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Education and Training Monitor 2022

Accompanying the document

**Communication from the Commission to the European Parliament, the Council, the
European Economic and Social Committee and the Committee of the Regions**

on progress towards the achievement of the European Education Area

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Education and Training Monitor 2022

BELGIUM



The Education and Training Monitor's country reports present and assess the main recent and ongoing policy development at all education levels in EU Member States. They provide the reader with more in-depth insight of the performance of countries with regard to the EU level targets agreed within the EEA. They are based on the most up-to-date quantitative and qualitative evidence available.

Section 1 presents a statistical overview of the main education and training indicators. Section 2 focuses on how the Member State has addressed or is addressing one of its education challenges. Section 3 covers early childhood education and care. Section 4 deals with school education policies. Section 5 covers vocational education and training and adult learning. Finally, Section 6 discusses measures in higher education.

The Education and Training Monitor's country reports were prepared by the European Commission's Directorate-General for Education, Youth, Sport and Culture (DG EAC), with contributions from the Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL).

The document was completed on 30 September 2022

More background data at:

<https://op.europa.eu/webpub/eac/education-and-training-monitor-2022/en/>



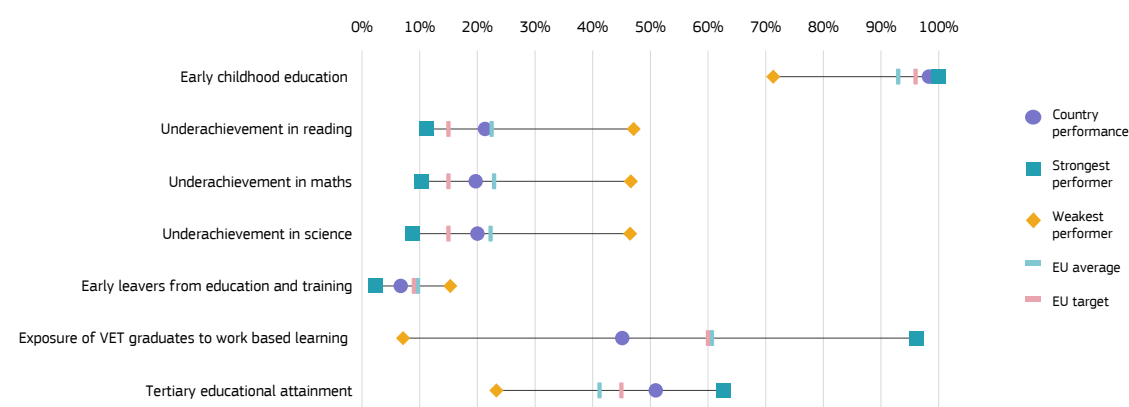
1. Key indicators

Figure 1: Key indicators overview

			Belgium		EU	
			2011	2021	2011	2021
EU-level targets						
2030 target						
Participation in early childhood education (from age 3 to starting age of compulsory primary education)	≥ 96 %		98.3% ¹³	98.5% ²⁰	91.8% ¹³	93.0% ²⁰
Low achieving eighth-graders in digital skills	< 15%		:	:	:	:
Low achieving 15-year-olds in:	Reading	< 15%	17.7% ⁰⁹	21.3% ¹⁸	19.7% ⁰⁹	22.5% ¹⁸
	Maths	< 15%	19.1% ⁰⁹	19.7% ¹⁸	22.7% ⁰⁹	22.9% ¹⁸
	Science	< 15%	18.0% ⁰⁹	20.0% ¹⁸	18.2% ⁰⁹	22.3% ¹⁸
Early leavers from education and training (age 18-24)	< 9 %		12.3%	6.7% ^b	13.2%	9.7% ^b
Exposure of VET graduates to work-based learning	≥ 60 % (2025)		:	45.1%	:	60.7%
Tertiary educational attainment (age 25-34)	≥ 45 %		42.5%	50.9% ^b	33.0%	41.2% ^b
Participation of adults in learning (age 25-64)	≥ 47 % (2025)		:	:	:	:
Other contextual indicators						
Equity indicator (percentage points)			:	21.3 ¹⁸	:	19.30 ¹⁸
Early leavers from education and training (age 18-24)	Native		10.9%	5.8% ^b	11.9%	8.5% ^b
	EU-born		18.7%	10.8% ^{bu}	25.3%	21.4% ^b
	Non EU-born		26.3%	14.9% ^b	31.4%	21.6% ^b
Upper secondary level attainment (age 20-24, ISCED 3-8)			81.6%	88.2% ^b	79.6%	84.6% ^b
Tertiary educational attainment (age 25-34)	Native		44.7%	52.8% ^b	34.3%	42.1% ^b
	EU-born		44.6%	54.0% ^b	28.8%	40.7% ^b
	Non EU-born		27.2%	38.1% ^b	23.4%	34.7% ^b
Education investment	Public expenditure on education as a percentage of GDP		6.2%	6.6% ²⁰	4.9%	5.0% ²⁰
	Public expenditure on education as a share of the total general government expenditure		11.2%	11.2% ²⁰	10.0%	9.4% ²⁰

Sources: Eurostat (UOE, LFS, COFOG); OECD (PISA). Further information can be found in Annex I and at [Monitor Toolbox](#). Notes: The 2018 EU average on PISA reading performance does not include ES; the indicator used (ECE) refers to early-childhood education and care programmes which are considered by the International Standard Classification of Education (ISCED) to be 'educational' and therefore constitute the first level of education in education and training systems – ISCED level 0; the equity indicator shows the gap in the share of underachievement in reading, mathematics and science (combined) among 15-year-olds between the lowest and highest quarters of socio-economic status; b = break in time series, u = low reliability, : = not available, 09 = 2009, 13 = 2013, 18 = 2018, 20 = 2020.

Figure 2: Position in relation to strongest and weakest performers



Source: DG Education, Youth, Sport and Culture, based on data from Eurostat (LFS 2021, UOE 2020) and OECD (PISA 2018).

2. A focus on equity in education

Belgium performs above the EU average on most EU-level targets, but its education systems fail to provide equal opportunities for all. Students from disadvantaged (37.1%) and migrant (37.6%) backgrounds are more at risk of underperforming in reading compared to advantaged (7.2%) and native-born (16.6%) peers. More than 1 in 3 young adults with disabilities do not finish secondary education, and their limited participation in higher education is one of the reasons for their low employment rate (European Commission, 2022). The relevance of equity is gaining more importance with more diversity in the school population and demographic trends. Measures are being taken to address underperformance and early school leaving (Figure 1), but there is scope for more integrated policies and further preventive measures. One of the 2022 European Semester country-specific recommendations calls on Belgium to ‘(improve) the performance and inclusiveness of the education and training system, enhancing the quality and labour market relevance of the vocational education and training and developing more flexible and attractive career paths and training for teachers’ (Council, 2022).

