THE DIVERSITY OF EUROPEAN EDUCATION SYSTEMS (1)

EDUCATION SYSTEMS ARE GROUNDED IN EACH NATION'S HISTORY

Each country's education system is the result of a singular history, sometimes including disruptions (various countries of the former Soviet bloc, for example, completely revamped their educational systems in the 1990s). It is the reflection par excellence of and the vector for transmitting a nation's culture and values; the place for defining education's grand objectives and the ways to accomplish them (educational programmes). With greater or lesser amounts of inertia, evolving programmes reflect the major changes in a society and its means of production (by guiding the training and the organisation of the streams on offer).

Europe's education systems in their institutional diversity have been or are marked by shared phenomena such as the progressive mass enrolment of students at the various educational levels. Although generalised in Europe, this process has not occurred at the same pace from country to country. So, for example, the massification of upper secondary education in the Scandinavian countries as early as the 1960s was only seen later in most of the Mediterranean countries.

LONG COMMON-CORE CURRICULA OR EARLY TRACKING?

In most cases, the European educational systems demonstrate the existence of a common-core curriculum defined by a structural continuity between primary and first-cycle secondary education without specialisation at this level. The Mediterranean countries (including France), the eastern Europe countries and Scandinavia have these common-core curricula (cf. national education-system charts). This model was strongly promoted in Sweden in the 1960s, followed by the other Scandinavian countries. It was implemented in France in 1975. The common-core curricula in the Scandinavian countries and those of the Balkans are different because schooling may take place in a single institution (Grundskola in Sweden).

In the 4 European countries without a common-core curriculum (Austria, Germany, Lithuania and the Netherlands), students are streamed early. These are countries that are traditionally endowed with a highly developed apprenticeship system (Denmark is an exception, however, for it has both a common-core curriculum from 6 to 16 and a strong apprenticeship system). In these countries early streaming is "legitimised" by a lack of ranking in the collective belief between the vocational and general streams.

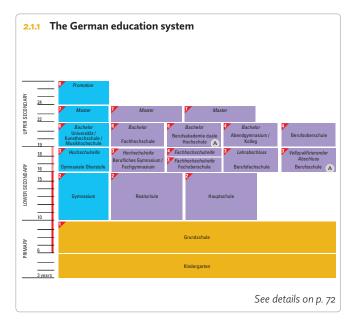
The German Dual System

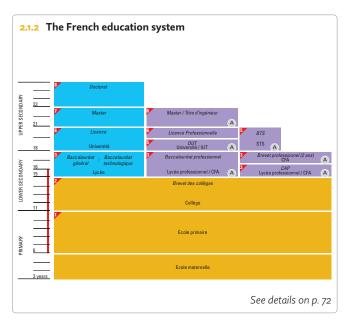
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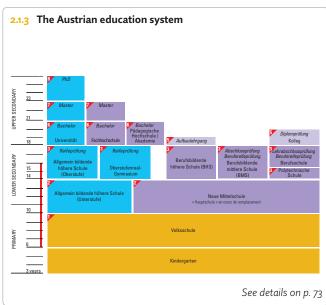
The dual system unique to Germany offers combined schooland work-based programmes comprised of at least 12 hours of courses per week in vocational institutions and apprenticeships in companies spread over 3 to 4 days per week. It is founded on three key players, i.e. the Federal Institute of Vocational Training (BIBB), which is in charge of defining the training references under the authority of the Department of Education and Research (BMBF), the *Länder* (regions) and, finally, the social partners, who are present at all governance levels.

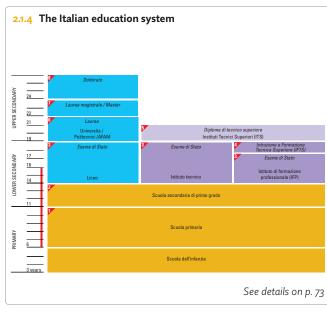
Since its founding in 1969, the dual system relies on a strong partnership model where the social partners are responsible for the follow up and quality control of the vocational training institutions and on-the-job training in companies, for advising companies and instructors, for the recording of apprenticeship places available in companies and for setting apprentice-skill examinations. This makes it possible to define training in relationship to the needs of economic sectors and to maintain a sufficient number of training places in a sector even when that sector is undergoing cyclical recession. In 2010 this system in Germany had about 1.5 million young people enrolled in a combined school- and work-based programme cycle [source: DARES, Document d'études: le modèle dual allemand, september, 2014]. And although in 2012 Germany had a percentage of ISCED 3 students in vocational streams close to that of the European Union (48% compared to 50% for the EU), the German students were massively enrolled in apprenticeships, which was not the case of the students in the EU vocational streams (87% compared to 27%) [source: CEDEFOP, Statistical overviews on VET – Germany, 2014].

