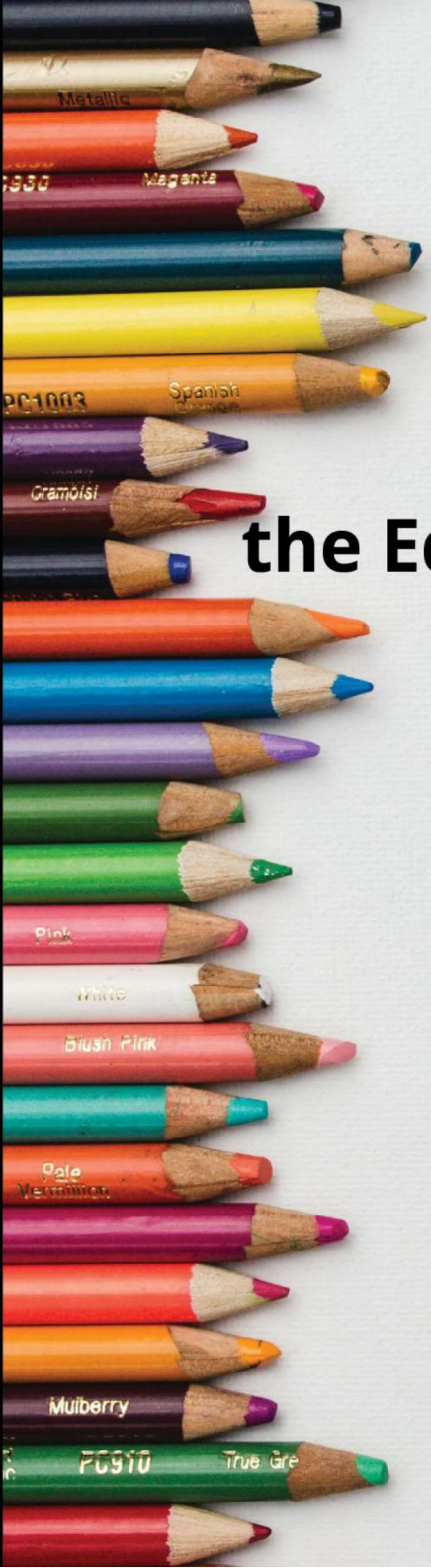


The (Major) Challenges of the Education System in Luxembourg

Dr. Susanne Backes
Dr. Joanne Colling
Dr. Thomas Lenz
Edmund Misson
Ioana Pop
Dr. Sonja Ugen

idea

The (Major) Challenges of the Education System in Luxembourg

IDEA is an independent, multidisciplinary, and open-minded think tank. Founded in 2014 at the initiative of the Chamber of Commerce, IDEA aims to envision a sustainable future for Luxembourg.
Our mission is to stimulate and contribute to high-quality public debate by offering constructive proposals that address major socio-economic challenges. We pursue this mission through a comprehensive approach built around three pillars: identifying major challenges, generating knowledge and fresh ideas and fostering and participating in public debate.

Authors: Dr. Susanne Backes, Dr. Joanne Colling, Dr. Thomas Lenz, Edmund Misson, Ioana Pop, Dr. Sonja Ugen

Edited by: Ioana Pop

Cover by: Julien Mpia Massa

Photo by: Kelli Tungay on Unsplash

www.idea.lu | info@fondation-idea.lu

Sommaire

Foreword

Opening the Debate on Education

The National Education Report published in December 2024 concluded that "the traditional education system has long since ceased to be suited to the diversity of the student population and therefore needs to evolve." The public system is indeed facing challenges on a scale that is difficult to compare internationally, primarily due to a rapidly growing resident population with highly diverse and ever-evolving backgrounds. Education is a field of public policy that quickly ignites strong emotions, as expectations are particularly high. A high-performing education system must inspire vocations in the service of society and the economy, shape informed citizens, create the conditions for genuine equal opportunity, and equip the next generations with the tools they need to adapt to a changing world.

This collection was published following an internal seminar held on July 10, 2025, bringing together IDEA's team, Board of Directors, and Scientific Council. It offers insight into some of the major challenges faced by the education system in Luxembourg.

