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## **Labour markets and employment opportunities for women in 11 European cities**

**FLOWS: Impact of local welfare systems on female labour force participation and social cohesion**

## FLOWS Working Paper

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Aalborg 2014

ISSN 2246-4840

## **About the FLOWS project:**

The FLOWS project has been funded under the EU FP7 program, grant Agreement no: 266806. The project started January 1 2011 and ended April 30 2014.

The FLOWS project analyses the causes and effects of women's labour market integration, which is an issue that represents a major challenge for the European Union and its member states, and is supposedly also a precondition for the sustainability of the European social model. The overall aim is to analyse (1) how local welfare systems support women's labour market participation, as well as (2) the extent to which (and under which conditions) female labour market integration has contributed to the strengthening social cohesion. The project focuses on how public and private welfare services such as care and lifelong learning intended to support women's labour market integration have been designed; on how women of different classes, qualifications, ethnicities, and geographical locations have grasped and made use of such policies, and on how the increase in women's labour market integration has affected structures of inequality and social cohesion.

The study is based on in-depth analysis of eleven cities, i.e. one city in eleven different countries. The cities/countries are: Brno/Czech Republic, Aalborg/Denmark, Tartu/Estonia, Jyväskylä/Finland, Nantes/France, Hamburg/Germany, Székesfehérvár/Hungary, Dublin/Ireland, Bologna/Italy, Terrassa/Spain, and Leeds/UK.

The FLOWS project is composed by 6 academic work packages:

WP 1: Degree and structures of women's labour market integration

WP 2: Local production systems

WP 3: The local welfare system

WP 4: Local policy formation/local political actors

WP 5: Survey questionnaire

WP 6: Women's decision making

WP 7: Social structures: cohesion or cleavages and segregation

This working paper series reports work conducted in the seven work packages.



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## Executive Summary

This document is a preliminary comparative analysis of the –local production systems‖ of eleven European cities drawing on different national reports that are integrated within the WP2. The purpose of WP2 was to identify some patterns of urban economies in Europe, highlighting both the effects of the local production systems on the female integration into the labour market and, conversely, the impact of the female participation on the competitiveness of the local economy. Its aim was to explore differences and similarities among urban patterns, but also between urban contexts and the different national production regimes.

The main findings of comparative analysis are the following. All the cities considered in the present research have experienced a general process of economic growth and a large part of them have represented a sort of engine for local economies. All cities have gone through important transformations as far the economic specialization is concerned, in particular experiencing a strong shift towards a service-based economy albeit with two remarks. The first one is the persistence of an important manufacturing sector in some urban contexts. The second important difference is related to the typology of service sector characterizing the urban economies.

With few exceptions the economic growth experienced by FLOWS cities has offered good opportunities for the development of female employment.

This rise appears associated with an extraordinary progress of the female educational attainment levels in all cities.

Differences among cities have also to do with diverse characteristics of female employment. Female self-employment rates are very high in Italy and low in Denmark. The share of fixed-term contracts is very high in Spain and very low in Estonia.

Gender segregation in sectors and in occupations is very high in Estonia and to a lesser extent in Finland. Although with different intensities, the male- and female-dominated specific subsectors are practically the same in FLOWS cities: construction, manufacturing and transportation for men and education, health care and social work, food services and domestic service for women. The same is true for occupational segregation. Occupations such as armed forces, legislators, senior officials and managers as well as plant and machine operators are often mentioned as male-segregated, while women are overrepresented in jobs such as clerks in administrative and secretarial roles, service and shop attendants, market sales workers and personal services. Accordingly, the gender pay gap is pervasive in all cities under research, albeit with various degrees.

Finally, in relation in the impact of the economic-financial crisis on employment, there is little doubt that women's unemployment rates have increased between 2007 - 2009 but much less than men's. This has happened because while male-dominated sectors such as the construction and manufacturing have been severely hit, other feminised sectors such as the services have been much less affected.

## INTRODUCTION

The WP2 national reports have focused on the main features of the local production systems (Crouch et al., 2001) framing the employment opportunities for women, in the cities considered in the present research. The aim of this report is to describe both some general patterns and some peculiarities emerging from the comparative analysis, deepening some key factors and impacts.

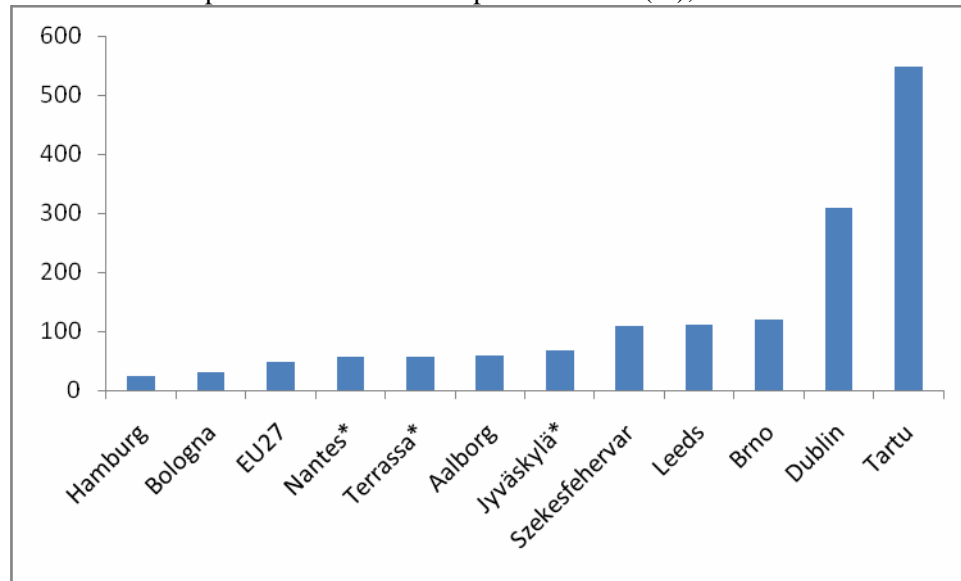
The report is organised in various main sections. The first one describes the urban economic pattern of development, with a focus on how the competitiveness of the urban economy is entangled with the female participation into the labour market (Lofstrom, 2001). In particular, it analyses the effects of the shift towards a service-based economy (Sassen, 1991; Hamnett, 2003; Florida, 2004) and how it has affected both the availability and the quality of employment opportunities for women. This is specifically described in section 2 with a special focus on different types of employment and work contracts. The third section is devoted to the patterns of horizontal and vertical gender segregation in FLOWS cities, paying a special attention some of its consequences in terms of gender pay gap (Bettio and Verashchagina eds, 2009). The fourth section of the report deals with some impacts of the economic-financial crisis on female and male employment. The fifth section analyses some of the problems that trade unions face in FLOWS cities in promote equal opportunities in terms of gender. A final section deals with the future research agenda in relation to the study of local production systems in FLOWS cities.

# 1 Urban economic pattern of development and structure of the labour market

In this section we analyse the growth rate in the local production system within the last decade before the economic crisis in 2008, and the most important transformations in the sectors of specialisation of the local economies.

Basically, all the cities considered in the present research have experienced a general process of economic growth, as far the GDP is concerned (Graph 1).

