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The role of women in the green economy: the issue of mobility

NOTE

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The role of women in the green economy: the issue of mobility

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POLICY DEPARTMENT C: CITIZENS' RIGHTS AND CONSTITUTIONAL AFFAIRS

GENDER EQUALITY

THE ROLE OF WOMEN IN THE GREEN ECONOMY

- The issue of mobility -

NOTE

Abstract

This note highlights the characteristics and determinants of gender differences in mobility patterns emerging from the literature and presents an overview of how transport policies have been adapted to support women's mobility needs, focusing on examples of practices implemented in four European countries. The results show significant, albeit declining, gender differences related to gender roles within households and the labour market as well as demographic trends. The policy recommendations underline the need to consider gender and environment mainstreaming in transport policies.

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CONTENTS

LIST OF ABBREVIATIONS

ATTG	Autoridad Territorial del Transporte de Guipùzcoa
CAPI	Computer Assisted Personal Interviewing
CBO	Community Based Organization
CH_4	Methane
CO_2	Carbon Dioxide
DfT	Department for Transport of United Kingdom
DRT	Demand Responsive Transport
EC	European Commission
EIA	Environmental Impact Assessment
EU	European Union
GB	Great Britain
GDP	Gross Domestic Product
GHG	Greenhouse Gas Emissions
GIA	Gender Impact Assessment
GIS	Geographic Information System
GTT	Gruppo Torinese Trasporti (public transport operator)
ICT	Information and Communication Technology
INAIL	Istituto Nazionale contro gli infortuni sul Lavoro
LFS	Labour Force Survey
MS	Member State
NGOs	Non Governative Organisation
N_2O	Nitrogin Dioxide
NTS	National Travel Survey
OECD	Organisation for Economic Co-operation and Development

PA	Pubblica Amministrazione (Public Amministration)
PTA	Public Transport Authority
PIC	Protocol Implementation Conformance
PTE	Passenger Transport Executive
PUM	Piano Urbano della Mobilità (Urban Mobility Plan)
STAAV	Servizi Turistici Autonoleggi Autolinee Vigliocco (transport operator)
TAD	Transport à la Demande (DRT)
TADOU	Transport à la Demande Doubs Central
TEP	Tranvie Elettriche Parmensi (public transport operator)
TfL	Transport *for* London
UITP	Union International des Transports Public (International Association of Public Transport)
UN	United Nation
UK	United Kingdom
VMT	Vehicle Miles Traveled
WB	World Bank
ZTL	Zona a Traffico Limitato (traffic calming area)

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EXECUTIVE SUMMARY

A Green Economy is defined as one that "results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive"[1].

There is now a growing recognition that sustainability and the green economy are interrelated, as sustainable development rests not only on economic growth, but also on environmental and social sustainability. Mobility patterns and the transport sector have an appreciable effect on sustainable development since the transport sector is one of the main drivers of economic and social growth but also of energy consumption and pollution.

Gender is a significant factor in accounting for differences in mobility and travel behaviour. Women are also recognised as being more likely than men to adopt sustainable travel behaviours. Furthermore, for women mobility appears to be related to empowerment, access to opportunities and independence. Recognition of the links existing between gender, mobility and sustainable development has, however, only recently begun to emerge in the gender and mobility literature and in transport planning.

Given this framework, this briefing note addresses and discusses the definition and the meaning of "Green Economy", with specific reference to gender differences in the domain of mobility.

The note highlights the characteristics and determinants of gender differences in mobility patterns according to the available literature and presents an assessment of how transport policies have been adapted to support more sustainable mobility patterns and take into account women's mobility needs. The analysis is based on examples of good practices implemented in four European countries (France, Italy, Spain and the UK) with different socio-economic and institutional frameworks.

Women's travel patterns differ from men's in many ways: women are likely to travel shorter distances than men, are more likely to use public transportation, engage in more non-work travel outside rush hours and make more multi-stop trips, run household errands and escort other passengers (usually children or dependent elderly) and tend to be safer drivers than men.

In both the international literature and in transport planning, the gender dimension in mobility patterns and sustainability has so far received relatively little attention. The scant attention to gender differences is in part due to the lack of gender differentiated statistics, which makes it hard to understand gender differences in mobility patterns.

According to most studies, gender differences in travel patterns are mainly accounted for by the division of roles in the labour market and the family, which affect women's employment conditions, income levels and mobility needs. The availability of public transportation outside rush hours, the physical and financial accessibility of transport facilities for women escorting little children or older, disabled persons, as well as safety conditions, are the main aspects to be considered in designing women-friendly transport systems.

[1] UNEP (2011), Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers, p.1, www.unep.org/greeneconomy.

The evolution of household and parental models, the new developments in the labour market and new technologies, with the spread of new forms of work, women's increased labour market participation as well as population ageing, are likely to extend the variety of mobility patterns and call for appropriate transport policies capable to combine attention to sustainability with attention to gender and age-specific mobility needs.

The adoption of a gender perspective in transport policies is particularly important both to reduce gender inequalities and to support more environment-friendly development, as women present more environment friendly mobility patterns than men.

Over the last few years, women friendly transport measures and gender based surveys on mobility needs have been implemented in a number of European and non-European countries at the local and national level. On the whole, these measures concern:

- The provision of flexible services including demand-response transport (DRT)[2];
- New mobility services, such as car-pooling schemes reserved to women;
- Improvements in the lay-out of vehicle interiors to facilitate access and provide space for strollers;
- Taxi night services reserved to women, with fare discounts;
- Parking facilities restricted to women.

However, the analysis of some of these practices carried out in France, Italy, Spain and the UK, shows that:

1. there is still a large information gap in relation to women mobility needs;
2. the measures implemented at the local level are usually pilot projects, presenting implementation and sustainability problems due to the lack of dedicated public funds, especially in periods of budget constraints and cuts on welfare spending;
3. addressing women mobility requires the interaction between transport and welfare policies which might increase the complexity and length of the decision making process.

On the basis of the assessment of transport policies and of good practices examples, we are able to derive the following recommendations to enhance the capacity of transport policies to respond to the mobility needs of women and men in a sustainable way:

- *Improving gender based statistical data and research*: to better understand gender differences in mobility patterns and their effects on the green economy.
- *Supporting women's participation in decision-making:* taking into account women's needs means that women must be able to express them. Therefore it is essential to *involve women in consultation, project plan*ning *and decision-making processes*. As this is generally not the case, it is necessary, then, for this issue to be addressed at least in the procedures applicable to projects funded by international institutions.

[2] DRT (Demand response transport) or dial a ride or flexible transport services are advanced user-oriented forms of public transport characterized by flexible routing and scheduling of small /medium vehicles.

In this respect, two instruments could be promoted: Gender Impact Assessment procedures (GIAs) and Gender Audit checklists.

- *Improving accessibility, safety and comfort in transportation modes*: as women walk and use public transportation more than men, the existence of pathways in cities, as well as safe pedestrian crossings, is very important for both safety and comfort; bus stops and the paths leading to bus stops must also take account of women's needs, and in particular accessibility to transportation vehicles and safety. As for accessibility, the design of transport facilities is very important: women often have *children or elder people/disabled with them and are often burdened* with bags and packs. Access to buses and trains must be facilitated, by providing sufficiently wide doors and by avoiding steps, besides providing adequate seating and space for small children, the disabled and the elderly. Safety and security in public transport are also crucial issues which disproportionately affect women. To take account of safety problems, women should be allowed to use public transportation closer to their final destination, even if outside the normal bus stops, in the evening and at night. The provision of adequate lighting is also especially important in this respect. Awareness campaigns aimed at both bus drivers and passengers should also be promoted to improve women's safety. The question of safety also arises with regard to the design of car parks.

- *Improving service provision and economic regulation: Whereas pu*blic transport services (public or private public transport, as well as taxis, etc.) are in most cases designed for travel towards the city centre during rush hours, women also need transport services in their local neighbourhood outside rush hours which will allow them to make short, but linked journeys. As for economic regulation, two main issues should be considered. On the one hand, the *ticketing structure* of public transport services should take account of the fact that women make series of journeys which in most cases call for the use of several tickets. On the other hand, the European Union and Member States could promote gender differentiated insurance costs, reflecting women's safer driving behaviour relative to men.

- *Supporting women's employment in the transport sector:* The transport sector offers many job opportunities to which women could have access. To increase the number of women in such jobs, contractors can include specific clauses on a required percentage of women employees, both for road maintenance and for jobs in public transport systems. Furthermore, the social partners and public authorities could promote gender equality policies through adaptation of working conditions, measures to support the work-life balance and gender equality in recruitment po*licies, professional mobility and career development,* and access to training.

- *Promoting further research on the effects of ICT on mobility patterns and working conditions.* While the empirical evidence on the relation between the diffusion of ICT and mobility patterns is still weak, teleworking appears to negatively affect working conditions, leading to spill-over effects on family time and longer working hours. These may increase the work-home conflict, particularly amongst women. Further drawbacks such as the risk of isolation, loss of visibility and lower career perspectives could also affect women more than men. It is thus necessary to promote further research on the impacts of ICT on mobility patterns and working conditions.

1. INTRODUCTION

UNEP defines a Green Economy as one that "*results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive*"[3]. Developing a Green Economy means maintaining, enhancing and, where necessary, rebuilding natural capital as a critical economic asset and as a source of public benefits.

There is now a growing recognition that sustainability and the green economy are interrelated, as sustainable development rests not only on economic growth but also on environmental and social sustainability, as discussed in box 1 below.

Box 1: Dimensions of sustainability

The concept of sustainable development was defined by the Brundtland Commission in its 1987 report[4]. Sustainable development is defined as "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs".

Three interconnected components of sustainable development are considered: ecological or environmental, social or human, and economic.

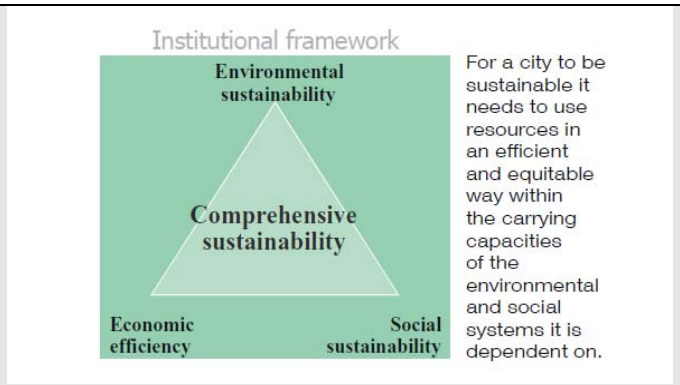
- The economic approach to sustainability is based on the concept of guaranteeing the maximum flow of income while at least maintaining the stock of assets or capital that yields these benefits. Interpretation problems arise with regard to the maintenance and mutual substitutability of the different kinds of capital (manufactured, human, natural etc.). Difficulties are also inherent in considerations of uncertainty, irreversibility and catastrophic collapse.

- The ecological view of sustainability focuses on preserving the resilience and dynamic ability of biological and physical systems to adapt to change. These systems may be interpreted to include all aspects of the biosphere, including cities. Viability of subsystems critical to the global ecosystem and protection of biodiversity are of key importance.

- The socio-cultural concept involves both intra- and intergenerational equity. Elimination of poverty and defending the rights of future generations are of central importance. Maintenance of the stability of social and cultural systems and reduction of destructive conflicts are to be pursued.

[3] UNEP (2011), Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers, p.1, www.unep.org/greeneconomy.

[4] World Commission on Environment and Development (1987), *Our Common Future*, www.un-documents.net/wced-ocf.htm.



Source: EU-DG Research, 2004.

Mobility patterns and the transport sector have a significant effect on sustainable development, since the transport sector is one of the main drivers of economic and social growth, energy consumption and pollution.

In the EU, the transport sector (passengers and freight) accounts for about 5% of GDP and directly employs around 10 million people, of which about one fifth are women. Women are mainly employed in the air transport sector (NACE 62) and in the supporting and auxiliary transport activities / activities of travel agencies (NACE 63), amounting respectively to 37.3% and 32.5% of the workforce in 2005[5].

About one third of the final energy consumption in the EU is related to transport (excluding maritime transport and pipelines) and road transport is by far the dominant transportation mode for about 84% of passengers-km transported and 48% of tonne-km for freight[6]. Currently the transport market depends almost completely (97%) upon oil-based fuels (gasoline and diesel) and very little on biofuels and electrical energy, which represent only 1% and 2% respectively. Thus, transport is responsible for about 70% of the final demand for oil and oil products in the EU and a large share of the overall greenhouse gas emissions (GHG) in the European Union derives from the transport sector: in particular, transport contributes by 24% to the total GHG emissions (CO_2, CH_4, N_2O) in the EU-27 (including international aviation and maritime transport and excluding land-use change and forestry activities which can eliminate greenhouse gases or reduce emissions)[7].

Given the relevance of the transport system to environmental sustainability, the EU produced two White Papers (EU, 2001[8] and 2011[9]) to set a Common Transport Policy for a sustainability strategy in the transport sector. The aim is to develop an integrated, environmentally compatible European transport system. The 2011 White Paper clearly affirms that actions should be taken to tackle the increasing contribution of transport to global warming and energy consumption.

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5 Eurofound (2007), *Innovative gender equality measures in the transport industry*, http://www.eurofound.europa.eu/pubdocs/2007/43/en/1/ef0743en.pdf.

6 European Commission (2011), EU Transport in Figures - Statistical pocketbook 2011, http://ec.europa.eu/transport/publications/statistics/doc/2011/pocketbook2011.pdf.

7 European Commission (2011), EU Transport in Figures - Statistical pocketbook 2011, cit.

8 European Commission COM(2001) 370 final (2001), *European transport policy for 2010: time to decide*, Brussels. http://ec.europa.eu/transport/strategies/doc/2001_white_paper/lb_com_2001_0370_en.pdf.

9 European Commission COM(2011) 144 final, (2011), *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*, Brussels, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0144:FIN:EN.

The European Parliament, in its resolution of 11 March 2008[10] on sustainable European transport policy, also addresses energy and environment policies (2007/2147(INI)) and is working for a Directive on energy efficiency. Member States will be required to provide a national road map within the first months of 2015 in order to align local policies with the European 20-20-20 targets (20% reduction of GHG, 20% of renewable sources by 2020).

Gender is a significant factor in accounting for differences in mobility and travel behaviour. Women are also recognised as being more likely than men to adopt sustainable travel behaviours. Furthermore, for women, mobility appears to be related to empowerment, access to opportunities and independence. Recognition of the links existing between gender, mobility and sustainable development has, however, only recently begun to emerge in the gender and mobility literature.

Given this framework, this briefing note addresses and discusses the definition and the meaning of "Green Economy", with specific reference to gender differences in the domain of mobility and attention to the following two main topics:

- *innovation in mobility services*, with focus on the progressive shift from the use of non-renewable, traditional energy resources to greener and more sustainable ones in the use of mobility services, i.e. from car-centred mobility to access to mobility services, such as public transportation, car-sharing and car-pooling;

- *innovation in mobility patterns*, where the central issue is the development of ICT-based tools providing access to information and services (e-commerce, tele-working, etc.), which are likely to influence mobility demands and needs significantly in the forthcoming years.

Chapter 2 highlights the characteristics and determinants of gender differences in mobility patterns on the evidence of the available literature.

Chapter 3 presents an assessment of how transport policies have been adapted to support more sustainable mobility patterns and take into account women's mobility needs. The analysis is based on examples of good practices implemented in four European countries (France, Italy, Spain and the UK) with different socio-economic and institutional frameworks. More detailed information on the selected practices is presented in the Annex.

Finally, chapter 4 presents the main recommendations stemming from the literature and the good practices review.

[10] European Parliament (2008), *Report on sustainable European transport policy, taking into account European energy and environment policies*, Brussels, http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A6-2008-0014+0+DOC+PDF+V0//EN.

2. GENDER DIFFERENCES IN MOBILITY PATTERNS AND SUSTAINABILITY: EVIDENCE FROM THE LITERATURE REVIEW

Changes in mobility patterns since the 1960s are a result of demographic and economic changes, including increases in vehicle ownership, the entrance of baby boomers - especially women - into the workforce and growth in personal income.

Gender has been taken into account in mobility studies in fairly recent years, in part because the lack of gender-differentiated statistics makes it hard to understand gender differences in reasons for making journeys, journey frequency, distance travelled, mobility related problems in accessing services and employment. However, most research now considers gender a significant factor in accounting for differences in mobility and travel behaviour, with women recognised as being more likely to adopt sustainable travel behaviours than men. Other important socio-demographic variables that influence mobility and travel behaviour include age, household composition, income and car ownership (Curtis & Perkins, 2006)[11].