The goal of this discussion was to give our think tank an opportunity to familiarize itself with a subject that has not yet been the focus of a dedicated research project, by bringing together experts

capable of "depoliticizing" the debate through their analytical work and helping to answer some fundamental questions: what are the goals of the Luxembourgish education system, and how can its performance be measured? Are there performance indicators that would allow us to make credible international comparisons, considering our very specific context? What are the challenges related to linguistic and cultural diversity, and what solutions can be considered? What insights do the evaluations conducted in Luxembourg provide on these issues?

The expertise shared by the contributors to this collection is an indispensable first step for economists seeking to analyze the economic challenges of the Luxembourgish education system, while major reforms will be introduced in 2026. We sincerely thank them for their invaluable contribution.

We hope you enjoy reading this publication!

Vincent Hein,
Director, IDEA

Link to the slides presented by
the experts during the seminar:

Introduction: Overview of the latest evolutions in Luxembourg's education system

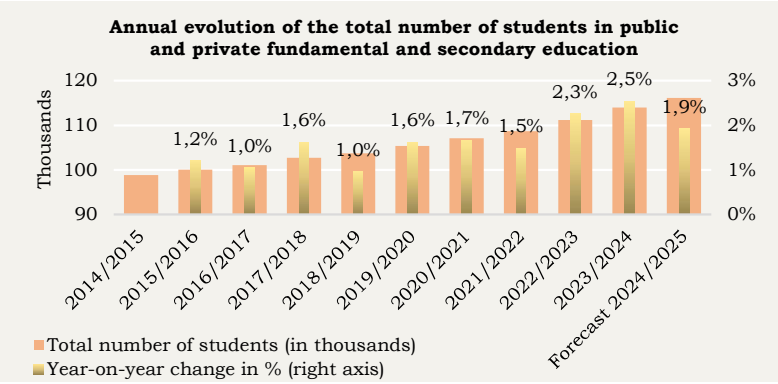
Ioana Pop, Economist, IDEA

This book presents a collection of papers which brings together the insights of several experts, offering their perspectives and analysis about the ongoing and further transformations of the Luxembourgish education landscape.

To set the stage and before diving into the written contribution, here are a few key facts and figures that are important to highlight the challenges faced by Luxembourg's education system.

1. **There is a strong growth in the number of students in the school system.**

Over the past 10 years, the number of students enrolled in fundamental and secondary education in Luxembourg has risen by 17,5%. Among the 27 EU countries, Luxembourg stands high above the EU's average of 0,6%[1].



Source : Ministry of Education, *Chiffres de la rentrée 2024/2025*.

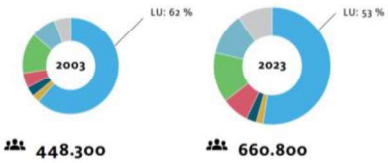
[1] Eurostat, Élèves et étudiants par niveau d'étude.

2. There is strong growth in the diversity of nationalities.

The *Nationaler Bildungsbericht* 2024 highlights in Factsheet no. 1 that Luxembourg's total population grew by 47% over the twenty-year period from 2003 to 2023. However, the proportion of Luxembourgish nationals within this population declined, while the share of non-Luxembourgish residents increased, particularly among French citizens, other EU nationals (including the UK), and other nationalities (excluding Portuguese, Germans, and Belgians) – making this demographic shift quite unique in an international context.

Tab. 1: **Répartition de la population du Luxembourg par nationalité**

Nationalité	2003	2023
Luxembourg	277.600	347.402
Allemagne	10.200	12.678
Belgique	15.900	19.205
France	21.550	49.104
Portugal	61.440	92.101
Autre nationalité U.-E. (y compris R. U.)	36.980	76.589
Autre	24.630	63.730
Population totale	448.300	660.800

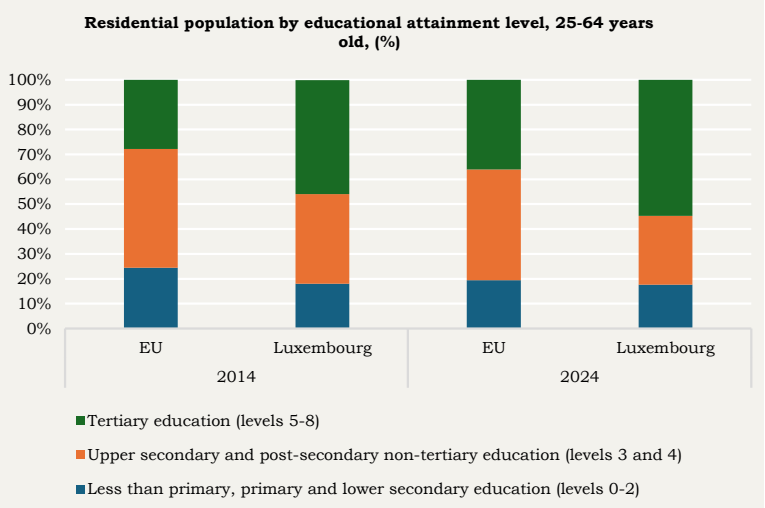


Source: *Nationaler Bildungsbericht*, pp. 24, Luxembourg 2024.