Graph 1- Increase in GDP per inhabitant (%), 1997-2007



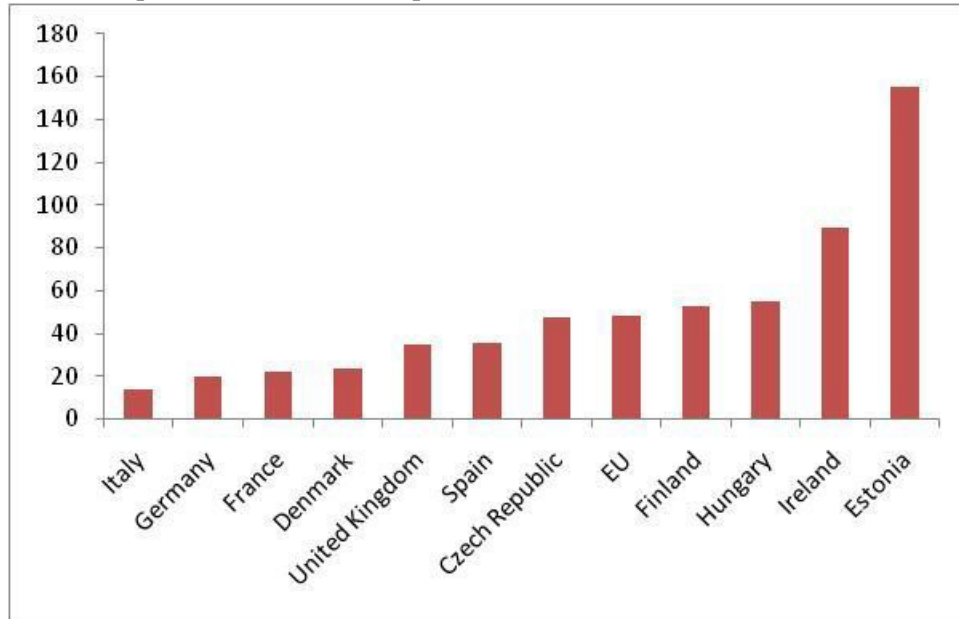
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Source: Different local statistics

However, there is little doubt that some cities have experienced a faster development in comparison with the other urban contexts, first of all because they are embedded in national economies which have gone through a -booml or a restructuring process during the last decade (Graph 2). At the same time, it is interesting to highlight that while the large part of these cities have represented a sort of engine for the local economy, because of growth rates above the average, only the Finnish city has experienced a development below the national trend.



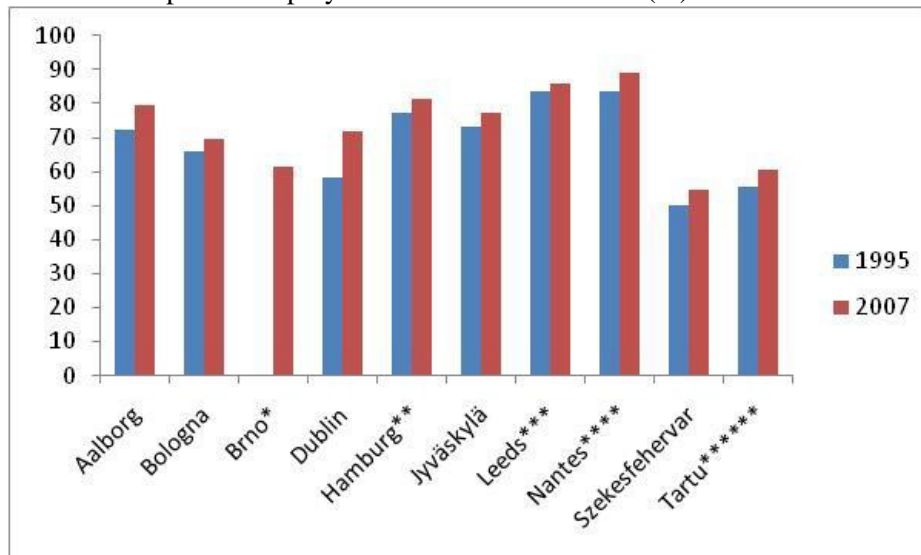
Graph 2 - Increase in GDP per inhabitant - countries (%) 1995-2007



Source: Eurostat

Tartu, for example, has benefited from an impressive national economic development: the economic growth in the 2000s has been the highest in the Estonian history and among all the cities considered in our research. Also Brno and Szekesfehervar have experienced a very good trend in the GDP increase, as well as their national economic contexts, involved in a challenging process of economic reorganization. Dublin has been one of the most important engines in the fast development of Ireland during the last decade, while Leeds and Bologna have reported better trends in comparison with their general national contexts.

Graph 3 – Employment in the service sector (%) 1995-2007



\*years 2003-2008; \*\*years 1999-2008; \*\*\*1995-2009; \*\*\*\*years 1999-2007; \*\*\*\*\*years 2002-2009

Sources: Different local statistics

In general, all these cities have gone through important transformations as far the economic specialisation is concerned, in particular experiencing a strong shift towards a service-based economy (Graph 3), although with some important differences.

The first one is the persistence of an important manufacturing sector in some urban contexts. In cities such as Brno, Szekesfehevar, Tartu the percentage of employment in the manufacturing still ranks around 45-40%, because of the heritage of the former socialist pattern of economic production. Usually this model is based on big factories, most of them managed by big multinational companies. However also in Bologna the percentage of people employed in manufacturing is still high (around 25%), because of a –third Italian pattern of development, based on industrial districts and small-sized enterprises (Bagnasco, 1977).

The second important difference is related to the typology of service sector characterizing the urban economies. Some cities have gone through a strong development of an advanced service sector, mainly oriented to enterprises or to the innovative economy (Musterd and Murie eds, 2010). For example, in Aalborg there has been a huge development of services related to trade and business, as well as a good growth of ICT activities; in Hamburg trade and transportation have played a major role, together with the sector of media and communication; in Leeds finance and business services have reported a huge increase. In other cities the shift to a service-based economy has been mainly based on less advanced services, oriented to satisfy the needs of families, or support the activities of the public administration: in Bologna, administrative capital of the Emilia Romagna region, many job positions are concentrated in public institutions such as universities, hospitals and services sometimes operated by cooperatives (especially for welfare provision); in Dublin there has been a huge development of real estate, retail wholesale business, as well as health and social services; in Tartu also the –entertainment machine (Clark, 2004) has played a major role.

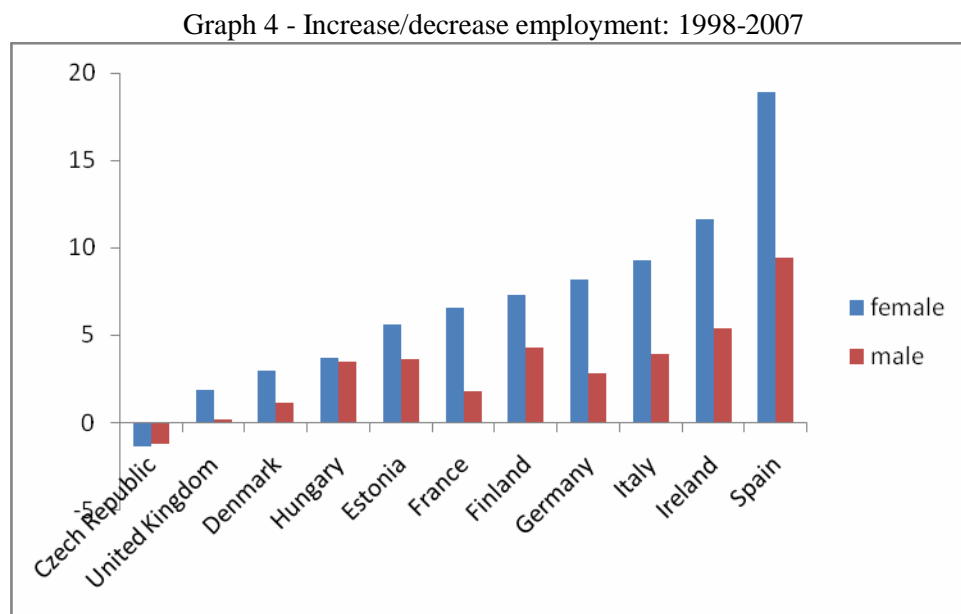
Finally, in cities such as Terrassa, Tartu or Dublin the construction sector has experienced a huge growth, not only in terms of GDP, but also in terms of the percentage of people employed in the sector.