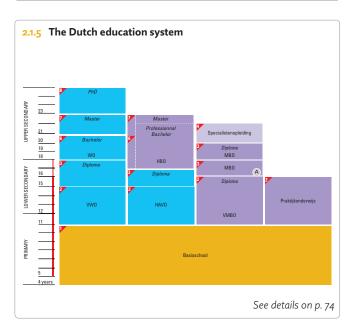
See definition p. 68.

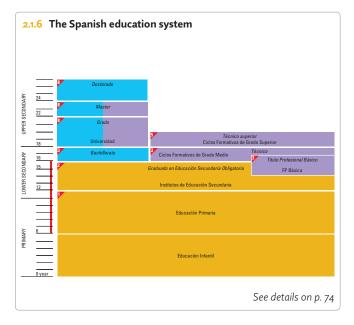












Full-time compulsory education
Part-time compulsory education
Apprenticeship available

Common core curriculum
General stream
Vocational stream

Vocational stream: post-secondary non-tertiary degree ISCED

 \hookrightarrow Official national data, Eurydice, Onisep.

THE DIVERSITY OF EUROPEAN EDUCATION SYSTEMS (2)

ISCED-3 PROGRAMMES

The organisation of educational cycles varies from one country to another, in particular the theoretical age of moving from one cycle to another. If we compare ISCED 3 in the 12 education systems presented here 1(2.1.1 to 2.2.6), it can begin at 14 as in Austria, England and Italy, 15 in France, the Netherlands and Romania or 16 in Estonia, Finland and Germany. The length of the programmes classified in ISCED 3 also varies in these countries from 2 years (such as the vocational degrees in Spain and the CAP in France) to 5 years (such as the Maturità in Italy, which is similar to the French baccalaureate).

If, in the majority of the countries presented, the ISCED 3 degrees certify the end of a programme cycle, there can be exceptions. In England, for example, the General Certificate of Secondary Education (GCSE) is taken by students in the middle of the ISCED 3 cycle. Moreover the theoretical age for sitting the ISCED 3 degrees depends on the age at entry into the programme and its duration. Thus in the Netherlands an ISCED 3 vocational degree is given at the age of 20 (2.1.5).

THE POST-SECONDARY NON-TERTIARY EDUCATION

ISCED 4 education aims at pupils acquiring knowledge, aptitudes and skills the complexity level of which is lower than that of tertiary education. At this level students acquire learning experience that completes secondary education and prepares them for entering the labour market or, as in certain cases, for entering tertiary education.

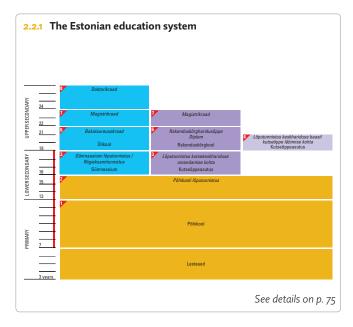
This type of education exists in France in the forms of the Diplôme d'accès aux études universitaires (DAEU – Degree for Access to University Education) or the Capacité en Droit (Basic Legal Qualification), but it is numerically marginal, i.e. 44,000 students in 2012 (Eurostat). Nonetheless it is more frequent in countries where the vocational streams are more developed

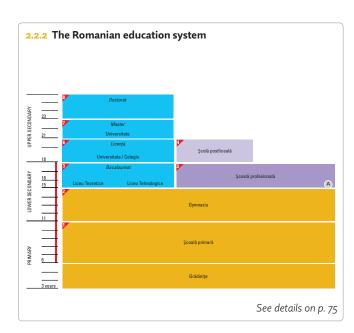
(Germany, Poland, Finland and Sweden). The first two countries on their own accounted for 59% of the European ISCED 4 students in 2012, *i.e.* 548,000 and 317,000 students respectively (Eurostat). This high number of ISCED 4 students may go a way to explaining the low percentage of tertiary degrees among the 30 to 34 year-olds in Germany compared to France, the United Kingdom and the northern European countries (cf. 5.3, p. 50). Usually, programmes at this level are designed for direct labour market entry, without pursuing tertiary education.