3. Luxembourg's population has the highest level of education among EU countries, and it's increasing quickly, going beyond the EU average.

This is closely linked with the fact that the national labor market has been very dynamic over the last decades. The labor market in Luxembourg it's characterized by economic specializations that require high education levels (finance sector, international

headquarters, international and European institutions, ICT, etc.). Even though the Luxembourgish education system does not "produce" all the talent available on the national labor market, this is an important point to keep in mind.



Source : Eurostat.

4. There is a significant decline in the number of students enrolled in initial vocational training programs.

On the other hand, in Luxembourg, between 2016 and 2022, the number of students enrolled in initial vocational training decreased by 3.4% (-1,453 students), falling from 7,422 to 5,969 students — with

the largest decline among students enrolled in technician diplomas (-3.5%, or -771 students)[2].

5. PISA results – *the elephant in the room.*

At the same time, students' performances remain a concern, with PISA results in 2018 showing scores below the EU average in all domains and high shares of students not meeting basic proficiency levels. One of the questions that must be explored is "how can we measure performance of the system and how can we compare them with other countries?". This topic will come up in several written contributions, particularly with a Luxembourg-specific feature: the evaluation system for the standardized tests known as ÉpStan.

6. Some reforms to be mentioned :

It is also important to highlight that political measures have already been taken to develop the education system. In Luxembourg, the education system is far from being static, and it presents several large-scale projects that are currently underway

<u>The 2009 reform :</u>

The 2009 reform has established major changes across the education system. It created the *école fondamentale*, merging preschool and primary education into a single, four-cycle structure. In vocational education, it implemented a competence-

[2] Data comes from National education reports from 2018 and 2024.

based, modular training system aligned with labour market needs. The reform also modernized higher education governance and promoted lifelong learning through new guidance services and validation of informal learning.[3]

Next year, 2026, is shaping up to be a year for education reforms in Luxembourg.

Compulsory schooling from age 16 to 18:

July 13th, 2023, the Chamber of Deputies gave majority approval to extend compulsory schooling from age 16 to 18. Starting in 2026, young people must stay in school longer, though the 16–17-year-olds can get exemptions to work. The reform aims to reduce dropout and youth unemployment.

The expansion of the Alpha-*zesumme wuessen* project :

Starting in 2026, the Alpha – *zesumme wuessen* project will be expanded to all primary schools. A phase-in will start with one age group in 2026–2027 and then extend to others. Since 2022, pilots have run in four schools —Differdange, Dudelange, Schifflange, and Larochette. From 2026, families can choose literacy in German or French. This is a historical transformation of the school system in Luxembourg.

[3] Journal officiel du Grand-Duché de Luxembourg, loi du 6 février 2009 portant sur l'organisation de l'enseignement fondamental.

With these important “appetizers” mentioned, this book will now bring you into a series of written contributions from several experts, designed to deepen our understanding of the challenges that Luxembourg’s education system is going through. First, Dr. Thomas Lenz, Research manager and Dr. Susanne Backes, Research scientist, both from the Luxembourg Centre for Educational Testing (LUCET), present how the education system in Luxembourg works, being shaped by early tracking, with different and growing international programs, and that faces persistent inequalities linked to socio-economic status, language, nationality, and gender.

The second contribution written by Dr. Sonja Ugen, Acting Head of LUCET, and Dr. Joanne Colling, Research and Development Specialist for the LUCET, highlights that the education system operates in a highly multilingual context with strong social and linguistic inequalities. Also, early achievement gaps are confirmed by national ÉpStan tests and international assessments (PISA tests). The recent policy innovations (European schools, ALPHA pilot project) are quite promising, but their effects on reducing disparities remain preliminary.

