report	UEL	3	3

Some of these tasks are internal to the project or self-evident. However, it is useful to set out in more detail some of the tasks This section will describe several of the discrete tasks in more detail.

Pan-European review of existing data

The core team carried out the pan-European review of existing data on women as consumers/users of the transport system and women and the transport labour market. The pan-European review provided relevant statistical data on the research issues where available. It also provided a review of data on the gender dimension from sources such as specialised transport press. The review also explored the extent to which issues address in the study objectives can be addressed in the existing pan-European data. Data from EUROSTAT, ILO and ECMT was sought and analysed

The network of researchers were also consulted for other possible pan-European data and data sources. This was particularly key as a specific focus of the Data Review was to try and fill the gaps between the country case studies and a wider picture of all the new Member States.

The core team undertook a brief review of studies undertaken on women and transport across the developed world and available in specialised press. The review also explored the macro context for gendered transport policy in the EU, exploring the scope of EU gender equality policy and the Common Transport Policy, as well as any examples of national policy thought relevant. It also explored examples of institutional good practice where these were available and the extent programmes such as European Social or Structural Funds have been involved in promoting good practice in transport sector employment and policy.

The review also sought to highlight the 'gaps' in data availability to provide insight to each of the study objectives. It explored how the 'gaps' may be addressed.

Country Case Studies

The study also conducted a small number of country case studies. The purpose of each case study was to:

- Identify if, when and how gender issues have been accommodated within a chosen transport policy, programmes or project.
- Appraise the outcome of gender initiatives in a specific transport intervention.
- Draw findings and conclusions on integrating gender and transport.
- Identify examples of good practice.

The Framework For Analysis

Following the theoretical macro-meso-micro approach set out above, the case studies identified and measured:

- The level of gender integration in the planning and design of policies, programs and projects.
- The gender differences in the outcomes of policies, programs and projects.
- The contextual factors that enable or constrain gender integration and hence affect the different outcomes of policies and projects on gender, e.g., macro/ micro economic and power relations, governance and institutional development.

The case study methodology adopted the macro, meso, micro approach that was outlined above and thus:

- explored the Gender Dimensions of Transport Policies, Programs or Projects;

- it undertook institutional analysis of transport institutions and their gender policies and
- it examined the enabling environment for gender mainstreaming within the national context.

These elements are explained in more detail below.

Gender Dimensions of Transport Policies, Programs or Projects

The analysis of the gender differences in the outcome of policies, plans and programs, will form an important part of the case studies. Gender differences in outcome will be measured in relation to the four key dimensions: opportunities, capability, empowerment and security:

Opportunity

Economic growth is the mechanism by which opportunities are created for new investment and employment. Transport contributes to economic growth by mobilizing human and physical resources. Improved productivity and output helps to lower transaction costs, allow economies of scale and specialization, widen opportunities, expand trade, integrate markets, strengthen effective competition and eventually increase real income and welfare of society.

Capability

Transport can contribute to developing human capital and quality of life. Indicators of the impact of transport on gender capability should demonstrate the role that transport interventions play in enabling women and men's access to education, health care and social networks.

Security

Security reflects the vulnerability of women and men to the uncertainties, or shocks, that affect their lives and the ways in which they cope with the uncertainties. Transport interventions can help women and men cope with shocks by reducing isolation. Transport interventions can also help women and men cope with the structural violence against women by planning or more appropriation of space by women and reinforcement of the treatment of women as equal subjects. At the same time, unsustainable infrastructure development in disaster prone areas, involuntary resettlement, road accidents, sexual harassment in public transport, can increase vulnerability of women and men.

Empowerment

Empowerment means having control over the decisions and issues that affect one's life. In particular, it means having representation in decision-making bodies and control over the distribution of resources. Indicators of the impact of transport on empowerment should include the extent to which women and men participate in the planning of transport infrastructure and services, the ways in which transport can facilitate their participation and inclusion in political and social networks and decision-making, and the way this impacts on their control of transport and other resources.

