



Statistical Data on Women Entrepreneurs in Europe

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Statistical Data on Women Entrepreneurs in Europe

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EXECUTIVE SUMMARY

I. Study objective

This study was carried out at the request of the European Commission in order to gather available statistical data on women entrepreneurs in Europe.

This report presents the key findings of an analysis of available data on women entrepreneurs in 37 countries, which include the 28 EU Member States, Albania, Former Yugoslav Republic of Macedonia (FYROM), Iceland, Israel, Turkey, Liechtenstein, Montenegro, Norway and Serbia. This group of countries is referred to as Europe-37.

The study objective was to collect, analyse, and systematically present the most recent data on women entrepreneurs in Europe-37. These data will be used to develop evidence-based policy and actions, and thus include number of women entrepreneurs, the type of entrepreneurship, the sectors in which women entrepreneurs are mainly active, age cohort and educational level.

The main study findings are presented in this report and data on each of the 37 countries are presented in country fiches in the same format for systematic comparison of women entrepreneurship. The country fiches are based on data retrieved from international and national statistical databases. Missing data are indicated in the country fiches. Extrapolations and estimates for these data have only been used in the main report.

II. Women entrepreneurs in Europe

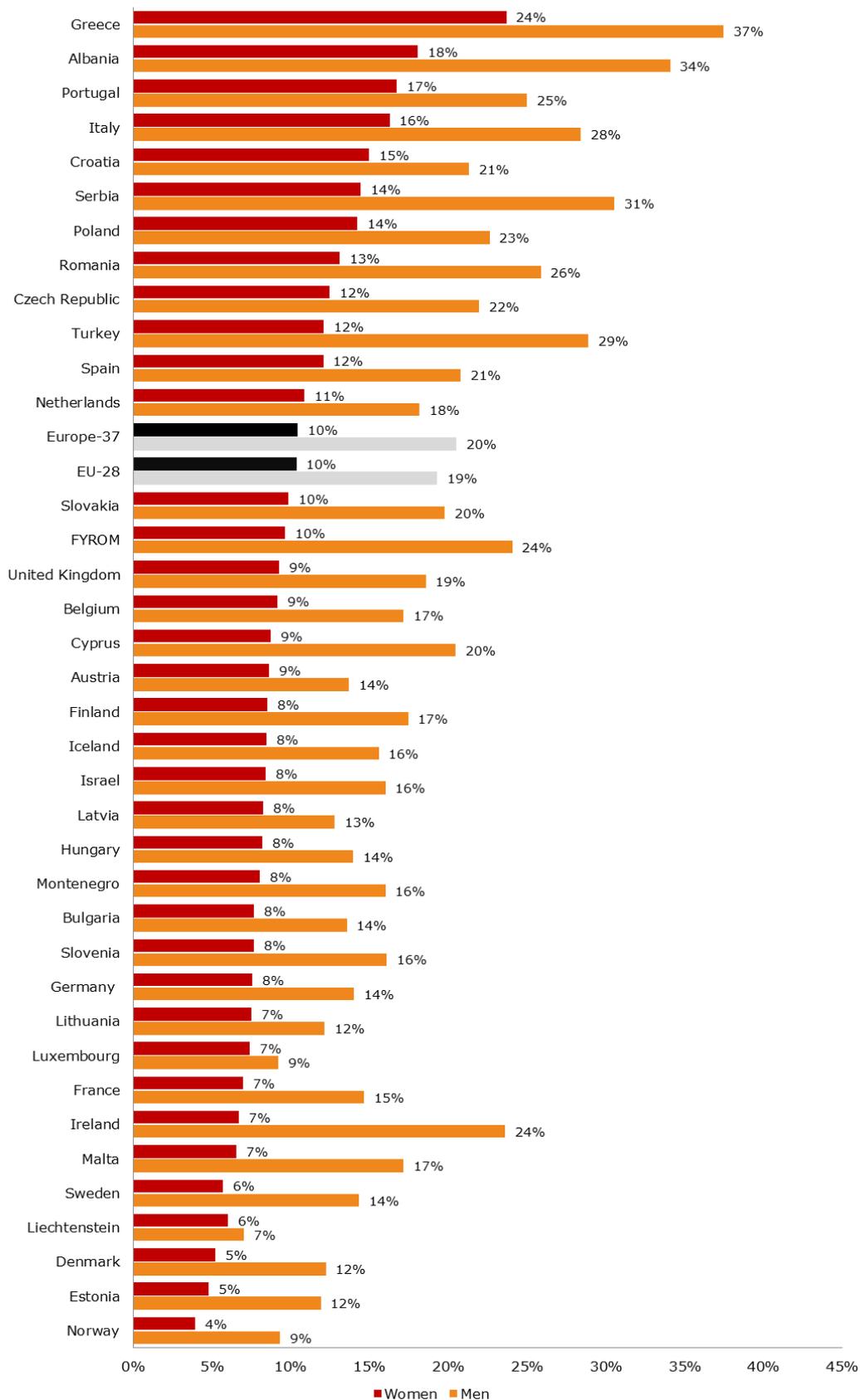
The report presents data on women and men entrepreneurs active in Europe-37, and the percentages of entrepreneurs in the active labour force (entrepreneurship rate). Data are provided on solo entrepreneurs and entrepreneurs who are employers, and on part-time entrepreneurs. Data are provided for 2008 and 2012, and where possible changes in the period 2003 to 2012. For the purpose of this study, entrepreneurs are defined as persons aged 15 years and older who work in their own business, farm or professional practice to make a profit, and spend time on the operation of a business, or are in the process of setting up a business. These entrepreneurs consider the running of their enterprises to be their main activity.

Number and proportion of women entrepreneurs

In 2012, there were 40.6 million entrepreneurs active in Europe-37, of whom 29% were women (11.6 million). The percentage of women entrepreneurs was slightly higher in the European Union (EU-28) at 31% (10.3 million). The percentages of women entrepreneurs of the total entrepreneurs varied considerable between countries. With 43%, Liechtenstein had the highest percentage of women entrepreneurs, followed by Latvia (40%), Lithuania (40%) and Luxembourg (39%). With 15%, Turkey had the lowest percentage followed by Malta (18%) and Ireland (20%). In 2008, the percentage of women entrepreneurs was 30% for Europe-37 and 28% for EU-28.

The entrepreneurship rate is a good indicator to compare the entrepreneurial level of women and men in and between countries. The entrepreneurship rate expresses the percentage of entrepreneurs in the total active labour force.

Figure 1 Percentage of entrepreneurs in total active labour force (entrepreneurship rate) by gender and country in Europe-37, 2012



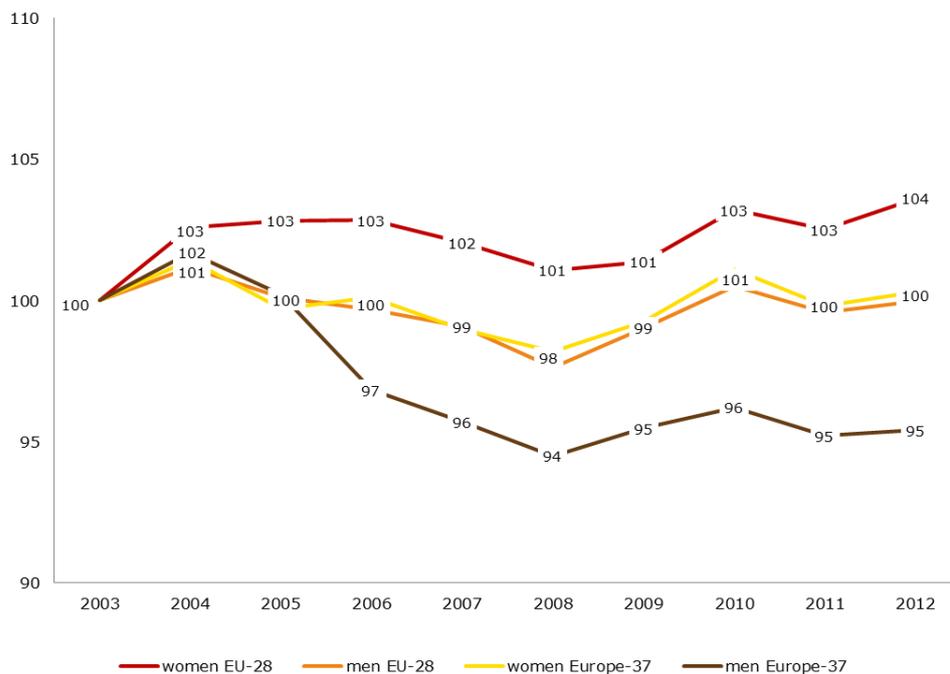
Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

In 2012, the entrepreneurship rate for women (percentage of women entrepreneurs of the total number of women in the active labour force) was 10% for Europe-37 and for EU-28. The rates for men were higher at 20% and 19%, respectively for Europe-37 and EU-28. The top five countries with the highest entrepreneurship rate for women were Greece, Albania, Portugal, Italy and Croatia, and the countries with the lowest rates were Norway, Estonia, Denmark, Liechtenstein and Sweden. See Figure 1.

Changes in the entrepreneurship rate, 2003-2012

In the period 2003-2012, the percentage of women entrepreneurs in the active labour force of women (women entrepreneurship rate) in Europe-37 and in EU-28, increased slightly from 10% to 10.4% (0.4 percent point). See Figure 2. This was the case in almost all countries, with the highest increase in Slovakia, Serbia and the Netherlands. However, the rate decreased by more than 1 percent point in Portugal, Lithuania, Romania, Poland, Bulgaria, Malta, Estonia and Croatia.

Figure 2 Annual change of the percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender in Europe, 2003-2012 (index 2003=100)



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Solo entrepreneurs versus employers

Most women and men entrepreneurs in Europe are solo entrepreneurs, persons who operate their own economic enterprise, or engage independently in a profession or trade. They do not hire employees nor are family workers or volunteers active in their enterprise. Solo entrepreneurs are also known as own account workers¹.

In 2012, 78% of women entrepreneurs in Europe-37 were solo entrepreneurs and 22% were employers². Of the men entrepreneurs active in Europe-37, 81% were solo-entrepreneurs and 29% were employers. The percentages for EU-28 were similar, 23% of women and 30% of men entrepreneurs were employers.

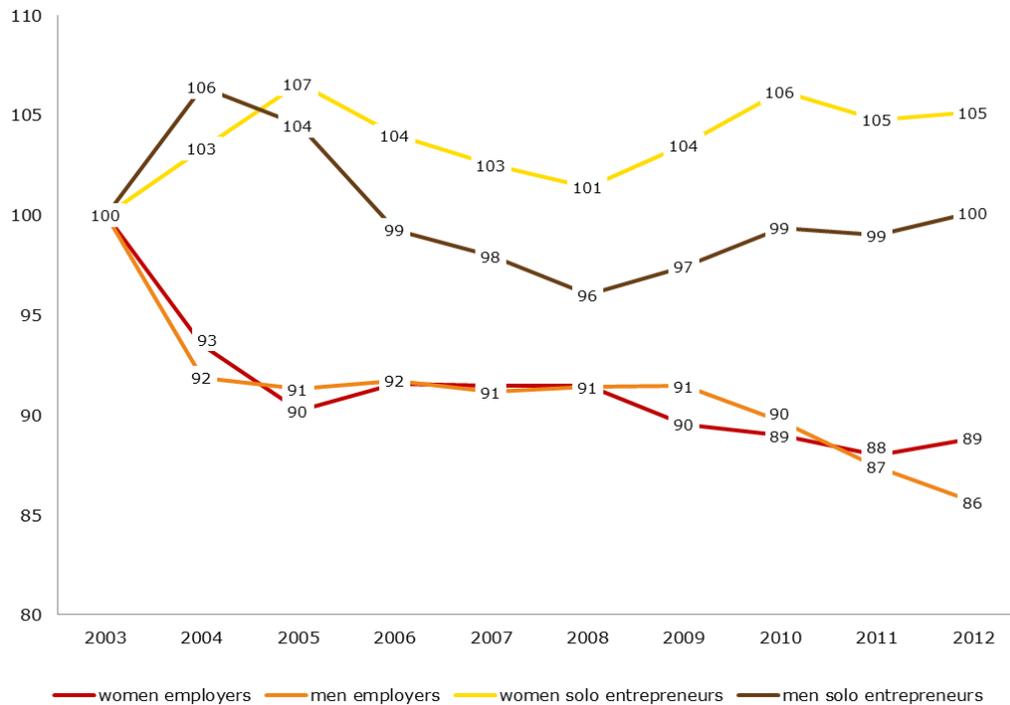
There are large differences between countries. Montenegro followed by Hungary and Ireland had the highest proportion of women employers, and Romania and Albania the lowest.

¹ In policy documents often the term sole traders or sole proprietor is used. A solo entrepreneur is not the same. A sole trader or a sole proprietor means that the enterprise is owned by one person and is not incorporated. A solo entrepreneur can be non-incorporated and incorporated.

² Employers are persons who operate their own economic enterprise, or engage independently in a profession or trade. They employ one or more persons and/or family workers.

In 2008, 23% of women entrepreneurs in Europe-37 were employing personnel and 77% were solo entrepreneurs. About 31% of men entrepreneurs in Europe-37 were employers. In EU-28, around 24% of women and 33% of men entrepreneurs were employers. Country variations were in line with data for 2012.

Figure 3 Change in the percentage of solo entrepreneurs and entrepreneurs who are employers in the active labour force by gender in Europe-37, 2003-2012 (index 2003=100)



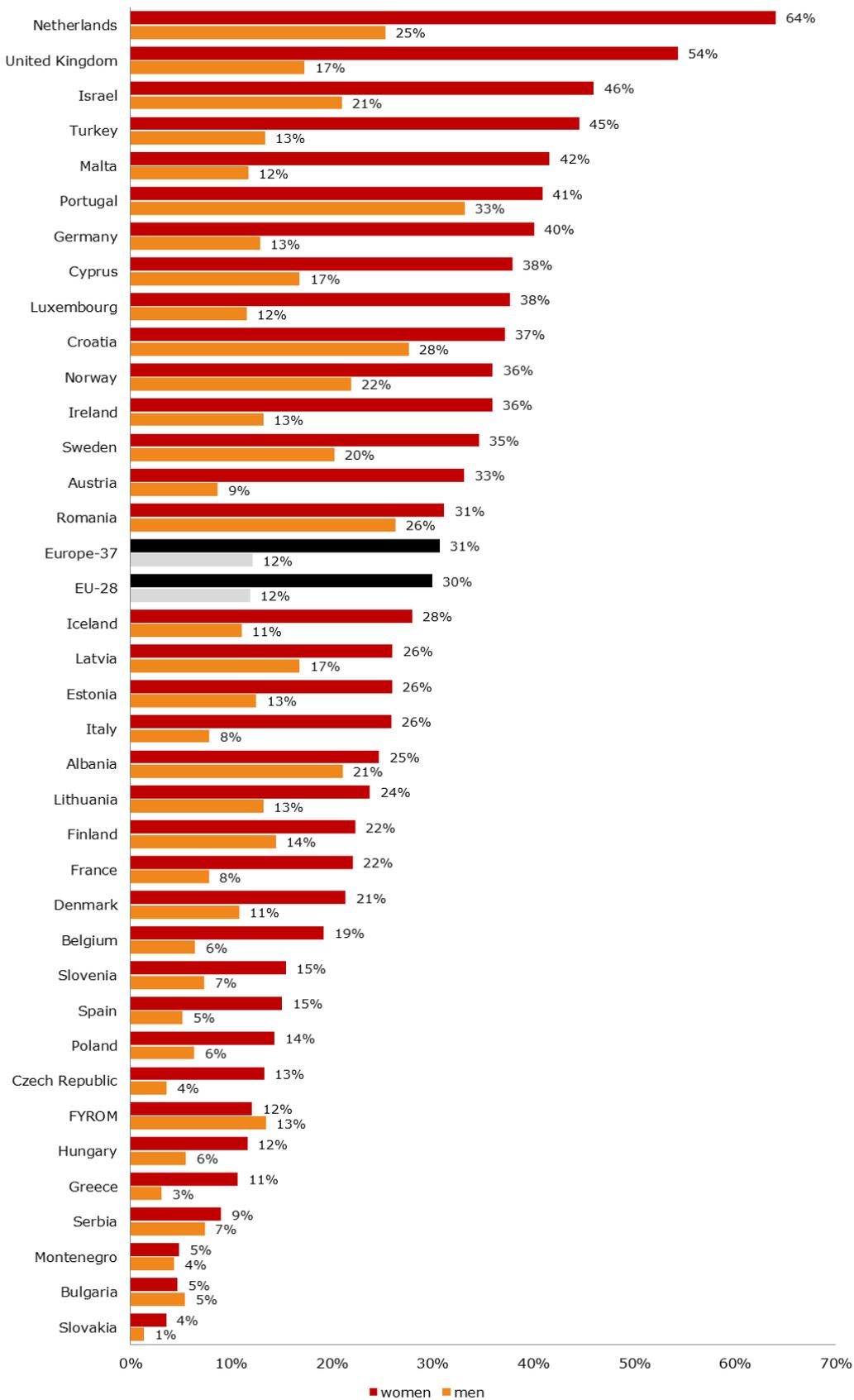
Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Part-time entrepreneurs

In 2012, around 31% of all women entrepreneurs in Europe-37 were working part-time in their enterprise compared with 12% of men entrepreneurs. The percentages for EU-28 were the same (30% and 12%, respectively). See Figure 4.

The percentages of part-time entrepreneurs varied considerably between countries. While the percentage of women part-timers was 64% in the Netherlands and 54% in the United Kingdom in 2012, it was only 4% in Slovakia, 5% in Bulgaria and 5% in Montenegro. The percentages of part-time men entrepreneurs were significantly higher in the Netherlands, the United Kingdom, Portugal, Croatia and Romania than the Europe-37 average. The percentages of part-time men entrepreneurs were the lowest in Slovakia, Greece and the Czech Republic. The proportion of part-time entrepreneurs has increased since 2008, but more so for men than women.

Figure 4 Percentage of part-time entrepreneurs by gender in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: estimates were made for Albania, Israel, Montenegro and Serbia; Liechtenstein is missing.

Entrepreneurship as main activity

These entrepreneurs considered being an entrepreneur to be their main employment. There are various reasons for entrepreneurs choosing to work part-time in their enterprises, such as having another job, household responsibilities, need for leisure time, illness or disability, advanced age, and study.

In 2012 only 15% of the part-time women entrepreneurs in EU-28 had a second job, compared to 34% of the part-time men entrepreneurs. About 50% of these part-time women entrepreneurs were employee in their second job, 47% had a second enterprise and 3% were active as contributing family worker.

Starting from the total number of women entrepreneurs in 2012, 4.4% of the total number of women entrepreneurs in EU-28 had a second job in addition to being an entrepreneur, compared to 3.7% of men entrepreneurs.

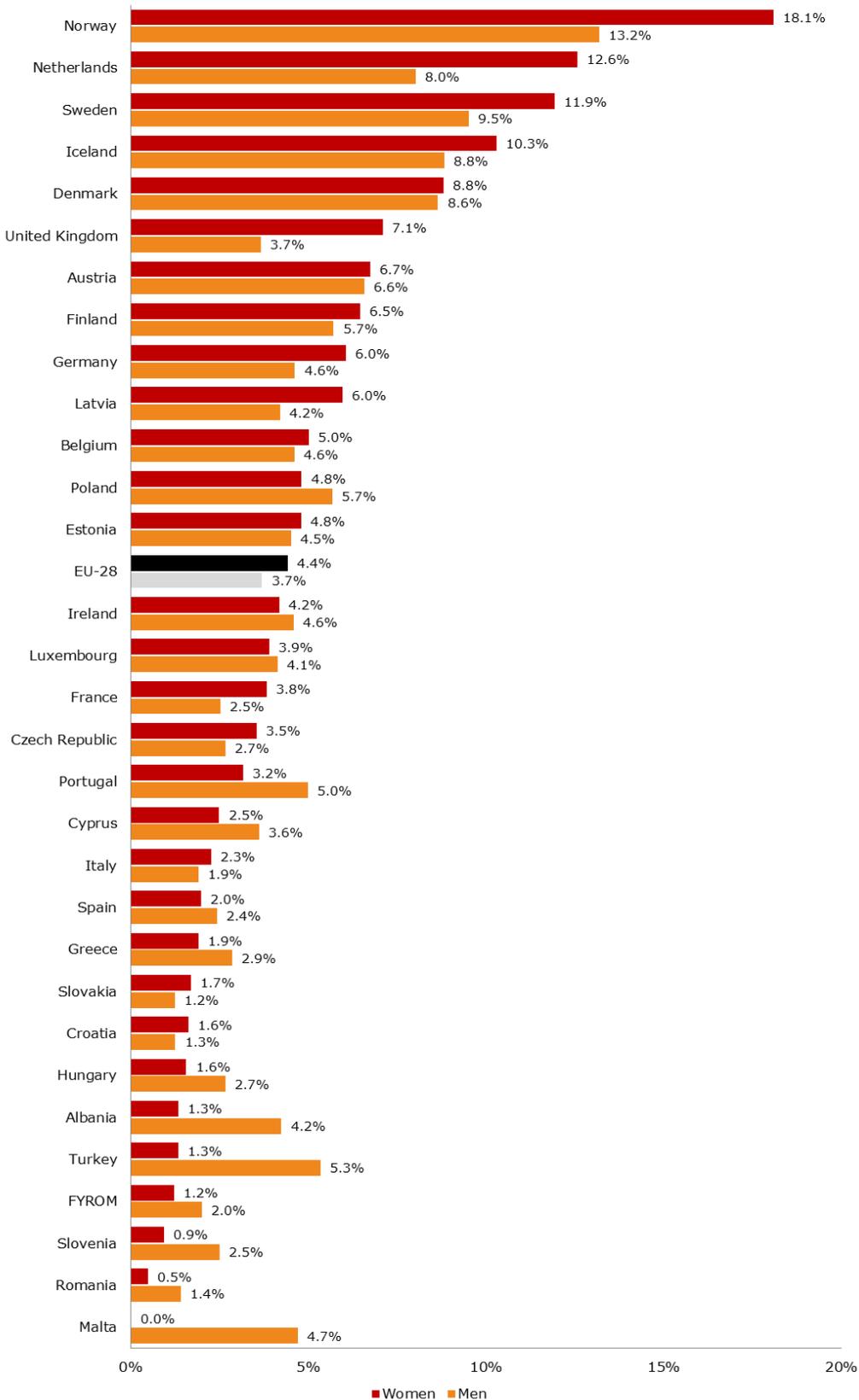
There were significant variations between countries. The percentages for women entrepreneurs were highest for Sweden, Norway and Iceland, and the lowest for Albania, Croatia and Romania. The percentages of men entrepreneurs were the highest in Norway, the Netherlands and Sweden, and the lowest in Romania, Slovenia and Turkey. These percentages changed only slightly from 2008, -0.1% for women and -0.2% for men entrepreneurs. See Figure 5.

Entrepreneurship as a secondary activity

A special category of entrepreneurs is persons whose main job is being an employee (first job) and who run an enterprise as a second activity, and thus being an entrepreneur is a second job.

To give insight into the extent to which employees in a country are entrepreneur as a second activity, they were compared to persons who are entrepreneur as their main activity. In 2012, this ratio was around 9% for women entrepreneurs and 6.9% for men. Compared to 2008, the ratio of women entrepreneurs increased by 0.5% and of men decreased by 0.5%.

Figure 5 Percentage of total number of entrepreneurs with a second job (being entrepreneur is their main employment) in Europe by country, 2012



Source: Panteia, based on Labour Force Statistics (Eurostat and national statistics)

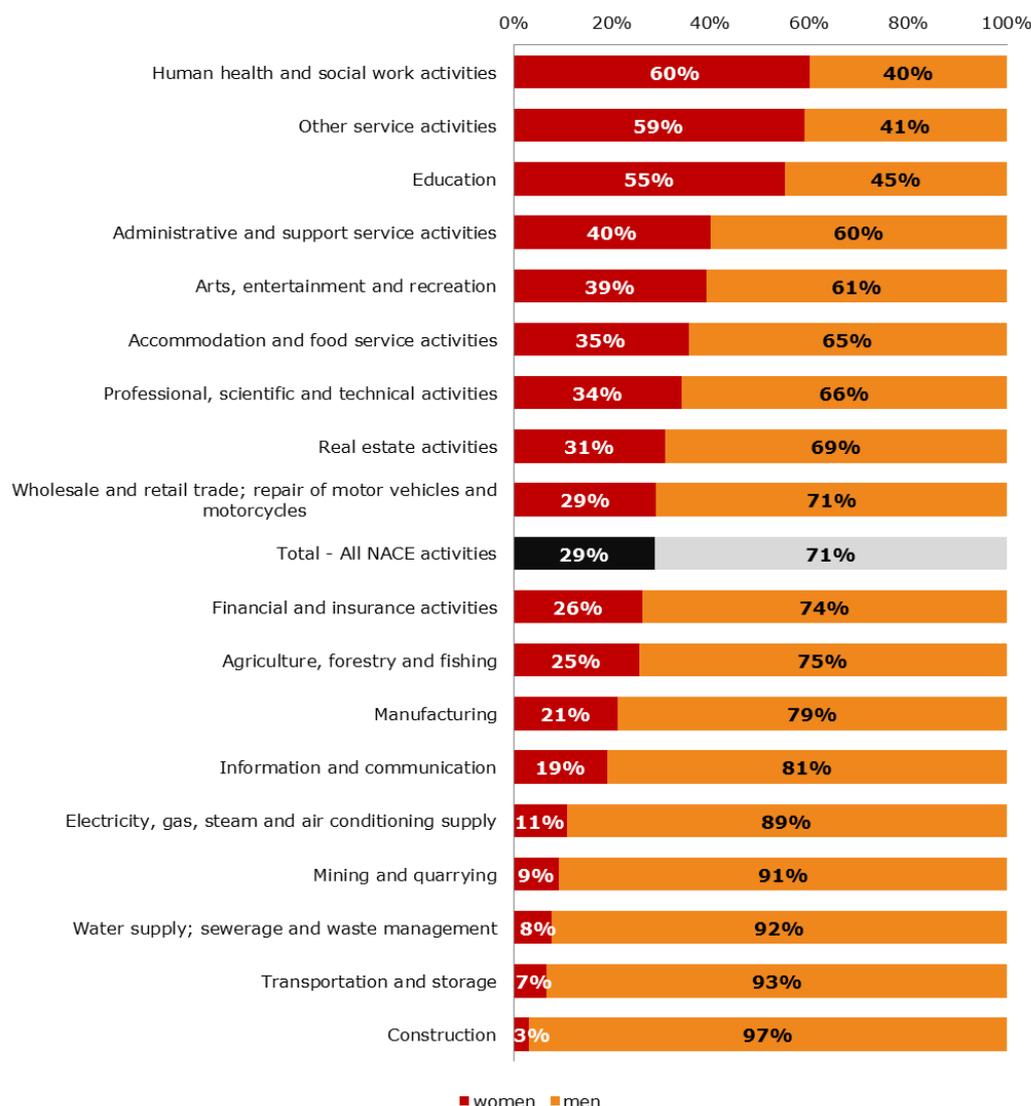
Note: Estimates made for Albania. No data were available on entrepreneurs with a second job in addition to their enterprise for Montenegro, Serbia, Israel and Liechtenstein.

III Sectorial presence of women entrepreneurs

In 2008 and in 2012, a higher proportion of women than men entrepreneurs in Europe-37 were active in the sector groups of human health and social work activities, other services, and education. See Figure 6. In 2012, 60% of the entrepreneurs active in human health and social work activities were women, 59% in the other services sector and 55% in education. The data for EU-28 were, 60%, 65% and 55%, respectively. See Appendix 3.

The proportions of women entrepreneurs in Europe 37 and EU-28 were much lower than men in the sector groups of construction, transport and storage, water supply, information and communication, and manufacturing. For example, in 2012, 21% of the entrepreneurs in Europe-37 active in manufacturing were women.

Figure 6 Percentage of entrepreneurs by gender and sector in Europe-37, 2012



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Spain, Italy and Poland.

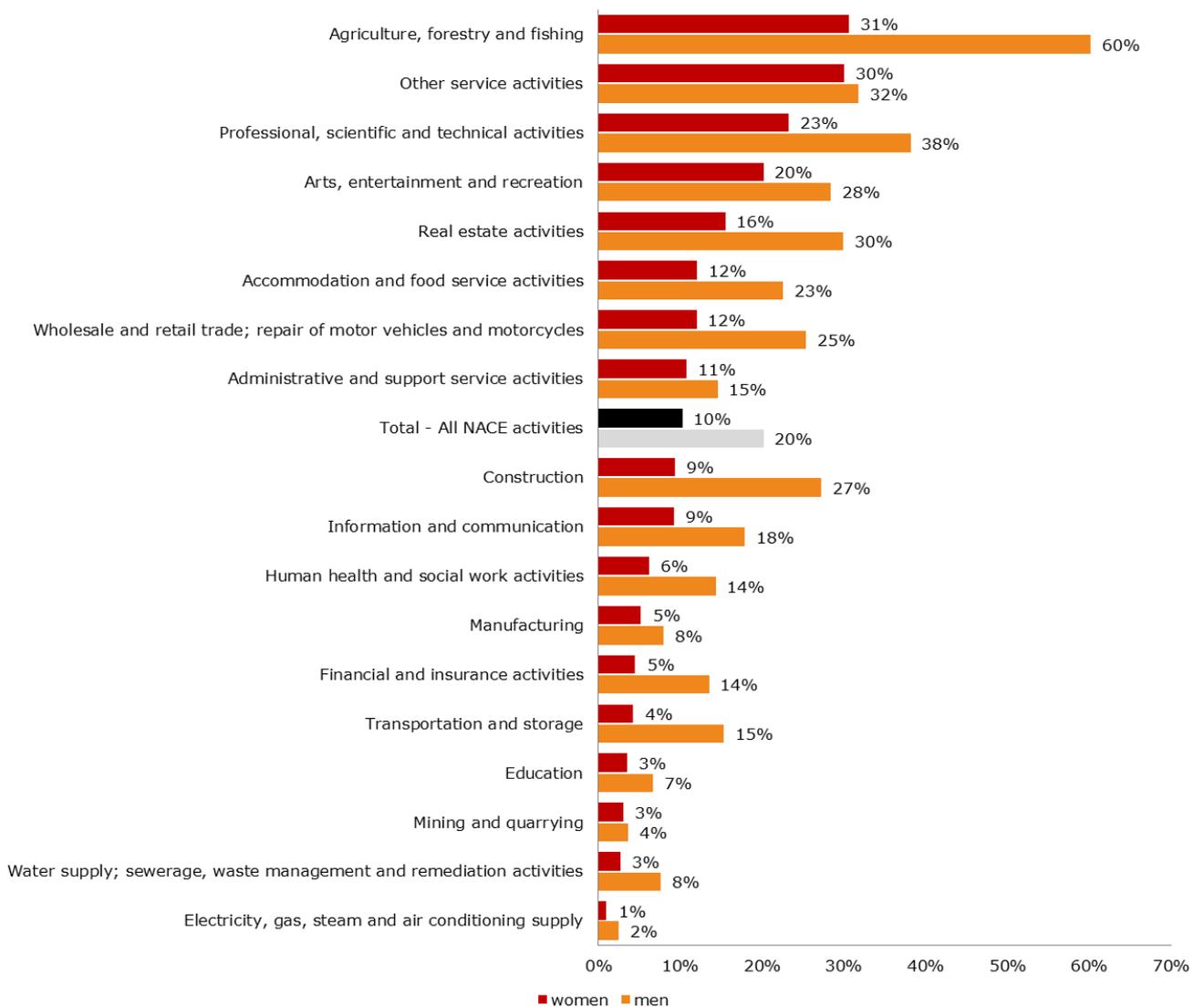
The distribution of women and men entrepreneurs by sector group for Europe-37 was similar in most countries with some exceptions. For instance, less than half of the entrepreneurs active in the education sector were women in Albania, Belgium, Denmark, Finland, France, Hungary, Malta, Norway, Romania, Serbia, Slovenia, Sweden and Turkey. Professional, scientific and technical activities were dominated by

women entrepreneurs in Bulgaria, Latvia and Slovakia. The financial and insurance sector was dominated by women entrepreneurs in Hungary and Slovakia.

Entrepreneurship rate

In all sector groups, entrepreneurship rates were higher for men than for women. See Figure 7. The top five sector groups with the highest entrepreneurship rates for women in Europe-27 (and in EU-28) were agriculture, forestry and fishing, other service activities, professional, scientific and technical activities, arts, entertainment and recreation and real estate activities. These sector groups also had the highest entrepreneurship rate for men but in a different sequence.

Figure 7 Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender and sector in Europe-37, 2012



Source: Pantela, based on the Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Note: Estimates made for all countries except for Spain, Italy and Poland.

Entrepreneurship rate of solo entrepreneurs and employers by sector

The percentages of solo entrepreneurs were higher for men than for women in most sector groups. The exceptions were health and social work activities, other service activities, and education. The percentages of men solo entrepreneurs were highest in construction, transport and storage and water supply, mining and quarrying.

In all sectors except other service activities, the percentages of men were higher than of women employers. The highest percentages of women employers were in other service activities, education, human health and social work activities and arts, entertainment and recreation. The highest percentage of men employers was in construction.

Farmers, liberal professionals and freelancers

Special categories of entrepreneurs are farmers, liberal professionals and freelancers. They provide work for themselves and if relevant, their family workers, and/or operate in a regulated environment.

Farmers

In 2012, there were 5.6 million farmers active in EU-28, of which 30% were women. While there were more men than women farmers in all Member States, the proportion of women ranged from 42% in Portugal to 6% in Ireland. Most farmers were solo entrepreneurs (93% of women and 88% of men). The importance of this category of entrepreneurs can be derived from the proportion of total entrepreneurs. In EU-28, the percentages of men and women were the same (17%).

Liberal professionals

In 2012, approximately 5.9 million liberal professionals were active in EU-28 of whom 2.5 million were women (43%). In five Member States, more women than men were active in the liberal professions: Latvia, Slovakia, Bulgaria, Croatia and the Czech Republic.

In EU-28, about 25% of all women entrepreneurs were active as liberal professionals as opposed to 15% of men entrepreneurs. About 79% of all women and 66% of all men liberal professionals were solo entrepreneurs.

Freelancers

In 2012, around 4.6 million freelancers were active in EU-28, of whom 2.1 million were women (45%). More women than men freelancers were active in Romania, Latvia, Lithuania, Hungary, Cyprus, Luxembourg, Finland, Slovakia, Estonia, Portugal and Bulgaria. Compared to 2008, the number of women freelancers in EU-28 increased by 13%, and men freelancers by 13.8%. However, the number of women freelancers decreased in Lithuania, Greece, Estonia, Bulgaria, Hungary, Spain, Cyprus, Italy and Ireland.

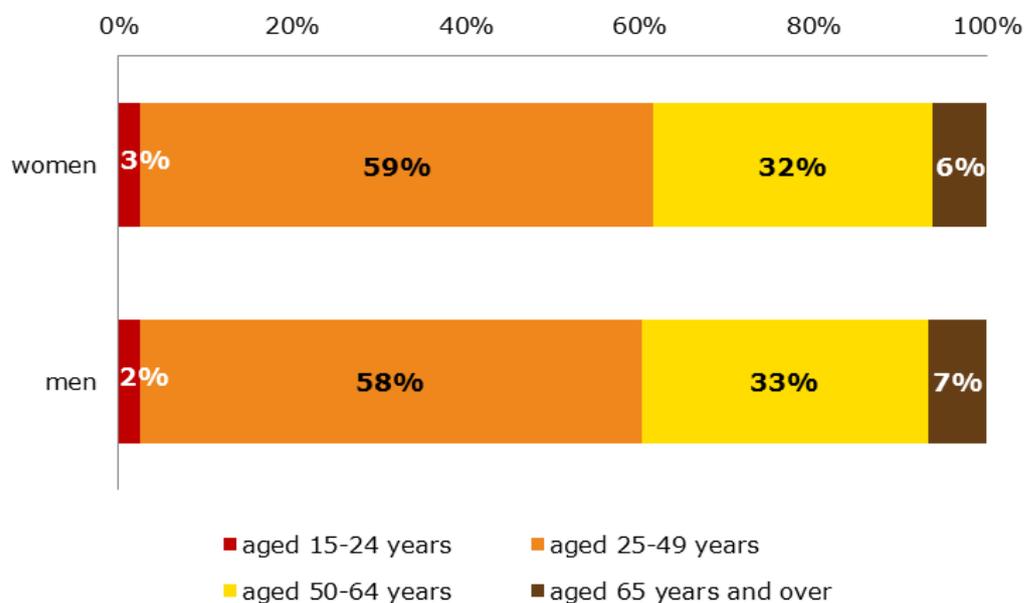
IV Characteristics of women entrepreneurs

An overview is presented of data on the characteristics of women entrepreneurs compared to men entrepreneurs.

Age distribution

In 2012, women entrepreneurs in Europe-37 were on average slightly younger than men entrepreneurs. In 2012, the proportions for women entrepreneurs were higher than for men entrepreneurs in the age groups 15–24 years and 25–49 years, and lower in the age groups 50–64 years and over 65 years older. Most women and men entrepreneurs were between the ages of 25 and 49 years (59% and 58%, respectively). See Figure 8. In EU-28 the proportions for women entrepreneurs in the the age groups was similar as in Europe-37. See Appendix 3.