The final text, delivered by Mr. Edmund Misson, Head of Division, Innovation and Measuring Progress for the OECD, explains that Luxembourg invests heavily in education but shows low PISA performance and large socio-economic achievement gaps; his paper underscores the need for clearly

defined educational goals, strategies as well as a shared understanding of what is ultimately expected from the education system: to prepare individuals who are not only competent but also fulfilled and engaged.

Bonne lecture !

The Education System in Luxembourg. Education for All?

Dr. Thomas Lenz, Research Manager and Dr. Susanne Backes, Research Scientist, LUCET, University of Luxembourg

I. Introduction

Luxembourg's education system is unique in Europe, marked by a highly stratified structure and a rigorous multilingual framework. The guiding question 'Education for all?' invites us to assess critically the extent to which this system succeeds in providing equal opportunities for an increasingly high diverse student population. This chapter is anchored in the presentations of Susanne Backes ('Changes in School Demographics in Luxembourgish Primary and Secondary Education: A Challenge for the School System') and Thomas Lenz ('Education for All? The Luxembourgish Education System and its Pitfalls'), drawing on recent data and research findings from the National Education Report(s) for Luxembourg[4] and further (inter)national studies.

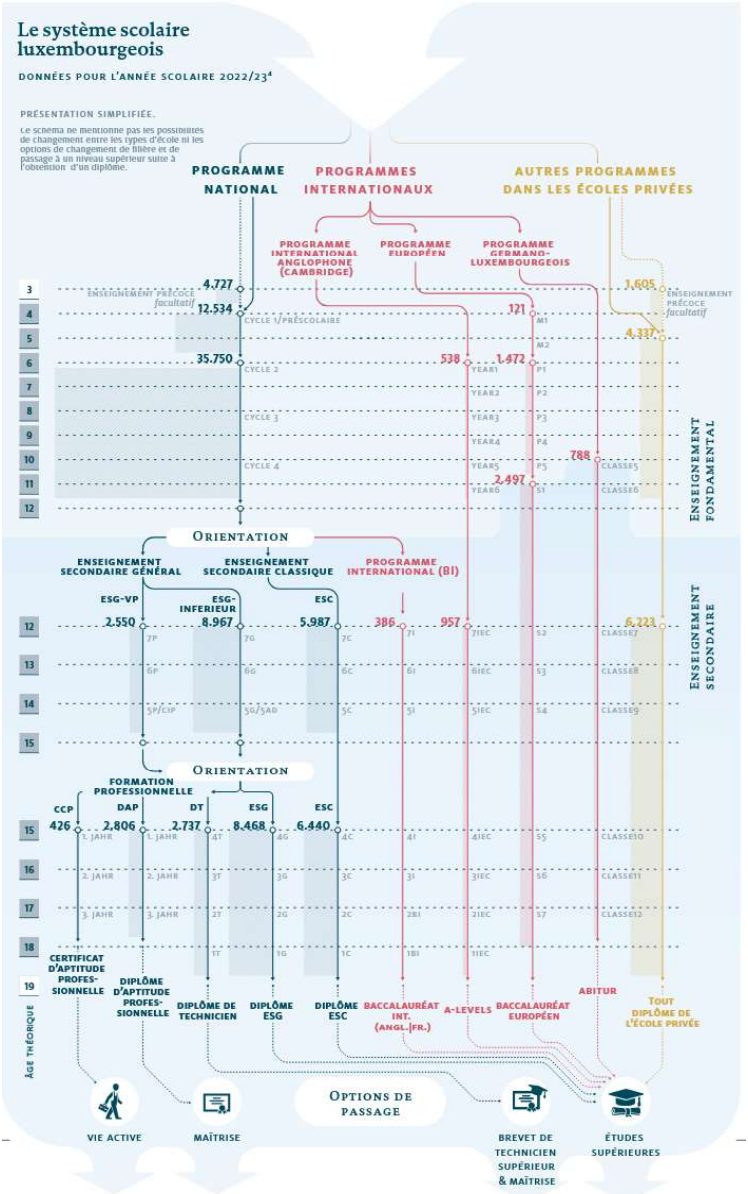
II. Structure of the Luxembourgish Education System

The Luxembourgish education system is notable not only for its multilingual orientation, but also because of its multi-layered institutional structure and co-existence of different types of schools. Within the traditional national curriculum, (cf. Figure 1 in blue) primary education is organized into four progressive learning cycles spanning six years. Each of these cycles culminates in formal assessments and orientation procedures designed to

[4] LUCET & SCRIPT, 2024, 2021, 2018; UL & SCRIPT, 2015

prepare students for the transition to secondary education. The pivotal moment arrives at the end of Cycle 4, when pupils are about 12 years old. At this juncture, academic performance, particularly in language and mathematics, plays an important role. Combined with teacher assessments and parental consultations, these criteria are used to guide students into one of three distinct secondary tracks.