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## 2 Impacts of the economic transformations on the employment opportunities for women: Different types of employment and work contracts

Generally speaking, the economic growth experienced by all the cities analysed in our research, has offered good opportunities for the development of female employment.

At the national level (Graph 4), especially Spain, Ireland and Italy have gone through a very good increase in female employment rates, in part because of the low level of women who used to be employed until mid-90s (35% Spain, 37% Italy, 49% Ireland). On the opposite, there has been a decrease in female employment reported in the Czech Republic, where the 58% of women used to be employed in 1998.



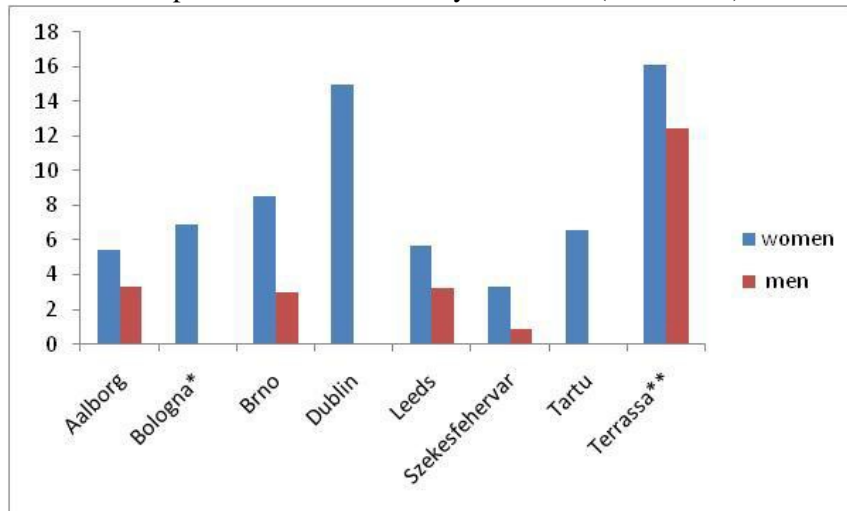
Source: Eurostat

This general trend may be explained by several reasons.

Firstly, the economic growth concentrated in the service sector has offered good opportunities for women, at least in terms of availability of job positions in some female-dominated economic subsectors (see section on gender segregation below). In addition, the service sector has replaced the decline of female employment in some manufacturing sub-sectors which used to be female-dominated, especially the textile (i.e. in Spain and Hungary).

Secondly, in all the cities where data are available, an extraordinary progress of the female educational attainment emerges (Graph 5). This improvement is especially due to the widespread achievement of tertiary education, and this trend has been much faster for women than for men.

Graph 5 - Increase in tertiary education (1995-2005)



\*1991-2001; \*\*1996-2009

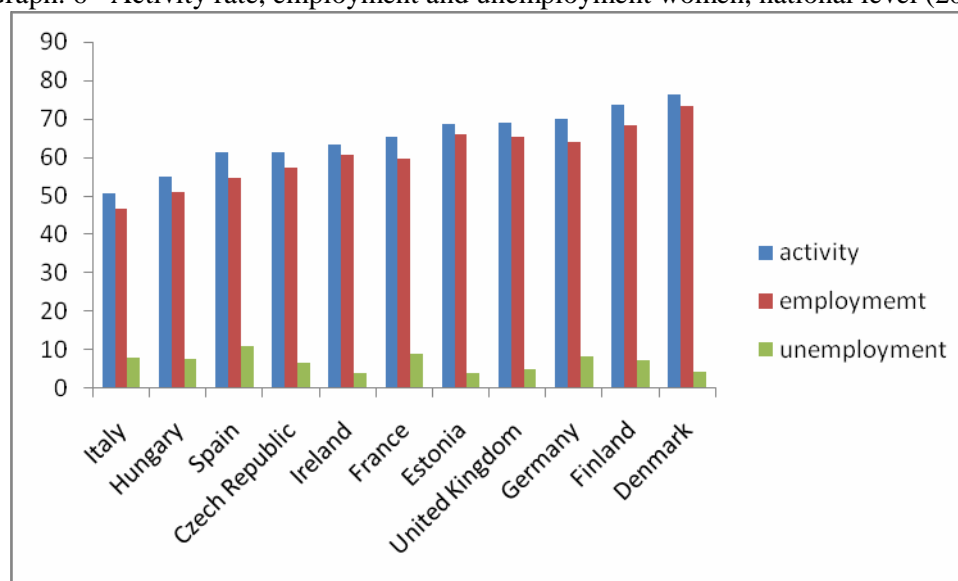
Source: Different local statistics

Thirdly, another key factor is related to the transformations in the cultural attitude of women towards paid work. In general, paid work has grown in most countries, although from different –starting points (Hult and Svallfors, 2002): in some national or local contexts it has been historically high (i.e. Denmark or in Bologna), while in other countries it has been growing fast during the last decade (i.e. in Spain or in Dublin). However, on the opposite it is important to highlight that in some former socialist countries, such as Hungary and Czech Republic, there has been a sort of decline in the public support towards female employment, both in terms of welfare provisions for family care and cultural norms and values.

Finally, the decline of the –male breadwinner model has gone hand in hand with the rise of female paid work (Duncan and Irwin, 2004) in order to gain additional income in the family or to face the challenge posed by the increasing number of single parents, especially in countries where the divorce rates have been growing.

As a result of these transformations, in the cities considered in the present research the percentage of women in the labour market used to be quite high, both at the national (Graph 6) and at the local levels (Table 1) before the economic crisis in 2008, although with some particular exceptions.

Graph. 6 - Activity rate, employment and unemployment women, national level (2007)



Source: Eurostat

In particular, Italy used to stand out for a very low level both of female employment and activity rates in contrast to the peculiar situation of Bologna in the national framework, characterised by a high level of women's participation in the labour market (68%). A similar pattern affects the situation of Terrassa in Spain, while the opposite condition characterises the female integration into the labour market in Brno and Nantes, that is lower in comparison with their national contexts (the first city mainly because of a low availability of work opportunities in the service sector; the second because of a high percentage of students in the total population). The other cities seem to be placed in a similar position as their national contexts, in particular showing very high employment rates in Aalborg, Leeds and Jyväskylä.

