



PREVENTING AND FIGHTING EARLY LEAVING
FROM EDUCATION & TRAINING WITH AI

stAI

Act before it happens: Preventing and fighting Early
Leaving from Education and Training with Artificial
Intelligence

National Report - Belgium

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Table of Contents

DESK RESEARCH	4
1. ELET - General National Scope.....	4
2. ELET Risk Factors.....	8
2.1 Socio-Demographic Factors (Age, Gender, Socioeconomic Status, Ethnicity, and Cultural Background)	8
2.2 Institutional Factors (School Environment, School Climate and Culture, Teacher Quality and Support)	10
2.3 Education Policies and Practices (Curriculum Relevance, Assessment Methods, and Support Services)	11
2.4 Access to Education (Geographic Accessibility, Affordability, and Educational Pathways).....	13
2.5 Individual and Family Factors (Academic Performance and Engagement, Attitudes towards Education and Training, Family Dynamics and Support, Mental Health and Well-being)	15
2.6 Community and Societal Factors (Peer Influence, Employment Opportunities, Cultural Attitudes towards Education, Social Support Networks)	16
2.7 Economic Factors (Labour Market Conditions, Financial Constraints, Economic Stability of Families).....	17
2.8 Technology and Digital Divide (Access to Technology, Digital Literacy Skills, Online Learning Opportunities)	18
2.9 Other Risk Factors.....	18
3. Current Trends, Implications, and Perspectives in Addressing ELET.....	18
3.1 National Public Incentives and Initiatives Regarding Preventing ELET	18
3.2 Concrete Experiences and Practices	26
3.3 Main Challenges and Obstacles to be Encountered on ELET	26
3.4 Policy Implications and Recommendations (Policy Analysis, Best Practices and Interventions, and Future Directions for Research and Action)	28
2. POLICYMAKERS INTERVIEW RESULTS.....	31
2.1 Insights into Interviewees' Roles and Experience	31
2.2 Examining the Importance of Addressing School Dropout	32
2.3 Understanding the Primary Causes and Key Risk Factors of School Dropout	33
2.4 Challenges Schools Face in Implementing Dropout Prevention Strategies	36

2.5 Evaluating the Effectiveness of Current Dropout Prevention Policies.....	38
2.6 Data to Measure and Predict School Dropout.....	40
2.7 Exploring Technological Tools for Preventing and Reducing School Dropout Rates	41
2.8 The Role of Technology and Data Analytics in Future Dropout Prevention Efforts ..	41
2.9 The Role of AI in Preventing and Reducing Dropout Rates	42
2.10 Long-Term Strategies for Effectively Preventing, Reducing, and Combating School Dropout	43
3. CONCLUSIONS	45
REFERENCES.....	46
Other sources of information	47

DESK RESEARCH

1. ELET - General National Scope

A clear overview of the Belgium educational system and its comparison with Europe based on main indicators can be found in “Education at a Glance 2021”¹. Specifically, Belgian national performance on early school leaving is slightly better than the EU average^{2,3}, as shown in **Figure 1**. However, it is an issue of concern because the number of early school leavers is still developing unfavorably.

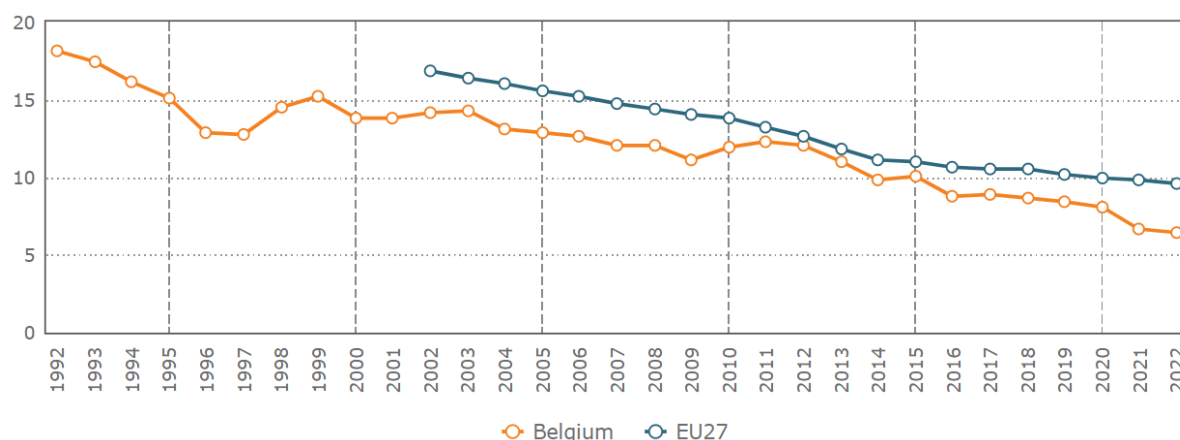


Figure 1. Early school leavers – Belgium and international comparison (percentage of the population aged 18-24) *Source: indicators.be*

¹ <https://www.oecd-ilibrary.org/sites/83b43330-en/index.html?itemId=/content/component/83b43330-en>

² <https://op.europa.eu/webpub/eac/education-and-training-monitor-2022/en/country-reports/belgium.html>

³ <https://op.europa.eu/webpub/eac/education-and-training-monitor-2022/en/country-reports/belgium.html>

In Belgium 6.4% of the population aged 18 to 24 left school early, as reported in **indicators.be**⁴. This figure must be reduced to zero percent to achieve the sustainable development goal by 2030. This objective will not be reached by continuing the trend since 2000 (data available in November 2023), as shown in **Figure 2**. The number of early school leavers is therefore developing unfavorably.

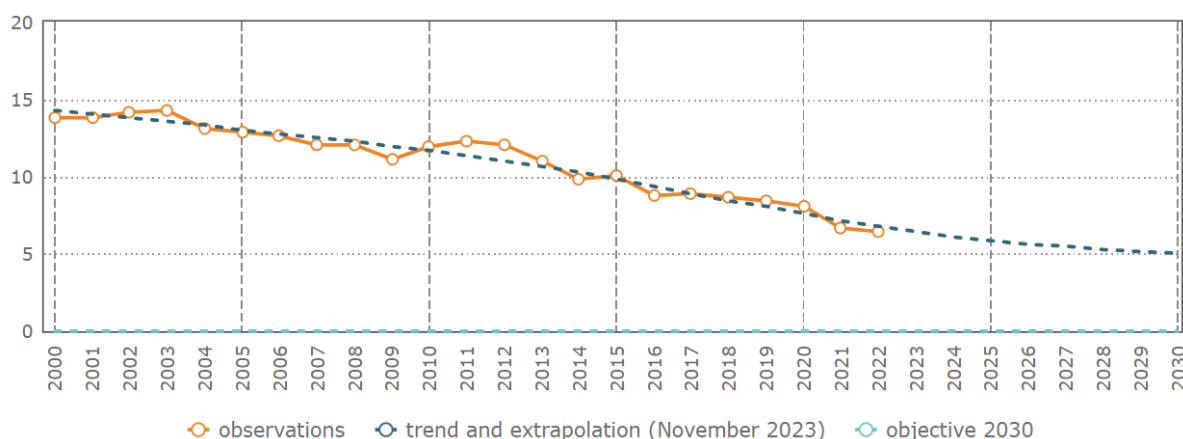


Figure 2. Early school leavers – Belgium – trend assessment (percentage of the population aged 18-24) – *Source: indicators.be*

Males drop out of school more than females, as shown in **Figure 3**.

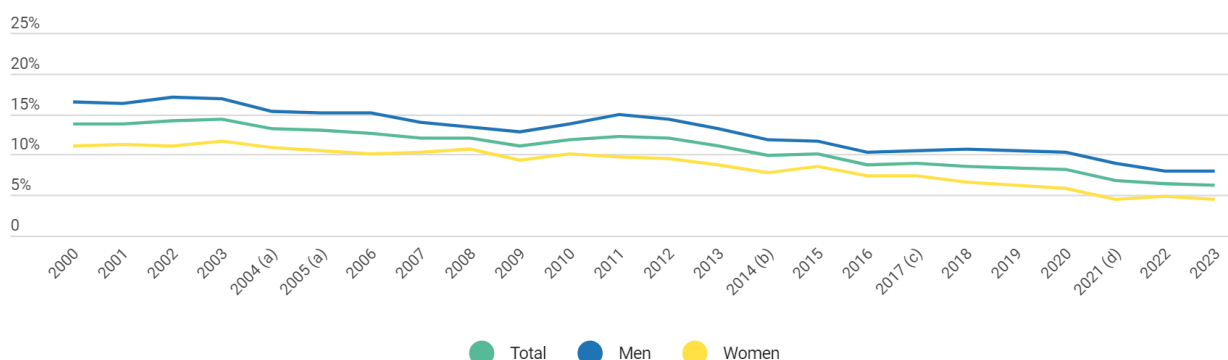


Figure 3. Early school leavers by gender in Belgium (percentage of the population aged 18-24) *Source: STATBEL Belgium in figures*⁵

Another interesting behavior in Belgium is that a substantial proportion of early school leavers do not give up their pursuit of a qualification, but register with the Secondary Education Examination Board, in secondary adult education or re-register at an educational institution for regular or special secondary education as shown in the report 'Early school leavers: registrations and qualifications in second chance learning paths' (Neyts, Vermeiren, Bollen, Depoortere, & Derks, 2022).

⁴ https://www.indicators.be/en/i/G04_ESL/Early_school_leavers_%28i22%29

⁵ <https://statbel.fgov.be/en/themes/work-training/training-and-education/early-leavers-education-and-training>

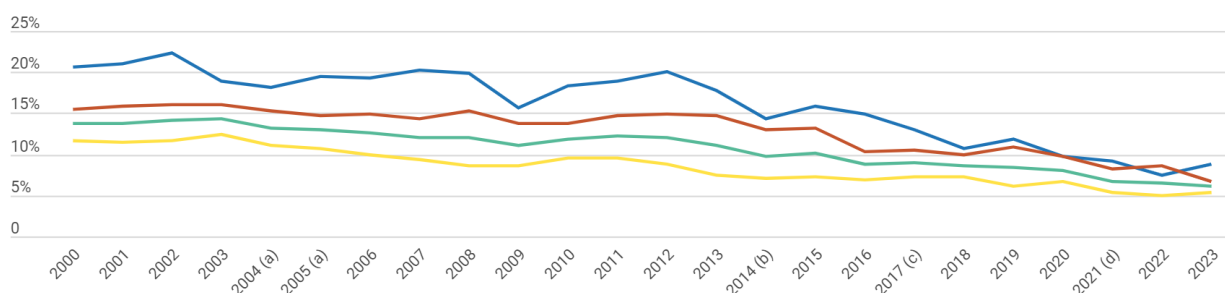


Figure 4. Early school leavers by regions in Belgium (percentage of the population aged 18-24) *Source:* STATBEL Belgium in figures

Large differences in early school leaving between Belgian communities and regions persist (European Agency for Special Needs and Inclusive Education, 2020), as shown in **Figure 4**. We conduct this study in the context of Flanders (the northern semi-autonomous region of Belgium), which has early school leaving rates below the rest of Belgian regions.

However, large discrepancies still exist in Flanders, with much higher rates in urban areas (e.g., Antwerp and Ghent) and among people of lower socioeconomic status and ethnic minority families, as discussed in (De Coninck, Clycq, & Van Praag, 2023). Besides, there is a large gap between the 10% top performing students and the 10% lowest performing students, placing Flanders at the top compared to other Organisation for Economic Co-Operation and Development (OECD) countries/regions given the socio-ethnic differences between students and the gap in their performance (Clycq, Nouwen, Van Caudenberg, & Timmerman, 2015).

In the interactive Dataloop application⁶, it is possible to find the most recent data on early school leaving in Flanders. This Dataloop application offers detailed figures on early school leaving for Flanders and for all municipalities. The application allows to request figures broken down by gender, age, nationality, socio-economic student characteristics, type of education, field of study, and educational career.

Figure 5 shows the percentage of early school leavers in Flanders by gender and nationality, where it is possible to see that males, non-Belgian, and mainly non-Europeans have the higher percentages.

