STATISTICAL PORTRAIT OF WOMEN IN ICT IN BSR COUNTRIES

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Introduction

Lord Kelvin has claimed that "*When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind"*[1]. This sentence accompanied us while creating following article, which aim is to analyse the situation of women in the labour market with the focus on ICT (*Information and Communication Technology*).

Why following issue is so important? First of all it has to be marked that an increase of women's involvement in ICT sector will transform their lives for the better, as ICT is an efficient agent of change. Secondly, that increase will reduce labour market segregation and allow women to receive better salaries. Thirdly, an increased usage of women's IT skills will allow many companies, institutions and private persons to benefit from women's skills that have been not used before[2]. Moreover, women's participation in ICT sector- one of the most dynamic sector of economy, enable women to influence economic growth and alleviate the effects of the economic crisis.

Furthermore, demographic changes cause structural changes in labour market; many people live the labour market to retirement and women successfully take part in economic activities. It is essential to encourage them to train and find work in ICT sector. Next reason is the fact that gender differences in ICT can be analyzed for both equality and efficiency reasons.

Moreover, ICT participation equality policies and programmes are very important as the gender imbalance in the sector is not self-regulating, that is why proactive practices are essential[3]. Finally while promoting women's participation in ICT we must keep in minds how strongly Baltic Sea Region countries differ. For a precise estimation of the situation using statistical data is a must – therefore statistical analyses play the key role in following paper.

Basic definitions form the literature of the issue

As ICT sector in following paper it is assume production and services connected with information equipment and information technologies. To characterize the ICT sector

[1] "*Mathematical and physkal popers*" (1882-1912, 6 toms)

[2] "*Women and ICT - Status Report 2009*", European Commission, Information Society and Media, Luxembourg, 2010

[3] ibidem

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using statistical data the fields of computing, science and technology and highly developed knowledge-based sectors should be taken under consideration[4].

Defying a specialist, an employee in ICT, it can be said that this is a person with the ability to develop, operate and maintain ICT systems. ICT constitute the main part of person's job.

Users of ICT are divided into two groups: basic and advanced users. Advanced ICT users are competent users of advanced, and often sector-specific, software tools. ICTs in that case are tools and not the base of employment. Basic users are competent users of generic tools (e.g. Word, Excel, Outlook) needed for the information society, e-government and working life[5].

ICTs constitute the heart of the information society (IS), which is understood as: "total population with common and easy abilities of communication and access to needed information that amend conditions of their lives, work, and fulfilling civic duties"[6]. Bangemann (1994) defines IS as prepared and enabled to "usage of IT systems and telecommunication services for transmission and processing of information"[7].

In the specialised literature occur statements that information society is dominated by men. Sienkiewicz and Dębska have pointed out lack of women as objects while speaking about ICTs.[8]

First time, the term of IS was used in Japan in 1963– in a country with strong traditional division of social life for a public area destined for men, and private area destined for women. In more emancipated Europe IS was mentioned for the first time in Bangemann's report in 1994, together with a strategy of new technologies development. An important moment in development of IS in Europe was creation in 2000 eEurope initiation, which aimed in informatisation of member states.

Action plans such as eEurope+ or eEurope2005 were created and aimed in development of e-services such as: e-health, e-government or e-learning[9]. Letter "e-"marked itself in the information society citizen's life for good, even if not so long ago the only popular word was e-mail. This letter confirms the influence of electronic in newer and newer disciplines of human's life.

In the technical area, electronic as well, since very beginning men were playing the main role. According to statistical data form 1999 among Polish graduates of technical universities the percentage of women was 37

[4] OECD (2004a, 2006b, part 6)
[5] ibidem
[6] Report from 2nd Congres of Polish IT, Poznań, Warszawa 1999, http://www.kongres.org.pl/on-line/2-gi_Kongres/Raport_P_1.html#03.
[7] Bangemann M., 1994, in: Information Society In Poland. Results form years 2004-2008, GUS, Warszawa 2010.
[8] Dębska A., Sienkiewicz P., *Kobiety w społeczeństwie informacyjnym*, in: „Społeczeństwo informacyjne- wizja czy rzeczywistość?", AGH Uczelniane Wydawnictwo Naukowo-dydaktyczne, Kraków 2004.
[9] See: http://ec.europa.eu/information_society/eeurope/i2010/archive/eeurope/index_en.htm.

%, and in the year 2009- 38%. Considering studies connected strongly to electronic, the percentage of women oscillates around 1%. Lack of women in those areas is sometimes justified by women's lack of capacity for exact science. It seems that it is a „stereotype", in other words, easier and often false image that has stormed convictions of the mass.

Description of the research group and Source of statistical data

Empirical analysis was performed for 9 countries of the Baltic Sea Region, which consists of: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden and Norway. Statistical data from Eurostat, the European Commission and the OECD (the specific items listed in the literature) were used.

Results

The empirical part of the work is divided into two parts. The general part concerns population of BSR countries, economic activity in the labour market and employment. The second part, essential one, concerns women in ICT. It consists of a study about quantitative differences in the use of a computer, Internet and e-services, education and computer skills of women, as well as an analysis of the employment of women in ICT and management positions.