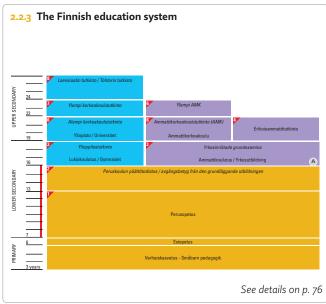
TERTIARY EDUCATION

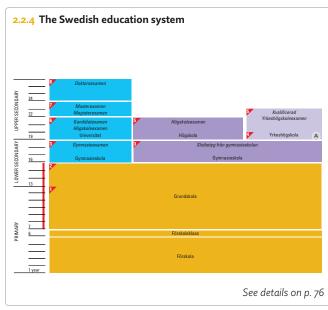
The increase in the student flows towards tertiary education is a shared trend in the European countries, which the Bologna Process, begun in 1999, contributed to boosting even beyond the European Union framework (46 countries involved). Of the six priority goals of the Bologna Declaration, two actively foster the organisation of tertiary education training, i.e. adopting a degree system that is "easily readable and comparable" and a system based on "two cycles: undergraduate and graduate". Thus a standardised tertiary education system has been implemented in the countries involved in the stream known as "academic", i.e. a 3-year (or 4 in Spain's case) undergraduate degree (often called a "Bachelor" degree as in the British and American systems), a two-year Masters degree and a PhD.

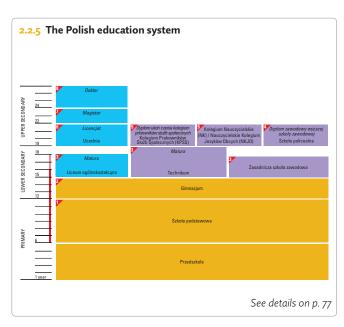
Nevertheless there is a great disparity in the distribution between the 4 ISCED levels of tertiary education as listed by the 2011 ISCED. The ISCED 5 programmes (short-cycle tertiary) are not systematically offered in all the 28 EU-member education systems, and when they are, their duration is not uniform, e.g. one year in England compared to 3 years in Poland and Spain. The ISCED 6 programmes range in duration from one year (as with the vocational undergraduate degree in France which can be prepared after a DUT or a BTS, which are ISCED 5 level degrees) to 5 years (such as certain ISCED 6 level vocational degrees in Finland).

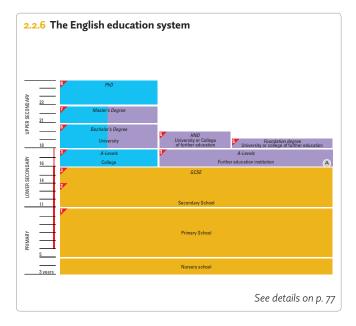












Part-time compulsory education
Part-time compulsory education
Apprenticeship available

Common core curriculum
General stream
Vocational stream

Vocational stream: post-secondary non-tertiary degree ISCED

EARLY CHILDHOOD EDUCATION AND CARE

THE ECEC'S REGULATORY FRAMEWORK IN EUROPE

Early Childhood Education and Care (ECEC)

7001

ECEC covers, on the one hand, all conditions of the child's care from their earliest years in an authorised institution, more often than not under the authority of the Ministry of Social Affairs (day nurseries, nursery schools, family day care and authorised child-minders) and, on the other, all the pre-primary education curricula offered to children in a dedicated institution up to the age of compulsory education.

Only eight countries in Europe guarantee in law a place in an institution, usually immediately after the post-natal parental leave period. Those countries are the Scandinavian nations, pioneers in the matter (in Sweden the first law on compulsory enrolment by municipalities occurred in 1982), Estonia, Germany, Slovenia (since August, 2013, for children over a year old) and Malta (since April, 2014, if both parents are working or in training). In the other countries the time lapse between the end of post-natal parental leave and the legally guaranteed enrolment of children is greater than two years. In certain countries (Ireland, Portugal, Spain and the United Kingdom) three year-old children have a right to free access to ECEC in a public framework. In France this legal access occurs at 2 (although not systematically guaranteed) and at 2.5 in Belgium.

FEMALE EMPLOYMENT RATES AND WORKING TIME: CONTRASTING SITUATIONS IN THE EU

The European Union has placed the development of the enrolment of young children as a core issue in terms of support for birth rates, but also in terms of the participation of women in employment and the development of all children's cognitive and conative skills.

