

# An overview of higher education at the European level

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## Abstract

*Higher education has a key role in the new knowledge society. In Europe there are over 4,000 higher education institutions of which 3300 are in EU27 countries and over 20 million students. EU countries' governments and higher education institutions are in a continuous process of finding ways to create better conditions for studies considering the very important role that higher education plays in the economic development of a country. This article presents an overview of the main statistical indicators which monitors achievements in higher education in EU27 countries during 2011 and 2012, revealing large differences still exist between the EU27.*

**Keywords:** *higher education, educational statistics, Europa 2020 education strategy.*

## 1. Introduction

Higher education plays a very important role in economic and social life [1], [2]. The opening that EU offers to its citizens to study and work in other countries play a decisive play a key role in harnessing the economic potential of the EU. Higher education is the main provider of highly skilled human capital because of the close ties that it has with research and innovation. In the technological progress era the lack of highly qualified human capital can be a serious impediment to development and economic growth. In this article we present an overview of the higher education in EU27 countries in terms of number of students, public expenditure on education, participation rates in education and population education level in various EU27 countries. The importance of higher education is emphasized in the Europa 2020 Strategy, one of the main indicators chosen to be used to monitor the strategy on education being the tertiary educational attainment.

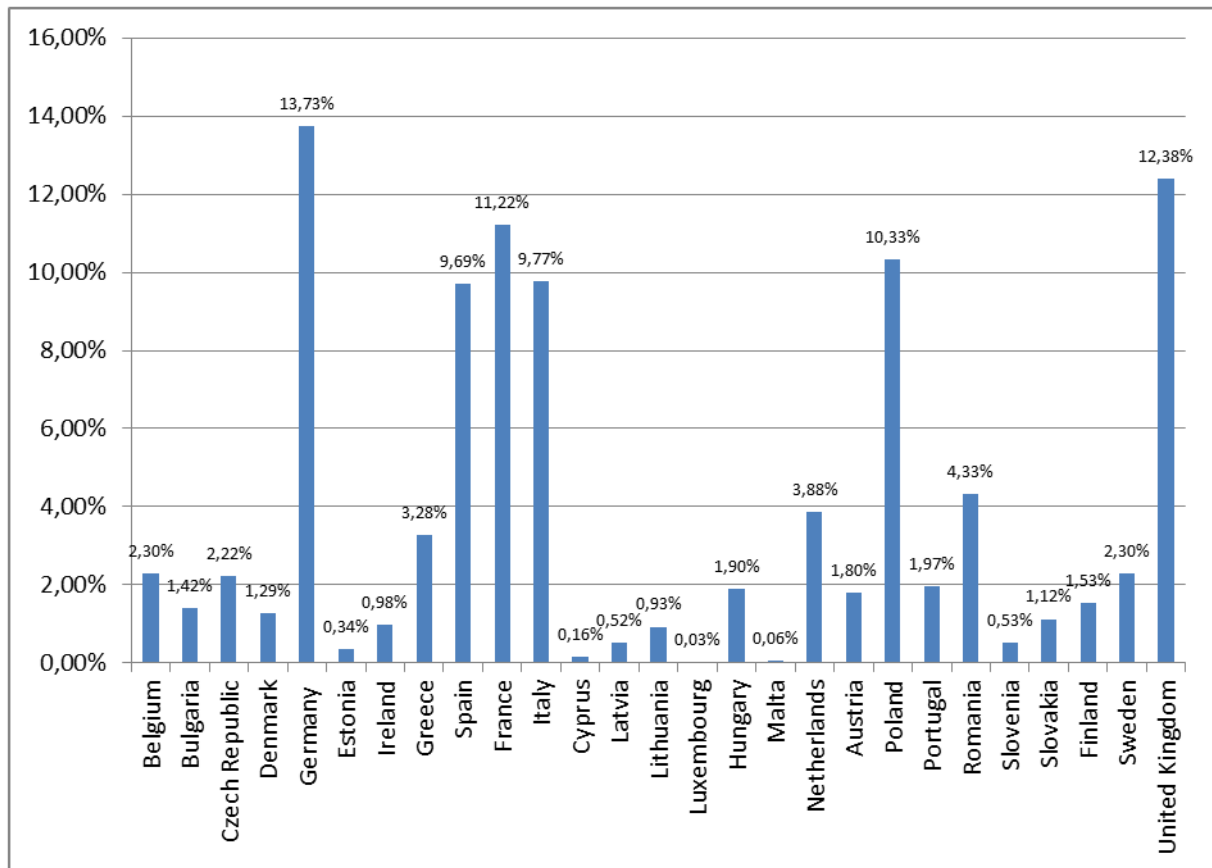
## 2. Higher education statistics

The higher education attainment depends on a number of factors such as the age structure of the population, availability of resources for education, cost of education, the level of the economic development of each country.