⁶ <https://onderwijs-tableau.vlaanderen.be/t/EXTERN/views/DataloopVSV/Overzicht?%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Atoolbar=top#1>

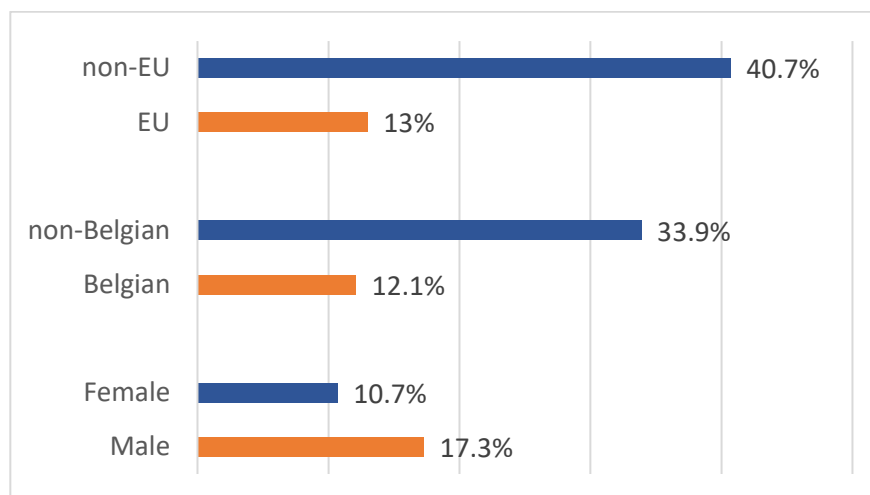


Figure 5. Percentage of early school leavers in Flanders by gender and nationality (percentage of the population aged 18-24, academic year 2021-2022) *Source:* Interactive Dataloop application

The percentage of early school leavers increases with age, as shown in **Figure 6**. This behaviour could be related to higher family responsibilities and the need to move to the labor market.

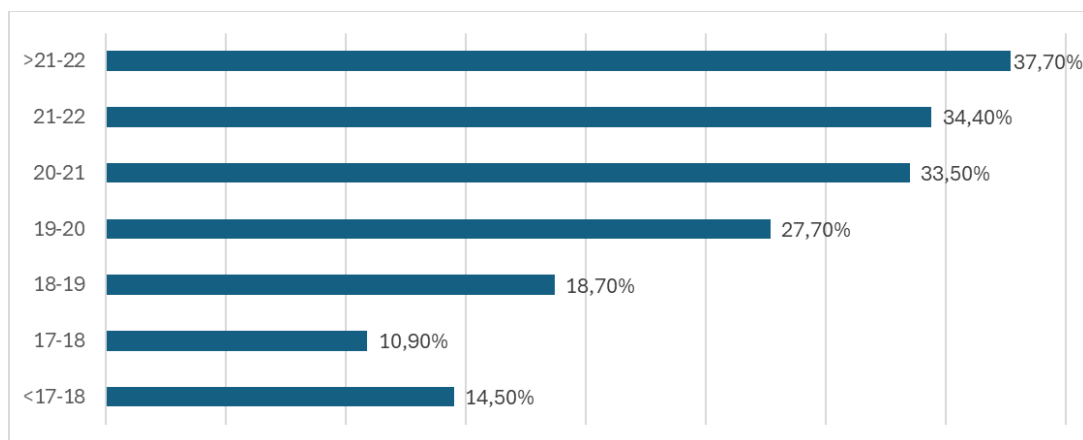


Figure 6. Percentage of early school leavers in Flanders by age (academic year 2021-2022) *Source:* Interactive Dataloop application

In summary, as discussed in (Clycq et al., 2015), the picture of the Flemish educational system emerging from the PISA⁷ assessments is quite complex and ambiguous. Flanders is ranked among the top-performing countries for its overall assessment scores as well as for its inequalities between social groups. Besides, the Flemish educational system has other particularities that need to be considered when studying school dropout.

⁷ <https://www.oecd.org/pisa/>

In this educational system, track choice (and therefore often school choice) plays a decisive role in the organization of schooling, as explained in (Van Praag, Boone, Van Caudenberg, Nouwen, & Timmerman, 2019). An interesting study regarding staying on track in secondary education in Flanders and the mechanisms explaining social inequality in education choice is presented in (Laurijssen & Glorieux, 2023).

At the start of secondary education, students are grouped into either A- or B-stream, which roughly prepares students for a further career in, respectively, an academic or a vocational track. After the second year, students are grouped into four tracks (academic (ASO), arts (KSO), technical (TSO), and vocational education (BSO)), each of which comprises particular fields of study. These tracks are commonly hierarchically classified by level of abstraction and theorizing; academic education is widely regarded as the most prestigious and demanding track, while technical and vocational tracks are placed at the bottom of this ladder. This institutional set-up has given rise to specific patterns of track choice. Transitions during students' secondary school careers are institutionalized by certificates (A, B, C) given by teachers at the end of each school year. An A-certificate means one can pass to the following year without restrictions, a B-certificate means one can pass on condition of changing to a 'less demanding' field of study or track, and a C-certificate means one has to repeat a year. These specific features of the Flemish system have resulted in a tendency to start secondary education in the most demanding and prestigious fields of study. Whenever students encounter learning difficulties, receive a B- or C-certificate, or lose interest in the courses offered, they change to less appreciated and less demanding tracks or fields of study.

In the Flemish Community, secondary vocational education can be followed in two strands: purely school-based and dual school and work-based (European Agency for Special Needs and Inclusive Education, 2020). Furthermore, on 1 September 2019, dual learning started in secondary education of the second and third degree (Codex Secundair Onderwijs, Deel V/1). The system of dual learning was implemented as a reform of the existing system of learning and working, that was implemented in 2008. Courses in dual learning are already based on the vocation qualifications and a significant proportion of dual courses are taught in a workplace.

2. ELET Risk Factors

The study of Early School Leaving (ESL) remains a difficult task, as the causes of ESL are situated at different levels, complex, and interact with each other (Guerrero-Puerta & Torres Sánchez, 2023; Van Praag et al., 2019). It is also important to highlight that over the years, research has increasingly approached ESL as a process, then the educational trajectories of early school leavers are very important.

2.1 Socio-Demographic Factors (Age, Gender, Socioeconomic Status, Ethnicity, and Cultural Background)

Immigration background: PISA-data consistently show that «native» Belgians (those without an immigration background) score much higher than students with an

immigration background (Clycq et al., 2015; Van Praag et al., 2019). Moreover, within the latter group, a second consistent finding is that first-generation migrants outperform second-generation migrants in all subjects: mathematics, science, and reading. A highly affected group is those made up of illegal pupils and trailer park residents (European Agency for Special Needs and Inclusive Education, 2020). For those reasons, immigration background is an important characteristic associated with a higher risk of early school leaving.

Socio-economic status: In the Flemish educational system the impact of socioeconomic status on educational performance is among the highest of all OECD countries (Clycq et al., 2015; Van Praag et al., 2019). This means that students from families with a lower socioeconomic status (based upon the parents' educational and/or labor market situation) will have a higher chance to perform lower compared to students from a higher SocioEconomic Status (SES) family. Lower SES students have fewer chances to score higher and the Flemish educational system does not seem to compensate (or only very limitedly) for these background features. Moreover, despite significant financial support from the Flemish government in, e.g., the Equal Educational Opportunities program, these inequalities seem not to have decreased significantly (Poesen-Vandeputte & Nicaise, 2012).

Language proficiency: Knowledge of the Dutch language is seen as an essential condition for achieving learning gain (Clycq et al., 2015; De Coninck et al., 2023). Non-Dutch-speaking newcomers have big disadvantages (European Agency for Special Needs and Inclusive Education, 2020). Quality in education is key for emancipation and raising the achievement of all pupils.

The performance gap to the language deficiencies and the lack of integration in the Flemish education system of lower SES families and in particular families with an immigrant background (De Coninck et al., 2023). Especially socially vulnerable students with an immigration and/or lower SES background are negatively affected by the current structural environment and are disproportionally more oriented towards the vocationally oriented tracks (Clycq et al., 2015).

Two other important background characteristics associated with a higher risk of early school leaving are gender and age.

Gender or gender socialization: As shown in Figure 5, there is a significant difference in female and male behavior when analyzing school dropouts. Therefore, gender is a recurrent feature when describing early school leaving risk factors (De Coninck et al., 2023; Van Landeghem, 2022; Van Praag et al., 2019).

Age: The percentage of early school leavers varies by age in Flanders, as shown in **Figure 6**, which makes it also a risk factor to take into account (Van Landeghem, 2022).

2.2 Institutional Factors (School Environment, School Climate and Culture, Teacher Quality and Support)

While most attention has been paid to students' experiences and perspectives, the views of school staff should not be underestimated as they play a key role in students' educational trajectories (e.g., teacher expectations and the effect on student retention, how teachers and school staff interpret the difficulties their students encounter and what teachers perceive as the main predictors leading up to ESL) (De Coninck et al., 2023).

Staff trained for the specific students' profiles and educational tracks: Students enrolled in different secondary education tracks have distinct needs and aspirations. Given the specific profiles of their students, these settings may also be selective in terms of staff recruitment (e.g., with staff in alternative learning arenas more focused on specific students' needs or better trained in addressing the influence of precarious socioeconomic circumstances on learning processes).

School and staff perspectives: The staff in regular secondary schools more strongly believe that the reasons for ESL are student-centered (e.g., motivation, effort, and ability). However, in adult education, where the classrooms are generally smaller, a holistic approach to students is adopted and a more modular curriculum is the norm. Regular education could benefit from the anti-ESL measures taken by alternative learning contexts such as second-chance education. These measures focus more on addressing systemic inequalities and less on the so-called deficits of individual students (De Coninck et al., 2023).

Teachers's understandings and interpretations: The school staff in different settings have different understandings and interpretations of the causes or predictors of ESL (De Coninck et al., 2023).

Relationship teacher-student: The engaged and emotionally supportive relations students have with their teachers could prevent early school leaving (De Coninck et al., 2023).

Teachers's views and actions: How teachers view school-related matters and how they develop practices in school can be impacted by school features. For instance, how school teams handle multilingualism is found to be related to compositional school features such as ethnic and socioeconomic school composition (De Coninck et al., 2023).

Teacher gender and its implications: Several studies focused on the influence of teacher's gender on their perceptions of students and their attitudes towards diversity-related issues. The results paint a complex picture. Female teachers tend to be more strict towards students, show less trust in students and are more focused on discipline and obedience than male colleagues. However, they do tend to be more inclusive towards ethno-cultural diversity. Yet, concerning including multicultural content in their curriculum, no gender difference is found (De Coninck et al., 2023).

Teacher experience (years active in education): Experienced teachers seem to get along better with their students, even though the findings are not always conclusive and they do not seem to hold more inclusive views with respect to ethnic diversity. What does seem to play a role is the teacher's level of education, which positively correlates with less ethnic prejudice (De Coninck et al., 2023).