Figure 1: The school system in Luxembourg


Le système scolaire luxembourgeois
DONNÉES POUR L'ANNÉE SCOLAIRE 2022/23[4]
PRÉSENTATION SIMPLIFIÉE.
Le schéma ne mentionne pas les possibilités de changement entre les types d'école ni les options de changement de filière et de passage à un niveau supérieur suite à l'obtention d'un diplôme.
PROGRAMME NATIONAL
PROGRAMMES INTERNATIONAUX
AUTRES PROGRAMMES DANS LES ÉCOLES PRIVÉES
PROGRAMME INTERNATIONAL ANGLOPHONE (CAMBRIDGE)
PROGRAMME EUROPÉEN
PROGRAMME GERMANO-LUXEMBOURGEOIS
ENSEIGNEMENT PRÉCOCE facultatif
4.727
12.534
35.750
538
1.472
121
1.605
4.337
788
2.497
CYCLE 1/PRÉSCOLAIRE
CYCLE 2
CYCLE 3
CYCLE 4
YEAR1
YEAR2
YEAR3
YEAR4
YEAR5
YEAR6
M1
M2
P1
P2
P3
P4
P5
S1
CLASSE5
CLASSE6
ENSEIGNEMENT FONDAMENTAL
ORIENTATION
ENSEIGNEMENT SECONDAIRE GÉNÉRAL
ENSEIGNEMENT SECONDAIRE CLASSIQUE
PROGRAMME INTERNATIONAL (BI)
ESG-VP
ESG-INFÉRIEUR
ESC
2.550
8.967
5.987
386
957
6.221
7P
7G
7C
7I
7IEC
S2
CLASSE7
6P
6G
6C
6I
6IEC
S3
CLASSE8
5P/CIP
5G/5AD
5C
5I
5IEC
S4
CLASSE9
ENSEIGNEMENT SECONDAIRE
ORIENTATION
FORMATION PROFESSIONNELLE
CCP
DAP
DT
ESG
ESC
426
2.806
2.737
8.468
6.440
1. JAHR
2. JAHR
3. JAHR
4T
3T
2T
1T
4G
3G
2G
1G
4C
3C
2C
1C
4I
3I
2BI
1BI
4IEC
3IEC
2IEC
1IEC
S5
S6
S7
CLASSE10
CLASSE11
CLASSE12
ÂGE THÉORIQUE
CERTIFICAT D'APTITUDE PROFESSIONNELLE
DIPLÔME D'APTITUDE PROFESSIONNELLE
DIPLÔME DE TECHNICIEN
DIPLÔME ESG
DIPLÔME ESC
BACCALAURÉAT INT. (ANGL./FR.)
A-LEVELS
BACCALAURÉAT EUROPÉEN
ABITUR
TOUT DIPLÔME DE L'ÉCOLE PRIVÉE
OPTIONS DE PASSAGE
VIE ACTIVE
MAÎTRISE
BREVET DE TECHNICIEN SUPÉRIEUR & MAÎTRISE
ÉTUDES SUPÉRIEURES

The first of these tracks is the *'enseignement secondaire classique' (ESC)* [classical secondary education], an academically oriented pathway. It culminates in the 'diplôme de fin d'études secondaires classiques' [classical secondary school leaver's certificate], which grants students direct access to universities in Luxembourg and abroad. The second track is the *'enseignement secondaire général' (ESG)* [general secondary education], designed to offer broader and more flexible options. At the end of Grade 9, students receive an 'avis d'orientation' [orientation report] which determines the ESG pathways available to them as of Grade 10, based on their interests, previous academic performance and grades. The ESG includes general education as well as vocational education and training (VET) with various specializations. It consequently leads to different types of certificates, some of which grant access to higher education, while others prepare students primarily for entry into the labour market. In this way, the institutionalized orientation after Grade 9 in the ESG functions as a critical mechanism of educational stratification. The third secondary school track starting in Grade 7 is the *'voie de préparation' (ESG-VP)* [preparatory pathway], intended to support students in transitioning into the ESG or vocational pathways later on.

