

Education at a Glance 2023

Country note

Luxembourg

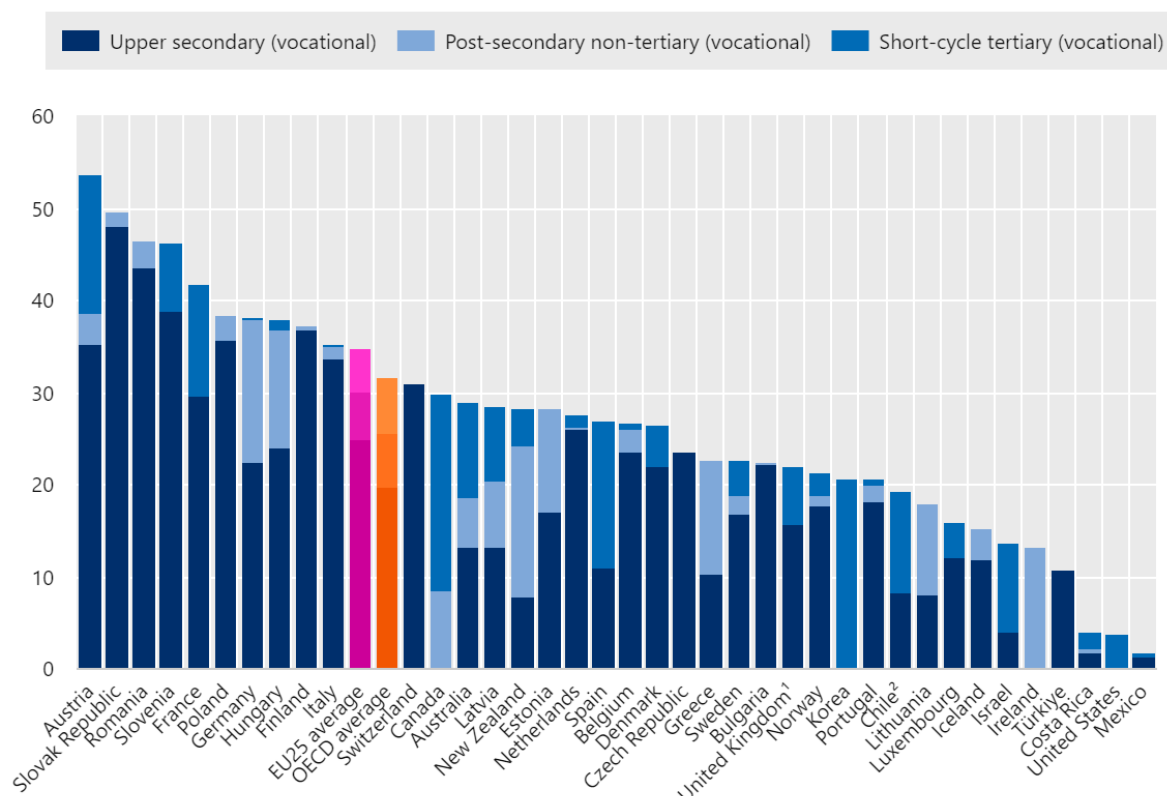
This country note provides an overview of the key characteristics of the education system in Luxembourg. It draws on data from *Education at a Glance 2023*. In line with the thematic focus of this year's *Education at a Glance*, it emphasises vocational education and training (VET), while also covering other parts of the education system. Data in this note are provided for the latest available year. Readers interested in the reference years for the data are referred to the corresponding tables in *Education at a Glance 2023*.