Figure 8 Percentage of entrepreneurs by age and gender in Europe 37, 2012



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

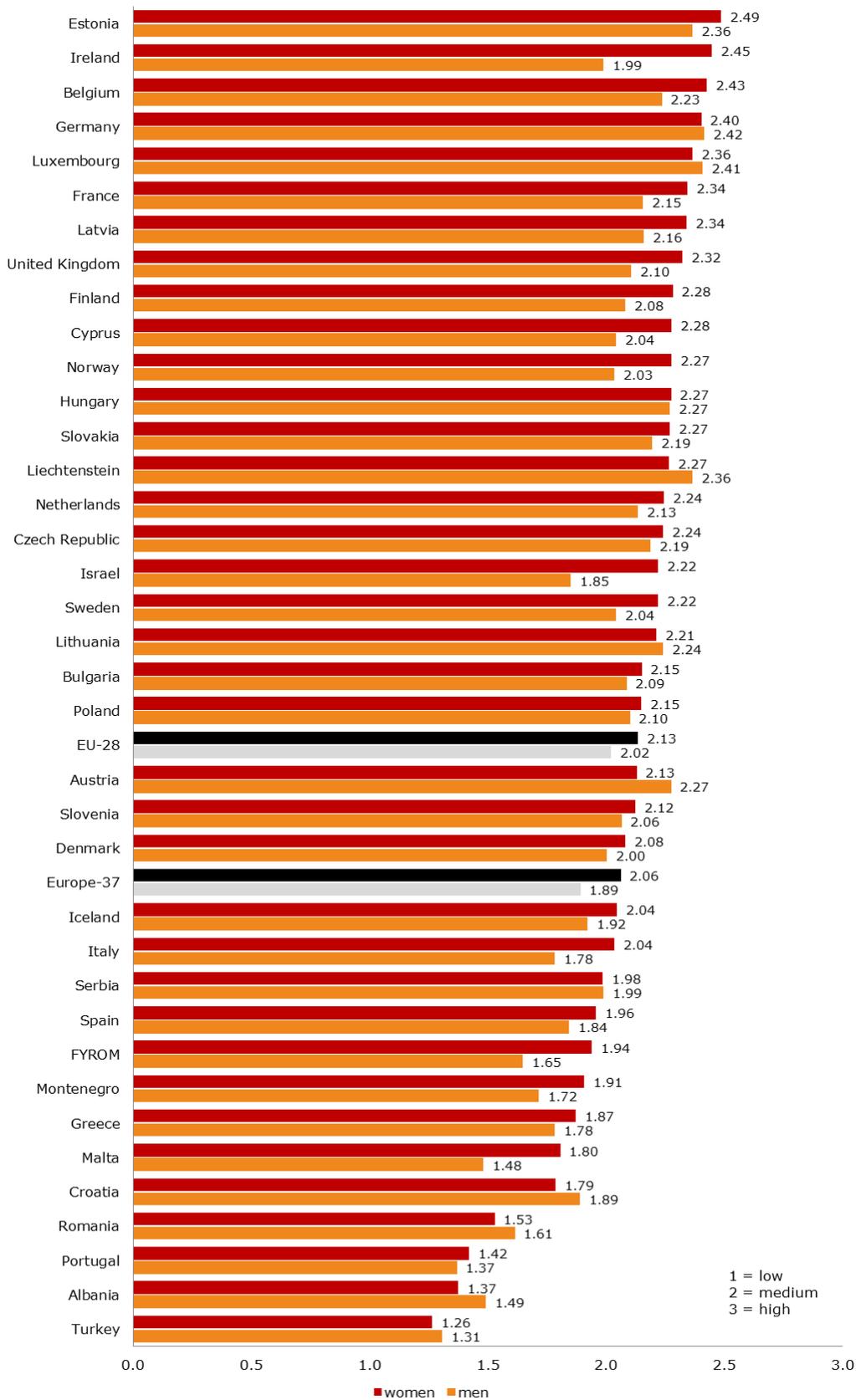
Note: Estimates made for Albania, Montenegro, Serbia, Israel and Liechtenstein.

Education level

In 2012, women entrepreneurs in EU-28 and Europe-37 tended to be better educated than men entrepreneurs. The largest group of men and of women entrepreneurs in Europe-37 had achieved the middle education level, 41% and 40%, respectively. The percentages for EU-28 were 42% and 26%, respectively.

While second largest group of men entrepreneurs were in the low education level, the second largest group of women entrepreneurs were in the high education level. Education levels varied significantly between countries. The top five countries with the highest average education level of women entrepreneurs in 2012 were Estonia, Ireland, Belgium, Germany and Luxembourg, and with the lowest level were Turkey, Portugal, Romania, Albania and Croatia. See Figure 9.

Figure 9 Average educational level of entrepreneurs by gender and country in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Albania, Montenegro, Serbia, Israel and Liechtenstein.

VI Characteristics and performance of women-led enterprises

Years in business

Data for the Netherlands, Latvia, the United Kingdom, Portugal and Belgium indicated that women entrepreneurs on average had been in business for fewer years than men entrepreneurs. However, the gender differences were relatively small.

Enterprise size

In the Former Yugoslav Republic of Macedonia, Albania, the United Kingdom, Sweden, Portugal, the Netherlands, Italy, France, Denmark and Belgium, the percentage of micro enterprises was higher for women than men entrepreneurs but slightly lower in the United Kingdom.

Mean net income

On average, the mean net income of women entrepreneurs in EU-28 in 2012 was 6% lower than that of men entrepreneurs. However, there were large variations between the countries. In 20 out of 30 countries (EU-28, Iceland and Norway), the mean income of women was higher than of men entrepreneurs. Countries with the largest positive income gap for women entrepreneurs were Spain, Norway and Malta, and with the largest negative income gap for women entrepreneurs were Germany, Lithuania, Denmark, and Poland.

Value added and net operating surplus

In the period 2004-2012, the average annual growth in value added of the sectors in which women were overrepresented (percentage of women entrepreneurs was higher than the EU-28 average) was lower than for the other sectors, 0.1% and 1.8%, respectively. For the period 2009-2012, the annual growth in turnover was significant lower in sectors overrepresented by women (-3% and 1.2%).

The proportion of the net operating surplus in the value added was used as an alternative indicator for enterprise performance by sector, and was on average lower in sectors in which women were overrepresented (22%) than in other sectors (29%). These results showed that differences in performance between women and men entrepreneurs can be explained partly by differences in the sector distribution of women and men entrepreneurs, with women entrepreneurs more likely to be active in sectors with somewhat lower performance.

Factors influencing entrepreneurship

Statistical analysis was carried out in this study to determine factors that significantly influence women entrepreneurship. As Table 1 shows:

- strong positive relationship between the level of women unemployment and the percentage of women entrepreneurs of women in the active labour force;
- negative relationship between the level of social benefits per unemployed worker and the percentage of women entrepreneurs due to necessity;
- weak negative relationship between the average level of welfare and the percentage of women entrepreneurs of women in the active labour force;
- significant negative relationship between the level of trust in other people and the percentage of women entrepreneurs of women in the active labour force;
- no significant relationship between barriers to obtaining finance and the percentage of women entrepreneurs of women in the active labour force;
- no significant relationship between the level of job autonomy and the percentage of women entrepreneurs of women in the active labour force;
- no significant relationship between gender inequality and the percentage of women entrepreneurs of women in the active labour force.

Table 1 Statistical results Bivariate Pearson Correlations

<i>Variable 1</i>	<i>Variable 2</i>	<i>Significance</i>
Percentage of women entrepreneurs of women in the active labour force, 2012	Unemployment rate women	++
Social benefits per unemployed (PPP), 2011	Percentage of necessity driven start-ups in total women start-ups	--
Percentage of women entrepreneurs of women in the active labour force, 2012	GDP per capita	-
Percentage of women entrepreneurs of women in the active labour force, 2012	Trust in people	-
Percentage of women entrepreneurs of women in the active labour force, 2012	Barriers to access finance: percentage applied for bank loans but rejected	0
Percentage of women entrepreneurs of women in the active labour force, 2012	Allowed to decide how daily work is organised	0
Percentage of women entrepreneurs 2012	Gender inequality index 2012	0

Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: ++ means significant strong relationship, -- means significant negative relationship.

VII Set up of the report

Data on the proportion of women and men entrepreneurs and the entrepreneur rates for men and women in 2012 and 2008, and trends in the last decade are presented in Chapter 2 of this report. In addition, this chapter includes data on women and men entrepreneurs who are solo entrepreneurs and those who are employers. Data are provided on the sector presence of women entrepreneurs in Chapter 3, and on the characteristics of women entrepreneurs, such as age and educational level, in Chapter 4. Characteristics and performance of enterprises led by women are presented in Chapter 5. Chapter 6 presents factors that affect the level of women entrepreneurship.

More detailed information on the databases used is included in Appendix 1. This study was carried in close cooperation with the national research organisations listed in Appendix 2. Appendix 3 includes figures for EU-28 that are not presented in the report.

To supplement this report, there is a separate Annex with the country data used in this report.

1 INTRODUCTION

1.1 Study objective

This study was carried out at the request of the European Commission in order to gather available statistical data on women entrepreneurs in Europe.

The study objective is to collect, analyse, and systematically present the most recent data on women entrepreneurs in Europe-37. Data include number of women entrepreneurs, the entrepreneurship rate, sectors in which women entrepreneurs are mainly active and other characteristics, such as age cohorts, educational levels, and working hours. The study covers the 28 EU Member States, Albania, Former Yugoslav Republic of Macedonia (FYROM), Iceland, Israel, Turkey, Liechtenstein, Montenegro, Norway and Serbia.³ This group of countries is referred to as the Europe-37.

Report and country fiches

This report is accompanied by 37 country fiches, each in the same format to provide a systematic and structured overview of data on women entrepreneurs.

A distinction is made between data retrieved from comparable international databases such as Eurostat, and data from national sources. Data from harmonised international databases have been used where possible⁴. Missing data are indicated in the country fiches, and estimates for these data have been used only in the main report.

More detailed information on the databases used is included in Appendix 1. This study was carried in close cooperation with the national research organisations listed in Appendix 2. Appendix 3 includes figures for EU-28 that are not presented in the report.

To supplement this report, there is a separate Annex with the country data used in this report.

³ These 37 countries are participating in the Competitiveness and Innovation Framework Programme (CIP) of DG Enterprise and Industry of the European Commission.

⁴ This can mean that for comparability reasons, other definitions are used than normally used at national level.

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2 WOMEN ENTREPRENEURS IN EUROPE

Data are presented on women and men entrepreneurs active in Europe-37 including the proportion of entrepreneurs in the active labour force (entrepreneurship rate). Data are provided on solo entrepreneurs and entrepreneurs who are employers, for 2008 and 2012, and where possible, on changes during the period 2003 to 2012.

Entrepreneurs are defined as persons aged 15 years and older who work in their own business, farm or professional practice to make a profit, and spend time on the operation of a business, or are in the process of setting up a business. These entrepreneurs consider the running of their enterprises to be their main activity. This definition is the same as that used for a self-employed person in the Labour Force Survey (LSF) database of Eurostat⁵.

Where relevant, a distinction was made between solo entrepreneurs and employers. Solo entrepreneurs are persons who operate their own economic enterprise, or engage independently in a profession or trade. They do not hire employees nor are family workers or volunteers active in their enterprise. Solo entrepreneurs are also known as own account workers.⁶ Employers are persons who operate their own economic enterprise, or engage independently in a profession or trade. They employ one or more persons and/or family workers.

2.1 Women entrepreneurs

Number and proportion of total entrepreneurs

In 2012, there were 40.6 million entrepreneurs active in Europe-37, of whom 29% were women (11.6 million). The percentage of women entrepreneurs was slightly higher in the European Union (EU-28) at 31%. In EU-28, around 10.3 million women entrepreneurs were active compared to 22.8 million men entrepreneurs. See Figure 2.1.

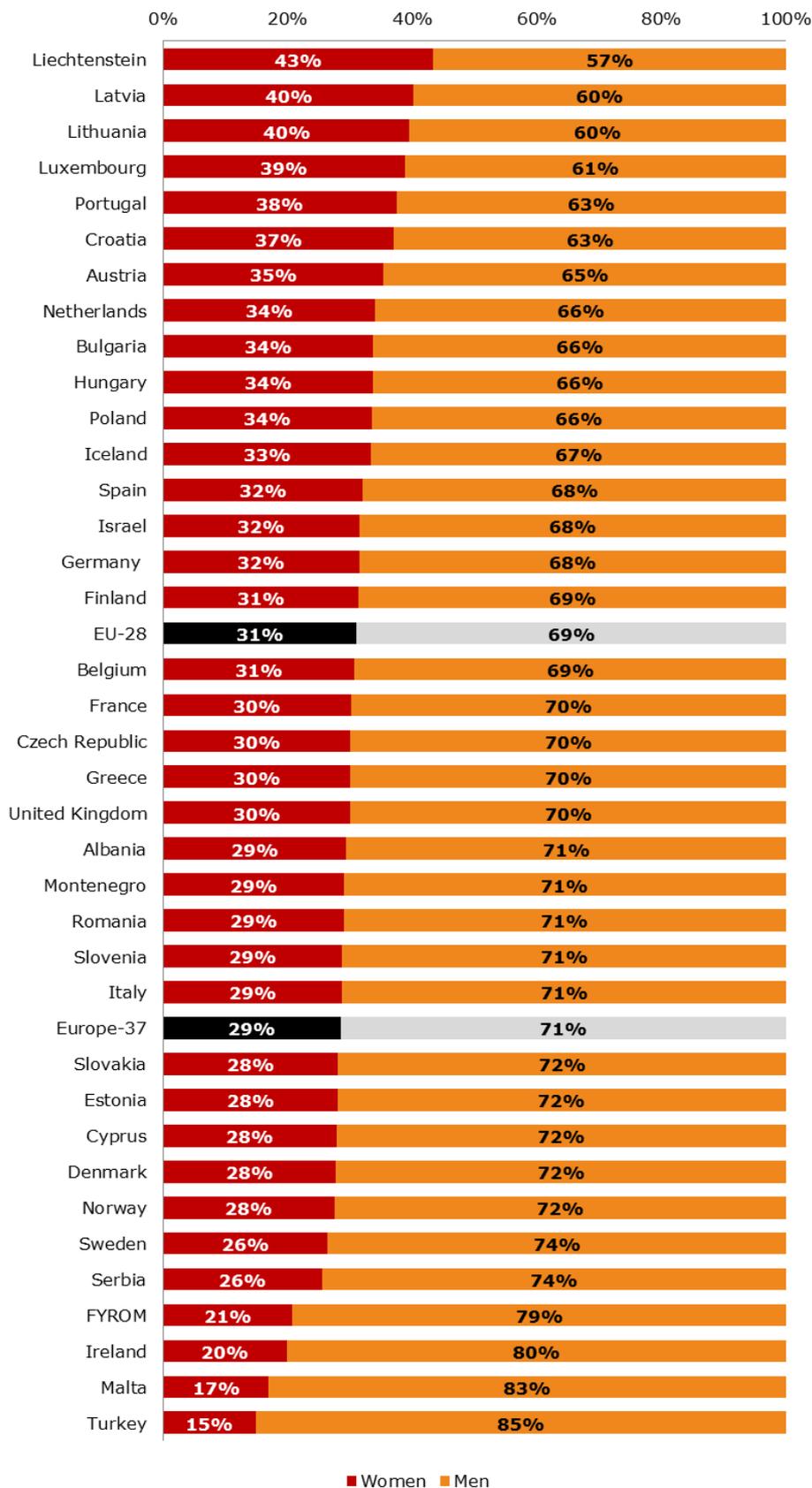
The percentages of women entrepreneurs in the total number of entrepreneurs varied considerable between countries. With 43%, Liechtenstein had the highest percentage of women entrepreneurs, followed by Latvia (40%), Lithuania (40%) and Luxembourg (39%). With 15%, Turkey had the lowest percentage followed by Malta (18%) and Ireland (20%).

In 2008, the percentage of women entrepreneurs was 30% for Europe-37 and 28% for EU-28. See Figure 2.2. The variation between and ranking of countries was similar to 2012.

⁵ Most countries have the Labour Force Survey-concept for labour force data. For reasons of comparability the Eurostat Labour force data are used. All databases used are presented in Appendix 1.

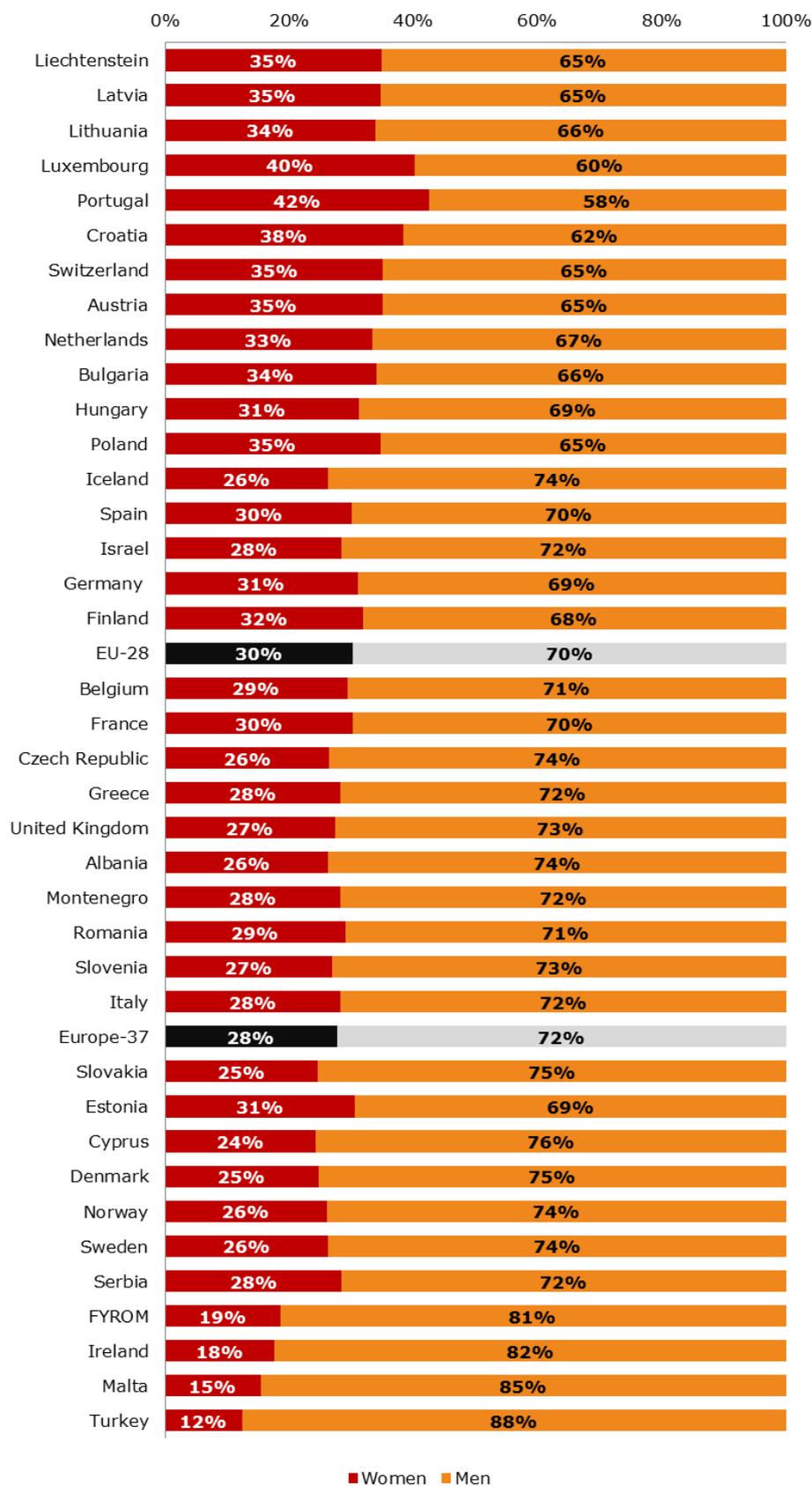
⁶ In policy documents often the term sole traders or sole proprietor is used. A solo entrepreneur is not the same. A sole trader or a sole proprietor means that the enterprise is owned by one person and is not incorporated. A solo entrepreneur can be non-incorporated as well as incorporated.

Figure 2.1 Percentage of entrepreneurs of total number of entrepreneurs by gender in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Figure 2.2 Percentage of entrepreneurs of total number of entrepreneurs by gender in Europe-37, 2008



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

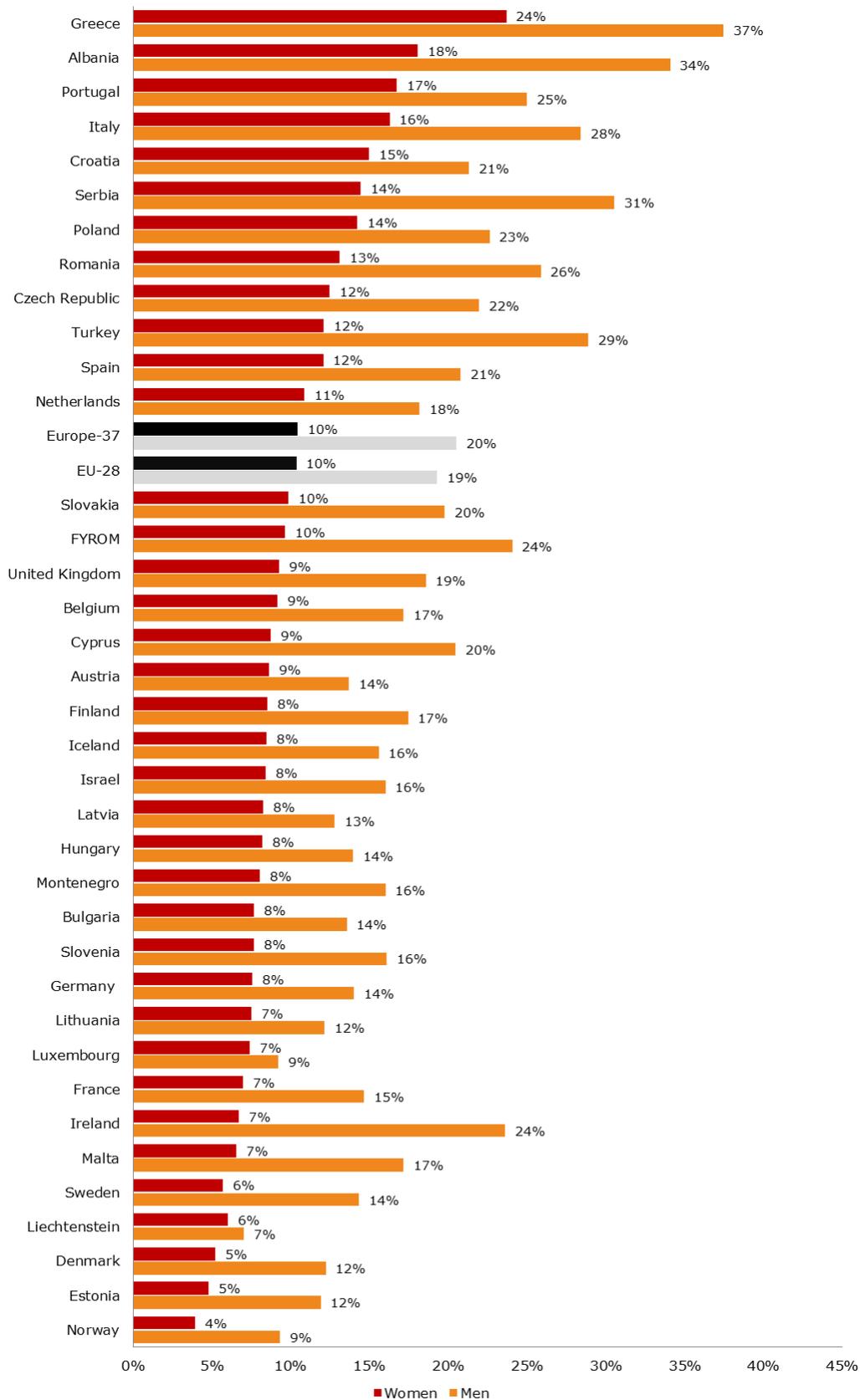
Entrepreneurship rate

The entrepreneurship rate is a good indicator to compare the entrepreneurial level of women and men in and between countries. The entrepreneurship rate expresses the percentage of entrepreneurs in the total active labour force. In 2012, the entrepreneurship rate for women (percentage of women entrepreneurs in the total number of women in the active labour force) was 10% for Europe-37 and for EU-28. The rates for men were higher at 20% and 19%, respectively for Europe-37 and EU-28. The entrepreneurship rates for women and men by country are presented in Figure 2.3.

In 2012, the top five countries with the highest entrepreneurship rates for women were Greece, Albania, Portugal, Italy and Croatia, and the countries with the lowest rates were Norway, Estonia, Denmark, Liechtenstein and Sweden. The entrepreneurship rate for men was higher than that for women in all countries. Data for 2008 show that entrepreneurship rates in Europe-37 and EU-28 and the ranking of countries were similar to 2012. See Figure 2.4.

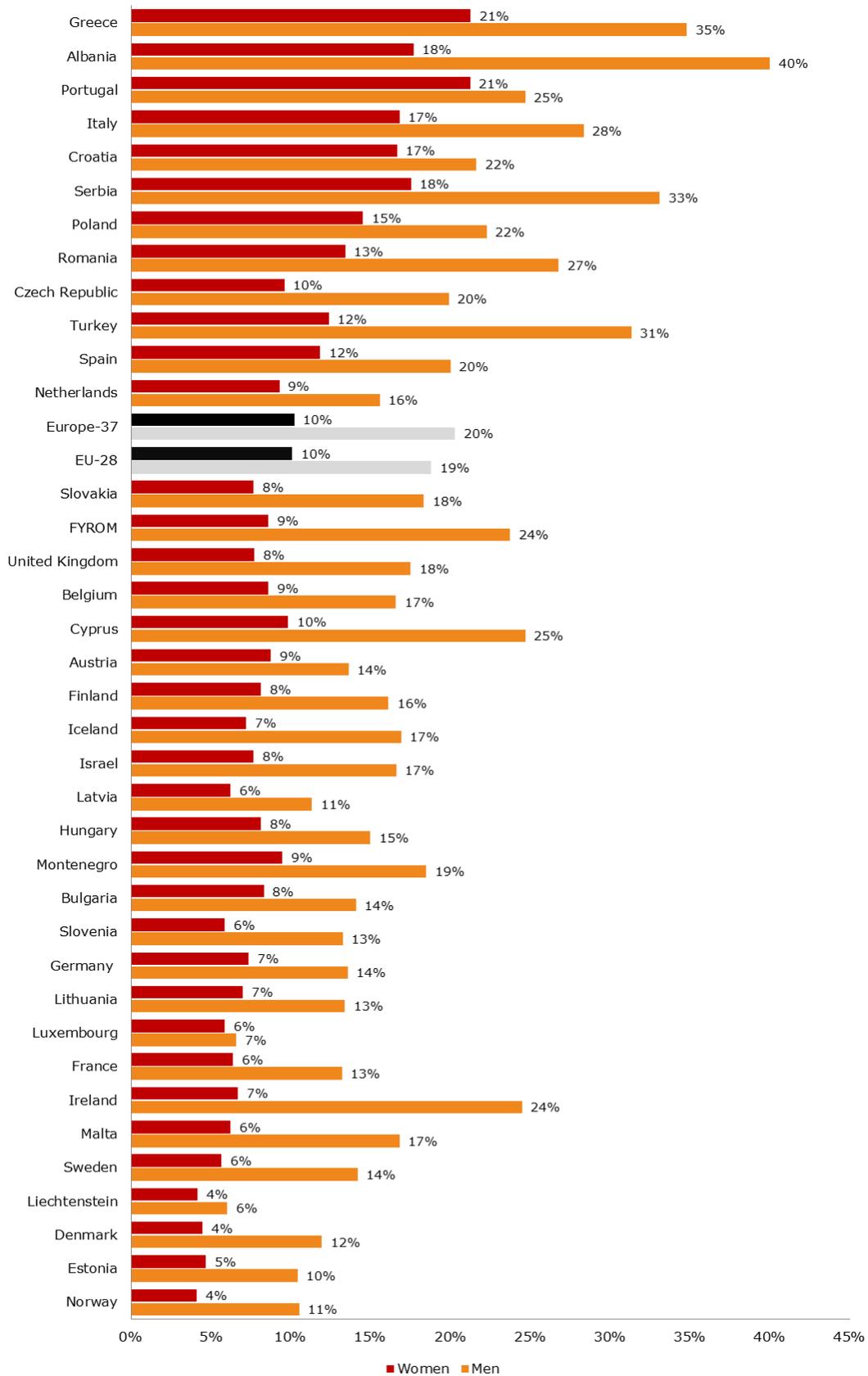
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Figure 2.3 Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender and country in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Figure 2.4 Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender and country in Europe-37, 2008



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

2.2 Changes in the period 2003-2012

Changes in the percentage of women entrepreneurs

In the period 2003-2012, the percentage of women entrepreneurs of the total entrepreneurs in Europe-37 increased from 26.1% to 28.5% (2.4 percent points). In the same period, the percentage of women entrepreneurs in EU-28 increased from 28.9% to 31% (2.1 percent points). In almost all countries, the percentage of women entrepreneurs increased, with the highest percentages in Liechtenstein, Iceland, Cyprus, Spain and Serbia. However, the percentage of women entrepreneurs decreased in Estonia, Croatia, Montenegro, Bulgaria, Poland and Finland. See Figure 2.5.

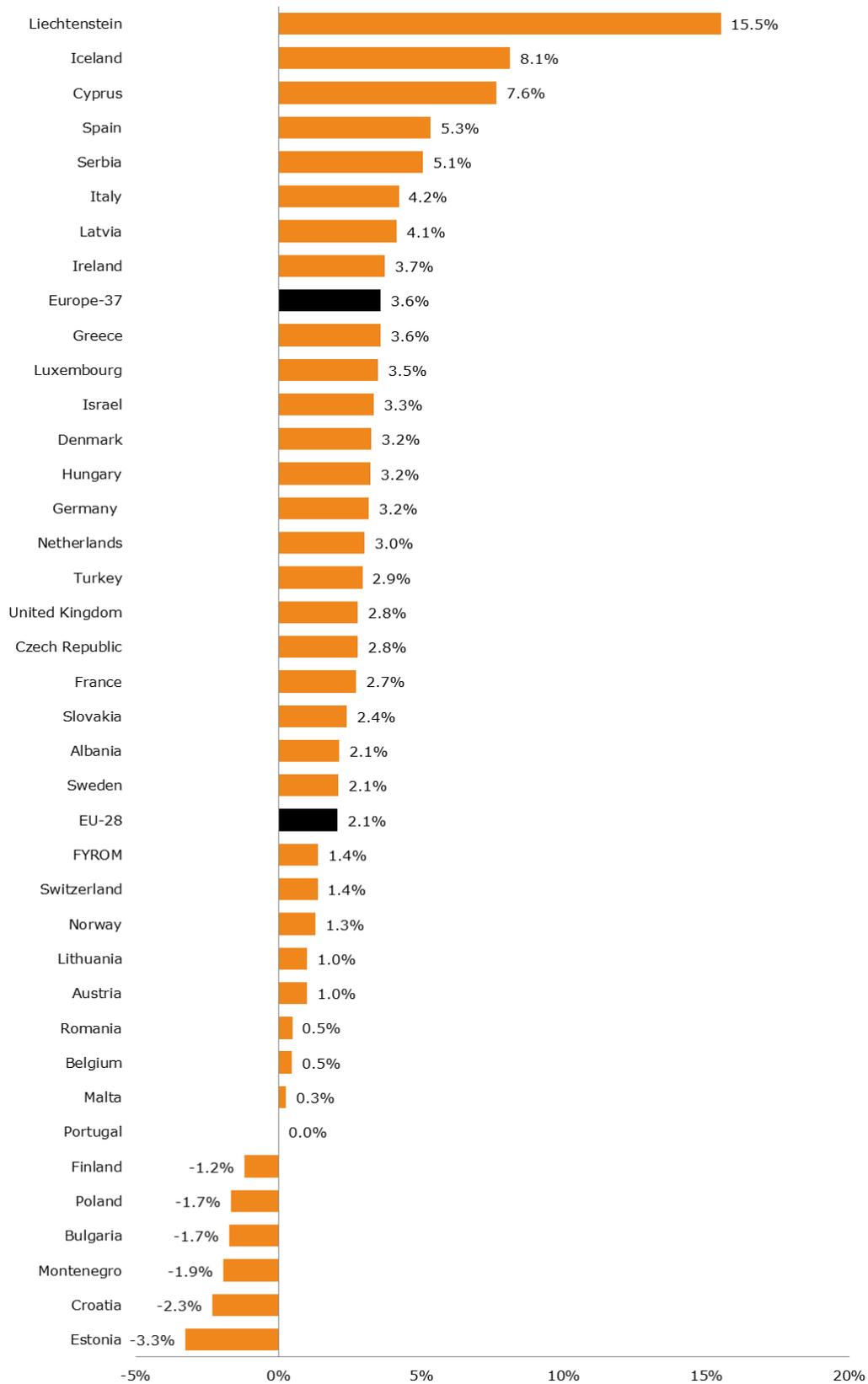
The data show that in Estonia, Croatia, Montenegro, Bulgaria, Poland and Finland, the percentage of women entrepreneurs decreased in both periods. There was also a decrease in Serbia, Luxembourg and Portugal in the period 2008-2012. In all other countries, the percentage of women entrepreneurs increased on average by 0.8 percent points in Europe-37 and by 0.7 percent points in EU-28.

In the period 2003-2008, the Europe-37 and the EU-28 average increased by 2.7 and 1.3 percent points, respectively. There was a decrease in the percentage of women entrepreneurs in Estonia, Croatia, Montenegro, Bulgaria, Poland and Finland, Malta, Belgium, Lithuania, Norway, FYROM, Albania, Slovakia, the Czech Republic and Latvia.

Changes in the percentage of women entrepreneurs in Europe-37 in the periods 2003-2008 and 2008-2012 are presented in the separate Annex to this report.

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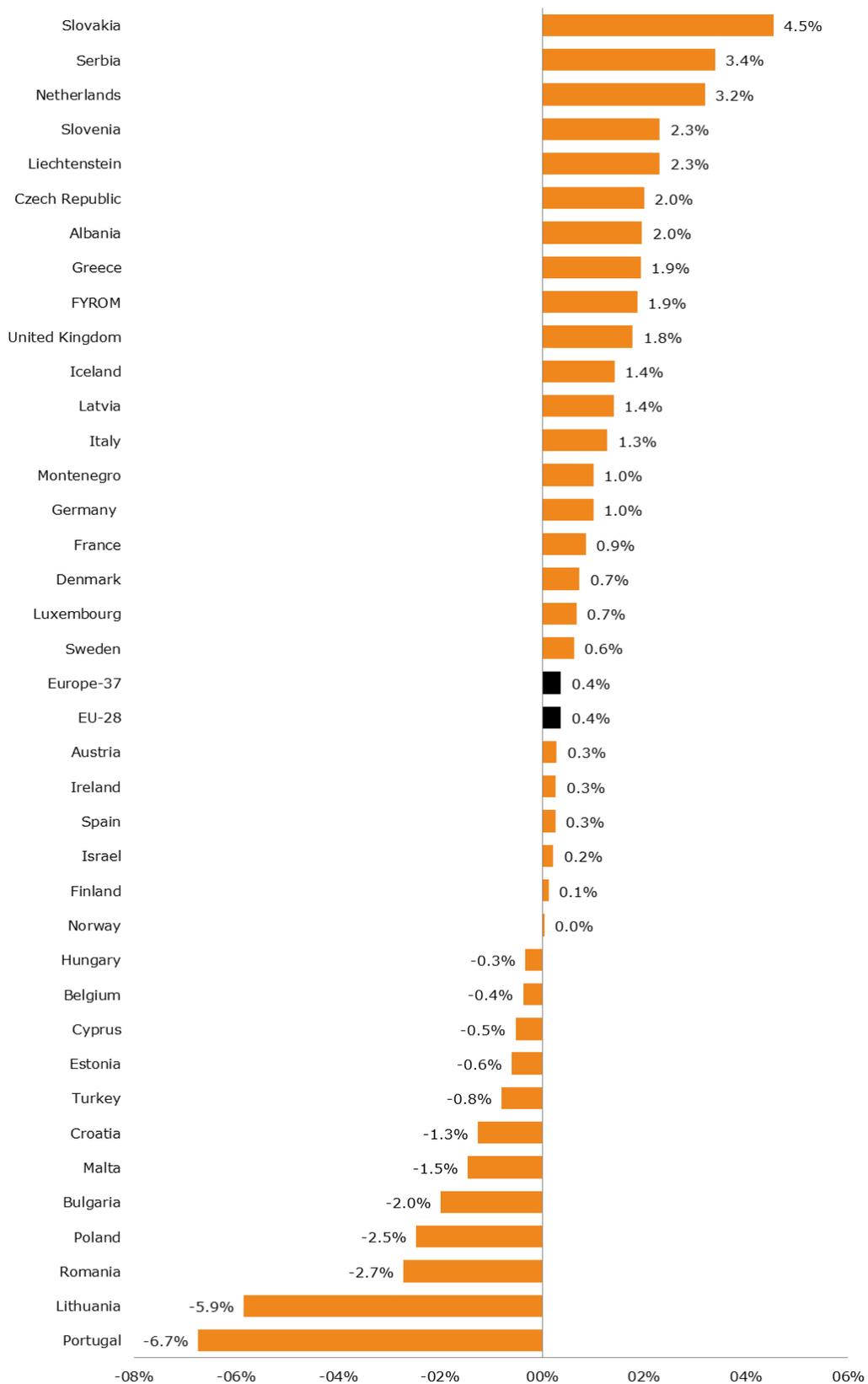
Figure 2.5 Change of the proportion of women entrepreneurs in the total population of entrepreneurs by country in Europe-37, 2003-2012



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Note: Estimates are made for 2003 for Turkey, Albania, Montenegro, Serbia, Liechtenstein and Israel.

