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**COMMISSION STAFF WORKING DOCUMENT**

**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**

AUSTRIA



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/>



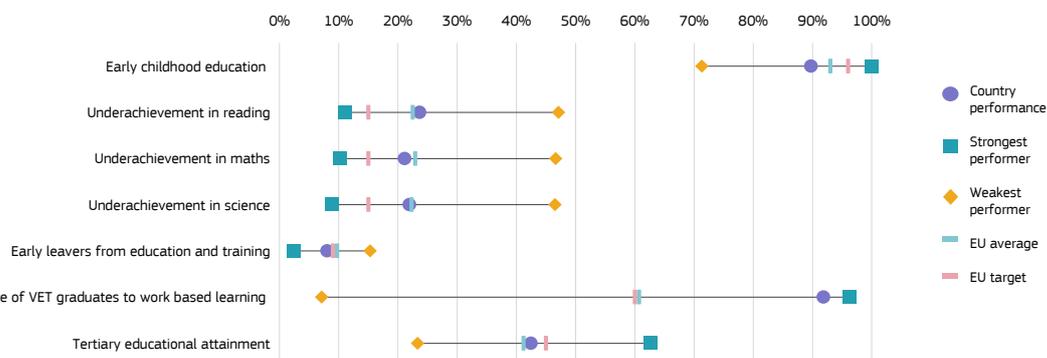
# 1. Key indicators

**Figure 1: Key indicators overview**

			Austria		EU	
			2011	2021	2011	2021
<b>EU-level targets</b>			<b>2030 target</b>			
Participation in early childhood education (from age 3 to starting age of compulsory primary education)	≥ 96 %		86.5% <sup>13</sup>	89.7% <sup>20</sup>	91.8% <sup>13</sup>	93.0% <sup>20</sup>
Low achieving eighth-graders in digital skills	< 15%		:	:	:	:
Low achieving 15-year-olds in:	Reading	< 15%	19.5% <sup>12</sup>	23.6% <sup>18</sup>	19.7% <sup>09</sup>	22.5% <sup>18</sup>
	Maths	< 15%	18.7% <sup>12</sup>	21.1% <sup>18</sup>	22.7% <sup>09</sup>	22.9% <sup>18</sup>
	Science	< 15%	15.8% <sup>12</sup>	21.9% <sup>18</sup>	18.2% <sup>09</sup>	22.3% <sup>18</sup>
Early leavers from education and training (age 18-24)	< 9 %		8.5%	8.0% <sup>b</sup>	13.2%	9.7% <sup>b</sup>
Exposure of VET graduates to work-based learning	≥ 60 % (2025)		:	91.8%	:	60.7%
Tertiary educational attainment (age 25-34)	≥ 45 %		20.9%	42.4% <sup>b</sup>	33.0%	41.2% <sup>b</sup>
Participation of adults in learning (age 25-64)	≥ 47 % (2025)		:	:	:	:
<b>Other contextual indicators</b>						
Equity indicator (percentage points)			:	19.2 <sup>18</sup>	:	19.30 <sup>18</sup>
Early leavers from education and training (age 18-24)	Native		6.4%	5.6% <sup>b</sup>	11.9%	8.5% <sup>b</sup>
	EU-born		:	21.0% <sup>b</sup>	25.3%	21.4% <sup>b</sup>
	Non EU-born		26.0%	19.1% <sup>b</sup>	31.4%	21.6% <sup>b</sup>
Upper secondary level attainment (age 20-24, ISCED 3-8)			85.2%	86.2% <sup>b</sup>	79.6%	84.6% <sup>b</sup>
Tertiary educational attainment (age 25-34)	Native		21.2%	43.0% <sup>b</sup>	34.3%	42.1% <sup>b</sup>
	EU-born		27.6%	48.6% <sup>b</sup>	28.8%	40.7% <sup>b</sup>
	Non EU-born		14.8%	34.5% <sup>b</sup>	23.4%	34.7% <sup>b</sup>
Education investment	Public expenditure on education as a percentage of GDP		5.0%	5.1% <sup>20</sup>	4.9%	5.0% <sup>20</sup>
	Public expenditure on education as a share of the total general government expenditure		9.8%	8.9% <sup>20</sup>	10.0%	9.4% <sup>20</sup>

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

### Equity challenges start at an early age.

Participation in early childhood education and care is below the EU average for children both below and above 3 years of age (Section 3); attendance by disadvantaged children is even lower. Looking at children older than 3 years, the participation gap between children at risk of poverty or social exclusion and their more privileged peers was 19 percentage points (pps) in 2020, placing Austria among the five most challenged Member States<sup>1</sup>.