The output of educational institutions and the impact of learning

- High-quality VET programmes integrate learners into labour markets and open pathways for further personal and professional development. However, the quality and importance of VET programmes differ greatly across countries. In some countries, half of all young adults (25-34 year-olds) have a vocational qualification as their highest level of educational attainment, while the share is in the low single digits in other countries. In Luxembourg, 16% of 25-34 year-olds have a VET qualification as their highest level of attainment (Figure 1): 12% at upper secondary level and 4% at short-cycle tertiary level.
- Although an upper secondary qualification is often the minimum attainment needed for successful labour-market participation, some 25-34 year-olds still leave education without such a qualification. On average across the OECD, 14% of young adults have not attained an upper secondary qualification. In Luxembourg, the share is lower than the OECD average (11%).
- Workers in Luxembourg aged 25-34 with vocational upper secondary or post-secondary non-tertiary attainment earn 25% more than those without upper secondary attainment, whereas the earning advantage for workers with general upper secondary attainment is 51%. However, in almost all OECD countries, tertiary degrees provide a significantly larger earnings advantage. In Luxembourg, 25-34 year-old workers with bachelor's attainment (or equivalent) earn 77% more than their peers without upper secondary attainment, while those with master's or doctoral attainment (or equivalent) earn 87% more.
- Tertiary attainment continues to increase among the working age population. On average across the OECD, tertiary attainment is becoming as common as upper secondary or post-secondary non-tertiary attainment among 25-64 year-olds. In Luxembourg, 51% of 25-64 year-olds have tertiary attainment, a larger share than those that have upper secondary or post-secondary non-tertiary attainment (30%).

Figure 1. Share of 25-34 year-olds whose highest level of education has a vocational orientation, by level of educational attainment (2022)

In per cent



1. Data for upper secondary attainment include completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (9% of adults aged 25-34 are in this group).

2. Year of reference differs from 2022. Refer to the source table for more details.

Countries are ranked in descending order of the share of 25-34 year-olds who attained vocational upper secondary, vocational post-secondary non-tertiary or vocational short-cycle tertiary education.

Source: OECD (2023), Table A1.3. For more information see Source section and [Education at a Glance 2023 Sources, Methodologies and Technical Notes](#) (OECD, 2023^[1]).

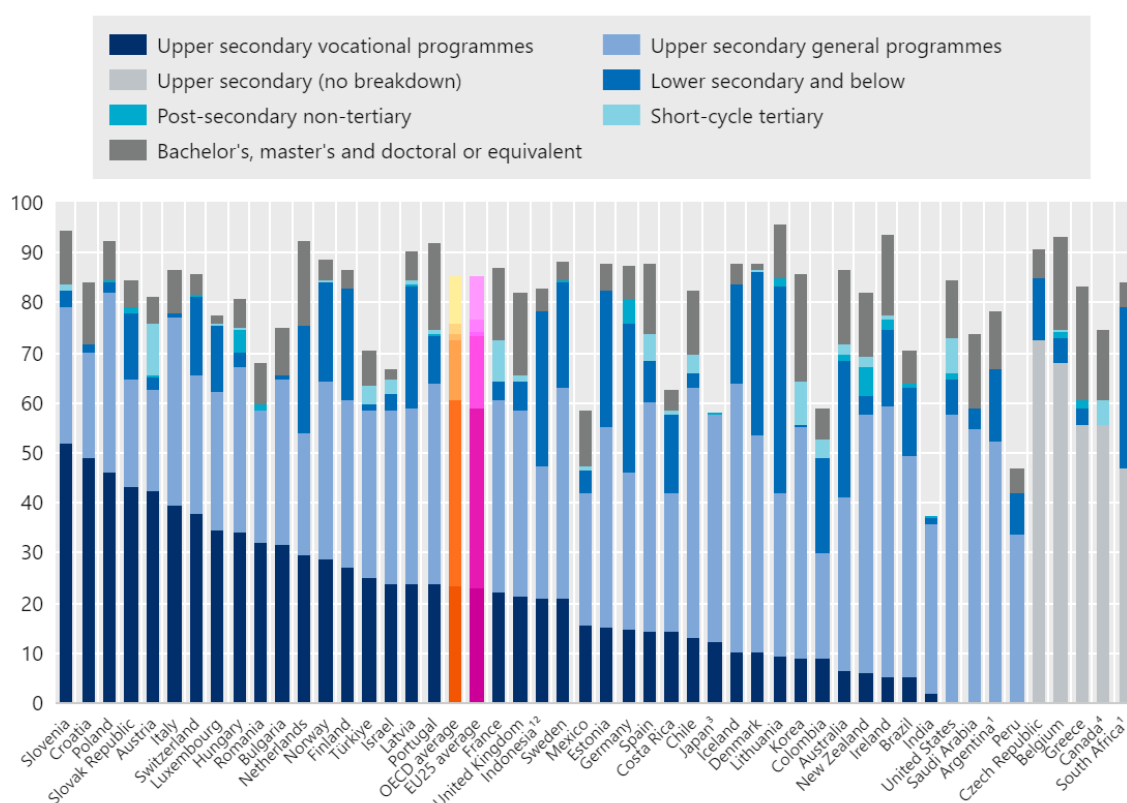
Access to education, participation and progress