The **employment rate** of women between 15 and 64 is showing palpable variations between countries in 2014 (2.3.1). Although the northern European countries do not show a large

percentage variation, there are notable differences in Greece (a 17 point spread in the male-female employment rates), Italy (18 points) and Malta (26 points). Moreover the distribution of part-time employment per gender remains deeply skewed. Whilst 7% of men from 15 to 64 in the EU are in partial employment, 19% of the women are in this situation.

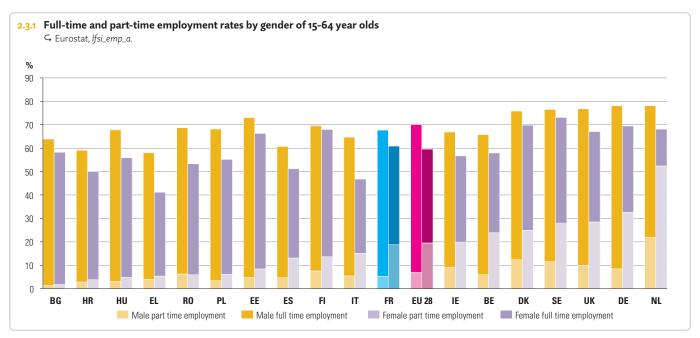
Two countries stand out on this point, *i.e.* Bulgaria at the one end with the rates of part-time employment at the lowest of the EU's 28 member countries (1.4% for men and 1.8% for women), and, at the other, the Netherlands with the highest rates of the 28 EU countries (22% for men and 52% for women).

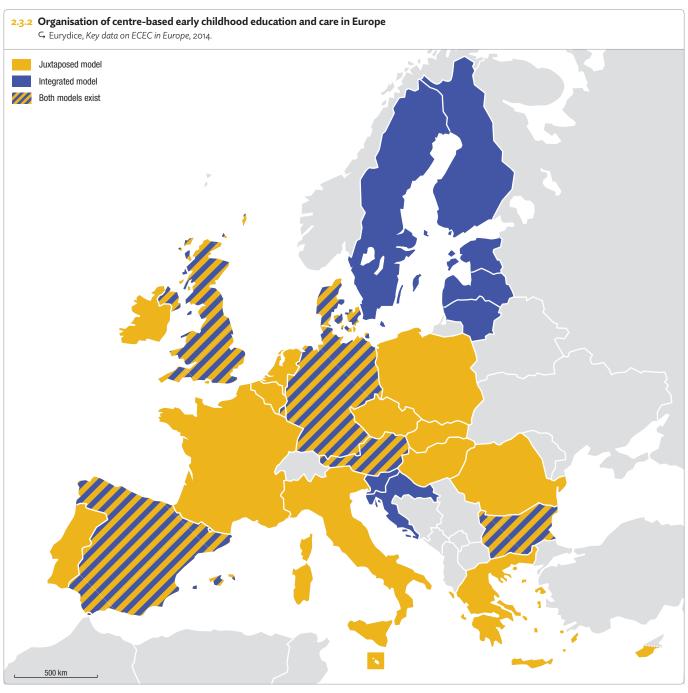
TWO KINDS OF NATIONAL INSTITUTIONS FOR EARLY CHILDHOOD CARE

Every national configuration is unique, but it is possible to distinguish two models of ECEC organisation (2.3.2). The first is the integrated model. This is a single institution for all pre-primary age children, *i.e.* a single administration for children of all age groups, the same staff qualification level (generally university educated) and the same funding source. Generally speaking these institutions enrol children from under one to six. This first model is found in the Nordic and the Baltic countries, likewise in Croatia and Slovenia.

The second is the juxtaposed model and is the most widely adopted in Europe, offering two kinds of institutions, more often than not successive, each under different authorities according to the children's age group, *i.e.* the first covers children from 0 to 3 or 4, most often under the authority of Social Affairs, with the second institution offering child care from 3 (or 2, in France, even 2.5 in Belgium) to 5 or 6 years under the authority of the Department of Education.

Lastly Austria, Bulgaria, Denmark, Spain, and the United Kingdom have both systems where families can choose between the integrated or the juxtaposed models.





2.4 SCHOOL EXPECTANCY

UP TO 13 YEARS OF COMPULSORY EDUCATION

Along with the structure of an education system, the compulsory length of education varies from one country to another. Figure 2.4.1, detailing the compulsory length of education according to a student's age in 2014, highlights several reasons for these differences. The first among them, which is notable, is the student's age at the start of their compulsory education, which varies from 4 years old in Luxembourg to 7 in Bulgaria, Estonia or Finland. 8 countries of the European Union (including England, Greece and the Netherlands) start their compulsory education at the age of five, and nearly half of the countries (13 of 28, including France, Germany, Italy and Spain) start it at 6.