**Ensuring access to high-quality early childhood education and care (ECEC), including appropriate language support, is particularly important for children with a disadvantaged and migrant background.** A crucial element to raise quality is early language

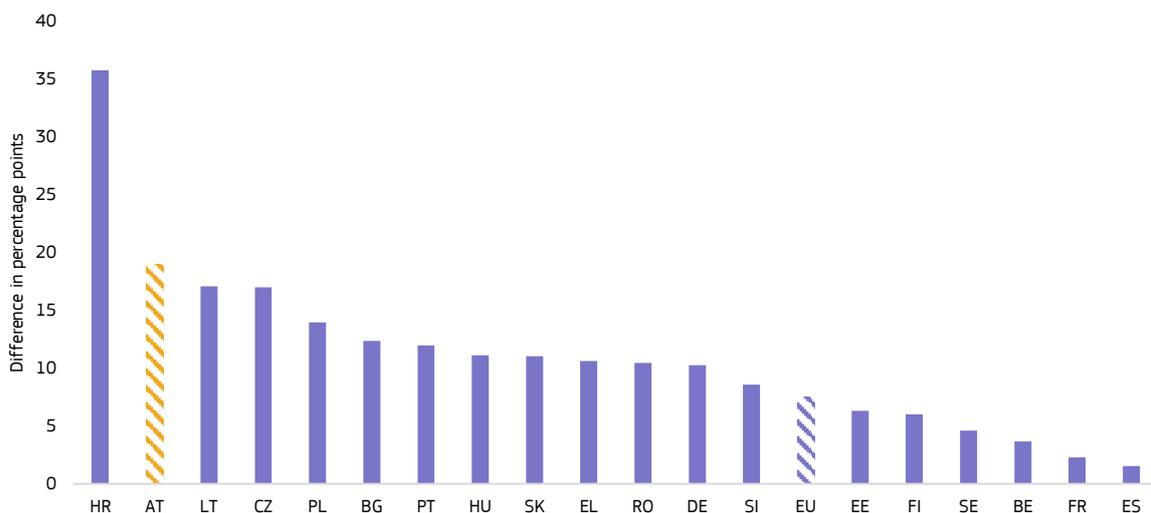
support for children who do not speak German at home or those lagging behind in language development. Thus it can also benefit 16% of children with German as first language<sup>2</sup>. Early testing of language capabilities eases subsequent support to increase language competence in German. In 2021, the Austrian Court of Auditors reviewed ECEC language support, which has been continuously increasing in Austria. Looking at financing agreements between the federal and regional levels, it observed that implementation practices beyond the use of a federal standardised language test are not harmonised across the different regions and identified a suboptimal use of federal purpose grants to achieve quality improvements

**In 2018, Austria introduced separate language classes in schools for pupils that do not have sufficient German language**

<sup>1</sup> Participation of children in formal childcare or education by age group and duration by AROPE, 2020.

<sup>2</sup> Austrian Court of Auditors (2021) [https://www.rechnungshof.gv.at/rh/home/home\\_1/fragen-medien/Presseinfo\\_28.5.barrierefrei.pdf](https://www.rechnungshof.gv.at/rh/home/home_1/fragen-medien/Presseinfo_28.5.barrierefrei.pdf).

**Figure 3: Gap in participation of children in formal childcare or education between 3 and minimum mandatory school age by AROPE, 2020**



*Source:* Eurostat (EUSILC), special extraction. *Note:* Data on participation of children at risk of poverty or social exclusion in formal childcare or education has low reliability. Data with low reliability is not presented in the chart. At risk of poverty or social exclusion, abbreviated as AROPE, corresponds to the sum of individuals who are either at risk of poverty, or severely materially and socially deprived, or living in a household with a very low work intensity. People are included only once even if they are in more than one of the situations mentioned above. The AROPE rate is the share of the total population that is at risk of poverty or social exclusion

**competence when entering school.** These pupils can improve their German in separate language classes. These classes can last up to 2 years and the children are registered as extracurricular pupils. Experience shows that, after three semesters, only about half of the children can move to regular classes; 37% need at least 4 years to make this step. The effectiveness of the measure is partially questioned in the Austrian parliament and by several experts and stakeholders, including the Austrian Chamber of Labour. A key argument is that the separation of pupils may delay their learning, both in language acquisition and in specific subjects, may isolate them, and potentially may have a major negative impact on their future education career, social development and education outcomes.