A disadvantaged background affects the whole education pathway. Children from disadvantaged families participate far less in early childhood education and care (ECEC) (see Section 3). A significant language gap remains, as shown by the Dutch ‘Koala’ test of 5 year-olds in the Flemish Community. In primary education, community-level tests and international surveys (TIMSS and PIRLS) show a strong relationship between the socio-economic background of pupils and educational outcomes. Academic segregation (uneven average achievement level of students across schools) increases in secondary education (European Commission/EACEA/Eurydice, 2020). Repeating a year is higher among disadvantaged children, and they are more often in vocational education and training. On equity and inclusion, the higher education systems of the Flemish (BEfl)

and French (BEfr) Communities score average compared to other EU countries (European Commission/EACEA/Eurydice, 2022). Adult learning participation of the low skilled also remains low (4.0% vs. 10.2% overall in 2021).

Early tracking, school choice, repeating a year and limited access to experienced teachers could have a negative effect on equity. The impact of socio-economic background on student performance is greater in systems with early tracking, a high number of students repeating a year and extensive differentiation between different school types in terms of school choice and school admission policies (European Commission/EACEA/Eurydice, 2020). Tracking starts at 12 years in BEde and BEfl, and there are high numbers of students repeating a year (23% of students repeat at least 1 year during primary or secondary education in BEfl; 43% in BEfr). In practice, academic achievement and socio-economic background play a role in school choice in secondary education. On meeting the same quality standards, Belgian schools enjoy a relatively high degree of autonomy in organising their teaching (European Commission/EACEA/Eurydice, 2020). Free school choice, school autonomy with limited accountability and de facto tracking based on academic performance lead to the highest gaps between advantaged and disadvantaged schools in secondary education in the EU (155 PISA points in reading compared to 137). The pitfalls of early tracking and cascading down are also reflected in the large difference in the educational performance of students in general and vocational education and training. Disadvantaged students also have less access to experienced teachers (Sections 4 and 5).

The Communities are taking measures to reduce inequalities. Quality ECEC has been reinforced as a basis for future educational success, which should also benefit disadvantaged children (Section 3). Public funding for primary schools is relatively high (in 2018, USD PPP¹

¹ Purchase power parity

11 482 per pupil; EU-22: 9 601). Other structural measures include additional financial and non-financial support to disadvantaged schools, language bridging or integration classes for newly arrived migrant children, measures to improve pupils' language of instruction knowledge and diversification of the socio-economic composition of secondary schools ('enrolment decrees').

Better study guidance support and curricula reforms should also benefit disadvantaged learners. In all communities, targeted measures have led to a long-term decrease in early school leaving.

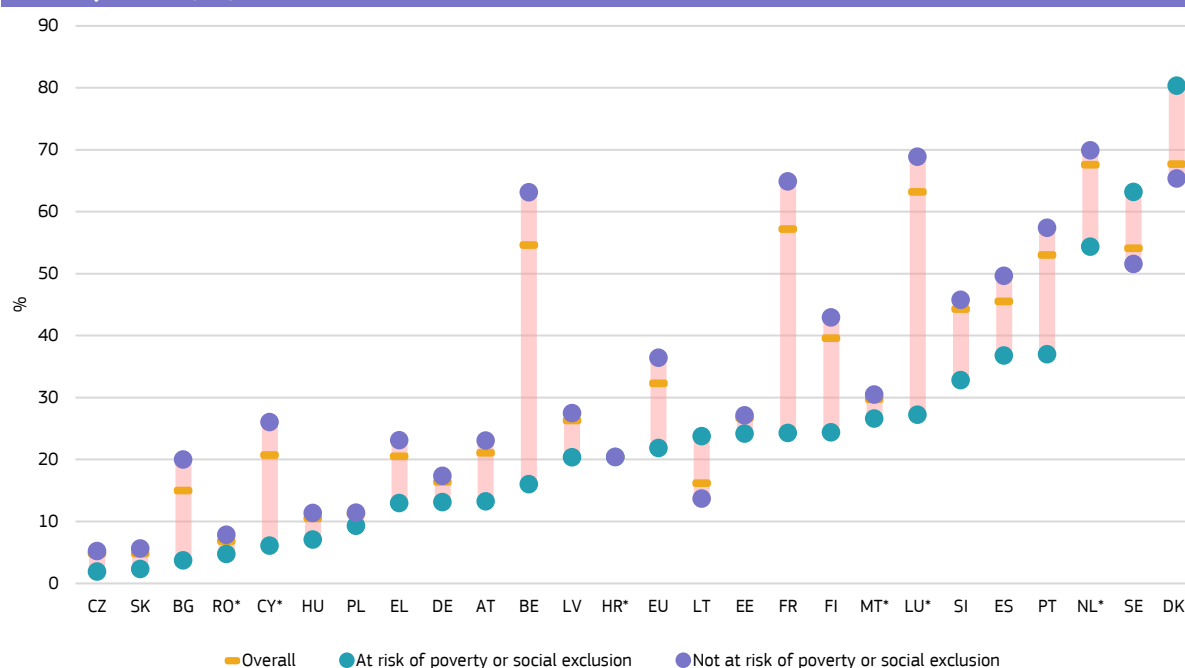
There are also some incentives to attract teachers to disadvantaged schools (European Commission/EACEA/Eurydice, 2020a). The Flemish Community focuses heavily on targeted funding and improving Dutch language knowledge and proficiency to improve equity. The French Community expects its systemic school reform (pact for excellence in education) to improve equity in education (Section 4).

3. Early childhood education and care

Belgium is among the best performers in the EU on participation in early childhood education and care (ECEC), but participation of disadvantaged children below 3 years old lags behind. Overall, 54.6%² of children below 3 participated in formal childcare or education in 2020 (4th highest in the EU), but only 16% of children at risk of poverty or social exclusion (AROPE) did so (Figure 3) (34.1% in 2019). The gap between children at risk and their peers was the highest among the EU countries (47.1 percentage points/pps; EU: 14.6 pps), and the second highest in 2019 (27.2 pps vs EU: 10.9 pps). Other research also shows a significant gap in

² Eurostat (EU-SILC).

