SUMMARY

Women and men in ICT:

A chance for better work-life balance

Research note

European Institute for Gender Equality

INTRODUCTION

Rapid technological advancements and digitalisation are transforming the world of work and how we live our day-to-day lives. There is an increasing demand for digital skills and higher qualifications across a wide variety of sectors. ICT specialists are in particularly high demand, with employment growth more than eight times higher than the average employment growth in the EU (Eurostat, 2017c). Recent forecasts predict a shortage of more than 500,000 ICT specialists by 2020 (Korte et al, 2017). However, only around 17 % of the almost 8 million ICT specialists are women and the number of women graduating from ICT studies has been decreasing over the last decade (EIGE, 2017c).

The topic of "Women in the Digital World", which Bulgaria appointed as a priority during the Bulgarian Presidency of the Council of the European Union was inspired by the latest Eurostat data, according to which Bulgaria ranks first in the European Union by the share of women and girls in the sector "Information and Telecommunication Technologies" with 27, 7 per cent at an average EU rate of 16.1 per cent. Bulgaria ranks first in the share of women IT specialists, which are close to 30%, with 16% on average for the countries of the European Union. According to Eurostat, this trend has been observed in Bulgaria since 2014. It was also the main reason Ministry of Labour and Social Policy to assign to the EIGE to prepare a research note on this topic.

As well, it is important to mention that in 2018, the digitalization is a buzzword across the European Union. It has a wide impact on the realities and future of women and men in Europe, and also a look on what digitalization brings.

Following the request of the Bulgarian Presidency of the Council of the EU (2018), the overall objective of this research note is to deepen the understanding of the major enabling and hindering factors for a more balanced women and men's uptake of ICT jobs.

Gender equality is a crucial component affecting not only the everyday lives and well-being of women and men, but also the growth and competitiveness of the EU economy. Gender stereotypes and structural obstacles that prevent women and men from making their genuine choices in education and employment pose a real social and economic threat. It weakens the economy by making the labour market less competitive and harder for companies to find highly qualified professionals in growing sectors, such as information and technology. Gender inequality also weakens the trust of people in states and institutions to deliver fair, equitable and stronger societies.

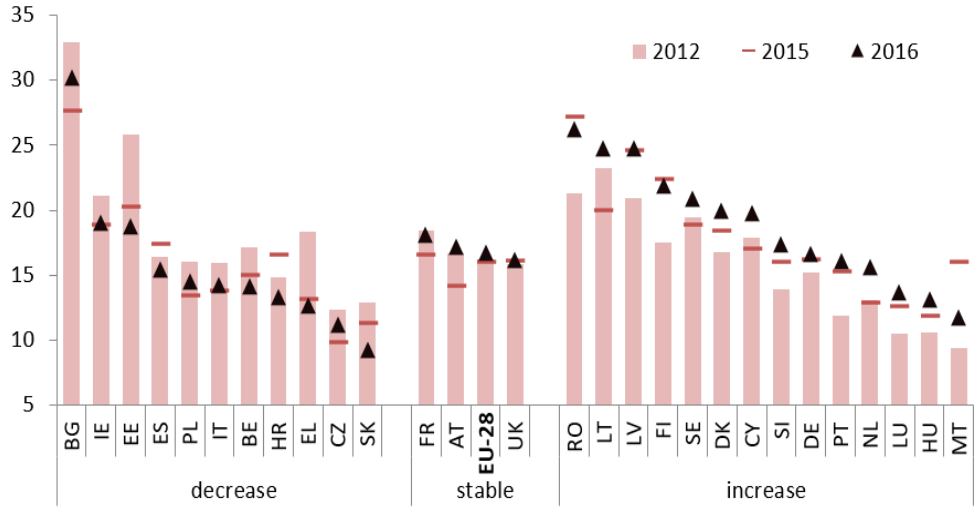
ICT SPECIALISTS: MAIN CHARACTERISTICS

The digital world of work is highly diverse and dynamic. In 2014, the top 20 ICT specialist-intensive occupations provided employment to close to 29 million workers in the EU (Huesing et al, 2015). In 2016, there were about 8.2 million ICT specialists in the EU, representing about 3.7 % of total employment. This marks an increase of more than 1 million ICT specialists over the past five years.

Demand for STEM professionals and associate professionals is expected to grow by 8 % between 2013 and 2025, whilst the average growth forecast for all occupations is 3 %. Around 7 million job openings are forecasted until 2025 (European Parliament, 2015). In light of these changes as well as insufficient general supply, ICT specialists are on the top of the EU's skills' shortage list.