**The Austrian education report confirms the presence of links between socio-economic background, the language spoken at home, school choice and early school leaving.**

Education outcomes of children are influenced by the educational attainment of their parents. Austria offers pupils at age 10 two different education pathways: (1) non-academic compulsory secondary schools (Mittelschule); and (2) academic schools preparing for higher education (Gymnasium). According to the 2021 education report, the choice remains heavily influenced by socio-economic and educational family background. This is also confirmed by international research on the impact of early tracking on educational inequalities (European Commission/EACEA/Eurydice, 2020). The OECD identifies significant performance gaps between 15-year-olds who attend a non-academic upper secondary school compared with those in an academic school. This adds to the gap between those with high or low socio-economic status. Austria also lags behind in social mobility (OECD 2020a). The socio-economic and educational background is especially differentiated among parents with a migrant background, for whom it is overall lower compared with Austrian parents. For instance, in primary school, 43% of pupils with a Turkish migration background have parents with only compulsory education compared with only 3% of the Austrian-born. In contrast, half of the

parents of pupils with a German migration background have a tertiary degree, which is even higher than for Austrian pupils (43%). The 2021 Austrian education report identifies an increased risk of educational disadvantage among most migrant subgroups. Those who do not speak German at home attend, to a greater extent, schools that do not lead to an upper secondary academic degree<sup>3</sup>. Especially in metropolitan areas, schools tend to be separated according to first language and the social background of the families of their pupils (Education report 2021, OECD PISA 2018 – Volume\_II). Foreign-born 18-24-year-olds leave education prematurely more than three times more often compared with the Austrian-born (20% vs 5.6%)<sup>4</sup>.

**Schools report a lack of necessary additional resources to adequately deal with the challenge of increased diversity.**

The 2018 federal general decree "Reflective Gender Education and Equality" provides key guidance on diversity<sup>5</sup>. The pilot project '100 schools and 1 000 chances' identifies what additional required resources 100 particular challenged schools need (European Commission 2021). Although this test phase already covers a certain share (of the neediest schools (Radinger et al. 2018), a broader initiative is still required to address the issue. In comparison with the EU, schools in Austria receive less administrative and technical support. The government has recently announced a general increase in non-teaching staff in schools<sup>6</sup>, which could allow teachers and head teachers to concentrate more on teaching.

**More young people from socio-economic disadvantaged backgrounds enter vocational upper secondary education.** Young people aged

<sup>3</sup> According to the Integration Report 2021 (p 31), 33% are in new middle schools and in professional middle schools, 36% in polytechnic schools preparing for dual training, and 40% in special schools.

<sup>4</sup> Eurostat, edat\_lfse\_02.

<sup>5</sup> Press conference of Minister (25.5.2022).

<sup>6</sup> [https://rundschreiben.bmbwf.gv.at/download/2018\\_21\\_en.pdf](https://rundschreiben.bmbwf.gv.at/download/2018_21_en.pdf)

10 from weaker socio-economic backgrounds more often choose the non-academic track in compulsory school and upper secondary schools not giving access to higher education. Low-skilled young people without lower secondary education enter and finish dual training only with difficulties (Steiner, 2015). This is even more the case for those with a migrant background; in addition, they only enter the labour market with even more difficulties once they finish (OECD 2021).

#### **Teacher competence differs between advantaged and disadvantaged schools.**

There are indications that the best-qualified teachers are not engaged in the most challenging learning environments but that this task is left rather to young and less-experienced teachers (Weber, 2019). OECD observes better support in socio-economically advantaged schools than in disadvantaged ones. Experienced teachers are over-represented in rural schools and in urban schools that show fewer socio-economic complexities (OECD 2022). Pupils who would need more attention and stronger support therefore risk not receiving it.

#### **Access to tertiary education remains widely influenced by the socio-economic status of parents; social measures have so far shown little effect.**

In 2019/2020, young people with parents that have upper secondary level education were 2.47 times more likely to take up tertiary education compared with those without. This recruitment quota has hardly improved during the last 5 years, remaining far below the national target value for 2025<sup>7</sup>. Young people with a migration background take up tertiary education half as often as those born in Austria. About one fifth of all students receive grants (Studienbeihilfe)<sup>8</sup>. In 2017, Austria introduced a national strategy on the social dimension in higher education and student support, with the aim to improve participation of, and support for, less-advantaged young people in tertiary education; so

<sup>7</sup> <https://awblog.at/soziale-dimension-an-den-hochschulen/>

<sup>8</sup> Studierenden\_Sozialerhebung\_2019\_auf\_einen\_Blick, IHS update 2021

far, there has been only limited progress<sup>9</sup>. Students with non-traditional access to higher education barely increased their participation.