Figure 2.6 Change of the proportion of women entrepreneurs in the active labour force (entrepreneurship rate) by country in Europe-37, 2003-2012



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Note: Estimates are made for 2003 for Turkey, Albania, Montenegro, Serbia, Liechtenstein and Israel.

Changes in the entrepreneurship rate

In the period 2003-2012, the percentage of women entrepreneurs in the active labour force of women (women entrepreneurship rate) in Europe-37 and in EU-28 increased slightly from 10% to 10.4%, respectively (0.4 percent point). This was the case in almost all countries with the highest increase in Slovakia, Serbia and the Netherlands. However, the rate decreased by more than 1 percent point in Portugal, Lithuania, Romania, Poland, Bulgaria, Malta, Estonia and Croatia. See Figure 2.6.

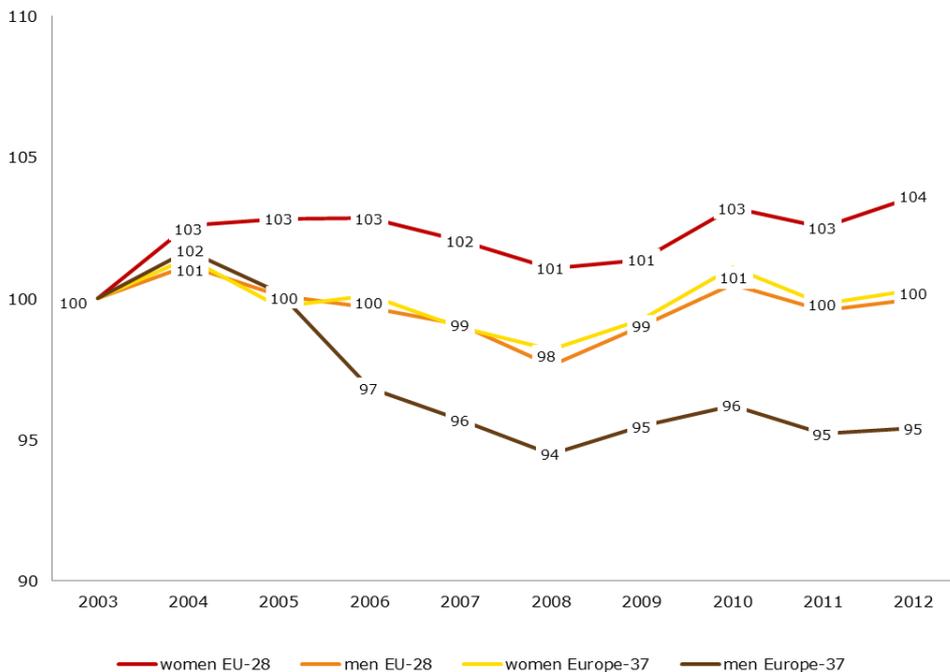
Changes in entrepreneurship rate in the periods 2003-2008 and 2008-2012 are presented in the separate Annex to this report.

In the period 2008-2012, the average entrepreneurship rate of women increased in Europe-37 and EU-28 by 0.2 and 0.3 percent point, respectively. In the period 2003-2008, the average increased in Europe-37 and the EU-28 by 0.2% and 0.1 percent point, respectively.

In Lithuania, Romania, Poland, Bulgaria, Malta, Estonia and Croatia, the decrease in the period 2003-2008 was larger than in the period 2008-2012, except for Portugal where the decrease was higher in 2008-2012. However, in Malta and Lithuania, the entrepreneurship rate of women increased slightly in the period 2008-2012. The entrepreneurship rate of women decreased with more than 1 percent point in Serbia, Montenegro, Cyprus and Croatia.

The annual change of the entrepreneurship rate in Europe-37 and in EU-28 is presented in Figure 2.7.

Figure 2.7 Annual change of the percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender in Europe, 2003-2012 (index 2003=100)



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

2.3 Employers versus solo entrepreneurs

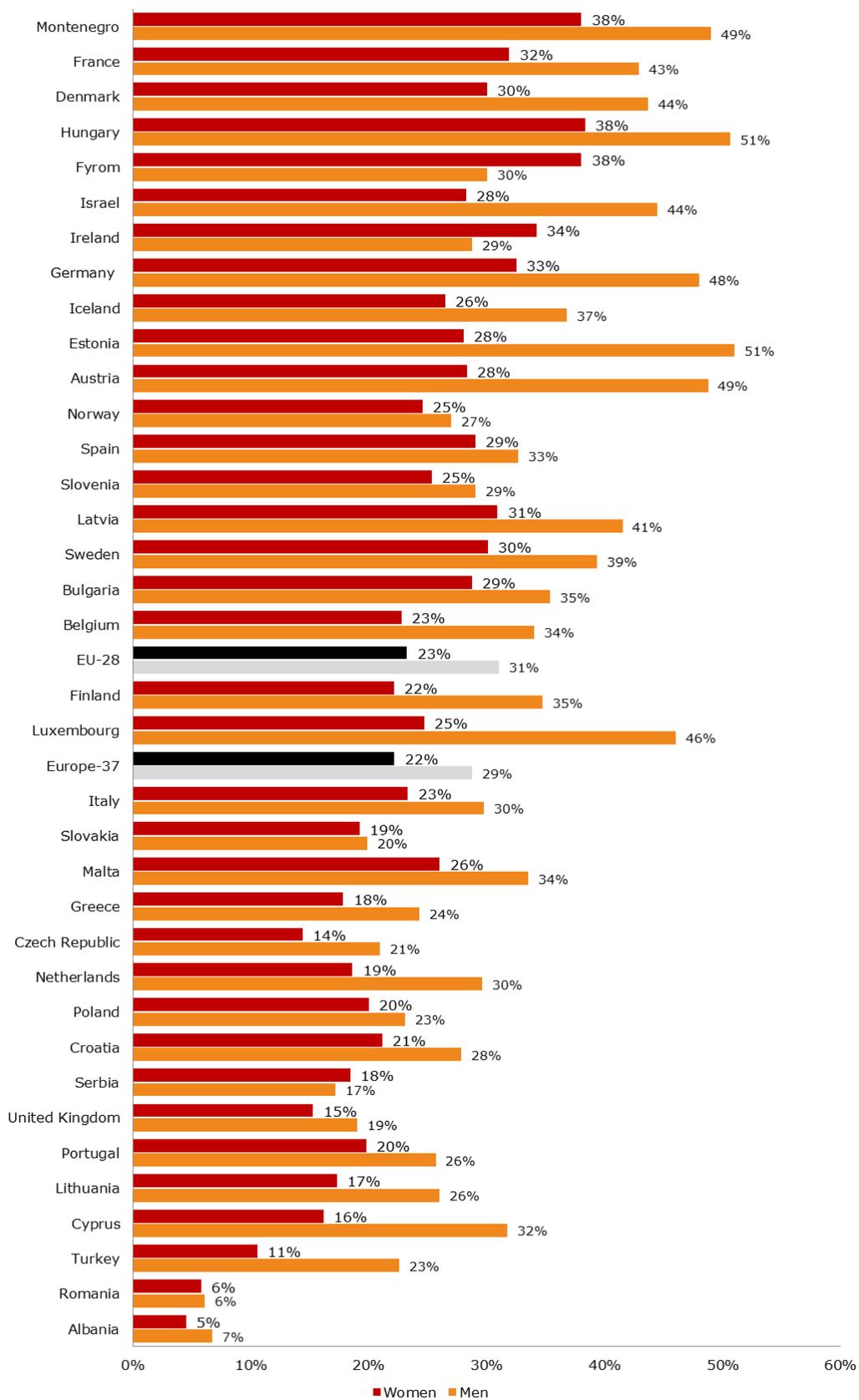
Most women and men entrepreneurs in Europe are solo entrepreneurs, who operate their own economic enterprise, or engage independently in a profession or trade. They do not hire employees nor are family workers or volunteers active in their enterprise. Solo entrepreneurs are also known as own account workers.⁷

In 2012, 78% of women entrepreneurs in Europe-37 were solo entrepreneurs and 22% were entrepreneurs with personnel. Of the men entrepreneurs active in Europe-37, 81% were solo entrepreneurs and 29% were employers. The percentages for EU-28 were similar, 23% of women entrepreneurs and 30% of men entrepreneurs were employing personnel. See Figure 2.8. There were also large differences between countries. Montenegro followed by Hungary and Ireland had the highest proportion of women employers, and Romania and Albania the lowest.

In 2008, 23% of the women entrepreneurs in Europe-37 were employing personnel and 77% were solo entrepreneurs. Of the men entrepreneurs in Europe-37, about 31% were employers. In EU-28, around 24% of women and 33% of men entrepreneurs were employers. See Figure 2.9. Country variations are in line with data for 2012.

⁷ In policy documents often the term sole traders or sole proprietor is used. A solo entrepreneur is not the same. A sole trader or a sole proprietor means that the enterprise is owned by one person and is not incorporated. A solo entrepreneur can be non-incorporated as well as incorporated.

Figure 2.8 Percentage of employers of total number of entrepreneurs by gender in Europe-37, 2012

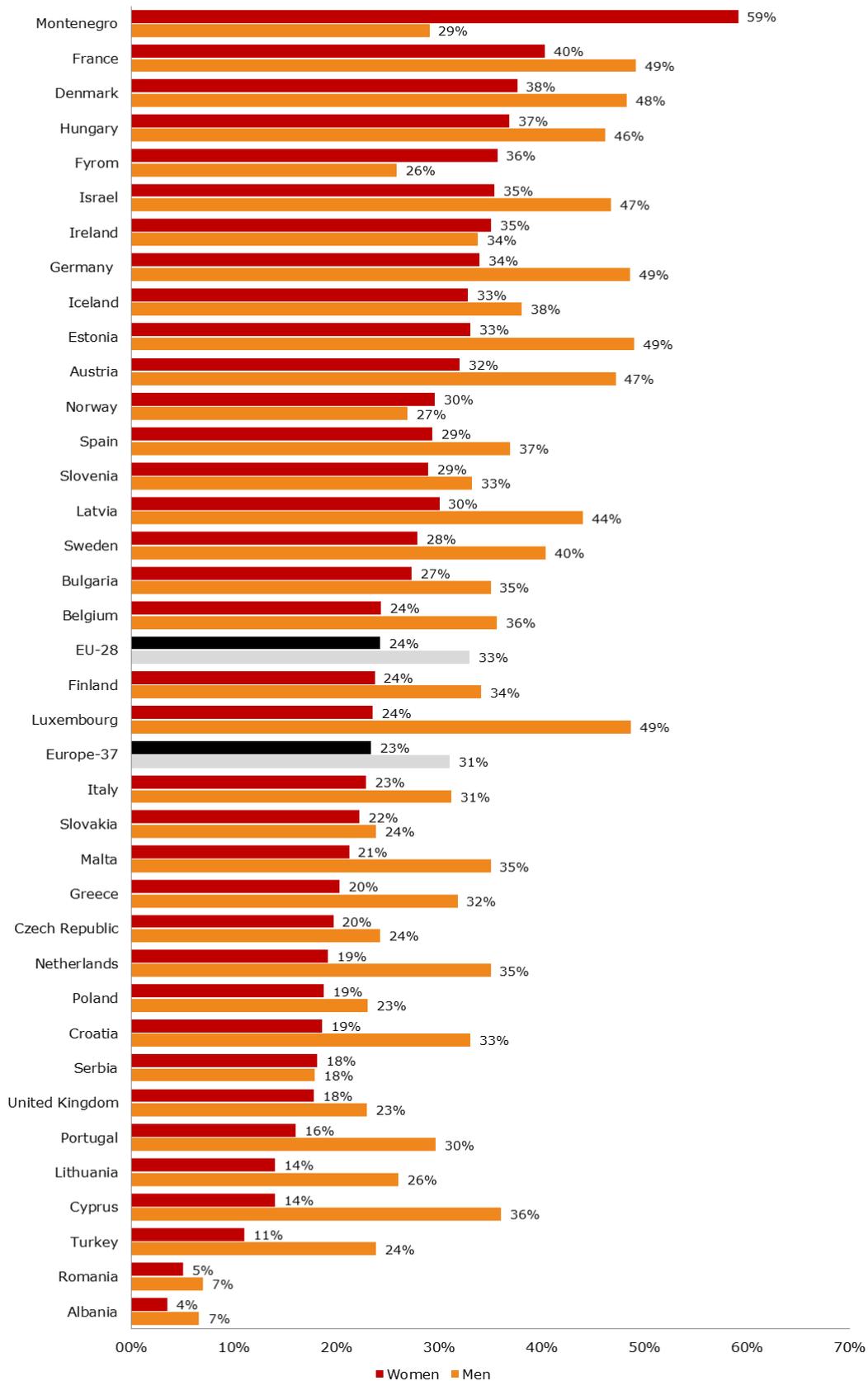


* Liechtenstein is missing

Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Note: Estimates made for Israel and Albania; Liechtenstein is missing

Figure 2.9 Percentage of employers of total number of entrepreneurs by gender in Europe-37, 2008



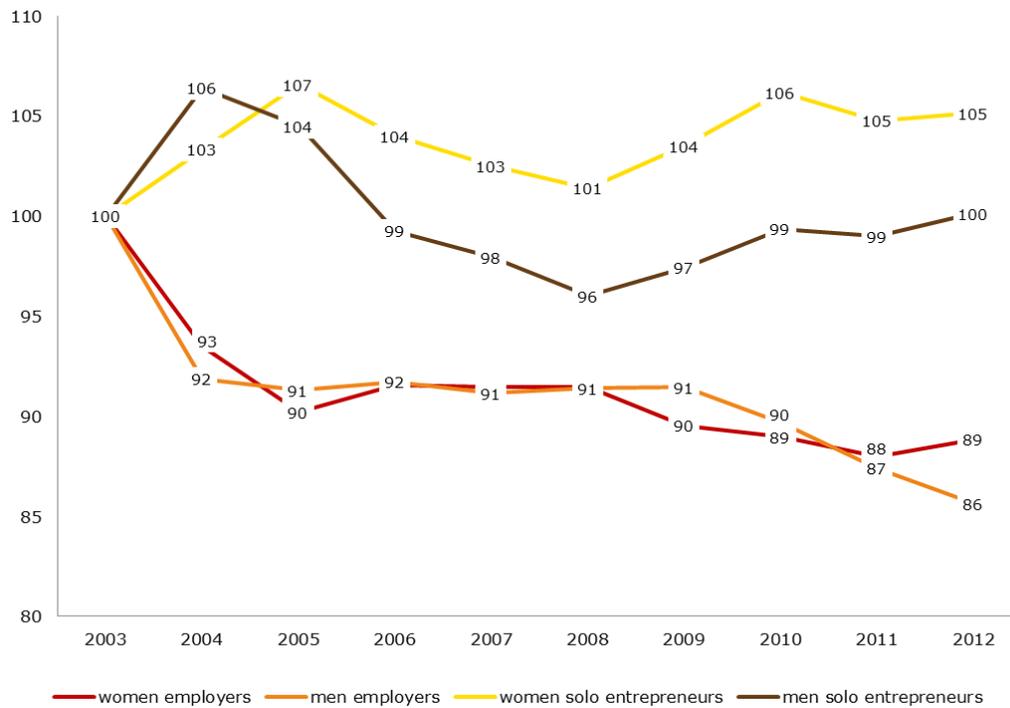
Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Note: Estimates made for Israel, Albania and Montenegro; Liechtenstein is missing.

Proportion of entrepreneurs who are employers and solo entrepreneurs in the total labour force

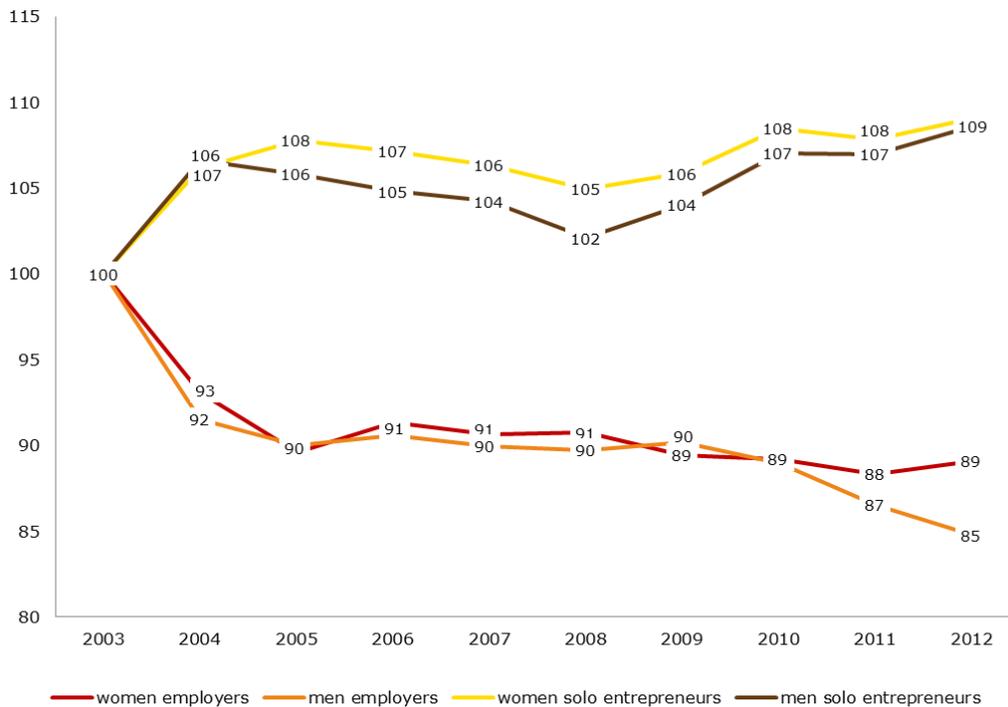
In the period 2003-2012, the percentage of women solo entrepreneurs of the total number of women in the active labour force in Europe-37 and in EU-28 increased. The percentage of men solo entrepreneurs remained stable in Europe-37 but increased in EU-28. In the same period, the percentages of women and men entrepreneurs with personnel decreased in Europe-37 and in EU-28. See Figure 2.10.

Figure 2.10 Change in the proportions of solo entrepreneurs and entrepreneurs who are employers in the active labour force by gender in Europe-37, 2003-2012 (index 2003=100)



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

Figure 2.11 Change in the proportions of solo entrepreneurs and entrepreneurs who are employers in the active labour force (entrepreneurship rate) by gender in EU-28, 2003-2012 (index 2003=100)



Source: Panteia, based on Labour Force Survey (Eurostat, UNICE, ILOSTAT and national statistics)

2.4 Part-time entrepreneurs

In 2012, 31% of women entrepreneurs in Europe-37 were working part-time in their enterprise, comparing to 12% of men entrepreneurs. Similar to Europe-37, around one third of women entrepreneurs in EU-28 worked part-time in their enterprise (30%). For men entrepreneurs, these figures were significantly lower (12%). See Figure 2.12.

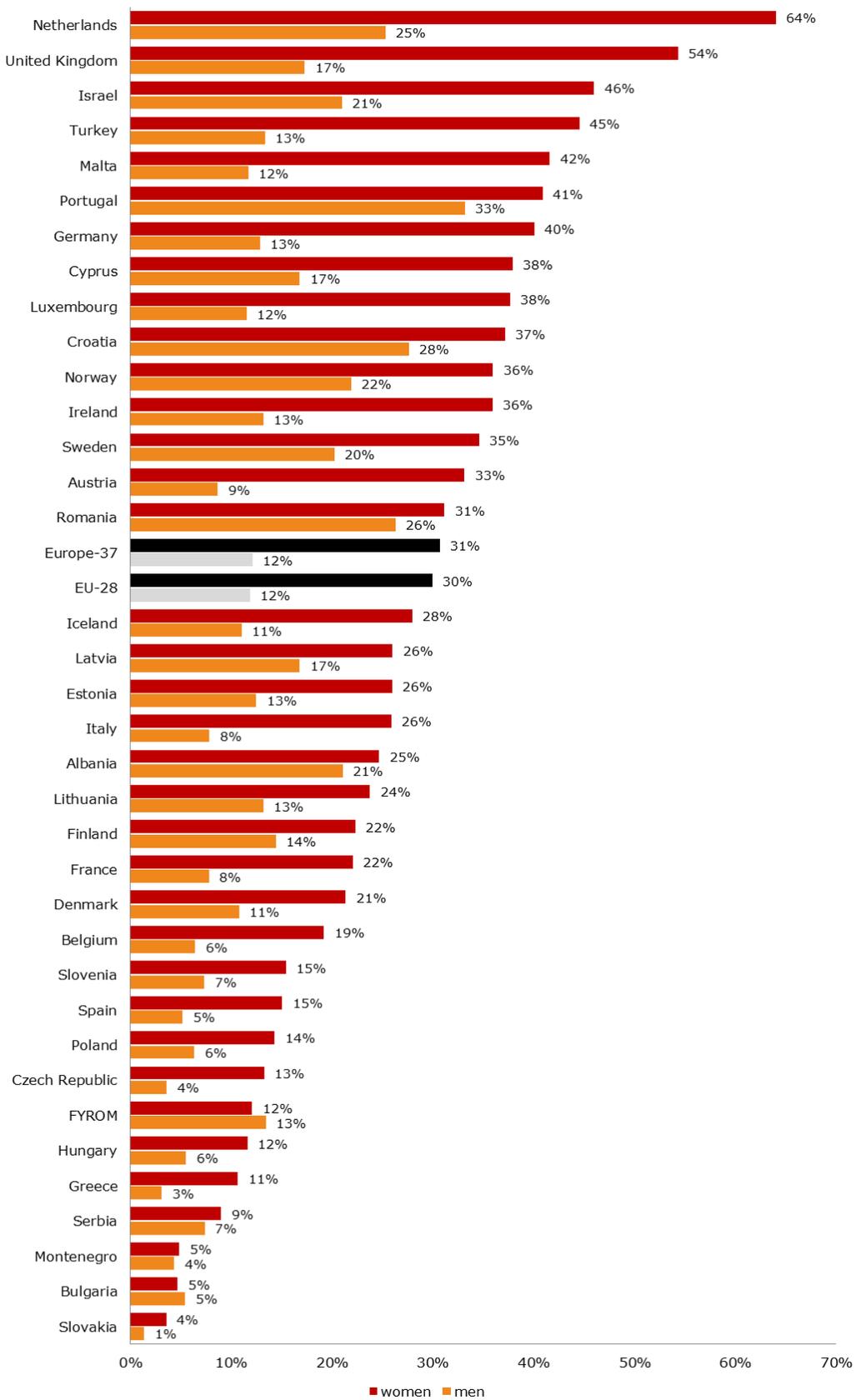
The percentages of part-time entrepreneurs varied considerably between countries. While the percentage of women part-timers was 64% in the Netherlands and 54% in the United Kingdom in 2012, the percentage was only 4% in Slovakia, 5% in Bulgaria and 5% in Montenegro.

The percentages of part-time men entrepreneurs were significantly higher in the Netherlands (25%), the United Kingdom (17%), Portugal (33%), Croatia (28%) and Romania (26%) than the European average (12%). The percentages of part-time men entrepreneurs were the lowest in Slovakia (1%), Greece (3%) and the Czech Republic (4%). See Figure 2.12.

Compared to 2008, the percentages for both women and men entrepreneurs increased. In Europe-37, the percentage of women entrepreneurs working part-time increased by 2 percent points and in EU-28 by 1 percent point. The percentage of men entrepreneurs in Europe-37 and in EU-28 increased by 2 percent points. See Figure 2.12.

In Latvia, Luxembourg and Cyprus, the proportion of men and women part-time entrepreneurs in the total number of men and women entrepreneurs increased by more than 5 percent points, and increased for women part-time entrepreneurs in Malta and Turkey by more than 5 percent points. The largest decreases in the percentage of women part-time entrepreneurs occurred in Iceland, followed by Bulgaria and Montenegro.

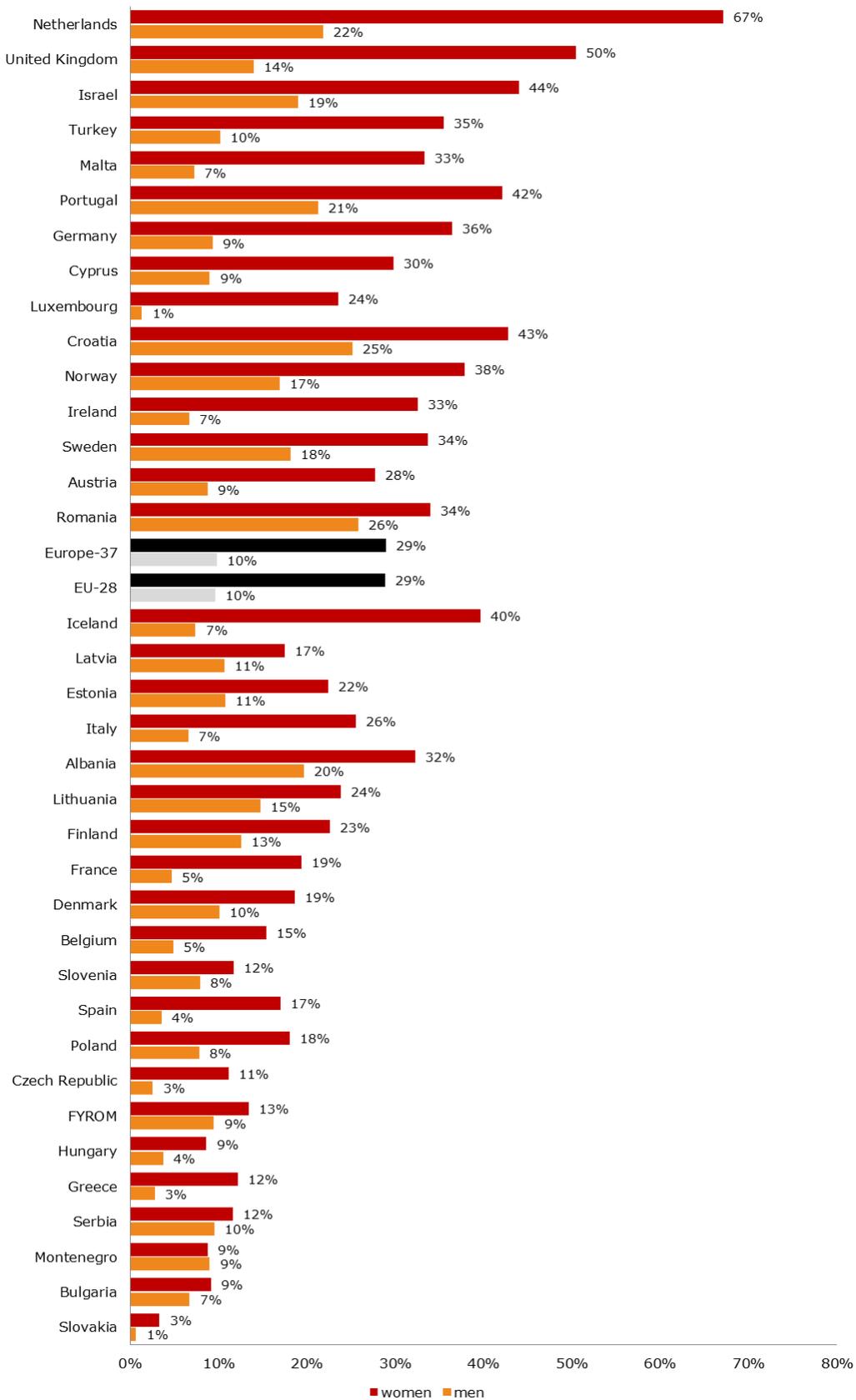
Figure 2.12 Percentage of part-time entrepreneurs by gender in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Montenegro, Serbia, Albania, and Israel; Liechtenstein is missing.

Figure 2.13 Percentage of part-time entrepreneurs by gender in Europe-37, 2008,



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Montenegro and Serbia; Liechtenstein is missing.

Entrepreneurship as main activity

There are various reasons for entrepreneurs choosing to work part-time in their enterprises, such as having another job, household responsibilities, need for leisure time, illness or disability, advanced age, and study.

In 2012, only 15% of the part-time women entrepreneurs in EU-28 (15%) had a second job, compared to 34% of the part-time men entrepreneurs. About 50% of these part-time women entrepreneurs were employees in their second job, 47% had a second enterprise and 3% were active as contributing family worker.

Starting from the total number of women entrepreneurs in 2012, 4.4% of them in EU-28 had a second job in addition to being entrepreneur compared to 3.7% of the men entrepreneurs. These entrepreneurs considered being an entrepreneur to be their main employment. See Figure 2.14. These percentages changed only slightly from 2008, -0.1 percent point for women entrepreneurs and -0.2 percent point for men entrepreneurs.

There were significant variations between countries. The percentages of part-time women entrepreneurs with a job in addition to being entrepreneur were highest in Norway, Iceland and Sweden and the lowest in Slovakia, Croatia and Romania. The percentages of men entrepreneurs were highest in Norway, the Netherlands and Sweden, and lowest in Romania, Slovenia and Turkey.

Entrepreneur as a secondary activity

A special category of entrepreneurs are those whose main job is being an employee (first job) and who run an enterprise as a second activity, and thus being an entrepreneur in a second job.

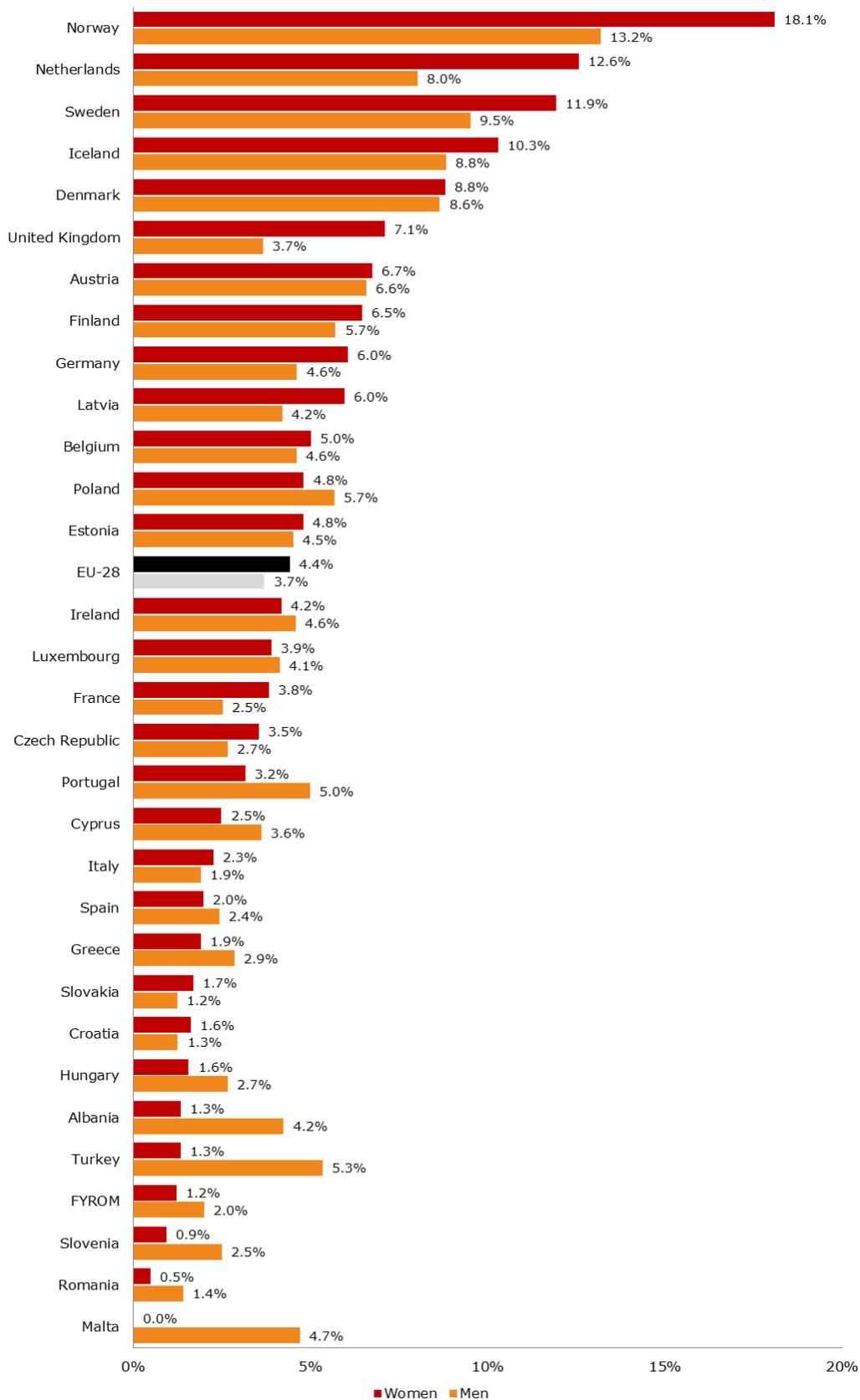
To get insight into the extent to which persons in a country are entrepreneurs as a second activity, Figure 2.15 presents the number of employees who are entrepreneurs as a second activity as a ratio of the persons who are entrepreneurs as their main activity. Where the ratio is 100%, the number of employees who are entrepreneurs as their second activity is equal to the number of persons who are entrepreneur as main activity. When the ratio is 0%, there are no employees who run an enterprise next to their employee-ship.

In 2012, this ratio was 9% for women who were running their enterprise as a second job in EU-28, and 6.9% for men who were running their enterprise as a second job. Compared to 2008, the ratio of women entrepreneurs increased by 0.5 percent point and of men entrepreneurs decreased by 0.5 percent point.

The ratios varied significantly between countries. The highest ratios for women running their enterprise as a second job were in Sweden, Norway and Iceland and the lowest in Greece, Turkey and Bulgaria. The ratios for men who were running their enterprise as a second job were highest in Norway, Sweden and Denmark and lowest in Bulgaria, Slovakia and Greece.

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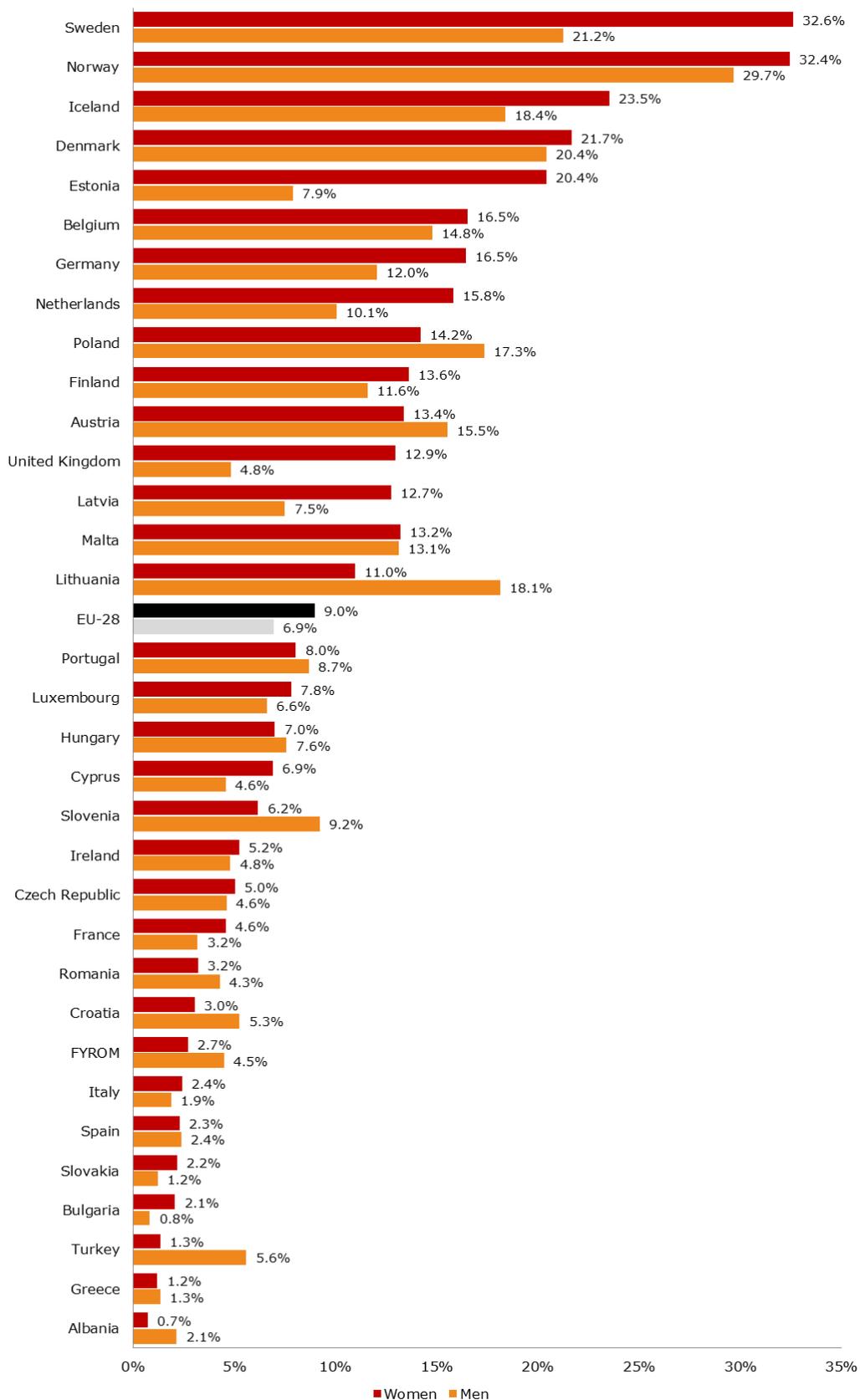
Figure 2.14 Percentage of total number of entrepreneurs with a second job (being entrepreneur is their main employment) in Europe by country, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and Albanian Institute of Statistics)

Note: The percentages for Albania relate to 2011; for Liechtenstein, Lithuania, Bulgaria, Israel, Montenegro and Serbia no data were available.