- Participation in high-quality early childhood education (ECE) has a positive effect on children's well-being, learning and development in the first years of their lives. In Luxembourg, 3% of 2-year-olds are enrolled in ECE (the figure does not include children attending creche or registered child-minders). This increases to 68% of 3-year-olds, 100% of 4-year-olds and 94% of 5-year-olds.
- Compulsory education in Luxembourg starts at the age of 4 and continues until the age of 16, however there are plans to increase the ending age of compulsory education to the age of 18. Students typically graduate between the ages of 17 and 19 from general upper secondary programmes. The age range for completing vocational programmes is just as wide, with students typically graduating from vocational upper secondary programmes between 18 and 20. This is different from most OECD countries, where graduates from vocational upper secondary programmes have a wider age range, reflecting the greater diversity of pathways into these programmes than for general ones.

- The large majority of 15-19 year-olds across the OECD are enrolled in education. In Luxembourg, 28% of this age group are enrolled in general upper secondary education and 35% in vocational upper secondary education. A further 13% are enrolled in lower secondary programmes and 2% in tertiary programmes. This compares to an OECD average of 37% enrolled in general upper secondary programmes, 23% in vocational upper secondary programmes, 12% in lower secondary programmes and 12% in tertiary programmes (Figure 2).

Figure 2. Enrolment rates of 15-19 year-olds, by level of education (2021)

In per cent



1. Year of reference differs from 2021: 2020 for Argentina and South Africa; 2018 for Indonesia.

2. Excludes students enrolled at tertiary levels.

3. Breakdown by age not available after 15 years old.

4. Excludes post-secondary non-tertiary education.

Countries are ranked in descending order of the share of students enrolled in upper secondary vocational education.

Source: OECD/UIS/Eurostat (2023), Table B1.2. For more information see [Source section](#) and [Education at a Glance 2023 Sources, Methodologies and Technical Notes](#) (OECD, 2023^[1]).

- On average across countries and other participants with comparable data, 77% of entrants into general upper secondary education successfully complete their upper secondary studies (either in general or in vocational programmes) within the theoretical duration of the programme. The completion rate increases by an average 10 percentage points within two years after the end of the theoretical duration. In Luxembourg, 70% of entrants into general upper secondary education complete their programme within the theoretical duration, but this share increases to 91% after allowing an additional two years.