Best & Lanzendorf (2005)[12] analysed the occurrence of gender differences in car use and travel patterns for maintenance travel. Overall the authors found that there were no significant gender differences in the total number of journeys or distances travelled. However, gender differences were found in journey types or destinations: women made fewer journeys to work by car and more journeys for other maintenance activities, such as shopping and child-care. Similar results were obtained by Boarnet & Sarmiento (1998)[13] in their study of travel behaviour in southern California.

Moriarty & Honnery (2005)[14] found, in a study on urban travel in Australian State capital cities, that women on average travel less often and for shorter distances than men. Olaru et al (2005)[15], considering the travel behaviour in the Sydney metropolitan area, found a number of socio-demographic variables influencing travel behaviour: women were more likely to travel closer to home than men, particularly those from non-English-speaking households.

A close link between travel behaviour and gender was found by Polk (2003, 2004)[16] in her research on travel behaviour in Sweden. According to her research findings, women were more willing to reduce their use of the car than men, were more positive towards reducing the environmental impact of travel modes and more positive towards ecological issues. Polk concludes that researchers must consider gender as a factor in attitudinal research on car use.

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[11] Curtis C. and T. Perkins (2006) *Travel Behaviour: A review of recent literature*, Working Paper No 3: Travel Behaviour, Department of Urban and Regional Planning, Curtin University.

[12] Best, H., & Lanzendorf, M. (2005) Division of labour and gender differences in metropolitan car use: An empirical study in Cologne, Germany. *Journal of Transport Geography*, 13(2), 109-121.

[13] Boarnet, M. G., & Sarmiento, S. (1998). Can Land-use Policy Really Affect Travel Behaviour? A Study of the Link between Non-work Travel and Land-use Characteristics. *Urban Studies*, 35(7), 1155 – 1169.

[14] Moriarty, P., & Honnery, D. (2005). Determinants of urban travel in Australia. *28th Australasian Transport Research Forum (ATRF)*.

[15] Olaru, D., Smith, N., & Peachman, J. (2005). Whereabouts Monday to Sunday? *28th Australasian Transport Research Forum (ATRF).*

[16] Polk, M. (2003). Are women potentially more accommodating than men to a sustainable transportation system in Sweden? *Transportation Research Part D: Transport and Environment*, 8(2), 75-95.

Much of the research on how mobility shapes and is shaped by gender ideologies and practices has its origins in the observation that mobility/immobility lie at the core of traditional gender ideologies, which are infused with notions of space, place and mobility. These ideologies echo the familiar dualism that, on one hand, equates women and femininity with the home, the private, domestic spaces and restricted movement (translating into interactions that are routine, quotidian, familiar), and, on the other hand, equates men and masculinity with non-home, public, urban spaces and expanded movement (Cresswell and Uteng 2008)[17].

Indeed, women are more likely than men to work at home (Rosenbloom 2006)[18]; less likely to have a mobile workplace (Hanson and Pratt 1995)[19]; they are also less likely to engage in work-related overnight travel (Presser and Hermsen 1996)[20], and less likely to engage in 'extreme commuting', defined as a one-way commute of 90 minutes or more. When women start businesses, they locate them closer to home than men do (Hanson 2003)[21], and the spatial range of girls' activities is smaller than that for boys (Van Vliet 1983; O'Brien, Jones, and Sloan 2000)[22].

Women's travel differs from men's in many ways other than the spatial range of travel; for example, women are more likely to use public transportation (Rosenbloom 2006)[23], engage in more non-work travel (Vance and Iovanna 2007)[24], and make more multi-stop journeys, run household errands and escort other passengers (usually children or dependent elderly) (Murakami and Young 1997; Root 2000; McGuckin and Nakamoto 2005)[25]. In addition, the literature on gender differences in travel-activity patterns has documented many significant and interesting differences among women and among men, for example, by age, marital status, income, place of residence, mode used on the work journey and so on (Rosenbloom 2006; Shearmur 2006)[26].

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17 Cresswell, T.; Uteng, T.P. (2008), "Gender mobilities: Towards an holistic understanding", *Gender mobilities*, Cresswell, T. (red); Uteng, T.P. (red.) Hampshire: Ashgate.

18 Rosenbloom, S. (2006). Understanding women and men's travel patterns: The research challenge. *In Research on Women's Issues in Transportation, Vol. 1: Conference Overview and Plenary Papers, Transportation Research Board Conference Proceeding* 35 (pp. 7-28). Washington DC: National Research Council.

19 Hanson, S., & Pratt, G. (1995). *Gender, work, and space*. New York: Routledge.

20 Presser H, Hermsen J (1996), *Gender differences in the determinants of work-related overnight travel among employed Americans*, Work and Occupation, 23.

21 Hanson (2003), *Geographical and feminist perspectives on entrepreneurship*. Geographische Zeitschrift 91: 1–23.

22 Van Vliet, W. (1983), *Children's travel behaviour*. Ekistics 50: 61–5. O'Brien, M., D. Jones, and D. Sloan. (2000), *Children's independent spatial mobility in the urban public realm*, Childhood 7, no. 3: 257–77.

23 Rosenbloom, S. (2006). Understanding women and men's travel patterns: The research challenge. *In Research on Women's Issues in Transportation, Vol. 1 : Conference Overview and Plenary Papers, Transportation Research Board Conference Proceeding* 35 (pp. 7-28). Washington DC: National Research Council.

24 Vance C., Iovanna R. (2007), Gender *and the Automobile - an Analysis of Non-Work Service Journeys*,Ruhr Economic Paper No. 11.

25 Murakami E., Young J. (1997), *Daily Travel by Persons with Low Income*, Paper for NPTS Symposium, Betheda, MD, October 29-31, 1997. Root, A. (2000), *Women, travel, and the idea of 'sustainable transport'*, Transport Reviews 20, no. 3: 369–83. McGuckin N., Nakamoto Y., (2005), Differences in Journey Chaining by Men and Women. *Conference proceedings. Research on women's Issue in Transportation*, Vol. 2, Technical Papers. Transportation Research Board of the National Academies, Washington, D.C., 2005.

26 Rosenbloom, S. (2006). Understanding women and men's travel patterns: The research challenge, *Research on Women's Issues in Transportation, Vol. 1 : Conference Overview and Plenary Papers, Transportation Research Board Conference Proceeding* 35 (pp. 7-28). Washington DC: National Research Council. Shermur R (2006), *The New knowledge Aristocracy: The creative class, mobility and urban growth*. Work Organization, Labour and Globalization, 1.

2.1. Evolution of households, labour market and demographic trends affecting gender differences in mobility

According to many studies, gender differences in travel patterns are mainly accounted for by the division of roles in the labour market and in the family, besides age and location.

Gender mobility patterns have been changing in recent years, reflecting the evolution of gender differences in socio-economic and demographic conditions. In the following sections we investigate how the available literature addresses the effects on the mobility patterns of:

- new household and parental models, in order to explore the changes in the mobility patterns in relation to the household's life-cycle and new family social models;
- new developments in the labour market with the spread of new forms of work and increased labour market participation;
- population ageing, as women live longer than men and represent the major components of the ageing population.

2.1.1. New household and parental models

In conceptualizing gender and mobility, it is essential to consider the individual as embedded in household, neighbourhood, region and broader societal relations; all of these contextual elements matter in understanding how and why gender influences mobility (Hanson, 2010)[27]. Addressing the effects of these relations on the mobility patterns of women and men is particularly complex.

Women's activities are generally more diversified than those of men, primarily because of their "double role". In fact, women are more involved in house-keeping and are more likely to be tasked in assisting dependents like children, the elderly, the disabled and people with health problems. This results in women often travelling off-peak hours with greater variety of destinations than men's.

Research on gender and transportation has primarily aimed at accounting for behavioural differences, based mainly on quantitative methods. However, according to some researchers (Crosswell et al., 2008)[28], quantitative studies of how gender shapes mobility have been able to tackle these issues only superficially, adopting variables that are at best rudimentary proxies for these concepts. For example, 'intra-household social relations' are measured by variables like 'marital status' or 'number of children at home', which are poor surrogates for the power dynamics and intricate processes of negotiation and conflict involved in 'household decision-making'.

Another example is the fear of violence, which is likely to have a major influence on the travel patterns of many people, especially women, eventually curtailing mobility as well as influencing time and route of travel (Wekerle 2005; Goddard, Handy, and Mokhtarian

[27] Hanson S. (2010), *Gender and Mobility: new approaches for informing sustainability*, Gender Place and Culture: A Journal of Feminist Geography , Vol. 17, No 1, February 2010.

[28] Cresswell, T.; Uteng, T.P. (2008), "Gender mobilities: Towards an holistic understanding", *Gender mobilities*, Cresswell, T. (red), Uteng, T.P. (red.) Hampshire: Ashgate.

2006; Loukaitou-Sideris and Fink 2009)[29], but data on these gendered processes are not routinely collected in mobility studies.

Other key elements of household decision-making, such as how a residential or workplace location is selected, or why some women might not venture beyond their ethnic neighbourhood (e.g. because their male partners forbid them to do so), are not captured in most studies that focus on individual mobility.

In any case, a number of papers find household composition and income to have major influences on travel behaviour.

Key stages within the household life-cycle that impact on travel behaviours include: gaining employment, having children and retirement.

Households consisting of students, the unemployed and part-timers without children are most likely to use non-motorised forms of transport. Conversely, families consisting of retirees and high-income owners are least likely to use non-motorised forms of transport. Ryley (2005)[30] in his study on the composition of 2910 households in Edinburgh, showed that households with children are highly dependent on cars as the primary mode of travel, own but don't often use cycles, and favour cycle journeys predominantly for leisure rather than going to and from work.

The importance of new household and parental models in influencing gender differences in mobility were also found in an in-depth study on commuters carried out in the US (Crane, 2007)[31]. This study shows that the largest differences occur among men and women between the ages of 35 and 54. Considering household models, the smallest gender difference in commuting distances are found for single adults with children, while the largest gender gap was found for married-couple households with children and both parents working. The study also indicates that the gender gap has increased for single adults with no children and for married couples with no children, but decreased for single adults with children and married couples with children. Working women in households with children are now, for example, commuting farther than they used to, especially in comparison with the distances travelled by their spouses. Marriage is, however, associated with shorter commutes for women[32].

Although men continue to commute farther and somewhat longer, women are catching up. In particular, the commutes of married women with children are lengthening at a rate three times faster than those of their working husbands. The gender gap is smallest for the current cohorts of younger women, and this is persistent as the cohort ages.

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[29] Wekerle, G. (2005). *Gender planning in public transit*. in Gender and planning: A reader, ed. S. Fainstein and L. Servonlods, 275–95. New Brunswick, NJ: Rutgers University Press. Goddard, T. B., Handy, S. L., Cao, X., and Mokhtarian, P. L. (2006). *Voyage of the S.S. Minivan: Women's travel behavior in traditional and suburban neighborhoods*. Transportation Research Record: Journal of of the Transportation Research Board , 1956. Loukaitou-Sideris and Fink (2009), *How to Ease Women's Fear of Transportation Environments: Case Studies and Best Practices*, MTI Report 09-01, Norman Y. Mineta International Institute for Surface.

[30] Riley T.J. (2005), *A Study of individual travel Behaviour in Edimburgh, to assess the propensity to use the non motorized mode*, Napier University Business School.

[31] Crane R. (2007), Is There a Quiet Revolution in Women's Travel? Revisiting the Gender Gap in Commuting, *Journal of the American Planning Association*, vol.73, No.3, Summer 2007.

[32] Children are not a statistically influencing factor on women's mobility patterns, according to this study. This is probably due to the presence of contrasting forces: on the one hand, having children may mean higher income needs for the household, resulting in women working farther away, while on the other hand, with children women's home-centred responsibilities are increased.

In considering travel purposes, it is important to consider that escorting practices impose an additional burden on the household, and especially on women with care responsibilities. They are time consuming and entail the need to engage in synchronising, planning and coordinating with household members, with other households, with the temporal and spatial patterns of public transport availability as well as those of other facilities and services, such as schools, shops and care services (see box 2 below).

Finally, women exhibit different driving behaviour, which affects their safety. According to the Social Issues Research Centre[33] "differences between male and female drivers in terms of crash rates are evident in a wide range of countries, including the United States, Europe, Asia and Africa, with males being significantly more at risk than females". Women tend to be safer drivers than men, are often more cautious when driving and show less risky driving behaviour such as speeding, drunk driving, running at red lights and failure to use the seat belt.

Box 2: Escort journeys and their impact on the transport sector

Hogdos (2012) underlines that the complexities of escorting are largely ignored in traditional transport studies. "*Escorting in transport sector national surveys is recorded as a part of the documenting of journeys purpose but is generally understood to mean escorting children thought too young to travel alone to school. Escorted journeys are often conceptualized as the 'school run' and if done using a car, have been conceptualized in transport planning as a 'problem behaviour', one that generates congestion, reduce air quality, adds to children's health problems and deleterious exercise patterns, and negatively impacts on a school's immediate environment*" [34]

Hillam, Adams and Whitelegg (1990), in their report based on a study focused on junior schoolchildren aged 7 to 11, and senior schoolchildren aged 11 to 15 in UK and in Germany suggest "…*that it is principally the increase in motorised travel that has been responsible for the decrease in children's independence. Paradoxically, for parents of young children, the benefits of wider car ownership have been substantially offset by the constraint imposed on their freedom owing to the increased need to escort their children because of the rise in traffic danger*".[35]

2.1.2. New developments in the labour market

Gender has an influence on commuting patterns, but it is difficult to assess how this influence is changing with women's increasing participation in the workforce. The following aspects have to be taken into account when considering the relation between women's positions in the labour market and commuting patterns:

- Women are more likely to be employed in part-time jobs.
- Women are more concentrated in low-wage professions than men.

[33] SIRC (2004), *Sex differences in driving and insurance risks*, http://www.sirc.org/publik/driving.pdf.
[34] Hodgson F. (2012), *Escorting economies: Networked journeys, household strategies and resistance*, Research in Transportation Economics, Elsevier journal p. 5.
[35] Mayer Hillman, John Adams and John Whitelegg (1990), *One false move, A Study of Children's Independent Mobility*, Policy Studies Institute, London, p.89.

- Women and men concentrate in different occupations, i.e. women are more employed in care-giving professions and in services.

- Women have less access to private cars.

Women still show lower participation and employment rates than men, even if a narrowing of the gender gap has occurred in most countries over recent decades. This explains the gender gap in commuting distances and times, with men historically commuting farther and longer than women, as documented in the literature (Crane, 2007)[36].

The most popular explanation of gender differences in participation and employment rates is that women traditionally have a greater share of home- and care-centred responsibilities. Across the EU-25, the division of responsibilities in the home is highly gendered, with women spending much more time in unpaid housework and care work for children and adult dependants.

Time use surveys, carried out on a reasonably comparable basis in 14 EU Member States between 1998 and 2004[37], reveal that women and men of working age spend their time in different ways.

Men aged 24-44 spend on average just over five hours working in paid employment as compared with just under three hours a day in the case of women in the same age group. Women spend considerably more time doing unpaid domestic work than men: some 278 minutes a day on average as opposed to 116 minutes a day in the case of men, in the 14 countries taken together. Women spend more time than men on childcare, too. The latter took up only 22 minutes a day on average of men's time but one hour a day of women's. Women usually spend more time on unpaid domestic and care work in the lower-income countries than in the higher-income ones.

A second explanation for women commuting shorter distances taking less time than men lies in the concentration of women in part-time and lower-wage jobs, which intuitively do not justify long distance and time commuting.

According to Eurostat data[38], in the EU-27, 31.9% of employed women were working part-time in 2010 compared to only 8.7% of men.

The existing evidence shows that those working in part-time jobs (mostly women) and those not employed outside their home make more journeys per day, but travel shorter distances than people employed in full-time jobs.

Vertical and horizontal gender segregation are still very widespread. Women are generally under-represented in the higher level, better-paid managerial and senior positions in organisational hierarchies and occupational career ladders and over-represented in low-paid jobs. Among full-time workers in the EU-27, 23% of the men have some supervisory responsibilities, compared with only 15% of the women[39].

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[36] Crane R. (2007), Is There a Quiet Revolution in Women's Travel? Revisiting the Gender Gap in Commuting, *Journal of the American Planning Association*, vol.73, No.3, Summer 2007.

[37] Eurostat (2008), *The life of women and men in Europe. A statistical portrait*, Office for official publications of the European Communities, Luxemburg.

[38] http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/.

[39] European Foundation for the Improvement of Living and Working Condition (2007), European Quality of Life Survey, http://www.eurofound.europa.eu/surveys/eqls/2007/index.htm.