Institutional Analysis

The institutional framework of stakeholder institutions influences the degree to which gender is (or can be) integrated into transport policy, programmes and projects. Mainstreaming gender

implies transforming structures that create gender inequality. The case studies will identify whether there are mechanisms to support gender integration in the stakeholder institutions. These will include:

- **Gender analysis:** the process by which the differential impact of transport policies on women and men are discerned and the degree to which this information is used in the design and planning of interventions and in making policy. Do organizations, for example, have procedures that require the gender differences to be acknowledged in the development of transport policy? It may involve collection of gender disaggregated data or reviewing existing data and analyses of gender-inequitable power relations.
- **Capacity to carry out gender analysis and planning.** Institutions making transport policy and planning and designing transport interventions should have the ability to use gender disaggregated information and be gender-aware and gender-sensitive. Gender training is often required to ensure that such capacity is built up within institutions, and should include general gender training as well as training in gender issues relevant to the particular sector. Training already being undertaken is important to building capacity.
- **Information required for gender analysis.** Decision makers need access to gender disaggregated data, information on relevant gender analysis methodologies and on gender-sensitive indicators, information on relevant practice (good and bad), training materials. This information may, or may not, be readily available.
- **Motivation for change.** Integrating gender into transport interventions may require changes in how institutions work. This means they should be motivated to effect change; this can be done either through an incentive system of providing rewards for the achievement of gender integration goals, or through defining acceptable behavior and setting minimum standards that must be achieved, and sanctions if they are not. The degree of motivation for change should be assessed.

Enabling Environment

The third key element of the analytical framework for use in the case studies is the enabling environment. The degree to which gender is integrated into transport policy, programs and projects and the impact they have will depend significantly on the wider macro context in which these policies and interventions are planned and implemented. Key elements of the context that will need to be explored include:

- Political commitment;
- Adequate human and financial resources;
- Legislative and administrative framework;
- Women in decision-making positions at all levels;
- Active involvement of civil society.

Political commitment: Political commitment at the highest level among national governments and other stakeholder institutions (including donors), is essential to creating a strong supportive environment for gender mainstreaming. The level of political commitment can be assessed by: the commitment to globally agreed principles (e.g., Beijing Platform for Action), the existence of gender sensitive policies and an adequately resourced national or institutional gender machinery (e.g., a gender department, or a women's bureau) and seriousness with which gender is considered in the overall national and institutional framework. Lack of political will is demonstrated where the burden of change is on women alone and where there is tokenism and inadequate resources for addressing gender issues.

Adequate human and financial resources: The level of gender awareness among different stakeholders, the availability of skilled gender-analysts and gender-sensitive information can facilitate integration of gender issues. Institutions and governments integrating gender will require additional demands on peoples' time and therefore additional financial and administrative support to planning, coordination and evaluation.

Legislative and administrative framework: An environment is supportive of gender integration if its legislative framework contains non-discriminatory provisions, such as laws on equal employment opportunities, anti-sex discrimination laws that include provision of childcare facilities and social services, laws against violence against women, ownership of land and property and inheritance.

Women in decision-making positions at all levels: The presence of women in positions of decision-making in the stakeholder institutions and at all levels of government can facilitate gender integration. Where institutions are male-dominated it is less easy to create a culture that promotes gender-equality.

Active involvement of civil society: The degree, to which gender issues are accepted in the wider civil society and the influence and credibility of women's organizations generally, will influence the level of integration of gender and transport.

Each case study was encouraged to report in a similar fashion.

APPENDIX 2.

DG TREN Gender Action report 2005

Energy and transport policy are currently targeted on users, with no distinction based on sex. Ways are being considered to mainstream gender more explicitly in these policies.

In addition, the Equal Opportunities/Gender Mainstreaming Group:

- has completely renewed its membership since June 2004;
- deals with equal opportunities in human resources management within the Commission and with gender equality.

Mainstreaming of gender equality

Moves have been taken in this direction. In the field of road transport, for example, the report “EU road freight transport sector: work and employment conditions” published in January 2004 describes the situation as follows:

“The study highlights the low participation of women in the industry as well as the shortage of qualified personnel, particularly drivers. While the industry itself recognises that it is a male-dominated sector, through its own studies, women have not been attracted by the poor working conditions, such as long unsocial hours, poor pay and problematic work-life balance.”

The general introductory remark at the start of this section is also true of certain new initiatives which cover only limited aspects. For example, in the field of rail transport, a major initiative was launched on “users' rights”:

“The Commission’s proposal on passengers’ rights and obligations in international rail transport⁴⁶ includes provisions requiring railway undertakings to adopt measures for the improvement of security on board trains and at railway stations. Improved security should allow railway undertakings to attract more passengers, in particular those that are deterred from using rail transport because it is not considered to be secure at certain places or times of the day for women”.