Other relevant features are also mentioned in (De Coninck et al., 2023), such as:

- **Inadequate school policies or interventions**
- **A lack of good school career counseling by schools**
- **Schools that expel pupils too easily**
- **A lack of motivated teachers**
- **Teacher degree of involvement with their students**
- **The extent to which teachers have access to certain means to improve their teaching**
- **Teacher job satisfaction**
- **Teacher ethnic background (no ethnic minority / ethnic minority)**

As part of the research carried out by Van Praag and Clycq (Van Praag & Clycq, 2019), several interviewed school leavers referred to that few student jobs are offered and they have a lack of work experience. Besides, they were not convinced that the accumulation of 'work experience' gained through specific vocational programs would provide them with the necessary resources and skills to find a job in the labor market (e.g., an interviewee argues that he needed a new strategy to gain the necessary skills outside of school). Then, the following features could be added (De Coninck et al., 2023; Van Praag & Clycq, 2019):

- **Inadequate school curriculum (e.g., interviewees expressed that vocational training in the Flemish educational system does not provide students with the necessary skills to find a job in the labor market)**
- **Insufficient school resources**
- **Few student jobs**
- **Lack of work experience**

2.3 Education Policies and Practices (Curriculum Relevance, Assessment Methods, and Support Services)

A-track or a B-track: Although the first two years in secondary education are often presented as being comprehensive, students are already enrolled in an A-track or a B-track. The B-track is primarily for students who leave primary education without having attained specific developmental or curricular objectives and were advised to enter secondary education based on age differences with other pupils in primary education. The official aim of the B-track is to remediate and redirect some of these pupils to the A-track or to steer them more directly towards vocational education. Thus, although these first two years are presented by policymakers as more or less comprehensive, in practice

there is a first tracking of students from the age of 12 onwards. Administrative data show that those students starting secondary education in the B-track will predominantly follow the vocational pathway and have a much lower probability of finishing secondary education with an educational qualification. Many students and their parents choose to start secondary education in the higher-status track of general education, but they are reoriented to lower-status tracks in vocational education (i.e., the technical, school- and work-based vocational tracks). Although the different tracks are presented as equally important and valuable in official policy documents, in everyday educational practice this hierarchy exists between the general/academically oriented track as the most, and the vocational track as the least prestigious and desirable track. Consequently, it comes as no surprise that negative stereotypes about the vocational tracks become part of a general imagination of Flemish education. Concerning the issue of ESL, these structures and resulting educational practices are important to discuss the negative educational experiences of a large proportion of students (e.g., regarding grade retention and reorientation to different tracks), which have been shown to increase the risk of ESL. Furthermore, while the work-based vocational track was partly designed as a policy strategy to prevent and compensate for ESL by offering students the opportunity to acquire some work experience starting from the age of 15, in practice for many students this track became a final stop in streaming down the educational waterfall, right before leaving education without an upper secondary qualification.

Note: The analysis of tracks A and B and their influence on early school leaving presented above has been extracted literally from (Clycq et al., 2015).

Part-time vocational tracks: ESL is strongly concentrated in these part-time vocational tracks, as discussed in (Clycq et al., 2015). Nonetheless, this is mainly due to the structural educational context of secondary education systems in Flanders where early tracking is combined with a hierarchical structure wherein students often start in the most «prestigious» track, but a large amount of these students end up in the part-time vocational track after having experienced a series of educational failures (e.g., grade retention and non-voluntary reorientation to other educational tracks). So, while work-based vocational education provides an alternative pathway for attaining an educational qualification, it currently attracts a large proportion of students with negative educational experiences who therefore have higher risks of leaving education underqualified.

Institutional arrangements, school cultures, and practices: These elements play a role in young people's educational trajectories and decision-making processes leading to ESL. Especially in vocational tracks, compared to other tracks, teachers' shared beliefs about the teachability of students played a larger role in students' intentions to leave school early, regardless of the perceived teacher support and sense of futility among students (Van Praag et al., 2019).

Institutional solutions vs process understanding: The institutional solution to early school leaving by providing part-time or full-time vocational education in schools often becomes the final stop in young people's education trajectory. In particular, in an early tracking system such as exists in Flanders, with a strong hierarchical division between tracks, the vast majority of the overall category of early school leavers are young people who left when they enrolled in vocational education. It is therefore important to acknowledge the experiences and perspectives of young people themselves to better understand these processes (Van Praag & Clycq, 2019).

Other factors have also been studied (Van Praag et al., 2019), from which some features are derived:

- **How school staff deal with ESL and introduce school-level policies to limit outgoing and incoming school mobility**
- **Institutional arrangements and agents (e.g., they determine the moment and the extent to which students are allowed to switch between fields of study or tracks)**

Two more risk factors are expressed in (De Coninck et al., 2023):

- **Non-availability of financial assistance to continue studying**
- **A lack of coherent government policy**

2.4 Access to Education (Geographic Accessibility, Affordability, and Educational Pathways)

Educational pathway: Administrative data show that those students starting secondary education in the B-track will predominantly follow the vocational pathway and have a much lower probability of finishing secondary education with an educational qualification. Many students and their parents choose to start secondary education in the higher-status track of general education, but they are reoriented to lower-status tracks in vocational education (i.e., the technical, school- and work-based vocational tracks). Although the different tracks are presented as equally important and valuable in official policy documents, in everyday educational practice this hierarchy exists between the general/academically oriented track as the most, and the vocational track as the least prestigious and desirable track. Consequently, it comes as no surprise that negative stereotypes about vocational tracks become part of a general imagination of Flemish education (Clycq et al., 2015). Studies indicate that especially students enrolled in vocational tracks in secondary education tend to show lower levels of behavioral, cognitive, and emotional school engagement and a higher sense of futility compared to students enrolled in other tracks. This is an interesting finding as especially these students are found to be at higher risk of ESL (Van Praag et al., 2019).

Decision-making processes: It is very important to pay attention to decision-making processes during the educational trajectories of young people at risk of early school leaving (Van Praag et al., 2019). Especially the most vulnerable students had to make the most choices throughout their educational career (Van Praag & Clycq, 2019). By

approaching early school leaving as a process, we focused on the decision-making processes of these young people throughout their school career and not only at key transition moments.

Examining students at risk of early school leaving could add interesting insights in the functioning of **decision-making processes**, and the **interplay between timing, opportunity and identity during educational trajectories** (Van Praag et al., 2019).

Information that could guide educational decisions: Students often relied on their social networks, with a similar socio-economic, migration background and educational experience. For vulnerable students, social networks were crucial when making educational decisions. However, most people within their social networks were not familiar with the available educational alternatives. This is reflected in the decisions students made over the course of their educational career (Van Praag et al., 2019).

Crucial institutionalized transition moments (i.e. transition from primary to secondary education, at the end of each year/grade): Decisions to change tracks/schools/fields of study at unforeseen moments, such as during the school year or when leaving school early, are far more difficult to grasp. For instance, students have to make educational choices after being told they may not continue in a particular track, or after being forced to change school/tracks/fields of study, due to disciplinary issues, poor results, suggested career reorientation by teachers, or when they feel they do not belong in school. These choices are often more negative in nature, and the available options are sometimes limited (e.g. because of track/school exclusion). Gaining more insight into decision-making processes at foreseen and unforeseen transition moments adds to a better understanding of processes leading to ESL. Moreover, examining the support and guidance received during decision-making could provide tools to prevent ESL (Van Praag et al., 2019).

Follow very complex, diverse routes through Flemish education: Routes often seem illogical because students are not prepared for a particular career and recent choices are not necessarily in line with previous choices. Nor do they seem in line with their educational and occupational interests, skills, or competencies. For instance, youngsters changed from childcare courses to hairdresser courses, from office courses to car mechanics courses, often in various kinds of educational institutions (Van Praag et al., 2019).

Wrongfully motivated study choices of pupils: Educational choices seem to be inspired by coincidental factors, meetings, and events. The youngsters did not appear to be fully informed about all possible alternatives. Moreover, they seemed unaware of the long-term consequences of their choices and appeared to be guided by no clear aspirations. The difficulties in searching for information about educational alternatives were related to the lack of clear and consistent aspirations (De Coninck et al., 2023; Van Praag et al., 2019).

2.5 Individual and Family Factors (Academic Performance and Engagement, Attitudes towards Education and Training, Family Dynamics and Support, Mental Health and Well-being)

Behavioral and emotional school engagement: Students that show low levels of both behavioral and emotional school engagement at the beginning of secondary education, have a higher risk of becoming early school leavers later on in their educational career (Van Praag et al., 2019).

Truancy: Skipping classes is a strong predictor of early school leaving (European Agency for Special Needs and Inclusive Education, 2020; Van Praag et al., 2019). Truancy across Europe is a warning signal in the processes leading to early school leaving. However, both Dutch and French-speaking educational systems in Belgium are characterized by low truancy rates and high rates of early school leaving. This could be due to educational policies that stimulate school actors to push students who play truant to leave school directly (Van Praag et al., 2019).

Low achievement: In the Flemish Community, the percentage of low achievers has been rising and is now close to 17% in all areas tested. Learners' performance is strongly linked to their socio-economic background, in particular for those with a migrant background (European Agency for Special Needs and Inclusive Education, 2020).

Precedent education: Some characteristics of the last position in initial education (including the track and grade) (Van Landeghem, 2022).

Cultural reproduction theory: This theory focuses on the role of cultural resources young people and their parents have at their disposal. Students and parents from higher social classes have more knowledge about the education system enabling them to navigate through it with ease (Van Praag et al., 2019). On the other hand, this theory would suggest that early school leavers are not very familiar with the dominant culture in society and not very able to use the educated language, resulting in a loss of interest in continuing education and being more prone to search for alternatives in the labor market (Van Praag & Clycq, 2019).

Rational choice theory: This theory states that youngsters weigh up the costs and benefits of all options they perceive and consider their individual chances of success for each option. Considering all perceived options in education and the labor market, early school leavers think of all the (perceived) resources available and the urgency of their personal or familial needs when making decisions, which in some cases could result in the decision to leave school early (Van Praag & Clycq, 2019).

Social capital theory: This theory argues that young people have access to distinct networks and types of information about potential choices within their broader social networks, which also affects the (informed) choices they make. Students coming from lower socio-economic backgrounds manage to work through informal pathways and

acquire more information through informal means, reducing the likelihood of finding a job with good working conditions (Van Praag & Clycq, 2019).

These three above lines of research have found partial evidence for the explanation of **social class differences in choice processes** (Van Praag et al., 2019).

Lack of social and cultural resources: Social and cultural resources could inform students' choices. Groups coming from lower socioeconomic families lack references to such resources, which could be a disadvantage when making decisions (Van Praag & Clycq, 2019).

Many risk factors are also mentioned in (De Coninck et al., 2023):

- **Pupils that change secondary schools too easily**
- **Family problems**
- **Family's socioeconomic background**
- **A lack of parental engagement with the school**
- **Low individual academic ability**
- **Low individual aspiration**
- **Physical or mental health problems among pupils**
- **Being the victim of bullying among pupils**
- **Not getting on with teachers and school staff**
- **Non-participation in extracurricular activities**

Other risk factors are discussed in (Van Praag et al., 2019):

- **Grade retention**
- **School mobility**

2.6 Community and Societal Factors (Peer Influence, Employment Opportunities, Cultural Attitudes towards Education, Social Support Networks)

Frequently involved in paid employment after school: Van Praag et al. investigated whether the higher tendency to leave school early in vocational tracks or to repeat a year was related to the students' heightened participation in paid employment after school. They found that students in vocational tracks were indeed more frequently involved in paid employment after school; however, this was not related to school attainment (Van Praag et al., 2019).

Value of education for students' personal lives or in society in general: Most school leavers interviewed as part of the research published by (Van Praag et al., 2019) do not necessarily perceive education as the "ultimate ticket to success". For example, some said finding a job is difficult, even with a certificate. Interviewed school leavers see educational qualifications as just a possible way to prepare for the future, but not necessarily the only way. As a consequence, they did not necessarily underline the importance of getting a degree for themselves. Youngsters appear to prefer pursuing what would personally suit them best and seem to search for ways to evaluate themselves positively (Van Praag et al., 2019).

Information available within students' social networks: Van Praag et al. found that the types of resources accessible through the social networks of youngsters are related to their social background. When students come from families in which the parents did not obtain an educational certificate nor have a lot of experience with the Flemish educational system (due to migration), the social capital they had at their disposal did not appear to be a guiding force or not very resourceful in the actual decision-making process (Van Praag et al., 2019).

A couple of risk factors are discussed in (De Coninck et al., 2023):

- **The negative influence of peers**
- **Minority cultural background**

2.7 Economic Factors (Labour Market Conditions, Financial Constraints, Economic Stability of Families)

Lack of a clear connection between educational programs and qualifications: The labor market and the educational system in Flanders are not really adjusted to each other (Van Praag & Clycq, 2019). This means that secondary education is not necessarily oriented towards the needs of the labor market, which can be characterized as an 'organizational space'. The different educational tracks (i.e., academic, arts, technical, vocational) in secondary education, and the various higher education institutes (i.e. professional/academic bachelors/masters) that are intended to prepare students for distinct occupational futures are also not directly linked to particular jobs in the labor market. This lack of a clear connection between educational programs and qualifications could be confusing and may give the impression that these educational qualifications do not really help a graduate succeed in the labor market (Van Praag & Clycq, 2019).