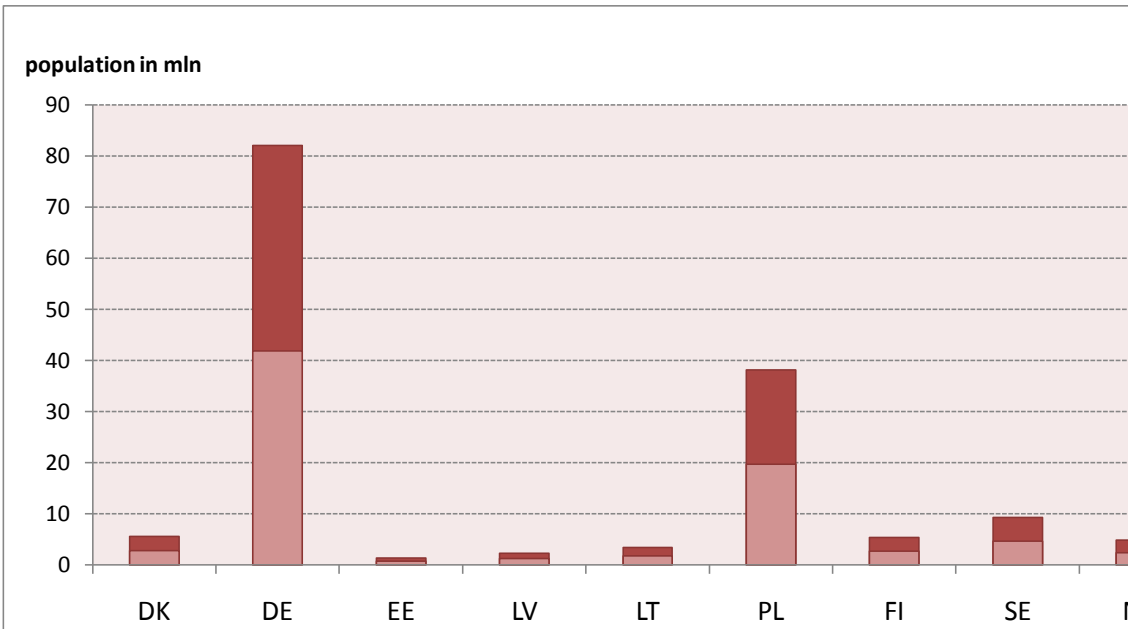

Fig. 1 Total and women's population in BRS countries in 2009

Source: Eurostat, Population database

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Baltic Sea Region countries highly diverse in term of size. This is important information in terms of common policies and programmes prepared and implemented in those countries. The most numerous of countries are Germany (82 million) and Poland (38 million). German population is over 10 million greater than the population of all other countries combined together. For the three smallest countries include Lithuania (3.3 million), Latvia (2.2 million) and Estonia (1.3 million), representing a total population does not exceed 7 million.

Women represent over 50% of all the countries. This relationship is rather constant for each country, i.e. does not change with time. The smallest percentage of women is in Norway (50%) and the largest in Estonia (54%), Latvia (54%) and Lithuania (53%). It can be said that the participation of women in general quantitative population is satisfactory, as opposed to the participation of women in the public sector. The latter, in fact, leaves much to be desired.

The size of the female population in every country is related to the number of economically active women, and thus involved (employed) or wanting to participate (seeking for job) in the labour market. Further analysis that were carried out were based on the percentages expressed as ratio of activity, however absolute millions of differences between the BSR countries cannot be forgotten.

Figure 2 compares the rate of economic activity for men and women between 1999 and 2009. Economic activity, according to the observation, is higher for more men than women; however in most of the countries the increase of the rate concerns women.

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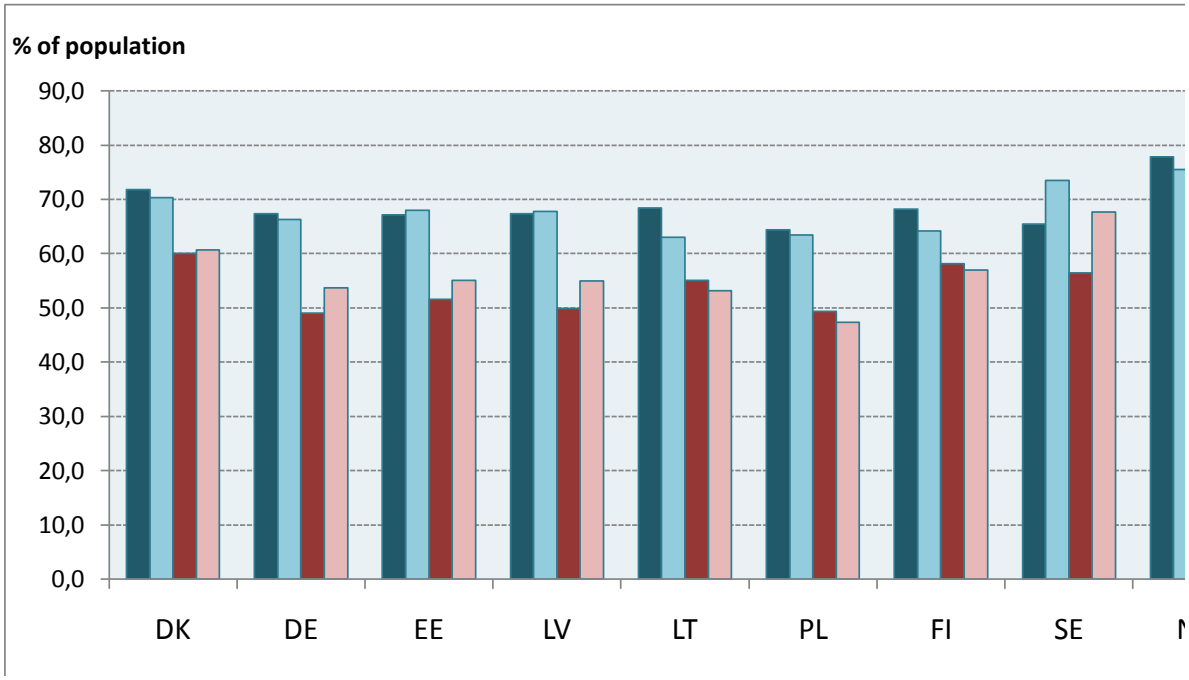

Fig. 2 Economic activity by gender (1999, 2009)

Source: Eurostat, Labour market database

Activity rate of men exceeds women's rate on average 10%. Comparing the years 2009 and 1999 6 out of 9 countries reported a slight decrease in the activity of men. Also, in 6 out of 9 countries occured an increase in economic activity of women. Only three countries recorded a decline of women's rate: Finland, Lithuania and the largest: Poland.

The highest activity was observed in 2009 for women in Norway, Sweden and Denmark. The lowest index values coincided with Poland, Lithuania, Latvia and Estonia. The greatest increase in growth rate or economic activity of women took place in Sweden: 11.3%.

A large gap between a two groups exists in countries where popular is a traditional model of functioning a family, in which a man is the "breadwinner" and a woman takes care of home. These countries are: Poland, Latvia and Estonia. Talking about a relatively low level of economic activity, because also in these countries, more than half of women in working age showed such activity. These countries are less wealthy in comparison with other BSR countries. The difficult situation on the labour market, lack of demand for labour, long-term process of starting and running an

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own business, high taxes and more, are factors that directly or indirectly lower economic activity. Large discrepancy between the level of economic activity for men and women were observed also in Germany. It can be also noted that although the difference was high in the last ten years was strongly reduced. In 1999 economic activity rate for German men was 18% higher than the rate for German women, and in 2009 by approx 13%.