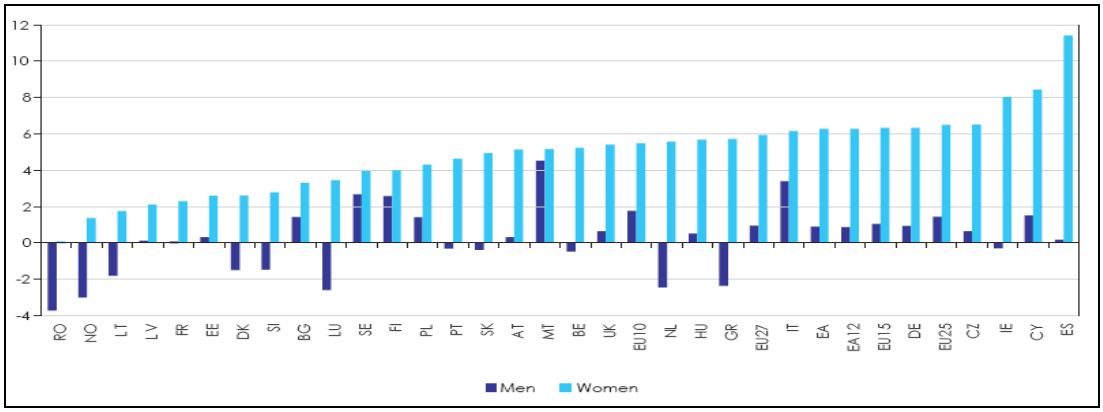
Women are also more likely to be employed in the service sector, often part-time and with unsociable working hours, which make it more difficult to rely on public transportation (usually less frequent outside rush hours).

These explanations based on in-home and out-of-home working patterns are subject to change with changing household and working patterns— although the different ways these patterns vary by place and personal characteristics also matters.

Overall a decline in gender mobility differences is expected to result from changing working conditions. Women's increased educational levels are likely to incentivise their participation in the workforce (see Figure 1) and their increased orientation to full-time careers is expected to reduce the gender gap in commuting and mobility patterns. The increase in women's labour participation will also derive from the growth in single-parent families, with women usually as the head of the family, and by the rise in women's (and men's) retirement age and the shift to contribution-based pension schemes.

Furthermore, the diffusion of new working practices, including flexi-time, tele-(home)working and the intensified use of ICT, will allow people to work outside their usual workplaces, with important potential effects in reducing traffic mobility and gender differences in working patterns. These new forms of work will greatly affect mobility patterns and in some countries, in fact, support is provided for them in order to reduce traffic congestion and air pollution[40].

Figure 1: Labour Market Participation rates by gender, projected change over the period 2007-2060 (in percentage - age group 15 to 64)



Source: European Commission (2010), 2009 Ageing Report: Economic and budgetary projections for the EU-27 Member States (2008-2060), Graph 24, p. 53.

[40] An interesting case in this respect is the Dutch '*Taskforce Mobility Management'*, established in 2007 by the social partners, local governments and business representatives. Among measures aimed at environment protection, the Taskforce provided a platform to coordinate, support and stimulate the promotion of tele-working due to its potential effects on reducing traffic mobility. The aim is one million tele-workers in 2012. Local schemes supported by provinces and municipalities promote new ways to work by giving (free) information, advice and financial support to companies to introduce more flexible working conditions and draw up mobility plans with the aim of reducing traffic congestion. The social partners are also encouraged to include tele-working in Collective Labour Agreements (CLAs).

2.1.3. Demographic trends and the impact of ageing on mobility

In the European countries population ageing is particularly relevant, with important implications for mobility patterns. The main trends are:

- the rate of EU population growth is the lowest among the major regions in the world. As can be seen from figure 2, the demographic structure of population, already unbalanced in 2010, will be completely redrawn by 2060, especially for women;

- with only a few exceptions, net migration is the only force driving population increases, while natural change is close to zero or even negative (all EU Member States now have total fertility rate levels below 2.1, the level needed for the replacement of generations). International migration has gained importance, becoming the major force of population growth as from the early 1990s. In recent years more than three quarters of the total population increase has been due to net inward migration[41], significant exceptions being some Eastern European countries where net migration is negative (e.g. Poland, Slovakia, Latvia and Lithuania);

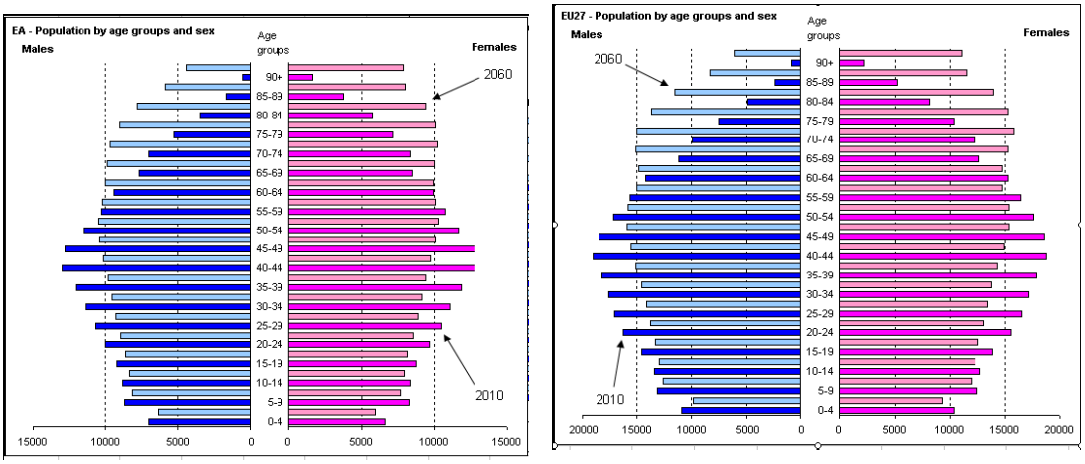
- low fertility levels and extended longevity are the causes of the ageing of the EU population, which will become dramatic when the baby boomers reach retirement age in the next few years. Demographic ageing is especially evident in the predominantly rural regions of some Member States, notably Portugal, Spain, Greece, Italy, Germany and France, where the proportion of people over 65 is particularly high. Moreover in Germany, the Nordic and Baltic countries and in Southern Europe, the substantial rural-urban migration of females in the economically active age groups result in a high degree of "masculinisation" of the rural population;

- population trends and distribution vary greatly among the EU regions, with the Nordic countries and cities in Southern Europe showing urban growth, whilst the central and eastern European conurbations generally show a declining population[42]. The Western European countries have both growing and shrinking cities.

These trends have important repercussion on gender differences given that women account for the majority of elderly people. The higher life expectancy at birth for girls relative to boys[43] in all European countries also implies that an increasing number of old women will be living alone, with great mobility problems and difficulties in accessing services.

[41] European Commission, Directorate-General for Regional Policy 2007.
[42] European Commission, Directorate-General for Regional Policy 2007.
[43] The gender gap has been narrowing in recent years, its breadth differing across countries. The decrease in the gender gap is caused both by a slowing down in the increase in women's life expectancy and a greater increase in men's.

Figure 2: Demographic structure of population in 2010 and 2060 – EU 27



Source: European Commission-Economic and Financial Affairs, *The 2012 Ageing Report: Underlying Assumption and Projection Methodologies*, European Economy 4/11, Graph 0.2 p. 20.

In relation to sustainability and mobility patterns, the older generations are generally less mobile, take up new consumption patterns at a slower speed and consume on average as much as or less than other groups in society in terms of resources. An important exception is the consumption of heating, gas and other fuels, higher per person for the elderly than for the rest of the population.

Over time the elderly are gradually taking up the same habits as the younger generations. As the younger cohorts, used to high mobility and travelling to other countries, get older and as the wealth and health conditions of the elderly population improve, the high mobility habits are maintained. Consequently an increasing daily mobility and frequent travelling activity can be seen for the wealthier and healthier segments of the elderly. This development is especially notable in the Northern and Western European countries. People over 60 are becoming an increasingly important customer group for travel agencies. Furthermore, an increasing number of the elderly acquire second homes and/or migrate to other countries, often Southern Member States. Indeed, the transport habits of the elderly resemble those of the overall population, with some important effects for future mobility patterns (Curtis & Perkins, 2006)[44]:

- while currently the average daily journeys decline after the age of 60, and particularly after 75, the increase in retirement age is likely to increase commuting for work also in old age (at least for those aged between 60 and 70);

- as for the rest of the population, the average daily distance travelled by the elderly is increasing over time due to the above-mentioned cohort effect;

- a growing share of the elderly hold driving licenses and have access to cars, showing that habits acquired when young are - partly - sustained in higher ages and lead to gradually increasing daily transport. The same pattern is reflected in tourist travel;

[44] Curtis C. and T. Perkins (2006) Travel Behaviour: A review of recent literature, Working Paper No 3: Travel Behaviour, Department of Urban and Regional Planning, Curtin University.

- currently there is a significant difference in travelling habits across Europe, with high travel frequency in North-Western Europe and low frequency in Eastern and Southern Europe. Increasing wealth may change this over time, boosting the travel habits of the elderly also in Southern and Eastern Europe.

There are, however, some gender differences in old age mobility. Mobility for older women is more restricted than for older men. Rosembloom's (2006)[45] study of the results of the National Household Travel Survey (2001) pointed out that older women travel less and for shorter distances than older men and often use alternatives to the car.

In relation to transport needs in old age, Buck (2005)[46] found that the main concerns for older people are crime and accessibility. Particularly for women, the fear of violence and aggression means that they are less willing to travel after dark and to use public transport, preferring to use cars.

The Scottish Household Survey (2005, 2006)[47] investigated travel patterns by age and gender. The main results are summarised in tables 1, 2 and 3.

Table 1 presents the use of buses by gender and age. Buses are more frequently used by women than men at all ages. Women and men aged between 25 and 59 use public transport less frequently than the other age groups.

Table 1: Bus users: frequency of use by age and gender

AGE (YRS)	MORE THAN ONCE A WEEK (V%)	
	MALE	FEMALE
17 – 24	34.9	40.2
25 – 59	14.3	20.9
60 – 69	22.3	33.0
> 70	27.5	34.4

Source: He L., Raeside R., Chen T., Mc Quaid R.W. (2012), *Population ageing, gender and the transportation system*, Research in Transportation Economics.

The main reasons for journeys among older people are displayed in table 2. There is little difference between women and men regarding journey purposes, except that women aged 60-69 shop more than their male counterparts. Furthermore, older women suffer higher rates of mobility difficulties than the other groups.

[45] Rosenbloom, S. (2006). Understanding women and men's travel patterns: The research challenge. In Research on Women's Issues in Transportation, Vol. 1: Conference Overview and Plenary Papers, Transportation Research Board Conference Proceeding 35 (pp. 7-28). Washington DC: National Research Council.

[46] Buck N., Social cohesion in cities (2005), Changing Cities: Rethinking Urban Competitiveness, Cohesion and Governance Series, Publisher Palgrave Macmillan.

[47] He L., Raeside R., Chen T., Mc Quaid R.W. (2012), *Population ageing, gender and the transportation system*, Research in Transportation Economics.

Table 2: Main purpose of journeys and mobility difficulties for persons over-60 by gender (%)

GENDER	AGE	MAIN PURPOSE				
		SHOPPING	VISIT FRIENDS	BUSINESS-COMMUTING	SPORT/ LEISURE	MOBILITY DIFFICULTIES
Male	60 - 69	29	14	29	7	21
	>70	38	17	21	8	38
Female	60 - 69	36	18	23	8	23
	>70	39	18	22	8	50

Source: He L., Raeside R., Chen T., Mc Quaid R.W. (2012), *Population ageing, gender and the transportation system*, Research in Transportation Economics.

Difficulties in using various forms of transport among the over 60-year-olds by gender are presented in table 3. Older women perceive more difficulties than men for all forms of transport and their difficulties increase with age, as expected. Overall, respondents experience less difficulty with cars and more with buses[48].

Table 3: Difficulties in using various forms of transport for persons over 60 by gender (%)

GENDER	AGE	DIFFICULTY IN USING TRANSPORT MODE			
		BUS	TAXI	TRAIN	CAR
Male	60 - 69	18.9	6.0	13.8	6.4
	>70	26.0	10.3	19.7	10.1
Female	60 - 69	24.3	9.6	18.5	9.5
	>70	40.3	16.9	25.8	15.4

Source: He L., Raeside R., Chen T., Mc Quaid R.W. (2012), *Population ageing, gender and the transportation system*, Research in Transportation Economics.

Other interesting results come from a recent report by the Department of Regional Development in Northern Irland (2005)[49] based on a consultative process on transport services and problems faced by older men and women. The main results of the consultation highlighted significant gender differences:

[48] He L., Raeside R., Chen T., Mc Quaid R.W. (2012), *Population ageing, gender and the transportation system*, Research in Transportation Economics.

[49] Ahern A., Hine J. (2012), *Rural transport - Valuing the mobility of older people*, Research in Transportation Economics, Elsevier Journal.

- *Important modes of transport.* The car remains a very important transportation mode for older men and women, either as drivers or passengers. Female participants, on the other hand, were less likely to be able to drive.

- *Social and Cultural Aspects (such as security)*. Community transport is extremely important for those who do not drive and particularly for women. It was considered less important and less useful by older men. Male participants wanted to be more independent in their travel and were less used to sharing transport space with others.

- *Purpose and mobility patterns.* The most common journeys are for shopping for food, accessing services (such as financial and health services) and socialisation. Different modes are used for different purposes. For example, journeys to social clubs and for shopping for food are often made by women. Older people, both male and female, stated that the most important journeys, not necessarily the most common, were made to access health services. These journeys were made by car and often as a passenger in a vehicle driven by others. Taxis are also used for these journeys, in the Republic of Ireland but not in Northern Ireland, where more alternatives existed[50].

Su and Bell (2012)[51] suggest that more recently older women's travel patterns have been changing, reducing differences between older men and women. For example, according to the 2009 National Household Travel Survey[52], the gap in car driving between older men and women of the same age is narrowing.

Other repercussions of demographic ageing on mobility patterns are related to gender differences in rural areas mobility and gender differences in migrants' mobility patterns.

An important aspect to be considered in transport patterns regards *urban-rural differences*, which are also closely bound up with gender and age mobility.

In the developed countries the cities are usually well served by public transport, but far less so in the rural areas, where many older women and men live. Providing transport in rural areas is a difficult task (due to a scattered population and transport demand), especially when there are budgetary constraints.

The reduction in the availability of public transport in rural areas will have a negative impact on the quality of life of older people and in particular those who do not have access to a private car. Having a car makes accessing services much easier and allows older people to remain active, while other transport modes do not offer the same level of service, the same independence, or the same flexibility as car use. In these contexts, the dial-a-ride services or "paratransit services" could substitute car use and respond to the same needs (Ahern and Hine, 2012[53]).

[50] Ahern A., Hine J. (2012), *Rural transport - Valuing the mobility of older people*, Research in Transportation Economics, Elsevier Journal, p. 31.
[51] Su F., Bell M.G.H. (2012), *Travel differences by gender for older people in London*, Research in Transportation Economics, Elsevier Journal.
[52] Department for transport, http://www.dft.gov.uk/statistics/releases/national-travel-survey-2009/.
[53] Ahern A., Hine J. (2012), *Rural transport - Valuing the mobility of older people*, Research in Transportation Economics, Elsevier Journal.

As for *gender differences in the mobility patterns of migrants*, there is very little literature. According to a recent study by Tsang and Rohr[54], based on a review of 22 key studies carried out in the US, Australia, Canada, Norway and Sweden, as well as an empirical analysis of UK data, migrants' travel behaviour is closely associated with the use of non-car-driving modes (including public transport, walking, cycling and car-sharing); their transport patterns tend to become increasingly similar to those of natives with the length of stay; migrants tend to travel mainly for work. Migrant women's mobility patterns are likely to concentrate even more on walking, especially for those ethnic communities where traditional forms of gender roles prevail and women tend not to move out of their ethnic neighbourhood, and on public transportation for migrant women who travel for work.

2.2. Gender – sensitive literature on gender differences in patterns of mobility

According to Hanson (2010), we use the term mobility "*to signify the movement of people from one place to another in the course of everyday life*".

Understanding everyday mobility is crucial not only because it is fundamental to the quality of individual life, family life, community, economic conditions, etc., but also because it is at the core of issues such as energy consumption, GHG emissions, and environmental emissions; in other words it is central to sustainability issues.