### **3. Early childhood education and care**

**Participation in early childhood education and care in Austria is below the EU average and the EU targets.** Between the age of 3 and the age of compulsory schooling, participation is just below 90%, and has been more or less stable since 2017<sup>10</sup>. This is 3 pps lower than the EU average and 6 pps below the 2030 EU-level target. For under-3-year-olds, participation at 21.1% in 2020 remains far below the 33% Barcelona target, and its share has hardly increased since 2018<sup>11</sup>. About two thirds of under 3-year-olds attend for a duration below 29 hours<sup>12</sup>. This is in line with the EU average. Opening hours in Austria are challenging in situations where both parents work or even work full-time. Austria is now making efforts to better streamline its ECEC system (European Commission 2020).

#### **The federal level is increasing funding for early childhood education and care, a regional competence in Austria, to improve capacity and quality.**

The 2009 cross-regional education framework plan<sup>13</sup> sets basic requirements while allowing differences in implementation (Breit, 2018). There are also different regional regulations for external and internal evaluation (European Commission 2019). In May 2022, the federal government concluded an agreement with the federal states (Länder) covering the period 2022/2023 to 2026/2027. The annual federal budget contribution increased by

<sup>9</sup> Ministry of Education, Science and Research (8730/AB) from 4.2.2022 in response ri 8897/J (XXVII.GP).

<sup>10</sup> Eurostat, [educ\_uoe\_enra21].

<sup>11</sup> Eurostat, [ilc\_caindformal]. National statistics, however, show higher participation rates.

<sup>12</sup> Eurostat, [ilc\_caindformal].

<sup>13</sup> 'Bundesübergreifender BildungsRahmenPlan'.

40% to EUR 200 million and is annually matched by EUR 63 million from the regions. Key targets are a continued compulsory participation of 5-year-olds, extension of the offer of school places, and early language promotion (30% of funds instead of 10%). The share of places for under-3-year-olds is to be increased by 3 pps to potentially reach the Barcelona target of 33%. At the same time, the agreement aims at raising the share of places compatible with full-time employment of parents from 64% to 70% for under-3-year-olds, and from 51.8% to 57.8% for 3-to-6-year-olds. While the agreement offers opportunities for quality improvements, like reducing child-staff ratios albeit with a time limit, it still falls short of establishing compulsory quality standards; this is due to opposition from the regions. Only standards for staff dealing with language support have been agreed. However, to achieve a good-quality ECEC system in Austria, its quality and scope needs to be improved, for instance through: (1) a formal and compulsory ECEC quality framework; and (2) improved staff competence and working conditions.

**It is increasingly difficult to recruit sufficient staff in early childhood education and care.** Austria remains one of only six EU countries that train ECEC educators below bachelor level (European Commission 2019). As a result, very few educators have a bachelor's degree. The government supports the objective that ECEC group leading pedagogues increasingly obtain a bachelor's degree through a targeted higher education programme with 60 credits under the European Credit Transfer and Accumulation System<sup>14</sup>. Starting salaries for ECEC staff are just above the OECD average and hardly progress during a career. They are below comparable countries like the Netherlands, Sweden or Denmark (OECD 2019c). To attract more young people to the profession, it will be necessary to both invest in better working conditions and improve the image of the profession. A recent study calculates that, overall, the country would need an additional 860

managers, 2 450 qualified staff and 2 000 less-qualified staff by 2025 to increase the quantity and quality of provision (Neuwirth 2021). The Commission supports the ongoing Austrian project *Improving staff working conditions for better quality in early childhood education and care in Austria*, contributing to a nationwide strategy and campaign to raise the profile of the profession to reduce shortages of qualified staff.

## 4. School education

**Demographic change is reflected in the composition of the Austrian school population.** At country level, the share of the population with a migration background is 25%, while in Vienna it is 48%. The number of pupils in the Austrian compulsory education system is expected to increase by 5% up to 2030 in the age group 6 to 9 years and by 7% for 10 to 14 years. This is largely due to migration. In 2020/2021, 30.9% of primary school pupils did not use German as their conversational language. In 2019/2020, the highest shares of pupils with a migrant background can be found in Vienna with 32.3% overall, in non-academic compulsory schools (46.7%, professional lower secondary level) and in academic secondary schools (23%, Gymnasium). Extracurricular pupils are pupils at compulsory school age who so far lack the capacity to be fully integrated into schooling, be it for lack of sufficient linguistic or learning capacity. While their share in all schools in Austria amounts to 3%, it is the highest in primary schools, at 7.6%, and doubles in Vienna to 14.1%.