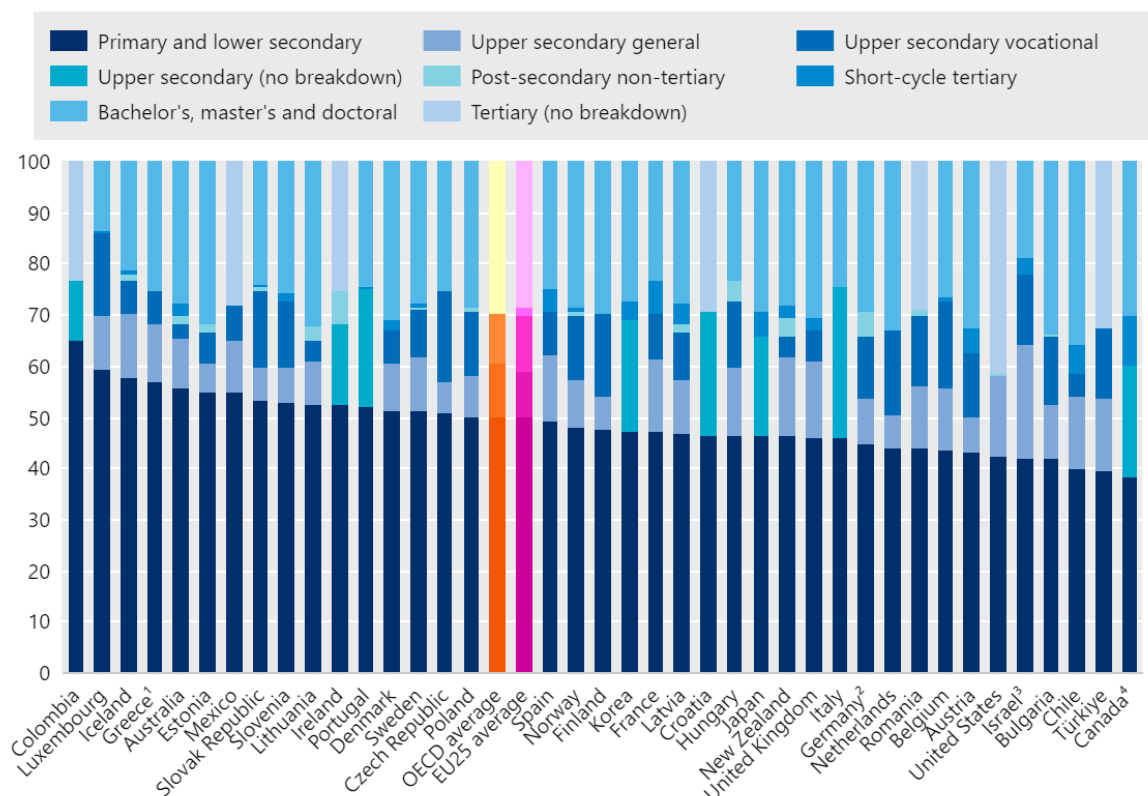
- In most countries with available data, completion rates in vocational upper secondary programmes are lower than in general upper secondary programmes. In Luxembourg, 40% of vocational students complete upper secondary education (either general or vocational programmes) within the expected duration and 72% complete their programme after an additional two years. On average across countries and other participants with available data, 62% of vocational entrants complete their studies on time and 73% within an additional two years.
- Bachelor's programmes are the most popular programmes for new entrants to tertiary education. On average across the OECD, they attract 76% of all new students compared to 72% in Luxembourg. Short-cycle tertiary programmes are the second most common level of education for new entrants into tertiary education, but their importance differs widely across countries. In Luxembourg, they are chosen by 28% of all new entrants.
- Perhaps surprisingly, the share of international students at tertiary level has not been negatively affected by the COVID-19 pandemic in many OECD countries. However, a few countries experienced double digit declines in the share of international students. Luxembourg is not one of them, as the share of international students remained stable between 2019 and 2021 (49% of all tertiary students in both years).

Financial resources invested in education

- All OECD and partner countries devote a substantial share of their domestic output to education. In 2020, OECD countries spent on average 5.1% of their gross domestic product (GDP) on primary to tertiary educational institutions. In Luxembourg, the corresponding share was 3.4% of GDP, of which 36% was dedicated to primary education, 24% to lower secondary education, 27% to upper secondary education and 13% to bachelor's, master's and doctoral or equivalent programmes (Figure 3).
- Funding for education in absolute terms is strongly influenced by countries' income levels. Countries with higher per capita GDP tend to spend more per student than those with lower per capita GDP. Across all levels from primary to tertiary education, Luxembourg spends USD 26 833 annually per full-time equivalent student (adjusted for purchasing power), compared to the OECD average of USD 12 647. Expenditure per student is equivalent to 22% of per capita GDP, which is below the OECD average of 27%.
- The COVID-19 pandemic has created unprecedented challenges for education systems across the world. On average across the OECD, expenditure on primary to tertiary educational institutions per full-time equivalent student (including expenditure on research and development) grew by 0.4% from 2019 to 2020 (the first year of the pandemic and the latest period with available data). In Luxembourg, it increased by 0.1%. This change in expenditure per student is the result of total expenditure on educational institutions increasing by 1.9% and the total number of full-time equivalent students increasing by 1.7%.
- The distribution of spending between general and vocational upper secondary programmes depends on a variety of factors, such as the number of VET students, the fields of study within VET programmes and the importance given to VET relative to general programmes. In Luxembourg, 10% of all funding for educational institutions is spent on general upper secondary education and 16% on vocational upper secondary education (11% and 10% respectively on average across the OECD).
- Government sources dominate non-tertiary education funding in all OECD countries, while the private sector contributes 9% of the total expenditure on educational institutions on average. Private funding in Luxembourg accounted for 3% of expenditure at primary, secondary and post-secondary non-tertiary levels.