Table 1- Activity rate, employment and unemployment women, local level (2007)

|                        | Activity rate | Employment | Unemployment |
|------------------------|---------------|------------|--------------|
| <b>Brno</b>            | 57,6          | 45,4       | 8,2          |
| <b>Szekesfehervar*</b> | 49,6          | 46,7       | 6,0          |
| <b>Nantes</b>          | 65,6          | 56,4       | missing      |
| <b>Dublin</b>          | missing       | 60,6       | 3,5          |
| <b>Terrassa**</b>      | 69,5          | 61,5       | 7,8          |
| <b>Tartu</b>           | 63,8          | 61,6       | 4,1          |
| <b>Hamburg</b>         | 71,0          | 64,9       | 8,4          |
| <b>Bologna</b>         | 68,1          | 66,0       | 5,9          |
| <b>Jyväskylä</b>       | 65,1          | 68,5       | 7,2          |
| <b>Leeds</b>           | 72,0          | 68,5       | 4,9          |
| <b>Aalborg</b>         | missing       | 70,1       | 5,9          |

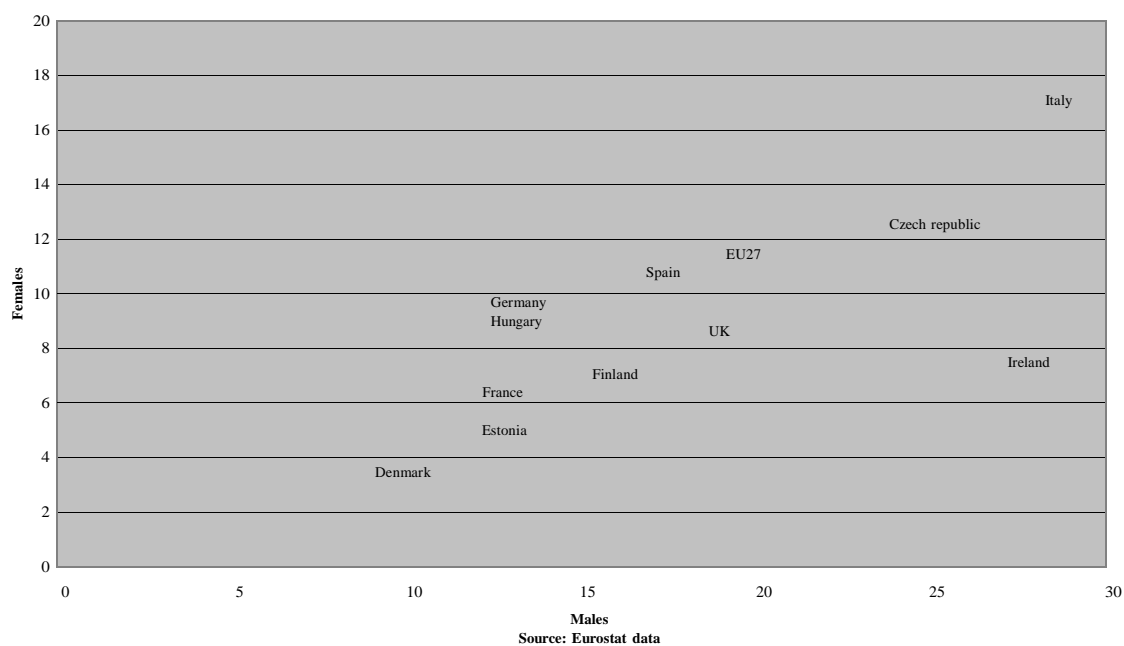
Source: Different local statistics

\*regional; \*\*regional

Differences among cities have also to do with diverse characteristics of female employment. In order to fully understand these differences it is important to consider the relevance of different kinds of employment such as part-time, temporary as well as self-employment.

One of the ways in which FLOWS cities diverge is in relation to part-time employment. For example, in Leeds, a city with a high employment record, a large percentage of women is employed part-time (about one third), while this condition is not so popular in cities such as Hamburg, Bologna, Tartu, Terrassa (around 20%) and is very low in cities such as Brno or Szekesfehervar. Moreover, other types of employment have been singled out for discussion in the city reports: self-employment and fixed-term contracts versus standard ones. FLOWS cities/countries exhibit a large variety of situations with respect to these themes.

**Graph 7**  
**Self-employment as a share of total employment by sex**  
**FLOWs countries, 2009**



In absence of regional or urban data, in Graph 7 we have used Eurostat indicators for FLOWs countries with the aim of producing a general overview of the situation. As can be seen from this figure, patterns of self-employment by sex are quite diverse in FLOWs countries. As can be easily observed, there is a very high positive correlation between male and female self-employment rates ( $R = 0.78$ ).

In all FLOWs countries men's self-employment rates are higher than women's self-employment rates. While male rates range from 8.5% (Denmark) to 27.4% (Italy), female rates range from 3.5% (Denmark) to 17.3% (Italy).

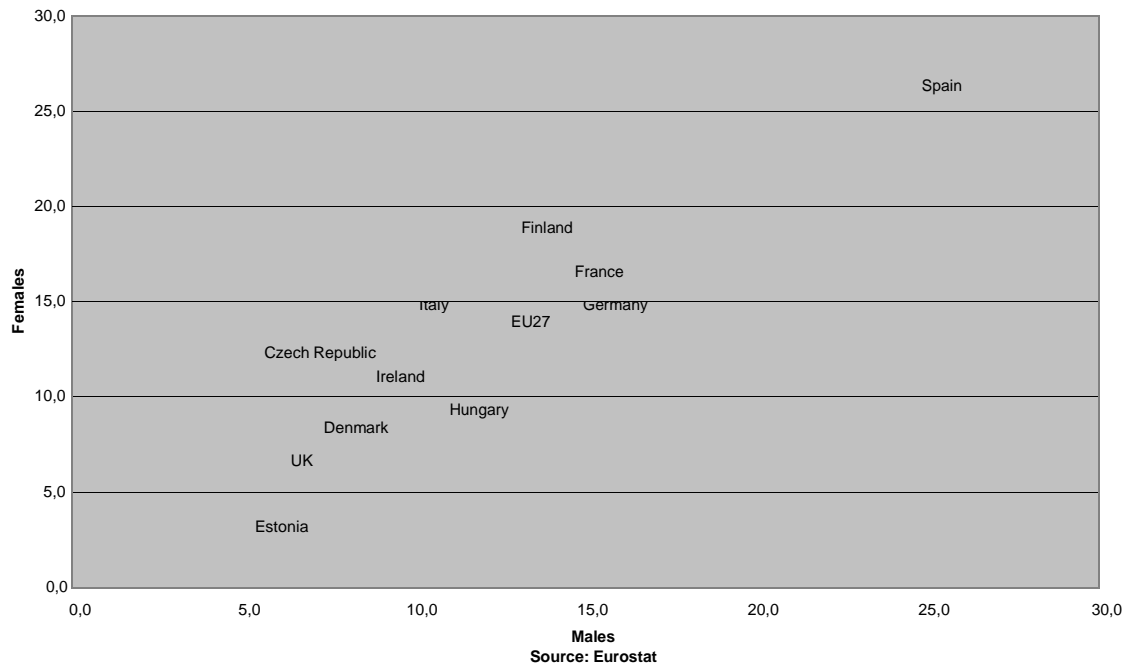
Ratios between male and female self-employment rates range from Spain, Italy and EU27 (around 1.6) to Ireland (3.5). Except for Spain and Italy, ratios for all FLOWs countries are above the EU27 average.