School vs labor market decision making: The continuing balance between staying in school and entering the labor market is often triggered by the idea that "work experience" is very important (generally in combination with the need for financial means); even more than educational credentials as such. This is also illustrated by the high value the youngsters attach to internships, insofar as they provide them with some kind of work experience (Van Praag et al., 2019). Some students prefer the benefits of obtaining work experience to the continuation of education and getting educational qualifications.

Perception of the value of education: Although some research results did not find that paid work employment is related to student's educational attainment, Van Praag et al. found that the experience or short-term perspective of paid work could have an important impact on educational decisions that often have a more long-term impact on youngsters' careers. Many interviewed school leavers perceived paid employment and education as exchangeable and equally valid alternatives. Therefore, for them, an acknowledgment of the value of education as such did not really serve as a protective factor to stay enrolled in education (Van Praag et al., 2019).

Insecure and unstable financial and economic living conditions: Living conditions appear to weigh heavily upon educational choice-making. Financial strains urge youngsters, even more, to opt for more (relatively) short-term decisions, often favoring immediate labor market entry (Van Praag et al., 2019). Students in immediate need of financial resources need specific work experience to be able to access these financial resources and a fully paid job would make a fundamental difference to their (family) situation (Van Praag & Clycq, 2019).

The **inconsistency in previous educational choices** in terms of career specialization, the **precarious living conditions**, and the constant negotiation of the **value of education against other important life domains**, especially paid employment, seems to fuel the decision to leave school early (Van Praag et al., 2019).

A couple of risk factors are discussed in (De Coninck et al., 2023):

- **Non-availability of financial assistance to continue studying**
- **Plentiful labor market opportunities**

2.8 Technology and Digital Divide (Access to Technology, Digital Literacy Skills, Online Learning Opportunities)

We did not find research results that link access to technology and online learning opportunities with the issue of early school leaving.

2.9 Other Risk Factors

Six latent factors underlying school personnel's view on ESL were found by (De Coninck et al., 2023):

- **Systemic-related causes**
- **School-related causes**
- **Family-related causes**
- **Student-related causes**
- **Victimization and health-related causes**
- **Teacher or peer-related causes**

3. Current Trends, Implications, and Perspectives in Addressing ELET

3.1 National Public Incentives and Initiatives Regarding Preventing ELET

In this regard, the analysis carried out by Clycq et al. (Clycq et al., 2015) is very complete because they took into account information from diverse sources:

- Policy documents and vision statements by political actors from the different policy levels (Flemish and city levels), as well as from the individual political parties
- Official reports from the various debates held in the Flemish parliament – and within its specific Commission for Education and Training – on ESL and related issues
- Interviews and opinion pieces from news media

- Information and insights on ESL from a wide range of representatives of civil society organizations, labor market actors, social service, and (mental) healthcare organizations, i.e., not only developed within the educational context or by educational practitioners

The main educational policymakers in Flanders in general often adopt EU policy targets and recommendations on education and early school leaving in particular. This is illustrated by the adoption of EU policy targets, vocabulary, and the concrete ESL policy framework in many official policy documents at the Flemish level (e.g., the Flemish Action Plan on ESL, vision statements of advisory boards of educational and economic stakeholders). Particularly relevant in this respect are (Clycq et al., 2015):

- The **documents produced by the two advisory boards** established by the Flemish Government: the **Flemish Educational Advisory Board (VLOR)**⁸ and the **Socio-Economic Advisory Board of Flanders (SERV)**⁹. Both are established as advisory boards in the process of designing Flemish educational legislation but also as assessors of legislative actions in other Belgian or Flemish policy domains as well as of EU educational policy.
- A **Truancy Action Plan** was launched by the Minister of Education in 2006 to combat rising numbers of truancy. Although the aim was to design a holistic and contextualised approach to the phenomenon of truancy, in practice a strong focus on the individual student remained present.
- An **updated Truancy plan** with more detection and monitoring and with a stronger focus on raising awareness, prevention, supervision, and repression was designed by the new Minister in 2012
- **Local policymakers received more power** on this issue and from September 2012 onwards all enrolments, school changes, presences, and absences during the entire school year are monitored more closely.
- The **Flemish Action Plan on Early School Leaving** was drafted by the Flemish Government together with the main stakeholders on different policy levels and sectors. This plan strongly adopts the EU policy framework and concepts in tackling ESL and presents a Flemish plan that stresses the identification and monitoring of ESL and the development of different prevention, intervention, and compensation measures. This resulted in a range of 50 concrete actions, often subdivided into more specific actions, various stakeholders from the educational field, the labour market, and civil society actors can – or sometimes are obliged to – adopt.
- Next to the Flemish Action Plan on Early School Leaving, also **other more structural reform plans** have been discussed among policymakers and various educational stakeholders.
- A **joint concept note for a new «Dual Learning System»** by the current Flemish Ministers for Education and Work in 2015. In this note, the current system of workplace learning is described as failing to provide students with sufficient

⁸ <https://www.vlor.be/>

⁹ <https://www.serv.be/serv>

educational qualifications and does not provide real labor market experiences and skills for a large proportion of their (most vulnerable) students. To strengthen the power of the work-based vocational education and training (VET) as a preventive and compensatory measure for tackling ESL, current reform plans for this work-based educational track aim to improve the track's reputation and increase the number of students that make a positive study choice for work-based VET. To succeed, the main focus is placed on opening up the workplace learning opportunities to more students in a vocationally oriented study track and to increase the quantity and quality of apprenticeship opportunities.

- The **reform plans for Flemish secondary education**

Flemish policy actions that were taken specifically to combat ESL and youth unemployment can be clustered into two main categories:

- A focus on concrete actions that directly target students leaving education without an upper secondary education degree
- A focus on the structures and particular educational pathways that are more indirectly linked to tackling ESL

Concerning concrete actions, great emphasis is placed upon the detection and monitoring of early signals of disengagement measured through the truancy behavior of students.

The coalition agreement of the new Flemish government (2019–2024) puts forward five major challenges to enhance excellence in education (European Agency for Special Needs and Inclusive Education, 2020):

- focus on quality in education;
- address the shortage of teachers and their professional status;
- provide the right support for pupils in the right place;
- address school capacity shortage;
- increase study duration in higher education.

Below, we present fragments extracted from the main measures published in the report "Country Policy Review and Analysis: Belgium (Flemish community)" that could directly or indirectly influence the prevention of school dropout (European Agency for Special Needs and Inclusive Education, 2020).

Measure 1: To improve inclusive education and to ensure that good quality education is accessible to all

- Knowledge of the Dutch language is seen as an essential condition to achieve learning gain. Specific support measures will be taken to **avoid learning disadvantages and early school leaving**.
- Decree on **pupil guidance in basic education, secondary education, and pupil guidance centers** promotes the total development of all students, enhances their

well-being, prevents unqualified school leaving, and creates more equal opportunities.

- Clarify the roles of all actors involved in the continuum of support for learners in schools
- The school is the first actor responsible for pupil guidance. The school elaborates a high-quality and integrated policy on pupil guidance and is responsible for implementing and evaluating this policy.
- Support to school from Pedagogical Counselling Services (PBD) and Pupil Guidance Centres (PGC) in the whole pupil guidance process
- **Student counselling** has four components: educational, career, learning and study counselling, psycho-social functioning. These components always have an integral and holistic approach and start from a 'continuum of care'. This continuum consists of basic care, increased care, expanded care and an individually adapted curriculum.
- Joint policy and legislation concerning **dual learning and working trajectories** for secondary school pupils. Dual learning will also be possible in forms 3 and 4 in special needs secondary education. From 2019–2020 onwards, all schools can apply to organise courses in dual learning for pupils aged 15 or older.
- **Equal education opportunities and inclusion** are seen as different goals with different policies. Equal education opportunities mainly refer to children from families with lower socio-economic status and pupils with a migration background. Inclusion is focused on pupils with special needs.

Measure 2: To support improved co-operation, including greater involvement of parents and local community

- The **full involvement of families in all educational processes** is outlined in legislation and policy. School boards must take into account parents' expectations and actively involve them in consultation and decision-making.
- One of the competencies of the professional profile of teachers is **teachers acting as partners of parents**. They must deal discreetly with information about pupils, be able to give information and advice to parents, involve parents in classroom and school practice, respect diversity among parents, be able to talk to parents about education and parenting and communicate with parents from different language backgrounds.
- Schools are obliged to organise a **school board** (schoolraad) with a delegation of parents, school personnel, and the local community. In secondary education a delegation of pupils also takes part in the school board.
- **Representatives of parents and advocacy organisations can also take in steering groups** with stakeholders of school organisations, trade unions and pupil guidance centres.
- **Sharing information** among professionals and families is a policy priority. The government expects **teachers to communicate with learners and parents** from diverse (learning) backgrounds.
- **Three associations for parental involvement** are subsidized by the Ministry of Education. These associations support local parent-school involvement and participation of parents in the school community. They inform parents about the

educational system and policy choices and reforms, and capture the voice of parents through surveys, communicating their positions towards the schools and the government. The Ministry expects the three associations for parental involvement to put **a special focus on the involvement and participation of parents of vulnerable groups**.

- Regular individual school reports **provide parents with information** on results, progress, learning behavior, and personal development.
- **Primary schools often inform secondary schools about the results and progress** pupils have made at the end of primary school with a transfer document ('BASO-fiche').
- The inspectorate developed a '**reference framework for educational quality**', together with the pedagogical counseling services and education umbrella organizations in Flanders. It is designed to recognize the quality school-educational inspection-pedagogical counseling triangle. This framework includes: fostering the well-being and involvement of all learners; guidance on learning, psycho-social functioning, and preventative health care.
- Policy outlines how to **involve families in the process of evaluating the quality of services**.
- **Parents' organisations are involved in the commission which is responsible for evaluating** the support model. Parents are involved in the evaluation of individual schools. Parents are also represented in the Flemish Education Council (VLOR).
- The **Education Inspectorate evaluates whether schools meet the quality expectations** of the 'reference framework for educational quality'.
- The **policy supports opportunities for school teams to evaluate their practice** through involvement in research and development activities.
- **Teacher teams learn how to reflect in a more focused way** about adaptations such as remediation, differentiation, the implementation of aids, and making sure the curriculum is more tailor-made. Among other things, they discuss specific education needs more with pupils and their parents.
- **School administrators provide concrete assessment procedures**. The school administrators and teachers decide how teachers work with and assess educational content. Each school's work plan explains how the pupils will be assessed and how the school will report the results.
- The Reference Framework for Quality in Education **supports reflection, dialogue, and sharing of expertise** in schools.
- Schools can participate in **professionalization projects** initiated by the Flemish Minister of Education. Every two years, the Minister establishes some priority themes for the development of educational innovation. A call invites interested organizations to translate the chosen themes into a specific training offer for teachers, directorates, pedagogical supervisors, and teacher trainers. The Minister selects the most qualitative projects. Schools can then step into these projects, as a way to evaluate and improve their own practice.
- In Inspection 2.0, each partner plays its own role to realise quality education for every learner. By explicitly examining the quality development of the schools, the

Education Inspectorate wants to **stimulate each school to take the lead in its own educational quality.**

Measure 6: To improve student-focused measures such as mentoring, personalized learning approaches, and improved guidance