Attention to gender and transport has grown in transport policy and planning, especially at the level of the "grey" literature, i.e. studies which remain outside the domain of academic publications commissioned by governmental and international agencies (WB, OECD, EC, UN, NGOs, etc.) to provide information for planning processes taking in the gender perspective.

The World Bank and the Asian Development Bank have both taken an important policy lead in pursuing a "gender and transport" agenda with respect to transport policy framework and transport project design. However, the gap between specialists' knowledge of gender patterns in specific transport locations and the advent of an increasingly shared and applied gender analytic framework in the understanding of transport organization remains wide[55].

2.2.1. Characteristics of women's travel patterns

Studies on gender differences in travel activity patterns employ two types of data:

- National and local data which include mobility information only on the journey to work or for study;
- Travel activity diaries, recording out-of-home movement for all purposes, usually over one or two days for a sample of people living in a metropolitan area. The UK National Travel Survey and the Multi-country Harmonized Time Use Survey combine quantitative and qualitative data to build up a rich detailed picture of practices and gaps in knowledge and understanding.

[54] Tsang F. and Rohr C. (2011), The Impact of migration on transport and congestion, Technical report, RAND Corporation. http://www.rand.org/content/dam/rand/pubs/technical_reports/2011/RAND_TR1187.pdf.

[55] The World Bank Group, (2008), Safe, Clean, and Affordable Transport for Development, WASHINGTON, D.C., http://siteresources.worldbank.org/INTTRANSPORT/Resources/336291-1211381200616/Transport_Business_Strategy_web.pdf.

The complexities of journey chains by gender and purpose are largely ignored in traditional transport studies. However, as already mentioned, there are gender differences in mobility patterns, with women presenting specific characteristics in terms of: i) journey day and travel distance, ii) modal split iii) journey chain and purpose.

Women pursue daily activities that are far more complex than those of men and workers in the labour market due to their twofold role as providers of domestic services and care for dependants (children, the elderly, the disabled and sick) in the family. Women also represent the predominant part of the older population and this, too, affects travel patterns. Furthermore, gender differences in socio-economic and demographic conditions imply that women have lower financial resources than men and this affects their ability to own a car and to access public transportation modes when fares are high.

For these reasons, while men often present standard and linear travel patterns (to and from the workplace, without interruptions), women frequently travel outside rush hours and have shorter travel patterns, involving other destinations besides the workplace: shopping centres, schools, hospitals and health centres, etc. The time lost in travelling is, therefore, often far more penalizing for women.

Furthermore, women often do not travel alone but have to accompany children or elder and/or disabled persons, and this makes the issue of accessibility particularly relevant. For example, public transport modes often lack storage spaces for strollers or packages and this represents an important physical barrier for women with children or caring for elderly or disabled persons.

Some consideration on the fare structures of public transport are also to be made: weekly or monthly tickets are generally suitable for full-time workers while many women have part time jobs. High fares or fare structures based on individual journeys would discourage women from returning to the labour market once they leave it. (Hasson and Polevoy, 2011)[56].

Another relevant issue for women's mobility is safety, especially in evening and night hours. Access to private cars is different for men and women, due also to the more severe financial constraints suffered by women. Safety and security in public transport (bus, rail, etc.) are thus crucial issues which affect women more than men. Women are frequently subject to unwanted sexual contact in public transit. "*Harassment may originate both with fellow passengers and with transport operators*"[57].

[56] Hasson Y., Polevoy M. (2011), Gender Equality Initiatives in Transportation Policy, A review of the Literature, Women's Budget Forum, July 2011.

[57] Peters D. (2011), Gender and Sustainable urban mobility, paper, www.unhabitat.org/grhs/2013), p. 9.

Box 3: "Women only" - transport initiatives as a practice for safe public transit in some non-European countries

In some non-European countries, such as Japan, Brazil, Egypt, Mexico, India, Belarus and the Philippines, women-only underground trains, buses and railway cars have been introduced to combat sexual aggression and harassment. In other countries such as the UK, Mexico, Russia, India, Dubai and Iran women-only taxis are used.

"Women-only" policies and infrastructure options vary from country to country, from policies implemented only during rush hours to "women-only" cars in rapid service trains. For example, in Manila's light rail system, the front two rail cars are reserved exclusively for women and children while in Mexico City, recent female-only buses along busy routes have been added to the "Ladies' only" cars during rush hour in its subway.

Further examples of women-only transport services include two special trains on the long–distance railway line from Minsk (Belarus) to Moscow (Russia) and the special designated cars on Cairo's metro (Egypt), which have been operating for a few years. Another recently instituted service includes the Sentul-Port Klang and the Rawang Seremban commuter railway routes in Kuala Lumpur (Malaysia) with cars clearly marked in pink. "Women only" public transport options can offer greater safety to women but gender separation cannot be considered a cure-all for mainstreaming gender in public transport as separate access to transport implies greater costs.

Separation of men and women in public transport can be a throwback in the fight for women's equal access to public transportation.

Moreover Peters (2011) suggests that "*Sex segregated policy solutions are controversial and there are many other ways in which local governments and transport providers can enhance both women's and men's safety, security and comfort in urban transport and provide more appropriately gender-sensitized infrastructures and services*"[58].

Source: The World Bank Group, Mainstreaming Gender in Road Transport: Operational Guidance for World Bank Staff, March 2010; Peters D. (2011), Gender and Sustainable urban mobility, paper, www.unhabitat.org/grhs/2013.

To conclude, the most robust findings on women travel patterns from the literature review (Hanson, 2010[59]; Hodgson, 2012[60]) are the following:

1. the spatial range of women's daily mobility is smaller than men's: specifically, women travel shorter distances, make less use of the car and more use of public transport;

2. in general, compared to men, women work closer to home so the travel time they spend to go to work is less than the time spent by men;

3. as for the purposes of journeys, the data reveal that women travel for shopping much more than men (see DfT, Nation Travel Survey, 2010), considering that the shopping purpose could include all the activities linked to the family needs; for

[58] Peters D. (2011), *Gender and Sustainable urban mobility*, paper, www.unhabitat.org/grhs/2013, *p.32-33*

[59] Hanson S. (2010), *Gender and Mobility: new approaches for informing sustainability*, Gender Place and Culture: A Journal of Feminist Geography , Vol. 17, No 1, February 2010.

[60] Hodgson F. (2012), *Escorting economies: Networked journeys, household strategies and resistance*, Research in Transportation Economics, Elsevier Journal.

example, in the UK in 2009, 5% of work or business journeys made by males and 7% made by females were followed by shopping journeys.

4. women also use the car less and drive fewer miles than men do. These gender differences tend to remain when socio-demographic variables like education, income and marital status are held constant;

5. female drivers have lower accident rates and show safer driving behaviour;

6. as anticipated, women are more likely than men to work at home, less likely to have a mobile workplace, less likely to engage in work-related overnight travel, and less likely to engage in "extreme commuting" defined as a one-way commute of 90 minutes or more;

7. in many parts of the world, women conduct a far larger proportion of their travel on foot than men, because they cannot afford to own a private transport mode and access public transportation modes.

2.3. Gender–sensitive literature on more sustainable mobility schemes

The transport sector has very important effects on sustainability issues: About one third [61]of the final energy consumption in the EU is related to transport (excluding maritime transport and pipelines). Transportation modes today almost completely (97%)[62] depend upon oil-based fuels (gasoline and diesel) and very little on biofuels and electrical energy, accounting for only 1% and 2% respectively[63].

Passengers and freight transport account for about 70% of the final demand for oil and oil products in the EU. A great part of the overall greenhouse gas emissions (GHG) in the European Union derives from the transport sector: in particular, transport makes up 24% of the total GHG emissions (CO_2, CH_4, N_2O) in the EU-27 (including international aviation and maritime transport and excluding land-use change and forestry activities which can eliminate greenhouse gases or reduce emissions)[64].

As shown in the previous sections, typically women account for fewer vehicle miles travelled (VMT, all motorised) than men. Reducing VMT is one policy goal on which considerable consensus exists in terms of what sustainable transport should be like.

According to the literature and empirical surveys, women's mobility is more sustainable than men's. The differences derive in part from structural social and economic conditions (wages, labour market, family organization etc.); however, according to some studies, women and men perceive risks differently, including the risk of climate change. According to the study conducted by the Focal Point on Gender Justice and Sustainability in Berlin[65],

[61] European Commission (2011), EU, *Transport in figures - Statistical pocketbook 2011*, http://ec.europa.eu/transport/publications/statistics/doc/2011/pocketbook2011.pdf.
[62] European Commission (2011), EU, *Transport in figures - Statistical pocketbook 2011*, http://ec.europa.eu/transport/publications/statistics/doc/2011/pocketbook2011.pdf.
[63] European Commission (2011), EU, *Transport in figures - Statistical pocketbook 2011*, http://ec.europa.eu/transport/publications/statistics/doc/2011/pocketbook2011.pdf.
[64] European Commission (2011), EU, *Transport in figures - Statistical pocketbook 2011*, http://ec.europa.eu/transport/publications/statistics/doc/2011/pocketbook2011.pdf.
[65] Gender & Climate Change in the North: Issues, Entry Points and Strategies for the Post-2012 Process and Beyond, in Hemmati, March 2005, Genanet – Focal Point Gender Justice and Sustainability.

women are in fact more sensitive to environmental risks and more prepared for the behavioural changes necessary to support the green economy and environmental sustainability. They also rate more highly the influence that each individual has on climate protection and are more likely than men to support more drastic policies and measures on climate change.

Other studies[66] show that women generally live in a more sustainable way and leave a *smaller ecological footprint* than most men, in particular due to gender differences in transport use, as women use emissions-intensive modes of transport much less than men, their level of car-ownership is lower, and their share of public transport use is higher.

However, in most cases we do not know what an observed mobility pattern means for someone's life. In other words we do not have enough knowledge to figure out how gender might actually feed into, and be affected by, **sustainable mobility**[67].

In particular, there are specific key factors which characterize the connection between sustainability and mobility: reducing the need for transport and car dependency, improving the public transport system, encouraging cycling and walking.

All these factors have to be considered in transport and mobility planning. In this respect, participatory planning methods and gender audits could improve transportation planning by taking into account gender mobility differences and needs. In this respect Peters (2011)[68] presents a recent pilot study from the World Bank in Lesotho (Box 4 below).

Box 4: Using cognitive mapping and Geographic Information System (GIS)[69] for gender-sensitive transport planning

"Using cognitive mapping exercises in combination with GIS, researchers found that women sketch maps less dense with fewer paths and destinations but longer travel time. Men's focus groups maps are centred on the main road and track, showing mobility and access patterns dominated by horse travel to neighbouring fields villages and services, whereas women's focus group maps centred on footpaths showing mobility and access patterns largely perpendicular to those shown in the men's maps".

Source: Peters D. (2011), Gender and Sustainable urban mobility, Paper, www.unhabitat.org/grhs/2013), p. 30.

In China, too, there are some experiences of women's participation in decision making at the local level (Box 5 below).

[66] Defence Research Agency of Stockholm, Riitta Raty e Annika Carlsson-Kanyama, in Energy Policy Review, 2011.

[67] According to the OECD (2002) "An environmental sustainable transport system is one that does not endanger public health or ecosystems and meets needs for access consistent with a) use of renewable resources at below their rates or regeneration, and b) use of non renewable resources at below the rates of development of renewable substitutes" OECD (2002), *Guidelines Towards Environmentally Sustainable Transport*, Paris, http://english.cbcsd.org.cn/projects/mobility/download/oecd9714.pdf.

[68] Peters D. (2011), Gender and Sustainable urban mobility, Paper, www.unhabitat.org/grhs/2013), p. 30.

[69] GIS (Geographical Information System) is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. The acronym GIS is sometimes used for geographical information science or geospatial information studies to refer to the academic discipline or career of working with geographic information systems. In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology.

Box 5: Women's participation in the decision making process in China

In China, as part of an urban transport project in Liaoning province, women were integrated into the various phases of the project. The project specification was established with the participation of the population through separate male and female working groups to allow women to take part. This made it possible to identify the number of journeys made on a daily basis, which prompted priority to be given to the issue of pavements, road drainage, hard shoulders and their separation from the carriageway used by motor vehicles, lighting and signing. Women were also able to express the problems, notably the lack of security that they encountered in using buses: poor lighting, long waiting times due to infrequent services, lack of paths and pedestrian crossings to access bus stops. The problems expressed by women led to changes being made to the initial project in order to step up improvements to secondary roads, traffic management, the creation of pathways and pedestrian crossings, the installation of public lighting and improved frequency of bus services.

Source: Duchène Chantal, *Gender and Transport*, International Transport Forum, 2011.

Gender auditing has also been identified by many experts as an essential tool for assessing how well public and private organization meet gender mainstreaming goals, and the concept has been extended to including transport operators and local/national transport authorities.

A good example of gender audit initiative with high-level government support has been found in the UK (see chapter 3 and annex VI). *"Prepared by the department of transport studies at the University of East London, the gender audit was primarily designed as a management tool to help organization assess unmet needs but it was also used for community groups to measure progress and for lobbying purpose. Researchers conducted a broad scan of transportation literature and held focus groups with low-income women around the country to identify and explore the factors which affect women's experience and enjoyment (or lack thereof) of public transport. Using these data, researchers created the checklist to help others assess the degree to which transportation effectively serves women (see Annex I). The mere creation of this audit for the use of government transportation agencies service providers and community groups demonstrates the government's commitment to making gender part of transportation planning"* (Peters, 2011)[70].

[70] Peters D. (2011), *Gender and Sustainable urban mobility*, Paper, www.unhabitat.org/grhs/2013, p. 31.

2.4. The role of Information Communication Technologies (ICT) in supporting more sustainable mobility schemes

Hanson (2010)[71] identifies the following specific social aspects which affect gender mobility and possible relations with sustainability issues:

- the individual's position in the household and community;
- cultural norms and expectations such as those governing gender-based labour market segmentation and the division of care roles in households
- the built-up environment, including transportation infrastructures and varying spatial scales and how these elements relate to perceptions of personal safety and accessibility;
- access to internet and to other forms of information technology (such as cell phone, tele-working, etc.) that affect mobility.

We have considered the first three issues in previous sessions (2.1, 2.2 and 2.3), here we focus on the complex role of ICT in supporting more sustainable mobility schemes and the still open research questions relating to ICT, gender and mobility.

Generally speaking, the debate has from the outset been characterised by optimism about how these new technologies could replace physical travel. Many proponents of the new ICT's believe that the new technologies herald in a despatialisation of social interactions that could reduce environmental problems associated with traffic flows. "*New information technologies could reduce the number of journeys low income women have to make: the use of new technologies to develop efficient benefit collection systems which do not require those on low incomes to make unnecessary and congested journeys to central locations, or the use of new information technologies to reduce the number of information and advice-seeking journeys, represent two ways in which new technologies can paradoxically contribute to the non-motorised transport environment*" (Turner and Grieco, 2007) [72].

However, developments in research on the interactions between transport and ICT open up many research questions in the social sciences. Within this research field, attention to gender differences has been very limited both as a specific analytical focus and as an empirical question. Nevertheless, some lines of research concerning the intersection between transport, ICT's and gender have seen appreciable development in more recent years.

2.4.1. The relationship between gender, work and space in the context of ICT's

One relevant research area is the relationship between gender, work and space in the context of ICT's.

Hanson (2010), in her already cited study, starts from the premise that the role of gender in shaping travel patterns is well established. Despite labour force participation, women

[71] Hanson S.(2010), *Gender and Mobility: new approaches for informing sustainability*, Gender Place and Culture: A Journal of Feminist Geography , Vol. 17, No 1, February 2010.

[72] Turner, J., Grieco, M., (2007), *Gender and user group protocols: the need for new transport planning practices*, Paper, Diputació de Barcelona, Urbanism & Gender a necessary vision for all, Barcelona p 54.

continue to bear a disproportionate share of household work, and this uneven distribution of labour is embedded in the division of roles in the labour market and at home. The two spheres of home and work are clearly gendered spheres which have contributed to and supported traditional conceptions of gender through the spatial separation of gender into different places, with differential access to information and knowledge. Women have joined the labour market in large numbers in most Western countries and are increasingly engaged in public life. Men's involvement in domestic life, however, has been slower.

Within this framework, one major impact of ICT is the shift of the location of paid work from conventional offices to homes, neighbourhood telework centres and 'office hotels'. **Telework** is closely linked to computer technology which is generally (although not necessarily) seen as a male-associated technology. In fact, many men are indeed engaged in teleworking at home.

This raises the question of what impact this has on gender relations in the household. Does this mean that men now take on domestic responsibilities to a greater extent? And will this, in turn, free up women to take jobs further away from home because they have less household responsibilities? These questions show how ICTs could serve as a stimulus for change in the gender division of labour at home as well as in the labour market.