ICT jobs are predominantly taken by men rather than women. Looking at all the categories of ICT specialists together, only 16.7 % of them were women. Despite the general growth of ICT employment, the share of women in ICT jobs in the EU increased only marginally since 2012.

Share of women among ICT specialists



Note: aged 20-64; EIGE's calculations, based on EUROSTAT

Across different categories of ICT specialists, in 2016, gender balance existed only among ICT technicians in Romania (41 %), with the second best situation noted in Latvia (35 %). The highest share of women among ICT professionals was in Bulgaria (34 %), followed by Romania (29 %). In number of countries the share of women has increased among the ICT proferssionals, but decreased among the ICT technicians (BG, CZ, HU, LU, UK)

At the EU level, no major gender differences emerge across the age profile of women and men working in the ICT jobs, with slightly more than half of them being under 40 years old. This makes an average ICT employee somewhat younger than the rest of the workforce, where about 40 % of the employees are under 40 years.

The analysis shows that overall 42 % of women and 41 % of men in ICT are living in a couple and have children under 18 years old, which is not very different from the health sector or the rest of the working population. Nonetheless, important differences are noted across generations. Only 53 % of women in ICT specialists aged 30-39 have children, compared to 68 % of women health professionals and 66 % of women in other occupations .

Research has shown that the postponement of parenthood is relatively small among women who pursue careers in the women dominated fields, as here stereotypical attitudes about family roles prevail (Van Bavel, 2013)

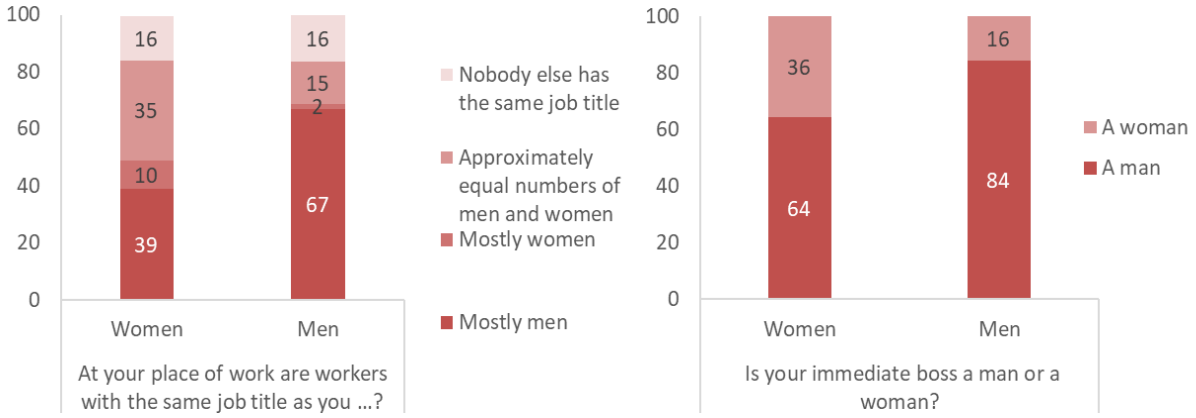
In line with aforementioned demographic trends, differences regarding family formation and life stages are noted. In the age group 18 to 35, 17 % of women ICT specialists were single without children. 45% of women in ICT jobs are living in couples with children (under 18 years old). Women in ICT have older children. Only 9 % of women ICT specialists were living in couples with children under 7 years. Interestingly, occupational differences regarding family formation can only be noted for women and not for men.

EMPLOYMENT OF ICT SPECIALISTS: GENDER DIFFERENCES

The employment status of people in ICT jobs in the EU is marked by gender differences. More women (92 %) than men (87 %) are employees which means that the share of ICT self-employed women (8 %) and men (13 %) is lower in comparison to the rest of occupations where 10 % of women and 18 % of men are self-employed. The share of self-employment in ICT jobs also varies greatly by country. The majority of employees in ICT have permanent job contracts. Only 8 % of men and 9 % of women in ICT have temporary contracts. Among those with temporary contracts, 61 % of men and 63 % of women have a contract duration of less than one year. ICT specialists tend to work in larger companies in comparison to the rest of the employees. If 10 % of women and 13 % of men in ICT work in

companies from 1 to 10 employees, 27 % of women and 24 % of men in the rest of economy have jobs in such small companies.

Gender composition of ICT specialists' workplace in the EU-28 (20-64, %, 2015)



Source: EIGE's calculation based on EWCS 2015 microdata.