- The reform of the attainment targets introduces the concept of **basic literacy in the first stage of secondary education**. It concerns marking certain attainment targets that must be reached by each pupil individually. They contain minimum requirements for basic competencies such as mathematics, digital literacy, and the Dutch language. These minimal requirements should guarantee that all youngsters acquire the basic competencies needed to actively take part in society.
- The policy outlines that **learners' voices should be listened to in decision-making** that affects them.
- **Pupil Guidance Centres focus on pupils' well-being**, putting learner interests first.
- On a macro level, **learners' voices are heard through the representational bodies**. The participation of learners is coordinated by the Flemish student council. This student council covers primary, secondary, vocational, and special education.
- Teaching, support, and guidance have the goal of **empowering all learners**.
- **The reform of pupil guidance aims to clearly define the roles and tasks of all actors involved** (pupils, parents, schools, Pupil Guidance Centre, School Advisory Centres, welfare sector, etc.) and to **optimize the organization of pupil guidance**. In the new decree, pupil guidance will become a precondition for recognition of the school. It will thus become part of the global policy on quality assurance of each school and will be evaluated by the Education Inspection. In the future, Pupil Guidance Centres will have to be even **more attentive to the guidance of disadvantaged pupils, the problem of truancy, and early school leavers**.
- The means centers' provision will be **tailor-made to the needs of the pupils they guide**. More means will be granted for pupils who receive a study grant, who do not speak Dutch at home, or whose parents have low qualification levels (so-called 'SES indicators'). This way pupils who need extra support will be guided as well as possible in the course of their school career.
- The Reference Framework for Quality in Education **supports schools to work participatively with the involvement of learners**.
- **Each school must provide care continuously**. This means that schools must provide support tailor-made to each child's exact requirements. The first phase is broad basic care for all pupils, where schools work in a preventive manner in a powerful learning environment. If broad basic care is insufficient, the school may offer the pupil a higher degree of care with the necessary reasonable adaptations. This may include differentiation, remediation, compensation, or exemption measures. If this does not suffice either, the school may put in place an expansion of the care, for which it must involve the pupil guidance center (PGC) in any case.
- The **learning process is based on flexible curricula** based on learner-centred approaches and the development and implementation of individual learning plans as necessary. The aim is for the pupil to follow the common curriculum and

obtain a certificate in primary education and/or a high school diploma. Within this common curriculum, the same final attainment levels or development goals are pursued as for other pupils. However, if it appears that the pupil, despite the reasonable adaptations, is unable to follow the common curriculum and needs more support, they may switch to an individually adapted curriculum (related to the mainstream curriculum) with goals formulated with the pupil guidance center.

Measure 7: To improve the school ethos (such as the creation of supportive learning environments, and adapting learning environments to specific learning needs)

- The **school ethos and culture is guided by school strategic plans** that have high expectations for the academic and social achievements of all learners
- **Every school sets out its own pedagogical policy.**
- The new decree on pupil guidance establishes that **every school needs to set a policy for pupil guidance** and it is **a precondition for recognition of the school**. It is in line with the school pedagogical project, the needs of the school population (the pupils in school), and the context of the school.
- The policy for pupil guidance covers the **guidance of pupils, support of teaching staff**, and **coordination** of initiatives concerning pupil guidance at the school level.
- Every school has a '**school work plan**' (schoolwerkplan) that has clear statements on the **value of diversity** and refers to the school's policies on **care and equal opportunities**.

Measure 8: To reduce the negative effects of early tracking (the early streaming of pupils by ability into different types of provision or schools) and to reduce the extensive use of grade retention¹⁰

Measure 9: To support improvement in schools with lower educational outcomes

- Clear mechanisms exist to **identify schools with lower educational outcomes**. Schools with low achievement are obliged to engage in a guidance trajectory.
- The government makes **instruments available to the schools** without any obligation and free of charge.
- **Schools collect data** on their pupils and can determine the data they need to further optimize their internal education quality, but also struggle with data literacy.
- The policy requires **school strategic plans to outline preventive educational action against dropouts** (including necessary measures so that learners who become disengaged find new educational alternatives).
- The Early School Leaving Monitor system aims to monitor and track the outcomes, socio-economic characteristics, and study progression of those who leave education without an upper-secondary qualification.

¹⁰ Early tracking means the early streaming of pupils by abilities into different types of provision or school; this includes placing children into separate schools.

The extensive use of grade retention means holding students back to repeat school years, instead of providing flexible individual support.

- The Flemish government has, along with partners, developed an **action plan against skipping classes** and an **action plan against early school leaving** (2013). These determine actions to realize the policy in practice.
- **Skipping classes is a strong predictor of early school leaving**, so follow-up with these pupils is crucial. In the action plan, the government established targeted actions:
 - map out;
 - inform/raise awareness;
 - preventive action;
 - accompany;
 - sanction;
 - actions directed towards specific target audiences such as non-Dutch speaking newcomers, illegal pupils, and trailer park residents.
- In Flanders, **early school leaving is monitored by two indicators**:
 - the common **EAK¹¹ indicator (Enquête naar de Arbeidskrachten)**, which makes it possible to compare Flanders with other regions and countries;
 - the **Flemish indicator for early school leaving¹²**. This indicator monitors on population level. The Flemish government can monitor for each learner in secondary education who did or did not qualify.
- Since 2019, the Flemish government also reported on the number of early school leavers subscribed to a second chance learning pathway after leaving secondary education. The results show that **35% subscribe to a second chance learning pathway in the five years after leaving secondary education**.

Measure 10: To improve the quality of school staff, focusing on the quality of teachers, quality in continuing professional development, developing teacher competencies, and reinforcing school leadership

- The policy outlines how **all school staff develop the skills to meet the diverse needs of all learners**. Appropriate training and professional development are provided to all school staff including teachers, support and administrative staff, counselors, etc.
- Schools and teachers have a lot of **autonomy to develop their own continuous professional development policy** based on their own specific needs. The government also sets out priority topics.
- Since 2017, a **training course for teacher educators** has been organized in Flanders. The main objective of this training course is to **strengthen the quality of all teacher educators**.
- The Flemish government approved a reform of teacher training programs to start in September 2019. This decree **strengthens the existing teacher training programs** in the field of subject content, subject didactics, classroom management, and dealing with diversity and the metropolitan context and also creates new programs.

¹¹ <https://statbel.fgov.be/nl/enquete/enquete-naar-de-arbeidskrachten-eak>

¹² <https://onderwijs.vlaanderen.be/nl/vroegtijdig-schoolverlaten-in-het-vlaams-secundair-onderwijs>

Measure 11: To improve the transition from education to work by increasing the coherence between employment incentives and education; improving the quality and accessibility of apprenticeships; promoting cross-sector cooperation; simplifying the systems of qualifications

- The policy aims at **matching labor market skill requirements and learners' skills, wishes, and expectations.**
- Within secondary education, **there is flexibility for learners to have an individual learning pathway within a cycle.** In part-time education and the system of dual learning, learners can combine different levels of professional training with a curriculum focused on general competencies. This flexibility allows learners to progress within the set professional competencies at a different pace.
- The policy outlines the development of **partnerships and networking structures** (partnerships with a pool of local employers to ensure close cooperation about learners' supervised practical training and finding employment after graduation).
- The policy supports the availability of **supervised practical training.**

3.2 Concrete Experiences and Practices

- Project A'REA UP: the emergency plan for qualified outflow (Antwerp)
 - [A'REA UP | Onderwijsnetwerk Antwerpen \(onderwijsnetwerk-antwerpen.be\)](https://onderwijsnetwerk-antwerpen.be)
- Leuven Support Centre against School Drop-Out (Leuven)
 - <https://www.leuvenvoorscholen.be/leuven-steunpunt-tegen-schooluitval>
- Central Reporting Point for at-risk young people (Antwerp)
 - [Central Reporting Point for at-risk young people | Antwerp Education Network \(onderwijsnetwerk-antwerpen.be\)](https://onderwijsnetwerk-antwerpen.be/central-reporting-point-for-at-risk-young-people)

3.3 Main Challenges and Obstacles to be Encountered on ELET

- **ESL-related policy actions have been too isolated and focused on only a few issues:** As discussed by Clycq almost 10 years ago, ESL-related policy actions that have already been taken up until 2013 have internally often received criticism for being too isolated or for being focused on only a few issues and therefore not making a significant difference (Clycq et al., 2015). The VLOR and the SERV argued that the policy actions were too limited.
- **Indicators of early school leaving do not always allow us to quantify the real situation on this issue:** Some countries produce indicators of early school leaving at different levels of aggregation, from the education system as a whole to individual schools. The existing school indicators of early school leaving assign leavers of formal initial education to the last school attended. In an education system with a significant degree of inter-school mobility, these conventional indicators are not representative of what a school achieves with all its pupils, as discussed in (Van Landeghem, 2022). Van Landeghem proposed an alternative based on counting years of education instead of pupils. This indicator acknowledges the contribution of a school to the educational career of every

one of its pupils irrespective of where this contribution is situated along the trajectory through formal initial education (Van Landeghem, 2022).

- **The highly selective early tracking system with a clear hierarchical difference between the highly valued academic track and the vocational track:** The specific early tracking system in Flanders and the absence of standardised tests provides teachers with a lot of freedom and power to assess students based on academic achievements, but also based on their behaviour, attitudes and motivations. Consequently, a selection process takes place throughout secondary education. This results in a highly selective early tracking system with a clear hierarchical difference between the highly valued academic track and the more stigmatised (part-time) vocational track, while adult education is perceived as a setting for those students unable to be successful in regular education.
- **Different views of the school staff depending on different educational trajectories:** School staff might have different views on the causes of ESL due to students' different educational trajectories, academic achievements, motivation, and behaviour. As argued by De Coninck et al., staff in regular secondary schools more strongly believe that the reasons for ESL are student-centred (e.g., motivation, effort, and ability). Mainstream schools could benefit from the anti-ESL measures taken by alternative learning contexts such as second-chance education. These measures focus more on addressing systemic inequalities and less on the so-called deficits of individual students. While research in this field is still limited, earlier research indicated that staff in adult education generally perceive the causes for ESL to be more strongly related to factors that are situated outside the scope of the student, such as school and family factors, systemic causes, and learning disabilities (De Coninck et al., 2023). A possible cause could be that these alternative learning contexts are the more engaged and emotionally supportive relations students have with their teachers, compared to teachers in mainstream schools, as referenced in (De Coninck et al., 2023).
- **Less attention has been given to how school staff approach early school leaving:** Increasingly, attention has been given to why students leave without an educational qualification and how (educational) policies can be used to reduce this number as much as possible. However, less attention has been given to how school staff approach this topic. Including school staff's views and understanding of the topic, as well as how they perceive their educational institution is coping with ESL, is crucial as they are the key actors on the frontline of daily student interactions, play a pivotal role in alarming other actors and set up initiatives to prevent ESL. Moreover, their views and expectations further shape classroom interactions and behaviours (Rosenthal & Jacobson, 1968). It is crucial to include school staff's views on predictors of this phenomenon in distinct educational settings (regular secondary education and adult education), including not only teachers but also school staff (De Coninck et al., 2023).
- **Existing studies regarding the decision-making process to change tracks/schools/fields of study at unforeseen moments remain limited:** Decisions to change tracks/schools/fields of study at unforeseen moments, such as during the school year or when leaving school early, are far more difficult to grasp and less documented in the existing literature. For instance, students have to make

educational choices after being told they may not continue in a particular track, or after being forced to change school/tracks/fields of study, due to disciplinary issues, poor results, suggested career reorientation by teachers, or when they feel they do not belong in school. These choices are often more negative, and the available options are sometimes limited (e.g. because of track/school exclusion). Gaining more insight into decision-making processes at foreseen and unforeseen transition moments adds to a better understanding of processes leading to ESL. Moreover, examining the support and guidance received during decision-making could provide tools to prevent ESL (Van Praag et al., 2019).

- **Education and work are not strongly interrelated:** While Flemish policymakers have aimed to organize students in tracks that prepare them for distinct professional futures, the Flemish educational system remains an organizational space where 'education' and 'work' are not strongly interrelated. This is particularly the case concerning the urgent needs some young people are confronted with and how they perceive the instrumental value of education when it comes to securing a job. The interviews carried out by Praag and Clycq showed that many participants argued that they were not convinced that the accumulation of 'work experience' gained through specific vocational programs would provide them with the necessary resources and skills to find a job in the labor market. This remained a constant worry when transitioning to the labor market (Van Praag & Clycq, 2019).