Figure 3. Total expenditure on primary to tertiary educational institutions, by level of education (2020)

In per cent



1. Year of reference differs from 2020. Refer to the source table for more details.

2. Upper secondary vocational programmes include lower secondary vocational programmes.

3. Upper secondary programmes include lower secondary programmes.

4. Primary education includes pre-primary programmes.

Countries are ranked in descending order of total expenditure on primary and lower secondary institutions.

Source: OECD/UIS/Eurostat (2023), Table C2.1. For more information see Source section and [Education at a Glance 2023 Sources, Methodologies and Technical Notes](#) (OECD, 2023^[1]).

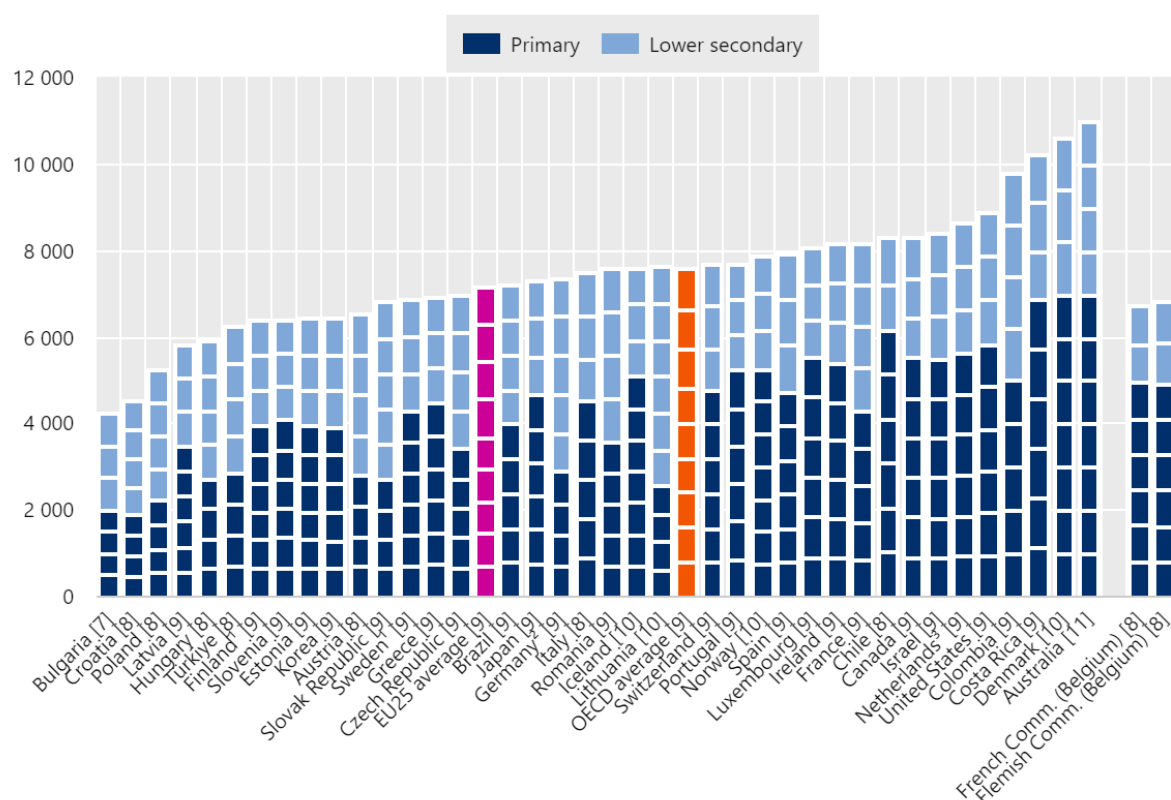
- In most countries, private sources accounted for similar shares of expenditure on general and vocational programmes at upper secondary level. However, in a few countries the differences in the share of private funding between general and vocational programmes were wider. In Luxembourg, the private sector is responsible for 6% of expenditure on general upper secondary programmes and less than 1% of expenditure on vocational upper secondary programmes.
- On average across OECD countries, more than half of government expenditure on primary to post-secondary non-tertiary education comes from subnational governments. In Luxembourg, 91% of the funding comes from the central government, after transfers between government levels and 9% from the local level.