In BSR countries, the higher the economic activity is, the lower differences in activity levels between men and women, which may mean that the better organized and more efficient labour market is, the less diverse roles of women and men. It means that women and men share equal responsibilities of work, the same time increasing popularity of domestic partnership model of division of tasks.

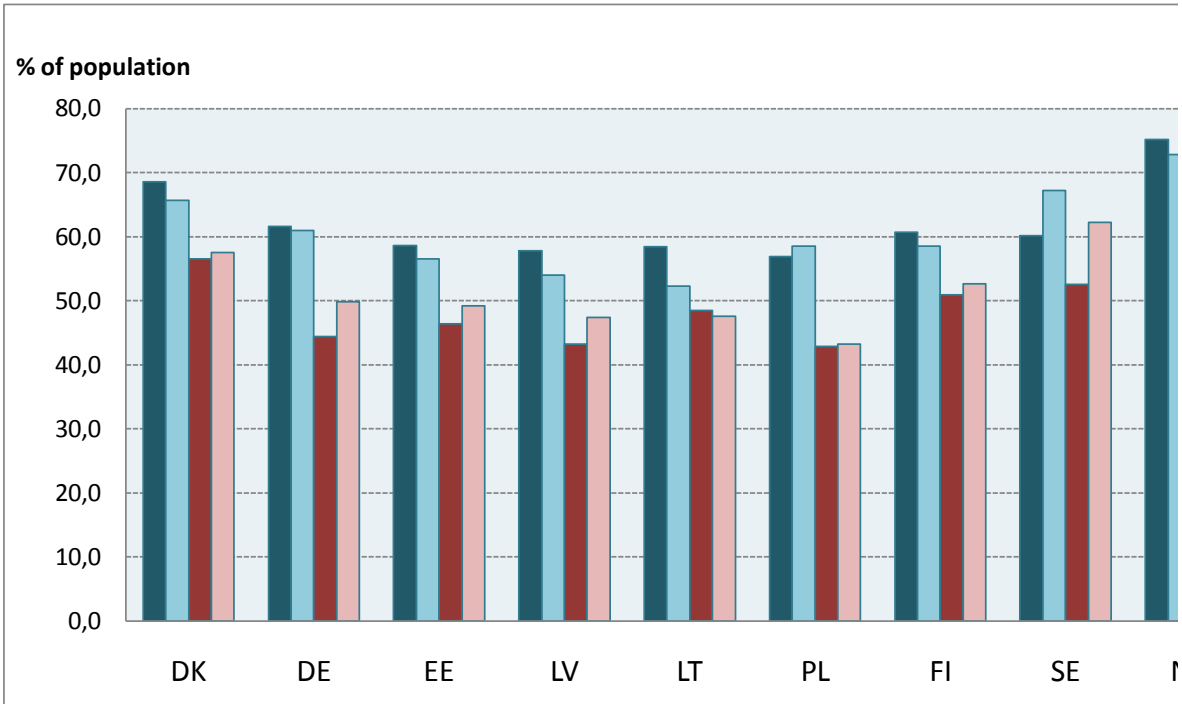

Fig. 3 Employment rate by gender (1999, 2009)

Source: Eurostat, Labour market database

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Subsequently (Fig. 3) employment rates of women and men were examined. The main thought was analyzing in which countries the difference between the two factors was the biggest and why. In all surveyed countries, male employment rates were higher than the rates for women. The essential reason is that women combine gainful work with the maternal function, and therefore more likely they interrupt or postpone the training activity. Institutionalized and well-organized child care system makes it easier to reconcile the two areas of life - the area of employment and family. In countries where this system is highly developed, as noted earlier, there are both high fertility rates and high employment levels. It should be noted that the high rate of employment for women often involve employment in part-time jobs. In Sweden, the share of employed in this way at all employees is the highest in comparison with other countries.

The smallest differences between the rates of employment for women and men in 2009 were observed in Norway, Sweden, Finland and Latvia. In the case of the latter the situation is due to a particularly low rate of employment of men - hence the difference between compared groups of women and men is low. The biggest differences was noted in Poland and Germany, however it has to be kept in mind that Germany lacks of homogeneity, and the constant differences in labour market conditions in the eastern and western Germany.

In most countries, i.e. in 8 to 9 (except Lithuania), an increase of women's employment in 2009 compared to 1999 was noted. It was caused by lower values of the coefficients for women, while implementing programmes, directives and recommendations of activating this group the labour market in the same time. In addition to programmes that support women in general, many of them focused on selected groups with particularly low level of participation in market activation programmes such as older women, women from rural areas or women who are returning to the labour market after childbirth. At the same time, in 7 out of 9 countries (except Poland and Sweden) took place a slight decrease in male employment rate.

The next (Figure 4) analyzed feature was unemployment in Human Resources in Science and Technology. It was observed that the wealthier northern countries of the BSR, the HRST unemployment rate is lower in comparison with poorer countries.

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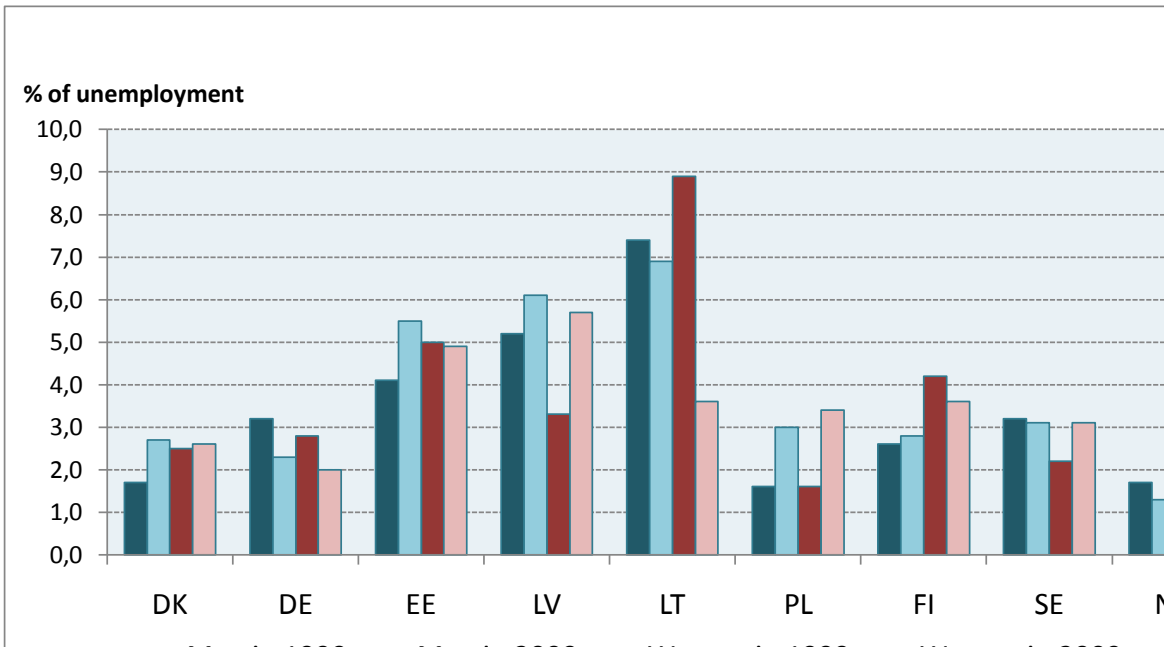