Figure 3: Participation of children in formal childcare or education below 3 years old by AROPE, 2020 (%)



Source: Eurostat (EU-SILC), special extraction. Notes: * = Data with low reliability; Data for IE and IT not available. At risk of poverty or social exclusion, abbreviated as AROPE, corresponds to the sum of persons who are either at risk of poverty, or severely materially and socially deprived or living in a household with a very low work intensity.

participation between advantaged and disadvantaged children. With free entitlement to pre-primary education from 2.5 years, overall participation in formal childcare or education increased to 96.9% from 3 years to compulsory school age, the third highest rate in the EU. The gap between at risk (93.9%) and not at risk (97.6%) children also closed (3.7 pps vs EU 7.5 pps). In 2017, public spending on ECEC per child was above the EU average (USD PPP 6 100; EU-22 5 500), but spending on pre-primary education was much higher (10 000) than on childcare (2 000)³.

Quality ECEC for children above 2.5 years has been strengthened as a basis for future educational success. Since 2020/2021, compulsory education starts at 5 years. The universal entitlement to pre-primary education at 2.5 years will also be extended to the German-speaking Community (BEde) from 2022/2023. The Communities have also increased human and financial resources in ECEC in recent years. In BEfr, a first curriculum of ‘initial competences’ with related teacher training has been rolled out since September 2020. Free ECEC has been gradually rolled out and additional qualified staff deployed to remedy, among others, language deficiencies (2017-2019). In BEfl, from 2021/2022, 5 year-olds who fail a Dutch listening test need to follow language integration pathways, for which schools receive additional funding (EUR 12 million). The first test in October-November 2021 showed that 15% failed the test, but with peaks of 21%-32% in large cities.

4. School education

The downward trend in the rate of early leavers from education and training continued in 2021. In 2021, 6.7% of young people aged 18-24 had not finished upper secondary education and were no longer in education and training (EU: 9.7%). In the national recovery and resilience plan, BEfr has committed

to adopt a comprehensive action plan by the end of 2022 to tackle early school leaving.

Disadvantaged students, students in vocational education and training (VET) and those with special needs seem to be most affected by learning losses and demotivation due to the pandemic. Communities have taken initial measures to reduce the learning loss and the risk of early school leaving, targeting especially vulnerable pupils (European Commission, 2021). Surveys and tests indicate learning losses in mathematics and language of instruction in primary education (Gambi et al., 2021; CEB, 2022; BFP, 2022) and in secondary education (UNamur, 2022). Disadvantaged students are those most affected (Vlaanderen level tests; Duroisin et al., 2021), including in VET secondary education (Steunpunt, 2022). In BEfr, 1 in 3 students (34%) with learning disabilities had poorer outcomes, and 17% had dropped out of school (Apeda, 2022). School absenteeism in secondary education also increased by 56% between 2020/2021 and 2021/2022 (FWB, 2022a). Long-term monitoring and further measures will be needed in all Communities.

The Flemish Community focuses on improving Dutch language proficiency, standardised tests and targeted funding to improve quality and equity. Dutch language knowledge and proficiency are to be increased through language integration pathways (Section 3) and summer schools. From 2022/2023, new measures will be launched to improve reading skills (*Leesoffensief*), complemented by targeted continuous professional development for teachers. From 2024, digitally standardised, validated and benchmarked tests for mathematics and reading should strengthen schools’ accountability and enable pupils’ performance to be better monitored (European Commission, 2021). The evaluation of the equal educational opportunities policy (GOK) of providing targeted operational and teaching resources to schools with socio-economically disadvantaged pupils has shown some limited positive results (, but more seems to be needed (Nicaise, 2019 and Vlaanderen, 2020a). The envisaged decree on pragmatic and realistic

³ OECD Social Expenditure Database.

learning support for all, which should replace the current decree for inclusive education (M-decree), has been postponed until 2023/2024.

The Flemish Community is revising its attainment targets and curricula to allow for more school autonomy. The Constitutional Court ruled that the minimum attainment targets for the second and third stage of secondary education implemented since 2021/2022 are so extensive and detailed that they do not leave room for schools' own pedagogical projects.

The French Community has been rolling out important measures under the 'pact for excellence in education', but challenges remain. The reform aims to increase both the performance and equity of the school system, which currently scores below the EU average. The school management plans show that 93% of schools aim to improve educational outcomes, 77% well-being and school climate and 54% aim to reduce the number of students repeating a year and dropping out of school (FWB, 2021a). A number of key reforms will be rolled out in 2022/2023, including a major curriculum reform (see Box 1). The reform of teacher evaluation and the introduction of an individual student file, as well as the reform of the initial teacher training programme have been postponed to 2023/2024. The latter aims to extend teacher education to a 4-year Master's degree, including a 'long-term internship'. The pact would be accompanied by the development of an evaluation culture. The reforms of initial teacher training and initial VET in the next few years, as well as strong continuous professional development, will be key to successfully improving equity.



Box 1: School reforms in the French Community from 2022/2023

The new common multi-disciplinary and poly-technical curriculum to be rolled out in grades 1 and 2 and the year after in grades 3 and 4 should reach grade 9 in 2028/2029. It should

boost basic and digital skills, art and culture, entrepreneurship and provide earlier second language learning. The roll-out will be complemented by personalised support of up to 4 hours in grades 1 and 2 and 2 hours from grades 3 to 6 to reduce school failure and inequalities. A revised school timetable with shorter summer holidays and longer holidays during the year, together with a reduction in student assessment and non-teaching days, is expected to mainly benefit disadvantaged students, but should also improve the well-being and performance of all pupils. The new scheme for continuous professional development of teachers and psychosocial staff provides for a tripling of the budget to EUR 33 million, modernisation of the offer and a special focus on novice teachers. The 48 specialised centres that provide support for inclusive education (*pôles territoriaux*) should become operational. Additional human and operational resources (EUR 278 million in 2022) have been allocated to these reforms. To be successful, challenges such as teacher shortages, overworked school heads and overcoming teachers' opposition about the reforms will need to be tackled.

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The growing shortage of teachers requires a rethink of the school organisation. The job vacancy rate in education in Belgium is almost twice as high as in the euro area (3.2% in Q1-2022 vs 1.7%). More than 1 in 5 novice teachers leave the profession within the first 5 years of teaching. In BEfl, education staff show the highest burnout symptoms (21.1%) of all labour sectors (SERV, 2022). Given the general tight labour market, an increasing student population and an expected retirement wave of teachers, the school networks and experts call for strengthening the teaching profession and for a change in the school organisation (De Witte, 2021a). The European Social fund (ESF) supports related innovative projects (Box 2).