The workplaces ICT specialists hold jobs in are somewhat different in gender composition for women and men. First, women in ICT are more often working under female supervision, despite an overall small share of women in the sector. 36 % of women and 16 % of men ICT specialists have a woman as an immediate boss. This may indicate that women are more open to hiring other women when they are also responsible for hiring procedures. Women ICT specialists work more often in gender-balanced jobs than men do, as indicated by a high share (35 %) of them having jobs where there are equal number of female and male colleagues with the same job title. Most ICT specialists (82 % of women and men) work in the private sector.

WORKING CONDITIONS, TIME AND WORK-LIFE BALANCE

The work-life balance policies help employers to retain and recruit workers, improve the motivation and productivity of employees, reduce absenteeism and avoid wasting talent.

Women in ICT jobs work 36.9 hours a week which is longer than women in the rest of jobs. Average working hours of men in ICT jobs (39.8 hours per week) are longer than for women, but slightly shorter than of men in the rest of jobs.

Men's average working hours are typically longer than women's in every occupation, but they work even longer hours in men-dominated occupations, such as STEM (EIGE, 2017c).The majority of women and men ICT specialists work 31- 40 hours per week

(72 % of women and 73 % of men). A higher share of men (22 %) than women (13 %) ICT specialists work long (more than 40 hours per week) hours.

Part-time work may be an option for work-life reconciliation during certain periods of the life course. In ICT 19 % of women and 5 % of men work part-time compared to 31% of women and 8% of men in other occupations.

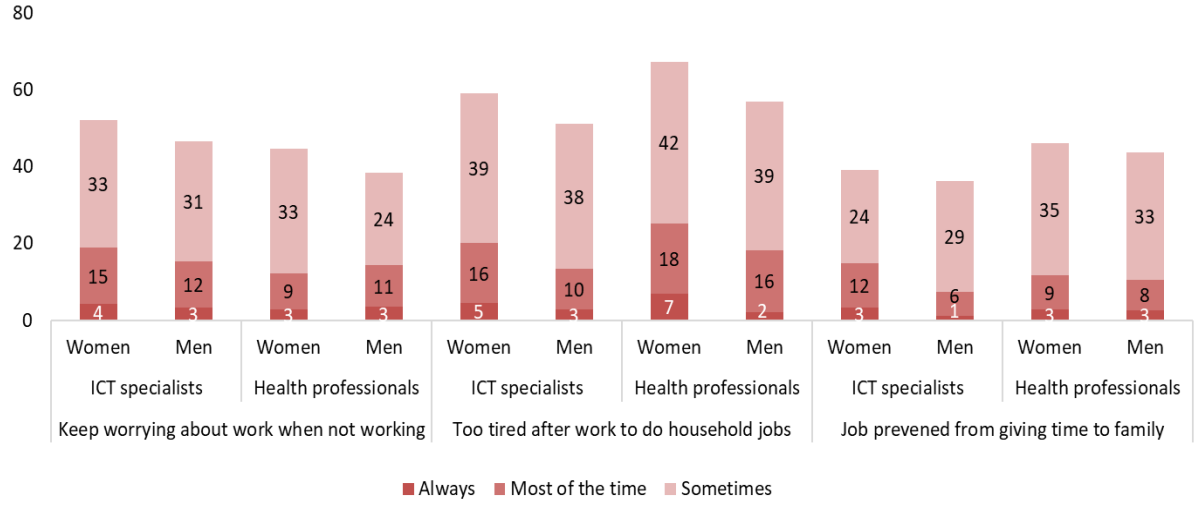
Caring responsibilities and other family or personal reasons are among the most often-cited reasons why women work part-time in ICT as well. Among part-time working women in ICT, two thirds of them (64 % in total) do it because they either need to look after children or incapacitated adults (47 %), or because they have other family responsibilities or for personal reasons (17 %).

ICT specialists have more day-to day flexibility and working time autonomy than health professionals or other employees. First, many more ICT specialists (39 % of women and 38 % of men) compared to other occupations are able to arrange to take an hour or two off during working hours in order to take care of personal or family matters. Only a third of ICT specialists have working hours that are set by the organization and which cannot be changed. No gender gaps are observed in ICT specialists' capacity to set their own working time arrangements, the literature shows that women and men may use their autonomy in choosing one's working time differently.

Working time and its flexibility, the place of work is also important. In the EU, 9 % of women and 12 % of men who have ICT jobs work at home daily, and 4 % of women and 10% of men work at home several times a week and 14% of women and 19% less often. Only 46 % of men and 61 % of women in ICT never do their job at home.