Figure 1 shows the distribution of the number of students in the EU27 countries in 2011. There was a total number of 20,129,248 students (ISCED 5 and 6) in 2011 in EU27 countries, the highest proportion belonging to Germany with 13.73% of the total number of students in EU27 countries followed by the UK with 12.78%, France with 11.22% and Poland with 10.36%. Regarding the number of students, four countries - Germany, France, Poland and the UK - registered over 2 million students while Italy and Spain had 1.96 million and 1.95 million students, these six countries holding over 67% (13,513,233 students) of the total number of students in EU27 countries. In Romania there were 4.33% of the total number of EU27 students, that is 871,842 students. During 2011, in EU27 countries there were over 4000 universities.

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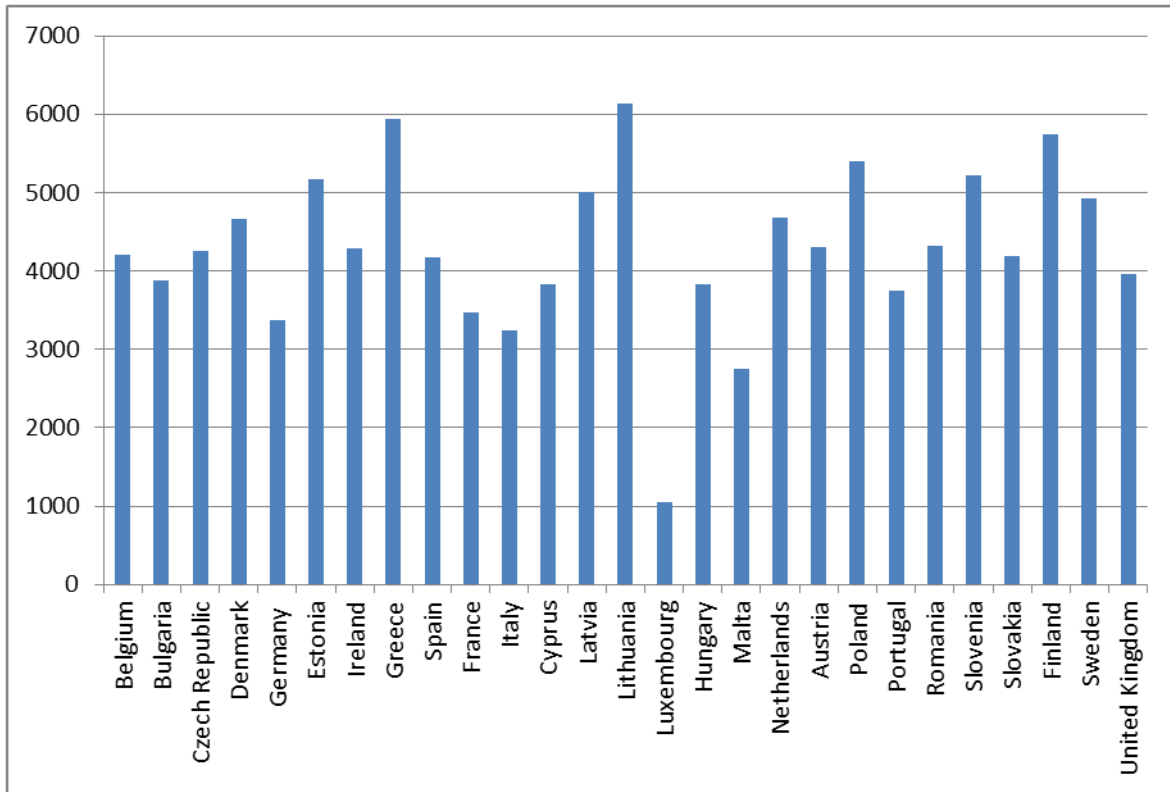