Denmark is the country where there are less self-employed among the selected countries. On the other extreme, both Italy and Ireland appear as outliers but with very distinct features because of the much larger gap between male and female rates in Ireland.

In FLOWs cities there are general low levels of self-employment among women (below 10%), with the exception of Bologna where self-employment is at very high level (25%), consistent with the

Italian national pattern of economic development. However, self-employment rates are growing almost everywhere.

Graph 8  
Percentage of employees with temporary contracts by sex  
FLOWS countries, 2010



Another characteristic of the labour market that it is reviewed by reports is the prevalence of temporary employment among men and women in the FLOWS cities. Except for Estonia and Hungary, in the rest of FLOWS countries the percentage of women with temporary contracts is higher than that of men's (Graph 8).

Estonia is the country with less temporary contracts (under 5%) and Spain is the one with more (about a fourth), the EU27 average being around 13-14%. The position of Spain is unique in that one of the consequences of the crisis has been a decrease in temporary contracts. In the last two decades the rate used to be about a third, with a peak of 34% in 2006. A very high positive correlation appears between the rates of fixed-term contracts for males and females ( $R = 0.95$ ).

In some urban contexts, women are likely to be employed under fixed-term contracts. For example, its share is very high in Terrassa 25%; medium in Bologna, Brno, Dublin (around 10%) and lower in Aalborg, Leeds and Tartu. Especially in cities where non-standard positions are more widespread, they are likely to affect more women than men, in some case both high- and low-skilled (Bologna), in other contexts especially low-skilled (Dublin).

A number of reports provide information about the sectors and occupations where women are particularly concentrated affected by instability and undeclared work conditions. In Szekesfehervar the fixed term contracts in the public services are often for a period shorter than a year, due the recent austerity measures introduced by the national government. In Jyväskylä the private service sector is low-paid, and more often offering part-time and temporary jobs. 80% of the service union's members are women. In Dublin women who work part-time may experience greater instability than women working full-time. Furthermore, temporary, casual or atypical contracts offer no long-term employment security. In Bologna high-skilled women, who are growing in number,

usually access the labour market in a position of insecurity and contract instability, which might lead to an institutionalization of precariousness. On the other hand, 10% of employees in services have been reported to be in a condition of undeclared work. In Terrassa part-time employment tends to be unstable and mainly consists of low-qualified and poorly paid positions. More than half of part-time work is temporary or informal, and job turnover is very high.

### **3 Horizontal and vertical gender segregation: gender pay gap**

It is useful to distinguish horizontal sex segregation where the different sexes work in different types of occupation from vertical sex segregation by which male employees are concentrated in the higher-status and better-paid positions. Horizontal segregation arises when men and women do different types of work in the occupational structure. It mainly refers to the underrepresentation of women in manufacturing and craft jobs and their overrepresentation in service sector jobs. In turn, vertical segregation arises when men have a near monopoly of the higher status occupations, while women are concentrated in the lower-status jobs. It especially refers to the underrepresentation of women in high-status, such as managers, and their overrepresentation in low-status occupations such as clerical jobs (Marshall, 1998; Estévez-Abe, 2005). The distinction between horizontal and vertical segregation is often taken as equivalent of gender segregation in sectors and gender segregation in occupations.

However, the distinction among horizontal, vertical and hierarchical segregation is less straightforward than that between occupational and sectoral segregation, and it has evolved over the years. In the early debate, vertical segregation referred to the under (over) representation of a clearly identifiable group of workers in occupations or sectors at the top of an ordering based on ‘desirable’ attributes — income, prestige, job stability, etc. Horizontal segregation was understood as under (over) representation of that particular group in occupations or sectors not ordered by any criterion, and it was often referred to as segregation tout court. Underrepresentation at the top of occupation-specific ladders was subsumed under the heading of ‘vertical segregation’, whereas it is now more commonly termed ‘hierarchical segregation’ (Bettio and Verashchagina eds, 2009).

These debates over the conceptualisation of sex segregation are entangled with other technical discussions on how to measure vertical and horizontal sex segregation. To the on-going debate on the various merits and demerits of main indices proposed to measure segregation (Bettio and Verashchagina eds, 2009):

- the standardised or Karmel and MacLachlan index (IP)

- the Duncan and Duncan index of dissimilarity (ID)

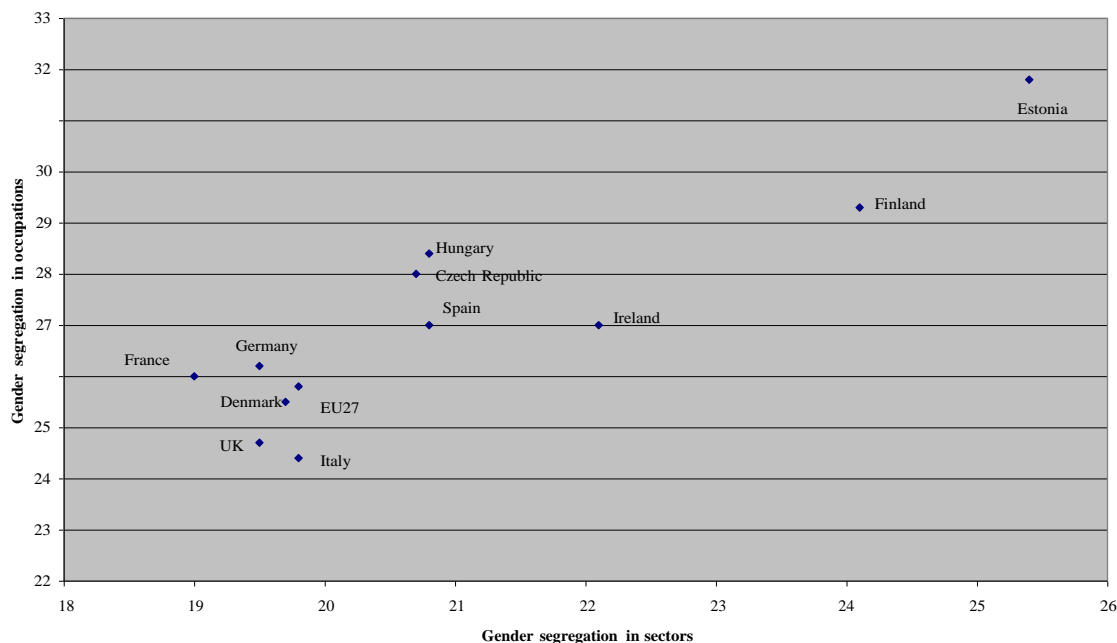
in what has been termed as the index war, one must add the arguments on the extent to which they are affected by different classifications (or levels of aggregation) of sectors and/or occupations and on how to interpret them properly. To only give one single example, some authors claim that there is often a misspecification of vertical and horizontal components of segregation and that, not being really independent these two dimensions, there would be a conflation of these components of segregation (Watts, 2005). The lack of regional data on the distribution of employed males and females in different sectors and occupations provided regularly by Eurostat is paralleled by the difficulties of obtaining updated data on FLOWS cities using similar criteria.