Over half of the EU's 28 member-countries (16 countries including Estonia, France, Ireland and Sweden) set the end of compulsory education at the age of 16, but it varies from 14 years in Croatia to 18 years in Hungary, the Netherlands, and Portugal (2.4.1). In the Netherland's case, the end of compulsory education at 18 years old is only applicable to students that don't obtain a diploma during the academic year they reach their 16th birthday. Moreover, it should be noted that the legal age for the end of compulsory education occurs at the end of ISCED 2 in numerous countries, including Estonia, Finland and Germany, whereas it is set during ISCED 3 in England, France and Italy. To sum up, the length of compulsory education varies from 9 years in Austria, Croatia and Finland to 13 years in Hungary and Netherlands (for the specific case of non-graduate 16 year olds).

In 5 countries (Belgium, England, Germany, the Netherlands and Poland), the period of full-time compulsory education is extended by a part-time compulsory education phase. This period makes it possible to follow a vocational training programme for a period of time that varies according to the country. This period lasts 3 years in Belgium and Germany while it lasts 2 years in Poland and England where the student may chose between: obtain a degree through an apprenticeship; pursue his/her studies on a part-time schedule along with a professional activity or as volunteer or even staying in full-time education programmes. In the Netherlands, this part-time compulsory education period only applies to students that did not obtain a diploma by the age of 16, and follow an apprenticeship until they turn 18.

SCHOOL EXPECTANCY AND THE INDICATOR'S LIMITATIONS

School expectancy or the probable length of education is defined by Eurostat as the number of education years—including tertiary education—that a person can expect to receive in their lifetime. It is calculated annually by adding the enrolment rates observed in the given year to each period of life. An 80% rate, for example, at a given age represents o.8 year. This kind of estimate is only exact when present models of schooling do not undergo significant changes. However, numerous factors "blur" the indicator's relevance. First of all, the quality of data enabling the measurement of enrolment rates can vary from one country to the next. Secondly, the indicator potentially contains important biases:

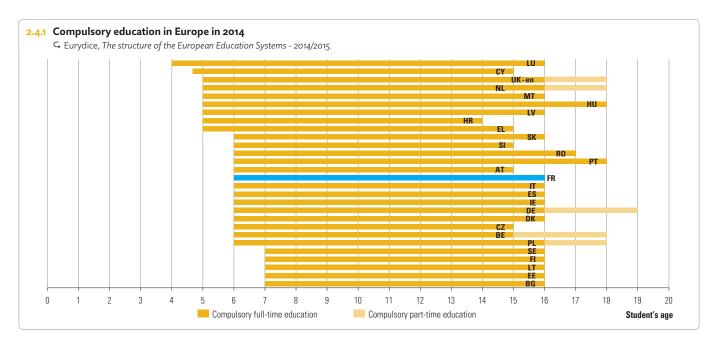
— it is dependent on the theoretical duration of education cycles

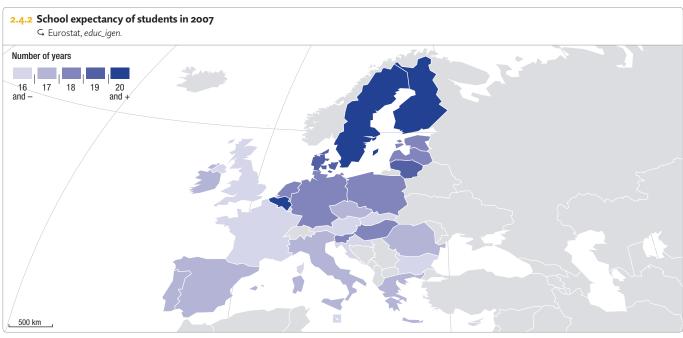
- that vary between countries;
- the extensive use of repeating, or the obtention of multiple diplomas of the same ISCED level which is standard in some countries may artificially extend school expectancy.