Fig. 4 Unemployment in HRST by gender (1999, 2009)

Source: Eurostat, Science and technology database

In 2009, the highest unemployment rate among women in the HRST was in Latvia (5.7% of unemployed women) and Estonia (4.9%). The lowest unemployment rate, which is the best situation, was observed in Norway (1.4%) and Germany (2%). It should be noted that, despite differences between countries in BSR, HRST unemployment rate was shown in very low figures (for women in 2009 even less than 6%).

Looking at the changes in the level of female unemployment in 2009 compared to 1999, should be noted that the least favorable changes were recorded in Sweden (10% increase in unemployment in HRST) and Germany (5% increase). The slight decrease in unemployment in the study group was observed only in Lithuania (0.9%).

The unemployment rate of women in the field of HRST is not high. The reason for this is a low demand for female workers in this area, sometimes caused by lack of appropriate skills, sometimes disbelief in their skills and abilities. The next part concerns associated with that fact statistics of frequency of computer usage by women in 2006 (Fig. 5).

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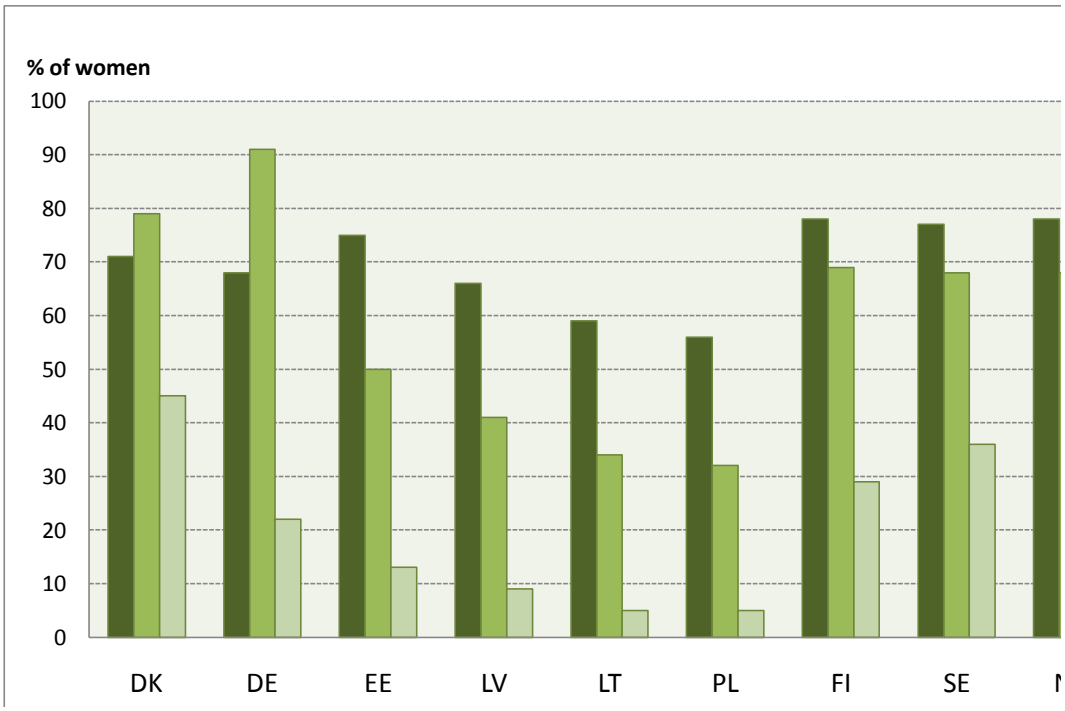

Fig. 5 Computer usage by age on average once per day in the last 3 months in 2006

Source: Eurostat, Community survey on ICT usage in households and by individuals

According to Fig.5 in BSR countries are very strong disparities in the use of computers by women in different age groups. Young people declare a common use of computer at least once per day. In Norway, Finland and Sweden nearly 80% of young women said that they use computer at least once per day. The objectives of where computers where used are very different, however more on this later. Slightly fewer were young women: Lithuanians and Latvians actively using computers.

In 7 out of 9 countries in the middle age group (25-54), moderate performance, i.e. higher than in the oldest group, lower from the youngest. The exception was Denmark and Germany, where the median age in the frequency of using a computer at least once per day was the highest. The worst results when it comes to computer use were observed in the oldest group. Why? One of the reasons is the fact that those people for most of their lives were living and working simply "without a computer." Only in some cases, the computer has become an indispensable tool for them. Not true to say that the usage of computers decreases with age. Young people who today very often use this tool, with time go to the next age groups and they will increase the result for those groups.

The next step was to analyze the use of the Internet (see Figure 6), which showed very strong differences both between BSR

countries and between age groups. Similar to the case of a computer usage, analysis for younger women using the Internet were higher, followed by middle-aged women, and at the last place with the oldest.