Teachers, the learning environment and the organisation of schools

- The total compulsory instruction time throughout primary and lower secondary education varies widely from country to country (Figure 4). Across the OECD, over the course of primary and lower secondary education, compulsory instruction time totals an average of 7 634 hours, distributed over nine grades. In Luxembourg, the total compulsory instruction time is higher, at 8 079 hours, over nine grades.

Figure 4. Compulsory instruction time in general education (2023)

In hours, in primary and lower secondary education, in public institutions



Note: Instruction hours for each grade refer to average hours per grade for the level of education. Numbers in square brackets refer to the total number of years for primary and lower secondary education.

1. Estimated number of hours by level of education based on the average number of hours per year, as for some subjects, the allocation of instruction time across multiple levels is flexible.

2. Year of reference 2022.

3. The number of grades in lower secondary education is three or four, depending on the track. The fourth year of pre-vocational secondary education was excluded from the calculation.

Countries and other participants are ranked in ascending order of the total number of compulsory instruction hours.

Source: OECD (2023), Table D1.1. For more information see [Source section](#) and [Education at a Glance 2023 Sources, Methodologies and Technical Notes](#) (OECD, 2023^[1]).

- On average across OECD countries, 25% of the compulsory instruction time in primary education is devoted to reading, writing and literature and 16% to mathematics. In lower secondary education, the share is 15% for reading, writing and literature and 13% for mathematics. In Luxembourg, 29%

of time is devoted to reading, writing and literature and 19% to mathematics at primary level compared to 14% each to both subjects at lower secondary level.

- Teachers' salaries are an important determinant of the attractiveness of the teaching profession, but they also represent the single largest expenditure category in formal education. In most OECD countries, the salaries of teachers in public educational institutions increase with the level of education they teach, and also with experience. On average, annual statutory salaries for upper secondary teachers in general programmes with the most prevalent qualification and 15 years of experience are USD 53 456 across the OECD. In Luxembourg, the corresponding salary adjusted for purchasing power is USD 112 008, which is equivalent to EUR 111 842.
- On average across OECD countries, in full-time equivalent terms, there are 14 students for every teaching staff member in general upper secondary programmes and 15 students per staff member in vocational upper secondary programmes. In Luxembourg, in full-time equivalent terms, there are 9 students per staff member in general upper secondary programmes, lower than the OECD average. In vocational upper secondary programmes, in full-time equivalent terms, there are 9 students for every teaching staff member (below the OECD average).
- The average age of teachers varies across OECD countries. In some countries, the teaching workforce is much younger than the labour force in general, whereas in others, teachers tend to be older. In Luxembourg, 31% of teachers in general upper secondary programmes are aged 50 or older, compared to the OECD average of 39%. Teachers in vocational programmes are younger than their general programme peers their general programme peers, with 28% aged 50 or above (43% on average across the OECD).
- National/central assessments (standardised tests with no consequence on students' progression through school or certification) are more common at primary and lower secondary levels than at upper secondary level, while most OECD countries conduct national/central examinations (standardised tests with formal consequence) in the final years of upper secondary education. These national/central assessments and examinations take place at different grades and can have different periodicities, their contents may vary over years and/or across students and are not necessarily compulsory for students. In Luxembourg, there are at least two national/central assessments at primary level, and at least two at lower secondary level. At upper secondary level, there are two types of national examinations, where each student will take one of them depending on his/her educational programme.