2.4.2. Implications of new communication technologies on working conditions

A second research area regards the implications that the shift from fixed work locations to home has for the role of networks in the shaping of work and communities. One important feature of (some) labour markets is place-based and gendered personal contact between employers, employees and potential employees, and such practices are interwoven into the fabric of the community. This view is based on the understanding that social capital resides in the relations between members, not in individuals. This means that social capital emerges from repeated social exchanges that are usually face-to-face. A key question about the social capital of a person or a group is how much heterogeneity it embraces, since it shapes the diversity of information and norms that one has access to. In addition to community organisations, the workplace, especially for men, is an important locus for personal contacts in which information relevant to jobs circulates. In this respect, the question is: what happens to these interaction networks in the context of ICTs?

The literature on tele(home)-work, however, also underlines the potential shortcomings associated with tele-home working. Many studies[73] show that tele-home working could be associated with a high risk of spill-over effects on family time and longer working hours, which may increase the work-home conflict, particularly amongst women. Additional risks relate to isolation, loss of visibility and poorer career prospects, which appear to be more of a danger for women than for men. There is also the danger that the costs of creating a home office be shifted onto employees.

[73] There is a large literature on the effects of tele and home working on working conditions, and the following are some examples. Collins, M. (2005), *The (not so simple) case for teleworking: a study at Lloyd's of London*. New Technology, work and employment, 20(2), 115-132. Duxbury, L. E., Higgens, C. & Neufeld, D. (1998). *Telework and the balance between work and family: is telework part of the problem or part of the solution?* In M. Igbaria & M. Tan (eds.) The virtual workplace (pp. 218-255). Hersey, PA: Idea Group publishing. T. Crosbie and J. Moore, Work–life Balance and Working from Home, in *Social Policy & Society 3:3, 223–233, 2004 Cambridge University Press*. France, E., Akselsen, S., Jones, M., & Tracy, K. (2002). Telework and quality of life: Some social impacts and practical Implications. *The Journal of the British Telecommunications Engineers*, 3(1), 57-66. Vittersø, J. Akselsen, S., Evjemo, B., Julsrud, T.E., Yttri, B. & Bergvik, S. (2003), Impacts of home-based telework on quality of life for employees and their partners. Quantitative and qualitative results from a European Survey. *Journal of Happiness Studies*, 4, 201-233.

Because the Internet disconnects interaction from location, it has been thought as an exceptional democratiser, supposedly providing everyone with equal access to a wealth of information. It appears to offer people an opening to break out of place-based networks and therefore to interact with greater diversity. However, we need to explore these questions empirically. How might placeless internet and web based networks affect the exchange of labour market information? How might ICT intersect with place-based social interactions, and how are these processes different for women and men? Could IT promote more heterogeneous, less localised, less gendered social capital?

2.4.3. Impacts of new communication technologies on daily activities

A third topic which has been addressed at the intersection of transport, ICT and gender is how members of different household types are using the mobile phone and the car in the organisation of daily activities.

This type of research begins from the assumption that the everyday life of families is spread over a large geographical area. This has implications in terms of time, as time poverty creates the need for efficient transport as well as greater needs for communication. Research (Hjorthol 2005) indicates that the use of mobile phones contributes to accessibility and safety, greater efficiency in planning, as well as greater flexibility at work and at home. However, research also indicates that the use of these technologies may be gendered, with women showing a greater need for the car and mobile phone, although they use the former less than men. Likewise women also seem to use the mobile phone more than men in relation to childcare.

Mobile phone and new communication technologies allow people to synchronise and this could have a significant impact on women scheduling multiple tasks between diverse domains and across social networks (Urry, 2010)[74].

However, we need to know more about how the need to be accessible interacts with transport and communication use, and particularly how men and women use these technologies.

New information technologies tend to be used mainly for professional communities, commercial transport and so on, while these solutions also need to be developed in relation to mobility-deprived groups. In making these suggestions, Turner and Grieco (2007)[75], provide innovative ideas as to how the potentials of new technologies can be adapted for social policy purposes. In this way they raise a new research agenda at the intersection of transport, information technology, gender and social policy which needs to be developed further.

What is clear is that as our everyday lives become increasingly spatially extended, new forms of time poverty emerge. Transport and communication modes are increasingly necessary to keep up and develop social relations and activities. There is also a need to understand how their use may be gendered. When proponents of the new technologies argue that they transform life, we also need to know how they could transform gender relations. The three areas dealt with here constitute only a part of the potentially relevant fields of research. It is necessary to develop a research agenda to explore how gender intersects with mobility and ICT.

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[74] Urry J.(2010), *Social Networks and Mobile Lives*, Lancaster University.

[75] Turner, J., Grieco, M., (2007), *Gender and user group protocols: the need for new transport planning practices*, Paper, Diputació de Barcelona, Urbanism & Gender a necessary vision for all, Barcelona p 54.

3. PROGRESS IN ADDRESSING GENDER DIFFERENCES IN MOBILITY PATTERNS AND GOOD PRACTICES IN MEMBER STATES

The relationship between gender mobility patterns and transport planning develops upon two distinct levels:

- the cognitive level (information collection and processing), to highlight the gender aspects characterising mobility demand through an in-depth analysis of mobility determinants;
- the planning level, to understand more clearly and comprehensively the mobility segments and therefore to promote more effective mobility measures.

A new approach promoted at EU level (www.eltis.org) defines the following guidelines to address the transport system in a more sustainable way, aiming to:

- Ensure transport accessibility to all;
- Improve safety and security;
- Reduce air and noise pollution, greenhouse gas emissions and energy consumption;
- Improve the efficiency and cost-effectiveness of the transportation of persons and goods;
- Contribute to enhancing the attractiveness and quality of the urban environment and urban design.

These guidelines could also promote more women-friendly transport planning, as does the Sustainable urban Mobility Plan presented in box 6 below.

Box 6: Sustainable Urban Mobility Plan: basic characteristics

- A participatory approach - involving citizens and stakeholders from the outset and throughout the of decision-making, implementation and evaluation processes, building local capacities for handling complex planning issues, and ensuring gender equity;
- Commitment to sustainability: balancing social equity, environmental quality and economic development;
- An approach with practices and policies integrated between policy sectors, between authority levels and between neighbouring authorities;
- Focus on measurable targets, derived from short term objectives, aligned with a vision for transport and embedded in an overall sustainable development strategy;
- Review of transport costs and benefits, taking into account wider societal costs and benefits, also across policy sectors;
- A method comprising: 1) status analysis and baseline scenario; 2) definition of a vision, objectives and targets; 3) selection of policies and measures; 4) assignment of responsibilities and resources; 5) monitoring and evaluation arrangements.

Source: Eltis Project, SUMP Guideline, www.mobilityplans.eu.

A further element lies in the possibility for women to *effectively participate in the planning process*, in order to design measures better able to address their mobility needs.

The participation of women in the decision making process has a twofold role. On the one hand it helps to highlight the complexity of the mobility demand and the need for a fuller knowledge of its components (gender segmentation, mobility chain, transport mode, mobility time etc.). On the other hand, it helps to define more sustainable local scale actions and to test acceptability conditions among citizens because, even if women's mobility depends upon structural factors (labour market, family, wages disparities, etc..) as detailed in chapter 2, it is characterized by more sustainable patterns (environmental, social and economic sustainability) as regards both transport mode choice (public transport and non-motorized transport) and distance travelled (due to travel pattern and transport interaction).

As summarized in chapter 2, women's mobility patterns differ from men's. For a long time these differences have not been taken into account in transport planning. Urban transport planning and policy-making all over the world have remained strictly influenced by standard procedures and methodologies developed in the course of the last 40 years and largely based on men's mobility patterns: individual journeys to work, during rush hours by private motorised transport. However, recently, there have been improvements and a number of good practices are now available. This progress has also been fostered by the sustainability agenda, as women tend to have more sustainable patterns of mobility and take advantage of transport policies supporting public transport, cycling and walking, being more frequent users of these transport modes. Thus, to some extent, the two issues of sustainability and gender equality overlap.

Clear indication of gender differences in transport modes may be derived from the Eurobarometer[76] survey, which provides gender-disaggregated data on modal split in the European Union (Table 4 below).

Table 4: Gender differences in Modal Split in the EU 27, (2007)

	Car	Public Transports	Walking	Bicycle	Motorcycle	Other
EU 27	**51.4**	**20.6**	**14.7**	**8.7**	**1.8**	**2.7**
Men	57.5	18.0	10.2	8.3	3.3	2.7
Women	45.8	23.1	18.8	9.1	0.5	2.7

Source: Eurobarometer "Attitudes on issues related to EU Transport Policy", July 2007.

According to these data, men travel more by car and motorcycle than women, while women walk and use public transports and bicycles more then men[77].

Women make more but shorter journeys per day than men, one key factor being that occupations in which women are predominantly employed, such as teaching, service and care provisions, are often close to home and require shorter journeys.

As discussed in chapter 2, differences in mobility patterns are a consequence of gender differences in the labour market and in the division of household tasks: women are still over-represented in lower paid sectors and under-represented in decision-making positions. Parenthood keeps female employment rates down, and women continue to work more unpaid hours than men at home. The gender pay gap in the EU is around 18% and many women work part-time or with atypical contracts, so as to be able to reconcile family care with work. This has a negative impact in terms of career development, labour income, and willingness to pay for better transport services and access to private transport modes (car).

On the other hand, the data available at the national and European level show that women adopt more sustainable mobility patterns (such as short journeys, frequent use of public transport, cycling and walking) than men. This does not, however, imply that women *prefer* to travel in a more sustainable way. In fact, differences in mobility choices could be the consequences of gender differences in socio-economic conditions, etc., as explained in chapter 2. In this respect the Eurobarometer survey Climate Change, 2009 (EP, DG Internal Policies, 2012)[78], shows that there are no significant differences in choosing environmentally friendly forms of transportation between men and women. However, it emerges that when women have the possibility to choose between more sustainable and less sustainable products, they clearly prefer the former.

[76] The survey covers all 27 member states and is conducted on a sample of 25,767 individuals. Moreover, the data are not disaggregated per country.

[77] More detailed statistics on modal split in the European Union with data disaggregated both by gender and per countries are not available. Data on modal split per country are provided by Eurostat surveys "Transport in figures" but these are based on type of vehicles used (public and private vehicles) without presenting passengers differences.

[78] EP, DG Internal Policies (2012), *Gender equality, The role of women in the green economy, background information: statistics.*

The table below summarizes the main findings in gender transport attitudes in relation to the impact of climate change.

Table 5: Gender differences in sustainable transport mode, Eurobarometer, 322, Climate change, (2009)[79]

Which of the following actions aimed at fighting climate change have you personally taken? (Multiple answers possible) [80]	Male (%)	Female (%)
You buy seasonal and local products to avoid products that come from far away, and thus contribute to CO2 emission	26	32
You have chosen an environmentally friendly way of transportation (by foot, bicycle, public transport)	27	29
You are reducing the use of your car, for example by car sharing or using your car more efficiently	25	23
You have purchased a car that consumes less fuel or is more environmentally friendly	24	17
Where possible you avoid taking short-haul flights	10	11

Source: EP, DG Internal Policies (2012), Eurobarometer, 322, *Climate Change, 2009,* in Gender equality, The role of women in the green economy, background information: statistics, p. 35.

3.1. Progress in addressing gender differences in mobility patterns in the EU: an overview

Over the last few years, the development of transport policies with a gender perspective has increasingly been implemented in European and non-European countries, at the local (i.e. within a framework of urban mobility policies) and national level.

On the whole, these measures concern:

- Access to public transport services, the provision of flexible services including demand-response transport, (DRT)[81], etc.;
- New mobility services, such as the introduction of car-pooling schemes exclusively reserved to women;
- Taxi night services reserved to women, with fare discounts;
- Parking facilities restricted to women.

[79] EP, DG Internal Policies (2012), Eurobarometer, 322, *Climate Change, 2009,* in Gender equality, *The role of women in the green economy, background information: statistics.*

[80] EP, DG Internal Policies (2012), EP, DG Internal Policies (2012), Eurobarometer, 322, *Climate Change, 2009,* in Gender equality, *The role of women in the green economy, background information: statistics,* p.35.

[81] DRT (Demand response transport) or dial a ride or flexible transport services are advanced user-oriented forms of public transport characterized by flexible routing and scheduling of small /medium vehicles.

This chapter provides examples of good practices in some European Member States i.e. France, Italy, Spain and UK, showing how these practices have been implemented and their effects.

The choice of France, Italy, Spain and the UK as case studies and good practices is based on the presence of innovative gender and environment-sensitive practices and the availability of data and information. Furthermore, the selected countries present different policy approaches, useful to derive policy recommendations.

Table 6 summarises all the policy measures considered in the selected countries according to the type of policy and cities where the practices have been implemented.

Table 6: Gender oriented transport policy measures in the selected member States

COUNTRY	POLICY MEASURE
FRANCE	Time and schedule plan
	ICT (Dial a ride services)
ITALY	Mobility measures (*pink car and bike parks, pink taxi, etc.)*
	ICT (Teleworking)
	Time and schedule plan
	Local transport survey
SPAIN	Time and schedule plan
	Regulation on accessibility
	Study on the transport system
UK	Regulation for transport operators
	Public Transport Plan
	National Surveys, Commuting survey, Public transport survey

For each country, the most interesting practices are presented according to a common analytical scheme, in order to facilitate comparison. The analytical scheme, presented in Annex II, provides relevant information on the aims, stakeholders, implementation, outcomes and effects of the selected practices in the following five sections:

1. **introduction**: reports aspects related to dimension of the project, country, period of implementation and territorial coverage;

2. **issue**: provides a brief description of the project, its objectives, partners, stakeholders involved and target group affected by the policy measure;

3. **implementation process**: provides information on financial resources invested, outcomes and effects in the long term;

4. **acceptability and barriers**: reports weaknesses encountered in the implementation process and strengths of the project;

5. **reproducibility/transferability elements**: describes the project's elements that can be reproduced in other contexts.

The following sections present the projects considered for each country on the basis of information collected and on the type of the practice implemented. Detailed fact sheets illustrating the selected practices for each country are presented in Annex III, IV, V and VI.

3.2. Progress in addressing gender differences in mobility patterns and good practices in selected countries

3.2.1. France

In France, transport policy measures based on women's needs are structurally integrated in the public transport system and in territorial and mobility planning processes.

Since 1995 national statistics on urban transport have specifically focused on women's mobility patterns. Surveys on mobility demand as well as local planning measures are systematically based on gender differences.

The "Charte des transports au féminin" has constituted one of the most significant steps towards implementation of these structural policies. The Charter was promoted by the association *Femmes en Movement, les transports au feminin* and signed by the major industrial companies (Alstom, Hauliez bus, Lohr industrie, Matra, Mercedes Benz-Evobus e Renault) in 1998 on the occasion of the UITP Congress.

Behind the Transport Charter lie two major considerations:

1) most of public transport users are women;

2) awareness that means of transport represent a service which has to be shaped to the users' needs.

In relation to these needs, the association Femmes en Movement has pointed out specific issues concerning:

- safety,
- accessibility,
- lay-out of vehicle interiors,
- environmental protection.

Apart from issues related to the public transport system, France also implements a series of good practices in the fields of territorial integration (as in the Rennes case study see Annex III) and welfare policies.

Table 7: France: selected policies and measures

COUNTRY	POLICY / MEASURE	EXAMPLE
FRANCE	Time and Schedule Plan	Rennes (see Annex III)
	ICT (Dial-a-ride services)	French cities and departments[82]

The following scheme sums up the main elements emerging from the case studies analysed.

Main innovative elements	• Cross-cutting measures (quality of life, life time harmonization) • Flexibility of the welfare services provision such as new offices hours adopted in plans of time and schedules which help women to reconcile work and family commitments (i.e. inter-municipal nursery opened from 6 a.m. to 9 p.m., "Tic-Tac le temps à la carte" which provide flexibility services for female workers). • Focus on women's needs • ICT development • Flexibility of the services related to transport demand
Main strengths	• Definition of target groups on the basis of ad hoc gender surveys; for example, this is the case of plans for time and schedule (Rennes' experience) which are carried out on the basis of surveys revealing the various different citizens' mobility patterns and transport needs. • Benefit for women and other vulnerable groups (social inclusion) • Stakeholders: public agency, private sector, transport operators • The use of public funds (EU, regional or local funds) would guarantee social inclusion.
Main weaknesses / obstacles	• Difficulties in recognising the details in transport patterns (e.g. origin-destination of journeys, differences in travel purposes, the need to move outside rush hours in a more flexible way) • High unit costs of flexible services • Lack of integration between public transport and paratransit services[83] • Difficulties related to the complexity of the decision-making process which could require long-term decisions when different stakeholders (with different objectives and constraints) are involved. • Measures encounter continuity problems since they depend upon public funds which are vulnerable to periods of welfare crisis and reduction of public expenditure.