Figure 2.15 Ratio of entrepreneurs with their enterprise as a second job (employee as main activity) related to entrepreneurs with their enterprise as main activity in Europe by country, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and Albanian Institute of Statistics)

Note: The percentages for Albania relate to 2011; for Montenegro, Serbia, Israel and Liechtenstein no data on second jobs were available.

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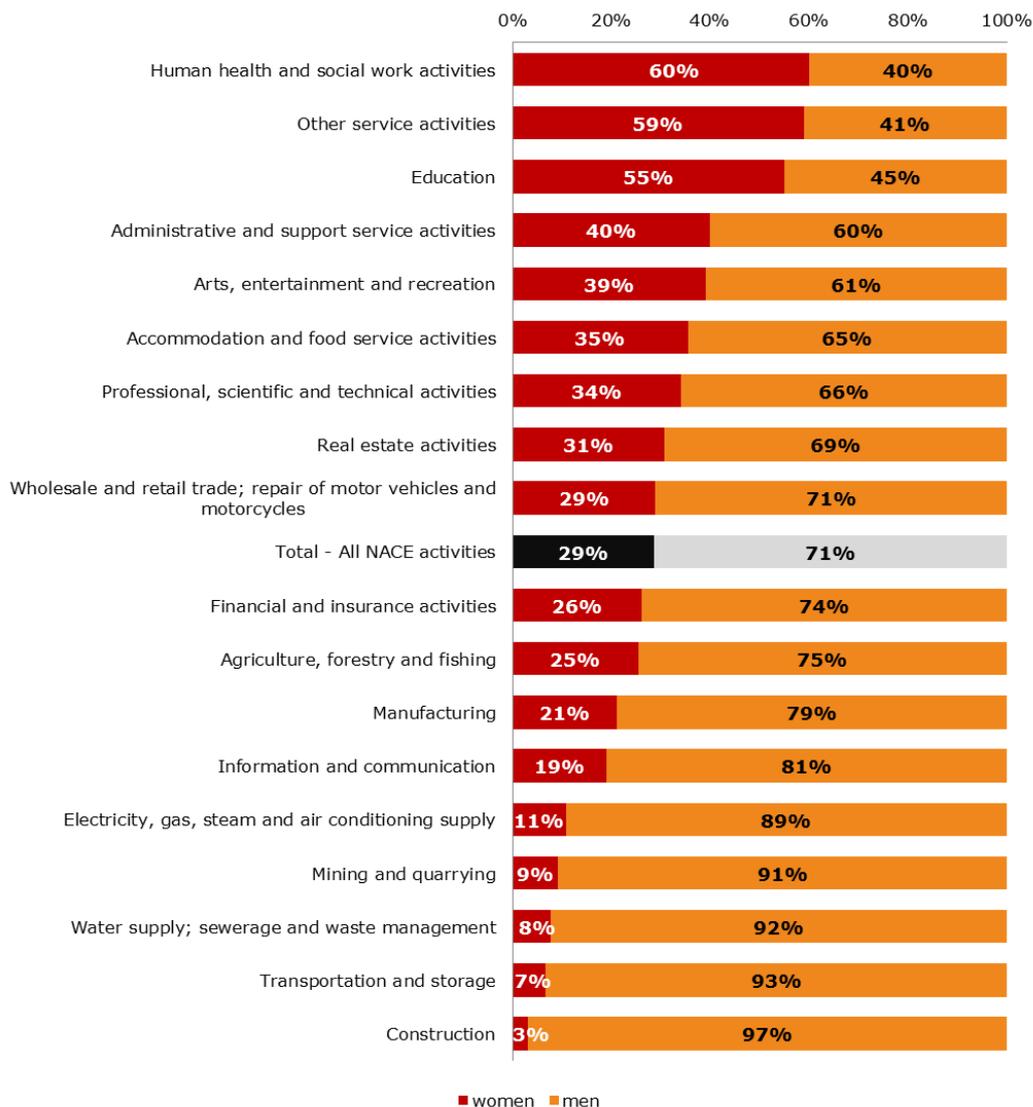
3 SECTORIAL PRESENCE OF WOMEN ENTREPRENEURS

In this part data are presented on the sector presence of women and men entrepreneurs in Europe-37. These data include the percentage of entrepreneurs by gender and the percentage of women and men entrepreneurs in the active labour force (entrepreneurship rate), women solo entrepreneurs and women employers and the groups of entrepreneurs, who are farmers, liberal professional and freelancers. Data are provided for 2008 and 2012, and where possible changes in the period 2003 to 2012 have been included.

3.1 Women entrepreneurs per sector

As stated in Chapter 2, about 29% of the 40.6 million entrepreneurs in Europe-37 in 2012 were women, and the percentage of women entrepreneurs was slightly higher (31%) in EU-28. The percentages of women entrepreneurs in Europe-37 in the 18 sectors are presented in Figure 3.1. The percentages of women entrepreneurs in the sector groups human health and social work activities (60%), other service activities (59%), and education (55%), were higher than the percentages of men entrepreneurs.

Figure 3.1 Percentage of entrepreneurs by gender and sector in Europe-37, 2012

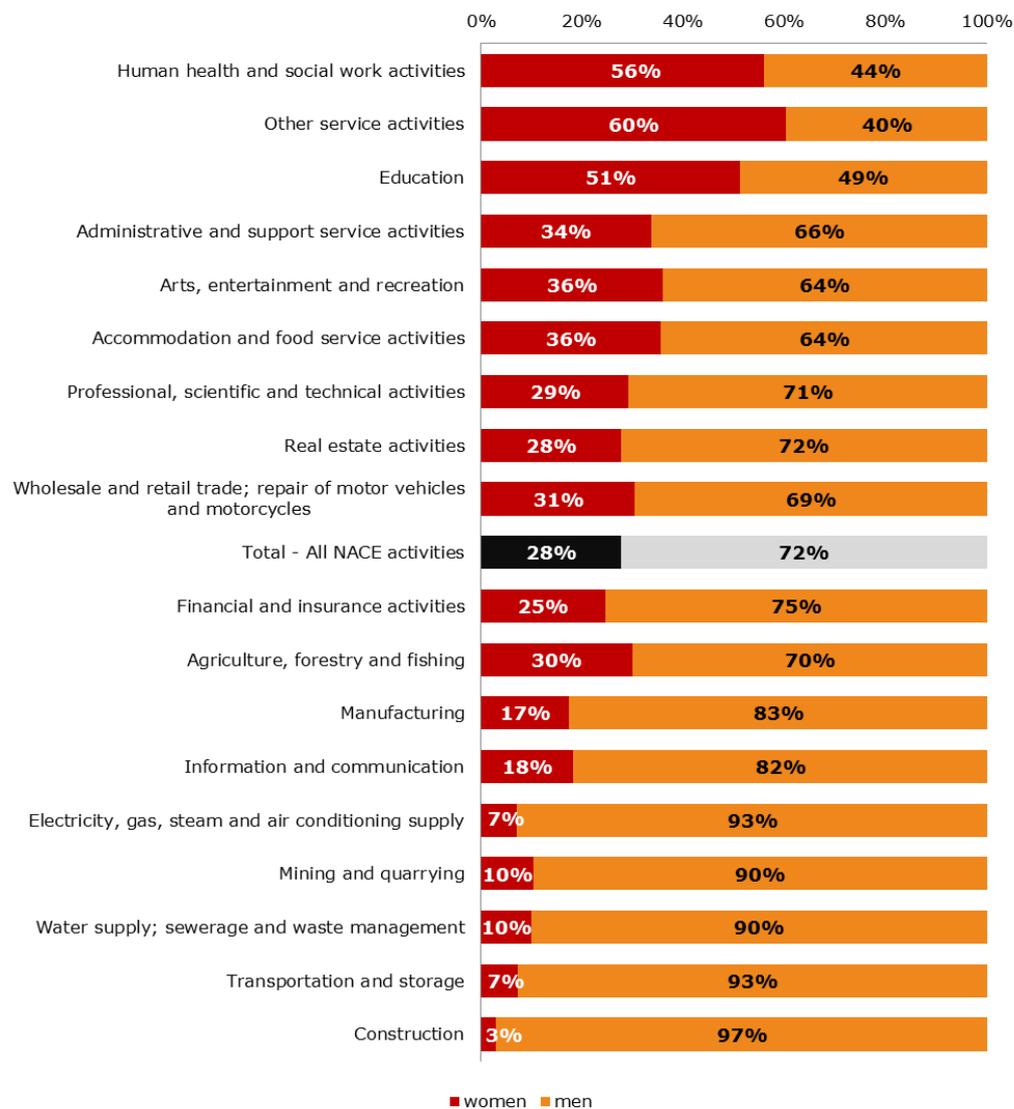


Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Spain, Italy and Poland.

The sector distribution of entrepreneurs by gender changed very little between 2008 and 2012. See Figure 3.2. Data on EU-28 are included in Appendix 3.

Figure 3.2 Percentage of entrepreneurs by gender and sector in Europe-37, 2008



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Spain, Italy and the United Kingdom..

The sector distribution for Europe-37 was similar in most countries with some exceptions. For instance, less than half of the entrepreneurs active in the education sector were women in Albania, Belgium, Denmark, Finland, France, Hungary, Malta, Norway, Romania, Serbia Slovenia, Sweden and Turkey. Less than half of the entrepreneurs in human health and social work activities were women in Albania, Greece, Malta and Turkey.

In addition to these three women dominated sector groups, other sector groups were overrepresented by women entrepreneurs in some countries. Some examples are presented below.

- More women than men entrepreneurs were active in accommodation and food service activities in Estonia, Iceland, Latvia, Poland and Slovenia.
- The financial and insurance sector was dominated by women entrepreneurs in Hungary and Slovakia.
- More women than men entrepreneurs were active in the real estate sector in Croatia, Israel and Luxembourg.

- Professional, scientific and technical activities were dominated by women entrepreneurs in Bulgaria, Latvia and Slovakia.
- Administrative and support service activities were more often dominated by women entrepreneurs in Cyprus, Luxembourg and Turkey.

Data by sector group and country are included in the separate Annex to this report.

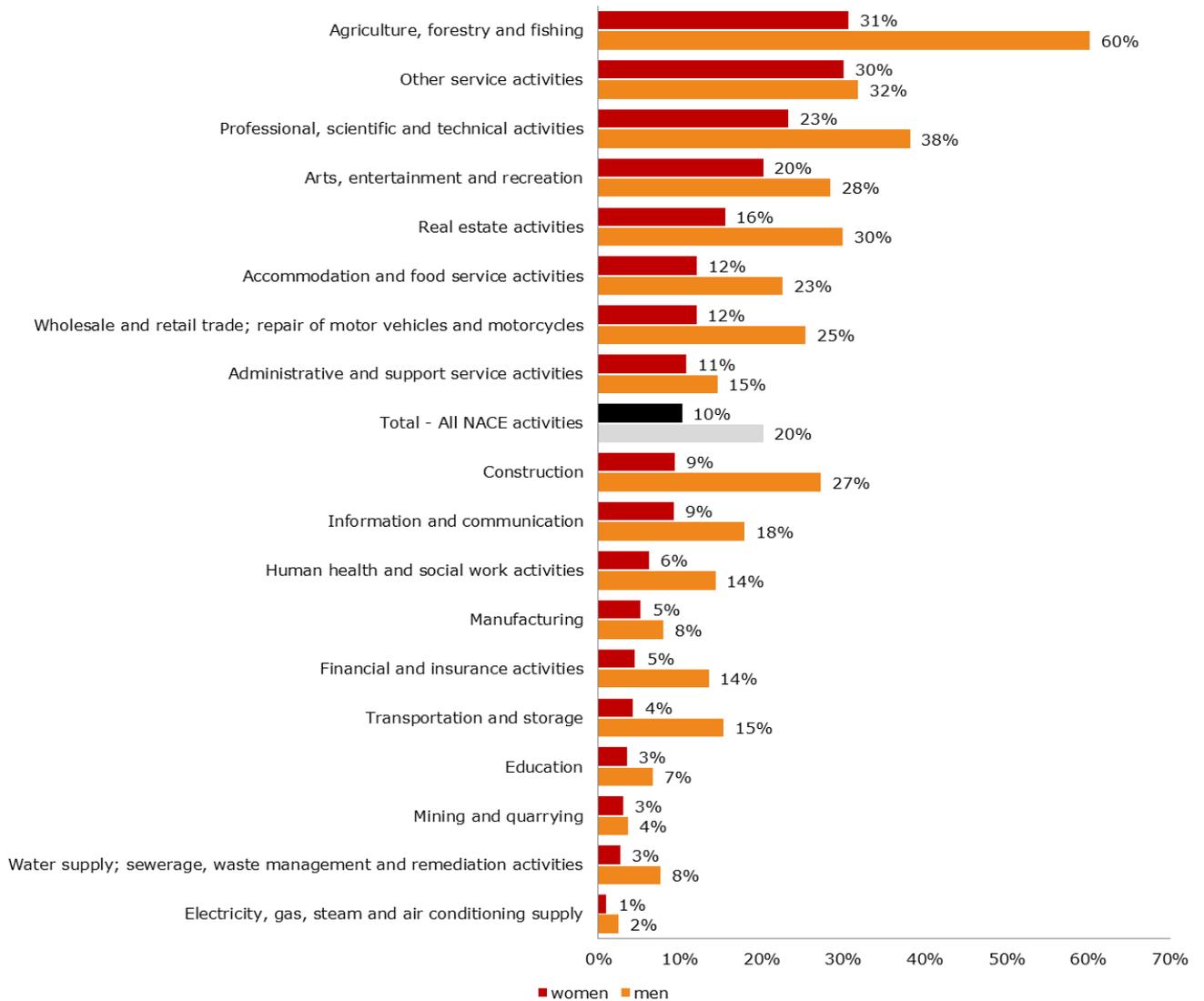
3.2 Entrepreneurship rate per sector

As described in Chapter 2, the entrepreneurship rate is a good indicator for comparing entrepreneurial level of women and men in and between sectors and countries. The entrepreneurship rate expresses the percentage of entrepreneurs in the active labour force. In 2012, 10% of employed women (active labour force) in Europe-37 were entrepreneurs, compared to 20% of employed men. These entrepreneurship rates were similar in EU-28.

Similar rates are presented at sector level. The results for Europe-37 for 2008 and 2012 are presented in Figure 3.3 and Figure 3.4. The Figures for EU-28 are included in Appendix 3.

In all sector groups, entrepreneurship rates were higher for men than women. The top five sector groups with the highest entrepreneurship rates for women were agriculture, forestry and fishing (33%), other service activities (29%), professional, scientific and technical activities (21%), arts, entertainment and recreation (20%), and real estate activities (16%). These sector groups also had the highest entrepreneurship rate for men but in a different sequence.

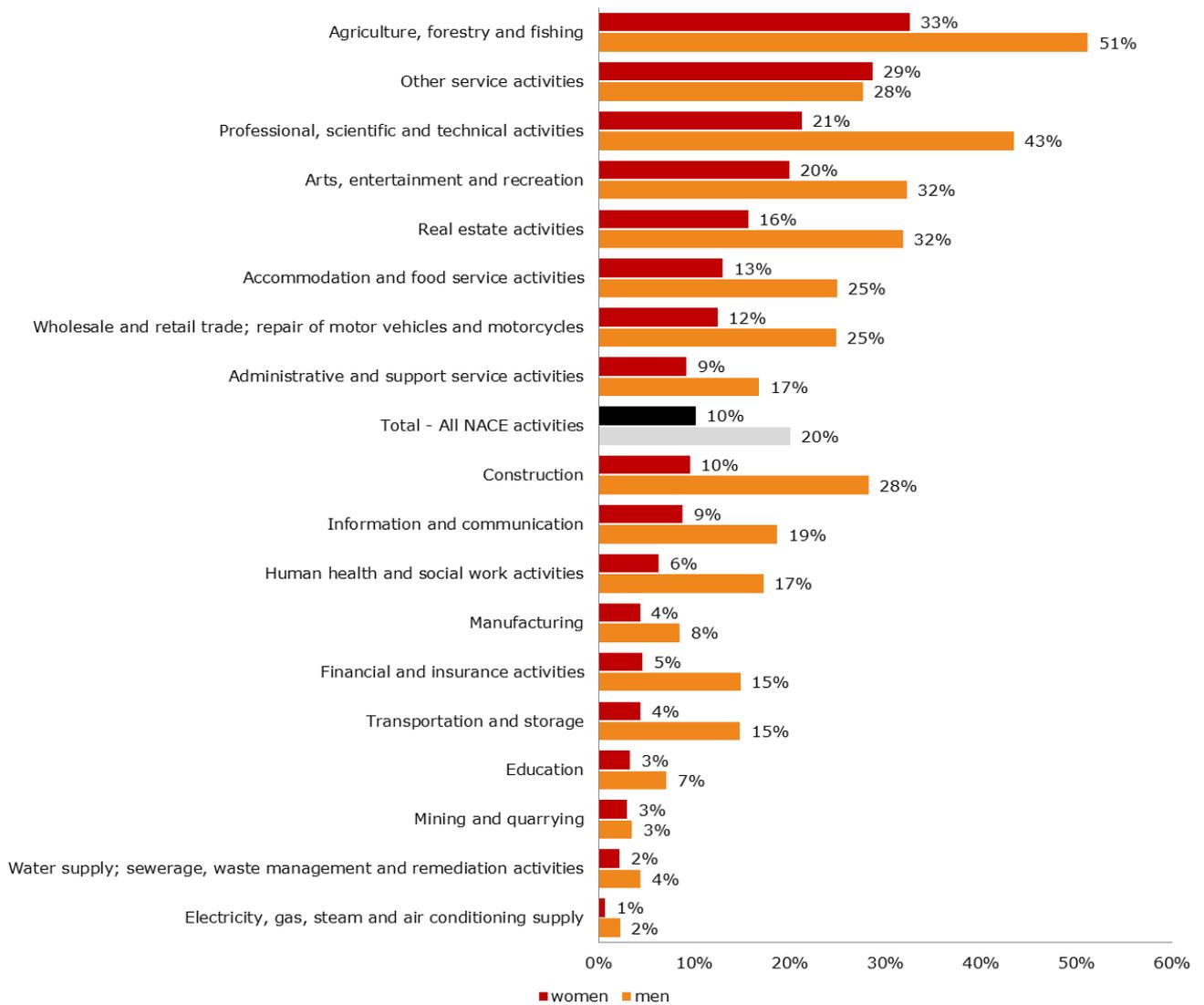
Figure 3.3 Percentage of entrepreneurs in the active labour force (entrepreneurships rate) by gender and sector in Europe-37, 2012



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Spain, Italy and Poland.

Figure 3.4 Percentage of entrepreneurs in the active labour force (entrepreneurships rate) by gender and sector in Europe-37 in 2008



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note Estimates made for all countries except for Spain, Italy and the United Kingdom.

3.3 Solo entrepreneurs and employers by sector

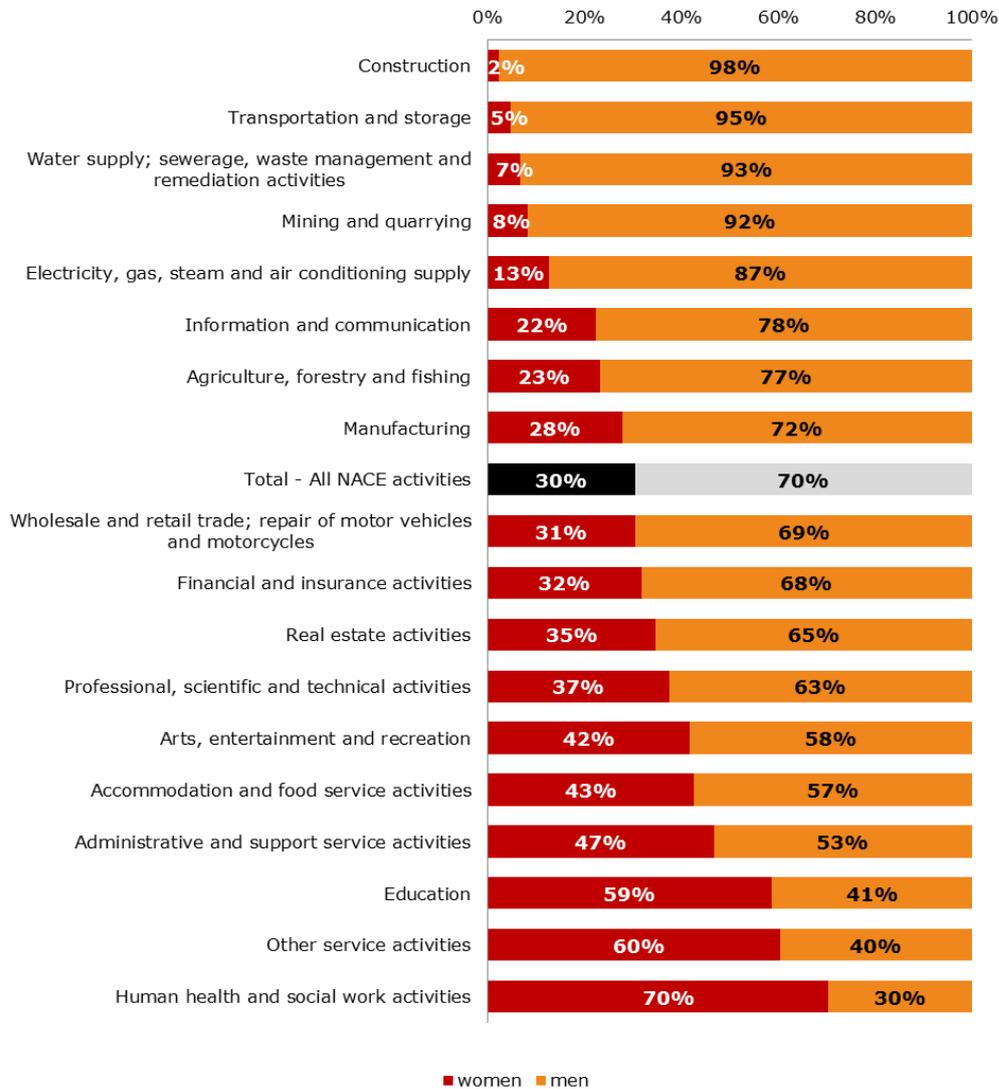
As described in Chapter 2, 78% of women and 81% of men entrepreneurs in Europe-37 were solo entrepreneurs, who operate their own economic enterprise, or engage independently in a profession or trade. They do not hire employees nor are family workers or volunteers active in their enterprise. Solo entrepreneurs are also referred to as own account workers.

The rest of the entrepreneurs were employers, who operate their own economic enterprise, or engage independently in a profession or trade. They employ one or more persons and/or family workers. The percentages for EU-28 and Europe-37 were similar, with 23% of women and 30% of men entrepreneurs employing other people. Data on EU-28 are included in Appendix 3.

Solo entrepreneurs

The percentages of solo entrepreneurs by gender and sector are presented in Figure 3.5. In 2012, the percentages of solo entrepreneurs were higher for men than for women in most sector groups. The exceptions were health and social work activities (70%), other service activities (60%) and education (59%). The percentages of men solo entrepreneurs were highest in construction (98%), transport and storage (95%).

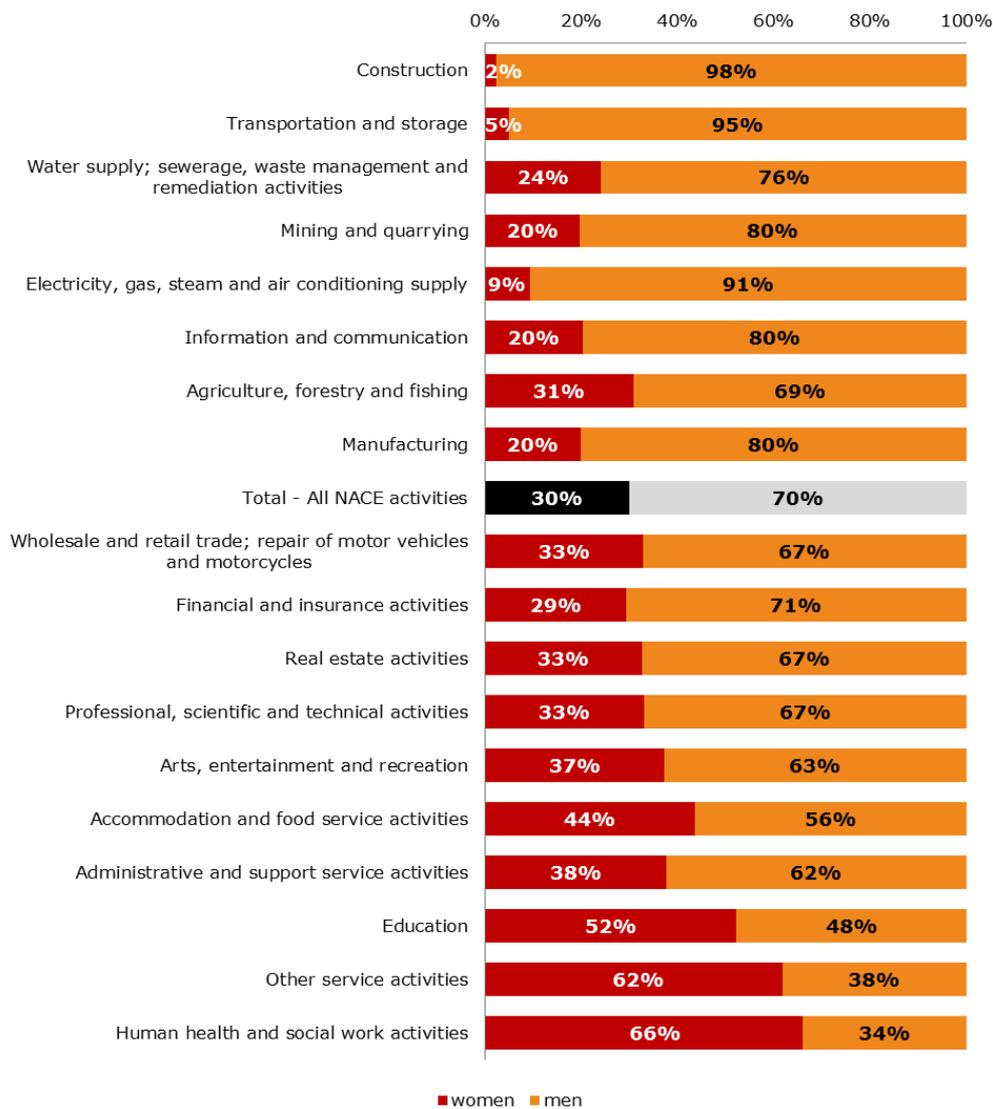
Figure 3.5 Percentage of solo entrepreneurs by gender and sector in Europe-37, 2012



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Italy and the United Kingdom.

Figure 3.6 Percentage of solo entrepreneurs by gender and sector in Europe-37, 2008



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Greece and the Czech Republic.

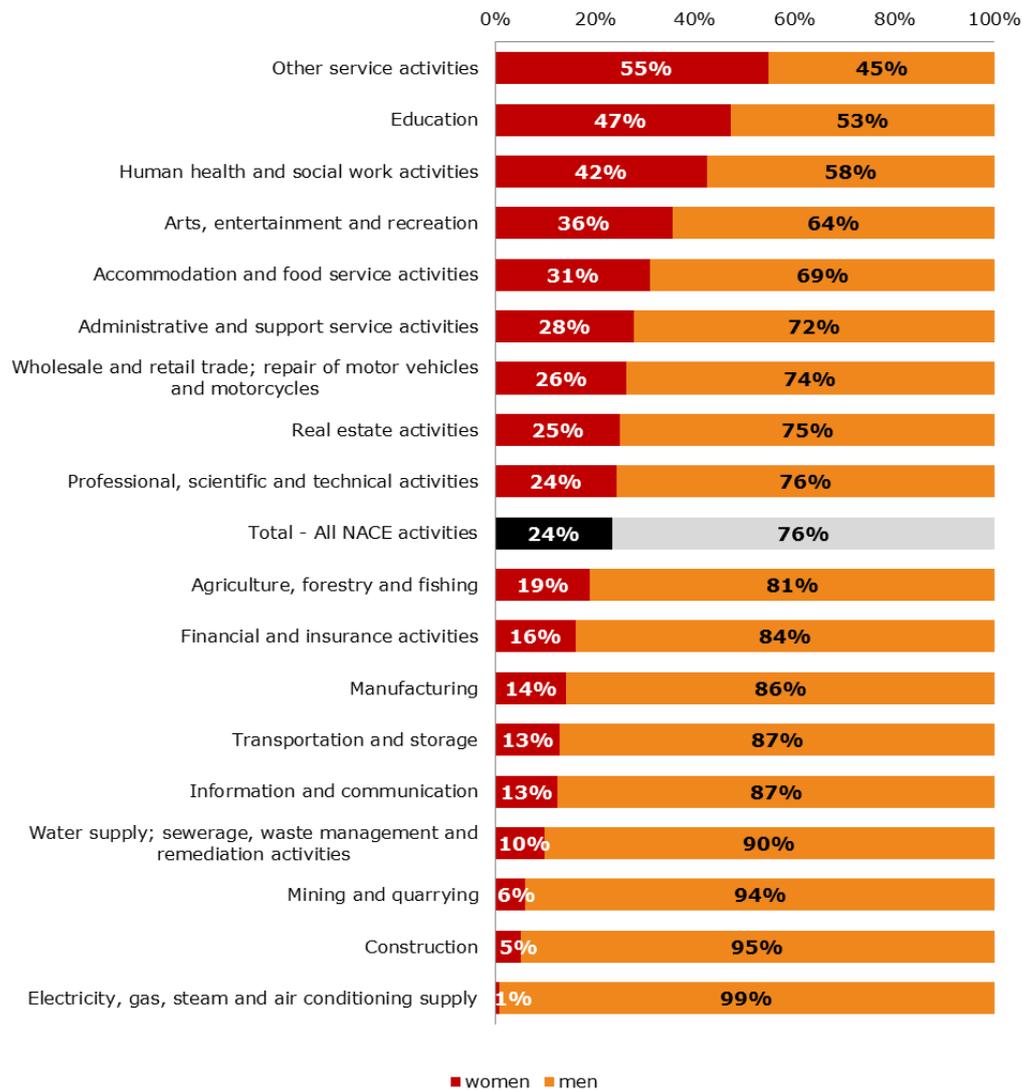
Entrepreneurs with personnel (employers)

The percentages of entrepreneurs with personnel by gender and sector are presented in Figure 3.7. In 2012, in all sectors except for other service activities, the percentages of men entrepreneurs with personnel were higher than of women entrepreneurs with personnel. The highest percentages of women employers were in other service activities (55%), education (47%), human health and social work activities (42%) and arts, entertainment and recreation (36%).

The highest percentages of men employers were in water supply, sewerage, waste management and remediation activities (90%), mining and quarrying (94%), construction (95%), and electricity, gas, steam and air conditioning supply (99%).

As shown in Figure 3.8, the distribution of women and men employers was similar in 2008. Data for EU-28 are included in Appendix 3.

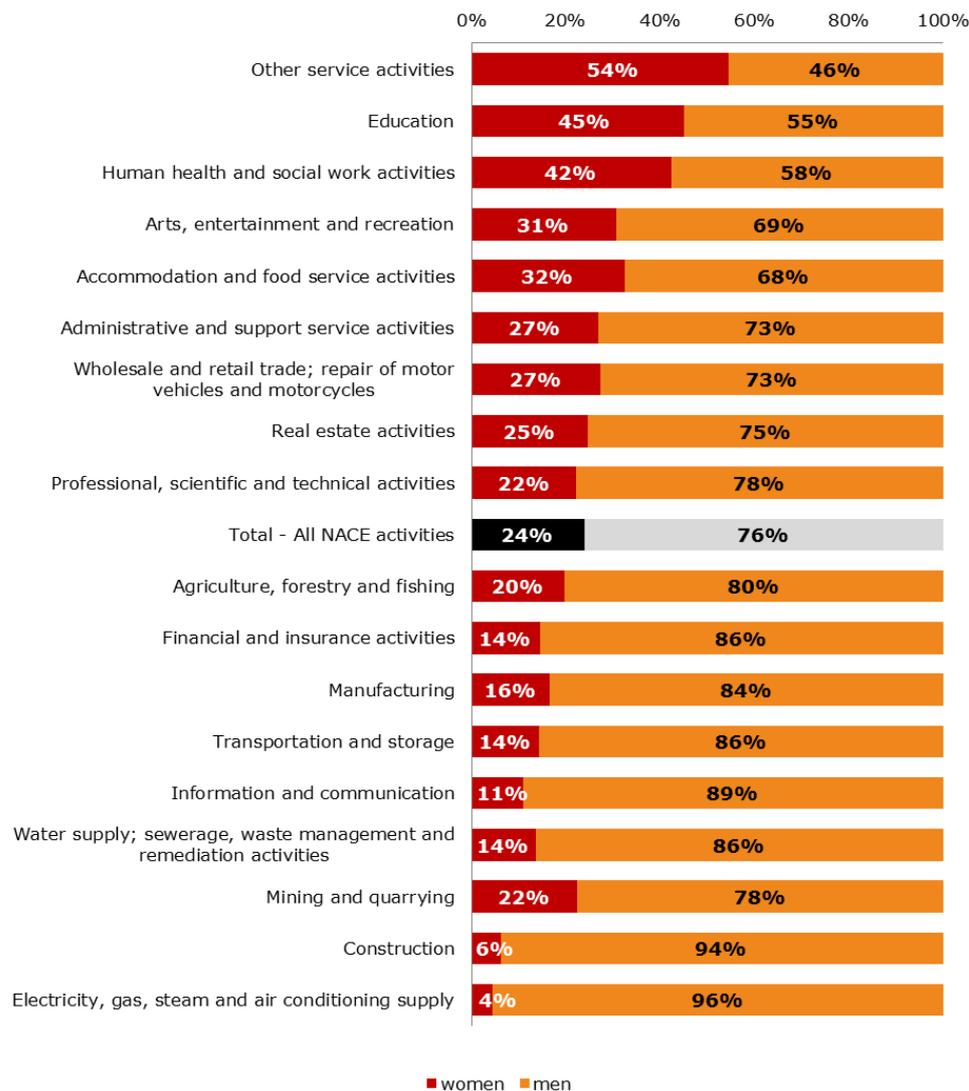
Figure 3.7 Percentage of entrepreneurs with personnel (employers) by gender and sector in Europe-37, 2012



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for all countries except for Greece and the Czech Republic.

Figure 3.8 Percentage of entrepreneurs with personnel (employers) by gender and sector in Europe-37, 2008



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)
 Note: Estimates made for all countries except for Spain, Italy, and the United Kingdom.

Solo-entrepreneurs versus employers

In most sector groups, the percentage of women solo entrepreneurs was higher than the percentage of women entrepreneurs with personnel (employers), except for the sector groups transport and storage, construction, and water supply, sewerage and waste management. The percentages of solo entrepreneurs were significantly higher than the percentages of employers in the sector groups human health and social work activities, other service activities and education.

3.4 Farmers, liberal professionals and freelancers

Special categories of entrepreneurs are farmers, liberal professionals and freelancers. They provide work for themselves and if relevant, their family workers, and/or operate in a regulated environment. In most countries, the statistical offices did not distinguish between freelancers and liberal professionals and there are no uniform definitions for these groups of entrepreneurs. Because of the data available, these categories were defined in this study according to the NACE classification.

Farmers

Traditionally, farmers are an important category of entrepreneurs. In this study, farmers were considered to be entrepreneurs active in agriculture and fishing⁸. In 2012, there were 5.6 million farmers active in EU-28, of whom 1.7 million were women (30 %). See Table 3.1. While there were more men than women farmers in all EU Member States, the proportion of women farmers ranged from 42% in Portugal to 6% in Ireland.

The importance of this category of entrepreneurs can be derived from their proportion of total entrepreneurs. In EU-28, the percentages of men and women were the same (17%). Most farmers were solo entrepreneurs, 93 % of women and 88 % of men entrepreneurs.

In the period 2008-2012, the number of women farmers decreased by 15.4%, and the men farmers by 5.3%. While in Estonia, Ireland, Croatia, Slovakia, Portugal and Serbia, the number of women farmers decreased by more than 40%, their numbers increased in the Czech Republic, Lithuania, Luxembourg and Hungary.

Table 3.1 Indicators for farmers, by gender in EU-28, 2012 and 2008

			Number (x1000)	Percentage increase/decrease 2008 -2012	Proportion of total number (%)	Proportion solo entrepreneurs (%)	Proportion of total entrepreneurs (%)
Farmers	2008	Women	2,015		33	94	20
		Men	4,140		67	88	18
	2012	Women	1,705	-15.4	30	93	17
		Men	3,921	-5.3	70	88	17
Other entrepreneurs	2008	Women	8,045		30	71	80
		Men	19,024		70	62	82
	2012	Women	8,552	6.3	31	73	83
		Men	18,921	-0.5	69	66	83
Total entrepreneurs	2008	Women	10,060		30	76	100
		Men	23,164		70	67	100
	2012	Women	10,257	2.0	31	77	100
		Men	22,842	-1.4	69	69	100

Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

⁸ Nace Rev2 section A

Liberal professionals

Liberal professions are defined as “those practised on the basis of relevant professional qualifications in a personal, responsible and professionally independent capacity by those providing intellectual and conceptual services in the interest of the client and the public. The exercise of the profession might be subject in the Member States, ... to specific legal constraints”⁹.