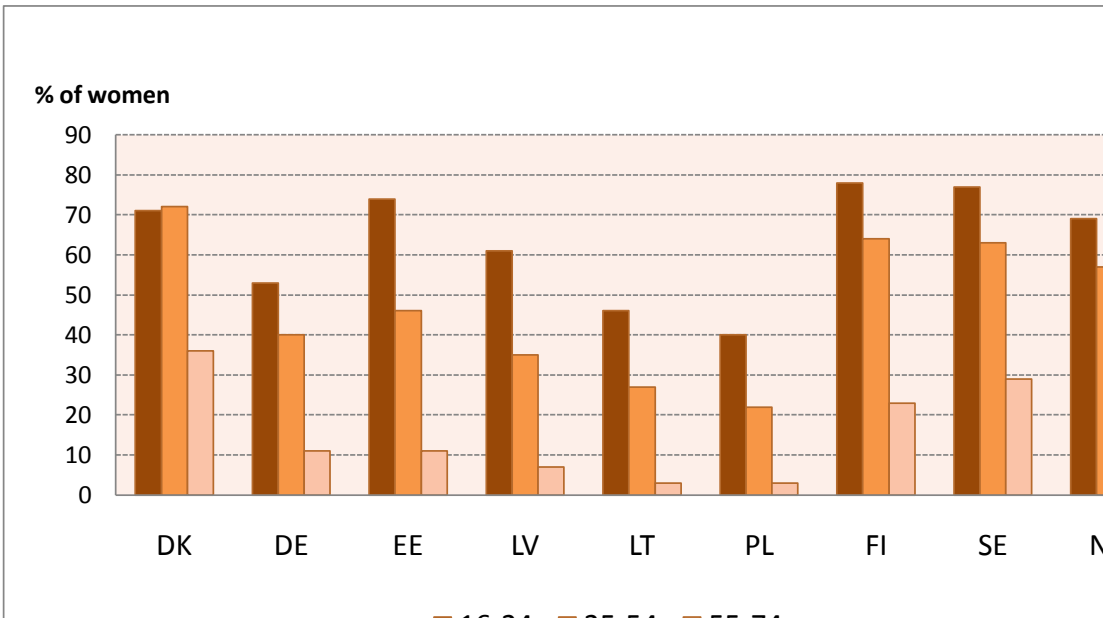

Fig. 6 Internet usage by age on average once per day in the last 3 months in 2006

Source: Eurostat, Community survey on ICT usage in households and by individuals

The biggest values were observed for young women in Finland, Sweden and Estonia, where more than 75% of women said they use the Internet daily in the last 3 months. The minimum value of the test coincided with a variable for oldest women in Poland, Lithuania and Latvia - on average 4% of women from that group use the Internet daily.

The relatively low frequency of Internet usage is also registered in Germany (11% of the oldest women use this tool of communication). The result would surely be different if analyzed separately for East and West Germany. This is a proof that the communist system and centrally controlled economy, which continued throughout the decade in some of BSR countries, such as PL, LT, LV, and Western Germany deprived economic growth and development of information society. Hence the strong differences in the case of many of the compared variables.

Less frequent use of the Internet described as "at least once a week" turned out to be considerably more common among women. The structure remains unchanged, young women use the Internet most frequently and least do the oldest. Impressive are the amount approaching 100%, characterized by

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use of the Internet by young women. In countries such as Finland, Sweden, Norway, Denmark and Estonia more than 90% of young women at least once a week use the Internet for different purposes.

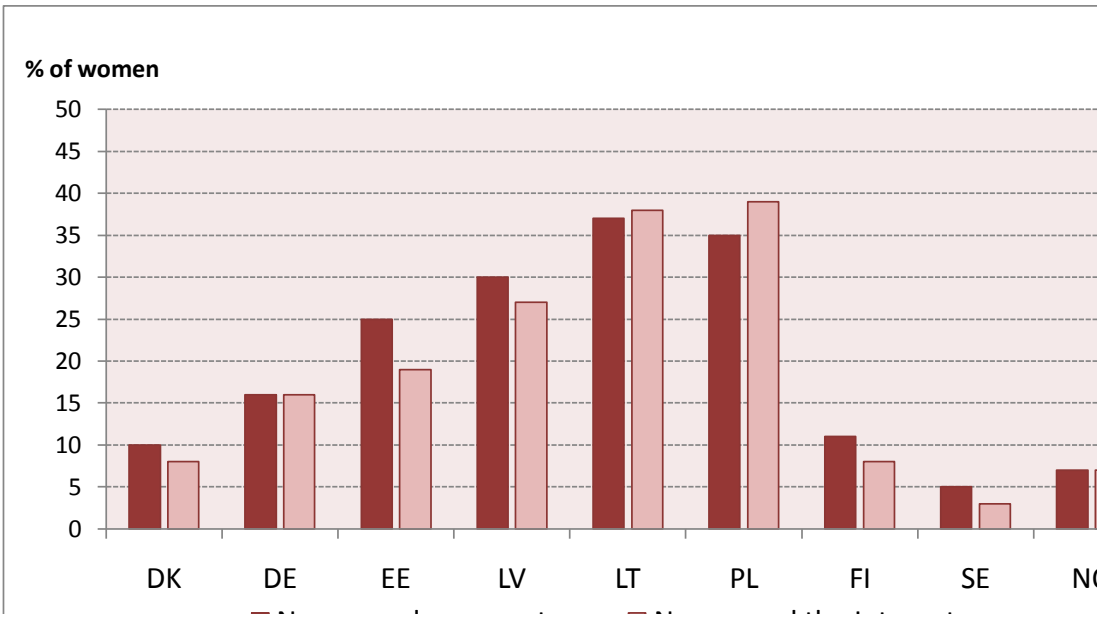

Fig. 7 Women* who have never used a computer or the Internet in 2009

*women in age of 16-74

Source: Eurostat, Information Society database

It is noteworthy that Estonia, which, although belonging to a group of poorer countries in BSR, in many cases (using a computer, Internet) presents high values of the variables tested. Why? First, it is a small country territorially, and therefore certain procedures and solutions for information technology shall be easier. Secondly, Estonia remained for a long time under the influence of Sweden taking a certain extent the culture of communication and standards of social behaviour from the North

Although there are some satisfying aspects of the use of communication tools presented earlier, it should be noted that in some BSR countries a large number of women does not use the computer and the Internet in general (see Figure 7).

There are two groups of countries, the first – well developed in terms of the information flow, prosperous northern countries such as Sweden, Norway, Finland and Denmark, where less than 10% of women did not use the internet or the computer. The second group consists of less developed countries,

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less wealthy: Poland, Lithuania and Latvia. In the first two countries: Poland and Lithuania almost 40% of women in age 16-74 have never used a computer and the Internet. Statistics of Poland itself refer to the approximately 6 million of Polish women .