Data source: author's own calculations using EUROSTAT data

**Fig. 1.** The distribution of the number of students (ISCED 5 and 6) on the EU27 countries

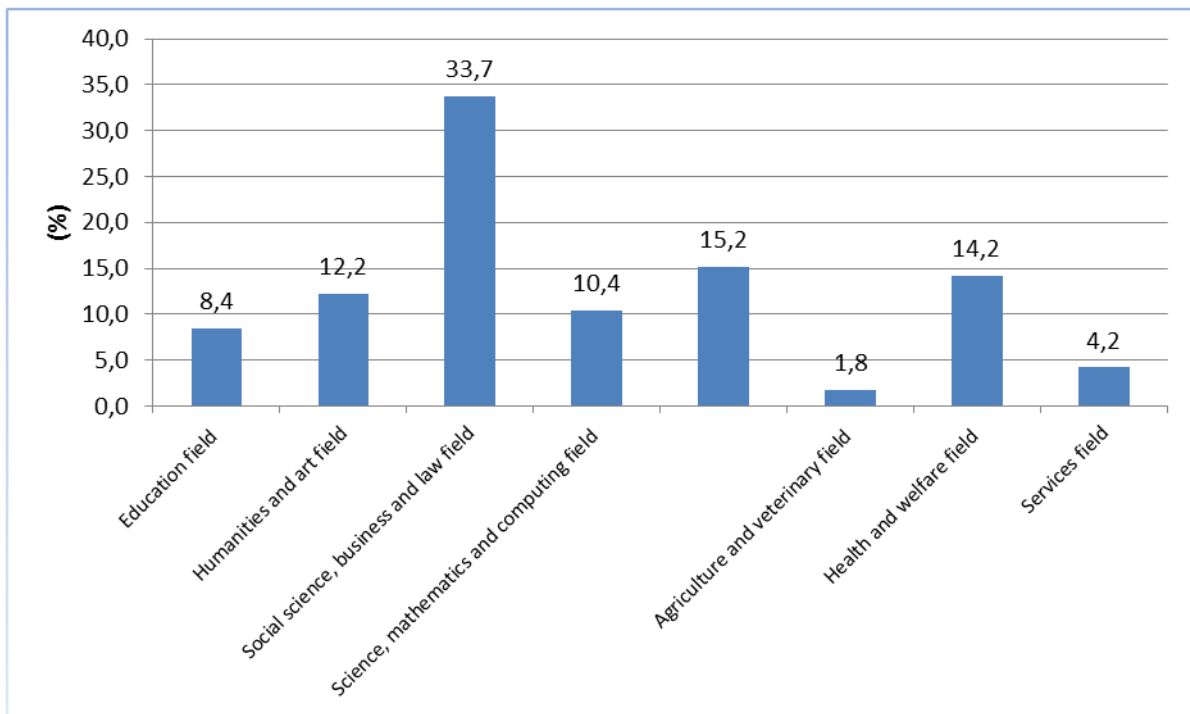
Analyzing the data presented in figure 1 one can note that the big EU27 countries (regarding the total population number) have the largest share of the number of students. However, the number of students per 100,000 inhabitants, which is represented in Figure 2 shows that countries such as Greece, Lithuania and Finland which have a low share in the total number of students in the EU27 recorded high values of this index: 5940 for Greece, 6130 for Lithuania and 5736 for Finland.

The distribution of the number of students on the field of study during 2011 in EU27 countries is shown in figure 3. One can note that the highest percentage belongs to the social sciences, business and law with 33.7% of the total number of students. At the opposite pole we can find the agriculture and veterinary field with a share of only 1.8%. In Romania the situation is similar: 49% of all students are enrolled in the social sciences, business and law field of education while the lowest percentage is in agriculture and veterinary field with 2.2%. The share of students in social sciences, business and law field in Romania is the largest share in EU 27 countries. Table 1 shows the complete data on the distribution of the students by the field of study in EU27 countries during 2011.



Data source: author's own calculations using EUROSTAT data

Fig. 2. The number of students per 100,000 inhabitants in 2011.