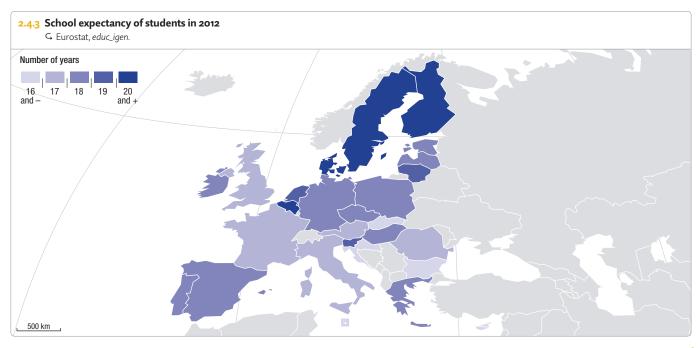
Between 2007 and 2012 school expectancy generally increased in the 28 EU member-countries (2.4.2 and 2.4.3). The minimum (Luxembourg and Cyprus) went from 14 years to 15, while the maximum (Finland) stayed the same at 21 years for the period. Whilst the "leading" countries (Scandinavia, Belgium and the Baltic countries) evolved only slightly after 2007, there is a phenomenon of catching up over the period by the countries with lower expectancies. 13 countries, including Austria, France, the Netherlands, Spain and the United Kingdom, saw their populations' school expectancy increase in 5 years. It should be noted that the indicator proves to be sensitive to certain institutional factors. Encouraging part-time enrolment enabling students to work while doing tertiary education or else a developed system of adult education leads to longer school expectancy in certain countries, Scandinavia for example.

Moreover it can be observed that the countries with the longest complusory school enrolment in the EU-28 are not necessarily those with the highest school expectancy, such as Luxembourg, Hungary and the Netherlands. Symmetrically, some countries with the shortest compulsory school enrolment also enjoy the highest school expectancy (Finland and Sweden).

See definition p. 68.







2.5 ENROLMENT RATES

A DOUBLE EUROPEAN GOAL FOR EARLY CHILDHOOD EDUCATION AND CARE

In matters of early childhood education and care (cf. 2.3, p. 22), the European Union has set two quantified goals, *i.e.* offering care for at least 33% of the children under 3 and ensuring pre-primary education for at least 95% of children between 4 and the age of compulsory education. This latter goal is, moreover, one of the reference goals of the Education and Training 2020 strategy. Eight countries attained both goals in 2012, *i.e.* Belgium, Denmark, France, Luxembourg, the Netherlands, Portugal, Spain and Sweden (2.5.1), and six countries attained one of the two goals, *i.e.* Germany, Italy, Ireland, Malta, Slovenia and the United Kingdom.

The 4 year-old-and-over goal was practically attained on average in the EU (95% in 2012), and the observed enrolment rates ranged from 72% in Croatia to 100% in France and Malta. On the other hand, the goal of the first age category demonstrated greater variation among the countries. Whilst 67% of the under threes attended institutions in Denmark, a mere 3% attended in the Czech Republic. Moreover it is appropriate to stress – cause or consequence of the low-care rate of young children? – that in some eastern European countries, post-natal parental leave was especially long, e.g. over 100 weeks in Bulgaria, the Czech Republic, Hungary and Romania [Eurydice, *Key data on Early Childhood Education and Care in Europe*, 2014].

A RISING ENROLMENT RATE IN THE ENTIRE EUROPEAN UNION

What is the **enrolment rate of students** at the end of compulsory education? First of all it is important to remember that the age at the end of compulsory education varies between 14 and 18 years old according to the country (cf. 2.3, p.22). What's more, the enrolment rate indicator contains certain methodological limitations that explain, for example, why the observed rates can be higher than 100% in some cases and calls for cautious interpretation. Nonetheless it is possible to draw a few general and comparative lessons.

Generally speaking, a rise in the enrolment rates in the 28 EU member-countries was observed between 2007 and 2012. Of the 9 countries with a rate lower than 91% at the age of the end of compulsory education in 2007, only five were still in the same situation by 2012. Some countries saw their enrolment rates grow quite considerably in that time, *i.e.* 6 points in Luxembourg, 8 points in the Netherlands and even 10 points in Greece (2.5.2 and 2.5.3).

UNEVEN PARTICIPATION IN TERTIARY EDUCATION

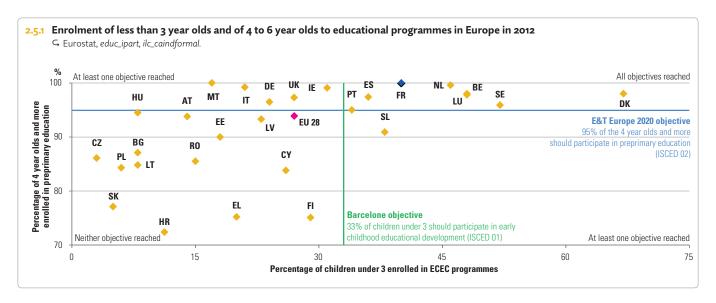
To be relevant, observing participation in tertiary education should be applied to a relatively broad age group. Indeed young adults do not necessarily continue their tertiary studies immediately after completing their secondary cycle. Civic and military duties, long internships or gap years carried out before or during tertiary education are common constraints or practices in the European Union.