The Communities are taking measures to tackle the shortages of teachers and school heads, but stakeholders are calling for more. The Communities have recently invested in non-teaching staff to support teachers and school heads. In BEfl, lateral entrants into teaching for bottleneck subjects or as school heads or ICT

coordinators can have up to 10 years of previous work experience recognised instead of 8 years (seniority). In 2021, the recruitment rules for permanent staff were changed, allowing 10 000 more teachers to be recruited. A new collective labour agreement also included measures to make the profession more attractive, such as better induction for novice teachers, more room for core tasks and ICT support. In BEfr, a recent draft decree includes measures such as a pilot pool of 48 replacement teachers in primary education, seniority of up to 5 years for lateral entry of language teachers into primary education, recognition of previous teaching experience between school networks and making it easier for lateral entrants to acquire teaching qualifications. An information and promotion campaign and closer collaboration with the regional employment services have also been planned. Flemish school networks and trade unions have asked for further measures to address teacher shortages (Vlaams Parlement, 2021).

Disadvantaged students have less access to experienced teachers. Appointments based on teacher seniority, qualifications and contractual status combined with teachers' preference to work in advantaged schools tend to lead to inequitable teacher allocation. As a result, socio-economically disadvantaged schools have a lower share of experienced teachers (BEfl -13 pps; BE -10 pps; EU-23 -4.7 pps) and comprehensively trained teachers (BEfl -8.4 pps; BE -8.3 pps; EU-23 3.5 pps). This is also the case for schools with a high concentration of students whose first language is different from the language of instruction (BEfr -10.1 pps; BE -7.3 pps; EU-23 -10.0 pps) (OECD, 2022). Teachers also need more support on how to teach vulnerable learners (European Commission, 2019).



Box 2: Caring schools (*Warme scholen*)

This project (upscaling a pilot from 7 to 70 schools) tests new school governance, shared

leadership and teaching methods to help adapt to the increased diversity of pupils and teacher shortages. Pupils' well-being and involvement are considered as levers for resilience and deep learning. Teams of teachers will guide groups of students throughout their school career. '*Warme scholen*' also build a learning community in which parents and the school community actively participate (whole school approach). Exchange among schools is organised via an online learning platform <https://www.warmescholen.net/inspiratie>. Monitoring and evaluation tools have also been developed to measure the resilience, well-being and involvement of young people.

The EUR 3.12 million project (40% from the ESF) runs from October 2021 to December 2023.

<https://www.esf-vlaanderen.be/nl/projectenkaart/warme-scholen-voor-veerkrachtige-jongeren-voor-een-veerkrachtig-vlaanderen>

5. Vocational education and training and adult learning

The share of upper secondary students in vocational education and training (VET) is high, but declining. In 2020, they represented 55.7% of all secondary graduates⁴, which is a decline of 4.0 pps compared to 2014, but still well above the EU average of 48.7%. However, participation in work-based learning⁵, which has proven to be effective in making the transition towards sustainable employment easier, with 45.1% of upper secondary VET students in 2021, remains well below the EU average of 60.7%. In 2021, 71.5% (EU: 76.4%) of recent VET graduates (ISCED 3-4) found employment between 1 and 3 years after graduation⁶.

There are concerns about the quality, labour market relevance and attractiveness of VET. The gap in educational outcomes (reading)

⁴ Eurostat, educ_uoe_enrs05.

⁵ Eurostat, edat_lfs_9919.

⁶ Eurostat, edat_lfse_24.

between 15-year-old students in general and those in vocational programmes is large (Section 2). The poor educational performance of VET students may jeopardise their chances of coping with the fast-paced technological change. This is also reflected in the gap in tertiary completion rates between students with a vocational upper secondary qualification and those with a general qualification, which is one of the largest among OECD countries (26 pps in BEfr and 31 pps in BEfl vs 12 pps in OECD countries on average) (OECD, 2019a). Furthermore, there are concerns about the labour market relevance of VET, in particular in BEfr, where only 3 out of the 10 most popular upper secondary VET options prepare students for occupations with labour shortages (European Commission, 2022). There are still concerns about the attractiveness of VET as a track of excellence, as reflected in the large share of the population with a negative perception of VET in Belgium (42.5% vs EU average 23.5%) (Cedefop, 2016).

Dual learning has not yet improved the attractiveness of VET. In BEfr, the reform of dual learning and boosting its attractiveness are included as one of the major strands of the Walloon recovery plan (RPW). To prepare for this reform, a pilot study was launched in June 2022. A collaborative agreement was signed in March 2022 between the training centres IFAPME (BEfr) and IAWM (BEde) to improve synergies between the two and promote the interregional mobility of learners in training courses. In the context of the RPW, IFAPME launched actions in April 2022 to boost outreach and cooperation with companies offering apprenticeships. In BEfl, dual learning was rolled out in the school year 2019–2020 as a fully fledged learning path alongside full-time school-based secondary education. The number of students in dual learning increased, but overall remains limited (2 338 in 2021/2022 or on average 3.6 students per study programme) and the number of schools providing dual learning has decreased slightly. There is still a negative perception of dual learning, in particular among parents (De Witte et al., 2021b). There are also concerns about the inclusiveness of the system, with plans to phase out the system of ‘learning and working’ and integrating it into dual learning

by 2025–2026 (Verhaest et al., 2019). Currently, this pathway hosts some very vulnerable pupils, for whom participation in dual learning may not be a realistic option. Since 2022/2023 adult education also offers dual learning.

Adult participation in learning remains low in Belgium, in particular for the low skilled. In 2021, 10.2% of the working age population (25–64) participated in training in the 4 weeks before the Labour Force Survey, which is slightly below the EU average of 10.8%. The low skilled (4.0%) are underrepresented, although they could benefit most from up- and reskilling to increase their employment prospects. The main barriers to adult learning are work, childcare and family responsibilities – costs were the least-cited barrier in all OECD countries (OECD, 2019b).

Strengthening participation in adult learning is high on the policy agenda. Belgium has defined a 2030 target of 60.9% of adults participating in learning in a year (against a 2016 rate of 39.4%). The Flemish government approved the action plan ‘Set the course for a learning Flanders’ in February 2022. It contains 47 priority actions, which aim to support the increase in adult participation towards the 2030 target of 60% and are planned to be financed partially by the European Social Fund Plus. It complements the ongoing actions to strengthen adult education in the context of the Flemish recovery plan (*Edusprong*) (Vlaanderen, 2021a). The Walloon recovery plan envisages several actions to reorganise and simplify the lifelong learning landscape and invest in improvement of the training infrastructure. In May 2022, a charter called ‘Orientation tout au long de la vie’, which sets out the overarching principles of cooperation, was signed between the different governments and players involved in lifelong learning in Wallonia and Brussels. In the context of the Go4Brussels strategy, the Brussels government and social partners work together to improve the quality and labour market relevance of the offer. All bodies have financial incentives to offer training courses in shortage professions, partly financed by REACT-EU resources in Flanders.