Table 1 Usage of e-services among women between 16 and 74 in the last 3 months (2004, 2009)

Usage of:	*e-government*		*e-health*		*e-commerce*	
	2004	2009	2004	2009	2004	2009
DK	37,0	62,3	18,0	47,0	31,0	51,0
DE	28,6	31,5	25,0	43,0	-	51,1
EE	15,5	44,5	5,0	12,0	-	39,8
LV	14,0	24,0	9,6	38,0	2,0	8,0
LT	10,0	20,0	-	35,1	1,0	6,0
PL	11,5	16,4	2,0	16,0	6,1	26,4
FI	42,5	43,5	22,0	38,0	40,3	62,3
SE	33,6	46,9	28,0	44,0	22,7	43,9
NO	30,6	51,7	26,0	49,0	34,3	46,4

Source: Eurostat, Information society database

Study of the frequency of using computers and the Internet should be expanding into the purpose of using these tools. Table No. 1 presents data about the use of e-services and a clear increase in the popularity of all of them women was noted.

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Analyzing the usage of e-government, e-health and e-commerce in 2009 compared with 2005 all the countries noted an increase of the popularity of e-services. Particularly strong changes in the frequency range of movement occurred in Denmark, Norway and Sweden. For example, in Denmark the use of e-health services during the period increased by nearly 30%. Less developed countries also boast stunning increases.

In Estonia, the popularity of e-government services has increased by nearly 30%. Nearly 30% in Latvia has also increased the frequency of usage of e-health. Those are strong steps towards active participation of women in the information society.

Table 2 Internet activities by age in 2009

	communication			*sending/receiving e-mails*			*playing/ downloading .mp3, .jpg, etc.*		
	16-24	25-54	55-74	16-24	25-54	55-74	16-24	25-54	55-74
DK	96	89	60	94	88	60	53	30	13
DE	96	80	34	93	79	34	:	:	:
EE	98	77	26	96	76	25	76	33	4
LV	96	69	18	92	65	17	81	34	4
LT	90	58	13	88	53	11	75	28	3
PL	92	57	13	85	51	11	49	15	2
FI	97	91	46	97	91	46	75	37	11
SE	97	93	60	97	93	60	:	:	:
NO	100	90	56	99	88	56	50	34	13

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	banking			looking for job/sending application		
	16-24	25-54	55-74	16-24	25-54	55-74
DK	59	76	44	35	37	6
DE	34	48	16	35	23	3
EE	76	81	28	33	25	:
LV	56	60	14	39	29	5
LT	37	45	8	24	17	1
PL	23	28	5	18	11	1
FI	76	88	46	67	30	3
SE	71	82	44	45	28	5
NO	74	85	47	44	26	3

Source: Eurostat, Information society database

Analysis of the Internet activities of women by age in 2009 in % showed clear differences between countries and between different age groups. Examined were 5 categories of Internet activity in the last 3 months of year 2009: communications (1), sending and receiving e-mail (2), play games online and download multimedia files (3), the use of electronic banking (4) and looking for job or sending applications (5). In all categories and age groups the lowest statistics showed Poles. Scandinavians considerably took the lead. Alternately, Denmark, Finland, Sweden and Norway have showed the best statistics in almost all categories and all age groups.

An interesting observation is Denmark, where the statistics for the age group from 55 to 74 in four cases out of five had the highest (in category 4 Dane only lost with Norwegians and Finnish women by 2-3 percentage points). In other age groups

Denmark gave place to other Scandinavian countries and in s category 3 to Estonia or Lithuania. Young Lithuanian lead in the category 3 while their counterparts Estonian and Finns most often use electronic banking services. Categories 1-3 are dominated by the youngest group of respondents, while 4 and 5 are dominated by group 25-54.

In terms of communications among the youngest, Lithuanian did the worst, but still with a high score of 90%. 100% of young Norwegian women used the Internet for communication purposes. The difference between the maximum and minimum value is only 10%. In the group of Polish women who did the worst from 25 to 54 losing to the best Swedes as many as 36%. The oldest group showed the worst results with a score of Poles that was almost 5 times worse than the Swedish women and Dane.

Asking for a place of computer use, the women mostly answered "at home", followed by work, rarely at school. The latter is rarely associated with the structure of women by age - the school is the only part. Particularly impressive results typically observed in Sweden, Norway and Denmark, where high percentages of women applied to all three places of computer usage.

Table 3 Proportion of women with high and middle level of computer skills by age in 2006

	high level				*middle level*		
	16-24	*25-54*	*55-74*		*16-24*	*25-54*	*55-74*
DK	**41**	**28**	**11**	**DK**	**88**	**72**	**39**
DE	**29**	**21**	**4**	**DE**	**82**	**61**	**23**
EE	**42**	**21**	**0**	**EE**	**76**	**47**	**9**
LV	**23**	**8**	**1**	**LV**	**66**	**33**	**7**
LT	**32**	**11**	**1**	**LT**	**76**	**38**	**7**
PL	**20**	**7**	**1**	**PL**	**63**	**27**	**5**
FI	**28**	**25**	**6**	**FI**	**76**	**65**	**20**
SE	**30**	**20**	**6**	**SE**	**74**	**61**	**36**
NO	**38**	**30**	**12**	**NO**	**84**	**63**	**32**

Source: Eurostat, Community survey on ICT usage in households and by individuals

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Another examined issue was the level of computer skills among women, which in the most general way would be described as very much dependent on age. For all BSR countries examined proportion of women with high and middle level of computer skills in 2006 is shown in Table 3. Young women in all countries show the highest level of computer skills.

The more developed country, the smaller disparity between the youngest and the middle age group in terms of computer literacy. That means that in these countries, including women aged from 25 to 54, women are familiar with using this tool. Percentage of women in the oldest age group with high level of computer skills is nominal. In Poland, Lithuania, Latvia and Estonia at most 1% of women aged from 55 to 74 is highly qualified in this field. Relatively, the best situation, more than 10% of the oldest women with high computer skills are in Norway and Denmark.

More satisfactory results were obtained when analyzing a medium level of computer skills. Structure of the answers about the medium level of skills is similar to the previous case. It should be noted that the percentage of women declaring their middle level skills is much higher. Over 60% of young women in Poland, and nearly 90% of young women in Denmark and Norway declare computer knowledge at a middle level.

As for judging self computer skills while looking for a job there is a clear breakdown of the results in the surveyed countries. In the richer countries plus Estonia women find the levels of computer literacy as sufficient. In poorer countries (Lithuania, Latvia, Poland), women estimated their computer skills as inadequate.

The most common ways of obtaining computer skills by women are self-study: the practice and learning from colleagues and family members. Next, the women declare the use of formalized education and self study: books. The least popular in terms of acquiring e-skills are training courses. Most active in acquiring e-skills are Swedish women, Norwegians and Danish women.