**Early leaving from education and training remains below the EU average, but it has not improved lately and young people with migrant backgrounds do much worse.** The share of 18-24-year-olds in Austria that leave education and training early is 1.7 pps below the EU average, but has started to increase slowly again since 2016. While it decreased in cities by about one percentage point in both 2020 and

<sup>14</sup> European Credit Transfer and Accumulation System.

2021, it remained more stable in rural areas<sup>15</sup>. Foreign-born 18-24-year-olds continue to leave education early more than three times more often compared with those born in Austria (20% vs 5.6%)<sup>16</sup>. While in Austria a higher share of early leavers is employed (4.2% compared with 3.8% who are unemployed), the relationship in the EU is inversed with 4.1% employed and 5.6% not employed. This could suggest a stronger labour market pull factor in Austria.

**With an ageing teacher workforce, teacher shortages may emerge.** About one third of all teachers in Austria are aged 55 or more, around the EU average of 31.7%<sup>17</sup>. A retirement wave is expected within 10 years. In the wake of the COVID-19 pandemic, teachers received more public attention, as they suffered more from stress; some even decided to leave the profession. Temporary sick leave due to the pandemic resulted in an immediate need to replace sick

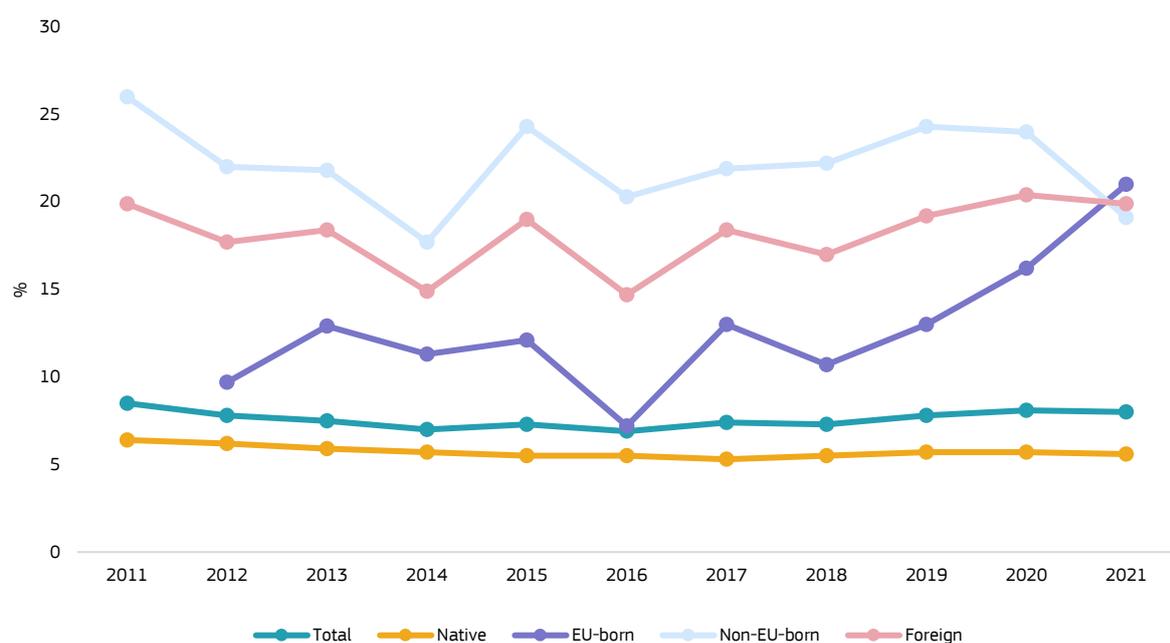
teachers. At the same time, the duration of initial teacher training was increased during the last reform. Therefore the Ministry of Education, Science and Research and several regions have identified actual teacher shortages. The government takes measures to improve the attractiveness of the teacher profession and to facilitate the training and integration of lateral entrants into the education sector. While financial conditions for the latter have improved, regular teachers do not benefit from a similar initiative. The high average age of teachers might also have a negative impact on improving their digital skills. Older teachers might have more ICT problems and generally Austrian teachers were particularly unsure about their ability to use ICT in teaching prior to the pandemic (OECD 2020a and European Commission 2021). Improving teaching skills is important to further improve the digital skills of students and allow Austria to catch up with the best-performing countries. Currently, 75% of 16–19-year-olds have basic or above basic overall digital skills, 6 pps above the EU average; there is room to catch up to the best. The "Digital School" initiative (8-point plan) strengthens measures to improve teachers' digital skills.