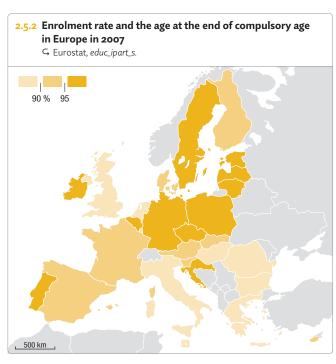
The 28 EU member-countries in 2012 had a participation rate by 20 to 29 year-olds in tertiary education of 32% with a minimum of 9% in Luxembourg and a maximum of 54% in Greece (2.5.4). The low rate in Luxembourg may be explained in particular by the relatively recent creation of the University of Luxembourg (2003) and the large amount of Luxembourger students going to study abroad. In the 28 EU countries, 21, including Belgium, France, Germany and Spain, had a participation rate higher or equal to 30%, and 5 of them (Denmark, Finland, Greece, Lithuania and Slovenia) had a rate higher than 40%.

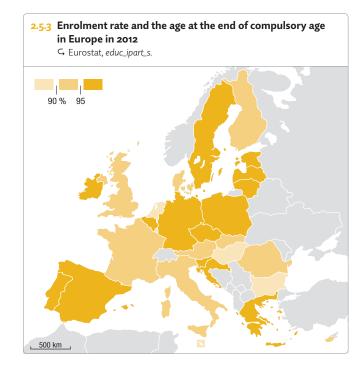
Does participation in tertiary education lead to a higher rate of degrees among the 30 to 34 year-old age group (cf. 5.3, p. 50)? It is interesting to note than it is not necessarily the countries with the highest participation in tertiary education that show the largest number of advanced degrees. In Luxembourg in 2012 the participation rate in tertiary education was 9%, whereas 50% of the 30 to 34 years-olds held advanced degrees, a large part of them having studied abroad. The opposite is also seen in Austria, which had high rates of participation (35% in 2012), but had fewer higher education graduates in the 30 to 34 year-old age group than the EU-28 average (26% of tertiary education degrees in 2012, compared to 36% for the EU-28). Besides the fact that students may have left the country where they graduated, two factors may explain this situation:

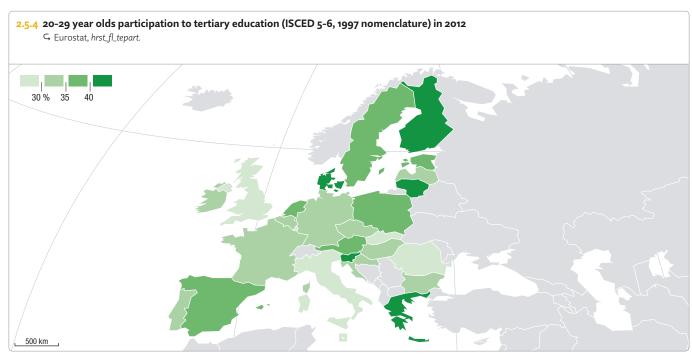
- a temporal effect: a recent rise in higher education participation that does not show yet in the percentage of 30-34 year-olds that hold a higher education degree;
- a dropout effect: a non-negligible part of the students do not graduate from the higher education programme.

See definition p. 68.









STUDENT DISTRIBUTION BETWEEN THE GENERAL AND VOCATIONAL STREAMS

The general and vocational streams in each country do not have the same relative weight and are not seen in the same light. Although in some countries vocational training systems have been developed and valued for a long time (Austria, Denmark, Germany, Lithuania, the Netherlands and Poland), in other countries they developed later and initially suffered because of a lesser reputation than that for general education (cf. 2.1, p. 18). This can have an impact on the distribution of students according to these streams.