6. Higher education

Tertiary education attainment is high, but challenges exist in a highly publicly funded and largely open access system.

More than half of young people aged 25-34 (50.9%; EU-27 41.2%) held a tertiary education degree in 2021. More young people born outside the EU do so than a decade ago (38.1% vs EU 34.7%). The employment rate of recent tertiary graduates aged 20-34 (89.6%; EU: 84.9%) was high in 2021 and close to the level before the COVID-19 outbreak (89.7%). Challenges persist, in particular the decrease in funding per student, slow student progression rates and relatively low completion rates, together with insufficient support for research in university colleges. Belgian higher education systems would benefit from global long-term strategies to meet 21st century challenges.

The Higher Education Advancement Fund could inspire a comprehensive higher education strategy for Flanders.

The national recovery and resilience plan includes projects ('*Voorsprongfonds*') that develop lifelong learning, hybrid and digital education methods and flexible and future-proof training portfolios to increase the labour market relevance and society needs of higher education. BEfl has also committed to endorse a vision note for higher education in consultation with stakeholders by December 2023. This paper should define a new profile for higher education to promote excellence and lifelong learning. As other policy measure to improve student progression rates, from 2023/2024 students will need to succeed in all first year subjects (bachelor) before they can enter the third year.

The French Community is increasing funding for higher education, addressing student poverty and promoting academic success.

From 2022/2023, the reform of higher education ('landscape decree') will limit the time in which students must graduate, strengthen remediation for students encountering difficulties and provide additional funding for higher education institutions (HEIs) to help students succeed academically

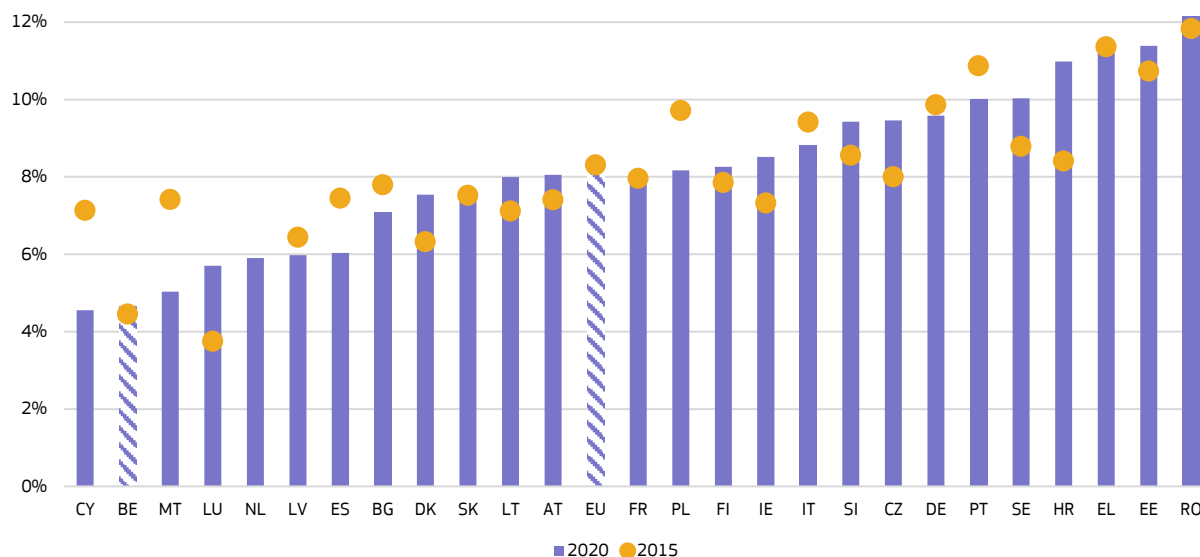
(FWB, 2021b). Measures were also taken to address student poverty in order to counter the negative impact of COVID-19 (European Commission, 2021). A centralised data exchange platform should also facilitate student administration, data collection and analysis, and evidence-informed policymaking ('E-Landscape decree'). Supported by the Recovery and Resilience Facility, BEfr is funding energy-saving infrastructure of universities, hybrid and digital equipment, and training in HEIs.

Belgium needs more science, technology, engineering and mathematics (STEM) graduates to master the digital and green transition.

In 2021, the level of basic digital skills of the population was around the EU average (54%), and two-thirds (66%; EU 69%) of 16- to 19-year-olds reported basic or above basic overall digital skills. The share of ICT higher education graduates is the second lowest in the EU (2.2%; EU: 3.9%). Overall, only 17.6% of tertiary graduates (EU: 24.9%) are STEM graduates, and their share is increasing slowly despite dedicated STEM action plans. Many more would be needed to meet the increasing labour market needs. The share of female STEM graduates (4.6%; EU: 8.1%) is particularly low compared to the EU (Figure 4). The draft STEM agenda 2030 in BEfl focuses on increasing intake in STEM courses and careers, on STEM specialists, and on strengthening STEM competencies in the wider society. Training of STEM teachers will get special attention. However, the Strategic Advisory Councils (SERV and VLOR) criticised the draft for lacking ambition, concrete action and measurable goals. BEfr intends to develop a STEAM⁷ action plan and make STEAM more attractive in higher education. The Belgian Women in Digital plan aims to provide a coherent strategy to boost coordination and synergies among the various initiatives taken to promote women in STEM/ICT at all sectoral and policy levels. All Belgian recovery plans focus heavily on digital education and skills at all levels of education.

⁷ STEM and arts.

Figure 4: Share of female STEM graduates over total tertiary graduates in 2015 and 2020 (%)



Source: Eurostat (UOE), [educ_uae_grad02].

7. References

Agentschap Hoger Onderwijs, Volwassenonderwijs, Kwalificaties en Studietoelagen (2021). *Hoger Onderwijs in cijfers – Academiejaar 2021-22*.
<https://publicaties.vlaanderen.be/view-file/47249>

APEDA (2022), *Enquête: l'impact de la pandémie sur les élèves présentant des troubles de l'apprentissage*.
<https://www.apeda.be/>

Belgian Government (2021), *Women in digital – National and intersectoral strategy 2021-2026*.
<https://economie.fgov.be/sites/default/files/Files/Online/woman-in-digital-national-and-intersectoral-strategy-2021-2026-nl.pdf>

Belgian Government (2022), *National reform programme 2022*.
https://ec.europa.eu/info/sites/default/files/pnr_2022_belgium_en.pdf

Bouchat, P., Nils, F., Colon, P-L, DE Sacco, P. (2020), *Les déterminants de l'attrait pour les études et métiers scientifiques et techniques chez les 12-25 ans*. Rapport de recherche – Novembre 2020. UCLouvain – Le FOREM
<https://www.leforem.be/content/dam/leforem/fr/documents/Rapport-STEM-11-2020.pdf>.