<sup>15</sup> Eurostat, edat\_lfse\_30.

<sup>16</sup> Eurostat, ledat\_lfse\_02].

<sup>17</sup> 31.7%; Eurostat, [educ\_uoe\_perp01].

**Figure 4: Early leavers from education and training in Austria by country of birth, 2011–2021 (%)**



Source: Eurostat (LFS), edat\_lfse\_02.

**Austria set up a large-scale compensation programme after the COVID-19 pandemic gave rise to greater distance learning.**

The Austrian government designed such a programme in 2020 and in 2021, also focusing on the most vulnerable pupils. EUR 200 million have been mobilised for this with the support of REACT-EU and the Recovery and Resilience Facility. The mobilised support is equivalent to 4 500 additional teachers in the summer term 2021. Until February 2022, this delivered 3 million additional (single) support hours, with 10% earmarked for non-regular pupils (Education report 2021).

**Disadvantaged pupils are often confronted with digital education of lesser quality.**

OECD (2022), *Mending the Education Divide*, identifies a clear pre-pandemic digital education divide in Austria. Teachers in schools with 10% or less young from disadvantaged backgrounds tend to receive comparatively stronger support for their work and are more confident. Thus, pupils from disadvantaged backgrounds, who tended to have less access to digital learning at home, are also likely to have had less access to teachers with high capacity in ICT teaching at school (OECD 2022). Providing digital end devices to all students in fifth grade combined with a new compulsory subject of digital basic education in 5<sup>th</sup> to 8<sup>th</sup> grade could help reducing disadvantage.

## 5. Vocational education and training and adult learning

**Austria continues to have a comparatively attractive and successful vocational education and training system.** Around 75% of all students (after compulsory school) opt for a vocational programme<sup>18</sup>. Despite the unbalanced socio-economic background of students, this

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<sup>18</sup> According to Eurostat data, 69% of pupils in upper secondary education were enrolled in vocational programmes in 2020. Eurostat, educ\_uoe\_ens05.

approach facilitates their entry into jobs, and therefore contributes to keeping the youth unemployment rate relatively low. The large majority (91.8%) of recent VET graduates had experienced work-based learning during their training<sup>19</sup>. VET learners in Austria have good labour market prospects; in 2021, 86% of recent graduates were in employment<sup>20</sup>. In addition, higher vocational education is gaining in importance. Establishing a BA Professional and an MA Professional improves movement between secondary VET and tertiary education.

**Austria's 2022 VET National Implementation Programme modernises training.**

It sets out some 30 measures on changing skills, green transition, digitisation, social dimension, internationalisation, and institutional change, responding to the Council Recommendation on Vocational Education and Training and the Osnabrück Declaration of 2020. Measures include, as one example, a screening of the entire apprenticeship landscape along current megatrends, such as climate change or digitisation. Sustainability will become a cross-cutting issue in all training regulations for the dual system, with new apprenticeships in the field of green skills and the creation of VET competence centres for green skills. An inclusive certification system for digital skills will be set up, while creating digital learning paths for apprentices. Guidance on career orientation, including on gender related questions, aims at enhancing the attractiveness of vocational education and training. Mobility of apprentices will be encouraged, while strengthening the internationalisation of vocational schools, including the promotion of participation in international skills competitions.

**The share of Austrian adults (aged 25-64) having participated in learning over a previous 4-week period is above the EU average** (14.6% vs 10.8% in 2021). After a sharp decline in 2020, these latest Austrian figures

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<sup>19</sup> Eurostat, edat\_lfs\_9919.

<sup>20</sup> Eurostat, [edat\_lfse\_24].

rebounded to pre-pandemic levels. The share of the Austrian population with at least basic digital skills, at 63%, is also well above the EU average of 54%<sup>21</sup>.

**Overall, Austria has a very good adult learning system with an ambitious 2030 national target, but skills shortages and inequalities do exist.** A labour market recovery causes skills shortages, resulting in 8 out of 10 Austrian companies not investing due to a lack of skilled staff. The labour market potential of women, the low-skilled, older workers, and people with a migrant background remains underused – pointing to a need for enhanced upskilling and reskilling. Austria has set a 2030 national target of 62% of adults in training every year (a further increase over the already high 55.3% in 2016). However, as the least-qualified adults benefit from continued education about three times less often<sup>22</sup> than more-educated adults, the qualification gap tends to persist. There is therefore scope for further strengthening the level of basic skills for disadvantaged groups, particularly people with a migrant background.