In the European Union in 2012 there was an even distribution of ISCED 3 students between the general and vocational streams (2.6.1). But this, depending on the country, hides disparities. Only 8 of the EU countries (including France, Germany, Spain and Sweden) had a relatively balanced distribution, whilst imbalances were more numerous. Indeed, four countries (Cyprus, Hungary, Lithuania and Malta) had over 70% of their ISCED 3 students in a general stream. On the contrary in 7 European countries (including Belgium, the Czech Republic and Finland) the percentage of students in general streams was 30% or less.

THE NUMBERS IN PUBLIC EDUCATION REMAINED STABLE THROUGHOUT THE DECADE

Public/Private institutions categorisation is not so self-evident

ZOOM

The relative weight of public or private education in each country often depends on the history of the relationships maintained by the State with religious institutions. Education given in "private institutions independent of public authority" is still not very wide-spread in the EU-28 (2.6.2 and 2.6.3). Private education is most often given in "private institutions that depend on public authority". These Eurostat categories refer to a clear partition in France. Categorisation is not, for all that, so self-evident in certain countries. Thus, in the Netherlands the important shift in the distribution of numbers between the private and public sectors recorded between 2003 and 2012 derived from the decision to reclassify students in private religious institutions as being in the public sector. The private religious institutions enrolling the vast majority of students were in fact almost totally State-funded.

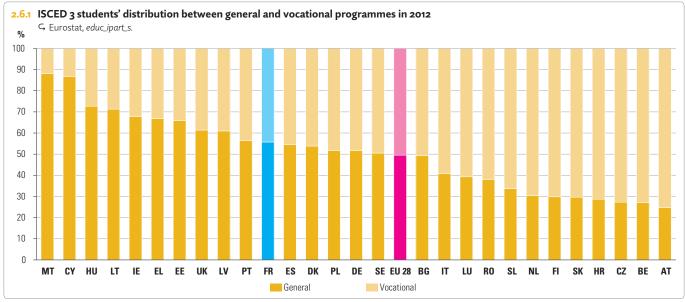
On average in the EU-28 the portion of ISCED 1 to ISCED 4 students in public institutions rose from 81% to 83% between 2003 and 2012, which can be interpreted as relatively stable if the Dutch student numbers are excluded from the average (cf. zoom). The countries presented here showed little variation in their distribution over the decade. Belgium had the fewest number of students in public institutions in 2012 (43%), and Slovenia the most (98%). Lastly, only 6 countries presented here (including Italy, Spain and the United Kingdom) had a proportion higher or equal to 5% of students enrolled in independent private institutions.

BIGGER CLASS SIZES IN LOWER SECONDARY EDUCATION

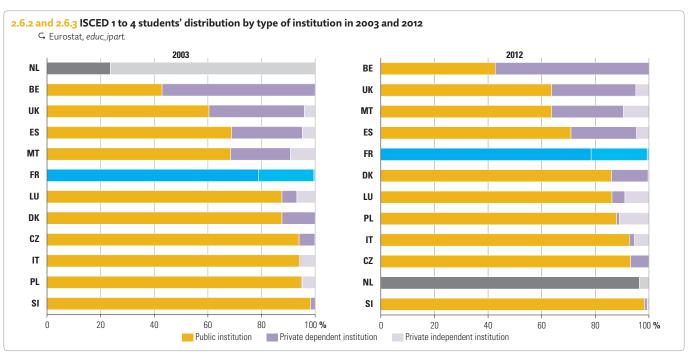
There were big variations in the average class size^{CD} in primary and lower secondary education in the European Union. Of the 17 countries presented here (2.6.4), 13 (including Finland, France, Germany, and Italy) had smaller average class sizes in primary education than the first cycle of secondary education. The average class size in the United Kingdom was the highest at 25 students per class in ISCED 1, with the lowest being Luxembourg at an average of 15 students per class. These two countries were also the ones with the widest extremes of student numbers at this educational level, with 35,000 students in Luxembourg and 4,600,000 in the United Kingdom. The Czech Republic, Portugal, Hungary, Germany, Spain, France and the United Kingdom formed the minority of countries that had over 20 students per class in primary education.

In lower secondary education, France, Germany and Spain had the largest classes in 2013 with an average of 25 students per class. The smallest classes were found in Latvia with 14 on average per class. Luxembourg had the lowest number of ISCED 2 students with 22,000 in 2013, compared to Germany's 4,700,000 students, the EU country with the highest number of students in ISCED 2.

See definition p. 68.



Note: In France, the general stream includes the technological programmes.



Note: France's National data present a lower rate of share of student going in private institutions; the scope that Eurostat covers here includes institutions that aren't under the French Department of National Education, Higher Education and Research's supervision.