[82] Detailed information on dial a ride practices carried out in various french cities are available at http://www.certu.fr/fr/_Systèmes_de_transports-n26/Transports_publics-n71/Transports_a_la_demande-n705/IMG/pdf/Fiche_2TAD_urbainweb.pdf.
http://www.certu.fr/IMG/pdf/transport_demande_-_reduit-fiche_1.pdf.
http://www.certu.fr/fr/_Systèmes_de_transports-n26/Transports_publics-n71/Transports_a_la_demande-n705/IMG/pdf/Fiche-TAD-no4-web-2.pdf.
http://www.certu.fr/fr/_Systèmes_de_transports-n26/Transports_publics-n71/Transports_a_la_demande-n705/IMG/pdf/Fiche3_TADOU_def_avr2009.pdf.

[83] Paratransit services generally refer to public transport which is not on a fixed route, such as informal motorized transport.

3.2.2. Italy

In Italy, for over 20 years, mobility policies targeting women have been carried out at the local level on the basis of initiatives related to the development of welfare and social services such as time plans (reconciliation of family time and working time through better organisation of public office hours and better spatial and temporal use of the city).

Recently some municipalities have implemented more specific policy measures regarding the transport sector and urban planning measures e.g. pink parking, family bike sharing, taxi services, etc.

Surveys

There are still few surveys on gender mobility demand. One of the rare cases is the survey conducted by the municipality of Reggio Emilia, which is treated in detail, among others, in Annex IV, and the survey "*Origine/Destinazione 2000*" (Origin/Destination 2000) carried out by the Lombardy Region (Box 7).

The Survey in Reggio Emilia (see Annex IV) reported mobility needs with a gender perspective. The document has been analyzed in depth for the realization of the Urban Mobility Plan and the time and schedule plan.

Finally, *The Survey in Val Polcevera* explains how the transport system affects women's and men's work in different ways. Moreover, it provides an integrated reading of family policies, social issues, labour, equal opportunities and transport[84].

[84] Provincia di Genova, Progetto Pilota dell'Alta Val Polcevera (2007), *L'impatto del sistema di mobilità e trasporti sul lavoro di donne e uomini nei piccoli comuni;* http://www.genderbudget.it/doc/relazione-valpolcevera.pdf.

Box 7: Origin / destination survey in the Lombardy region, 2000

The *Origin/Destination* is an extensive survey on passenger mobility in the Lombardy Region. The aim was to directly estimate the Origin/Destination passenger matrix in Lombardy and create a database for local the authorities (Region, Provinces, municipalities etc..) for traffic analysis, transport planning, public transport monitoring, etc.

The survey was carried out between February and May 2002 - involving about 580,000 telephone interviews with people living in the region and about 25,000 direct interviews with car drivers, public transport passengers, train passengers and flight passengers at the regional "*cordon*" (border)

Even if the survey did not have the specific aim to investigate gender differences in mobility patterns, data on modal split and purposes of journeys stratified by gender are provided.

The following table presents the modal split by gender. It emerges that both women and men travel more by car then by other means of transport but men travel more as drivers then as passengers relative to women. Furthermore, men use cars and motorcycles more than women, while women tend to use public transport, bicycles and walk more than men.

% Modal split by gender in Lombardy Region, 2002

Modal split	Total	Men	Women
Car as driver	62.9	68.5	56.6
Car as passenger	9.4	5.5	13.9
Public transport means	9.2	7.1	11.5
Motorcycle	3.8	6.0	1.4
Bicycles	7.2	6.7	7.8
Walking	5.9	3.8	8.2
Other	1.6	2.4	0.6
Total	100.0	100.0	100.0

Source: REGIONE LOMBARDIA (2002), SURVEY ORIGINE/DESTINAZIONE

As for the purposes of journeys, both men and women travel more for work and business, but men far more often than women. Secondly, while both travel for shopping, women's journeys for this purpose by far exceed men's. Finally, women travel more then men for study and, above all, for visiting and personal business. By contrast, men travel more for tourism and entertainment.

% Purpose of trips by gender in Lombardy Region, 2002

Purpose of trips	Total	Men	Women
Working- business	47.1	57.4	35.7
Study	9.2	8.8	9.7
Shopping	19.7	13.4	26.7
Visit and personal business	12.6	7.7	18
Tourism/Entertainment	11.4	12.7	9.9
Total	100	100	100

Source: REGIONE LOMBARDIA (2002), SURVEY ORIGINE/DESTINAZIONE

The other selected Italian policy measures are presented in table 8.

Table 8: Italy: selected policies and measures

COUNTRY	POLICY / MEASURE	EXAMPLE
ITALY	Mobility measures (*pink car and bike parks, pink taxi, etc.)*	Parma, various cities
	ICT (Teleworking)	Region Campania, province of Turin
	Time and schedule plan	Bolzano
	Survey	Val Polcevera, Reggio Emilia

Dinamica Donna-Parma 2010 (Women's mobility 2010)

This policy provides a series of transport measures which facilitate women's mobility in Parma. The project was carried out after an ad-hoc survey on women's mobility needs by the municipality of Parma. Some of these measures regard urban transport services, such as the *pink taxis*, which allow women to travel by night in safety or special licenses issued to pregnant women for access to restricted traffic zones or parking zones reserved to women[85].

Similar measures have been implemented in other Italian cities. Pink taxis are available in Milan, Florence, Bolzano, Mestre, etc. Also pink car parks are available in major Italian cities such as Turin, Milan, Florence. Escort services which guarantee safety mainly to women travelling alone are provided in Bologna and in Cagliari[86].

The Telecommuting Experiment in the Campania Region (2010)

This experiment is being implemented at the regional level and represents an important step towards a gender perspective in labour policy. The experiment does not only answer to women workers' mobility needs by reducing the organisational problems related to travel time and care provision for children and relatives but also supports other groups of employees with difficulties in combining working and private life. Furthermore, administrative burdens can be reduced. This kind of flexibility represents a highly

[85] http://www.famiglia.comune.parma.it/.

[86] Practices concerning different mobility measures in various italian cities are available at : http://www.ecodallecitta.it/notizie.php?id=102058. http://www.comune.bolzano.it/servizi_context02.jsp?area=51&ID_LINK=726. http://www.agenparl.it/articoli/news/politica/20120413-parcheggi-rosa-un-gesto-di-civilta-per-le-donne-in-gravidanza. http://www.sardegnaoggi.it/Cronaca/2012-03-27/18074/A_Cagliari_arrivano_i_parcheggi_rosa_Ecco_la_lista.html. http://portale.comune.verona.it/nqcontent.cfm?a_id=18405. http://www.castedduonline.it/cronaca/presto-a-cagliari-il-servizio-di-cortesia-accompagnamento-per-anziani-e-donne-sole/16079. http://www.padovadonne.it/2009/02/facilitazioni-urbane-per-le-donne-parcheggi-e-taxi-rosa-segnaletica-fermata-bus-a-richiesta-e-altro-ancora/.

innovative element in the activities of the Public Administration and could also be implemented by other public administrations and private companies[87].

The Provibus in the province of Torino

This is a dial-a-ride service which operates in a large area covering 56 municipalities with the aim of providing transport services to people living in areas with very low population density. Users are highly satisfied with the service supply, as the service evaluation indicators show[88].

The Time and Schedule Plan in Bolzano

The plan reorganizes public office opening hours to help in the reconciliation of family time and working time for citizens. Implementation was based on extensive consultation involving a series of stakeholders of different policy sectors[89].

To conclude, projects in favour of women's mobility carried out in Italy are innovative and important initiatives are being implemented at the local and regional level. The initiatives selected here had significant effect in providing for safer journeys for women and facilitating reconciliation between work and family time.

The main drawback is their experimental nature, which means that they are usually temporary, lasting at most for about one year because of the lack of resources at the local level.

The following scheme summarizes the main elements of the case studies

Main innovative elements	• Information and help desks for women in municipalities • Different transport measures related to women's needs • Flexibility of services • ICT development • Integration between gender mobility, public services and Urban Transport Plan • Cross-cutting measures (quality of life, life time harmonization)
Main strengths	• Flexibility in working time • Simplification of work processes • Commitment of Local authorities • Cooperation between different stakeholders • Surveys conducted with a gender perspective
Main weaknesses / obstacles	• Lack of financial resources, resulting in temporary measures • Administrative burdens • Normative shortcomings (i.e. in the regulatory framework) • High unit costs of the paratransit services • In Italy problems related to decision-making processes also emerge when different stakeholders are involved for the implementation of social measures as reported in the previous section concerning experience in France.

87 http://saperi.forumpa.it/story/51252/progetto-azioni-positive-sperimentazione-del-telelavoro.
88 http://www.provincia.torino.gov.it/trasporti/provibus/index.htm.
89 Comune di Bolzano (2005), *Piano dei Tempi e degli Orari della città di Bolzano i Tempi della città*; http://www.comune.bolzano.it/context.jsp?ID_LINK=771&area=19.

3.2.3. Spain

In Spain, the good practices reported involve projects for local transport to improve transport services efficiency and meet women's needs. These are *The regional Transport Plan of Pamplona (2000)*, the new *Regulation for travelers for the provision of spaces for strollers in local buses (2008)* and the Guipùzcoa study on the transport system.

A detailed description of the selected measures is presented in Annex V.

Table 9: Spain: selected policies and measures

Country	Policy measure	Example
SPAIN	Local Transport Plan	Pamplona
	Regulation on accessibility	Madrid
	Study on the transport system	Guipùzcoa

The Pamplona Regional Transport Plan (2000)

This is a project for a new transport system in Pamplona and its region. It is characterized by the close involvement of women's associations in the decision-making process for renewal of the local transport system. The project has been carried out notwithstanding a series of difficulties which mainly regarded the participation of young people in the consultation process and the prevalent scepticism about the scope of the plan. Finally, important measures in the local transport system and innovative elements guaranteeing the involvement of women in transport policy decisions have been brought in[90].

Regulation for travellers for the provision of spaces for strollers in local buses (2008)

This new legislative measure modifies the Madrid Interurban Transport Regulation for Commuters and the Regulation of the Municipal Transport Company of Madrid. This responds to the demands of groups of women who called for larger spaces in the local buses to be able travel with children in strollers[91].

The Guipùzcoa transport system study

The Guipùzcoa transport system study (see Annex V) is the first to consider gender differences in mobility patterns in Spain. It is promoted by the Territorial Transport Authority of Guipùzcoa (Autoridad Territorial del Transporte de Guipùzcoa-ATTG) in the framework of the strategic plan 2010-2013 which places emphasis on actions to improve the transport network and, in particular, includes research to further equality between women and men.

[90] Ayuntamiento de Pamplona (2000), Perspectiva de género en el plan de transporte comarcal.

[91] Ortega Delgado P., Castilla Guerra M.T., Millàn de la Cruz R. J., Moreno Piquero M., (2011), Patrones de movilidaden el transporte pùblico de Andalucia, Junta de Andalucia, Consejeria de obras publicas y vivienda, Direcciòn general de Transportes; Decree 1/2008 which modifies the precedent Decree 79/1997 of 3 July Published in BOCAM of 23rd of January 2008.

The main elements of the selected practices are described below.

Main innovative elements	• Participation of women in the decision-making processes of a male-dominated sector • The creation of communication channels which guarantee the involvement of women in the urban policy and planning process • Adoption of a gender perspective in transport studies • Integration between gender mobility, services and Urban Transport Plan • Focus on women's needs as one of the most important purposes of the policy initiative
Main strengths	• Commitment of Local authorities • Involvement of a series of stakeholders in the transport planning process • Cooperation with the University of Navarra to provide new research and investigation on issues relative to gender equality policy • Survey conducted with a gender perspective • Considering women's needs in transport public policies
Main weaknesses / obstacles	• Buses with new design enhancing accessibility – only new stock of vehicles. Accessibility problems still remain for old public vehicles. • Difficulties in reaching agreements when different stakeholders are involved (as emerged from the French and Italian experience) • Some measures improve accessibility, but do not solve security and space problems

3.2.4. The UK

The issue of gender equality in the transport sector receives a great deal of attention in the United Kingdom, as emerges both from practices implemented at the local level and from provisions and detailed data gathering and statistics carried out at the national level.

The UK represents among the most significant and structured best practices at the international level for a number of reasons:

1. the attention of the national statistics service in providing data on gender mobility differences and statistical processing in well-structured and continuative terms;

2. the use of information collected to define urban transport planning measures;

3. the activities of research and theoretical elaboration centres, as presented in chapter 2 (e.g. Napier University of Edinburgh, etc..);

4. the integration between mobility policies, public transport and welfare services.

The measures selected for the UK are reported in table 10 and in Annex VI.

Table 10: UK: Selected policies and measures

Country	Policy measure	Example
UK	Regulation for transport operators	Department for Transport / Transport *for* London
	Public Transport Plan	Transport *for* London
	National Surveys (statistics on gender mobility patterns stratified by age, mode, distance, professions, level of satisfaction, reasons for travelling)	Department *for* Transport

The 2009 checklist on women and public transport

The 2009 checklist (see Annex I) consists of a series of statements, against which managers are asked to check current practices and service provision and assess how well they meet women's needs. The document provides guidelines which mainly inform about the statutory duties of the public authorities to fight gender discrimination, data on men's and women's mobility patterns and the level of employment of women in the transport industry[92].

The first guidance and checklist for gender auditing on public transport was published by the Department for Transport in the year 2000. Since then there have been a number of initiatives taken by operators and providers to improve the quality and range of transport services for women and men.

The gender equality scheme action plan 2007-2010

The action plan has been implemented for the city of London by Transport for London, the local body responsible for most aspects of the city transport system (see Annex VI).

The strategy is a requirement of the Equality Act 2006 which obliges all public authorities to produce a gender equality scheme, as part of what the Act calls their "gender equality duty" which requires all public authorities to eliminate sex discrimination and sexual harassment and promote gender equality[93].

[92] DFT (2009), *Women and public transport: The checklist*; http://www.dft.gov.uk/publications/women-and-public-transport/.

[93] The Equality Act was masterminded by Harriet Harman, the Deputy Labour Leader and former women's minister, who fought for its introduction. The Act has also had the support of Theresa May, Home Secretary in

The action plan was carried out after consultation with various interested parties such as women's organisations and the local authorities. The involvement of a wide range of stakeholders is the main strength of the plan.

Transport Statistics

The Transport Statistics provided at the national level are very detailed and disaggregated on the basis of variables such as age, gender, mode, distance, professions, level of satisfaction and reasons for travelling.

In this respect, three kinds of national statistics are scheduled as good practices hereafter:

The most recent edition of the national statistic *Focus on personal travel (2005)* [94] collects data on mobility trends in different time periods from the 1980s to 2003. As for gender mobility, the survey shows that women's mobility patterns changed considerably over time with respect to those of men[95].

*The Equality Plan Analysis of National Road Users' Satisfaction Survey 2010/11*is carried out by the Highway Agency, the executive agency (part of the Department for Transport) which has responsibility for managing the core road network in England. The Plan Analysis has the general aim to check how the services provided by the Highways Agency meet the needs of diverse groups of people. Statistics disaggregated by gender illustrate the different uses of the network by women and men, their different perception of the services provided and their needs[96].

The latest surveys are factsheets on the *Use of public buses*[97] published in March 2010 and *Commuting and Business Travel*[98] published in April 2011. They are both based on data from the National Travel Survey and concern respectively the mobility of women and men differentiated by age on buses and their journeys for commuting and business.

The scheme below presents the significant elements which emerge from the case studies. No particular difficulties have been encountered in implementation of the measures.

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the Conservative-Liberal-democrat coalition government, although it has been subject to various criticisms from Conservative politicians urging that the Conservative coalition should scale back the Equality Act since, they claim, it burdens employers and wastes money (The Telegraph, *2011 Government accused of wasting millions on bizarre equality drivers.* http://www.telegraph.co.uk/news/politics/8276908/Government-accused-of-wasting-millions-on-bizarre-equality-drives.html). Furthermore, before the last national election, the Conservative party expressed the possibility to revise the Act by cutting some of its measures (*Government shelves Equality Act Time table*, 2010. http://www.out-law.com/page-11134).