**Austria continues to provide a broad range of active labour market policy measures and especially reaches out to people with a migration background.** Apart from employment support, these measures have a strong focus on qualifications, including work foundations, education and training subsidies, intensive training for skilled workers, qualification subsidies, skilled worker scholarships, and counselling services. The Adult Education Initiative (*Initiative Erwachsenenbildung*) aims to ease entry to the labour market, particularly reaching out to people with a migration background. Its two programme parts, basic education and compulsory school leaving certificate, are complemented by other

projects, such as Rethinking Basic Education, supporting people in rural areas.

**The ‘promoting reskilling and upskilling’ measures of the recovery and resilience plan** also address these challenges by supporting training for the low-skilled and the long-term unemployed for jobs of the future. The ESF+ programme will provide complementary measures. In addition, the Higher Education Entrance Exam (*Berufsmatura*) and the ‘apprenticeship with Matura’, which is a combination of an apprenticeship qualification with the *Berufsmatura*, provide stepping stones towards higher qualifications.



#### Box 1: On the way to a professional future (October 2016 – December 2018)

This project offered ongoing support, advice and skills training for disadvantaged and marginalised women aged between 18 and 25. During the entire project period, the young women received ongoing support from an adviser. Additionally, free psychotherapy sessions were offered to provide more assistance. One-day courses focusing on creativity and crafts allowed the girls to test their skills and earn some pocket money. Available training included German training at level A2 and B1, catching up on missing knowledge due to non-completion of compulsory schooling, and help in obtaining key occupational qualifications. In addition, as part of their corporate social responsibility activities, companies offered internships for women aged 18 to 25. An adviser provides support to young women during the entire project period.

## 6. Higher education

**Austria continuously increases tertiary attainment of 24-to-35-year-olds.** In 2021, the rate reached 42.4%, which represents a 1 percentage point increase compared with the previous year, and comfortable progress towards the 45% EU-level target. Similar to the EU trend,

<sup>21</sup> ESTAT table ISOC\_SK\_DSKL\_I21, based on Digital Economy and Society Index (DESI) 2022.

<sup>22</sup> Eurostat [trng\_lfse\_03] 2021 5.8% and 14.6%; EU 4.3% and 10.8% [Less than primary, primary and lower secondary education (levels 0-2) and all ISCED levels].

more women (46.8%) graduate than men (38.2%), but the gender gap is slightly smaller (8.6 pps vs 11.1 for the EU)<sup>23</sup>.

**Tertiary attainment in Austria increased, mainly in cities.** The attainment gap between rural areas and cities<sup>24</sup> is, at 18.4 pps, smaller (-3.4 pps) than at EU level. It is interesting to note the dynamics over time. Between 2012 and 2021, the difference between the regions with the lowest and highest attainment levels increased by 2.2 pps while the average attainment increased 19.6 pps to 42.4%. The weakest region - Burgenland (15.5%) - managed to increase attainment by an impressive 29.1 pps to become, with 44.6% in 2021, the second strongest region behind Vienna with 51.6%<sup>25</sup>. Burgenland is a region close to Vienna that benefited most from EU structural funds. The fact that all seven other regions besides Vienna and Salzburg changed their relative position underpins the dynamic in higher education.

**Austria is performing well on science, technology, engineering, and mathematics (STEM), especially at doctorate level, but not on increasing the share of women graduating in STEM studies.** In 2020, at 30.6%, Austria had one of the highest shares of STEM graduates among all graduates in the EU<sup>26</sup>. This is 5.7 pps above the EU average and shows a positive trend (+ 1.3 pps since 2015). A significantly higher share of Austrian STEM graduates opt for engineering, manufacturing or construction<sup>27</sup>, while for information and communication technologies, the Austrian share is more in line with the EU average<sup>28</sup>. STEM participation in Austria varies at different ISCED levels and only at ISCED 7 is it more or less at the EU average; at all other levels,

it is higher<sup>29</sup>. This puts Austria ahead in STEM PhDs, even ahead of Germany. Despite efforts, Austria could not yet significantly increase women's STEM participation. In 2020, the share of female STEM graduates<sup>30</sup> was around EU-wide values when compared with all graduates (8.1%, -0.1 pps). Compared with all STEM graduates (26.3%), the Austrian female share remained much smaller (-6.2 pps).