There is no uniform definition or a complete list of liberal professions for Europe. A common description used is a person who practises a liberal or intellectual profession, and mainly provides intellectual services that cannot be described as commercial or artisanal.¹⁰

In this study, liberal professionals were defined as entrepreneurs active in real estate; professional, scientific and technical activities; and human health and social work¹¹.

In 2012, approximately 5.9 million liberal professionals were active in EU-28, of who 2.5 million were women (43%). See Table 3.2. In five Member States, there are more women than men active in the liberal professions - Latvia, Slovakia, Bulgaria, Croatia and the Czech Republic.

In EU-28, about 25% of all women entrepreneurs were active as liberal professionals as opposed to 15% of men entrepreneurs. About 79% of all women and 66% of all men liberal professionals were solo entrepreneurs.

Between 2008 and 2012, the proportion of men and women liberal professionals increased by 19.4% and 9.2%, respectively.

Table 3.2 Indicators for liberal professionals, by gender in EU-28, 2012 and 2008

			Number (x1000)	Percentage increase/decrease 2008-2012	Proportion of total number (%)	Proportion of solo entrepreneurs (%)	Proportion of total entrepreneurs (%)
Liberal professionals	2008	Women	2,122		41	76	21
		Men	3,118		59	62	13
	2012	Women	2,535	19.4	43	79	25
		Men	3,405	9.2	57	66	15
Other entrepreneurs	2008	Women	7,937		28	76	79
		Men	20,046		72	68	87
	2012	Women	7,722	-2.7	28	76	75
		Men	19,437	-3.0	72	70	85
Total entrepreneurs	2008	Women	10,060		30	76	100
		Men	23,164		70	67	100
	2012	Women	10,257	2.0	31	77	100
		Men	22,842	-1.4	69	69	100

Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

⁹ Directive on Recognition of Professional Qualifications, 2005/36/EC

¹⁰ The following professions are regarded as liberal professions:

- Bookkeeper, accountant, company auditor, tax consultant;
- Architect, land surveyor, interior designer, real-estate agent;
- Lawyer, legal advisor, notary public, bailiff;
- Doctor, specialist doctor, dentist, medical laboratory, patient transport, paramedic physiotherapist, veterinary surgeon, pharmacist.

¹¹ Real estate activities (Nace Rev2 section L), Professional, scientific and technical activities (Nace Rev2 section M), Human health and social work activities (Nace Rev2 section Q).

Freelancers

There is also no uniform definition of a freelancer in Europe. The European Federation of Independent Professionals (EFIP) defines freelancers (independent professionals; I-Pros) as *self-employed persons without employees, who are engaged in an activity that does not belong to the farming, craft or retail sectors. They engage in activities of an intellectual nature and/or which come under service sectors.*¹²

In line with this definition, freelancers can be defined as self-employed persons without employees and active in the service sectors. However, as liberal professionals are specified separately, solo entrepreneurs working as liberal professionals¹³ have not been included.

Freelancers are solo entrepreneurs active¹⁴ in the following sectors:

- information and communication;
- financial and insurance activities;
- administrative and support service activities;
- education;
- arts, entertainment and recreation;
- other service activities.

In 2012, around 4.6 million freelancers were active in EU-28, of who 2.1 million were women (45 %). See Table 3.3. More women than men freelancers were active in Romania, Latvia, Lithuania, Hungary, Cyprus, Luxembourg, Finland, Slovakia, Estonia, Portugal and Bulgaria. Compared to 2008, the number of women freelancers in EU-28 increased by 13%, and men freelancers by 13.8%. However, the number of women freelancers decreased in Lithuania, Greece, Estonia, Bulgaria, Hungary, Spain, Cyprus, Italy and Ireland.

Table 3.3 Indicators for freelancers, by gender in EU-28, 2012 and 2008

			Number (x1000)	Percentage increase/decrease 2008-2012	Proportion of total number (%)	Proportion of solo entrepreneurs (%)	Proportion of total entrepreneurs (%)
Freelancers	2008	Women	1,842		45	100	18
		Men	2,210		55	100	10
	2012	Women	2,082	13.0	45	100	20
		Men	2,515	13.8	55	100	11
Other entrepreneurs	2008	Women	8,217		28	70	82
		Men	20,954		72	63	90
	2012	Women	8,175	-0.5	29	71	80
		Men	20,327	-3.0	71	66	89
Total entrepreneurs	2008	Women	10,060		30	76	100
		Men	23,164		70	67	100
	2012	Women	10,257	2.0	31	77	100
		Men	22,842	-1.4	69	69	100

Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

¹²Stephanie Rapelli, European I-Pros: A Study, (English Version) 2012.

¹³Solo entrepreneurs active in the sections L, M and Q of Nace Rev2.

¹⁴Information and communication (Nace Rev2 section J), Financial and insurance activities (Nace Rev2 section K), Administrative and support service activities (Nace rev2 section N), Education (Nace Rev2 section P), Arts, entertainment and recreation (Nace Rev2 section R), Other service activities (Nace Rev2 section S).

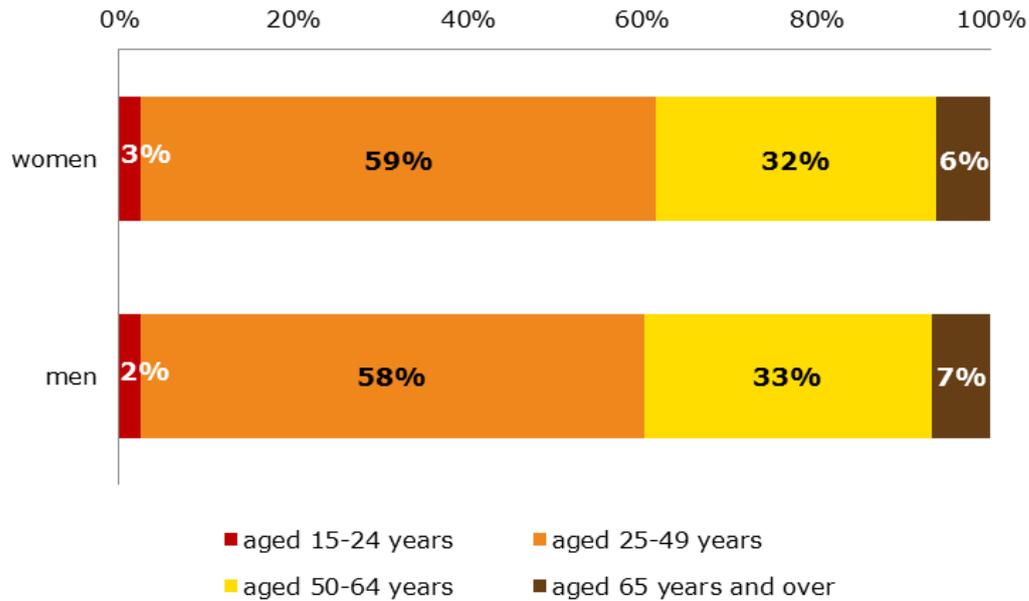
4 CHARACTERISTICS OF WOMEN ENTREPRENEURS

4.1 Age of the entrepreneurs

Age distribution of entrepreneurs

The age distribution of men and women entrepreneurs in 2012 is presented in Figure 4.1. Based on the data available, four age groups were defined as 15 to 24 years, 25 to 49 years, 50 to 64 years, and over 65 years.

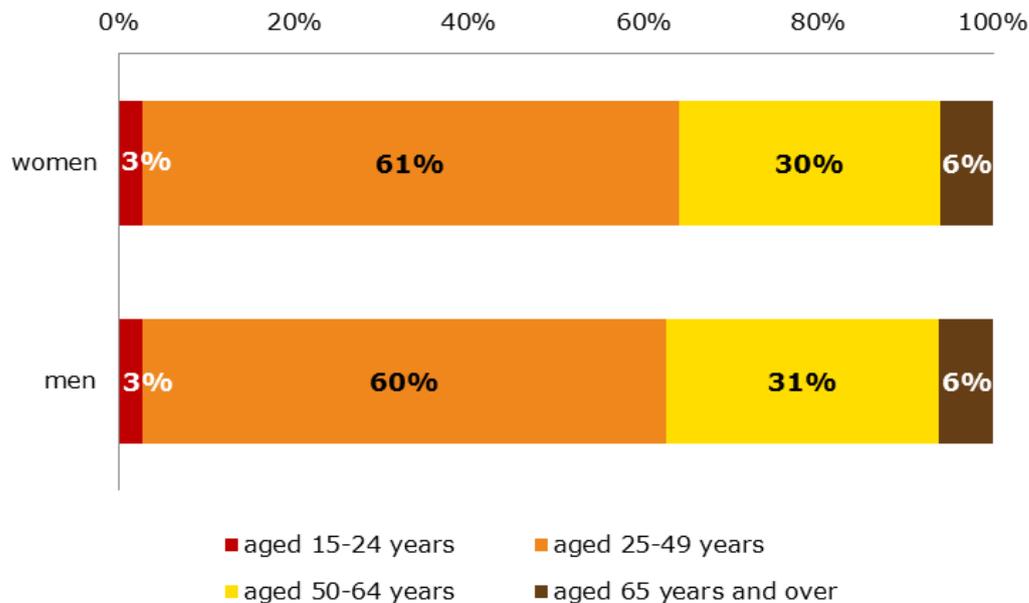
Figure 4.1 Percentage of entrepreneurs by age and gender in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Albania, Montenegro, Serbia, Israel and Liechtenstein.

Figure 4.2 Percentage of entrepreneurs by age and gender in Europe-37, 2008



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Montenegro, Serbia and Liechtenstein.

Women entrepreneurs in Europe-37 were on average slightly younger than men entrepreneurs. In 2012, there were higher proportions of women than men entrepreneurs in the age groups 15–24 years and 25–49 years, and the proportions of men entrepreneurs in the age groups 50–64 years and over 65 years older were slightly higher. Most women and men entrepreneurs were between the ages of 25 and 49 years (59% and 58%, respectively).

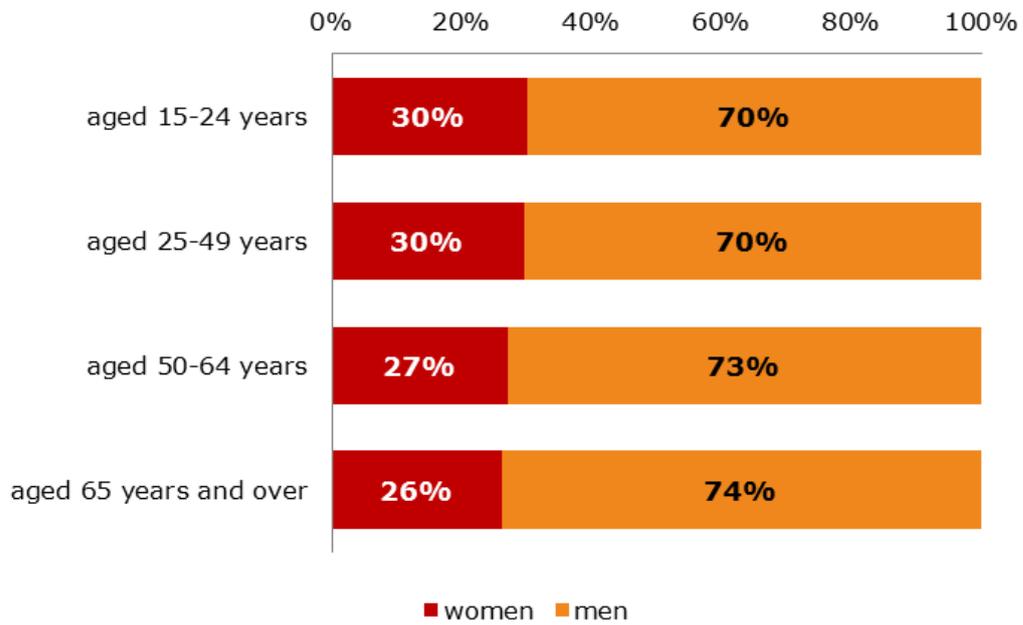
The percentage of entrepreneurs in the age group 15–24 years was relatively smaller for both men and women, largely due to the fact that many people under 25 years are still studying. See Figure 4.1 and Figure 4.2.

In EU-28, the percentage of women entrepreneurs was higher than men entrepreneurs in the age group 25–49 years, and lower in the age group 50–64 years. See Appendix 3.

Distribution of women entrepreneurs by age group

The age distribution in 2012 of men and women entrepreneurs in Europe-37 in the four age groups shows that the proportion of women entrepreneurs decreased with age. In 2012, about 30% of entrepreneurs in the age group 15–24 years were women compared to 26% in the age group 65 years and over. There was very little change in the age distribution compared to 2008 (see Figure 4.3 and Figure 4.4). Data for EU-28 were comparable, see Appendix 3.

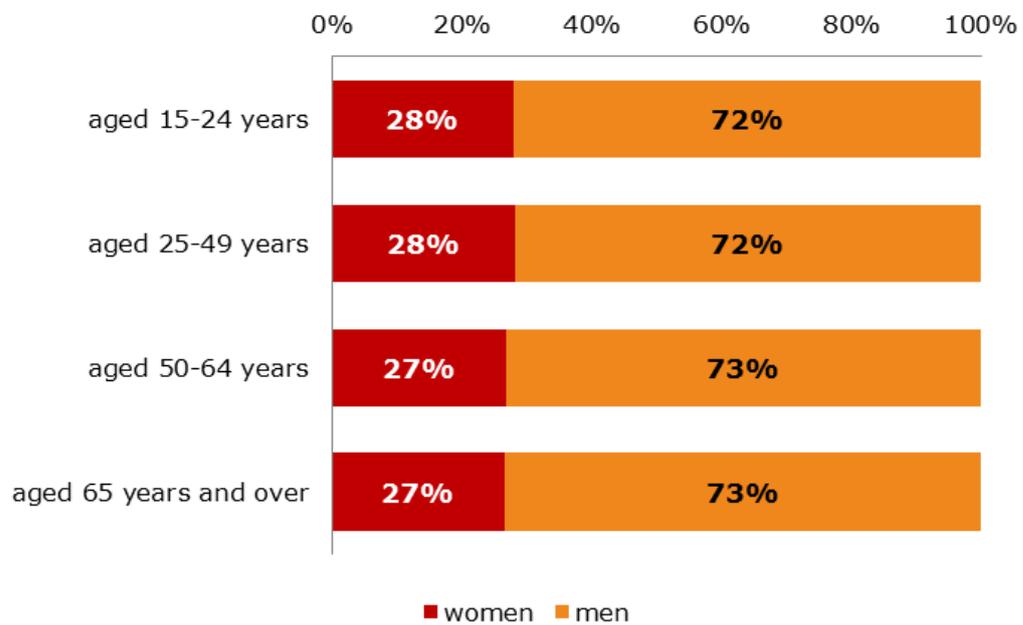
Figure 4.3 Percentage of women entrepreneurs by age and gender in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Albania, Montenegro, Serbia, Israel and Liechtenstein.

Figure 4.4 Percentage of women entrepreneurs by age and gender in Europe-37, 2008



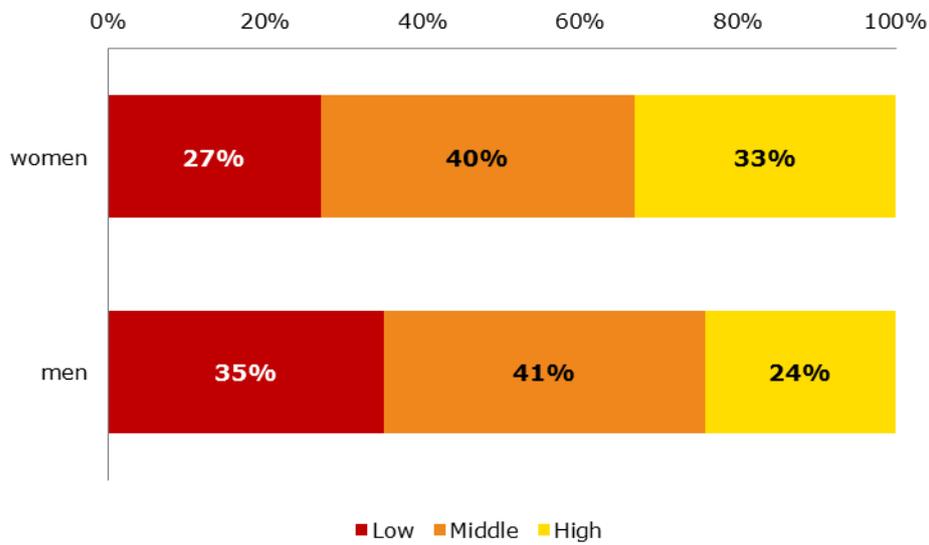
Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Montenegro, Serbia and Liechtenstein.

4.2 Educational level

Based on the International Standard Classification of Education (ISCED), three levels have been distinguished. Low education level for entrepreneurs who attained pre-primary, primary and lower secondary education (ISCED levels 0-2), middle education level for those who attained upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4), and high level of education for first and second stage of tertiary education (ISCED levels 5 and 6). Data were provided on the highest education level attained by an entrepreneur.

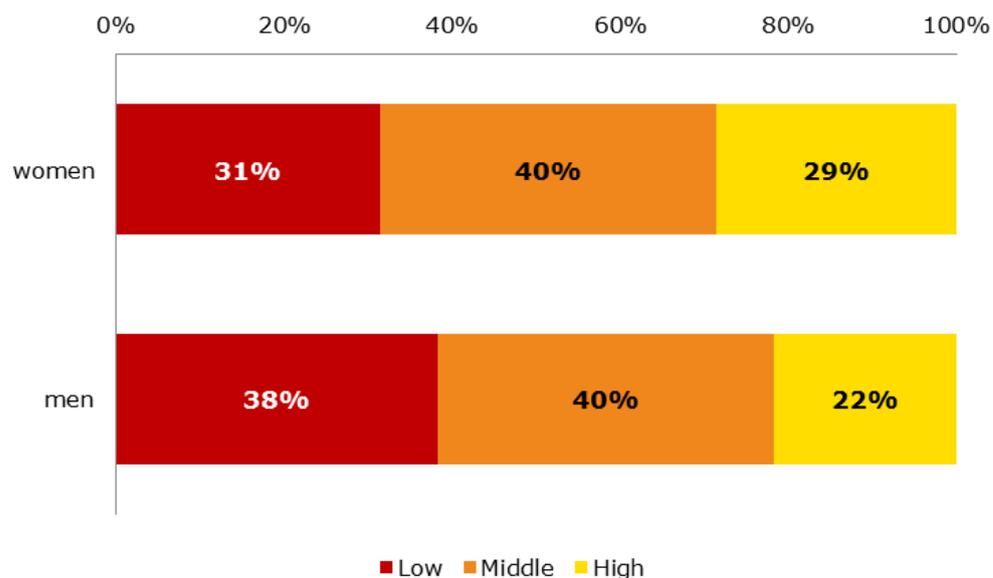
Figure 4.5 Percentage of entrepreneurs by education level and gender in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4 and high to ISCED levels 5-6; Estimates made for Albania, Montenegro, Serbia, Israel, and Liechtenstein.

Figure 4.6 Percentage of entrepreneurs by education level and gender in Europe-37, 2008



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4) and high to ISCED levels 5-6; Estimates made for Montenegro, Serbia, and Liechtenstein.

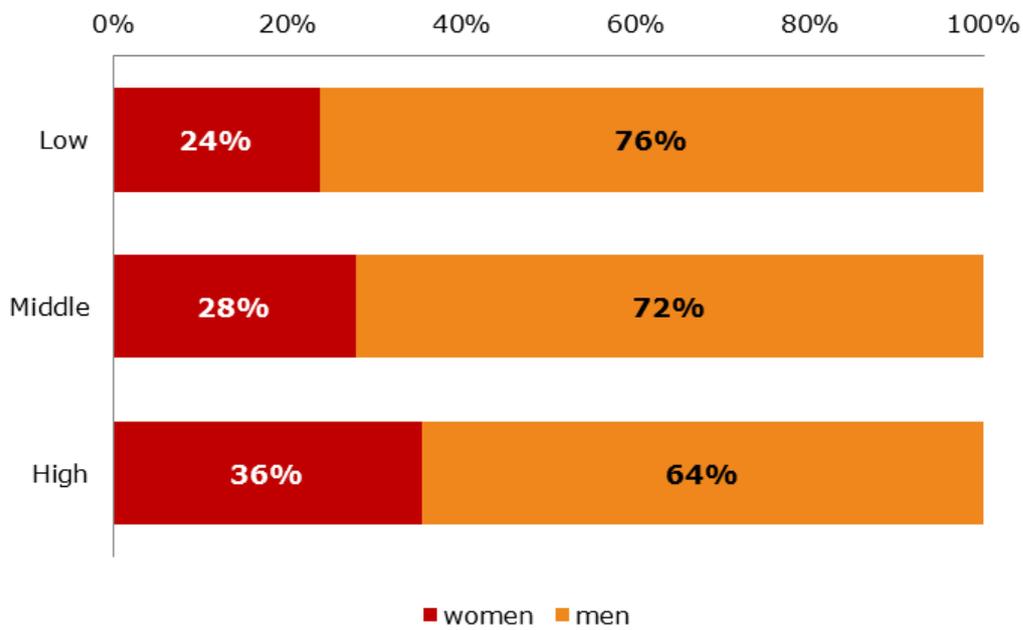
In 2012, the largest group of men and of women entrepreneurs in Europe-37 had achieved the middle education level, 41% and 40%, respectively (see Figure 4.5). While the second highest group of men entrepreneurs were in the low education level, the second highest group of women entrepreneurs were in the high education level. Overall, women entrepreneurs were more highly educated than men entrepreneurs and this was also the case in EU-28. See Appendix 3.

Between 2008 and 2012, the proportion of women and men entrepreneurs in Europe-37 in the low education level decreased slightly but increased in the high education group. This shift was higher for women than for men entrepreneurs. See Figure 4.5 and Figure 4.6.

Distribution of women entrepreneurs

The distribution of women and men entrepreneurs in Europe-37 in 2012 by education level is shown in Figure 4.7. Women accounted for 24% of entrepreneurs at the low education level, and 36% of entrepreneurs at the high education level. The distribution of men and women over the three education levels indicates that women entrepreneurs were relatively more highly educated than men entrepreneurs. Between 2008 and 2012, a slightly higher proportion of women than men entrepreneurs were in the high education level. See Figure 4.8.

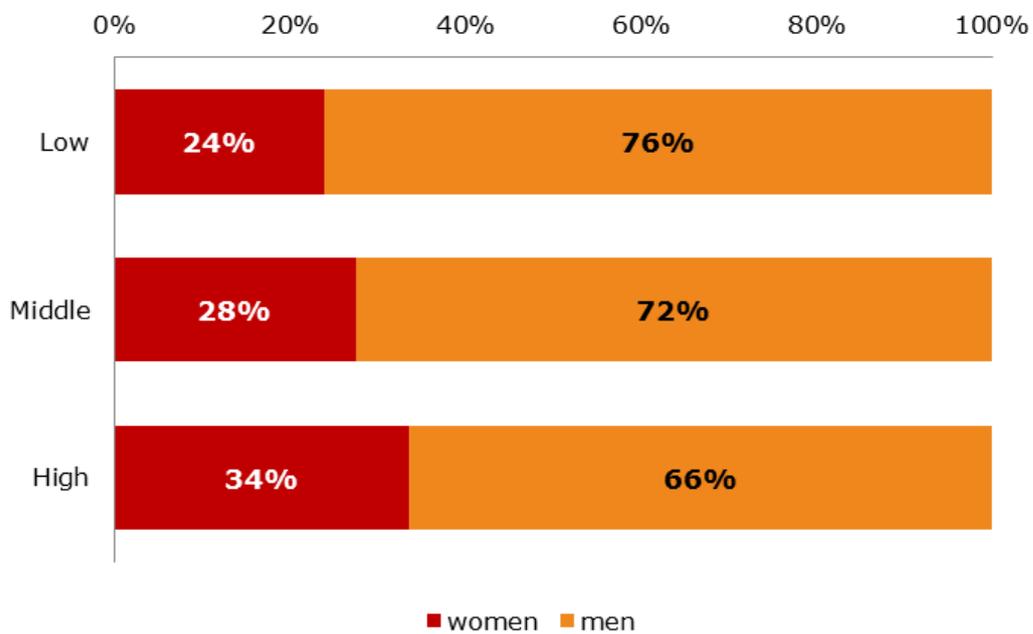
Figure 4.7 Percentage of entrepreneurs by gender and educational level in Europe-37, 2012



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4) and high to ISCED levels 5-6; estimates made for Albania, Montenegro, Serbia, Israel and Liechtenstein.

Figure 4.8 Percentage of entrepreneurs by gender and educational level in Europe-37, 2008



Source: Panteia, based on the Labour Force Survey (Eurostat and national statistics)

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4) and high to ISCED levels 5-6; Estimates made for Montenegro, Serbia, Israel and Liechtenstein.

Education level by country

The average education level of women entrepreneurs varied between countries. To compare countries, an average indicator was calculated weighting the three education levels: 1 for the low level, 2 for middle level and 3 for high level. Thus, an indicator value of 1 indicated that all entrepreneurs had attained pre-primary, primary and lower secondary education. An indicator value of 3 meant that all entrepreneurs had attained first and second stages of tertiary education. Data provided referred to the highest attained level achieved by an entrepreneur.

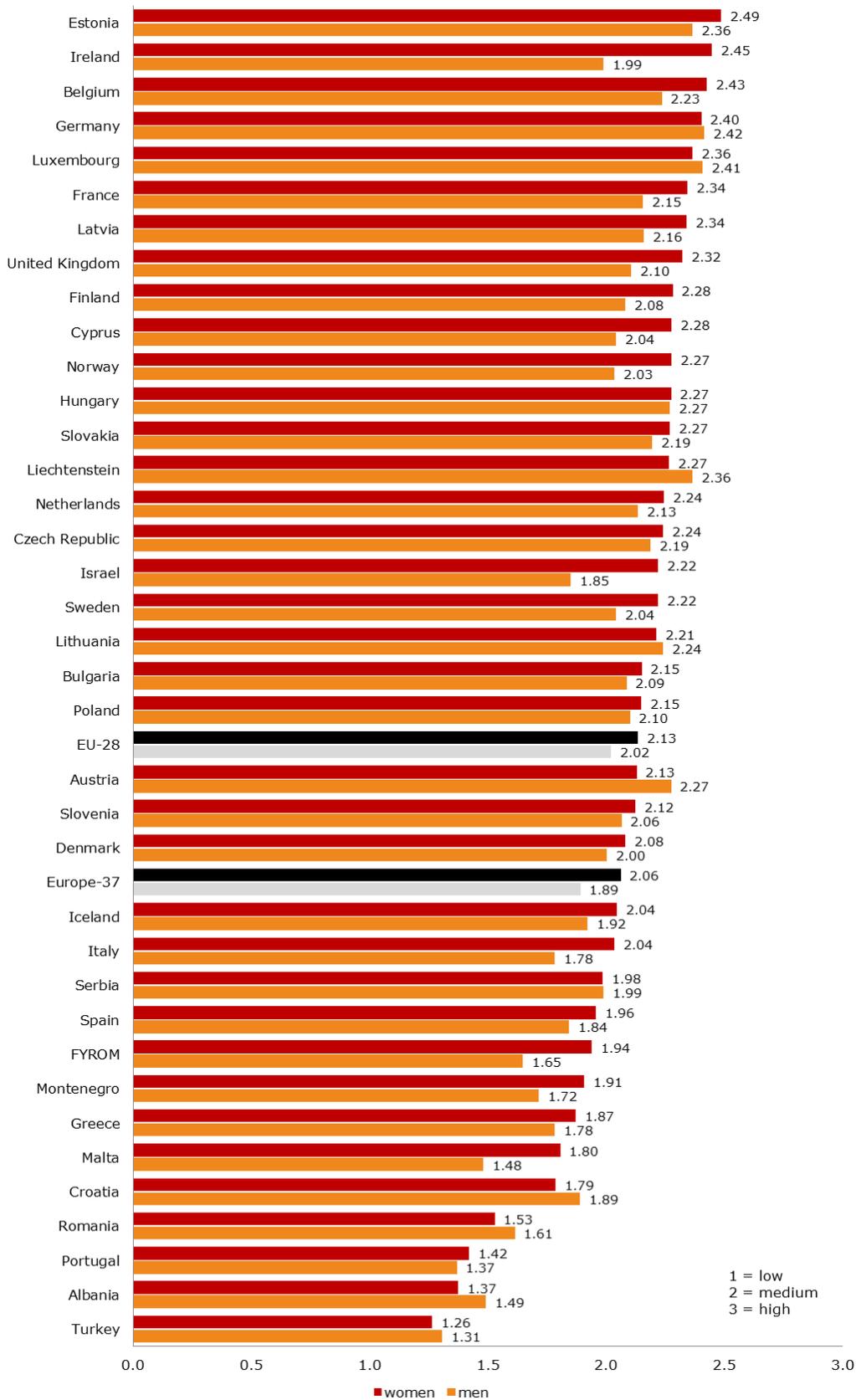
In 2012, women entrepreneurs in Europe-37 attained on average level 2.1 and men entrepreneurs level 1.9. In EU-28, the levels were 2.1 for women entrepreneurs and 2.0 for men entrepreneurs, indicating that women were slightly more highly educated than men entrepreneurs.

Education levels varied significantly between countries, as shown in Figure 4.9. The top five countries with the highest average education level of women entrepreneurs in 2012 were Estonia, Ireland, Belgium, Germany and Luxembourg, and with the lowest average education level were Turkey, Albania, Portugal, Romania and Croatia. The top five countries with the highest average education level of men entrepreneurs were Estonia, Germany, Luxembourg, Switzerland and Liechtenstein, and with the lowest were Turkey, Albania, Portugal and Croatia.

In 2008, women entrepreneurs in Europe-37 attained level 2.0, and men entrepreneurs level 1.8. In EU-28, the levels attained were 2.0 for women entrepreneurs and 1.9 for men entrepreneurs. These figures indicate that women entrepreneurs attained a slightly higher education level than men entrepreneurs.

Compared with 2008, the educational level of both women and men entrepreneurs in Europe-37 increased slightly in 2012 while educational level of entrepreneurs decreased slightly in EU-28.

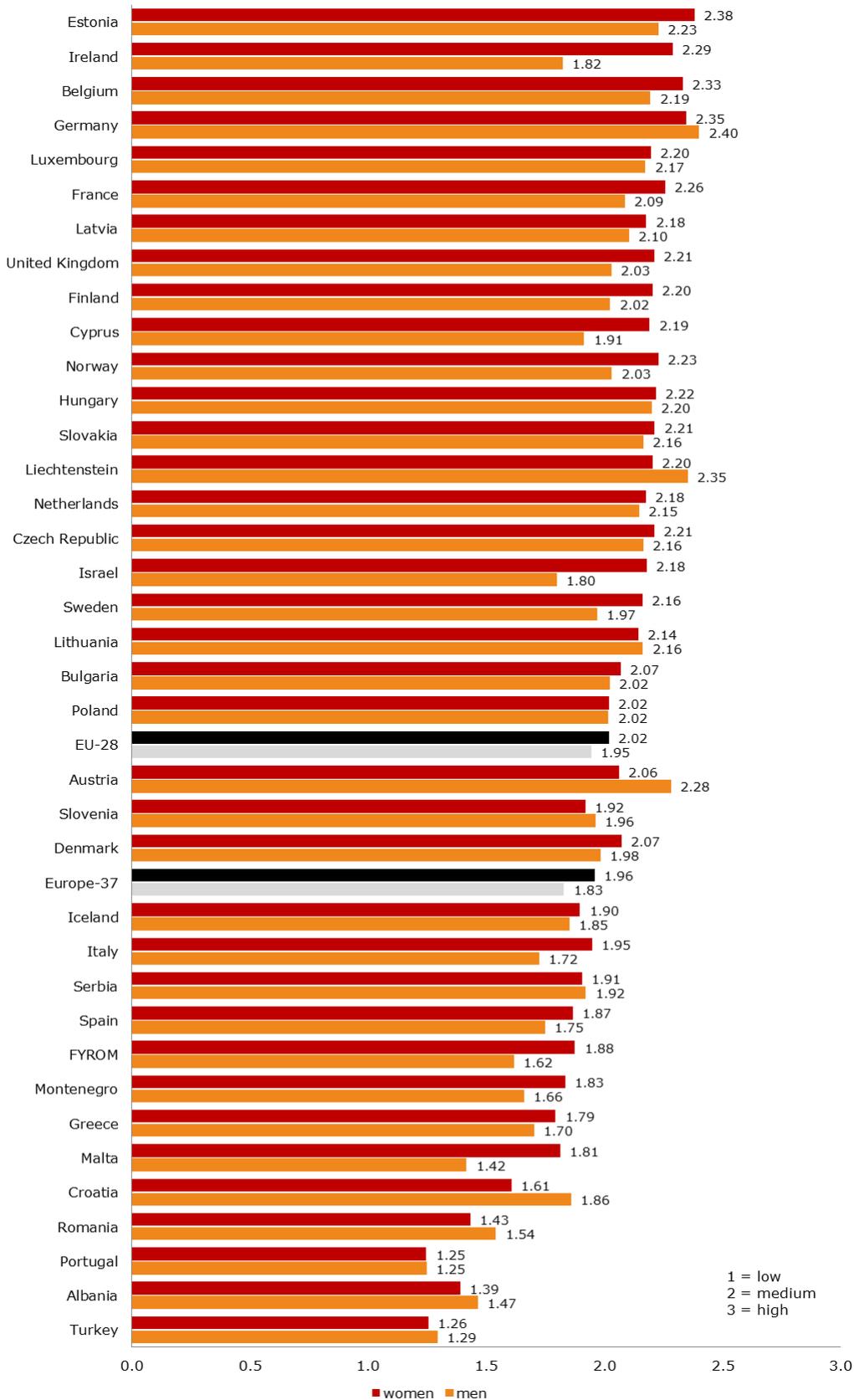
Figure 4.9 Average educational level of entrepreneurs by gender and country in Europe-37, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Albania, Montenegro, Serbia, Israel and Liechtenstein.

Figure 4.10 Average educational level of entrepreneurs by gender and country in Europe-37, 2008



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Montenegro, Serbia and Liechtenstein

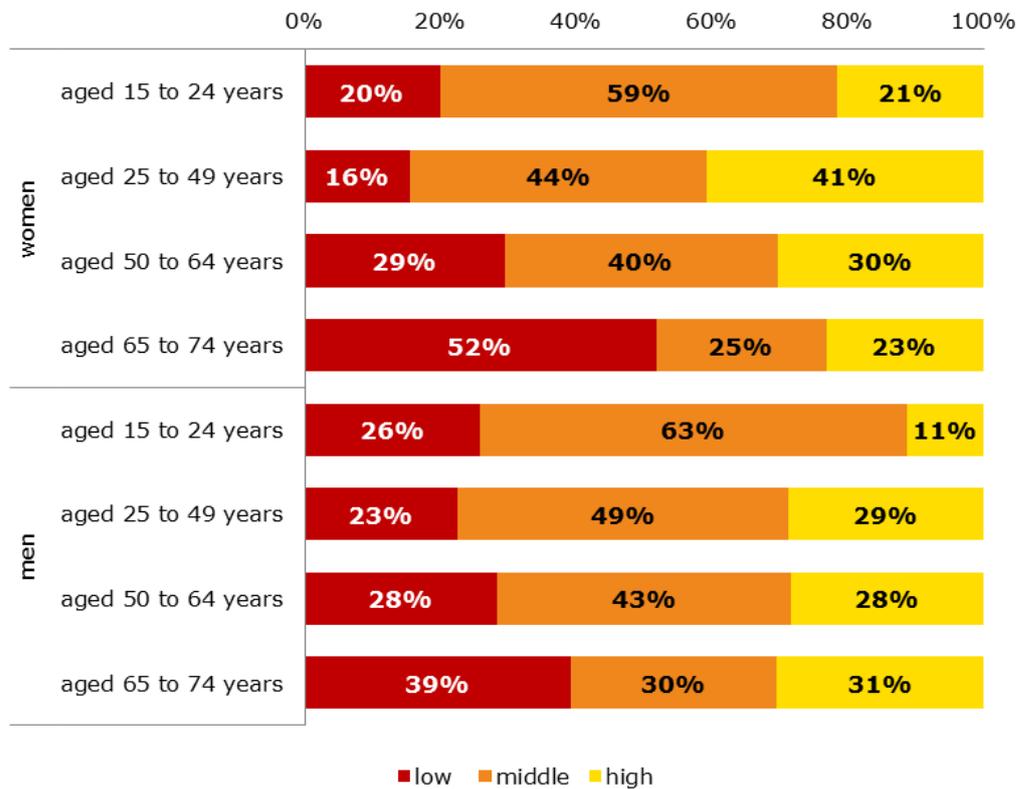
Age and education level

In 2008 and 2012, the proportions of women entrepreneurs with a high level of education was highest in the age group 25 to 49 years and lowest in the age groups 15 to 24 years and 65-74 years in the EU-28. The proportions of these entrepreneurs were higher for women entrepreneurs than for men entrepreneurs in all age groups except for the age group 65 to 74 years.

The proportions of women entrepreneurs with a low level of education was lowest in the age group 25-49 years and highest in the age group 65-74 years in the EU-28 in both 2008 and 2012. The percentages of men entrepreneurs with a low educational level were higher than the proportions for women in the age groups 15 to 24 years and 25 to 49 years.