Sex segregation is a fundamental empirical ingredient in the distribution of employment and as such it both structures the labour markets and is structured by them. It is one of the fields in which



gender inequality is most reflected in the labour market and it is associated with job opportunities, working conditions, gender pay gap and patterns of union density. It is important to understand whether there are still occupations characterised by a strong sex typing, but it is more relevant to analyse the extent to which certain female-dominated occupations are associated with less favourable conditions of work (i.e. low salary, reduced chance of career progress and high diffusion of non-standard employment). Whilst the European employment strategy identifies reducing the gender wage gap as an objective in its own right, addressing gender segregation in employment is potentially relevant to additional objectives, and specifically to reducing skill shortages in the EU countries and making use of the entire labour force potential (Bettio and Verashchagina eds, 2009). In order to start the assessment of gender segregation in the labour market in FLOWS cities, we have thought it would be useful to provide an outline of the relative position of FLOWS countries as far as horizontal (sectoral) and vertical (occupational) segregation are concerned.

Graph 9  
Gender segregation in occupations by gender segregation in sectors  
FLOWS countries, 2009



Source: EU Indicators for Monitoring the Employment Guidelines

Graph 9 provides a summary statement of the relationship between gender segregation in sectors and occupations in the FLOWS countries. Data have been drawn from Indicators for monitoring the Employment Guidelines (2010 Compendium), which as far as we know is the only EU source where it is possible to find long series of these two dimensions. Sectoral segregation has been assessed using the NACE classification of economic activities and occupational segregation using the ISCO classification of jobs. It is not clear how the indicators have been calculated (which disaggregation level has been used), but it is very likely to be IP index (standardised or Karmel and MacLachlan index) because according to Bettio and Verashchagina, it is the reference index for monitoring gender equality within the European employment strategy. It can be interpreted as the share of the employed population that would need to change occupation (sector) in order to bring about an even distribution of men and women among occupations or sectors. In percentage terms the index ranges from 0 in the case of complete equality to 50 when

there are as many women as men in employment working in completely segregated occupations/sectors (Bettio and Verashchagina eds, 2009).

As expected, data for FLOWS countries depicted in Graph 9 show a very high correlation between measures of occupational and sectoral sex segregation ( $R = 0.88$ ). Following different levels of sectoral and occupational segregation three clusters appear:

High segregation: Estonia (and to a lesser extent Finland) as outliers.

Medium segregation: Hungary, Czech Republic, Ireland and Spain

Low segregation: Rest of countries close to EU27 average. France has the lowest horizontal segregation; Italy the lowest vertical segregation.

| Table 2<br>Sectors often mentioned in reports as typically |                |               |                          |                  |                           |                               |                         |
|--|----------------|---------------|--------------------------|------------------|---------------------------|-------------------------------|-------------------------|
|  | Male-dominated |               |                          | Female-dominated |                           |                               |                         |
|  | Construction   | Manufacturing | Transportation & storage | Education        | Health care & social work | Accommodation & food services | Domestic service & care |
| <b>Aalborg (Denmark)</b>                                   | 90%            |               | 78%                      | 58%              | 81%                       | 53%                           |                         |
| <b>Terrassa (Spain)</b>                                    | ***            | ***           |                          | ***              | ***                       | **                            | ***                     |
| <b>Nantes (France)</b>                                     | Missing        | Missing       | Missing                  | Missing          | Missing                   | Missing                       | Missing                 |
| <b>Hamburg (Germany)</b>                                   | ***            | **            |                          | ***              | ***                       |                               |                         |
| <b>Brno (Czech Republic)</b>                               | 77%            | 72%           | 66%                      | 60%              | 78%                       |                               |                         |
| <b>Szekesfehervar (Hungary)</b>                            | ***            | *             | ***                      | ***              | **                        | *                             |                         |
| <b>Leeds (UK)</b>  | ***            | **            | ***                      | 69%              | 69%                       |                               |                         |
| <b>Jyväskylä (Finland)</b>                                 | ***            | ***           |                          | **               | **                        |                               |                         |
| <b>Tartu (Estonia)</b>                                     | 93%            | 57%           | 72%                      | 84%              | 87%                       | 74%                           |                         |
| <b>Dublin (Ireland)</b>                                    | 97%            |               | 79%                      | 74%              | 82%                       | 57%                           |                         |
| <b>Bologna (Italy)</b>                                     | 93%            | **            | **                       | 73%              | 62%                       | **                            | 78%                     |

Observations: (1) % for male- female-dominate sectors refer to the shares of men/women employed in each sector, respectively

(2): \*/\*\*/\*\* refer to the extent to which men/women shares to total employment in each sector exceed those of the other sex

Table 2 shows data on male- and female-dominated specific subsectors drawn from city reports. The sector of construction is cited by all reports as the most heavily male-segregated. This pattern seems to cut across different welfare/production regimes. Transportation and storage is another specific subsector with a high concentration of male employment. However, we have not been able to find evidence of this feature in all cities. Manufacturing is a third mostly male-dominated sector. Nevertheless, data show this prevalence in various degrees and this probably reflects the fact that it is a very large, complex sector with a varied composition in different cities.

In all cities education, health care and social work are subsectors mentioned as very intensely female-dominated, whose development has gone hand in hand with the expansion of the welfare state. To a lesser extent than that previous subsectors, accommodation and food services shows also concentration of female employment, but evidence for some of the cities is lacking. Finally,

Terrassa and Bologna feature as main cities with an important subsector of domestic service/care, where mostly female immigrants are often casually and/or informally employed on a part-time basis.

| <b>Table 3</b>                                     |   |  |
|--|---|--|
| <b>Concentration of women in the public sector</b> |   |  |
|  | <b>Share of all female employees working in the public sector</b> | <b>Share of women among all employees working in the public sector</b> |
| <b>Aalborg (Denmark)</b>                           | <b>48%</b>  | <b>Not available</b>   |
| <b>Terrassa (Spain)</b>                            | <b>20%</b>  | <b>64%</b>   |
| <b>Nantes (France)</b>                             | <b>Missing</b>  | <b>Missing</b>   |
| <b>Hamburg (Germany)</b>                           | <b>26%</b>  | <b>64%</b>   |
| <b>Brno (Czech Republic)</b>                       | <b>45%</b>  | <b>60%</b>   |
| <b>Szekesfehervar (Hungary)</b>                    | <b>44%</b>  | <b>Not available</b>   |
| <b>Leeds (UK)</b>                                  | <b>37%</b>  | <b>Not available</b>   |
| <b>Jyväskylä (Finland)</b>                         | <b>49%</b>  | <b>75%</b>   |
| <b>Tartu (Estonia)</b>                             | <b>Not available</b>  | <b>44%</b>   |
| <b>Dublin (Ireland)</b>                            | <b>Not available</b>  | <b>64%</b>   |
| <b>Bologna (Italy)</b>                             | <b>20% (men+women)</b>  | <b>50%</b>   |

Table 3 provides information about the concentration levels of women in the public sector. Two different dimensions have been considered:

Share among all female employees which are working in the public sector

Share of women among the all employees which are working in the public sector

Data for both dimensions are not available in some of the cities.

Terrassa seems to be the city with less women working in the public sector (20%) as a percentage of all female employees; percentages for Jyväskylä and Aalborg are close to 50%. On the other hand, Tartu is the city where less of the half of those employed in the public sector are women. In Jyväskylä about  $\frac{3}{4}$  of public employees are women.

The analysis of information from city reports about vertical segregation reveals many commonalities. In Terrassa the activity branches with a higher index of vertical segregation are the construction (64.2%) and the transport (50.8%) sectors. In the period 2002-2007 vertical segregation shows an ascending trend since women tend to venture into the labour market being employed in professional categories where they are already overrepresented.

