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The modern development of higher education in the EU

Tertiary education in the European Union (EU) – provided by universities and other higher education institutions – is the level of education following secondary schooling. It is seen to play an essential role in society, by fostering innovation, increasing economic development and growth, and improving more generally the wellbeing of citizens. Some European universities are among the most prestigious in the world.

Unlike school pupils, a relatively large number of students in tertiary education are mobile and study abroad.

Bachelor's, Master's and Doctoral levels of tertiary education are found in all EU Member States, while short-cycle tertiary education, which are typically practically-based and occupationally-specific to prepare students for the labour market, is not part of the education system in Bulgaria, Estonia, Greece, Lithuania, Portugal and Romania, nor in Liechtenstein or the former Yugoslav Republic of Macedonia. It is also quite uncommon in several others, for example in Germany.

Participation by level In the EU-28 there were 19.6 million tertiary education students in 2014, of which 7.5 % were following short-cycle tertiary courses, 60.7 % were studying for Bachelor's degrees, 28.1 % for Master's degrees and 3.7 % for Doctoral degrees.

In 2014, more students were studying for Bachelor's degrees than for any other level of tertiary education in all EU Member States. Indeed, France and Austria were the only Member States where fewer than 50 % of all tertiary students were studying for Bachelor's degrees. By contrast, in Lithuania, more than three quarters of tertiary students were studying for Bachelor's degrees and this share rose to more than four fifths in the Netherlands and peaked at 89.2 % in Greece, although an even higher share (93.8 %) was recorded in the former Yugoslav Republic of Macedonia.

Less than one fifth of tertiary students were studying for Master's degrees in 2013 in Finland, the United Kingdom, Belgium, the Netherlands, Ireland and Latvia, with this share falling below one tenth in Greece, as well as in Turkey and the former Yugoslav Republic of Macedonia. By contrast, more than one third of tertiary students were studying for Master's degrees in Germany, Croatia, France, Slovakia, Luxembourg and Italy.

In 2014, the highest proportion of tertiary students studying for Doctoral degrees among the EU Member States was 7.7 % in Germany, although higher shares were recorded for Liechtenstein (9.8 %) and Switzerland (8.1 %) among the non-member countries. The lowest shares of doctoral students in total tertiary education were observed in Member States where higher educational institutions have only quite recently been established and are in the process of being expanded, for example in Luxembourg (0.5 %) and Malta (0.1%).

Relative to the size of the population, the number of tertiary graduates in science, mathematics and computing rose almost uninterrupted between 2003 and 2013.

The gap between male and female graduates in these fields remained relatively constant throughout the period 2003–2013.

There were 1.4 million people teaching in tertiary education in the EU-28 (excluding Denmark and Estonia; 2012 data for Luxembourg) in 2014, of which 83.9 thousand provided short-cycle tertiary courses. More than one quarter (26.7 %) of the tertiary education teaching

staff in the EU-28 were located in Germany, with just over one tenth each in Spain (10.9 %) and the United Kingdom (10.5 %).

Data on public expenditure tertiary education as a share of gross domestic product (GDP) are available for 26 of the EU Member States. This ratio ranged in 2014 from 0.7 % in Bulgaria to 2.1 % in Finland (excluding short-cycle tertiary) and 2.3 % in Denmark. In the EU-28 (excluding Greece and Luxembourg), public expenditure on tertiary education was equivalent to 1.3 % of GDP in 2014.

Since the introduction of the Bologna process a major expansion in higher education systems has taken place, accompanied by significant reforms in degree structures and quality assurance systems. However, the financial and economic crisis affected higher education in different ways, with some EU Member States investing more and others making radical cutbacks in their tertiary education spending.

While the Bologna process put in motion a series of reforms to make European higher education more compatible, comparable, competitive and attractive for students, it is only one strand of a broader effort concerning higher education. To establish synergies between the Bologna process and the Copenhagen process (for enhanced European cooperation in vocational education and training), the European Commission and EU Member States have established a European qualifications framework for lifelong learning (EQF).

Higher education institutions are crucial partners in delivering the EU's strategy to drive forward and maintain growth: the Europe 2020 strategy for smart, sustainable and inclusive growth has set a target that 40 % of people aged 30–34 in the EU should have a higher education qualification by 2020. Improving the performance of education and training systems at all levels and increasing participation in tertiary education is also one of the integrated economic and employment guidelines that were revised as part of the Europe 2020 strategy.