3.4 Policy Implications and Recommendations (Policy Analysis, Best Practices and Interventions, and Future Directions for Research and Action)

In general, Flanders eagerly adopts many of the EU-proposed education policy recommendations, particularly for ESL. The main discussions in the last 10 years have revolved around a more holistic approach to restructuring secondary schools (Clycq et al., 2015). One of the main rationales focuses on maintaining the overall top position of Flanders in performance levels. At the same time, the other argues for a fundamental structural reform of secondary education, which would allow the socio-ethnic achievement gap to decrease (Clycq et al., 2015).

- VLOR recommends a **more active qualification policy and further investment in existing policy levers** such as increasing participation in preschool, equal opportunity policies, action plans against truancy, time-out projects, reform of part-time vocational education and apprenticeship programs, extra support for education policies through local authorities and investing more in adult education (Clycq et al., 2015). Many of these recommendations are already being implemented in current plans.
- SERV pointed out that, next to sufficient investments, also a **reform of secondary education** and a **stronger link between the labor market and qualifications** attained in (compulsory) education are required to combat ESL (Clycq et al., 2015).
- **A more holistic approach is needed** and only comprehensive plans can have long-term effects in tackling ESL (Clycq et al., 2015).
- The social equity rationale strives primarily for the **reduction of the large socio-economic status and (ethnic) achievement gaps** in Flemish education.

Protagonists argue to aim for the effective realization of the possibility for upward mobility in the hierarchical tracking structure. The overall aim of this social equity discourse is to raise the educational performance of all students and to decrease the existing inequalities, and it claims that this is possible without losing Flanders' current top position. The protagonists state to strive for emancipation opportunities for all students and also strongly link the structural reproduction of educational inequalities to the high amount of early school leavers (Clycq et al., 2015).

- The economic rationale argues that the Flemish education system should be **mainly oriented toward the current and future labor market opportunities and changes**. In this sense, education systems need to become more economically efficient and adapt to ensure first and foremost the economic prosperity of Flanders by investing in science and technology-oriented study courses and maintaining its top position in international performance assessments (Clycq et al., 2015).
- The Flemish nationalists argue that the main problems of **the current Flemish educational system are not structural but are more related to the people who participate in education**, for instance, mainly ascribe the performance gap to the language deficiencies and the lack of integration in the Flemish education system of lower SES families and particular families with an immigrant background (Clycq et al., 2015).
- Some stakeholders and policymakers predominantly stress the economic role of education to **prepare youngsters for insertion into the labor market**, while others mainly stress **the democratic and emancipatory role of education for personal development and in combatting social inequality** (Clycq et al., 2015).
- The topic of **early tracking** is one aspect of international policy recommendations that should be worked on even more by Flanders, such as setting challenging targets to lower the regional ESL rate, developing plans for detecting and monitoring the risk of ESL, and drafting a comprehensive (Clycq et al., 2015).
- Future research could delve deeper into the **impact of school characteristics**, conduct more cross-comparative research, and/or **include more views on diversity** (De Coninck et al., 2023).
- Policymakers could **prioritize the follow-up of ESL**, including feedback mechanisms to inform school staff of reasons why individual students decided to leave school early (De Coninck et al., 2023).
- Exactly because of the Flemish educational system's openness to individual educational decision-making, cultural and social capital, and youngsters' living conditions are very important. Future research could **demonstrate the vulnerabilities of distinct educational systems by comparing the extent social and cultural capital is needed when making educational choices** (Van Praag et al., 2019).
- In the fight against early school leaving, policymakers in Flanders should **pay more attention to the follow-up of students at unforeseen moments** (e.g. during the school year), when they are redirected to other educational institutions or programs (Van Praag et al., 2019).
- Policymakers and educational professionals need to **rethink the organization and support of decision-making during students' educational careers**. Students are

often insufficiently aware of the content of fields of study/tracks when making choices – especially at the beginning of their educational career. Moreover, when making decisions about what educational institutions to attend, educational careers to follow, or possible future professions to study for, students too frequently have to rely almost entirely on their personal social networks. This often results in a trial and error of tracks, fields of study, schools, and types of programs throughout their educational career (Van Praag et al., 2019).

- **Vocational programs need to be strengthened**, for instance by providing more opportunities for work-based learning, to demonstrate the concrete value of education for the lives of youngsters at risk of early school leaving (Van Praag et al., 2019).
- Both phases – entry into the labor market and early school leaving – can alternate, and should be conceptualized as a long transition period of cyclic phases of being in and outside education and in and outside the labor market. This cyclic process parallels the increasingly more de-standardized and fragmented structure of youth transitions and, therefore, cannot be studied separately. Furthermore, these school-to-work transitions are dependent on the institutional structures. While most studies focusing on the institutional context apply a macro- and/or meso-level economic approach, **examining the narratives of early school leavers is necessary to fully understand the peculiarities of the interrelation between education and the labor market** (Van Praag & Clycq, 2019).
- The **transition from education to work for early school leavers is not a straightforward one and is characterized by a cyclic process**. In this cyclic process, the added value of labor market experience and educational qualifications are constantly contrasted against each other (Van Praag & Clycq, 2019).
- It requires a **more inclusive education system that focuses on tackling the individual issues** that students are dealing with (psychological, social, and financial), both in and outside school (Van Praag & Clycq, 2019).
- **Having a good, fixed, and/or desired position in the labor market** could reduce existential and financial stress, and provide an important experience of personal success hitherto not found in education. These factors may allow them to return to or invest more in education, where they have until now felt insecure, unsuccessful, and out of place, and go for “a second chance” (Van Praag & Clycq, 2019).
- **Transitions should be guided and supported by counseling or clear institutional arrangements**; otherwise, this reversed trajectory could lead to nowhere and result in another failing experience and disappointment (Van Praag & Clycq, 2019).
- It is necessary to consider, both in research and in policy, **labor market, and education dynamics together** and to **pay more attention to the possibility of reversing decisions made** during young people’s transitions into adulthood (Van Praag & Clycq, 2019).
- Future research should include the **psycho-social issues and insecurities young people at risk of early school leaving are facing** and that hinder them during their school-to-work transitions (Van Praag & Clycq, 2019).

- Modular education refers to the division of conventional courses into smaller components or modules. Each module enables students to obtain a partial certificate that can be combined into a qualification. The paper authored by Mazrekaj and De Witte evaluates whether modular education, widely used in secondary and tertiary education, has been effective in reducing school dropout. The authors concluded modular education is likely to be an effective policy to tackle school dropout and reduce the ethnic attainment gap (Mazrekaj & De Witte, 2020). Additionally, students enrolled in modular education are more likely to be employed and incur higher earnings on the labor market.

2. POLICYMAKERS INTERVIEW RESULTS

2.1 Insights into Interviewees' Roles and Experience

Seven policymakers from the following institutions/organizations were interviewed:

- Flemish Education Council, in Dutch: de 'Vlaamse Onderwijsraad' (Vlor)
- Socio-Economic Advisory Board of Flanders (SERV)
- Catholic Education Flanders, in Dutch: Katholiek Onderwijs Vlaanderen
- Team AI at the Flemish Ministry of Education, in Dutch: Medewerker Team AI
- Department of Education and Training, in Dutch: Department Onderwijs en Vorming

The interviewees cover the following roles:

- Pedagogical advisor
- Responsible for a commission related to early school leaving
- Policy officer at the Flemish Education Council
- Pedagogical scientist
- Advisor at the Flemish Ministry of Education
- Coordinator of a program related to early school leaving

The interviewees work on:

- Prevention of early school leaving
- Prevention by connecting education and other factors in the city of Antwerp
- Educational capacity & EU education policy at the city of Antwerp
- Equal opportunities in education, inclusion, and supporting children when they have learning difficulties
- Supporting schools to prevent early school leaving
- Connection between pupils, schools, and parents
- Lifelong learning and everything that connects education and the labor market
- Vocational education and training
- The pedagogical impact of AI
- The use of AI in schools in a responsible way

Some of the interviewees have also written advice on early school leaving.

2.2 Examining the Importance of Addressing School Dropout

All interviewees agreed that school dropout is a very critical issue in Flanders¹³, mainly in big cities such as Brussels, Gent, and Antwerp. The employers' organization VOKA¹⁴ specially mentioned the high rates of early school leaving in Antwerp, because it is 25% in the city of Antwerp, which means that one in five youngsters leave school without a qualification. So, that's a lot. The overall percentage is also high (14%).

In general, numbers are high and interviewees think they will increase in the coming years. It is important to highlight that in vocational training numbers are even higher, mainly due to a reformation in the school system that could affect a group of pupils who are very vulnerable. Some interviewees not only mentioned the high numbers and their tendency to increase but also the importance of looking at who is in these numbers.

With the new dual learning system, the ways students are learning and working are changing. Then, students still could have some place in education, but the system does not always work. The system is changing and somethings students are not always welcome, then they have to go back to the full-time education system or stop. This is very worrying, and that's why in the last years, the Flemish Education Council proposed a new trajectory for this type of students who are not motivated and no longer ready to learn either at school or work. The proposed trajectory is not only for labor market education. Now there is the phase of negotiating new government agreements, and this new trajectory should be part of the agreement. If this proposal is approved, the students can have a trajectory like this. Because if we do nothing, the numbers will only increase. More and more students will go to the Adult System, and the system is not prepared to handle such a demand. Besides, the adult education system is designed for people more mature. The situation should become better with the new trajectory, where the students will discover themselves, find the right path for education, and then, obtain some kind of qualification. A lot of different countries are trying to do this kind of thing. If we do nothing we will lose a lot of young people.

Besides, in March 2022, the Socio-Economic Advisory Board of Flanders (SERV) made advice about early school leaving, where the opinion of the social partners about early school leaving was established. However, the situation has got worse, not better, so it's still very relevant.

SERV also made priorities for the next Flemish Government as Flanders had elections in June, and one of the topics in this priority note is the early school leaving because it is getting higher. So, it's very important that the next government also take this problem seriously.

¹³ All interviewees expressed their opinions mostly based on the Flemish Educational System

¹⁴ <https://www.voka.be/education-flanders>

One of the main reasons for addressing this issue is that the labor market requires people to be prepared. This yearly VDAB¹⁵ report about the youngsters who enter the labor market and how well they do after one year of finishing their studies shows that youngsters without qualifications have much more difficulty finding a job.

Now, even without qualifications, it is possible to find a job because employers are not in search of it. But the economy is getting a bit worse, then people will probably lose their jobs. So, when the economy is getting worse, these youngsters are more vulnerable to becoming unemployed and have more problems finding a new job.

Especially in Belgium, and also other European countries, it is important the overqualification and the qualification of education. We have also the recognition of competencies that people gain by working, but it is not very popular yet in Flanders the recognition of this kind of competencies. Then, qualification is indeed very important.

Five of the seven interviewees (71%) answered 5 on the Likert scale from 1-not at all to 5 (High priority) to the questions above. The remaining two interviewees answered 3 or 4 but emphasized that it depends on the location, in cities such as Brussels, Antwerp, and Gent is 5.

- to what extent is school dropout a topic to further explore
- to what extent is school dropout a problem to tackle

2.3 Understanding the Primary Causes and Key Risk Factors of School Dropout

The main risk factors and primary causes emphasized by the interviewees are:

- **Migrant backgrounds:** People with migrant backgrounds and minor ethnic minority backgrounds sometimes feel less understood at school. Their results are less good. They don't find their place. They decide to drop out because they think the school is not for them and education is not for them. It is hard to deal with complex situations such as the refugees.
- **Lack of language proficiency:** Proficiency in Dutch is crucial for academic success, placing non-Dutch-speaking newcomers at a significant disadvantage. Students who lack language proficiency face a performance gap due to language barriers, limiting their integration into the system. That's why, language spoken at home is an indicator that schools take into account.
- **Gender:** Boys are more vulnerable to early school leaving when they live in the cities, have more vulnerable situations at home (social, economic), have less support, and are in a vocational track (not in a full-time program). When boys are in a program that combines learning and work, but they do not find work, they are very vulnerable.