Data source: EUROSTAT

Fig. 3. The distribution of the number of students by the field of study in EU27 countries

**Table 1. DISTRIBUTION OF THE NUMBER OF STUDENTS BY THE FIELD OF STUDY**

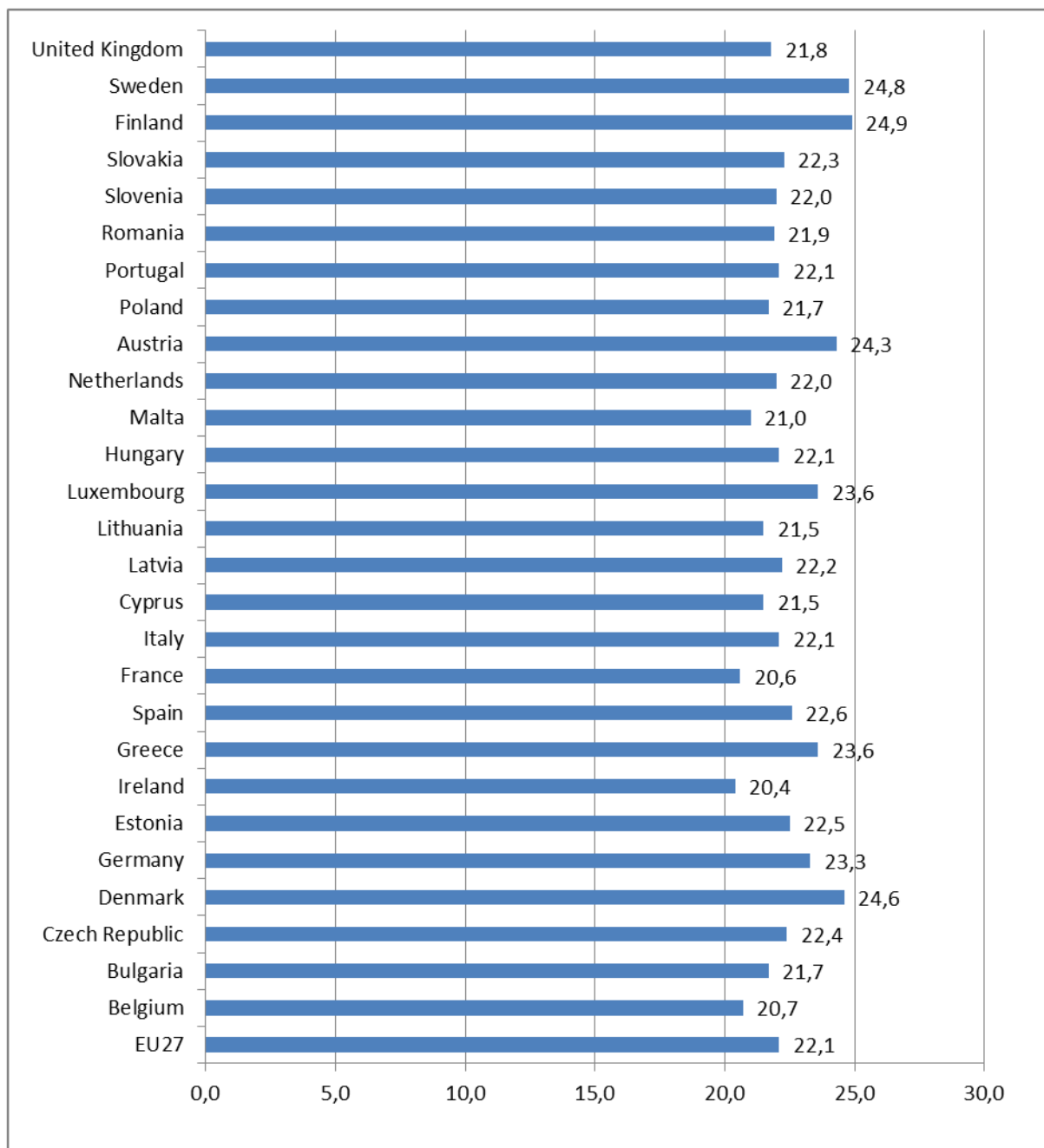
	Education field	Humanities and art field	Social science, business and law field	Science, mathematics and computing field	Engineering, manufacturing and construction field	Agriculture and veterinary field	Health and welfare field	Services field
EU27	8.4	12.2	33.7	10.4	15.2	1.8	14.2	4.2
Belgium	12.2	11.2	31.5	5.6	11.2	2.6	23.9	1.9
Bulgaria	6.0	8.1	42.4	5.4	19.3	2.5	7.5	8.7
Czech Republic	12.4	9.1	32.9	11.5	14.0	3.8	11.0	5.4
Denmark	9.8	12.8	33.6	8.5	10.6	1.5	20.8	2.5
Germany	7.4	13.3	25.8	14.3	17.8	1.5	17.2	2.7
Estonia	7.4	13.7	33.8	11.2	14.4	2.3	9.3	8.0
Ireland	6.1	14.3	27.2	15.8	12.9	1.7	17.4	4.7