The strategic framework for European cooperation in education and training (known as ET 2020), was adopted by the Council in May 2009. It sets out four strategic objectives for education and training in the EU: making lifelong learning and mobility a reality; improving the quality and efficiency of education and training; promoting equality, social cohesion and active citizenship; and enhancing creativity and innovation (including entrepreneurship) at all levels of education and training. This strategy set a number of benchmarks to be achieved by 2020, including the above-mentioned target that the share of 30–34 year olds with tertiary educational attainment should be at least 40 %. Two supplementary benchmarks on learning mobility were adopted by the Council in November 2011, including one that, by 2020, an EU average of at least 20 % of higher education graduates should have had a period of higher education-related study or training (including work placements) abroad, representing a minimum of 15 European credit transfer and accumulation system (ECTS) credits or lasting a minimum of three months. Another benchmark on employability was added in May 2012: namely, that by 2020, the share of employed graduates aged 20–34 having left education and training no more than three years before the reference year should be at least 82 %.

The EU actively support the program “training for life” that includes and exploratory nature, aims at improving the transnational, cross-sectoral and mediterranean mobility.

The Erasmus programme was one of the most well-known European programmes and ran for just over a quarter of a century; in 2014 it was superseded by the EU's programme for education, training, youth and sport, referred to as “Erasmus+”. In the field of higher education, Erasmus+ gives students and academic staff the opportunity to develop their skills and boost their employment prospects. Students can study abroad for up to 12 months (during each cycle of tertiary education). Around two million higher education students are expected to take part in Erasmus+ during the 2014–2020 period, including 25 thousand students in joint masters' programmes.

The program “Horizon 2020” brings together all existing EU programmes for funding research and innovation, including the framework programme for research, framework programme for competitiveness and innovation and the activities of the European Institute of innovation and technology (“ELITES”).

Europe needs to attract the best scientists from around the world in order to remain competitive and consolidate the European research area. From this point of view, the activities of the Foundation Maria Sklodowska-Curie (MSCA) is a key EU instrument to attract researchers to Europe from all over the world, through the provision of mobility grants to researchers of any nationality.

The goal of the program MSCA is to support the career development and training of researchers (with a focus on innovation skills in all scientific disciplines through worldwide and cross-industry mobility. To do this, MSCA provides grants at all career stages of researchers – from graduate students to experienced researchers – and encourage transnational, intersectoral and interdisciplinary mobility. The programme funds worldwide and cross-sector mobility that implements excellent research in any field (a “bottom-up” approach).

MSCA will become the main EU programme for doctoral training. Since the founding in 1996, the Foundation Maria Sklodowska-Curie, the programme benefited over 65,000 fellows of more than 130 nationalities, 30% of them outside Europe. This activity will further develop in the framework of “Horizon 2020”.

There are MSCA grants for all stages of a researcher’s career, from PhD candidates to highly experienced researchers, which encourage transnational, intersectoral and interdisciplinary mobility. The MSCA will become the main EU programme for doctoral training, financing 25,000 PhDs.

Endowing researchers with new skills and a wider range of competences, while offering them attractive working conditions, is a crucial aspect of the MSCA. In addition to fostering mobility between countries, the MSCA also seek to break the real and perceived barriers between academic and other sectors, especially business. Several MSCA initiatives promote the involvement of industry etc. in doctoral and post-doctoral research.

There are four main types of MSCA: research networks (ITN): support for Innovative Training Networks that develop new researchers; individual fellowships (IF): support for experienced researchers undertaking mobility between countries, with the option to work outside academia; research and Innovation Staff Exchanges (RISE) for international and intersectoral cooperation; co-funding of regional, national and international programmes that finance research training or fellowships involving mobility to or from another country

Net4Society was originally founded in 2008 during the 7th European Research Framework Programme (FP7, 2007-2013) as the network of National Contact Points for Socio-Economic Sciences and the Humanities (SSH). Since the start of Horizon 2020, the new European Framework Programme for Research and Innovation (2014-2020), Net4Society is composed of National Contact Points for the Societal Challenge 6 “Europe in a changing world: inclusive, innovative and reflective societies” – a programme part of Horizon 2020 that is to a large extent driven by SSH research aspects.

It should be noted that EU countries always pay great attention to the development of education throughout life. In this context, Ukraine uses its experience and participates in various EU programmes with the aim of increasing competitiveness of scientific achievements and to attract additional financial resources.

Referencies

1. Source: Statistics Explained // <http://ec.europa.eu/eurostat/web/products-statistics-in-focus/-/KS-SF-14-005>
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