In the period 2008 to 2012, a large change occurred in the age group 65-74 years. The proportions of both men and women entrepreneurs that attained a low level of education decreased and the proportion of entrepreneurs that attained a high level of education increased. Overall the educational level of women and men entrepreneurs increased during this period.

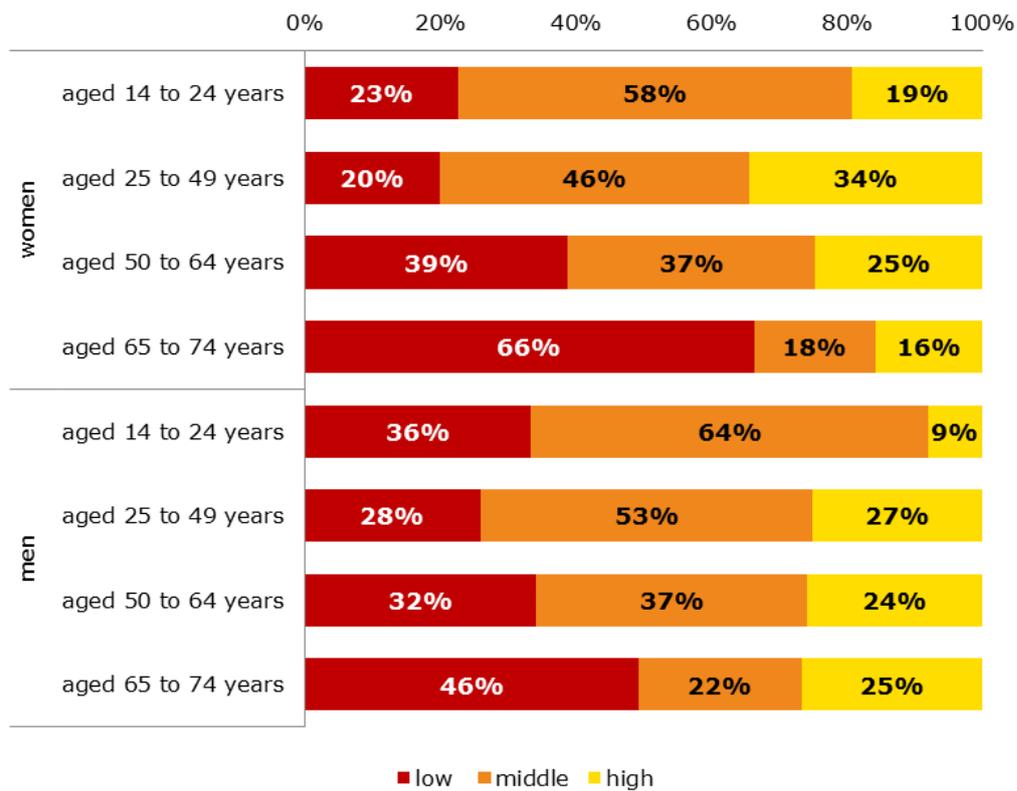
Figure 4.11 Average educational level and age of entrepreneurs by gender in EU-28, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4) and high to ISCED levels 5-6; data are only available for the age category 65 to 74 years and not for 65 years and over

Figure 4.12 Average educational level and age of entrepreneurs by gender in EU-28, 2008



Source: Pantela, based on Labour Force Survey (Eurostat and national statistics)

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4) and high to ISCED levels 5-6; data are only available for the age category 65 to 74 years and not for the category 65 years and over

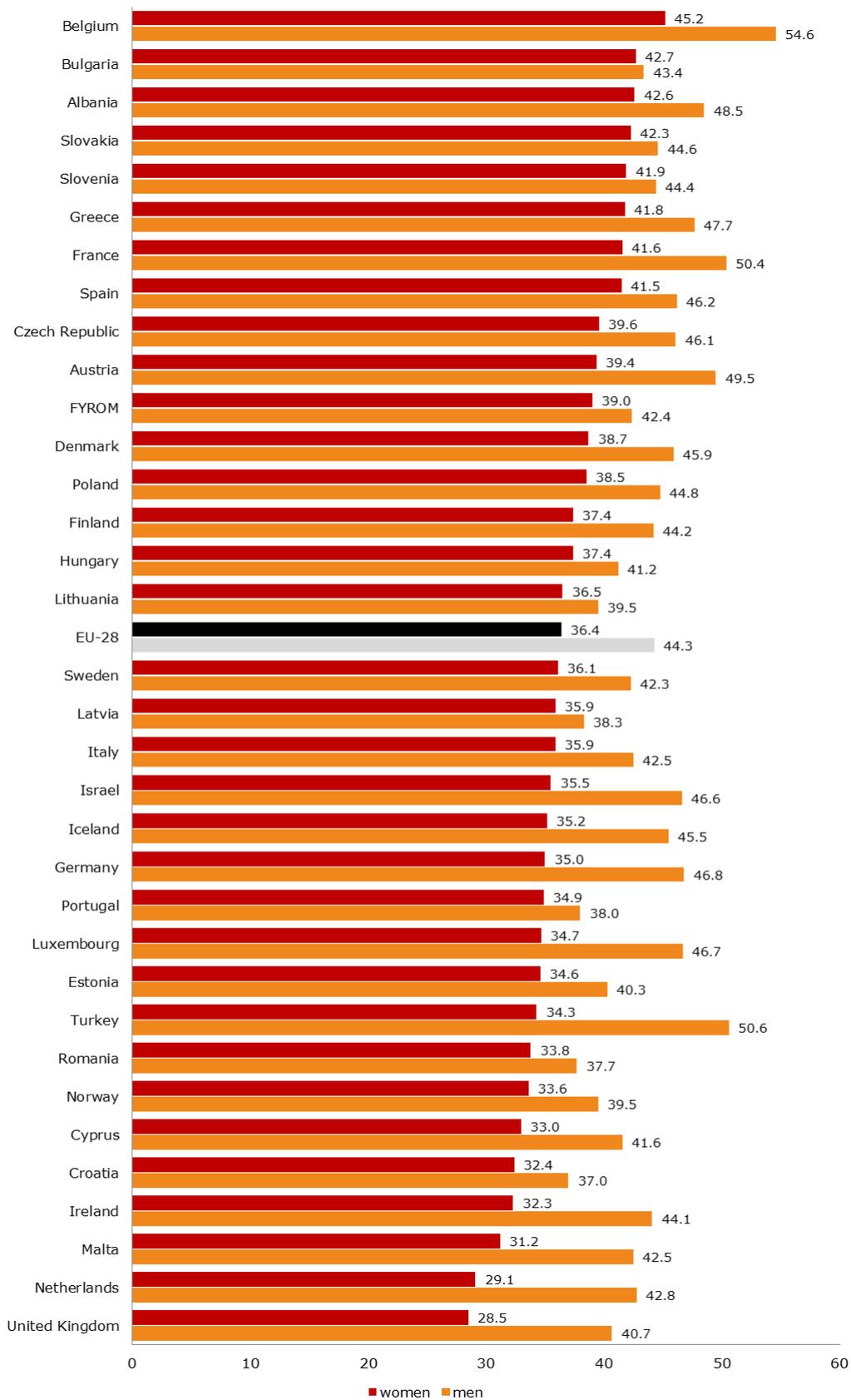
4.3 Working time spent in enterprises

On average, men entrepreneurs spent more hours per week in their enterprise than did women, which is partly due to the fact that more women work part-time in their enterprise. Men entrepreneurs, both full-time and part-time, spent more time in their enterprise than did women.

In 2012, women entrepreneurs in EU-28 worked on average 36.4 hours per week in their enterprise compared to 44.3 hours for men entrepreneurs. See Figure 4.13. The top three countries in which women entrepreneurs averaged the most hours per week were Belgium, Bulgaria and Slovakia, and the least number of hours per week were the United Kingdom, the Netherlands and Malta.

In 2012, women entrepreneurs working part-time in their enterprise averaged 18.1 hours per week compared to 20.3 hours for men entrepreneurs. See Figure 4.15. The top three countries in which part-time women entrepreneurs worked on average the most number of hours per week were Albania, Lithuania and Romania, and in which part-time women worked the least number hours were Portugal, United Kingdom and Finland.

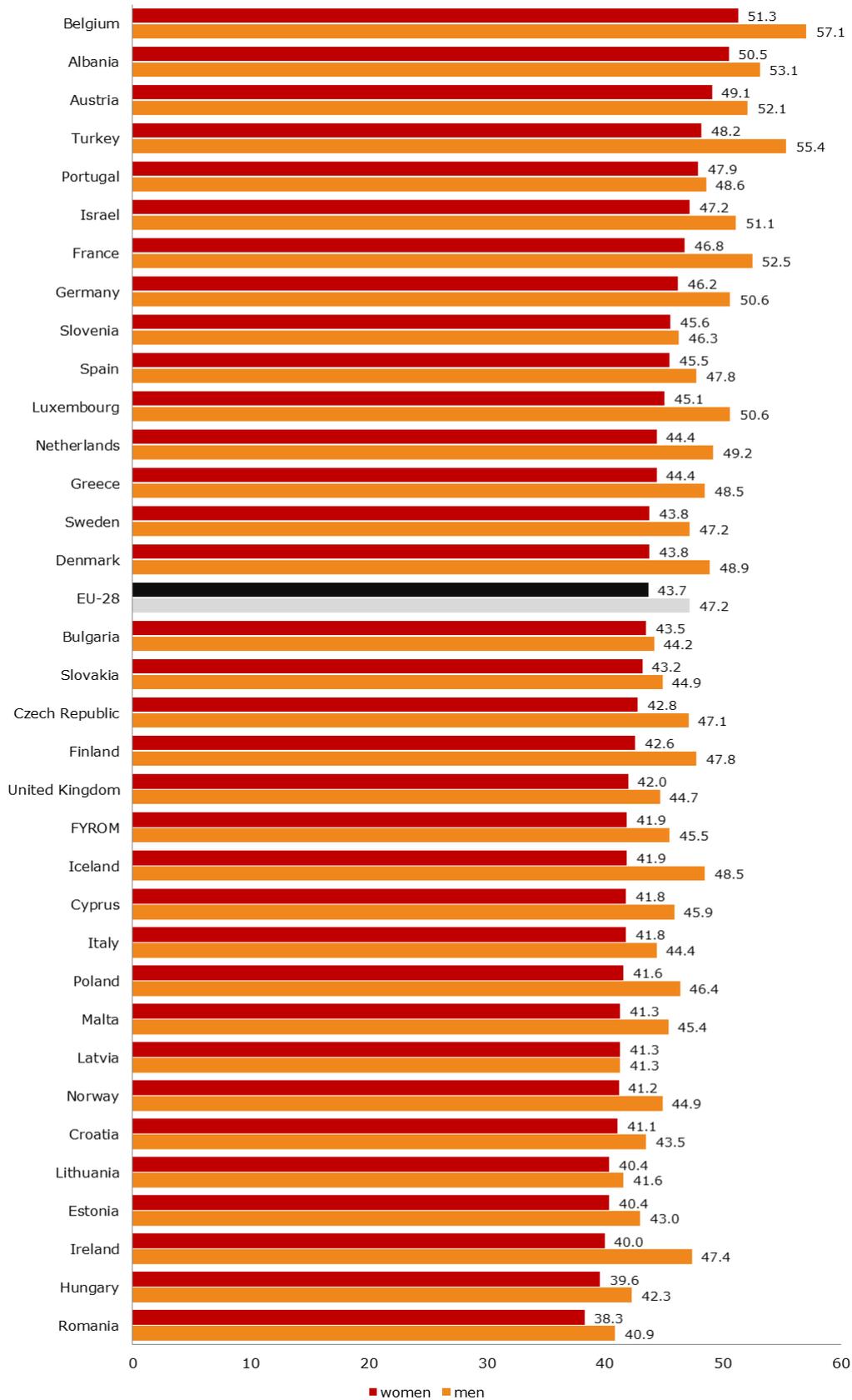
Figure 4.13 Average number of hours worked per week by entrepreneurs (full-time and part-time) by gender in Europe, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Israel and Albania.

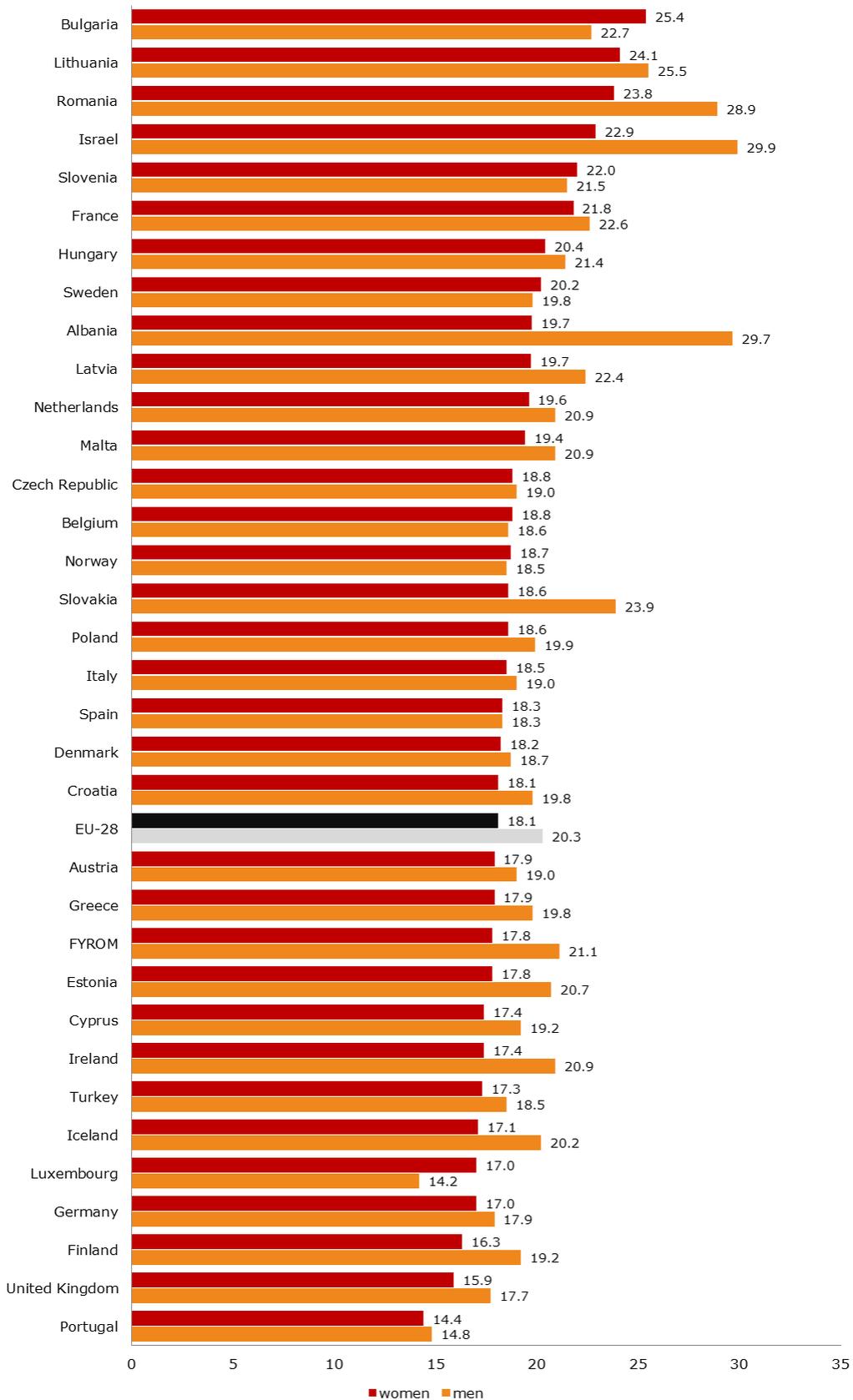
Figure 4.14 Average number of hours worked per week by full-time entrepreneurs by gender in Europe, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Israel and Albania.

Figure 4.15 Average number of hours worked per week by part-time entrepreneurs by gender in Europe, 2012



Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Note: Estimates made for Israel and Albania.

5 PERFORMANCE AND CHARACTERISTICS WOMEN-LED ENTERPRISES

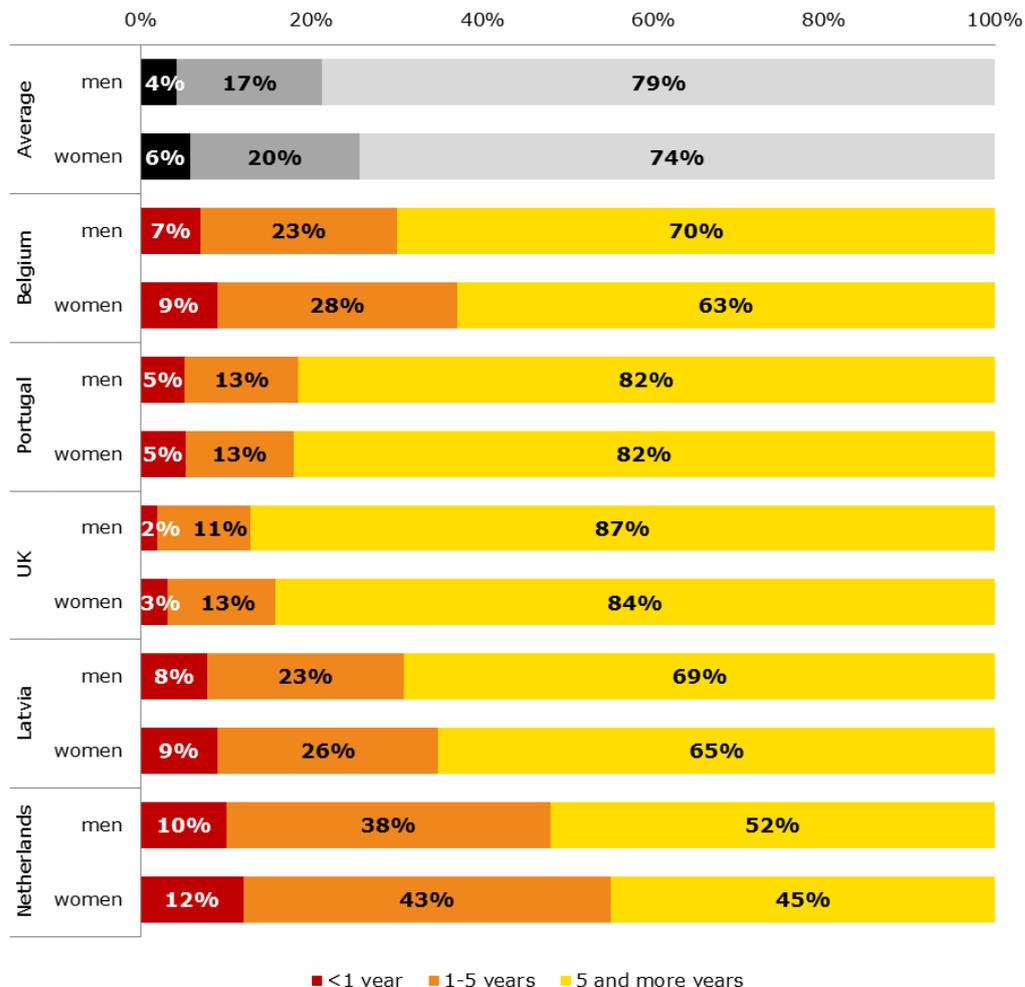
Most data on the characteristics and performance of women-led enterprises were obtained from national data sources, and more detail on these national data is included in the country fiches.

5.1 Years in business

Data on the number of years in business for women entrepreneurs were available for Belgium, Portugal, United Kingdom, Latvia and the Netherlands. Based on the data available, three groups were distinguished: less than 1 year; 1-5 years; and more than 5 years.

Data from these five EU countries indicated that women entrepreneurs on average have been in business for fewer years than men entrepreneurs. As shown in Figure 5.1, the gender differences were relatively small.

Figure 5.1 Percentage of enterprises by years in business and gender of the entrepreneur in five countries, 2012.



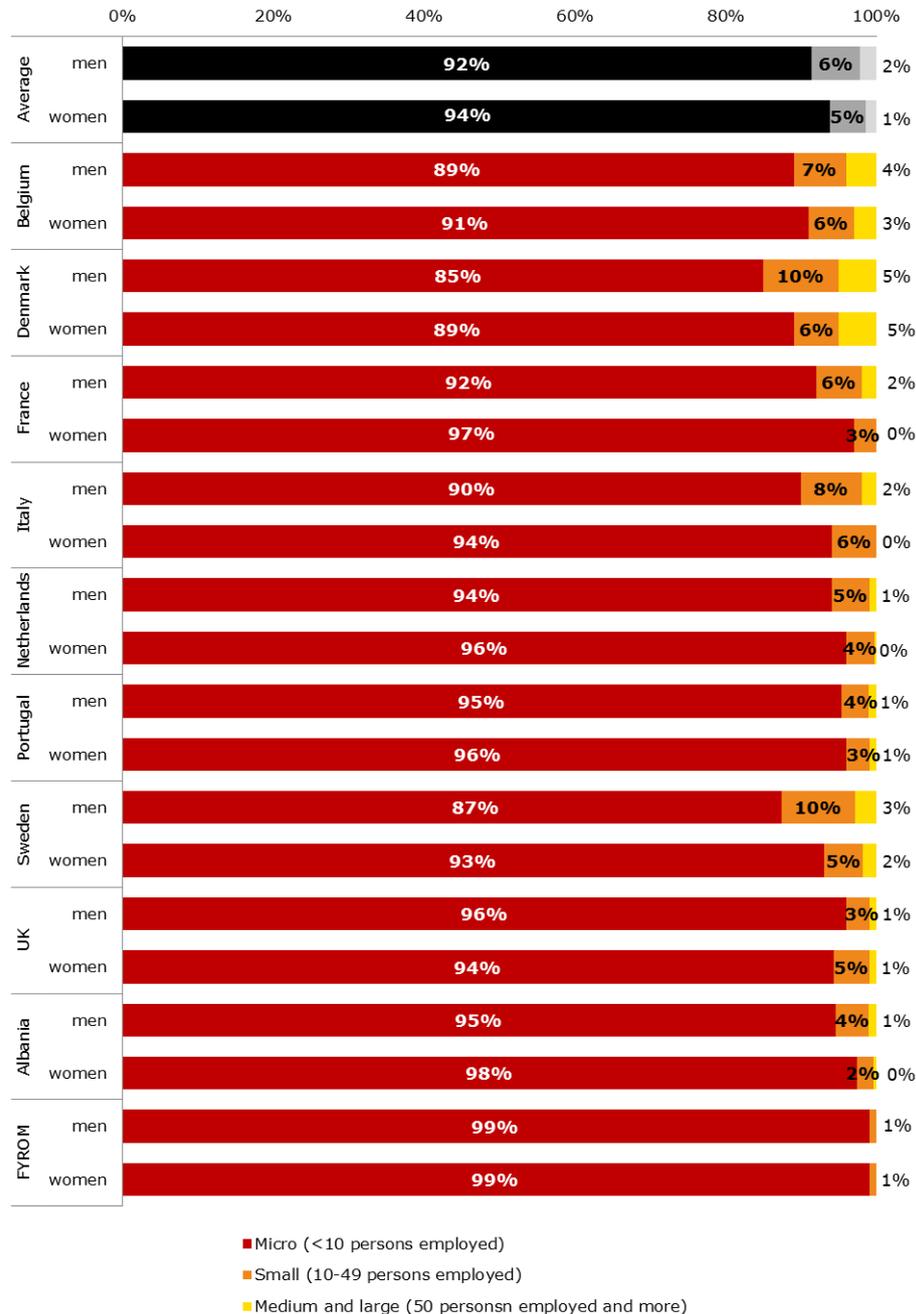
Source: Panteia, based on national statistics

Note: Weighted calculated average the Netherlands, Latvia, the United Kingdom, Portugal and Belgium.

5.2 Enterprise size by employment

Data on enterprise size by entrepreneur gender were available for 12 European countries. Based on these data, the following classes were distinguished: micro (less than 10 persons employed); small (10 to 49 persons employed); and medium and large (more than 50 persons employed). These data are presented for ten countries¹⁵ in Figure 5.2.

Figure 5.2 Percentage of enterprises by size class and gender of the entrepreneur, 2011 or 2012



Source: Panteia, based on national statistics

Note: Weighted calculated average for FYROM, Albania, the United Kingdom, Sweden, Portugal, the Netherlands, Italy, France, Denmark, Germany and Belgium; the years for which data were available differ by country. More details are provided in the country fiches.

¹⁵ Data for Ireland and Austria were available but were not comparable.

The years for which data were available differ by country. But on average, the percentage of micro enterprises was higher for women than men entrepreneurs, except in the United Kingdom where the average enterprise led by women was slightly lower. For the ten countries, on average 16 the proportion of micro enterprises led by women was 3 percent points higher than the proportion of enterprises led men.

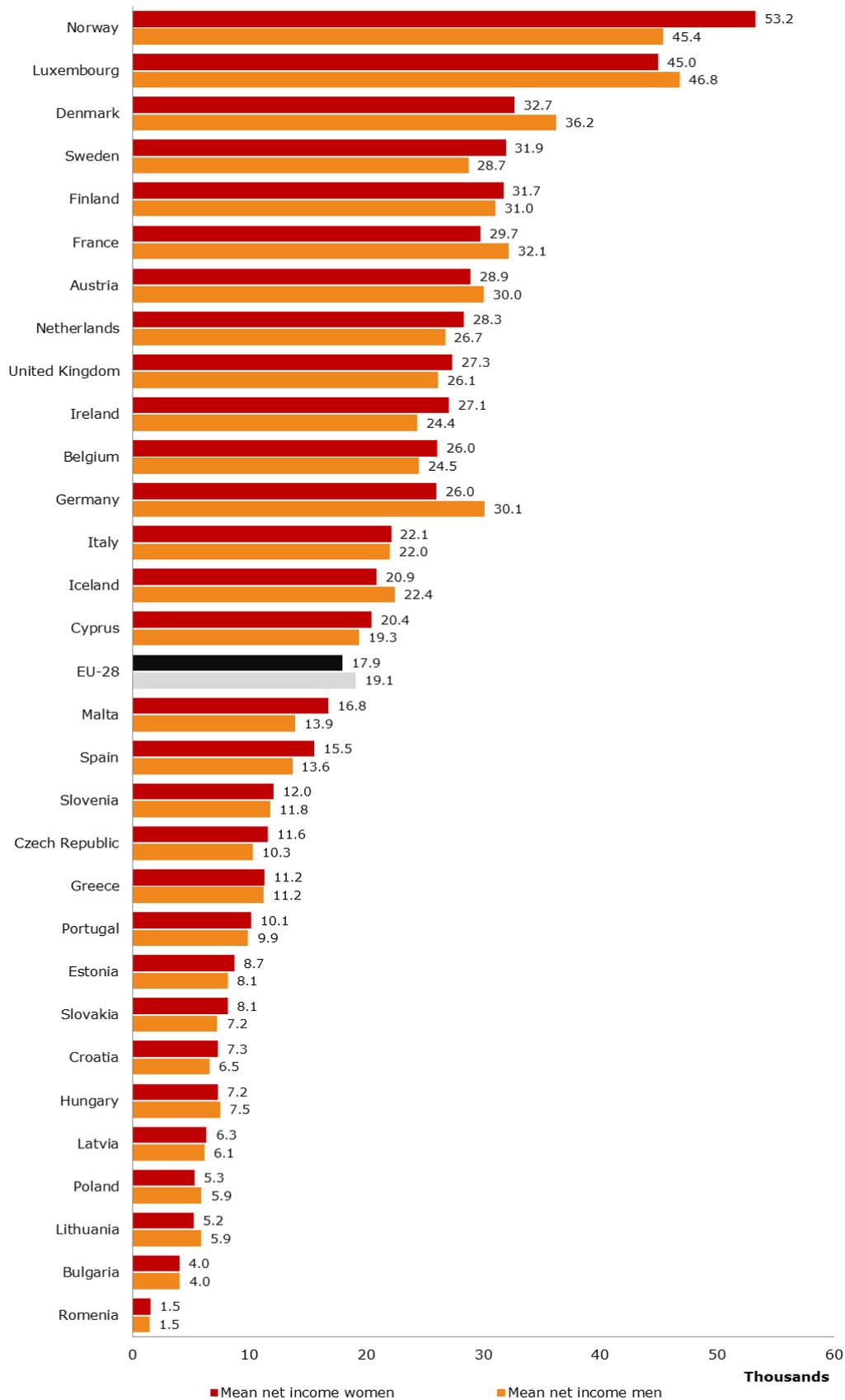
5.3 Mean net income

On average, the mean net income of women entrepreneurs in EU-28 in 2012 was 6% lower than that of men entrepreneurs. However, there were large variations between the countries as shown in Figure 5.3. In 20 out of 30 countries (EU-28, Iceland and Norway), the mean income of women was higher than that of men entrepreneurs.

Countries with the largest positive income gap for women entrepreneurs were Spain (+20%), Norway (+17 %) and Malta (+20 %), and with the largest negative income gap for women entrepreneurs were Germany (-14 %), Lithuania (-12%), Denmark (-10 %), and Poland (-10 %).

¹⁶ Weighted calculated average

Figure 5.3 Mean net income per year of entrepreneurs by country and gender in EU-28, Iceland and Norway, 2012 (x 1000)



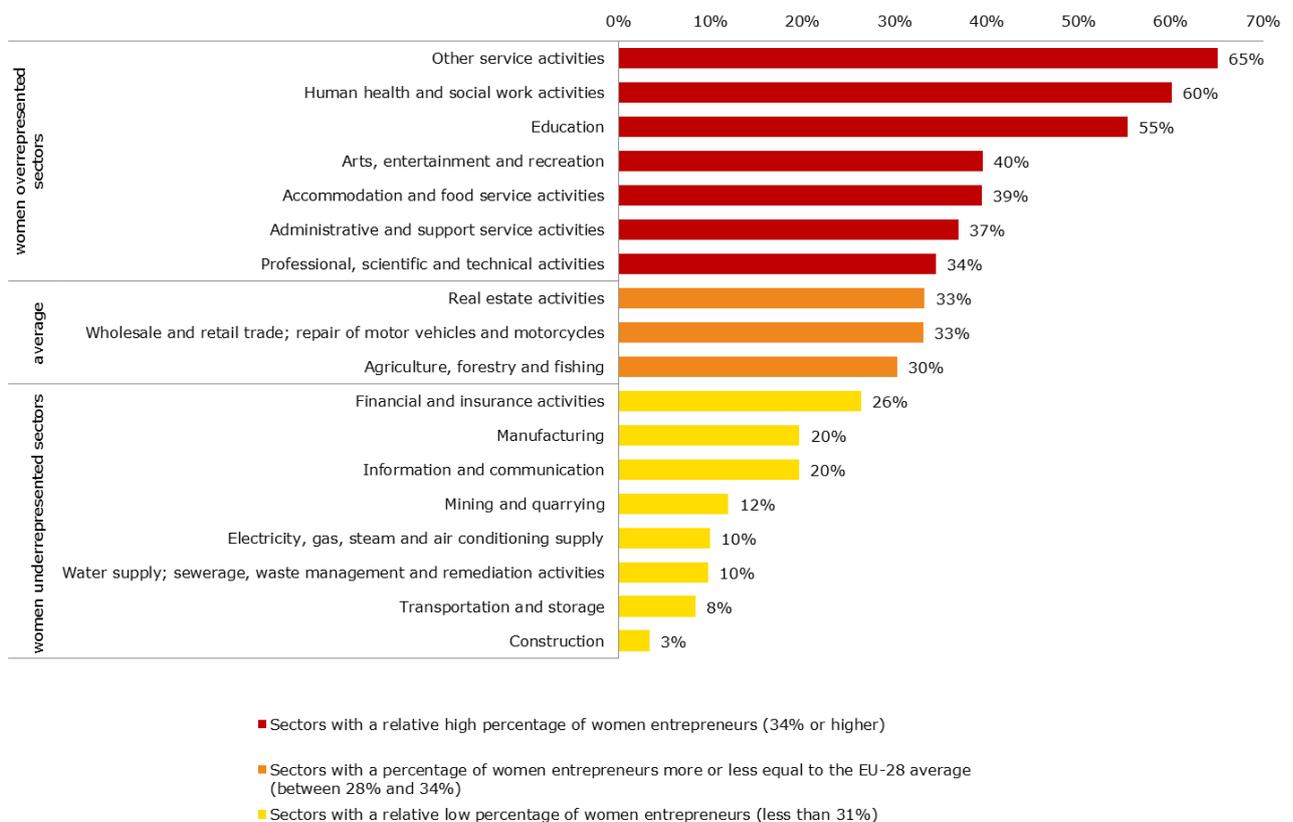
Source: Panteia, based on EU-Statistics on Income and Living Conditions (EU-SILC) Eurostat.

5.4 Sector performance of women entrepreneurs

Differences in the performance of enterprises may be influenced by the sectors in which women and men entrepreneurs are active. Men entrepreneurs were more active in sectors with relatively high profit margins, and difference in performance may be partly due to sector effects rather than specific gender effects.

The average percentage of women entrepreneurs by sector in EU-28 was 31%. To test the hypothesis, sectors with a percentage of women entrepreneurs more or less equal to the average percentage (between 28 % and 34 %) were defined as gender neutral. Sectors with a relative high percentage of women entrepreneurs (34 % or higher) were defined as women overrepresented sectors, and sectors with a relative low percentage of women entrepreneurs (less than 31 %) as women underrepresented sectors. The three groups of sectors are presented in Figure 5.4.

Figure 5.4 Percentage of women entrepreneurs by sector category in EU-28, 2012



Source: Panteia, based on Eurostat (National Accounts)

A commonly used indicator to measure performance is the value added of enterprises. The annual growth of the value added by sector group is presented in Table 5.1. A distinction was made between the seven sectors in which women were overrepresented and the other sectors.

Table 5.1 Annual growth in value added by sector in EU-28, volumes

	2004-2012	2009-2012
Women overrepresented sectors		
Professional, scientific and technical activities	-1.3%	-6.9%
Accommodation & food services	0.7%	-0.7%
Education	0.6%	0.4%
Administrative services	2.1%	-0.1%
Human health and social services	-0.5%	-4.3%
Arts entertainment, recreation	0.8%	-0.5%
Other services	1.2%	0.3%
Average women overrepresented sectors	0.1%	-3.0%
Women neutral and women underrepresented sectors	1.8%	1.2%
All sectors	1.2%	-0.3%

Source: Panteia, based on Eurostat (National Accounts)

Table 5.2 Percentage of net operation surplus in value added by sector in EU-28, 2012

Women overrepresented sectors	
Professional, scientific and technical activities	24%
Accommodation & food services	28%
Education	0%
Administrative services	19%
Human health and social services	10%
Arts entertainment, recreation	27%
Other services	34%
Average women overrepresented sectors	22%
Other sectors with an average or less than average share of women entrepreneurs	29%
All sectors	26%

Source: Panteia, based on Eurostat (National Accounts)

In the period 2004-2012, the average annual growth in value added of the seven sectors in which women were overrepresented was lower than for the other sectors, 0.1% and 1.8%, respectively. For the period 2009-2012, the annual growth in turnover was significantly lower in sectors overrepresented by women (-3% and 1.2%).

The percentage of net operating surplus in the value added is an alternative indicator for enterprise performance. In 2012, the percentage of the net operation surplus in the value added was lower on average in women overrepresented sectors (22%) than in the other sectors (29%). See Table 5.2.

The average annual growth in value added and the percentage of the net operating surplus in value added were slightly lower in the seven women overrepresented sectors. This indicates that differences in performance between women and men entrepreneurs can be partly explained by the fact that women entrepreneurs were more likely to be active in sectors with somewhat lower performance.

6 FACTORS INFLUENCING ENTREPRENEURSHIP

The results of the statistical analysis to determine factors that significantly influence women entrepreneurship are presented in this chapter. The Bivariate Pearson Correlation was used to measure the strength and direction of the linear relationship between two variables, which is defined as the covariance of the variables divided by the product of their standard deviations.

The results of the analyses are presented in Table 6.1 and Figure 6.1. The databases used are listed in Appendix 1.

Table 6.1 Statistical results Bivariate Pearson Correlations

<i>Variable 1</i>	<i>Variable 2</i>	<i>Pearson Correlation</i>	<i>N (countries)</i>
Percentage of women entrepreneurs of women in the active labour force, 2012	Percentage of necessity driven start-ups in total women start-ups	0.365*	24
Unemployment rate women	Percentage of necessity driven start-ups in total women start-ups	0.585***	25
Percentage of women entrepreneurs of women in the active labour force, 2012	Unemployment rate women	0.668***	34
Social benefits per unemployed (PPP), 2011	Percentage of necessity driven start-ups in total women start-ups	-0.393**	24
Percentage of women entrepreneurs of women in the active labour force, 2012	Trust in people	-0.586***	23
Percentage of women entrepreneurs of women in the active labour force, 2012	GDP per capita	-0.345*	30
Percentage of necessity start-ups in total women start-ups	GDP per capita	-0.489**	23
Percentage of women entrepreneurs of women in the active labour force, 2012	Barriers to finance: percentage applied for bank loans but rejected	0.151	30
Percentage of women entrepreneurs of women in the active labour force, 2012	Allowed to decide how daily work is organised	-0.311	23
Percentage of women entrepreneurs 2012	Gender inequality index 2012	-0.246	35

Source: Panteia, based on Eurostat, National Statistics, OECD, GEM and ESS

Note: Significance level: * 10%, ** 5%, ***1%.