Greece	6.3	13.7	31.9	14.5	18.1	4.8	7.8	2.9
Spain	10.7	11.0	31.2	9.8	17.7	1.6	12.7	5.3
France	2.5	13.7	37.1	12.4	13.4	1.2	16.2	3.4
Italy	7.0	13.0	35.1	8.2	17.8	2.3	13.2	3.4
Cyprus	9.0	10.4	48.6	8.7	10.8	0.5	7.6	4.5
Latvia	6.8	8.9	46.0	6.1	13.8	1.2	10.2	7.0
Lithuania	9.6	7.4	46.4	5.2	16.7	1.9	9.6	3.0
Luxembourg	16.8	12.1	47.3	11.2	8.1	-	4.5	-
Hungary	6.5	9.3	39.8	7.2	14.9	2.4	9.4	10.4
Malta	10.1	17.2	32.7	11.1	9.6	0.2	17.8	1.3
Netherlands	11.9	8.7	39.7	6.3	7.7	1.1	18.0	6.6
Austria	13.7	12.9	36.6	11.0	14.5	1.3	7.6	2.4
Poland	13.5	9.1	38.3	8.0	14.0	1.8	8.1	7.3
Portugal	5.6	9.3	31.8	7.2	21.6	1.8	16.2	6.4
Romania	2.0	8.1	49.0	5.2	20.1	2.2	9.2	4.2
Slovenia	7.7	8.5	34.7	7.0	19.5	3.2	10.0	9.5
Slovakia	12.3	7.3	31.0	8.5	15.2	2.2	17.2	6.2
Finland	5.0	14.1	23.0	10.1	23.9	2.2	16.2	5.4
Sweden	12.9	13.5	27.0	9.2	16.7	1.0	17.3	2.5
United Kingdom	9.3	16.9	29.2	14.2	8.9	1.1	18.5	1.8