About 19 % of women ICT specialists have permanent or regular worries about work even when not working, which is 4 p.p. higher in comparison to men ICT specialists

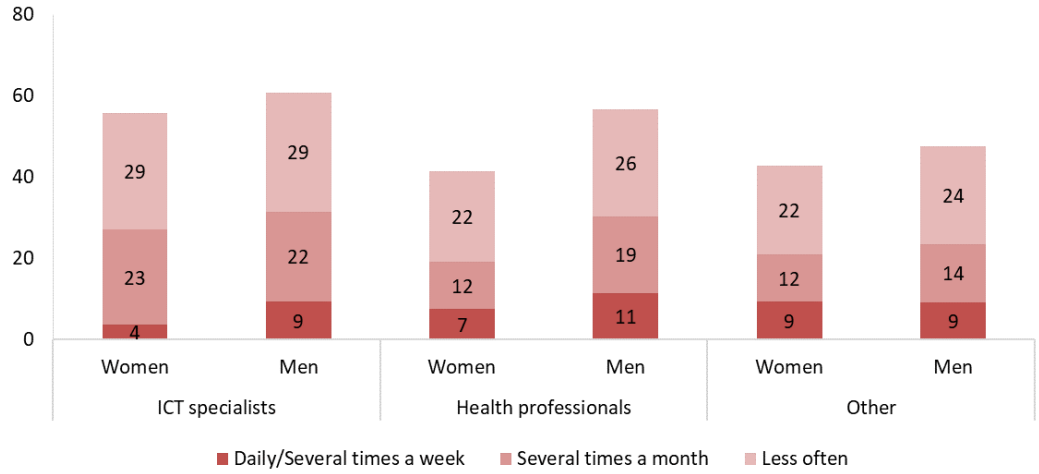
Share of employees perceiving spill-over from work to home and family in the EU-28, by occupational groups and gender (20-64, %, 2015)



Source: EIGE's calculation based on EWCS 2015 microdata (Q45 How often in the last 12 months, have you….?)

Nearly one third of employees in ICT (27 % of women and 31 % of men) work during their free time several times a month or even more often. This is more often than the observed spill-overs of employees in other sectors.

Employee's use of free time to meet work demands in the EU-28, by occupational group and gender (20-64, %, 2015)



Source: EIGE's calculation based on EWCS 2015 microdata (Q46 Over the last 12 months, how often have you worked in your free time to meet work demands?)

The spill-over from private life on work is less experienced by women and men than the spill-over from work to private life. Only up to 3 % of women and men in either ICT often feel that family responsibilities affect to some extent their duties at work. More women in ICT have occasional difficulties to do their jobs because of family responsibilities.

CONCLUSIONS

Gender equality in education and in the labour market is a prerequisite for a sustainable society and better-performing economies. At the time of a profound digitalisation and the rapid growth of the ICT sector, the EU is facing two major problems: a shortage of ICT specialists and a vast underrepresentation of women among them. Among 8 million ICT specialists women make up a mere 17 %. From 2012 to 2016 a minor improvement in women's participation in ICT jobs in the EU has been noted. EIGE estimated that attracting more women to STEM jobs would boost a market in which labour shortages are foreseen (creating up to 1.2 million new jobs by 2050) and a gain of around 820 billion EUR by 2050 (EIGE, 2017a).

ICTs created new opportunities for education and the labour market and presented new solutions for a more flexible and diverse use of time and space at work.

Increasing the number of women in ICT jobs would contribute to reducing the gender pay gap. ICT is one of the highest paying sectors. On average women in ICT are paid higher than women in other professions and the gender earning gap of 13 % is smaller among ICT specialists when compared to health professionals (26 %) or the rest of the employees (33 %). Despite being higher educated than men, women are concentrated in jobs which are lower paid.

Gender segregation in education is a major factor explaining severe underrepresentation of women in ICT jobs. By 2016, only in four countries (EE, BG, MT, RO) from 1 % to 3 % of teenage girls aspire to become ICT professionals at the age of 30.

Unequal sharing of caring roles between women and men is a serious impediment for work-life balance. The fast changing nature of ICT jobs and digital innovations also demand continuous professional development and life-long learning. Men in ICT jobs benefit from training more often than women. Finally, the life pathways and family formation of ICT specialists require more in-depth research and policy attention, including that of work-life balance. On average, ICT specialists are younger than the rest of the workforce. Only 53 % of women in ICT aged 30-39 have children.

The vital role of gender equality for the EU growth, competitiveness and prosperity provides a new impetus for gender equality on the way towards a more social Europe.