In Bologna women are usually concentrated in non-technical white-collar activities, especially in the manufacturing sector. In fact, 48.4% of employed women are working as white collars compared to 33.9% of men, while less than 10% of them work as blue collars or artisans (versus 35% of men).

In Aalborg vertical segregation is noticeable at the leadership level, where 4.1% of men belong to this category, while it is only 1.8% of the employed women. Within advanced services, men are very overrepresented within top level wage earners as well as managers and executives, while women are very overrepresented within the lower level wage earners. Similarly, within the social, public sector services, most men work as either top or middle level wage earners, while most women work as either lower or middle level wage earners. This indicates that horizontal and vertical segregation might go hand in hand, at least within the service sector.

In Szekesfehervar legislators, senior officials and managers, technicians and associate professionals, clerks, craft and related trades workers and elementary occupations are heavily segregated. Although there is no sectoral gender segregation in manufacturing, women are more likely to be technicians or working in elementary occupations, while men tend to work as craft workers.

In Brno the armed forces as well as craft and related trades workers are highly segregated, male-dominated occupations. The categories Plant and machine operators and assemblers as well as Legislators, senior officials and managers fall among the medium segregated occupational categories. The two most heavily female-dominated occupations are clerks as well as service and shop and market sales workers.

Vertical segregation is the most acknowledged gender specific problem in Estonia. By the late 2000s the proportion of females in the highest level occupations had decreased and the proportion of males has increased in relation the previous decade. In 2007 only 37.5% of legislators, senior officials and managers were females and the gender division differs across the management levels. Only 11.4% of craft and related trade workers were female.

Only a very small proportion of women in Leeds work as process, plant and machine operatives in factory or similar workplaces. There are however a much higher proportion of women than men in –personal services and –administrative and secretarial roles, and 5% more women in –sales and customer service roles. Conversely we can see that women are underrepresented in –managerial and senior roles, with only 10%.

In Ireland gender vertical segregation in occupation has remained between 26.7% and 28% during the years 2000-2009 according to EC indicators. In comparison to one another, the occupations experiencing the greatest gender segregation throughout 1998-2010, are those of ‘\_Craft and related’, being dominated by men (90% or more), and ‘\_Clerical and secretarial’, being dominated by women (75% or more).

Finally, some city reports give information about horizontal and vertical segregation in connection with immigration status. However, in some cases this is not always relevant considering the different degree of salience of immigration as an issue in FLOWS countries.

In Jyväskylä, the number of immigrants is very small (2.3% of the population) and there is no specific data available on how they are located at the labour market. Unemployment is among immigrants higher than among Finnish labour force, 24% for men and 32% for women in 2005.

Two groups of immigrant are of special interest in Brno: Ukrainians and Vietnamese. Ukrainian men work predominantly in construction and industry (64% and 20%). For women the most important sector are industry and retail trade sector (20% and 18% respectively). The Vietnamese are mostly concentrated, men and women, in wholesale and retail trade (80% both).

In Terrassa foreign women are concentrated in certain sectors and occupations. The foreign population mainly consists of migrants from North Africa (especially from Morocco) and from Latin America (especially from Ecuador). While Moroccan migrants form the larger group in the

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foreign population, Latin American women practically crowd out the sector of domestic service, including care services to dependent elderly people.

In Bologna women are mostly employed in hotels and restaurants (9.8%), home care for families (16.91%) and professional care (38.07%). These positions might become an occupational trap in which most of the female migrant workers are stuck, as in Italy non-professional care is characterised by low salaries, long working hours and a high rate of undeclared work.

One of possible consequences of horizontal and vertical segregation is the widespread pervasiveness of gender pay gap. This condition is present in all the cities where information is available.

Several factors are underlying this outcome, which comes about for several reasons and through various mechanisms:

- a) the lower level of time devoted to paid-work may trigger pay gap in contexts where part-time and/or temporary jobs are more widespread;
- b) the high level of vertical segregation, due to the strong persistence of discrimination and self-segregation related to the traditional role of women in family care. Critical analyses have shown that starting from early education, boys and girls are directed towards separate choices which feed the occupational segregation;
- c) finally, the condition of disadvantage affecting ethnic minorities and immigrant women. In some cities there are particular minorities affected by higher level of unemployment (Leeds); in other cities, especially undocumented immigrants are more likely to be segregated in informal jobs (Bologna); in general, they are concentrated in family care sector.

Table 4 – Gender pay gap in 2007

|                  |      |
|------------------|------|
| Aalborg          | 77,3 |
| Bologna          | 77,0 |
| Brno*            | 74,8 |
| Dublin           | 69,5 |
| Leeds            | 75,0 |
| Szekesfehervar** | 86,0 |
| Tartu***         | 74,6 |
| Terrassa****     | 75,6 |

\*national; \*\*2009;\*\*\*2005; regional 2008.

Source: different local statistics

For example, in Jyväskylä the gender pay gap in 2009 was largest in the municipal sector (local government sector) where women's salaries were 80.9% of those of men, in private sector 81.7% and state sector 83.2%. In 2008 in Aalborg employed women earned 22.8% less than men during the year, while the corresponding gender gap was 20.3% at the regional level. On the other hand, in Hungary, at NUTS 3 level, the gender pay gap has declined since 1995 from 70% to 80%, and during the economic crisis the gap became smaller. In the UK the level of full-time work women still have much lower average pay than men but in part-time work, women's average pay is actually higher. In Italy the gender gap between men and women is in general about 80%: women employed in the same position earn 20% less than men and this is a stable trend since early 1980s.

In the city reports we have found several comments concerning sectors and occupations where women are particularly concentrated affected by low salaries. In Hamburg the lowest wage for women is in hairdressing (1.362 Euro). In Brno the sector of financial and insurance activities (banks, insurance services, etc.), which is slightly female-dominated, the gender pay gap is 49%

less. The gender pay gap is also high in other occupations such as legislators and seniors (38.9% less), craft and trade workers (31.1% less) and professionals (28.9% less). In Aalborg the gender pay gap is high in liberal, technical and scientific services (31.4% less), retail (35.8% less) and finance and insurance (28.5% less). In Bologna and Terrassa personal and family services, mainly provided by female immigrants in the households, are also affected by low salaries.

Finally, all reports deal with the existence of minimum wage schemes in FLOWS countries. No statutory minimum wage exists in countries such as Denmark, Germany, Finland and Italy. In these countries wage levels are agreed by collective agreements for specific industrial sectors or even occupations. Nevertheless, in Germany and Finland some sectors have a minimum wage agreed in specific collective agreements. In Germany these are the sectors in which competition from abroad is to be expected: construction, waste industry, electricians, cleaning, money transport and security firms, care, laundry services and forest workers.

In Spain, Hungary and the Czech Republic the national minimum wage is set through collective bargaining among the government and social partners (trade unions and employers' organisations).

In the UK, the national Minimum Wage depends on age and whether the employed person has -apprenticell status or not.

Estonia, together with Hungary and the Czech Republic, belong to the group of FLOWS countries with the lowest minimum wage levels. On the other hand, Ireland and the UK are among the FLOWS countries with the highest minimum wage levels.