The relatively low usage of the ways of obtaining e-skills (such as formalized education, training courses, courses demand by employer, self-study: books, self study: practice, colleague and family) were recorded in Poland, Lithuania and Latvia. Estonia, despite not being in a group of wealthy countries, could be a role model, especially in the self study from books, practice and learning from colleagues or family members.

Women's computer skills are the base while searching for a job in ICTs field. Unfortunately, statistics of women's employment in computing activities showed alarming low results (see Table 4).

Presented values show the proportion of women employed in computing activities in relation to total employed women. In both periods of study, in 2001 and 2006, employment of women surveyed did not exceed 1.5% of total employment. The relatively highest values were observed in Sweden and Finland, respectively, 1.5 and 1.3% in 2006. Employment growth in this area for all countries included in the analysis

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(for some of BSR countries there was lack of data in Eurostat database) was positive, but close to 0 change rates.

Table 4 Women's employment in computing activities (% of women in all occupations)

Employment in computing activities			
	2001	*2006*	*% point change*
DK	0,9	1,1	0,2
DE	0,7	0,7	0
PL	0,5	0,5	0
FI	1,2	1,3	0,1
SE	1,4	1,5	0,1
NO	0,8	1	0,2

Source: Eurostat, Labour Force Survey, 2nd quarter, 2006

The Figure 8 presents women's employment in computing activities by age. In countries such as Finland, Sweden, Germany and Poland in computing activities are employed more often younger women, younger than 40. It is worth noting here Latvia, where occurred a particularly high compared to other countries involved of the older group of women. However the very low percentage terms the phenomenon studied - between 0.2 and 2% of all employed women should be kept in mind.

Computing activities remains a sphere, where women should be encouraged to join, if the "vicious circle" of having less well-paid jobs in the less well-paid sectors of the labour market want to be stopped. The level of employment in the computing activities is strongly connected to educational process. Therefore following part of the paper will

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focus on participation of female students in selected fields of study (Fig. 9).

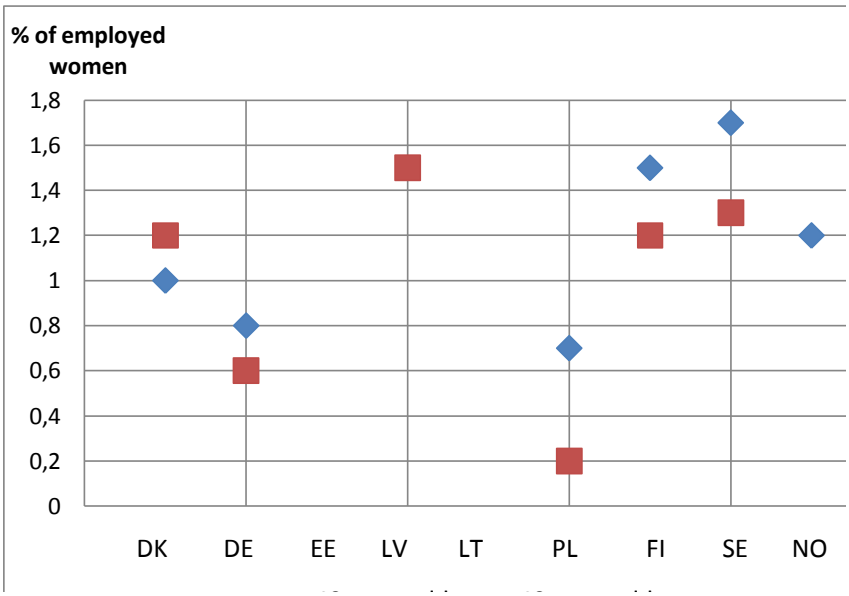

Fig. 8 Women's employment in computing activities by age in 2006

Source: Eurostat, Labour Force Survey

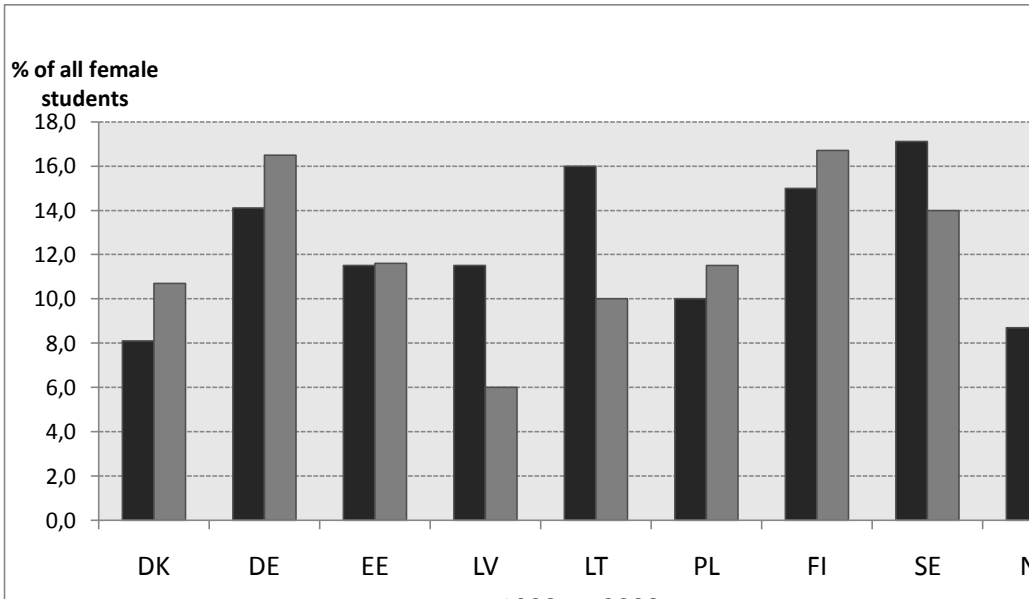

Fig.9 Female students enrolled in the following fields: science, mathematics and computing; engineering, manufacturing and construction

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Source: Eurostat

In BSR countries are experienced very strong differences in the share of female students in science, mathematics and computing, engineering, manufacturing and construction. The highest share of female students compared with all the studying women was observed in both study periods in 1998 and 2008 in Finland, Sweden and Germany, the lowest in Denmark and Norway. In 4 of 9 analyzed countries had a decline of women studying in that direction. The biggest drop (ca 6%) was recorded for Lithuania and Latvia.