94 The Focus on Personal Travel provides data mainly taken from the 2002-2003 National Travel Survey. It covers periods between the beginning of the 90s and the beginning of the 2000s. The last edition reported is the 2005 edition with data mainly drawn from the 2002/2003 National Travel Survey.

95 Department for Transport (2005), *Focus on personal travel, 2005 edition*; www.dft.gov.uk.

96 Highway Agency (2011), *Equality Plan Analysis of national Road Users' satisfaction Survey Results 2010/11.*

97 DfT, (2010), *Use of public buses*, *Personal Travel Factsheet-March 2010*; www.dft.gov.uk.

98 DfT, (2011), *Personal Travel factsheet, Commuting and Business travel*, April 2011; www.dft.gov.uk.

Main innovative elements	• The adoption of a transport system above all shaped to women's needs • Participation of women in the decision-making process in a male-dominated sector • Focus on women's needs as one of the most important purposes of the policy initiative • Detailed statistics on gender mobility
Main strengths	• National documents with specific lists of assessments of practices promoting gender equality provided for transport operators • Commitment of Local authorities • Feedback provided by a wide range of stakeholders • Consideration of women's needs in public transport policies • Surveys conducted along a gender perspective
Main weaknesses / obstacles	• Difficulties in achieving agreement when different stakeholders are involved (as emerged in previous experience)

3.3. Final considerations

Our survey covers examples of various different gender mobility measures brought in by the public administration at different levels. A number of findings emerge from analysis of the case studies.

1. There is an *information gap in description and quantification of gender mobility demand.* In this respect, the UK statistical surveys are exceptions since they are exhaustive and provide complete time series data on the relevant issues.

2. Often policy measures implemented at the local level are part of *pilot projects* which aim at reducing the negative impact of the private transport mode (e.g. air pollution, GHG emissions, fuel consumption, safety) by encouraging the use of public transport services, reducing the need for travel (teleworking, teleshopping) and car dependency.

3. *Implementation and sustainability problems* regarding public funds constitute a weakness, especially in this period when public funds are scarce and the welfare state is being weakened.

4. There is a *Lack of Quality*. Public transport often falls short of the quality, safety and comfort measures required by women (see Annex I Women and public transport audit checklist).

5. There is an increasing awareness among experts and policy makers of the importance of transport policies for women's economic and social empowerment. Addressing women mobility requires *the interaction between transport and welfare policies* and this might increase the complexity and length of the decision making process.

4. CONCLUSIONS AND POLICY RECOMMENDATIONS

The briefing note considers gender differences in mobility patterns and their effects on sustainable development.

Women's travel patterns differ from men's in many ways: they are likely to travel shorter distances than men, are more likely to use public transportation, engage in more non-work travel outside rush hours and make more multi-stop journeys, run household errands and escort other passengers (usually kids or dependent elderly).

In both the international literature and transport planning, the gender dimension in mobility patterns and sustainability has received relatively little attention so far, even though gender is considered, together with age and income, a significant factor in accounting for differences in mobility behaviour, with women recognised as being more likely to adopt sustainable travel behaviours than men. Furthermore, according to some studies, women are more likely than men to support or accept sustainability and green economy policies as they appear to be more sensitive to environmental risks and more prepared for the behavioural changes required to sustain significant climate change mitigation and adaptation policies.

The scant attention paid to gender differences is in part due to the lack of gender differentiated statistics, which make it hard to understand gender differences in reasons for making journeys, journey frequency, distance travelled, mobility related problems in accessing services and employment.

As indicated in chapter 2, according to most studies gender differences in travel patterns are mainly accounted for by the division of roles in the labour market and in the family, which affects women's employment conditions, income levels and mobility needs. The availability of public transportation outside rush hours, the physical and financial accessibility of transport facilities for women with little or older children, disabled persons, as well as safety conditions, are the main aspects to be considered in designing women-friendly transport systems.

The evolution of household and parental models, the new developments in the labour market with the spread of new forms of work and increased labour market participation on the part of women as well as population ageing and new technologies are likely to increase the variety of mobility patterns and call for appropriate transport policies able to combine attention to sustainability with consideration of gender- and age-specific mobility needs.

As women appear to be more environment-friendly than men and as women's mobility patterns seem to be closely related to empowerment, access to opportunities and independence, the adoption of a gender perspective in transport policies is particularly relevant both for reducing gender economic and social inequalities and for supporting more environment-friendly development.

The following recommendations derive from the general literature review as explained in chapter 2, and from the analysis and the results of the case studies.

Tables 11 and 12 present the policy recommendations with indication of some of the measures that could be implemented, and the institutional levels that could be involved in

each single action (European, national and local level). Table 11 presents policy recommendations directly related to a gender sensitive and sustainable mobility policy, while table 12 recommendation on areas that are indirectly related to the issue.

Table 11: Policy Recommendations directly related to a gender-sensitive and sustainable mobility policy

Policy	Measure	Intervention Level		
		EU	National	Local
Improve safety and comfort in transportation modes	Provision of improved lighting			√
	Provision of accessories to help (cell phones and other technologies)		√	√
	Traffic reduction measures	√	√	√
	Improvement of the built-up environment for those on foot/cycling			√
	Introduction of safety policies (e.g. no alcohol)	√	√	√
	Measures to promote walking and cycling and to ensure that they can be done in safety	√	√	√
	Measures to encourage taxi-sharing			√
	Promote different insurance costs linked to gender of drivers[99]	√	√	
	Consideration of safety for motorists, including safe car parking (pink car-parks)		√	√
Improve physical accessibility	Increased numbers of low-floor buses			√
	Extension of low-floor services		√	√
	Provision of lifts and ramps			√
	Improved design of accessible vehicles and stations			√
	Accessible facilities to be generally available			√
	Storage space for luggage/buggies on vehicles			√
	Both provision and regulation of parking for women (pink parking)			√

[99] As reported in chapter 2, women tend to be safer drivers than men. SIRC (2004), Sex differences in driving and insurance risks, http://www.sirc.org/publik/driving.pdf.

Improve service provision	Gender Audit checklist "Women and public transport"		√	√
	Additional provision in the evenings and on Sundays (taxi and paratransit services)			√
	Additional provision to rural areas and small towns (paratransit services) –cost effectiveness			√
	Provision of an integrated system of transport		√	√
	Timetables consistent with women's work patterns (services outside rush hours)			√
	Routes linking schools to shopping areas			√
Improve the provision of information	Accessible and clear timetables with multi-modal information, by telephone and via internet		√	√
	Translated information at bus stops		√	√
	Increased information about fares, accessibility, routes and safety		√	√

Transport infrastructures

In most countries, women walk and use public transportation more than men. Provision of paterways alongside roads and pavements in cities, as well as safe pedestrian crossings, is very important for both safety and comfort.

Bus stops and paterways to bus stops must also take account of women's needs and in particular safety needs, the issue of lighting being especially important in this respect.

Transport facilities

The design of transport facilities is very important. Women often have children or elder people/disabled with them. They are also often burdened with bags and packs. Access to buses and underground trains must be facilitated, by providing sufficiently wide doors and avoiding steps, besides appropriate seating facilities for the disabled, children and older people.

Transport services and regulation

Whereas public transport services (public or private public transport, as well as taxis, etc.) are in most cases designed for travel towards the city centre during rush hours, women also need transport services in their local neighbourhood outside rush hours allowing them to make short, but linked journeys.

Fares must be affordable for women, notably by taking account of the fact that they make series of journeys which in most cases call for the use of several tickets.

Safety and security in public transport are crucial issues which disproportionately affect women. To take account of safety problems, women should be allowed greater scope to alight closer to their final destination, outside the normal bus stops, in the evening and at night. Awareness campaigns targeting both bus drivers and passengers should also be promoted to improve women's safety.

According to the Social Issues Research Centre[100] women tend to be safer drivers than men. They are often more cautious than male drivers and show less risky driving behaviours such as speeding, drunk driving, running at red light and seat belt use. European Union and Member States could promote a gender differentiated insurance regulation linking insurance costs to gender differences in driving attitudes.

In addition, the following conclusions and recommendations cover those areas that are indirectly related to a gender-sensitive and sustainable mobility policy.

[100] SIRC (2004), *Sex differences in driving and insurance risks,* http://www.sirc.org/publik/driving.pdf.

Table 12: Policy Recommendations indirectly related to a gender-sensitive and sustainable mobility policy

Policy	Measure	Intervention Level		
		EU	National	Local
Improve Statistical data and research	Improve the supply and quality of statistics on the structural indicators	√	√	√
	Improve statistical data on gender mobility in Eurobarometer survey (see UK and France case studies)	√		
	Present an annual report on progress on gender equality in the transport sector[101]	√	√	√
	Develop research project in European Framework[102]	√		
Support women's participation in decision-making	Gender Impact Assessment (GIAs)	√	√	√
	Involvement of women in transport activity plans and public transport programmes	√	√	√
	Identification of means of consultation relevant to women	√	√	√
	Development of staff-training	√	√	√
	Involvement of women in all aspects of development, including strategic and practical issues	√	√	√

Source: our based on: CRU (2000); EC, Staff working document (2010); EU Transgender Project (2007); Peters (2011)

Statistics

To better understand the effect of gender differences in mobility patterns and their effects on the green economy, adequate, gender-sensitive statistical data and research are needed at the local, national and EU level.

The World Bank has identified four fields in which statistics on the interactions between gender and transport would be useful to planners:

[101] European Commission SEC (2010) 1079/2, COMMISSION STAFF WORKING DOCUMENT, Action to implement the Strategy for Equality between Women and Men 2010-2015, Section 6 include "Horizontal Issues" and required an annual report on progress on gender equality, especially in the areas covered by this strategy. The transport sector and mobility services could be included among the public policy and social inclusion items.

[102] European Parliament (2006), Women and transport, Study provisional version, Brussels "*Some projects on gender have to be included in transport research programmes. "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"*. Executive summary, p.xi.

1) access to different modes of transport,

2) the cost of transport,

3) journey characteristics (modes, frequency, length of journeys, reasons for journeys), and,

4) transport quality.

Women's participation in planning and decision-making processes

Taking into account women's needs means letting women express their needs. Therefore it is essential to involve women in consultations, project-planning and decision-making processes. As this is generally not the case, it is necessary, then, for this issue at least to be addressed in the relevant procedures applicable to projects funded by international institutions. In this respect two instruments could be promoted:

Gender Impact Assessement (GIAs) should be integrated into Environmental Impact Assessment (EIAs) to support and gender-sensitive sustainability impact assessment;

Gender Audit checklist "Women and public transport" (see Annex II).

Employment of women in the transport sector

The share of women employed in the transport sector has been increasing in recent years, but is still limited (20.5% relative to an overall share of 43.5% in total employment, 2005 data). The main barriers to women's employment in this sector are related to the still male-dominated work-place ergonomics, culture and work organisation. Working hours in many professions (as in the case of drivers) are long, often unpredictable and requiring night shifts. Many professions (as in the case of long–distance drivers, or work on board ships and aeroplanes) require prolonged absences from home. The risks of aggressive and violent behaviour on the part of customers or harassment by colleagues are also relatively high. Finally, gender stereotypes and discrimination result in marked gender segregation with women usually employed in administrative and customer service jobs.

To increase the number of women in such jobs, contractors can include specific clauses on a required percentage of women employees, both for road maintenance and for jobs in public transport systems. Employers, trade unions and public authorities could also support gender equality in the workplace through adaptation of working conditions, measures to support the work-life balance and gender equality in recruitment policies, professional mobility and career development, and access to training[103].

ICT and gender mobility

The impact of the ICT on the mobility of persons and in particular on gender mobility is anything but clear, above all when considering the capacity of the technological instruments to reduce the need for travel and car dependency.

[103] Innovative examples of measures adopted in some European countries to support gender equality in the transport sector are presented in A. Corral and I. Isusi (2007), *Innovative gender equality measures in the transport industry*, Eurofound, http://www.eurofound.europa.eu/pubdocs/2007/43/en/1/ef0743en.pdf.

As anticipated in chapter 2, the empirical evidence on the relation between the diffusion of ICT and mobility patterns is still weak. Moreover, it is necessary to evaluate carefully the trade-off between the potential benefits of teleworking practices for the mobility system and the potential negative effects on working conditions. In particular teleworking could lead to spill-over effects on family time and longer working hours, which may aggravate work-home conflict, particularly amongst women. Further drawbacks such as the risk of isolation, loss of visibility and limited career prospects could affect women more than men.

Considering the complexity of the questions regarding ICT developments and their effects on social and economic conditions, more information and more research is required on the interactions between the diffusion of ICT technologies and mobility (dimension and patterns) as well as the effects on the labour market and on the social context. To this end a fundamental role is played by international institutions, which could promote comparative research on the impact of ICT on society, as well as its potentialities and weaknesses. Furthermore, international institutions could promote pilot projects and practices supported by a cogent and rigorous methodology, including the monitoring and evaluation of implementation and outcomes, taking into due account that changes in (mobility) behaviours usually take time.

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ANNEX I - WOMEN AND PUBLIC TRANSPORT GENDER AUDIT CHECKLIST

The checklist below was drawn up by the UK Department of Transport to promote gender equality with the Gender Audit Guideline document, which is available at www.dft.gov.uk./publications/women-and-public-transpot/.

Checklist I: Organization policies and procedures		Yes/No	N/A
1	Gender equality *within the organization* is one of its stated objectives, with a policy, targets and measures.		
2	The organization has committed itself in writing to gender auditing its transport services.		
3	The organization has committed itself in writing to gender auditing its policies and practices.		
4	The gender auditing policy has clear goals, measures and targets, and progress is monitored regularly by senior management.		
5	Everyone in the organization is made aware of the commitment to gender auditing and who is responsible for implementing it.		
6	The organization's budget includes provision to finance the gender auditing process and programme.		
7	Within the organization, women and men are represented on key committees or groups where strategic decisions are taken.		
8	The organization ensures that everyone who speaks on its behalf is fully informed about its gender auditing programme.		
Checklist II: Employment policies and procedures		**Yes/No**	**N/A**
9	Procedures exist to protect employees against sexual discrimination and harassment.		
10	Recruitment criteria for staff at all levels include appropriate evidence of awareness of gender issues, both within an organization and in relation to passengers.		
11	The organization actively promotes the recruitment of women, including those from black and minority ethnic communities where appropriate, to ensure the composition of the workforce reflects the community it serves.		
12	The organization monitors the gender profile of all levels within its staffing structure and actively promotes equal representation of women and men at all levels.		
13	Flexible hours of working and part-time working are in place to assist those with child care or other career responsibilities.		
14	The organization has policies and procedures in place to protect lone working staff, and these take into account the specific needs and concerns expressed by female and male employees.		

Staff training			
15	Staff involved in the design and development of facilities or services are trained to make them aware of women's and men's travel needs and concerns.		
16	All front line staff are trained to make them aware of women's and men's travel needs and concerns.		
17	Bus-drivers are trained and skilled in driving in a manner designed not to alarm, inconvenience or endanger passengers.		

Checklist III: Research, consultation and planning		Yes/No	N/A
18	The organization collects statistics which are gender-disaggregated and (where possible) further disaggregated by income, household size, age, ethnicity, car-ownership and use, journey-purpose.		
19	Passenger perception/customer satisfaction survey findings are gender disaggregated.		
20	The organization's research monitors changes in women's and men's transport needs and experiences.		
21	The organization consults with women and men about the design of new stops, stations or terminals, and vehicles, and about the development of new transport services.		
22	Consultative meetings are arranged at times which are convenient for both women and men to attend, and crèche facilities are made freely available.		
23	The organization's approaches to its customers and community take account of different levels of literacy and of fluency in English.		
24	The organization analyses customer complaints and comments by gender.		
25	The organization analyses the comments and complaints it receives so that it can identify and respond to system-wide problems.		
26	Passengers who complain are made aware of appeal procedures: e.g. Passenger Focus, the Bus Appeal Body and London Travel Watch.		
27	The organization works closely with land-use planners to ensure that public transport provided meets the needs of women and men who live and work in the area.		
28	The organization works closely with the local authority and other transport providers in the area to provide passengers with the seamless journey: e.g. providing through-ticketing, good connections, integrated infrastructures.		
29	At least one person has in her/his job-description the task of identifying barriers to using public transport that are gender specific.		
30	The organization is actively involved in developing safer routes to school.		
Checklist IV: Customer services		**Yes/No**	**N/A**
31	Vehicles have ample luggage space, suitable for shopping and for buggies, and easy to lift bags in and out of		
32	Information is easily available about on-board provision for shopping, luggage, buggies and bicycles.		
33	Signage on vehicles is clear about the carriage/storage of shopping, luggage, buggies and bicycles.		
34	There are seats designated and clearly signed for the elderly, disabled, people with children or pregnant women.		
35	Wheelchair accessible toilets have nappy changing facilities to allow parents/careers to take children of either sex to the toilet or change a nappy.		
36	Where there are catering facilities with tables and seats, baby seats are available.		