¹⁵ <https://www.vdab.be/>

- **Individual attitude:** The individual attitude of students is also relevant but difficult to evaluate and quantify.
- **Repetition of academic years:** In Belgium, there are the highest rates of young people who have to do the same year again. Not only whether or not he/she repeated the year is important, but also the number of times he/she repeated the same year.
- **Skipping school (absenteeism):** When pupils start to skip classes, and it is getting more and more, that is really a factor that makes students drop out. If a student is not at school for one or two days, the school has to make contact with this pupil. Maybe the pupil has to do something he/she doesn't like at all. It is important to look at and discover causes.
- **Changing from one school to another several times:** Students who follow a complex route through secondary education are more likely to drop out.
- **Parents' educational level:** Parents with more education could guide their children to make informed decisions about their secondary school trajectory. However, the only data recorded by schools is the mother's educational level.
- **Environment and close circle:** The student's family situation, the behavior of close friends, their environment, and the neighborhood where the student lives can significantly influence his/her decisions.
- **Complex familiar situation:** Parents play an important role in guiding pupils. Those pupils with a complex familiar situation and no support from their parents have a high risk of dropping out. That's why it is very important a collaboration between parents and the school. When schools can't reach their parents and their students anymore, the bond between the connection between school, parents, and students is away.
- **Low socioeconomic status:** The economic situation, social income, and study allowance are important risk factors for school dropout. When the economic situation is very precarious, some students decide to leave school and go to work to provide for their families.
- **Precedent education:** A student's behavior and results in previous education can influence his or her behavior in secondary school. It is also important to consider whether the student has been in a special education system. It is also important to look back to the earlier school careers of these kids, to get to the root of the problem. This problem does not arrive when they are 15 or 16 years old. It is also important to look at the training and skills that they acquired beforehand.
- **School career delay (i.e., how many years students are still in the system):** In Belgium, when students are on track they have less than a 1% chance of early school leaving, after one year it's 11%, after two years it's 32%, and after more than two years of delay it's 46%. That's why we say please don't use the C attest too often because it is not so fruitful. Sometimes it works, but a lot of times it's not good for the school career of youngsters.

- **The way education is conceived:** It also influences school dropout rates. For instance, the structured class by age. We could ask ourselves if this is the only way of learning. It is important to think about individual chances and personalization of education.
- **There is not a lot of flexibility:** In theory, it is possible to make the learning journey more flexible, but it is difficult to organize it. Children need more freedom or work in small groups. For example, the dual learning system has been changed in Flanders for four years now, but it is really not a success. It's not like in Germany or Switzerland where a lot of young people make the combination between learning at school and learning at work. In Flanders, schools don't believe that the training is as good as it is in the schools.
- **Lack of motivation:** Low motivation can be due to the way the school organizes how students learn, i.e., related to the learning organization part and not enough flexibility mentioned before. Demotivation can also be caused by the student's behavior. The easy solution for schools is to say students go out of school. However, it is important to establish a policy for vulnerable students and be very aware of signals that they are losing contact with the school or they don't feel good at school anymore. Then, it is important to talk with them and guide them. It is also important to guarantee school as a safe place. All teachers know how important is that youngsters feel well and safe at school, but it seems to be not so easy to really implement it in the schools.
- **The track-based system and implications:** In Flanders, there is a system in which children have to choose a direction in education quite young and of course, the voice of the parents at that moment is still dominant. Then, sometimes a child around 12 years old says I want to do this direction in school, I want to do this program, and parents could say no, we don't want you to do that, that's really not a good idea (e.g., why should you do a technical training?). A lot of youngsters start in general education. But it could be not a good choice for some children. So they're not happy and sometimes they don't get good results and then they have to do the same year again, but in another track (e.g., technical or vocational tracks). Then, it's a bad experience for them. This system is interesting, challenging, and tricky, then, it could be also a reason for dropout.
- **Lack of knowledge of the system:** It is important to know the system to make the right decisions. Youngsters with parents unable to guide or direct them may make poor decisions in their educational journey.
- **Start secondary education without a degree from primary education:** One ongoing analysis is whether to move from primary and secondary education based solely on age. Students who did not acquire the expected knowledge and skills in primary school can move on to secondary school. Then, this is very hard for secondary education. Starting without a degree from primary education generates a lot of problems.

- **The capacity problem:** Especially Track B is a big problem and requires policy attention because this track group is growing so fast. There are a lot of critical questions from the policy's and school's perspectives. For example, in Antwerp, there are more than 1000 kids who can not start because there is no capacity in the schools of Track B.
- **Special procedure in primary and secondary schools for final exclusion:** If a pupil has bad behavior and the school makes all the effort, it is possible to follow the special procedure to exclude the pupil. When that happens once, it could be ok, and the pupil can start again in a new school and it could be going well. But some pupils go from school to school, like a carousel, and finally, they drop out because they are not motivated anymore.
- **Last year of Secondary Education:** In the last year before university, when students are 17 or 18 years old, they decide to drop out at the very last moment. It can be very personal. That's all of a sudden they don't feel at home again anymore at school and they drop out at the last minute but those youngsters, most of the time, find another way. So, it is important to offer alternative ways.
- **The school context:** It is a relevant factor for learning, but difficult to measure and quantify.
- **Lack of connection between teachers and students:** The connection between teachers and students is very relevant. Teachers can make a difference. But if teachers do not connect and identify causes, it will be difficult to tackle the problem and prevent early school leaving. Some children need a figure in their lives who supports them, who is there for them and not every teacher is empathic or can communicate with children. So that's also very important inside schools. There are guidelines for headmasters, and tips and tricks are provided. However, if teachers don't have it in their behavior, it won't happen. But that's a pity because that kind of child needs it so much. Teachers sometimes do not know the real impact they have. Teachers are extremely important but they don't realise that. Another aspect related to teachers is gender, class management of female and male teachers is completely different.

2.4 Challenges Schools Face in Implementing Dropout Prevention Strategies

- **The structural problem in how the Flemish education system works**
 - **Three parallel systems for the same group of people:** Early school leaving is a systemic problem. In Belgium, there are three parallel systems for the same group of people. It is difficult to align all factors that influence student behavior and a possible early school leaver.
 - **The track system and the waterfall:** The track system and the waterfall make students less motivated. The system is not ready to take these demotivated students and do something with these young people. There is a proposal for the final structural part, to give another chance

to students at least. But the prevention part is going very poorly (waiting list). Proposals are led to the mitigation part because it is urgent.

- **Modernization is failing:** Modernization is not working and it is necessary to address it. At least, some parts have been addressed, but if the whole thing is not working, another exercise is required. It is necessary to rebuild structures, this should be one of the priorities of the Flemish government, but this will take 10 years.
- **Transition without the required skills:** Transition from primary to secondary education without the required skills makes secondary education complex and generates several problems because some students start secondary lacking skills.
- **Waiting lists:** Once the problem and even its possible solutions have been identified, the student has to wait for the potential solution. Students are waiting a lot for the solution to become available. There are waiting lists for different services (e.g., mental health services). It is unknown how long the waiting lists are. Sometimes schools and the Pupil Guidance Centers (in Dutch: Centrum voor Leerlingenbegeleiding (CLB)) want to send students but it is not possible, then they just stop sending students. This issue needs to be addressed, these waiting lists must be stopped.
- **Students have to make decisions in a very crucial period:** Students' decisions will produce a big change in a very complex age. Some proposals suggest organizing the first two years of secondary school within the primary school to make the transition easier, but this is not legal.
- **Belgian educational context is highly competitive:** Schools could suggest students move after two years, then these students will not count at the end, but who was there from the beginning? Taking students out of school is the easiest way to "clean up" the school's numbers, but it can lead to demotivation and end up in dropping out of school.
- **It is important to know the system to make the right decisions:** Better-guided students are more likely to end successfully than those who were not well-guided due to a lack of knowledge of the system, among other reasons.
- **Lack of teachers:** The lack of teachers means that those in the classrooms are very busy and have very limited time for prevention work. For that reason, there is no one who does anything extra to do.
- **Many tasks versus budget and time:** There are so many things to do, but there is not enough money and time.
- **Mix of different cultures and big diversity:** In Belgium, there is a mix of different cultures which requires customized and integrative solutions. There is a big diversity in some schools. That's also a big challenge. Diversity could generate polarisation between teachers and students. The context is not so easy at this moment also not in society.

- **The economic story behind policies and decisions taken:** This also influences the implementation of prevention actions.
- **No use of autonomy:** Teachers and schools have autonomy, which means education is extremely free. However, teachers think they lack autonomy, they are not convinced of the freedom they have, then don't use it.
- **Challenges in academic year transitions:** Sometimes there is no good transfer from academic years. It is important to make the manual of the student and take into account his/her evolution through the academic courses.
- **Challenges in parental involvement at school:** The involvement of parents in the school is difficult. Positive parental involvement is needed.
- **Classes' structure:** How classes are defined and organized undermines a personalized approach that considers different student characteristics, student behaviors, and other individualities. More individualization is required.
- **Guidelines vs implementation:** Headmasters can indicate what to do, but if teachers don't follow the indications, it is difficult to prevent. Guidelines are established, but it is difficult to know exactly how far teachers follow and implement the guidelines, even if the inspection to control is carried out because many actions depend on common sense, sensitivity, and the perspective of each teacher.
- **Need for more support at schools and more organizations:** There is a need for more organizations to tackle the early school leaving problem, even out-of-school. Schools must be very much aware, know their pupils, and be very alert. People at the school who support pupils, especially vulnerable children, are needed. There is much more diversity in the classes, and every pupil has his/her own needs. So, it is not easy, but it's a bitty idea that sometimes schools are leaving children behind, or they think he/she is not good enough for school. Then, the school orientates this pupil to another level or even to put them away. The school could say you cannot stay here, then you have to search for another school. This could be a tragic tragedy sometimes, and affect youngsters because they leave school, they are not in education, they are not working, so they are at home and they do not experience anything. So, it is very bad for youngsters.

2.5 Evaluating the Effectiveness of Current Dropout Prevention Policies

There was a big action plan against early school leaving. It was very broad with a lot of partners working on it. But this plan was in effect until 2020 and then it finished. **Now there is not such a big plan, but the Minister gave extra money (more than 7 million) to the Centers for Guidance of Pupils (CLBs).** Then, more money is going out again to CLBs with the idea of linking and closer to schools again.

What has been seen in the last years is that CLBs have had to downsize, lose funding, and operate from a high-level perspective than they used to be more directly with the school. As mentioned above, the last policy proposes a kind of reversal of that and so to give more money to the CLBs to work on this and again get closer to schools, and be more

directly linked to schools. But it is a limited program and a limited kind of action plan, because **the new plan is not a big new plan in cooperation with other policies, other actors** like psychologists, psychiatrists, and other services for young people. Given that this is a systemic problem, Ministers should also work together because **solving the early school leaving problem requires a combination of factors, such as education, health, and economics.**

Now **the problem has been identified and its possible solutions, but students are waiting for the solution to become available.** There are waiting lists for different services (e.g., mental health services) as mentioned before. Then, the last policy is not very feasible. What do they exactly do? They have this money and they have to be more in the schools. But it is important to work together with other partners too because when you have youngsters who lose contact with schools they also lose contact with the centers. Maybe they don't trust these centers, so it can be important to have very good cooperation with more welfare organizations or labor market organizations that can make programs for these youngsters who are at risk of dropping out. Actions should be more visible and stronger for everybody.

On the other hand, another interviewee presented another point of view. She mentioned that in some cases the welfare organizations can support schools, but **sometimes schools take action too late or have little time for this kind of action.** Schools are trying and trying and take measures before requesting support, but it could happen that measures do not work anymore. For example, when the pupil is five half days not at school, schools are obligated to work together with the CLB. They have to work together with CLB and then think about measurements to prevent the child's absenteeism. However, some schools are very good at this whereas others are not so good at it, and they like to try before requesting support from a welfare organization. The obligation can be effective, but it isn't always effective because schools are starting too late with a special procedure via CLB and welfare organizations.

Another issue is that **feedback is missing.** Schools give pupils to a welfare organization, but there is not always a collaboration between the school and the welfare organization. Sometimes pupils go back to school and schools don't really know what happened. What welfare organizations do with our pupils and how effective actions are, could help our schools. A digital system to make the collaboration happen would help. So, schools can see actions, receive feedback, and communicate with welfare organizations.