Cabinet du Secrétaire d'Etat à la Relance et aux Investissements Stratégiques, en charge de la Politique Scientifique (2021), *Plan national pour la reprise et la résilience Belgique*. [FR - Plan national pour la reprise et la résilience.pdf \(belgium.be\)](https://www.belgium.be/fr/plan-national-pour-la-reprise-et-la-resilience.pdf)

Cedefop (2016), *Opinion survey on VET*.
<https://www.cedefop.europa.eu/en/tools/opinion-survey-on-vet>

Council of the European Union (2022), *Council Recommendation on the 2022 National Reform Programme of Belgium and delivering a Council opinion on the 2022 Stability Programme of Belgium*.
[https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0901\(01\)&qid=1665059184971&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0901(01)&qid=1665059184971&from=EN)

De Witte, K. & Itebeke, K. (2021a), *Het lerarentekort als katalysator voor onderwijshervormingen*, Leuvense economische standpunten 2022/191, LEER.
<https://feb.kuleuven.be/research/les/pdf/LES%202022%20-%20191%20lerarentekort.pdf>

De Witte, K., Verhaest, D. and De Cort W. (2021b), *'Wie kiest voor duaal leren? Een analyse van de instroom in duaal leren en beleidsaanbevelingen aan de hand van gedragsinzichten'*, Studie in het kader van de VIONA-onderzoeksprogramma, KULeuven, Leuven.

https://www.steunpuntwerk.be/files/OverWerk_2022_1_23.pdf

Duroisin, N., Beauset, R., Simon, L., & Tanghe, C. (2021). *Pratiques enseignantes et vécus professionnels en période de crise sanitaire en Belgique francophone*. *Revue internationale d'éducation de Sèvres*, 86(1), 27–30. <https://doi.org/10.4000/ries.10304>

European Commission (2019), *Country Report Belgium 2019*, Staff Working Document (2019) 1000 final, European Commission, Brussels. [2019-european-semester-country-report-belgium_en.pdf](https://ec.europa.eu/education-semester-country-report-belgium_en.pdf) (europa.eu)

European Commission, Directorate-General for Education, Youth, Sport and Culture (2021), *Education and training monitor 2021 : education and well-being*, Publications Office of the European Union, 2021. <https://data.europa.eu/doi/10.2766/743550>

European Commission (2022), *Reform Support - An effective induction system for novice teachers in Belgium – Flanders*. https://reform-support.ec.europa.eu/effective-induction-system-novice-teachers-belgium-flanders_en

European Commission (2022), '2022 Country Report – Belgium', Staff Working Document (2022) 602 final, European Commission, Brussels. https://ec.europa.eu/info/sites/default/files/2022-european-semester-country-report-belgium_en.pdf

European Commission (2022), *Digital Economy and Society Index (DESI) 2022 – Belgium*. <https://digital-strategy.ec.europa.eu/en/policies/countries-digitisation-performance>

Commission/EACEA/Eurydice (2019), *Eurydice Brief: Key Data on Early Childhood Education and Care in Europe*. Luxembourg: Publications Office of the European Union. <https://op.europa.eu/en/publication-detail/-/publication/fd227cc1-ddac-11e9-9c4e-01aa75ed71a1/language-en/format-PDF/source-105534509>

European Education and Culture Executive Agency, Eurydice, Horváth, A., Sigalas, E., Krémó, A., (2020), *Equity in school education in Europe : structures, policies and student performance*, Parveva, T.(editor), Publications Office, 2020, <https://data.europa.eu/doi/10.2797/658266>

European Education and Culture Executive Agency, Eurydice, Horváth, A., Krémó, A., Sigalas, E. (2020a), *Equity in school education in Europe : structures, policies and student performance*, Teodora Parveva, (editor), Publications Office of the European Union, 2020, <https://data.europa.eu/doi/10.2797/286306>

European Commission/EACEA/Eurydice (2021). *Structural Indicators for Monitoring Education and Training Systems in Europe – 2021: Overview of major reforms since 2015*. Eurydice Report. Luxembourg: Publications Office of the European Union. https://eacea.ec.europa.eu/national-policies/eurydice/sites/default/files/structural_indicators_2021.pdf

European Commission, European Education and Culture Executive Agency (2022), *Towards equity and inclusion in higher education in Europe*. <https://data.europa.eu/doi/10.2797/046055>

Fédération Wallonie-Bruxelles, AGE (2021a), *Les indicateurs de l'enseignement 2021*. Enseignement.be - Les indicateurs de l'enseignement 2021 <http://www.enseignement.be/index.php?page=25527&navi=3055>

Fédération Wallonie-Bruxelles, Parlement de la Communauté française (2021b), *Décret du 2 décembre 2021 modifiant le décret du 7 novembre 2013 définissant le paysage de l'enseignement supérieur et l'organisation académique des études et d'autres législations en matière d'enseignement supérieur*. http://www.gallilex.cfwb.be/fr/leg_res_01.php?ncda=5036

Fédération Wallonie-Bruxelles, Parlement de la Communauté française (2021), *Décret modifiant le décret du 7 février 2019 définissant la formation initiale des enseignants*. https://www.gallilex.cfwb.be/fr/leg_res_01.php?ncda=50119&referant=l01&bck_ncda=46261&bck_referant=l01

Fédération Wallonie-Bruxelles, AGE (2022), *Pacte pour un Enseignement d'excellence – Manuel pour les partenaires (Information et communication)*. <http://enseignement.be/index.php?page=28595&navi=4919>

Fédération Wallonie-Bruxelles (2022), *Epreuve externe certificative – CEB*. <http://www.enseignement.be/index.php?page=25527&navi=3055>

Fédération Wallonie-Bruxelles (2022), *Les référentiels du tronc commun*. <http://www.enseignement.be/index.php?page=28597&navi=4920>

Fédération Wallonie-Bruxelles, -Parlement de la Communauté française (2022a), *Commission de l'Education, 18 juillet 2022. Question 1.6*. [100000020d204b](https://www.gallilex.cfwb.be/fr/leg_res_01.php?ncda=100000020d204b) (pfbw.be)