**Distance learning during the pandemic did not have a major negative impact on learning outcomes.** Three quarters of higher education students did not have problems with online exams, nor did they lack information when learning at home. Only 5% reported negative experiences<sup>31</sup>. About a quarter of students polled during the second lockdown indicated a worsening of their well-being; students generally maintained contacts important to them (European Commission 2021). In addition, distance learning improved their independent communication skills and learning, time management, and self-organisation. To make universities digitally fitter, the Federal Ministry of Education, Science and Research and universities are jointly working on a strategy for the digital future of universities 2030<sup>32</sup>, to be published still in 2022.

<sup>23</sup> Eurostat, [edat\_lfse\_03].

<sup>24</sup> Eurostat, [edat\_lfs\_9913].

<sup>25</sup> Eurostat, [edat\_lfse\_04].

<sup>26</sup> Eurostat, [educ\_uoe\_grad02].

<sup>27</sup> (20.7% / 14.8%).

<sup>28</sup> (4.4% / 3.9%).

<sup>29</sup> At ISCED 5 +10.48 pps, at ISCED 6 +3.74 pps, and at ISCED 8 +4.34 pps.

<sup>30</sup> Eurostat, [educ\_uoe\_grad02].

<sup>31</sup> University of Vienna, 'Study - learning under COVID-19 conditions', 3<sup>rd</sup> questionnaire for students -results.

<sup>32</sup> <https://www.bmbwf.gv.at/Themen/HS-Uni/Aktuelles/digitale-Zukunft.html>

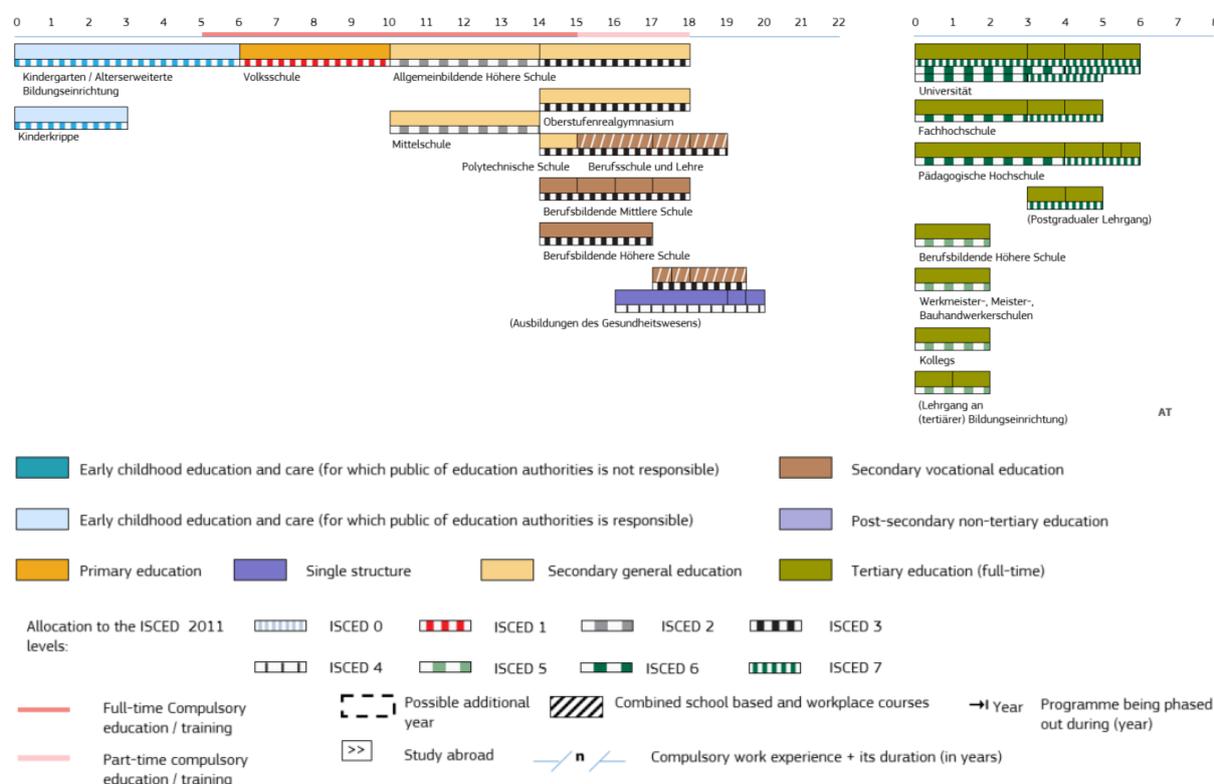
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## Annex I: Key indicators sources

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: *Berufsbildende Höhere Schulen* offer education programmes lasting 5 years: the first three years are classified as ISCED level 3 while the last two years belong to ISCED level 5.

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