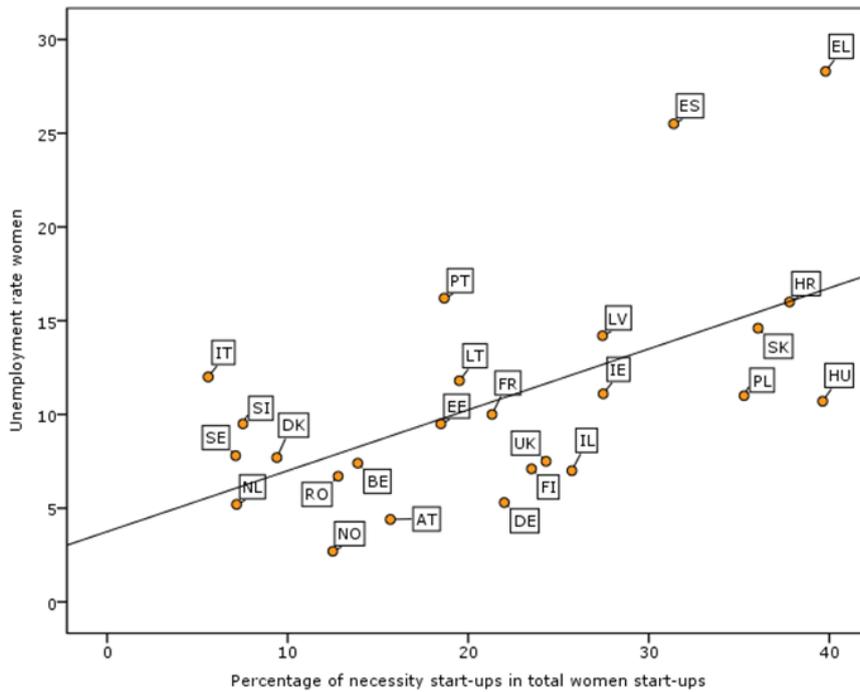
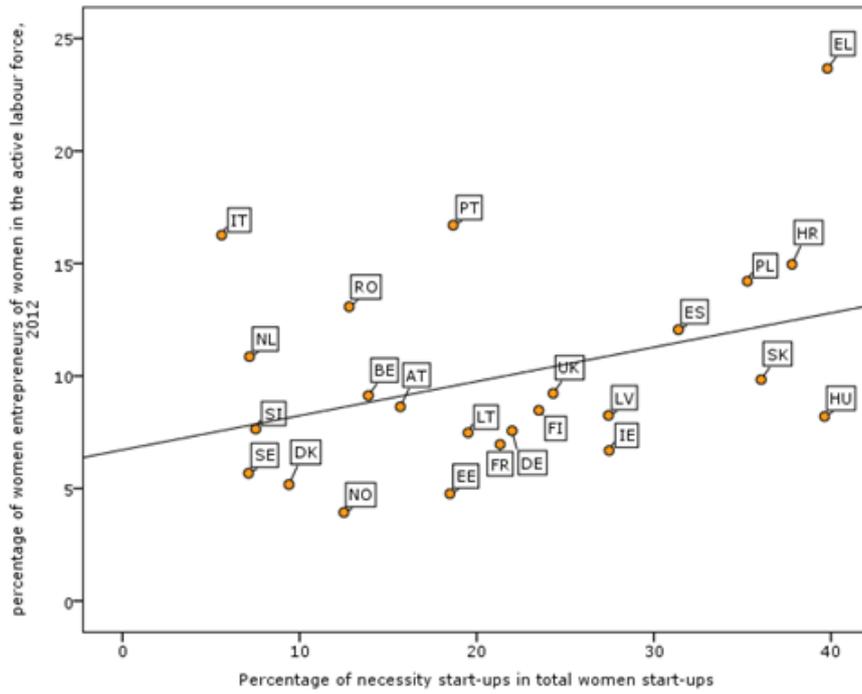
The main findings:

- **Unemployment rate:** there was a positive relationship between the level of women unemployment and the percentage of women entrepreneurs of women in the active labour force. Countries with high levels of unemployment on average had higher levels of women entrepreneurs. The unemployment rate also positively affected the percentage of necessity driven start-ups¹⁷ in the total start-ups. Women entrepreneurs in countries with high unemployment rates were more likely to start a business out of necessity.
- **Social benefits per unemployed worker:** there was a negative relationship between the level of social benefits¹⁸ per unemployed worker and the percentage of women entrepreneurs due to necessity.
- **Welfare:** based on the correlation coefficient, there seems to be a weak negative relationship between the average level of welfare (GDP/Capita) and the level of women entrepreneurship. A negative relationship was found between the welfare level and the percentage of necessity driven start-ups.
- **Trust in people:** a significant negative relationship was found between the level of trust in other people and the women entrepreneurship rate. An explanation could be that less trust in people could stimulate entrepreneurship that can result in more autonomy and control.
- **Finance:** no significant relationship was found between barriers to obtaining finance and percentage of women entrepreneurs.
- **Level of job autonomy:** no significant relationship was found between the level of job autonomy and the women entrepreneurship rate.
- **Gender inequality:** no significant relationship was found between gender inequality (index UNDP) and percentage of women entrepreneur.

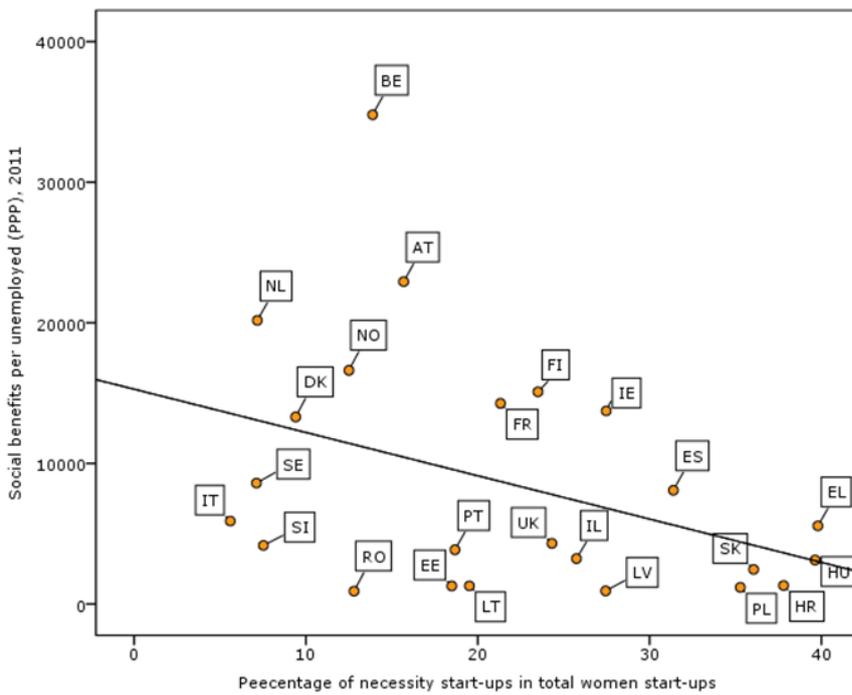
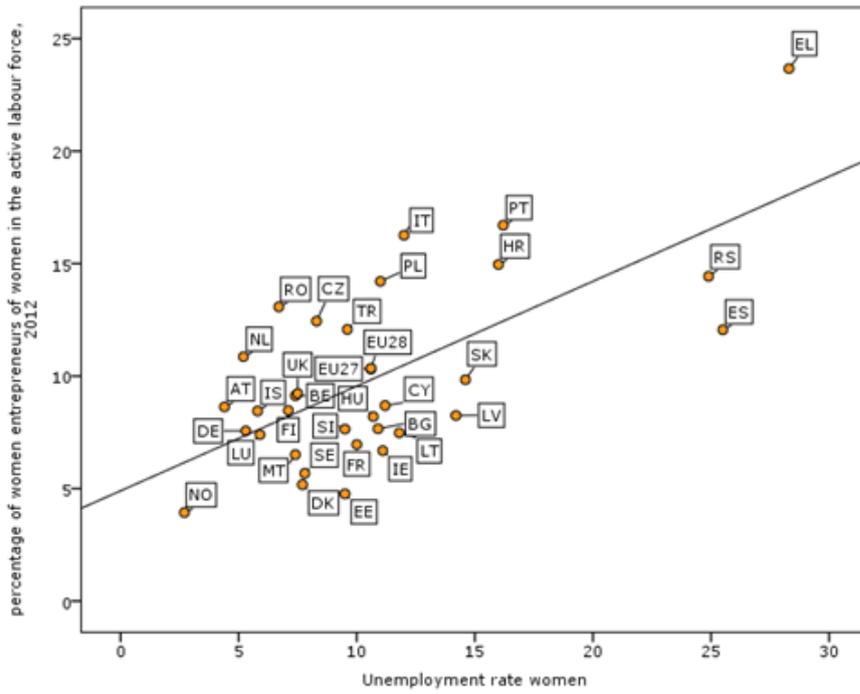
¹⁷ Necessity driven entrepreneurs are entrepreneurs that are pushed into starting a business because they have no other options to work.

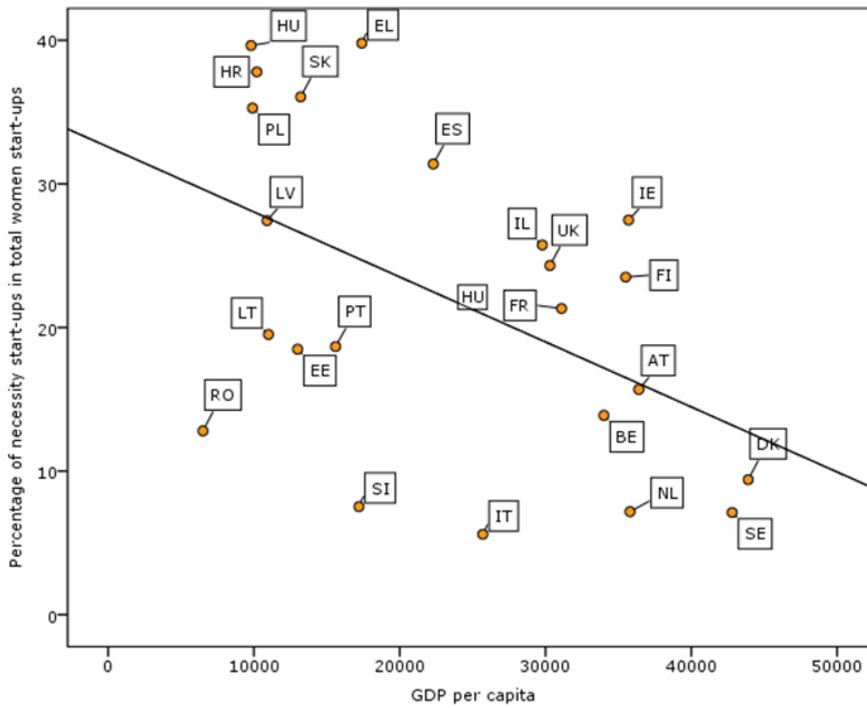
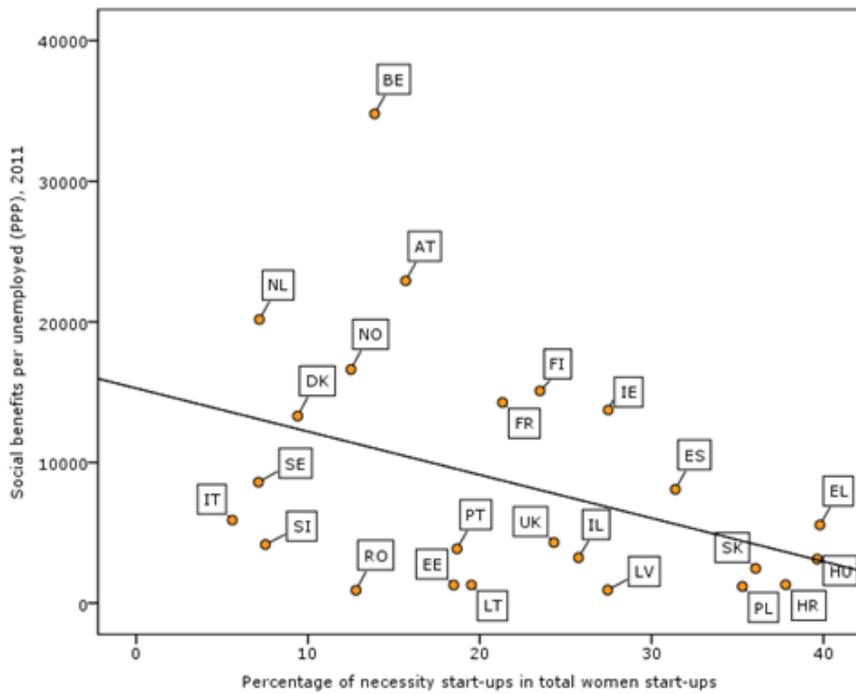
¹⁸ Corrected for purchasing power parity, US dollar.

Figure 6.1 Bivariate Pearson Correlations



Statistical Data on Women Entrepreneurs in Europe





Source: Panteia, based on Eurostat, National Statistics, OECD, GEM and ESS

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APPENDIX 1 TECHNICAL ANNEX

Introduction

In this study data were collected using the following criteria:

- Variables had to be related to entrepreneurship. In practice this means the subject of the data is self-employment. If possible, a distinction was made between solo self-employed and self-employed with employees.
- The source should allow a gender classification.

The following central sources were reviewed:

- The Labour Force Survey (LFS)
- The Statistics on income and living conditions (SILC)
- The European Quality of Life Survey (EQLS); unfortunately the number of observations in this source has been insufficient to allow for a reliable gender classification
- The European Working Conditions Survey (EWCS)
- The United Nations Economic Commission for Europe (UNECE)
- ILOSTAT (ILO)
- National Accounts
- The Global Entrepreneurship Monitor (GEM)
- The European Social Survey (ESS ERIC)

Labour Force survey, Eurostat

The data source for entrepreneurs by gender for EU-28 and Europe-37 countries was the Labour Force Statistics (LFS), unless otherwise stated. All countries use Labour Force Statistics, which has a uniform definition of an entrepreneur. For EU-28, Norway, Iceland, FYROM and Turkey, data were retrieved from the Eurostat database, downloaded between February and July 2014.

The number of entrepreneurs is the number of persons whose main or primary job is their enterprise, unless otherwise stated.

In the LFS director-owners of corporate enterprises are classified as an entrepreneur (self-employed). Because of possible differences in interpretation of the question in the LFS survey whether such a person is an entrepreneur (self-employed) or employee, probably not all director-owners of corporate enterprises classified themselves as self-employed. This was confirmed in articles published by the UK Office for National Statistics in 2007¹⁹ and the OECD in 2000²⁰. In most countries, director-owners of corporate enterprises considered themselves to be an entrepreneur (self-employed).

Small values were considered to be less reliable. Although Eurostat sometimes flagged less reliable data, these data were included because the data were likely to be more reliable than estimates.

In a few cases, only data on the total numbers of entrepreneurs and the number of men entrepreneurs were available. Thus, the number of women entrepreneurs was calculated as the total number of entrepreneurs minus the number of men entrepreneurs.

The number of women entrepreneurs with personnel (entrepreneurs who were employers) was calculated in the same way when only data on the total number of entrepreneurs and the number of women solo entrepreneurs were available.

¹⁹ Machin, Andrew, Comparison of statistics on jobs: September 2007, 2007, Office for National Statistics.

²⁰ OECD Employment Outlook 2000, Chapter 5: The partial renaissance of self-employment, 2000, OECD.

Thus, total number of women entrepreneurs = total number of women solo entrepreneurs + total number of women employers.

Where data were not available in the Eurostat tables, requests were made to the national statistics of individual countries for additional data.

Eurostat does not have data for Albania, Israel, Liechtenstein, Montenegro and Serbia. For these countries, data were used from national statistics (Labour Force Survey), ILOSTAT and UNICE.

Relevant tables:

- lfsa_egan: total employment by gender and country, covering 2003 -2012. Data for non-EU countries generally are missing
- lfsa_esgan: self-employed (distinguishing solo-self-employed and self-employed with personnel) by gender and country, covering 2003 -2012. Data for non-EU countries generally are missing
- lfsa_esgan2: self-employment by gender, sector of industry and country, covering 2008 -2012. Unfortunately, this table lacks sector information for most countries as Bulgaria, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia, Slovakia, Finland, Iceland and Turkey. Albania, FYROM, Iceland, Israel, Turkey, Liechtenstein, Montenegro, Norway, and Serbia are not included.
- lfsa_esgaed: self-employed (distinguishing solo-self-employed and self-employed with personnel) by gender, age, highest level of education and country, covering 2003 -2012. Data for non-EU countries generally are missing
- lfsa_ewhais: self-employed (distinguishing solo-self-employed and self-employed with personnel) by gender, age, working hours (full time/part time) and country, covering 2003 -2012. Data for non-EU countries generally are missing
- lfsa_eftpt: full-time and part-time self-employed (distinguishing solo-self-employed and self-employed with personnel) by gender. Data for non-EU countries generally are missing
- lfsa_e2gps: population in employment having a second employees and job self-employed (distinguishing solo-self-employed and self-employed with personnel) by gender. Data for non-EU countries generally are missing
- lfsa_ewhun2: Average number of usual weekly hours of work in main job, by sex, self-employed (distinguishing solo-self-employed and self-employed with personnel, full-time/part-time. Data for non-EU countries generally are missing
- lfst_hhsechi: age of self-employed adults by sex, age groups, number of children and age of youngest child. Data for non-EU countries generally are missing

Estimates and extrapolations were made in order to complete the dataset for all countries, and the EU28 total and Europe-37 total. These estimates are discussed briefly later.

Period: 2003-2012, and 2003, 2008 and 2012

The structural data on number of entrepreneurs, employers and solo entrepreneurs by gender were for each year between 2003 and 2012.

Entrepreneur characteristics, such as age, education and part time/full time, were for 2003, 2008, and 2012.

Sector data were only for 2008 and 2012 because of a change in the NACE classification in 2008. Up until 2008, NACE Rev 1.2 was used in statistics and after that date, NACE Rev. 2 was used. On the aggregation level of the data available (digit 1), conversions could not be made for most countries. Where data for 2012 were missing, data for 2011 were used, as indicated in footnotes to the tables.

Relative position

To compare the number of entrepreneurs per country, the relative position was determined by relating the number of women entrepreneurs to the total number of entrepreneurs. The entrepreneurship rate expresses the percentage of entrepreneurs in the total active labour force.

Entrepreneur as a second job

For the EU-28, data were available of women whose primary job was being employed and being an entrepreneur was a second activity. As these data were only available for 29 countries, the total number of entrepreneurs (entrepreneurs in main and second job) could not be determined. To get an indication of the number of women entrepreneurs with their enterprise as a second job, these figures were related to women entrepreneurs with their enterprise as their main job. When the figure is 100, the number of persons who were entrepreneurs as their second job equals the number of persons who were entrepreneurs as their main activity. When it is 0, there were no persons who were entrepreneur as a second job.

Average indicator of education level

To compare the education level of women and men entrepreneurs in the 37 countries, an average indicator was calculated weighting three education levels: 1 low level, 2 middle level, and 3 high level. Thus, an indicator value of 1 meant that all entrepreneurs had attained pre-primary, primary and lower secondary education. An indicator value of 3 meant that all entrepreneurs had attained first and second stages of tertiary education. Data were provided on the highest education level achieved by an entrepreneur.

Liberal professionals and freelancers

As there are no official definitions of liberal professionals and freelancers, these were defined according to the NACE classification of sectors and their size.

In this study, liberal professionals were defined as entrepreneurs active in real estate; professional, scientific and technical activities; and human health and social work.

Freelancers are solo entrepreneurs active in the following sectors:

- information and communication
- financial and insurance activities
- administrative and support service activities
- education
- arts, entertainment and recreation
- other service activities.

Additional estimates on data 2003-2012, 2003, 2008 and 2012

Eurostat and national statistics were not available for some data points, either for reasons of confidentiality or data reliability. Using centrally available data²¹, estimates were made as follows:

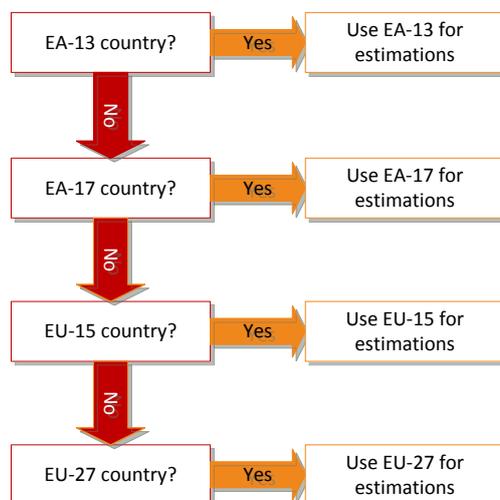
1. For most countries, the total numbers of men and women entrepreneurs with and without employees were known. In addition, there were no missing values for the EU country groups: EU-28, EU-27²², EU-15, EA-18, EA-17²³ and EA-13.
2. For missing data on sectors, distribution over these sectors in the country groups was used to estimate the missing values for sectors.

²¹ Source: EUROSTAT. Centralised data were preferred to avoid incomparability of data between countries.

²² Missing values for Croatia were obtained by subtracting EU-27 from EU-28.

²³ Missing values for Latvia were obtained by subtracting EA-17 from EA-18.

Figure 1 Country group classification steps²⁴



1. An interpolation was made as a preliminary estimate of missing data on the number of entrepreneurs, solo entrepreneurs and/or employers for a specific year between 2003 and 2012 in a country. Extrapolation was applied when data were missing at either the beginning or end of the period.
2. When data on entrepreneur characteristics (age, education, full time/part time) for a specific year (2003, 2008 or 2012) were missing, the composition of these variables was derived from the year before or after. If it was possible to distinguish a trend, the results for previous or later years were adjusted to trend values.

The resulting estimates were checked by local experts and WES members in the country concerned.

Statistics on income and living conditions (SILC), Eurostat

Relevant table:

- ilc_di05: Mean income by most frequent activity status. Data for non-EU countries generally are missing

The mean income is the average income per year net of current taxes.

National Accounts Eurostat

To gain an indication of the performance of women-led enterprises, the performance of women dominated sectors was compared with other sectors to assess whether women are operating in sectors in which the volume growth of value added and the level of the net operating surplus was above average.

In most countries, the following sectors were shown to have an above average proportion of women entrepreneurs:

- Other services
- Human health and social services
- Education
- Arts entertainment, recreation
- Administrative services
- Accommodation & food services
- Wholesale and retail trade; repair of motor vehicles and motorcycles.

²⁴EA-18 and EU-28 were only used to obtain missing values for Latvia and Croatia and not used as a country group for the estimations.

The data were derived from the National Accounts as follows:

- Gross value added (at basic prices, millions of euro): National Accounts by 21 branches; chain-linked volumes, reference year 2005 (at 2005 exchange rates) [nama_nace21_k]
- Gross value added (at basic prices, millions of euro): National Accounts by 21 branches; aggregates at current prices [nama_nace21_c]
- Net operating surplus and net mixed income (millions of euro): National Accounts by 21 branches - aggregates at current prices [nama_nace21_c]

Volume growth in value added was analysed for the period 2004-2012. The growth data presented in the report were determined by dividing the change between 2004 and 2012 by 2004 data.

The net operating surplus was examined for 2012. The share in value added was determined by comparing net operating surplus and the value added (current prices).

Volume growth of value added was analysed for 20 countries and compared with the net operation surplus for 25 countries.

No estimations were made for these variables.

Global Entrepreneurship Monitor (GEM)

GEM allows for a gender distinction in three variables:

- % of the population reporting 'yes' on the question: Good conditions to start business next 6 months in area I live
- % of the population reporting 'yes' on the question: Has required knowledge/skills to start business
- % of the population reporting 'yes' on the question: Setting up firm or owner of young firm

The countries included are Austria, Belgium, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Latvia, Lithuania, Macedonia, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

These data were used for the statistical analysis to determine factors that significantly influence women entrepreneurship (Chapter 6).

The United Nations Economic Commission for Europe

Relevant data:

- Population data (may be required for weighting purposes).
- The proportion of economically active persons in total population, by gender and country, generally covering 2008-2012
- The proportion of workers in a managerial position, by gender and country, generally covering 2008-2012; Montenegro is lacking completely, Albania, Serbia, Israel, Turkey not for all years
- Number and share of own account workers, employers and members of producers cooperatives 2003-2012

The data in this database were derived from the LFS of the individual countries.

ILOSTAT

Relevant data

- Employment distribution by sex and status in employment (employers and own-account workers) 2003-2012; for Montenegro only 2005, 2011 and 2012, for Albania since 2009

The data in this database were derived from the LFS of the individual countries.

The European Social Survey (ESS)

The European Social Survey (ESS) is an academically driven cross-national survey that has been conducted every two years across Europe since 2001. The survey measures the attitudes, beliefs and behaviour patterns of diverse populations in more than 30 countries: all 28 EU-countries, Albania, Iceland, Israel, Norway and Turkey.

Relevant indicators used:

- Social trust
- Autonomy of work

These data were used for the statistical analysis to determine factors that significantly influence women entrepreneurship in (Chapter 6).

Data on enterprises led by women and men

Other variables in this study were enterprise size and years in business, and profitability of an enterprise. Employment statistics, such as LFS, do not include these variables.

Eurostat and national statistics contain data on these variables (business statistics), but not on the gender of the enterprise director/owner. Thus, it was not possible to select women-led enterprises. However, in countries, such as the Netherlands, Greece, Sweden and the UK, limited research has been done by research institutes. Statistics on entrepreneurs (gender) have been combined with enterprise statistics (years in business, number of employees, output, value added and profits), and limited samples of enterprises and the characteristics of their owners have been analysed or surveyed. As only a few countries were able to deliver business data, no estimations were made of these variables for other countries or other years.

Sources used for the country fiches

No estimates have been included in the country fiches. Most data were derived from Eurostat. For Albania, Israel, Liechtenstein, Montenegro and Serbia, data were derived from national statistics, UNICE and/or ILOSTAT.

The following Eurostat tables were used:

- Number of entrepreneurs, solo entrepreneurs and employers by gender (x 1.000): [lfsa_eegaed]
- Number of entrepreneurs, solo entrepreneurs and employers by gender and age (x 1.000): [lfsa_eegaed]
- Number of entrepreneurs, solo entrepreneurs and employers by gender and education (x 1.000) [lfsa_eegaed]
- Employment by sex, age and professional status (x 1.000): [lfsa_egaps]
- Number of entrepreneurs, solo entrepreneurs and employers by gender and sector (x 1.000): [lfsa_eegan2]
- Number of full time and part time entrepreneurs, solo entrepreneurs and employers by gender (x 1.000) [lfsa_eftpt]
- Average number of actual weekly hours of work in main job, by gender, professional status (entrepreneurs, solo entrepreneurs and employers), full-time/part-time (x 1.000) [lfsa_ewhais]
- Employed persons having a second job by gender and professional status of both jobs (x 1.000) [lfsa_e2gps]
- Mean income by gender and most frequent activity status (in euro)(source: SILC) [ilc_di05]
- Gross value added (at basic prices, millions of euro): National Accounts by 21 branches; chain-linked volumes, reference year 2005 (at 2005 exchange rates) [nama_nace21_k]
- Gross value added (at basic prices, millions of euro): National Accounts by 21 branches; aggregates at current prices [nama_nace21_c]
- Net operating surplus and net mixed income (millions of euro): National Accounts by 21 branches - aggregates at current prices [nama_nace21_c]

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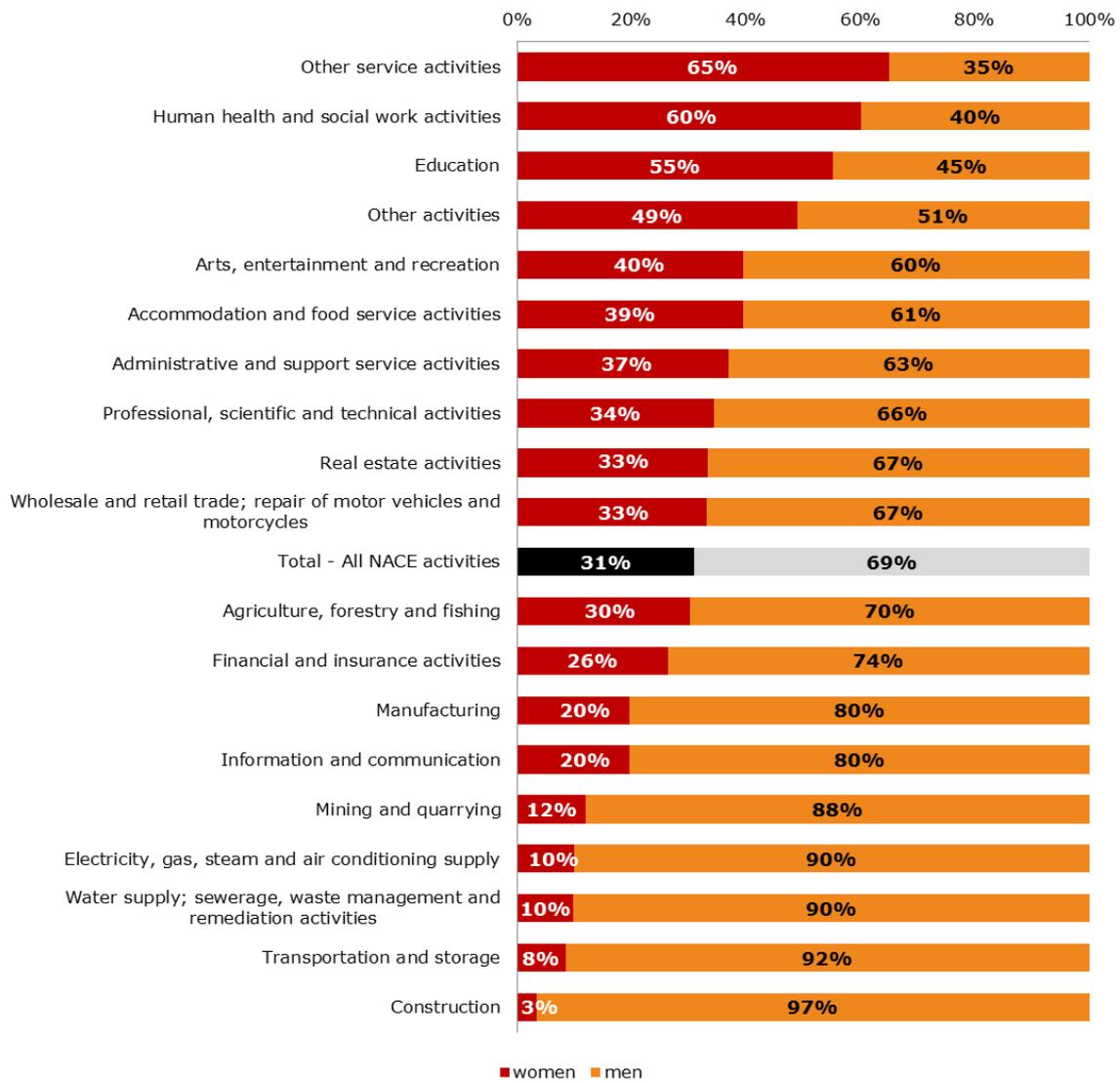
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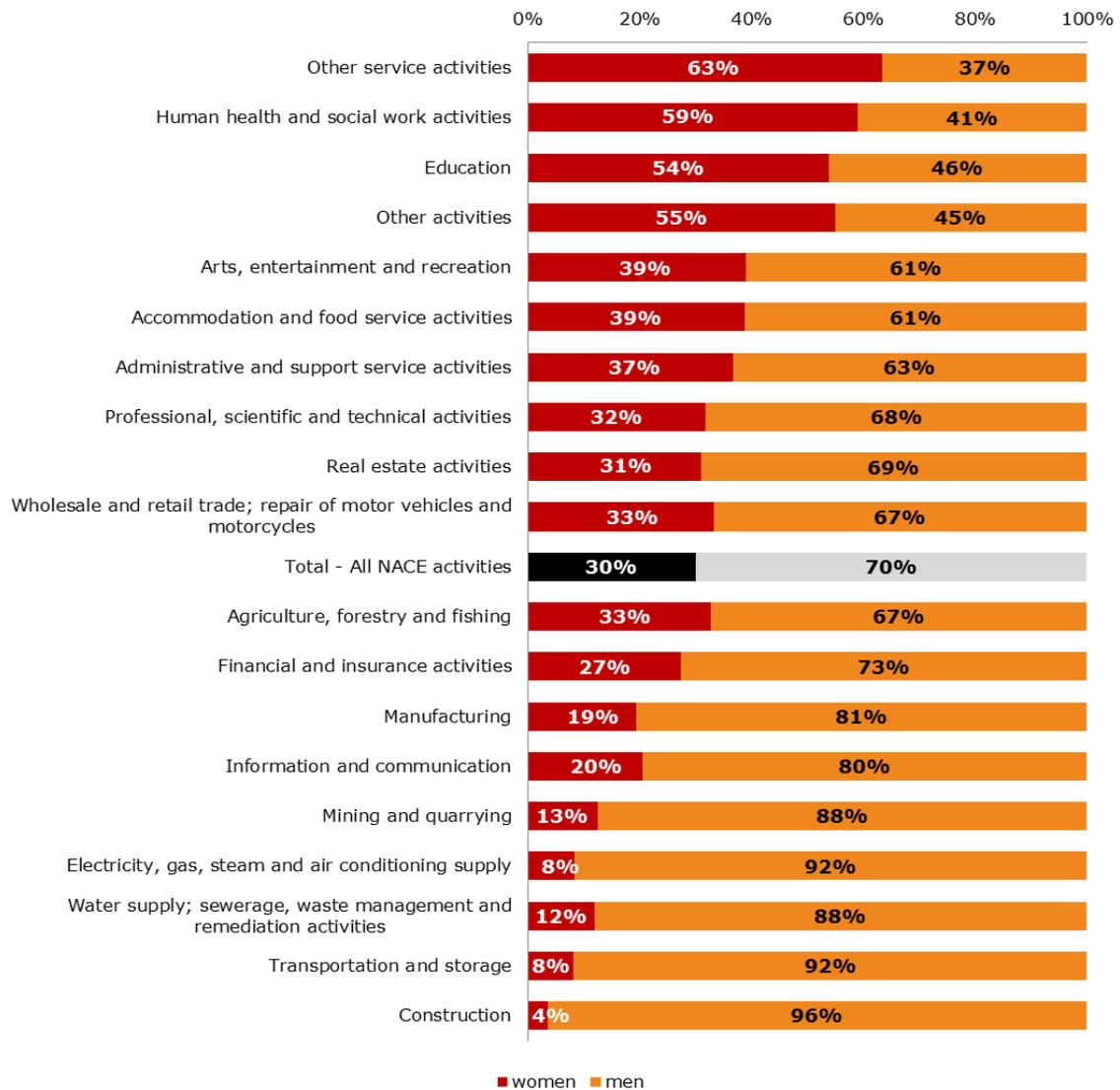
APPENDIX 3 FIGURES EU-28

Figure 3.1 Percentage of entrepreneurs by gender and sector in EU-28, 2012



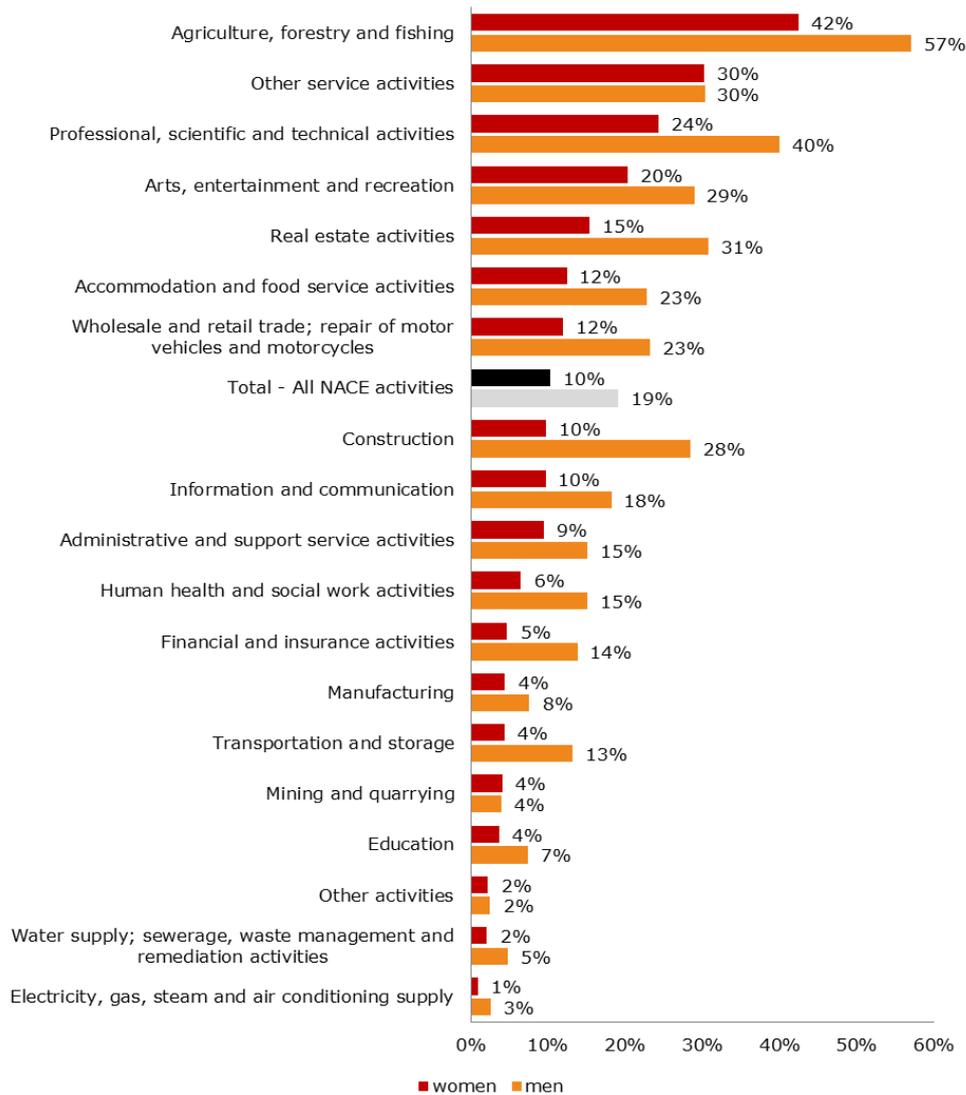
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.2 Percentage of entrepreneurs by gender and sector in EU-28, 2008