Implementation of the general priorities in this way will continue, in particular through the work of DG TREN’s internal Equal Opportunities/Gender Mainstreaming Group.

Data collection and gender-sensitive indicators

The general introductory remark is also valid for the breakdown of the collected data by sex. However, it is sometimes useful to produce a breakdown by sex: for example, in the field of road safety, the Community’s CARE data base covering injuries or deaths in road traffic accidents includes gender-sensitive indicators.

Training and awareness raising

The induction programme for new colleagues in the DG, intended to help them fit in and operate efficiently, covers gender mainstreaming, among other subjects:

- all new colleagues joining DG TREN are made aware, during a half-day welcoming session, of the importance which the Commission attaches to gender mainstreaming in DGs' activities and policies;
- DG TREN has an obligatory mentorship system (mainly technical support with file management), in which each new colleague is directly informed, by an experienced member of the same unit, of the major considerations in Community policies and action, particularly of gender mainstreaming;
- DG TREN also has a voluntary "tutoring" system (mainly human support to help newcomers fit in successfully and stand on their own feet rapidly), in which new colleagues who so wish are directly informed, by their tutor, of the major considerations in Community policies and action, particularly of gender mainstreaming.

An internal Equal Opportunities/Gender Mainstreaming Group has been set up in DG TREN. It brings together one full representative and one deputy representative from each Directorate. In particular, it has the role of mainstreaming gender in DG TREN's policies and activities. The conclusions of the meetings of the internal Equal Opportunities/Gender Mainstreaming Group are systematically published on DG TREN's Intranet (IntraTREN). DG TREN will offer support to DG ADMIN to include modules on gender mainstreaming in the training plans for its staff, especially for managers. A specific e-mail box is open on IntraTREN.

Other actions

Inland transport

The Commission has endeavoured to make this sector more attractive by introducing sectoral limits on working time, encouraging more rigorous compliance with the limits on driving time and with rest periods, and introducing mandatory initial and periodic training for drivers. It is up to the industry to capitalise on these improved conditions and to take on these potential recruits. It would be advisable to develop indicators for measuring the impact of all new initiatives by the transport sector on equal opportunities.

In its calls for tenders and calls for expression of interest, DG TREN systematically mentions the Commission's commitment to equal opportunities. DG TREN makes sure that every action which it proposes is written in a non discriminatory way and promotes gender equality.

APPENIDIX 3.**Daily Mobility surveys across Europe****Table A2. Synopsis of national travel surveys and methodologies across EU-15**

Country	Survey	Date of Survey	Available Data	Metadata
Belgium	Belgium national mobility survey	December 1998- November 1999	Extraction of aggregates	In French
Czech Republic	Population and Housing census	2001		In English
Denmark	Traffic Survey	2001	Published aggregates	In Danish
Germany	1. Mobility in Germany	2001-2002	Published provisional aggregates	In German
	2. German mobility panel	Each year since 1994 – Results presented concern 2002	Published aggregates	In German
Estonia	National travel survey	April 2004-May 2004		In English
Spain	1st Part of the Mobility survey of resident population of Spain MOVILA 2000 survey on short- distance mobility	4ty Quarter 2000	Published aggregates	In Spanish
France	Survey of transport & communications	1993-1994	Micro data	In French
Italy	Survey on commuting journeys			Just a questionnaire
Latvia	Short-distance mobility survey	May-June 2003		Publication in English
Luxembourg	Census	February 2001		
Hungary	Survey on both daily and long- distance mobility	To be launched 2007		
Netherlands	Dutch national travel survey	1998	Micro data	In English
Austria	Austrian mobility survey	1995	Micro data	In English
Poland	Passenger mobility survey	Methodological work started in 2002 but not yet implemented		
Portugal	Portugese medium and long- distance mobility survey	1998	Micro data	In English
Slovenia	Census			
Finland	Finnish national travel survey	1998-1999	Micro data	In English
Sweden	Swedish national travel survey	1999-2001	Micro data for 1998	In English
United Kingdom	National travel survey			
Liechtenstein	Survey regarding place of residence and place of work for residents and border workers	Every year		
Norway	Norwegian tavel survey	2001	Published aggregates	In Norwegian
Bulgaria	Test survey for National passenger mobility survey	September 2003 survey starts in 2005		In English
Greece Ireland Cyprus Lithuania Slovakia Romania	No national survey on short distance passenger mobility			
Malta	No available information			

APPENDIX 4. Break down of employment in the transport sector by sex