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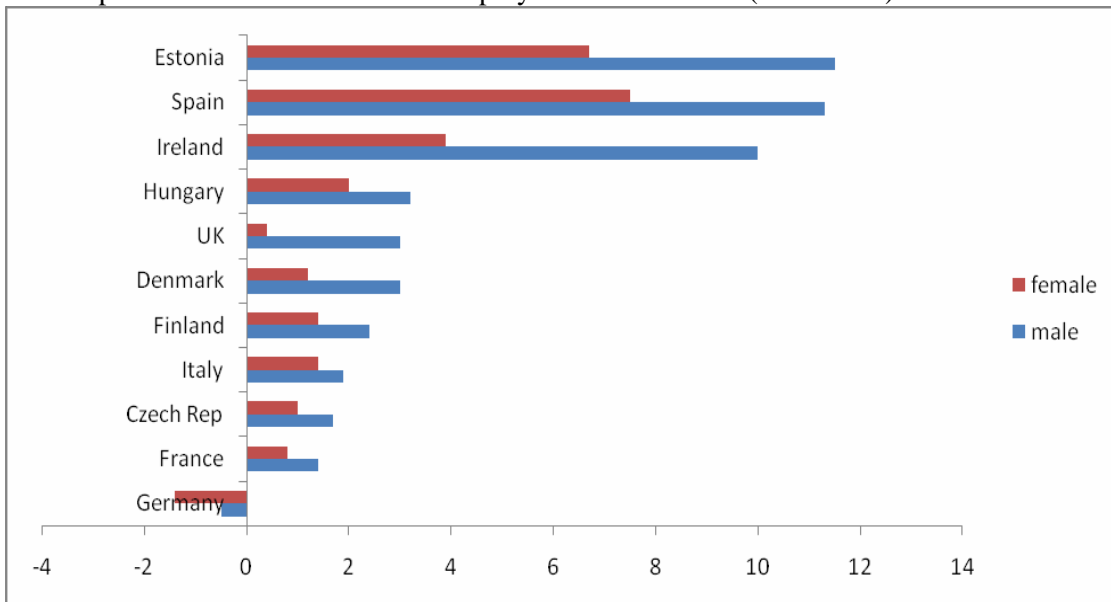
## 4 Impacts of the economic-financial crisis on female and male employment

The effects of the crisis have started to be evident in the national statistics in 2009. As Eurostat data show, there is little doubt that women's unemployment rates have increased between 2007- 2009, but less than men's unemployment rates (Graph 10). In general, the reasons why the effects of the crisis in terms of unemployment have been more evident for men are basically two:

Firstly, the economic sectors more involved in the crisis have been the construction and manufacturing sectors where men are more likely to be concentrated, while the service sectors have been less affected;

Secondly, a mechanism of family balance: when the breadwinner becomes unemployed, the woman is more likely to look for a job in the service sector, although low-paid and temporary.

Graph. 10 – Increase/decrease unemployment men/women (2007-2009) at national level



Source: Eurostat

The crisis has been particularly tough in countries such as Estonia, Spain, Ireland, with a strong gap between men and women affected by unemployment. In other countries the increase in female unemployment has been very low (UK) or there has even been a tiny decrease (Germany); moreover, a growth between 3-1% has been reported in the other national contexts.

The situation of the cities where data are available (Table 5) is not so far from the national contexts. A higher increase in female unemployment has been reported in Terrassa and Tartu, and the more stable situations (taking into consideration also the increase in employment) have been registered in Aalborg, Hamburg, Jyväskylä and Szekesfehervar. Only Leeds seems to have been more affected by the crisis in comparison with the national framework.

Table 5 – Increase / decrease in employment and unemployment in cities, between 2007-09

|                 | Employment | Unemployment |
|-----------------|------------|--------------|
| Aalborg         | 1,2        | -0,2         |
| Bologna         | -0,6       | 1            |
| Brno            | -1,5       | 0,3          |
| Hamburg         | 3          | 2,7          |
| Jyväskylä       | 0,6        | 0,7          |
| Leeds           | -1,6       | 2,2          |
| Szokesfehervar* | 1,4        | 1,2          |
| Tartu           | -4,2       | 7,6          |
| Terrassa        | -2,9       | 7,4          |

\*2010

Source: Different local statistics

## 5 The role of unions in promoting equal opportunities

Trade unions are a key social actor involved in fostering more equal employment opportunities between women and men. As shows the information collected in the different cities, trade unions may support: a) different actions and programs promoting actions to fight against vertical and horizontal segregation in collaboration with big companies or associations of entrepreneurs, as well as public institutions; b) programs for gender equality at different level of unions organisations. However, at present trade unions are facing a number of direct or indirect challenges in relation to this issue.

Firstly, in times of economic crisis especially affecting men's employment, gender equality does not seem to be a priority. Secondly, the unions are losing power everywhere because of a general decrease in the level of unionisation in all the FLOWS cities, with the noticeable exception of Dublin (34%) and starting from different points. For historical reasons, for example, the percentage of workers unionised in Spain is quite low due to the effects of Franco's dictatorship; the same happens in Hungary due to the bad reputation associated with unions under the Communist regime (20%). In other countries unionisation is at a very high level, especially in Denmark 71%, while in Bologna unions collect the 38% of employed people and in Leeds the 28%.

Another important factor is that in some countries unions play a major role in collective bargaining and in making other agreements (Denmark, Germany, Italy, Czech Republic), while in other contexts they only play a role as insurance fees collectors.

In general, men are more unionised than women, but the share of unionised women is growing everywhere, especially because of the increasing number of employed women in the total population and the decrease of male employment in sectors that used to exhibit a high union density (especially in manufacturing). Finally, the percentage of unionised employees is higher in the public sector, and this is one of the reasons explaining why the percentage of unionised women, at least in some countries, is growing or – at least - decreasing slower.



## 6 Future research agenda

At this stage it is too early to draw conclusions regarding the characteristics, commonalities and differences of local production systems from FLOWS cities. Previous comments and discussions are but a preliminary descriptive outline of information and data presented in the city reports. A proper comparative analysis should include an explanatory framework but also more time would be needed in order to make full sense of data drawn from city reports. This would mean not only to collate in depth different variables contained in the reports but also to take into account results emerging from research conducted by teams responsible for other work packages. Ideally, the final comparative analysis of local systems of production should add to theoretical debates concerning different typologies that have been proposed in the literature in terms of clusters, production regimes of varieties of capitalism (Chang, 2000; Estévez-Abe, 2005; Gallie, 2007).

In what follows a number of questions or issues for a future research agenda are listed:

Is it possible to find similarities and/or differences among all cities/countries?

Conceptual clarification of different types of segregation

Relationships between horizontal and vertical segregation. Accumulation or compensation?

Relationship between sex segregation and gender pay gap

Relationship between sex segregation and union density

Sex segregation and education. Are men and women employment preferences in terms of employment heavily influenced by choices made during the secondary education and/or vocational training?

Is the public sector more gender-neutral in terms of recruitment? Is the public sector really a more family-friendly sector?

Characteristics of social protection schemes of maternity/paternity leaves in FLOWS cities (Wall, 2007; Escobedo, 2008; Wall and Escobedo, 2009).

Which categories of the population have been more (negatively) affected by the economic crisis?

Who are rather the winners/losers of the crisis in terms of gender? Men or women?

Political recommendations: The lack of EU regional data (NUTS2 and NUTS3) disaggregated by sex for most standard indicators is a major obstacle to comparative analysis

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