References

- OECD (2023), *Education at a Glance 2023 Sources, Methodologies and Technical Notes*, OECD Publishing, Paris, <https://doi.org/10.1787/d7f76adc-en>. [1]
- OECD (2023), Education at a Glance Database, <https://stats.oecd.org/>. [2]
- OECD (2023), *Education at a Glance 2023: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/e13bef63-en>. [3]

More information

For more information on *Education at a Glance 2023* and to access the full set of indicators, see: <https://doi.org/10.1787/e13bef63-en>.

For more information on the methodology used during the data collection for each indicator, the references to the sources and the specific notes for each country, see *Education at a Glance 2023 Sources, Methodologies and Technical Notes* (<https://doi.org/10.1787/d7f76adc-en>).

For general information on the methodology, please refer to the *OECD Handbook for Internationally Comparative Education Statistics 2018* (<https://doi.org/10.1787/9789264304444-en>).

Updated data can be found on line at <http://dx.doi.org/10.1787/eag-data-en> and by following the StatLinks 2 under the tables and charts in the publication.

Explore, compare and visualise more data and analysis using the Education GPS:

<https://gpseducation.oecd.org/>.

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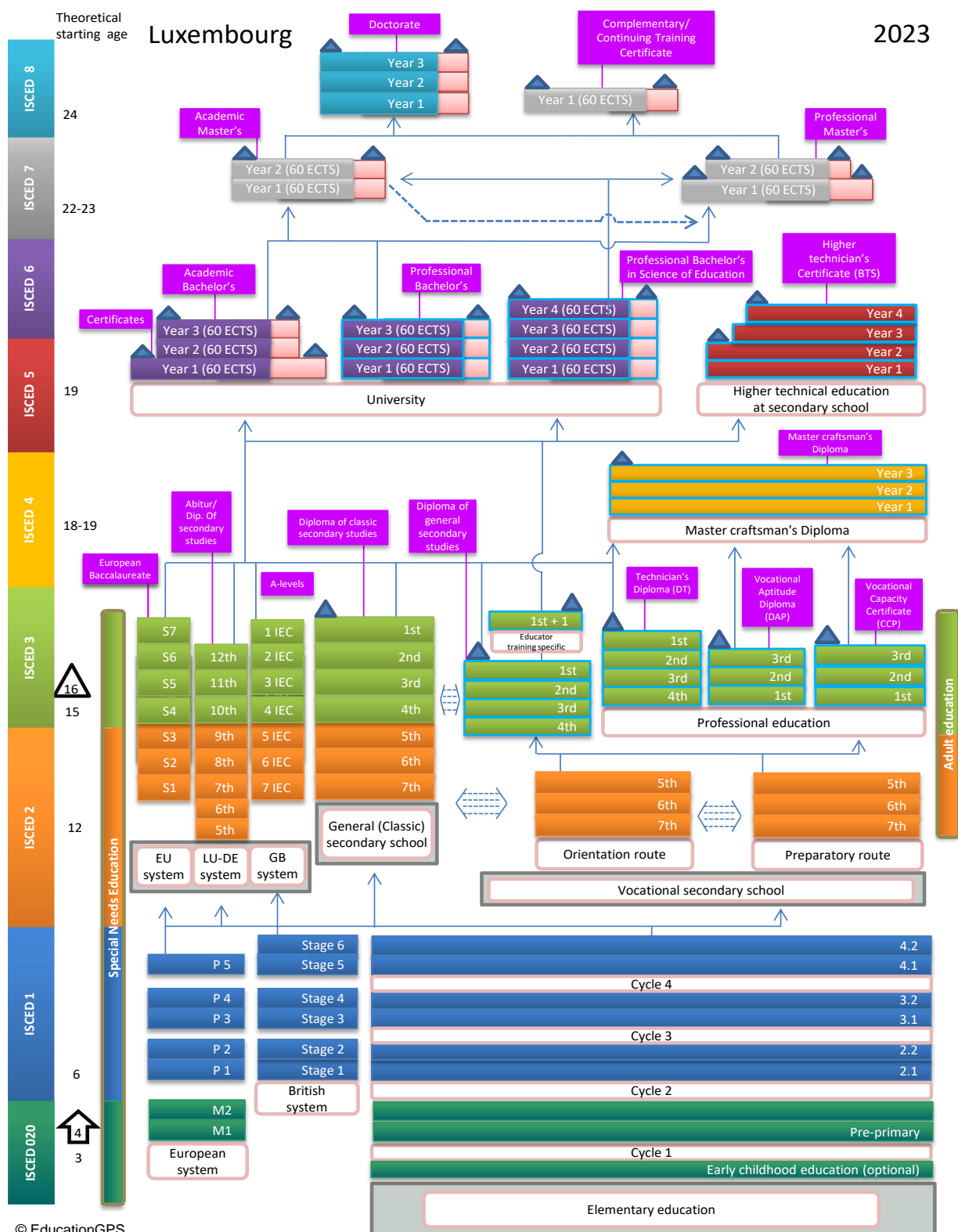
Key facts for Luxembourg in *Education at a Glance 2023*