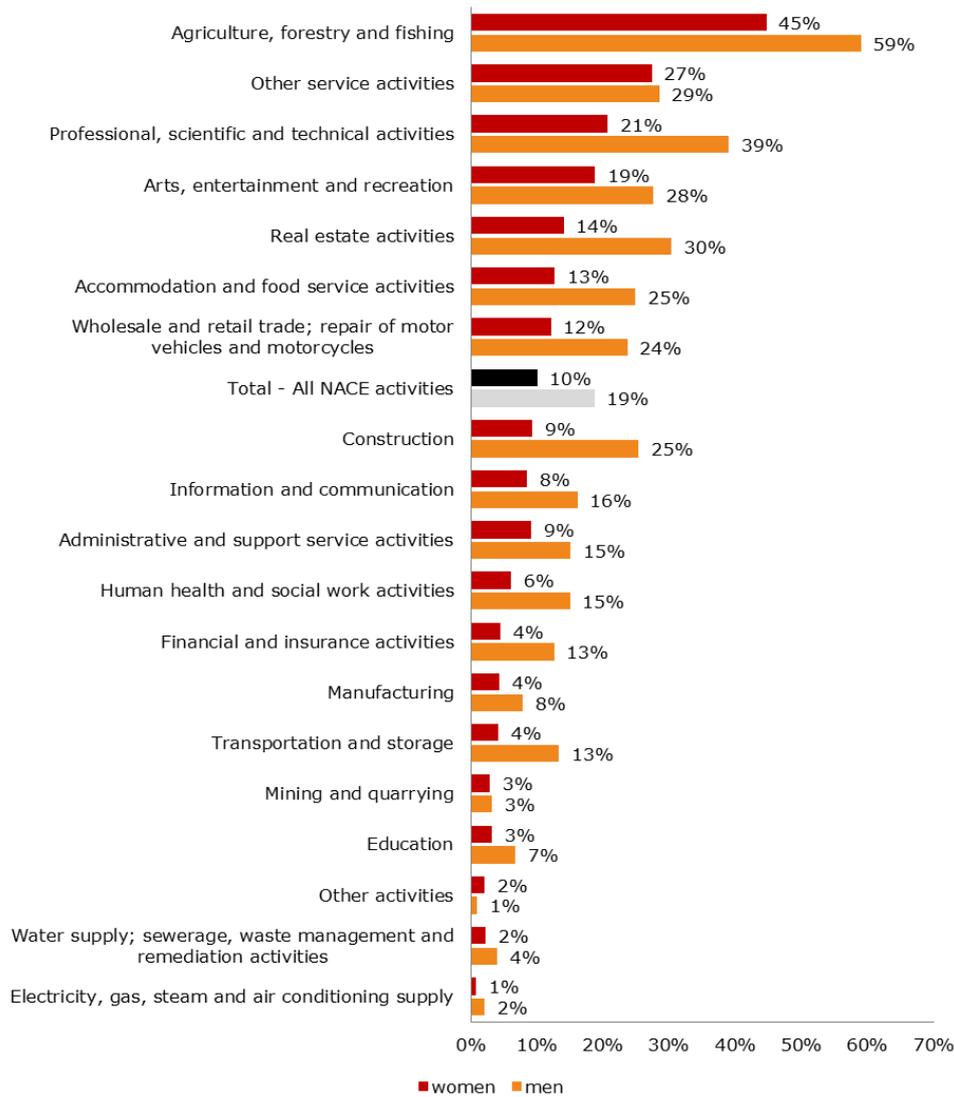
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.3 Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender and sector in EU-28, 2012



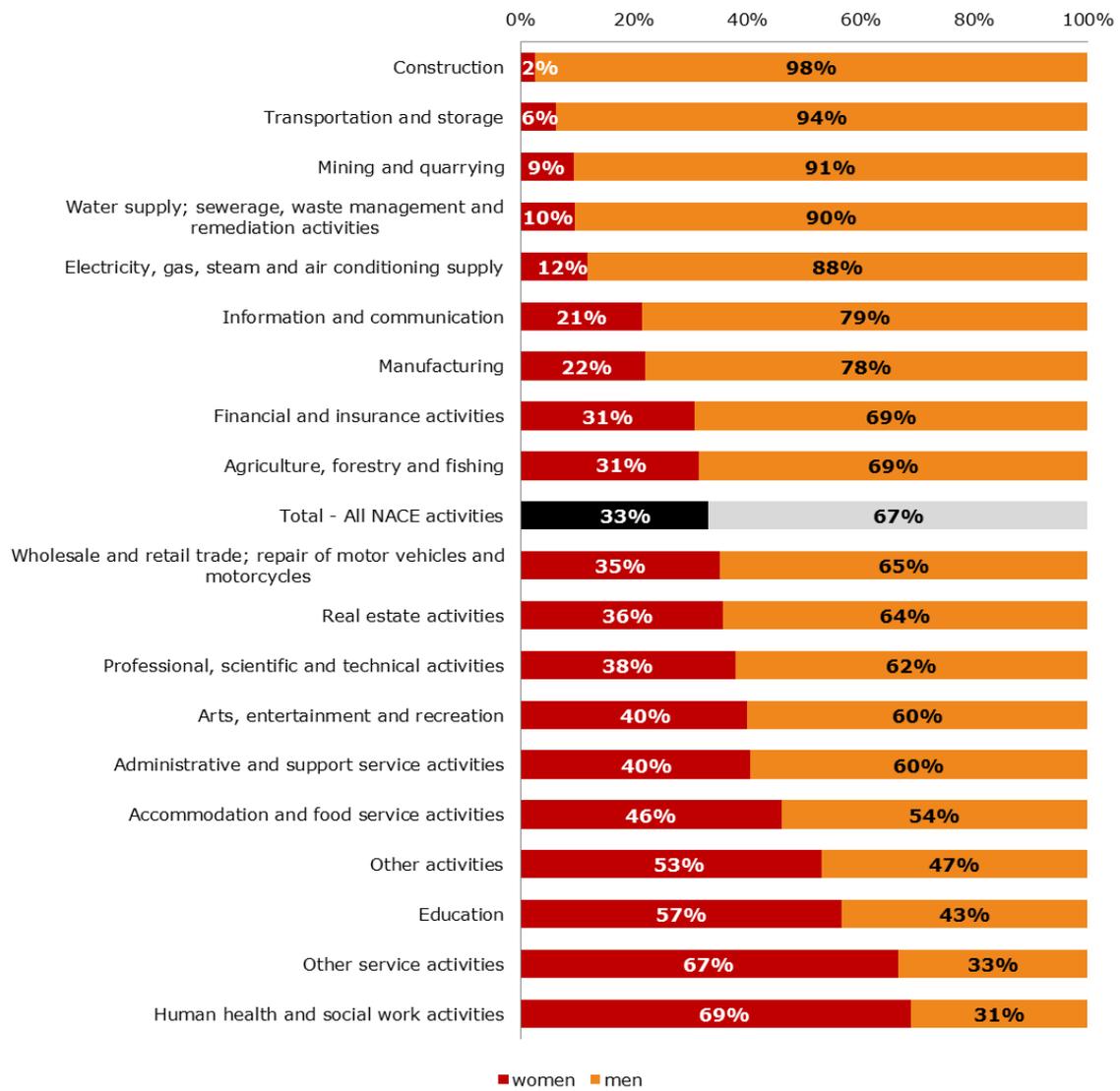
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.4 Percentage of entrepreneurs in the active labour force (entrepreneurship rate) by gender and sector in EU-28, 2008



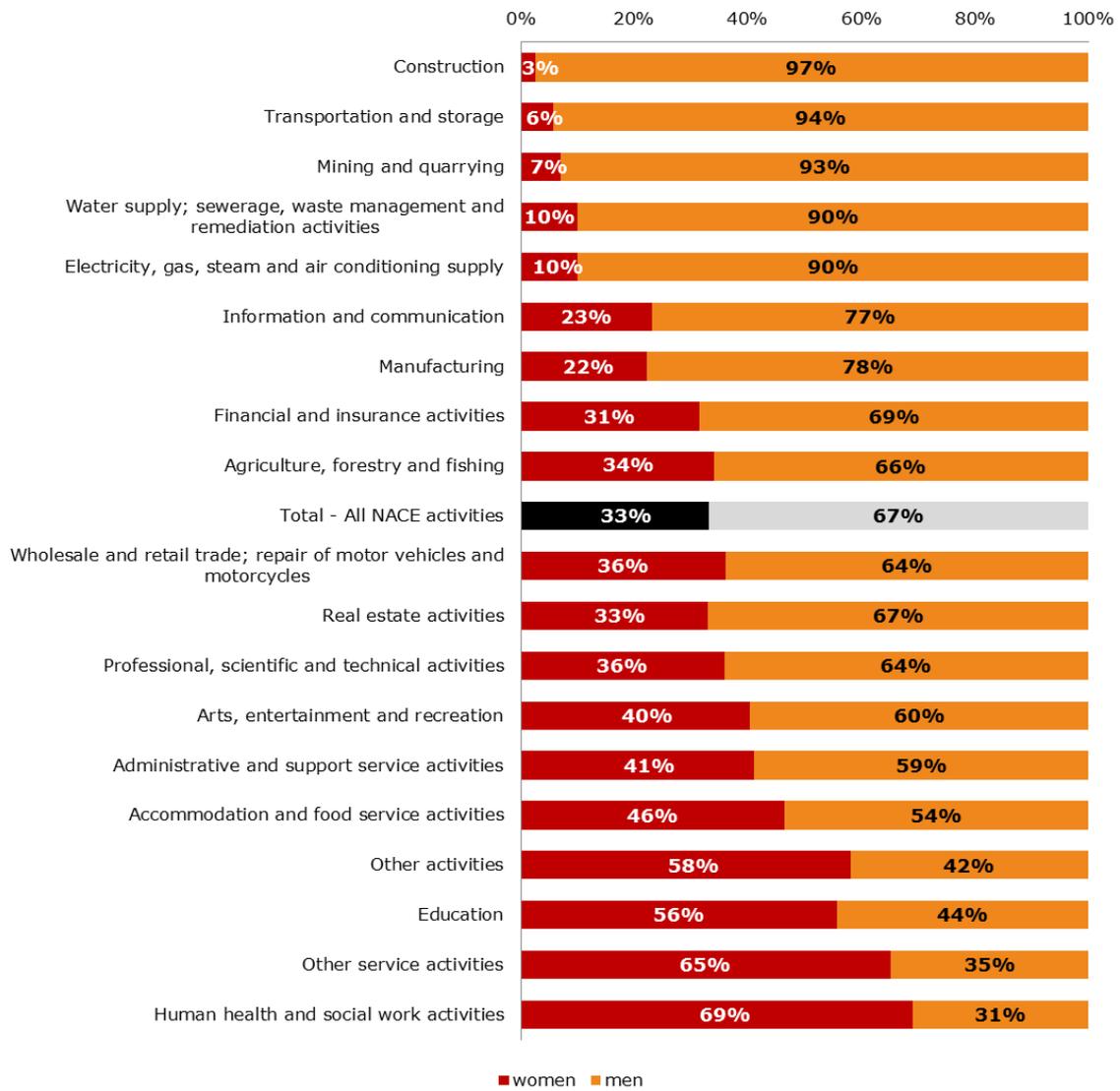
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.5 Percentage of solo entrepreneurs by gender and sector in EU-28, 2012



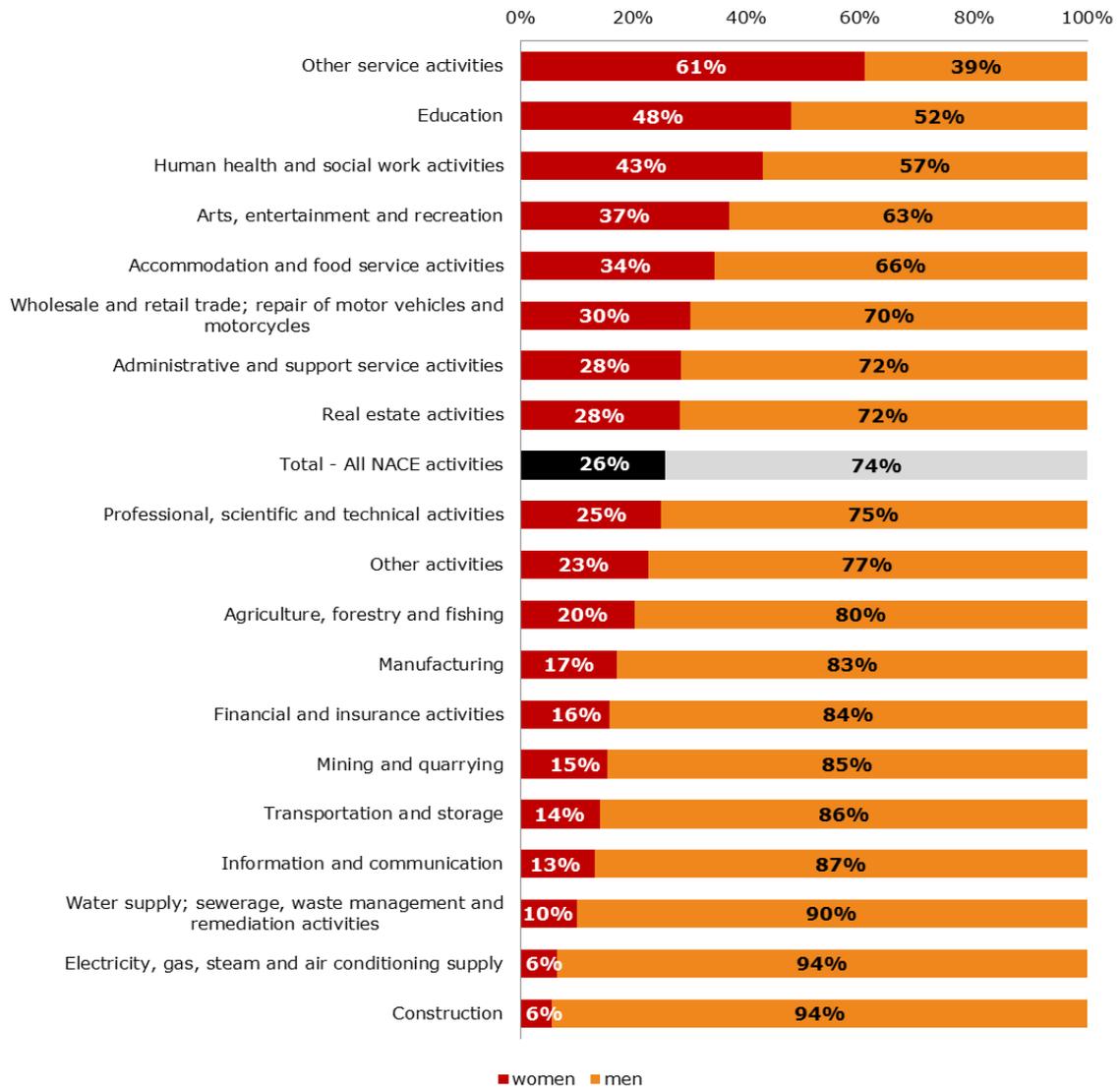
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.6 Percentage of solo entrepreneurs by gender and sector in EU-28, 2008



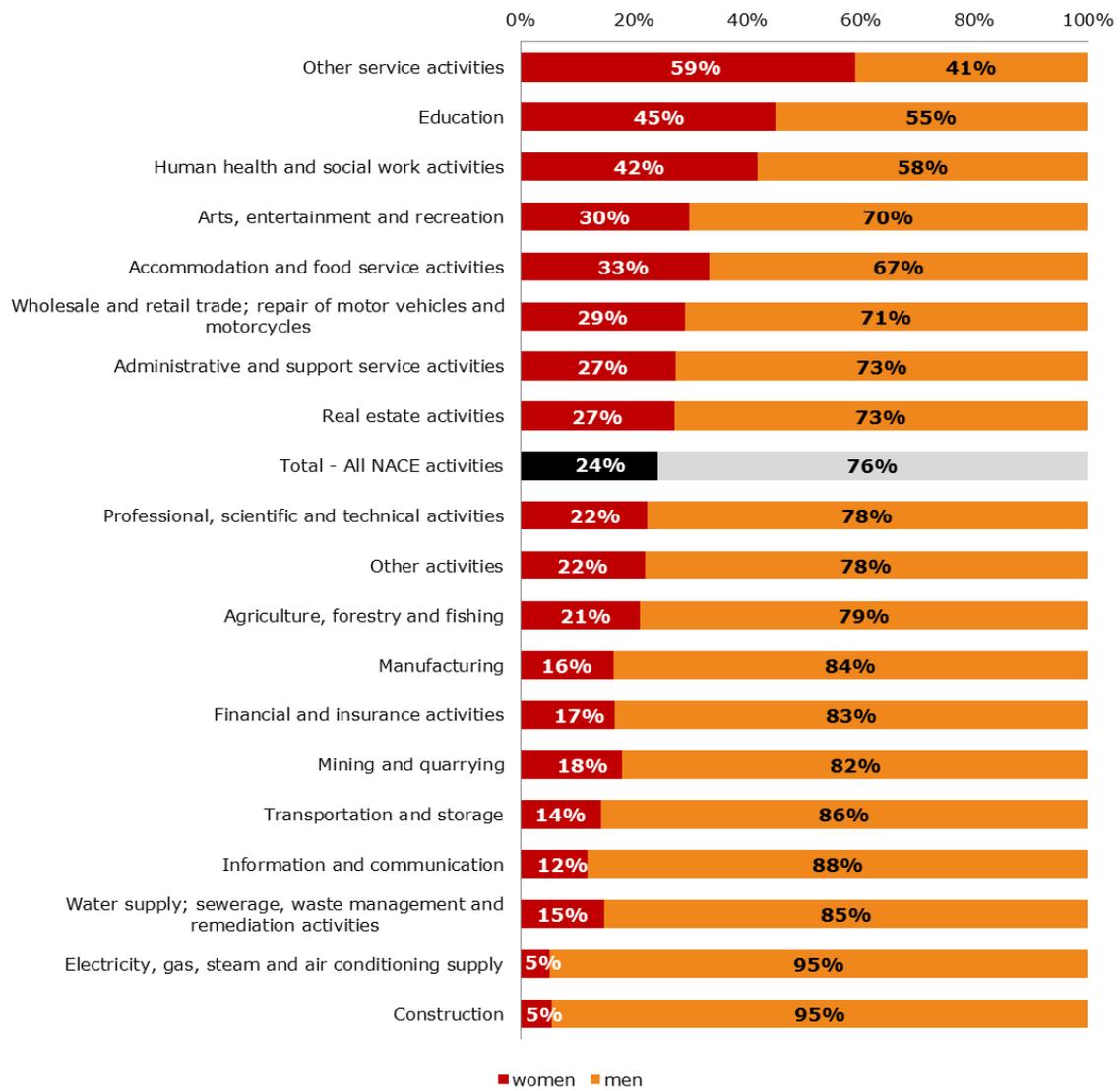
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.7 Percentage of entrepreneurs with personnel (employers) by gender and sector in EU-28, 2012



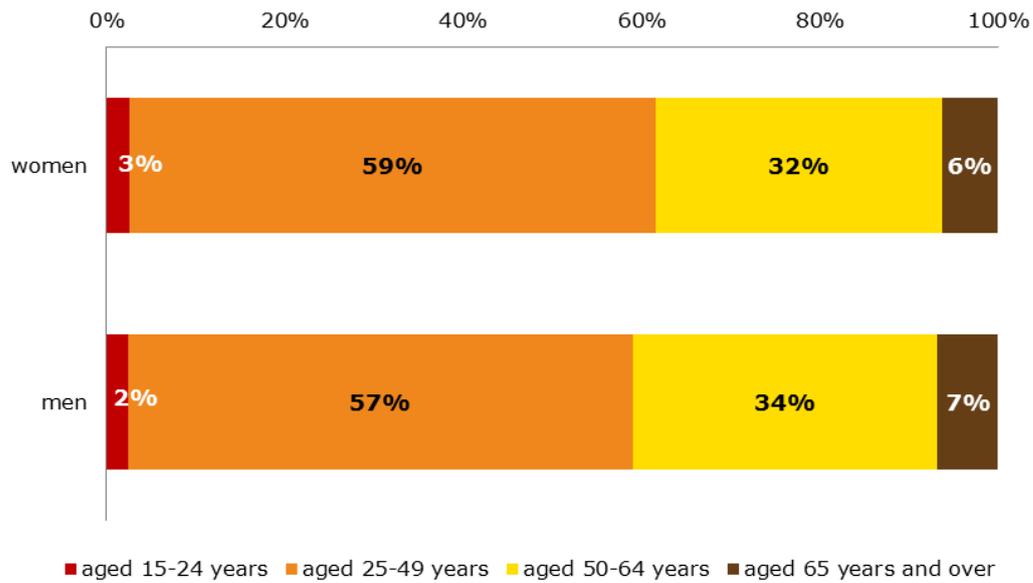
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 3.8 Percentage of entrepreneurs with personnel (employers) by gender and sector in EU-28, 2008



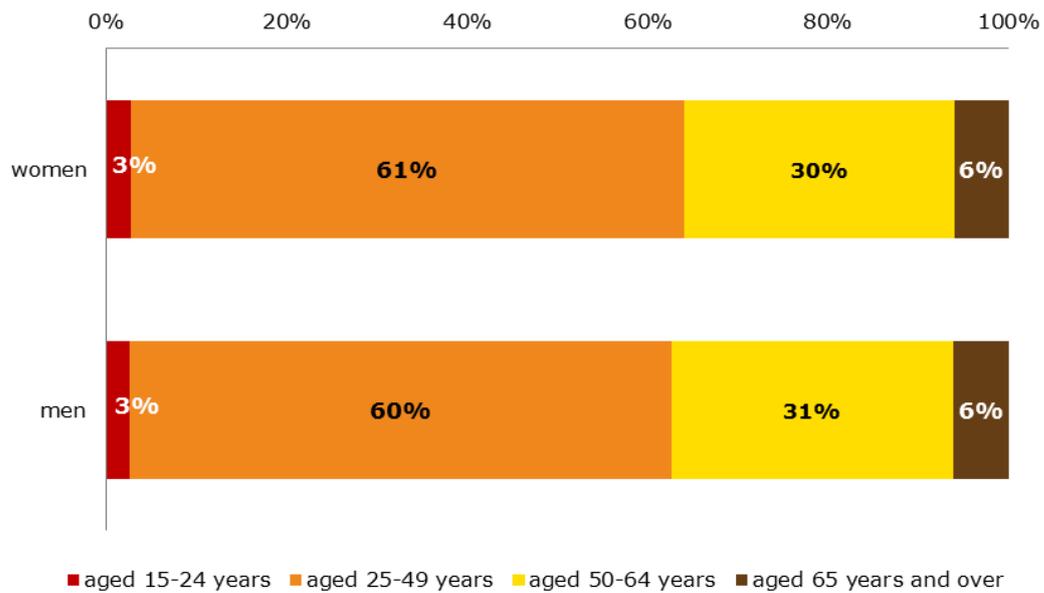
Source: Panteia, based on the Labour Force Survey Eurostat

Figure 4.1 Percentage of entrepreneurs by age and gender in EU-28, 2012



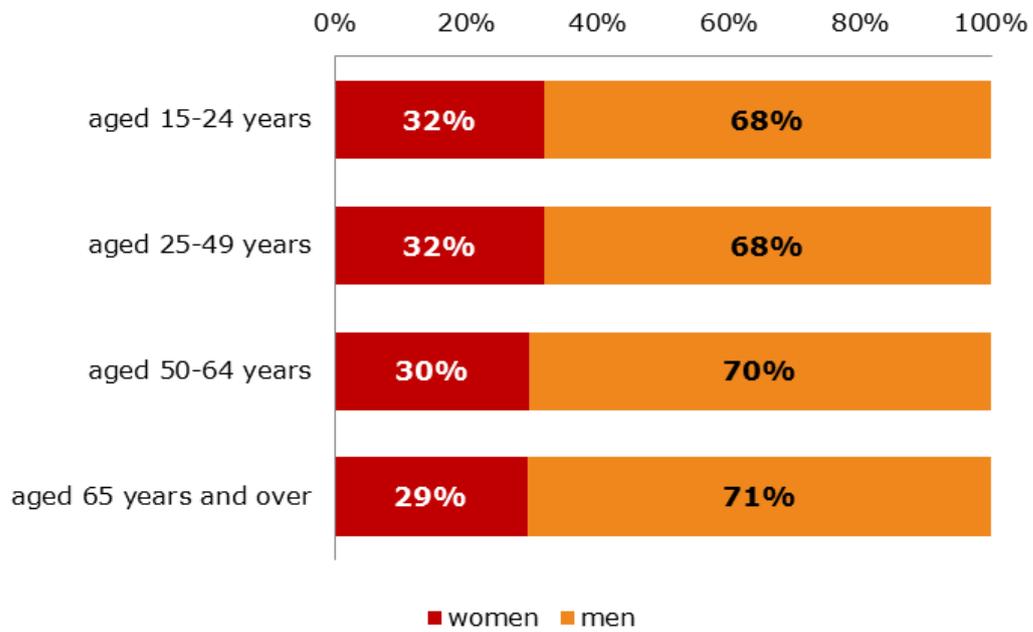
Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Figure 4.2 Percentage of entrepreneurs by age and gender in EU-28, 2008



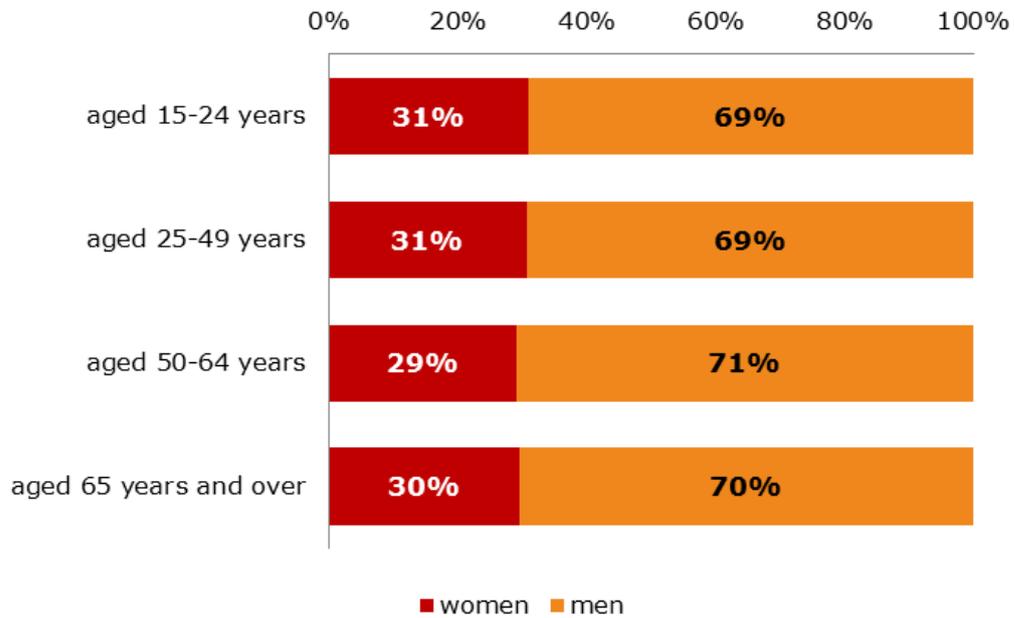
Source: Panteia, based on Labour Force Survey (Eurostat and national statistics)

Figure 4.3 Percentage of women entrepreneurs by age and gender in EU-28, 2012



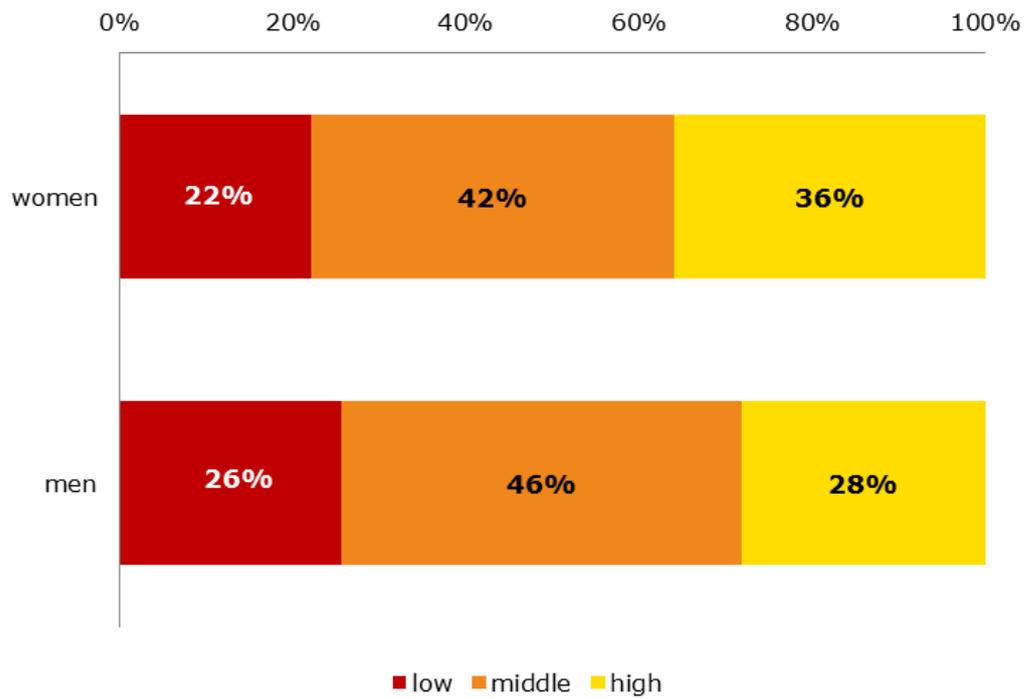
Source: Panteia, based on Labour Force Survey Eurostat

Figure 4.4 Percentage of women entrepreneurs by age and gender in EU-28, 2008



Source: Panteia, based on the Labour Force Survey Eurostat

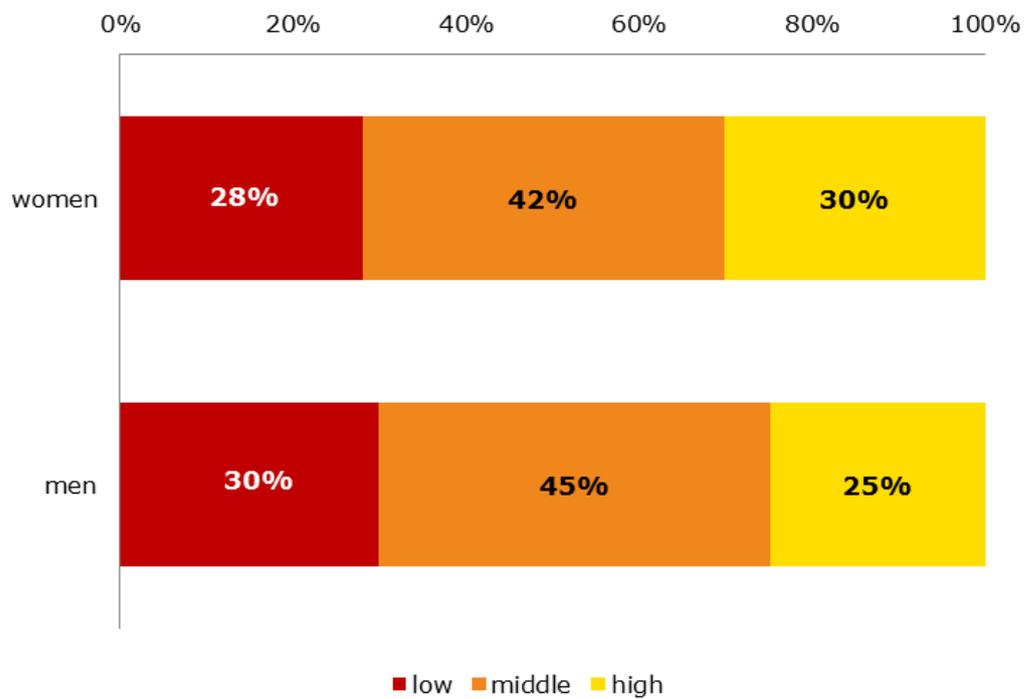
Figure 4.5 Percentage of entrepreneurs by education level and gender in EU-28, 2012



Source: Panteia, based on Labour Force Survey Eurostat

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4 and high to ISCED levels 5-6

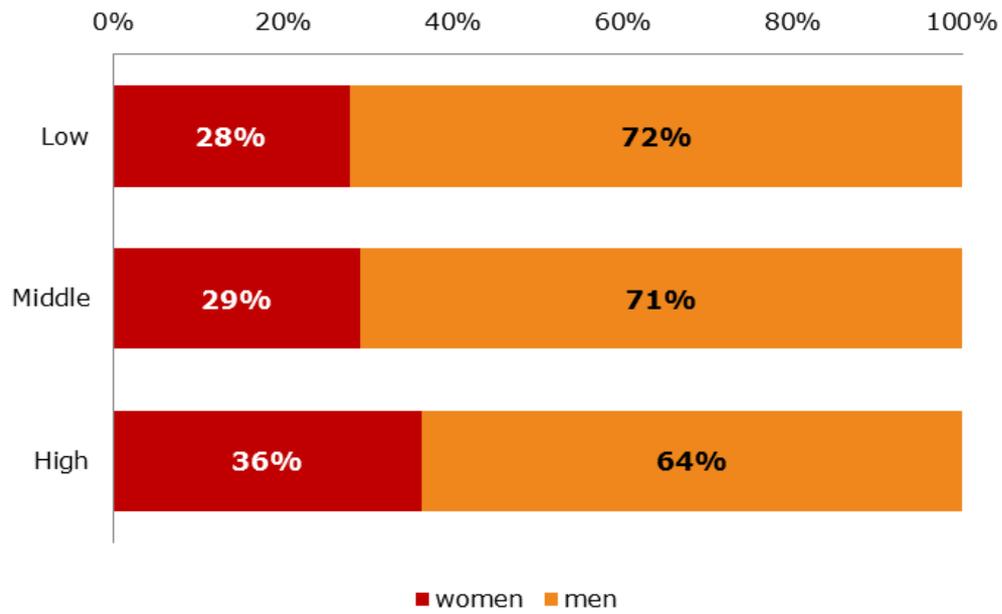
Figure 4.6 Percentage of entrepreneurs by education level and gender EU-28, 2008



Source: Panteia, based on Labour Force Survey Eurostat

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4 and high to ISCED levels 5-6

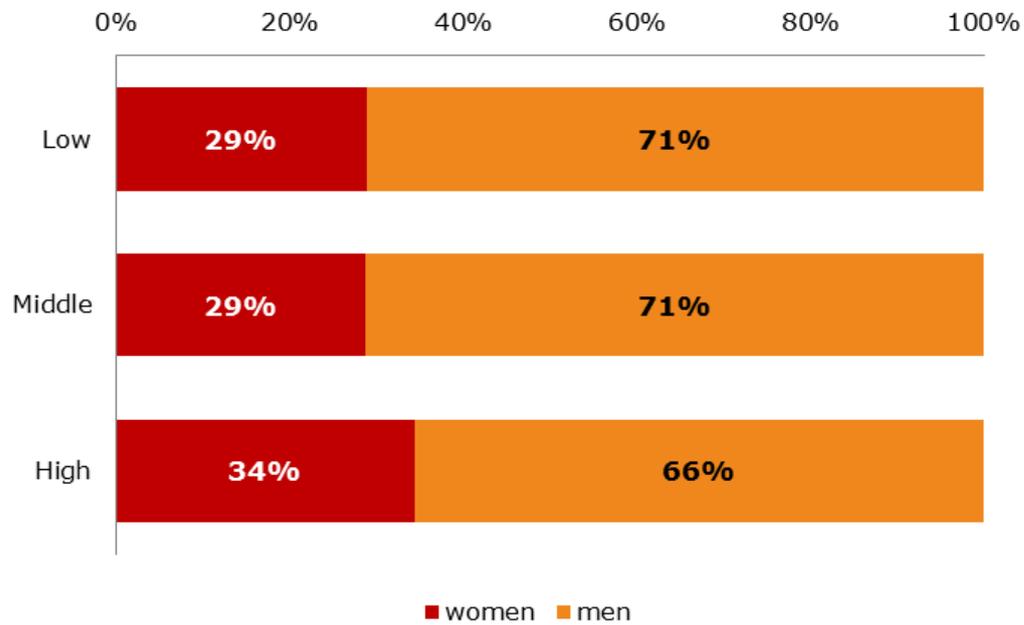
Figure 4.7 Percentage of entrepreneurs by gender and educational level in EU-28, 2012



Source: Panteia, based on Labour Force Survey Eurostat

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4 and high to ISCED levels 5-6

Figure 4.8 Percentage of entrepreneurs by gender and educational level in EU-28, 2008



Source: Panteia, based on Labour Force Survey Eurostat

Note: Low refers to ISCED levels 0-2, medium to ISCED 3-4 and high to ISCED levels 5-6

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