Fédération Wallonie-Bruxelles, Parlement de la Communauté française (2022), *Projet de Décret du 19* November 2022

juillet 2022 relatif au dispositif de l'accompagnement personnalisé et portant diverses mesures accompagnant la mise en œuvre du Tronc commun, et octroyant des moyens aux écoles de l'enseignement primaire pour apporter un soutien pédagogique et éducatif ciblé et renforcé aux élèves. [100000020d203b](https://doi.org/10.00000020d203b) (pfbw.be)

Fédération Wallonie-Bruxelles (2022), *Projet de décret instituant la plateforme informatisée et centralisée d'échange de données « E-Paysage ». Troisième lecture. Séance du 15 septembre | Gouvernement de la Fédération Wallonie-Bruxelles. 20220915_CP GFWB.pdf* (cfwb.be)

Gambi, L. De Witte K. (2021). *The resilience of school outcomes after the COVID-19 pandemic. Standardised test scores and inequality one year after long term school closures*, KU Leuven, Discussion paper series DPS 21.12. [dps 2112.pdf](https://www.kuleuven.be/dps/2112.pdf) (kuleuven.be)

Grondwettelijk Hof (2022), *Arrest nr. 82/2022 van 16 juni 2022. Beroepen to vernietiging - Decreet van de Vlaamse Gemeenschap van 12 februari 2021 « betreffende de onderwijsdoelen voor de tweede en de derde graad van het secundair onderwijs en diverse andere verwante maatregelen » (art. 2, 3 en 4, alsook de bijlagen 1 tot 7)*. <https://www.const-court.be/public/n/2022/2022-082n.pdf>

Joskin, A. Bureau fédéral du Plan (2022), *Baisse du niveau scolaire : le coût caché de la pandémie de Covid-19, Article n°12, Education*. https://www.plan.be/uploaded/documents/202206070754200.PUB_ART_012_EDUC_12646_F.pdf

Lafontaine, D. et al. (2018), *Pirls 2016 – Rapport final. ULiège*. <https://events.uliege.be/pirls-fwb/>

Maldonado, J., De Witte K. (2021), *The effect of school closures on standardised student test outcomes*, British Educational Research Journal. <https://bera-journals.onlinelibrary.wiley.com/doi/10.1002/berj.3754>

NextGenerationBelgium (2022), <https://nextgenbelgium.be/fr/projets>

Nicaise I., Franck E. (2019), *Vijftien jaar Gelijke Onderwijskansenbeleid: een balans. Franck-Nicaise trends in onderwijsongelijkheid samenvatting.pdf* (vrtnws.be)

OECD (2019a), 'Belgium', in *Education at a Glance 2019: OECD Indicators*, OECD Publishing, Paris. <https://doi.org/10.1787/26e52afb-en>

OECD (2019b), *OECD Skills Strategy Flanders: Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264309791-en>
2022 Education and Training Monitor – Country analysis

OECD (2021), *Resourcing Higher Education in the Flemish Community of Belgium*, Higher Education, OECD Publishing, Paris, <https://doi.org/10.1787/3f0248ad-en>.

OECD (2022), *Mending the Education Divide: Getting Strong Teachers to the Schools That Need Them Most*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/92b75874-en>

Placklé, I., Könings, K. D., Jacquet, W., Libotton, A., van Merriënboer, J. J. & Engels, N. (2022). *Improving student achievement through professional cultures of teaching in Flanders*. *European Journal of Education*, 57, 325–341. <https://doi.org/10.1111/ejed.12504>

Région de Bruxelles-capitale (2020), *Plan de relance du gouvernement bruxellois*. <https://cbcs.be/Plan-de-relance-du-Gouvernement-bruxellois/>

Sciences.be (2022), *Le Printemps des Sciences Mars 2022*. <https://www.sciences.be/evenements/pds-presse/>

SERV (2021). *Advies – STEM-Agenda 2030*. https://serv.be/sites/default/files/documenten/SERV_20210920_STEMagenda2030_ADV.pdf

SERV (2022), *Rapport Burn-out: analyse van de arbeidssituatie van werknemers en zelfstandige ondernemers met burn-outsymptomen*. https://www.serv.be/sites/default/files/documenten/SERV_Raad_20220523_burnout_StIA_RAP.pdf

Statistiek Vlaanderen (2022), *Schoolse vorderingen*. <https://www.vlaanderen.be/statistiek-vlaanderen/onderwijs-en-vorming/schoolse-vorderingen>

Steunpunt toetsontwikkeling en peilingen (STEP) (2022), *Peiling Wiskunde in het basisonderwijs 2021*. [WIS_Ba0_2021_Brochure-2.pdf](https://www.wis-ba0_2021_Brochure-2.pdf) (peilingsonderzoek.be)

Steunpunt toetsontwikkeling en peilingen (STEP) (2022), *Peiling Project Algemene Vakken (PAV) in 3^{de} graad BSO*. https://peilingsonderzoek.be/wp-content/uploads/2019/01/BrochurePAV_DEF.pdf

Steunpunt Welzijn, Volksgezondheid en Gezin (WVG) (2019), *Rapport 25 - Het gebruik van en de behoefte aan kinderopvang voor baby's en peuters jonger dan 3 jaar in het Vlaamse Gewest*. <https://www.opgroeien.be/sites/default/files/documents/gebruik-en-behoefte-aan-kinderopvang-samenvatting-juli-2019.pdf>

UNamur (2022), Consulted on 6 June 2022, *Transition entre le secondaire et l'université: l'UNamur constate une forte disparité dans les compétences acquises par les nouveaux étudiants*. <https://nouvelles.unamur.be/upnews.2022-03-29.7931712239/view>

Verhaest, D., Baert, S., De Rick, K., De Witte, K., Laurijssen, I., Smet, M. and Tobback, I. (2019), *'Duaal leren in Vlaanderen: Kansen en gevaren'*, Steunpunt Onderwijsonderzoek, UGent, Gent.