Indicator	Country		OECD average		Source	
Educational attainment of 25-34 year-olds by gender	2022		2022		Table A1.2	
	% Men	% Women	% Men	% Women		
	Below upper secondary	13%	9%	16%		12%
	Upper secondary or post-secondary non-tertiary	31%	28%	44%		35%
Tertiary	57%	63%	41%	54%		
NEET rates of 18-24 year-olds by gender	2022		2022		OECD (2023 ^[2])	
	% Men	% Women	% Men	% Women		
	m	m	14%	15.5%		
Employment rates of 25-64 year-olds by educational attainment and gender	2022		2022		OECD (2023 ^[2])	
	% Men	% Women	% Men	% Women		
	Below upper secondary	70%	57%	70%		48%
	Upper secondary or post-secondary non-tertiary	78%	68%	84%		69%
Tertiary	89%	84%	90%	83%		
Enrolment rate of children aged 3 in ECEC	2021		2021		Table B2.1	
	68%		73%			
Enrolment rate of 15-19 year-olds	2021		2021		Table B1.1	
	78%		84%			
Share of upper secondary students enrolled in VET programmes	2021		2021		Table B1.3	
	61%		44%			
Upper secondary completion rates by programme orientation	2021		2021		Table B3.1	
	General	Vocational	General	Vocational		
By the end of the programme duration	70%	40%	77%	62%		
Two years after the end of the programme duration	91%	72%	87%	73%		
Expenditure on educational institutions per full-time equivalent student by level of education (in USD PPP)	2020		2020		Table C1.1	
	Primary		USD 22 990			
	Lower secondary		USD 27 112			
	Upper secondary		USD 26 182			
	Tertiary		USD 53 421			
Total expenditure on primary to tertiary educational institutions as % of GDP	2020		2020		Table C2.1	
	3.4%		5.1%			
Share of total education expenditure on upper secondary educational institutions by programme orientation	2020		2020		Figure C2.2	
	General	Vocational	General	Vocational		
	10%	16%	11%	10%		
Total compulsory instruction time in primary and lower secondary education	2023		2023		Table D1.1	
	8 079 hours		7 634 hours			
Statutory salaries of upper secondary teachers in general programmes with the most prevalent qualifications after 15 years of experience (in USD PPP)	2022		2022		Table D3.1.	
	USD 112 008		USD 53 456			
Change in statutory salaries of upper secondary teachers in general programmes with the most prevalent qualifications after 15 years of experience (in real terms)	2015-2022		2015-2022		Table D3.7	
	m		4%			
Share of teachers in general upper secondary programmes aged 50 or older	2021		2021		Table D7.2.	
	31%		39%			

Note: The OECD average for completion rates reflects a different country coverage (see Indicator B3).

Source: OECD (2023^[2])

Diagram of the education system



Source: OECD (2023), "Luxembourg: Diagram of education system", OECD Education GPS, http://gpseducation.oecd.org/Content/MapOfEducationSystem/LUX/LUX_2011_EN.pdf
Please refer to "Luxembourg: Diagram of education system" for information on the keys.