Checklist V: Personal security		Yes / No	N / A
37	The organization has a personal security policy, covering passengers and staff, which addresses fears & perceptions as well as reported crime rates.		
38	Personal security is the responsibility of a senior member of the management team.		
39	Decisions on the location and frequency of bus stops are informed by consultations with users and potential users and typographical data to maximise accessibility of bus services.		
40	Passenger concerns are considered when making decisions about the location and timing for the deployment of front line staff (other than drivers).		
41	The organization regularly conducts after-dark safety audits of its infrastructure, vehicles and routes.		
42	The organization (if rail) has a programme of work to get its stations accredited by the Secure Stations Scheme.		
43	Front line staff have the means to call for assistance in the event of violence, threats or suspicious circumstances.		
44	The organization has a policy and regime for the rapid removal of graffiti.		
45	Vehicles are checked regularly to clear litter and carry out emergency cleaning.		
46	Waiting areas at all stations are checked regularly to deter misuse and check for litter and damage.		
47	Toilets at all stations are checked and cleaned frequently to deter misuse and maintain cleanliness.		
48	Waiting areas and toilets on all stations are locked off when the station is unstaffed.		
49	Where there are subways at stations they are well-lit and have mirrors at blind corners to extend sight lines.		
50	Unstaffed stations or remote areas of large stations have accessible, clearly- signed help points or other emergency communications facilities for passengers.		
51	Any public address systems are in full working order, and are regularly used by trained staff to inform passengers about services.		
52	Information about delays and cancellations is given as soon as possible and includes, wherever possible, suggestions of alternative routes or services.		
53	On staffed stations and terminals, processes are in place so that staff are aware of delays and changes to the timetable, and are readily available to the public to explain what is happening and to help them to make alternative arrangements.		
54	The organization works with other agencies (e.g. local authorities, town centre management, police, Crime and Disorder Reduction Partnerships, women's groups) to improve the safety and security of pedestrian routes to the stations or stops.		
55	Where there are safe and accessible pedestrian routes from the station/terminal these are clearly signposted from the station.		
56	Taxi ranks at stations are well lit and so is the access to them from the station.		
57	The organization is involved in a programme to work towards Safer Parking Scheme status for all its car parks.		

58	Up to date and accurate timetables are widely published along the route.		
59	New timetables are available sufficiently in advance to enable passengers to plan their journey.		

Checklist V: Personal security		Yes / No	N / A
60	Leaflets and web-based information is published giving details of access at all stations/terminals along the route, including where car parks, taxi ranks and bus stops are in relation to exits.		
61	Information on routes, timetables and fares is widely available, including in shopping centres, hospitals, clinics, post offices, libraries and the premises of major employers.		
62	Information on routes is easily available at bus stops, stations and terminals.		
63	There is a local map and directional signs at all stations and terminals and at major bus stops showing neighbouring stops, stations and taxi ranks, as well as identifying major landmarks in the locality.		
64	The organization has guidelines to prevent sexist or violent advertisements from appearing on its infrastructure or vehicles.		

Source: Department for Transport, Mobility and inclusion Unit (2009), Women and public Transport: The checklist, 17 July 2009.

ANNEX II - ANALYTICAL SCHEME FOR THE SELECTED GOOD PRACTICES

Country
Name/title of the practice
Period of implementation
Contact information
Brief description of the practice (objectives and expected results, target population, procedures, activities, etc.)
Main partners/stakeholders involved (promoter and partners of the project/policy; typology and roles of actors involved)
Territorial coverage (national, regional, local)
Financial coverage (provenience of funding: European, national, regional, local; if possible indicating the overall financial assignment)
Main goals and objectives and reasons for introduction
Main target groups
Main measures
Main weaknesses/obstacles and how they have been addressed
Main strengths
Main Innovative elements
Reproducibility/Transferability elements (Specifying which part of the project/strategy/experience could be reproduced and which are the context conditions/elements that would be useful for its reproducibility)
Sustainable elements/Mainstreaming
Main lessons learnt

ANNEX III – FRANCE: TIME AND SCHEDULE PLAN IN RENNES

Time and schedule plan in Rennes (Rennes Bureau des Temps)	
Country	Rennes, France
Name / title of the practice	Rennes Bureau des temps
Period of implementation	From 2002 to the current year
Contact information	www.site.rennes.fr
Brief description of the practice	In 2002 an Office with the task to harmonize the city office hours was established under the direction of the Gender Equality Department in the city of Rennes. On the basis of surveys on citizens' mobility patterns and consultations with the various stakeholders, the Office harmonizes urban office hours to improve mobility and accessibility to services of general interests and to better citizens' life quality by harmonizing the times of the city with the citizens' needs. Specific initiatives in favour of women have been implemented concerning working hours, childcare, services provisions and cultural places (museums, theatres etc..).
Main partners / stakeholders involved	Agence d'urbanisme et developpement intercommunal de l'agglomeratio Rennaise (Urban Planning Agency of Rennes), Information center for women.
Territorial coverage (national, regional, local)	Local, the city of Rennes
Financial coverage	European Social Fund under the P.I.C. Equal projects
Main goals and objectives	• To work against any form of discrimination (based on sex, living place, education etc...). • Promote policies for life time harmonization. • Improve life quality in the city.
Main target groups	Women and most vulnerable groups
Main measures and outcome	• The reorganization of working hours for workers on atypical hours, for example clearing staffs (typically with 90% female workers) together with improvement of safety conditions and promotion of professional training activities. • The provision of a new service "Parendum" which provides home childcare in the case of atypical working hours for women or in urgent cases. • The creation of a inter-municipal nursery open from 6 a.m. to 9.30 p.m. providing maximum care of 10 hours for each child. • The institution of the "Tic-Tac le temps à la carte", which provides offices hours and locations of 1400 services in order to facilitate access to the nearest service in free time. • Various initiatives to access cultural events (i.e. lower prices for theatres for women, with baby-sitter service provided, concerts at midday, etc.).

Time and schedule plan in Rennes (Rennes Bureau des Temps)	
Main weaknesses/obstacles and how they have been addressed	• Difficulties in reconciling different opinions of different partners. • Difficulties in recognizing the demand structure. • Difficulties related to the complexity of the decision-making process, which could call for long-term decisions when different stakeholders (with different objectives and constraints) are involved. • High unit costs of flexible services • Measures come up against continuity problems since they depend upon public funds which are vulnerable to periods of welfare crisis and reduction of public expenditure.
Main strengths	• Target groups specifically defined. • Measures which benefit women and other vulnerable groups. • Different stakeholders involved. • European funds.
Main Innovative elements	• Focus on women's needs as one of the most important purposes of the policy initiative. • Cross-cutting measures which improve quality of life and harmonize lifetime. • Flexibility of welfare services.
Reproducibility/ Transferability elements	The Bureau de Temps (time and schedule plans) are provided in different cities in France –such as Poitiers, Lion, Paris, Montpellier- but without any specific provisions which directly benefit women. In this respect major focus on women's time and needs could be provided. The time and schedule plan adopted in Rennes is particular since it focuses on women's needs as a starting point to improve life time in the city.

Sources: http://www.site.rennes.fr/temps/page.php?rub=1

Kergoat M., Touchard K, (2007), La ville et le temps des femmes: l'exemple de la ville de Rennes, Espace populations sociétés; http://eps.revues.org/index2281.html.

ANNEX IV – ITALY: SURVEY IN REGGIO EMILIA AREA

Urban Mobility Plan: Mobility demand from a gender perspective (Survey)	
Country	Reggio Emilia (Italy)
Name/title of the practice	Urban Mobility Plan (PUM), Study on the time and schedule plan of the city
Period of implementation	2006
Contact information	www.municipio.re.it
Brief description of the practice	The study was conducted on a sample of 3,900 families resident in the city of Reggio Emilia and the surrounding municipalities with the aim to examine the mobility demand taking a gender perspective for the realization of the Urban Mobility Plan and the city time schedule plan. According to the study: Women move more often within the municipality where they live and so tend to travel shorter distances. Women tend to travel more than men for reasons other than work and study (44% journeys made by women, 32% by men). The car is the means of transport more most used by both men and women i.e. 64% of men and 63 % of women interviewed travel by car. Women in large municipalities and in the chief town use public transport nearly twice as much as men .
Main partners/stakeholders involved	Municipality of Reggio Emilia, the Council for the time and schedule plan, the Office for Citizens' Rights and Equal Opportunities.
Territorial coverage (national, regional, local)	Local (the city of Reggio Emilia and 21 municipalities around).
Financial coverage	National level (Ministry of Infrastructure and Transport). Total amount for the Urban Mobility Plan = 365.000€. Amount for the survey = 18.000€
Main goals and objectives	To study the mobility demand taking a gender perspective.
Main target groups	Women
Main measures and outcome	The proposals set out in the study were examined in depth in order to implement the time and schedule plan of the Municipality of Reggio Emilia, 2009. Among the measures carried out: • The realization of **Windows for women**, for the enactment of positive measures which benefit women. • The realization of a **Plan for Home-work movements** taking a gender perspective for municipality employees. • Arrangements of **meetings** on "women's time" and "city time". • Constitution of the **Council for the time and schedule plan.** • **Promotion of the services, activities and projects** carried out by the municipality of Reggio Emilia which allow for reconciliation between "city time" and the "citizens' time".

Urban Mobility Plan: Mobility demand from a gender perspective (Survey)	
Main weaknesses/obstacles and how they have been addressed	• Lack of financial resources for implementation of the services recommended in the research. In particular, a contradiction between lack of resources and social inclusion objectives emerges in periods of welfare crisis and reduction of public expenditure.
Main strengths	• Commitment of Local Authority. • Cooperation between different stakeholders. • Survey conducted on a gender perspective.
Main Innovative elements	• The realization of a Urban Mobility Plan which considers gender mobility differences.
Reproducibility/Transferability elements	Study on mobility patterns taking a gender perspective can be easily integrated in transport planning.

Source: Comune di Reggio Emilia (2008), Piano della mobilità di Area vasta di Reggio Emilia;
http://www.municipio.re.it/retecivica/urp/retecivi.nsf/PESIdDoc/1512D3C0DCB8A45EC125797500341D59/$file/Piano%20_Mobilita_%20Area_Vasta_approvato_2008.pdf

ANNEX V – SPAIN: STUDY OF THE TRANSPORT SYSTEM IN GUIPÙZCOA

Study of the transport system from a gender perspective	
Country	Guipùzcoa (Spain)
Name/title of the practice	First study of the transport system from a gender perspective
Period of implementation	2010-2013
Contact information	Consultancy Novadays, Autoridad Territorial del Transporte de Guipùzcoa-ATTG
Brief description of the practice	The survey is the first study on public transport from a gender perspective produced in Spain. It is carried out by the consultancy Novadays and the territorial Transport Authority of Guipùzcoa (Autoridad Territorialdel Transporte de Guipùzcoa-ATTG). It has been promoted by the ATTG in the frame of the strategic plan 2010-2013 which placed emphasis on actions for improving the transport network, and, especially for research for equality between women and men. The object of the project is to establish a series of rules, recommendations and activities to mitigate problems of inequality which can affect the transport sector. Moreover the objective is to build the bases upon which the service and its quality could be improved and enhanced. The first step in the project was to survey 400 women living in Guipùzcoa. Then an audit was conducted on 13 public transport companies of Guipùzcoa. Finally, discussion groups were constituted with women of different backgrounds and in-depth interviews for more detailed information on attitudes to transport from a woman's point of view.
Main partners/stakeholders involved	Consultancy Novadays, Territorial Transport Authority of Guipùzcoa, Emakunde - The Basque Institute for Women
Territorial coverage (national, regional, local)	Local: the city of Guipùzcoa
Financial coverage	Subsidies provided by Emakunde (Emakumearen Euskal Erakundea Instituto Vasco de la Mujer)
Main goals and objectives	To identify aspects which can improve the transport service and reduce the gender inequity factors
Main target groups	Women
Main measures and outcome	The study reveals that: • women have positive views on public transport, recognize the social benefits of public transport as compared to private, and give rise to important discussion on mobility in relation to their families and social surroundings; • women are more likely than men to use public transport in their daily journeys; • the idea of using a bicycle in daily transport habits is considered interesting by the women; • comfort, security and accessibility are aspects that women deem to have a priority in their choice of transport modes; • the main actions which would help promote an increase in the usage of public transport are improvement in accessibility, cheaper fares and greater security.

Main strengths	• Consideration of women's needs in public transport policies. • Commitment of the Local Authority.
Main Innovative elements	This represents the first study in Spain which analyses public transport from a gender perspective.
Sustainable elements/Mainstreaming	The study incentivizes journeys by bicycle and on foot; moreover, it suggests that a further step could be to launch a marketing campaign on public transport aiming at encouraging women, given that they are well aware of the importance of the public transport in reducing their environmental impact.

Source: http://www.eltis.org/.

ANNEX VI – UNITED KINGDOM: LONDON GENDER EQUALITY ACTION PLAN

London Gender Equality, Action Plan 2007-2010	
Country	United Kingdom
Name / title of the practice	London Public Transport Plan, The gender equality scheme action plan 2007-2010
Period of implementation	2007-2010
Contact information	Transport *for* London (TfL)
Brief description of the practice	The aim of the Gender equality scheme action plan is to provide transport system standards which meet the needs of women as a consequence everyone in London would benefit particularly from improvements in personal security and accessibility free of discrimination in relation to sex, racial or ethnic origin , religion or belief, disability or age. In developing the Gender Equality Scheme, TfL has taken several steps to ensure the maximum level of engagement with as many stakeholders as possible. It sent a consultation document called *Expanding Horizons* to more then 140 organizations and individuals, while other methods of consultation have also been adopted e.g. specific events. for key stakeholders and one-to-one interviews with opinion formers have been organized. Also the TfL employees have been involved in the consultation process; for example, the Women's Staff Network group.
Main partners / stakeholders	Transport *for* London (PTE) Furthermore detailed research projects have been conducted in order to understand the mobility needs of the population, namely the Mystery, Traveller Survey and the Customer Satisfaction Survey. In order to provide a transport gender equality scheme TfL consulted a wide range of stakeholders involving women's organisations, associations and groups, local authorities and the voluntary sector, but also individual men and women.
Territorial coverage	The city of London
Financial coverage	TfL
Main goals and objectives	The aim of the Gender Equality Scheme is to provide transport system standards which meet the needs of women and other groups of people. The Gender Equality Scheme is a requirement of the Equality Act 2006. The Act requires TfL and all the public authorities to produce gender equality schemes as part of what the Act calls their "gender equality duty". This duty, which came into force in April 2007, requires all the public authorities to eliminate all sex discrimination and sexual harassment and promote gender equality.

London Gender Equality, Action Plan 2007-2010	
Main target groups	Women and social groups likely to be subject to discrimination in relation to sex, racial or ethnic origin, religion or belief, disability, age or sex orientation.
Main measures and outcomes	On the basis of the information collected by researches and consultations **the Gender Equality Scheme Action Plan** has been drawn up, and a series of measures in the following five categories adopted: • Accessibility, including availability, vehicles, integration, barriers to travel and infrastructure. • Safety and security. • Affordability, which includes costs and fares. • Information. • Employment, which includes equal pay, recruitment, retention, flexible working and workplace culture. The expected long-term impact is mainly in terms of • Improvement of real and perceived levels of security. • The provision of a transport system shaped by women's lives; • Greater affordability. • Increase in the number of women at TfL.
Main weaknesses / obstacles	• Difficulties related to the complexity of the decision-making process which could call for long-term decisions when various different stakeholders (with different objectives and constraints) are involved.
Main strengths	• Feedback provided by a wide range of stakeholders. • Commitment of Local Authorities. • Consideration of women's needs in public transport policies.
Main Innovative elements	• The adoption of a transport system above all shaped to women's needs. • Participation of women in the decision-making process in a male-dominated sector.
Reproducibility / Transferability	Consultation with the various stakeholders is a very important process for the improvement of the transport services, and could be extended for the improvement of other public services.
Sustainable elements / Mainstreaming	Promotion of equality of opportunity for diverse groups within society.
Main lessons learnt	Improvement of specific services cannot be carried through regardless of citizens' and stakeholders' point of views.

Source: Transport for London, Gender Equality Scheme 2007-2010, http://www.tfl.gov.uk/assets/downloads/corporate/Gender_Equality_Scheme_2007-2010.pdf.

EUROPEAN PARLIAMENT

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