Data source : EUROSTAT

Analyzing these data one can note that in most EU27 countries the largest share of the number of students belongs to the social sciences, business and law but the developed countries of Europe recorded a more balanced distribution of students by field of study. For example, Germany has only 25.8% of students enrolled

in the social sciences, business and law area, 14.3% in science, mathematics and computing and 17.8% in engineering, manufacturing and construction field.

Figure 4 shows the median age of the students in the EU27 countries. The median age is influenced by a number of factors such as the duration of higher education studies, delaying the start of higher education studies after graduating the high school for various reasons and the decision to return to university at some point in life. The EU27 average was 22.1 years, the maximum value being recorded for Finland - 24.9 years, followed by Sweden with 24.8 years and Denmark with 24.6 years while the minimum value is 20.4 years recorded in Ireland. In Romania the median age of students in 2011 was 21.9 years.

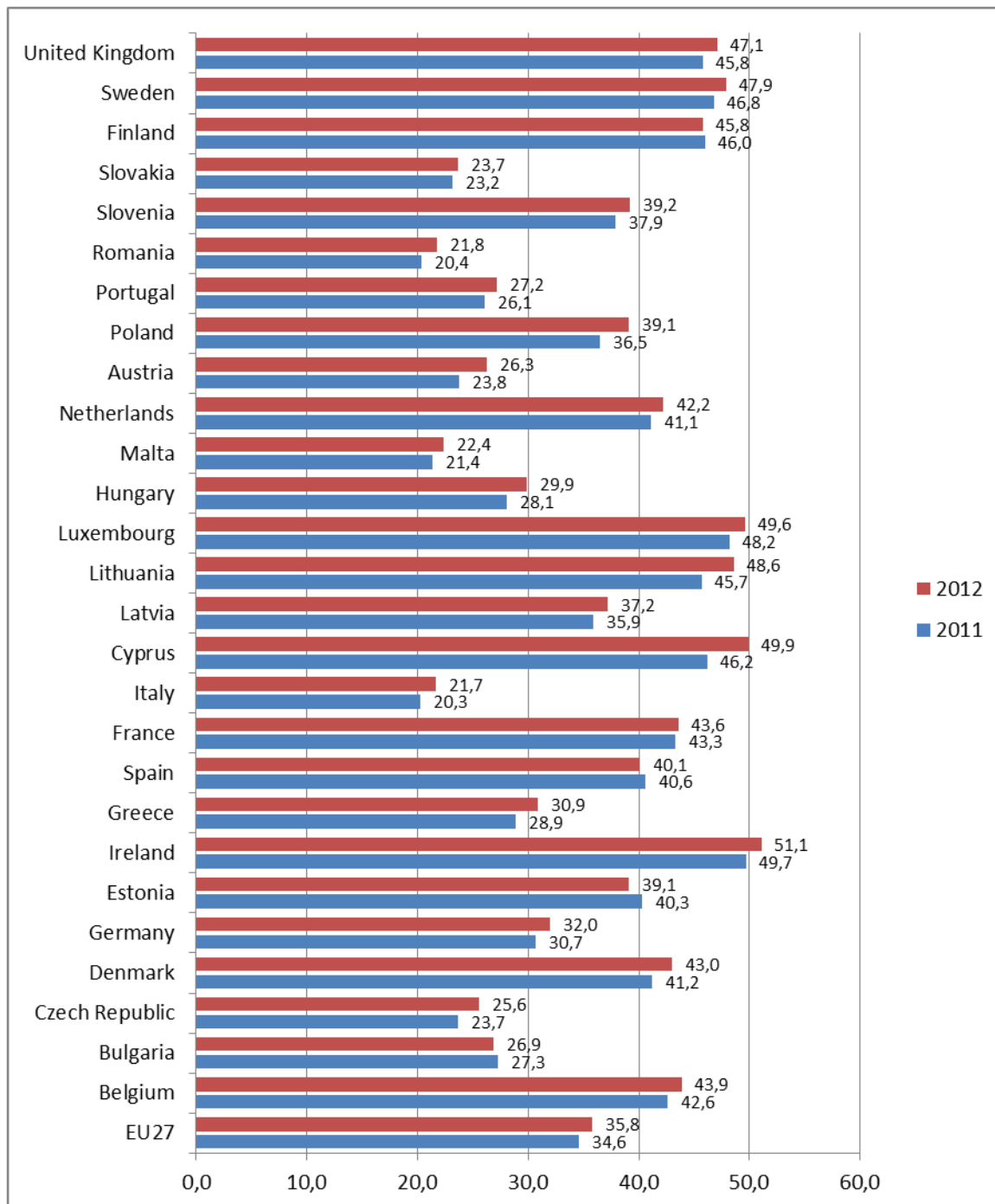


Data source: EUROSTAT

**Fig. 4.** The median age of the students in EU27 countries in 2011

Regarding the tertiary education attainment, the Europe 2020 strategy sets a target for this indicator: 40% of the population aged 30 to 34 years has to complete a form of higher education. In 2011, this goal is not yet

reached, the indicator having the value of 34.36% but there is an increase in tertiary education attainment in 2012, this indicator reaching the value of 35.8%. Countries like UK, Sweden, Finland, the Netherlands, Luxembourg, Lithuania, Cyprus, France, Spain, Denmark and Belgium have already exceeded the target value of the indicator, but there are countries with a very low level of tertiary education attainment. These countries include Malta, Italy, and Romania that recorded a value below 22% in 2012. Figure 5 shows the tertiary education attainment for the 2011 and 2012 in the EU27 countries.