Vlaams Parlement (2021), *Actualiteitsdebat over the lerarentekort in Vlaanderen, Report plenary meeting 20 oktober 2021.*

<https://www.vlaamsparlement.be/en/parlementair-werk/plenaire-vergaderingen/1561005/verslag/1565350>

Vlaamse Regering (2021). *Visienota Voorsprongfonds Hoger Onderwijs (Concept paper on the Advancement Fund for Higher Education)*, Available at <https://docs.vlaamsparlement.be/pfile?id=1672279>

Vlaanderen (2020a), *Onderwijsonderzoeken – SONO 1.3 Gelijke onderwijskansenbeleid: verklarende inzichten.* <https://data-onderwijs.vlaanderen.be/onderwijsonderzoek/project/423>

Vlaanderen (2020), *Relanceplan Vlaamse Regering – Vlaamse veerkracht.* <https://www.vlaanderen.be/publicaties/relanceplan-vlaamse-regering-vlaamse-veerkracht>

Vlaanderen (2021a), *Edusprong: een boost voor volwassenenonderwijs.*

<https://onderwijs.vlaanderen.be/nl/relanceplan-vlaamse-veerkracht/edusprong-een-boost-voor-volwassenenonderwijs>

Vlaanderen (2021), *STEM-AGENDA 2030 – STEM-competenties voor een toekomst- en missiegericht beleid.*

https://assets.vlaanderen.be/image/upload/v1624978438/STEM_agenda_2030_pjxpnw.pdf

Vlaanderen (2021), *Nota aan de Vlaamse Regering: Conceptnota Herwaardering van de leraar;* https://api.katholiekonderwijs.vlaanderen/content/830c250e-cad2-4b2b-ae98-e4c643d63fd7/attachments/21_12_03_Conceptnota_Herwaardering_Leraar.pdf

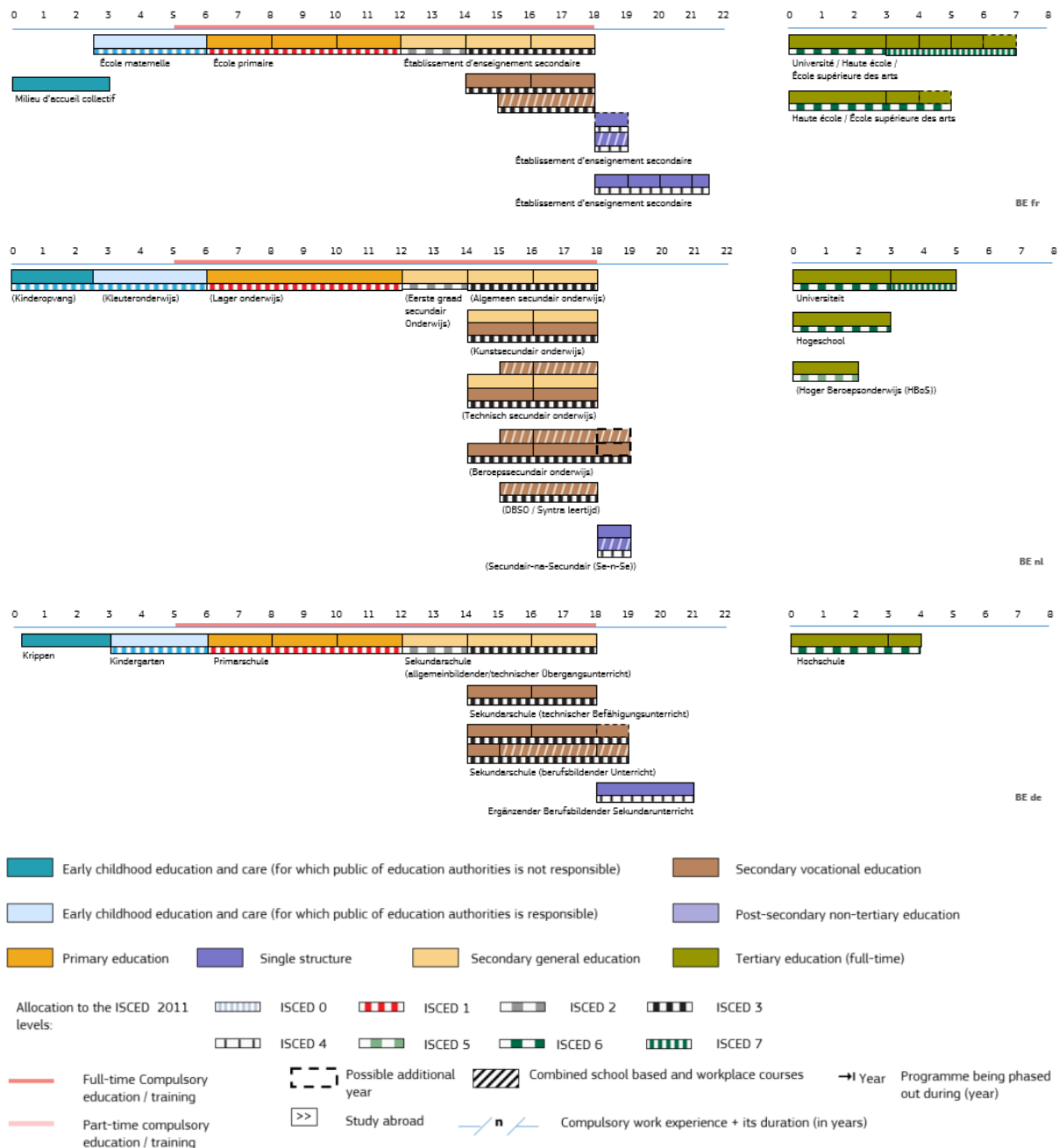
VLOR (2021), *Naar een nieuw STEM-beleid – Advies over de STEM-agenda 2030.* <https://www.vlor.be/adviezen/naar-een-nieuw-stem-beleid>

Wallonie (2021), *Plan de relance de la Wallonie.* <https://www.wallonie.be/fr/plans-wallons/plan-de-relance-de-la-wallonie>

Annex I: Key indicators sources

Indicator	Source
Participation in early childhood education	Eurostat (UOE), educ_uae_enra21
Low achieving eighth-graders in digital skills	IEA, ICILS
Low achieving 15-year-olds in reading, maths and science	OECD (PISA)
Early leavers from education and training	Main data: Eurostat (LFS), edat_lfse_14 Data by country of birth: Eurostat (LFS), edat_lfse_02
Exposure of VET graduates to work based learning	Eurostat (LFS), edat_lfs_9919
Tertiary educational attainment	Main data: Eurostat (LFS), edat_lfse_03 Data by country of birth: Eurostat (LFS), edat_lfse_9912
Participation of adults in learning	Data for this EU-level target is not available. Data collection starts in 2022. Source: EU LFS.
Equity indicator	European Commission (Joint Research Centre) calculations based on OECD's PISA 2018 data
Upper secondary level attainment	Eurostat (LFS), edat_lfse_03
Public expenditure on education as a percentage of GDP	Eurostat (COFOG), gov_10a_exp
Public expenditure on education as a share of the total general government expenditure	Eurostat (COFOG), gov_10a_exp

Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2022. The Structure of the European Education Systems 2022/2023: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union. Notes: Krippen starts from 3 months.

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