Far from satisfactory is the situation in BSR countries in terms of women's and men's enrolling in science, mathematics and computing, etc. studies, what results in a very low share of ICT personnel on total employment (Fig. 10). In most developed countries of the Baltic Sea Region ICT staff is less than 5% of all employees[10]. In 2007, for Sweden and Finland, countries with the highest share of the study group in the general workforce, the figures were 4.8% and 4.5%.

Not all BSR countries could be examinee due to lack of some date. Minimum values were observed for Lithuania (1.6%) and Latvia (1.7%). The condition of information society development in the BSR countries is the increase share of ICT personnel on total employment.

One of the last aspects of the empirical analysis is studying the human resources in science and technology and the participation of scientists and engineers employed (Figure 11). A strong predominance of women over men in the case of HRST was observed. Different example is Germany, where men predominate in this category. The highest values of the test variable for women took place in Finland and Estonia, the lowest share of employed HRST as % of active population occurred in Poland and Germany.

In the category of scientists and engineers, in general exists men's domination, the only exception among the countries is Poland. As for the highest share of female scientists and engineers it occurred in Poland (6.1%), Sweden (5.4%), and Norway (4.4%). However, it has to be marked that the percentages of the relation to the general active population is very small.[11]

[10] Data concerns both women and men

[11] Confirmation of the major differences between women and men in the labour market, often running to the detriment of women, an analysis of participations in Highest Decision Making Body. In many of the most developed countries, such as BSR, Sweden, Denmark, Germany, the share of female presidents in HDMB is 0%.

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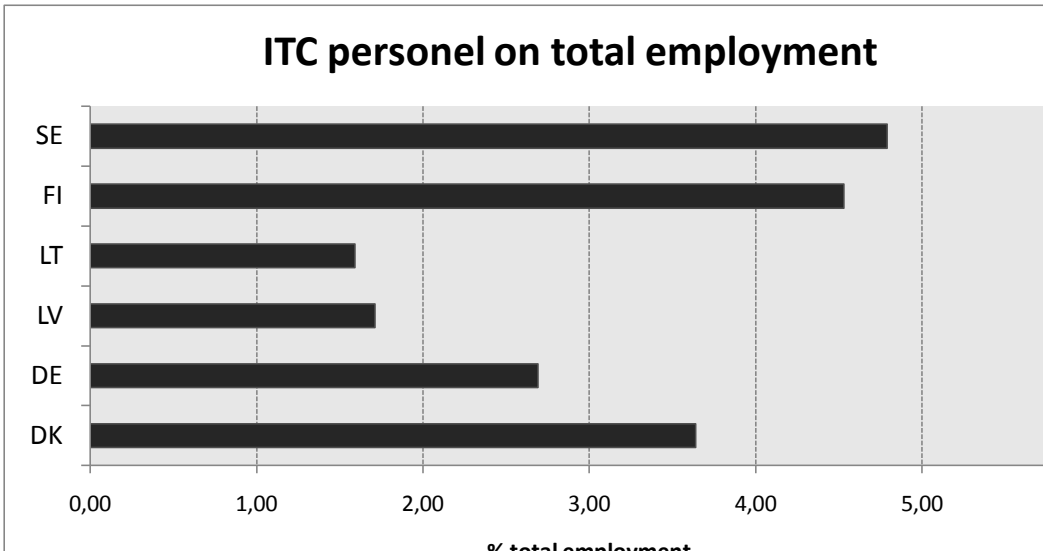

Fig. 10 ICT personnel on total employment in 2007

Source: Eurostat

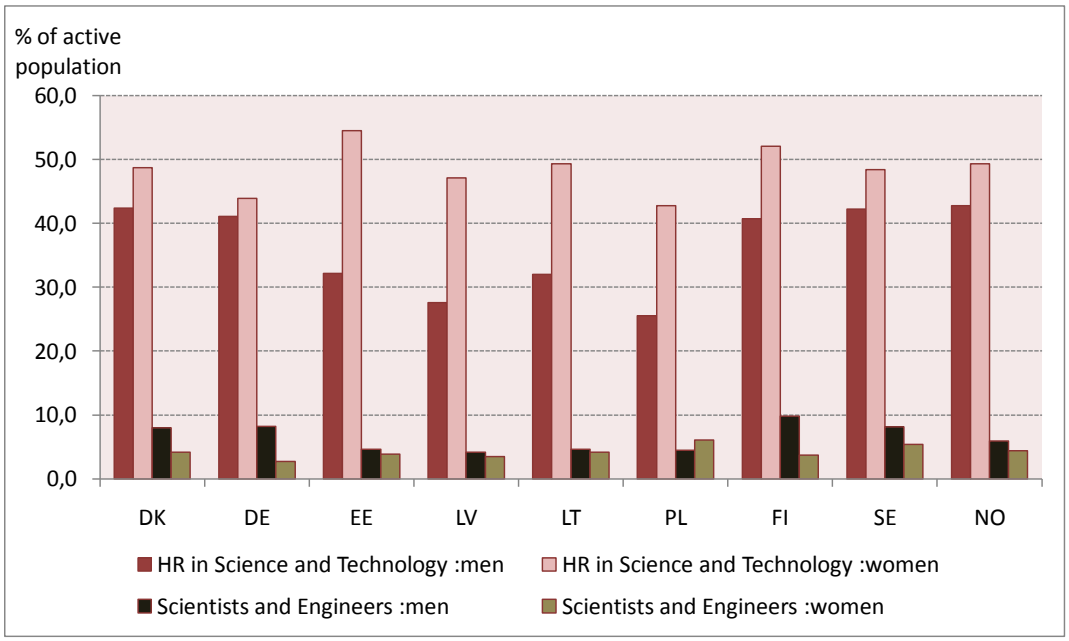

Fig. 19 Human Resources in Science and Technology in 2009

Source: Eurostat

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Summary

Summarizing, the empirical analysis of the situation of women in the labour market, including the issue of ICT, showed very strong differences between the nine countries of the Baltic Sea Region. For most of the investigated variables emerged two distinct groups of countries. The first group of wealthy northern countries - Norway, Sweden, Denmark and Finland, whereas the latter are: Poland, Lithuania and Latvia.

Occurred also strong differences by age for variables such as computer usage, Internet usage, Internet activities, proportion of women with high and middle level of computer skills and women's employment in computing activities.

The issue of women's participation in ICTs is particularly important in as the increased involvement of women in the ICT sector will transform their lives for the better, cause the drop in labour market segregation and enable women to influence the economic growth and alleviate the effects of the economic crisis.

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