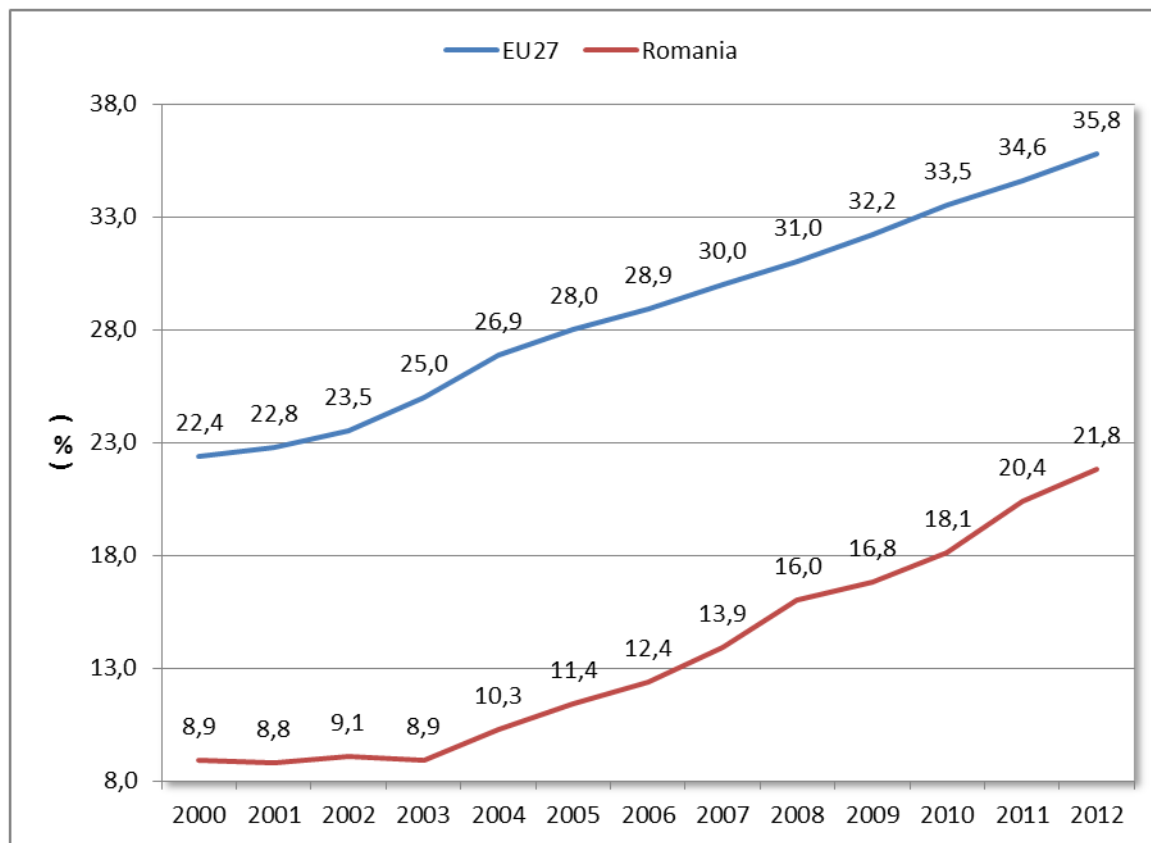


Data source: EUROSTAT

**Fig. 5.** Tertiary education attainment for EU27 countries

The evolution of the tertiary education attainment for Romania and the average value for the EU27 countries for the period 2000-2012 is shown in figure 6. We can note an increasing trend in the percentage of

the population aged between 30 and 34 years who completed a form of higher education, but this percentage values for Romania are lower than the EU27 average. This growing trend reflects the investment policy in higher education to respond to a request of more qualified labor force. Although the number of students has experienced an upward trend, especially after 1995, Romania is still below the target of 26.7% for this indicator.