If **teachers do not always have a heart for their pupils,** the effectiveness of the implementation of regulations could be affected. For example, those pupils who misbehave at school need to be included and both the school and social organizations should provide support and encouragement. However, sometimes the goodwill is away from bad behavior and ends in exclusion, which leads to disastrous consequences.

There are a lot of initiatives, which can be a strength, but it also has disadvantages. Part of the problem is that it is diverse. Then, in any given town or city there are different initiatives, and different types of actors, which makes it hard to see the forest through the trees. There are action plans against early school leaving as provincial coordinator. One of the things that comes out is that **there is a need for a Flemish approach.** That's why there is now a Flemish coordinator.

Other interviewees emphasized that **the real work needs to be done locally.** They stated that local initiatives are working. But, every action costs money, then it is necessary to create a budget for that. For example, the project in Antwerp¹⁶ stopped because of funding. Another nice example of a local initiative is the project in Leuven¹⁷.

2.6 Data to Measure and Predict School Dropout

There is a central system and then there is data, but **the data comes from the Ministry, exactly from the Department of Education.** The consolidated data is from 2022 because it always takes time. The Department of Education in Flanders could provide data.

There is also a **strong system to control absences.** Schools must strongly monitor students who are absent without a reason/justification. For example, in kindergarten, If the little children don't go to school enough, they can't continue. So, they must know exactly how many days the children were not at school because this has consequences.

Data about family situation and nationality are also available because schools also get more money if there are students with a greater vulnerable social and economic situation. **The language at home and the education level of the mother are also registered.**

However, **there is a lack of data on the specific projects welfare organizations conduct with pupils.** There is also no data on cooperation with these organizations or their effectiveness.

Teachers invent their own paths and tests. **There is no common scale for scoring exams,** so this could be a challenge when aggregating data.

An important source of data is DataLoop. Data magnifying glass: getting started with figures on education, in Dutch: DataLoop: aan de slag met cijfers over onderwijs

[Data magnifying glass: getting started with figures on education \(vlaanderen.be\)](https://www.vlaanderen.be/onderwijs/data-magnifying-glass)

DataLoop includes useful data, for example, about absenteeism and whether pupils get a diploma or not.

Useful datasets from DataLoop:

¹⁶ [AREA UP | Onderwijsnetwerk Antwerpen \(onderwijsantwerpen.be\)](https://www.ondw.be/onderwijsnetwerk-antwerpen)

¹⁷ <https://www.leuvenvoorscholen.be/leuven-steunpunt-tegen-schooluitval>

[vroegtijdig-schoolverlaten-woonplaats-dataset-2021-2022.xlsx \(live.com\)](https://vroegtijdig-schoolverlaten-woonplaats-dataset-2021-2022.xlsx)

[Download your dataset from Dataloop | Flemish Ministry of Justice \(vlaanderen.be\)](#)

One interviewee suggested contacting SmartBit, the company that develops the SmartSchool¹⁸ application because it manages and stores a lot of data that could be useful.

Other suggestions for getting data are:

- Contact researcher that worked on this publication
<https://hiva.kuleuven.be/nl/onderzoek/project-in-de-kijker/leerlingen-in-dbso-in-antwerpen-een-profielschets>
- STATBEL: [Voortijdige verlaters van onderwijs en opleiding | Statbel \(fgov.be\)](#)
- Figures on early school leaving: [Figures on early school leaving \(vlaanderen.be\)](#)
- Central Reporting Point for at-risk young people, in Dutch: Centraal Meldpunt voor risicojongeren: [Central Reporting Point for at-risk young people | Antwerp Education Network \(onderwijsantwerpen.be\)](#)

2.7 Exploring Technological Tools for Preventing and Reducing School Dropout Rates

Most of the interviewees are not familiar with technological tools, they mention that technology is not their strongest point. Most of them do not use any tool, because they analyze the data and results that other departments provide. They do research in a very qualitative way. But they were very curious about how to use technology in this topic.

There are some apps about welfare and preventing bullying that schools are using. There is also a platform that provides a list of questions, but it is not on the individual level. It is to see what is happening in the classes.

In summary, there are not so many technological tools. But, schools use the digital system to follow students, and it is possible to read everything online, and it is used quite a lot. However, this system only provides data and statistics, but it does not make predictions.

2.8 The Role of Technology and Data Analytics in Future Dropout Prevention Efforts

Interviewees think it is very important to use technology, but also to be very careful with it. It may **not create prejudices**, because the students are the more important, as well as the collaboration/connection with their parents. If a system can help to make the connection stronger, this system will be useful. But if systems only provide numbers, and stakeholders do nothing with the numbers, then, they will not help. **Interpretation of results and further actions are relevant.**

¹⁸ <https://www.smartschool.be/>

The **privacy of these systems is very important**, because they could store sensitive information, and all people involved must be very careful with what happens in the lives of these pupils.

To scale and apply possible technological solutions in Belgian schools, an economic factor has to be also taken into account. **The price of the technical solutions mustn't be too high.**

Accessibility is also very relevant. It is important to **train teachers** to be able to work with the systems. It is important to **give professional support** because users could have very different levels of knowledge and expertise in going with technological tools. Everyone should be able to correctly use the tools.

One interviewee gave two very interesting suggestions:

- A policy about the system at three levels (teachers, pupils, and parents) must be specified. Fostering communication between the different factors is very important. Welfare organizations and CLB should be also included. Combining different roles is relevant. The main challenge is to make this collaboration more effective.
- Systems that support the collaboration between welfare organizations, CLB, schools, and parents will be very important. So, schools could see actions, receive feedback, and communicate with welfare organizations.

Most interviewees had also nice ideas on using technology in education, but not specifically for future dropout prevention efforts. Nevertheless, we included these ideas in this report, because they might be interesting to consider for future follow-up projects.

- There are many Ukrainian immigrants in Belgium. Ukrainians have a broad educational culture and academic background and their limitations in Belgium are due to their lack of language proficiency, not the content they need to learn. However, here they are treated in a similar way to other immigrants who come from countries where there are no good educational systems. Technology could be used to facilitate this language challenge.
- The technology could also be useful for monitoring students
- Recording teachers and supporting their self-assessments could be very useful.

2.9 The Role of AI in Preventing and Reducing Dropout Rates

Most interviewees do not know what possibilities exist, but they believe in AI and its successful applications, nevertheless, they highlighted the importance of being careful about the application of AI in prevention.

Two interviewees familiar with AI expressed that **an early warning system is needed**. Teachers can identify students with obvious behavior that leads to school dropout, but the system could be useful for identifying hidden issues and tracking them early. For

example, a shy girl who seems to be doing well, but has a complex situation at home. However, there are many challenges around this kind of system:

- It is important to train people working with this system.
- There is a need to carefully check how people manage the system's recommendations.
- It is important to educate teachers and students in the use of the system (e.g., it could be risky that teachers and decision-makers label the student at risk).
- AI solutions must consider humans in the loop
- Explanation of decisions, predictions, and recommendations should be provided

Another interviewee, who does not have much experience using AI, does not see the link to early school leaving. However, he did address core issues regarding data quality and how data is understood and analyzed.

- **All people involved in this topic must get a good understanding of the data concerning early school leaving.** This is really crucial. Policies are directed by data. Then, it is very important to look deeper into the data. Sometimes data is not useful because it is not possible to identify connections, there are missing data, features are not well described, and there are inconsistencies, among other issues.
- **Data interpretation is very relevant.** For example, if we decide to consider the qualification only from the labor market-oriented part and not from the general education part, then the student is labeled as qualified and this will completely change the numbers. At least they are qualified in a way, and that's ok, but if you just change that, then data will magically change, but we can not conclude that the policy is working. Behind numbers, there are many unknown things. Then, it is very relevant to interpret what we have.
- **Most of the available data do not show the full picture of the problem.**
- **Many elements are not taken into account when measuring early school leaving** and wrong conclusions can be reached.

2.10 Long-Term Strategies for Effectively Preventing, Reducing, and Combating School Dropout

The most revolutionary long-term strategy proposes **reshaping the education system**, focusing on going from primary to secondary education, and also the tracks and the waterfall system. New policies are trying to combat the main symptoms, but **the long-term solution is more structural and fundamental**.

Other interviewees mention different actions that could contribute to effectively preventing, reducing, and combating school dropout:

- **Strong collaborations with social partners and different sectors:** It is important to work with social partners and different sectors.

- **Local actions:** Real work must be done locally with partners, this is the key to effective solutions.
- **Engaging curricula:** Schools need to have engaging curricula. Good programs (i.e., interesting, attractive) give some perspective also to youngsters that they know if they learn this matter later on they can go to high school, go to university, do this job, or work in this sector. So, that is attractive of course.
- **Personalization and flexibility:** It is important to think about individual chances, personalization of education, also learning by sharing knowledge with others.
- **Address teacher shortage:** Nowadays there is a lack of teachers and those who are teaching do not have a lot of time to work on prevention.
- **Improve teacher training:** The training of teachers in Belgium is not high, so the professional training of teachers once they're working is limited. Teachers don't get a lot of training. So, teachers must learn and keep on learning themselves.
- **Expertise beyond pedagogy:** Society needs good teachers, knowledgeable and skilled teachers, not only pedagogical. Teachers have to know the things and content they teach. They have to be experts themselves.
- **Sooner is better:** It is important to work at an early age. Actions are necessary from 2 ½ years, this way it will be cheaper and more effective.
- **Inform children and parents about educational pathways:** Children and parents must be well informed about the different paths there are in education, the different programs they can follow, and the possibilities they have. It is very important to provide good guidance, organize open doors, and be able to provide useful information when students need it. Schools and welfare organizations must be very close to young people. It is also very important to provide personalized guidance because each student has different characteristics and expectations.
- **Empowering education with technology:** To be well-equipped is essential to provide a good education.
- **Positive parental involvement:** Positive parental involvement is needed.
- **Inclusive education:** The education system must always have a place for every kind of student, mainly for vulnerable students. Pupils should feel they are welcome at the school at any moment.
- **Connection:** Connecting school climates is relevant to prevent early school leaving, and also to prevent school exclusion. Keeping in touch with each other and connecting with pupils, also when the pupil is at home is essential, because the school could forget about the connection and that's when it becomes even more important.
- **Respect and communication:** It is important the way people talk with each other. Non-violent communication is equally essential.

3. CONCLUSIONS

Belgian national performance on early school leaving is slightly better than the EU average. However, it is an issue of concern because the number of early school leavers is still developing unfavorably and is expected to worsen, mainly in Brussels, Antwerp, and Gent.

The reviewed papers, reports from previous projects, and opinions expressed in interviews all agree that addressing the issue of school dropout is a high priority in Flanders.

Something that distinguishes Flanders is the track-based system in which children have to choose a direction in education quite young. This system is interesting, challenging, and tricky, which could be a reason for school dropouts.

The main risk factors and causes that lead to school dropout are diverse and interrelated, including systemic-related causes, school-related causes, family-related causes, student-related causes, victimization and health-related causes, and teacher or peer-related causes. Then, early school leaving is a systemic problem. For that reason, it is necessary to align all factors that influence the student's behavior and could contribute to solving the problem.

Although the government in Flanders has taken several actions to combat early school leaving, there are still many challenges to address. A more holistic approach is needed and only comprehensive plans can have long-term effects in tackling early school leaving. Nevertheless, real work must be done locally with partners, this is the key to effective solutions.

There is a centralized system and other applications that offer information on key student indicators. However, most of the available data do not show the full picture of the problem.

Schools use a few apps for welfare and bullying prevention, along with a platform for monitoring class-wide issues through a list of questions. While there are limited technological tools available, schools extensively use a digital system to track student progress, which provides data and statistics online. However, to the best of our knowledge, no system offers predictive capabilities around the early school leaving problem in Belgium.

There is interest and confidence in using a system to predict at-risk students, but it also highlights the need for responsible use of Artificial Intelligence.

Different long-term strategies have been discussed for effectively preventing, reducing, and combating school dropout. Although some statements have pointed out that the main problems of the current Flemish educational system are not structural but are more related to the people who participate in education, most policymakers and conclusions

from research papers argue that the long-term solution is more structural and fundamental.

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