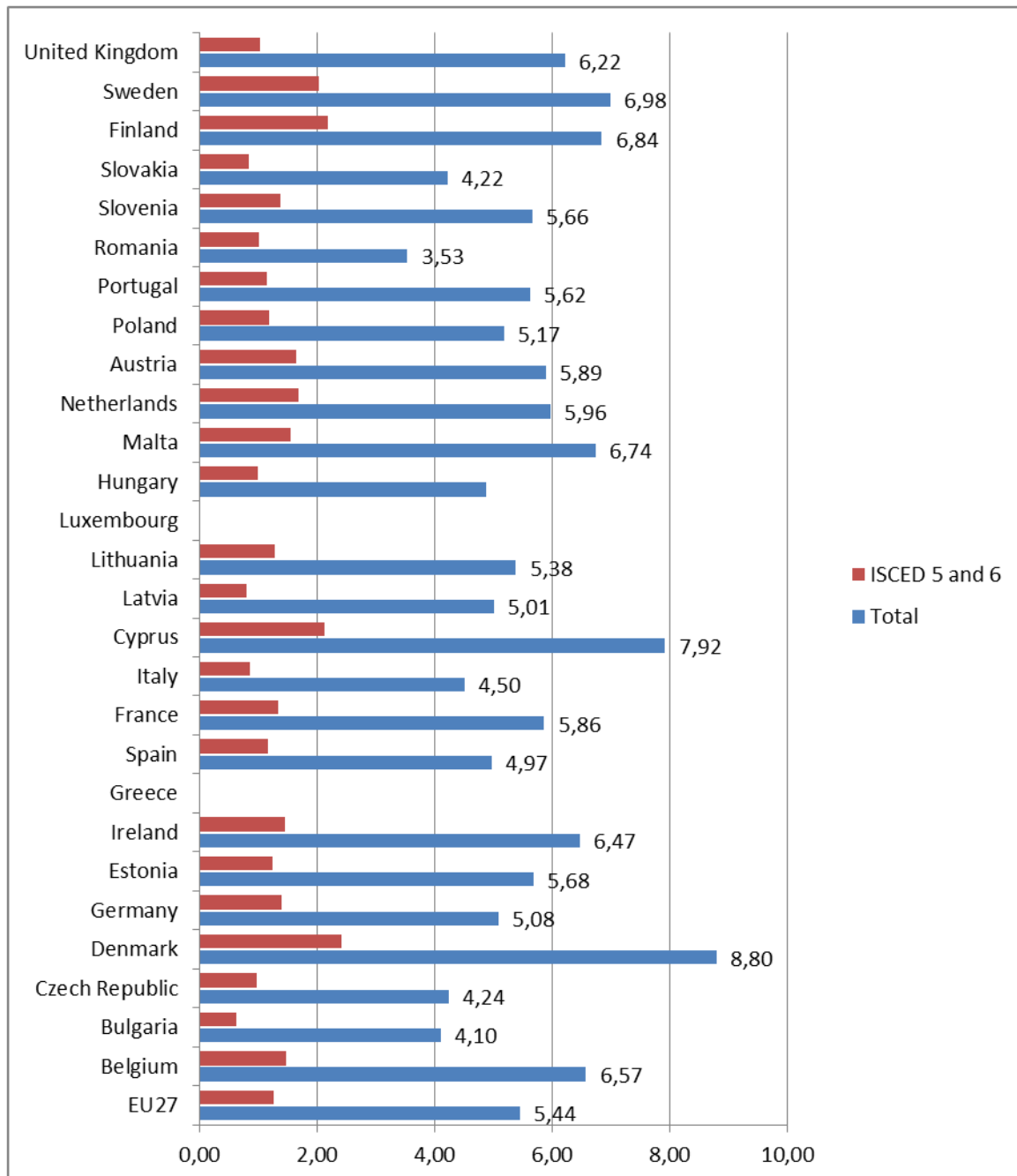
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**Fig. 6.** Tertiary education attainment for 2000-2012 period for 30 to 34 aged population

### 3. Public expenditure on education

Public expenditure on education decisively influences the development of the educational system of a country [3],[5]. Public expenditure on education as a percentage of GDP is considered a measure of the degree to which governments are committed to developing highly skilled human resources. Usually these expenses include current and capital spending of the educational institutions, loans to students or their families, subsidies and transfers to non-profit organizations or private companies that organize activities in education. In 2010 the EU27 average public education expenditure was 5.44 % of GDP, but there are large differences between member states in terms of percentage of GDP allocated to education: while Denmark allocates 8.80 % of GDP to education, Romania has allocated only 3.35% of GDP education in 2010. The percentage of GDP allocated to both total and higher education expenditures for EU27 countries is plotted in figure 7. The higher education public expenditure ranges between 2.18% of GDP for Finland and 0.61% of GDP for Bulgaria. Public expenditure on higher education represents 14.85 % of total government expenditure on education in Bulgaria and this percentage reaches 28% for the Netherlands.

Investments in the education system are essential to fight the economic crisis by boosting economic growth and competitiveness [4].



Data source: EUROSTAT (data for Greece and Luxembourg are unavailable)

Fig. 7. The public expenditure on education as % of GDP for EU 27 countries in 2010

#### 4. Conclusions

Graduating a form of higher education decisively influence the labor market participation. The statistical figures show that the unemployment rate among young people aged between 15 and 24 years with a low level of education was 30.3% in 2012, i.e. about 10% higher than the unemployment rate among young people that graduated a from high school or a form of higher education. Forecasts of the labor market needs by 2020 highlights again the importance of the higher education in the formation of the human capital [6]. In this respect, the Europe 2020 strategy places a particular emphasis on the higher education that should ensure the development of skills required in the labor market.



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