The trilingual language regime is a defining feature in the schools that adhere to the national curriculum (cf. Figure 1 in blue). Luxembourgish serves as

the principal language of preschool, German as the language of literacy acquisition in primary school, and French is introduced during primary education and becomes the dominant language of instruction in secondary school, particularly in the academic track). The layered linguistic progression, Luxembourgish, German, and French, as well as a foreign language (most commonly English) places considerable demands on students and sets this regime apart from the more streamlined language approaches found in international school offerings which are discussed below.

Research on educational mobility shows that upward movement within Luxembourg's traditional system remains uncommon, with transitions between tracks being notably constrained (Backes, 2018). Once students are placed in a lower track, it is rather difficult to switch to more demanding pathways. Movement between pathways (e. g. vocational to general or general to classical) is rare. This rigidity stems not only from structural and academic barriers, but also from the differing languages of instruction.

Beyond these traditional pathways, Luxembourg has significantly broadened its portfolio of international programmes in recent years (cf. Figure 1 in red). This expansion is a direct response to shifting demographics, the growing linguistic and cultural diversity of the student population, and the specific needs of highly mobile families. These offerings include the Cambridge curriculum, available in some

public schools. It provides students with access to a globally recognized English-language programme, culminating in A-level examinations. Another important pathway is the International Baccalaureate (IB), which is taught in English or French, and culminates in the widely recognized IB diploma.

In addition, Luxembourg has introduced European public schools (EPS), which are modelled on the European Schools system but are publicly funded and free of charge. Students in these schools can choose their language section – French, German, or English – and receive a curriculum that leads to the European Baccalaureate. Since it was launched in 2016, this option has registered rapid growth and is viewed as a potential key innovation in meeting the needs of Luxembourg's multilingual, international population while remaining accessible within the public education system (Gezer et al., 2025). There are also bilateral programmes, such as the German-Luxembourgish track, which follow specific bi-national agreements and provide instruction in two languages.

Alongside these public programmes, private schools operating with their own curricula play a significant role (cf. Figure 1 in yellow). They include institutions offering Montessori pedagogy, religiously affiliated schools, and the two long-established European Schools. As these private schools with their own curricula fall outside the administrative statistics and national school monitoring frameworks, they are excluded from the analyses that follow. In

terms of enrolment figures for the 2022/23 academic year, 82.3% of pupils attended traditional public schools following the national curriculum; 6.3% were enrolled in public international schools, and 11.4% attended private schools with their own curricula.

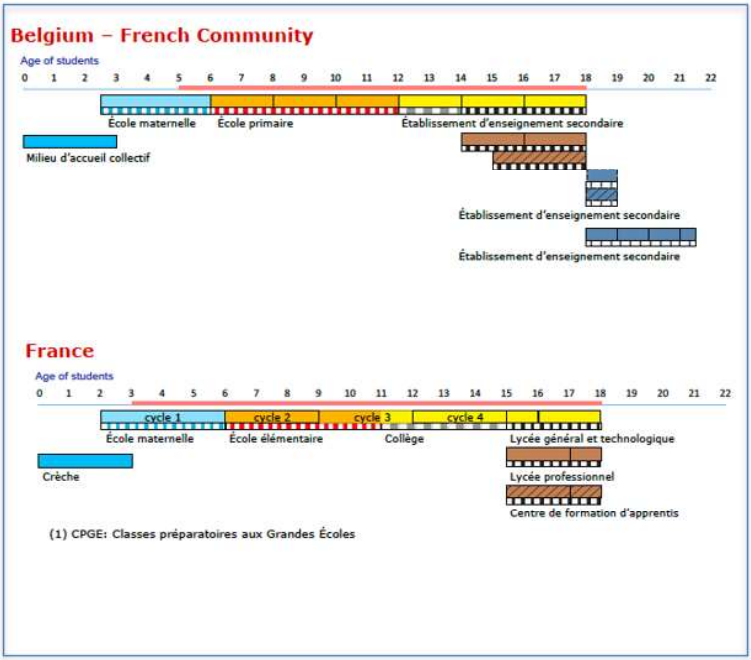
In summary, the Luxembourgish education system today is far more diverse than it was 20 years ago. It combines a highly stratified traditional national curriculum with an expanding array of international programmes. This dual development – marked by the persistence of traditional tracks and the proliferation of globally oriented pathways – is key to understanding the dynamics of educational opportunities and enduring challenges of equitable access in the country.

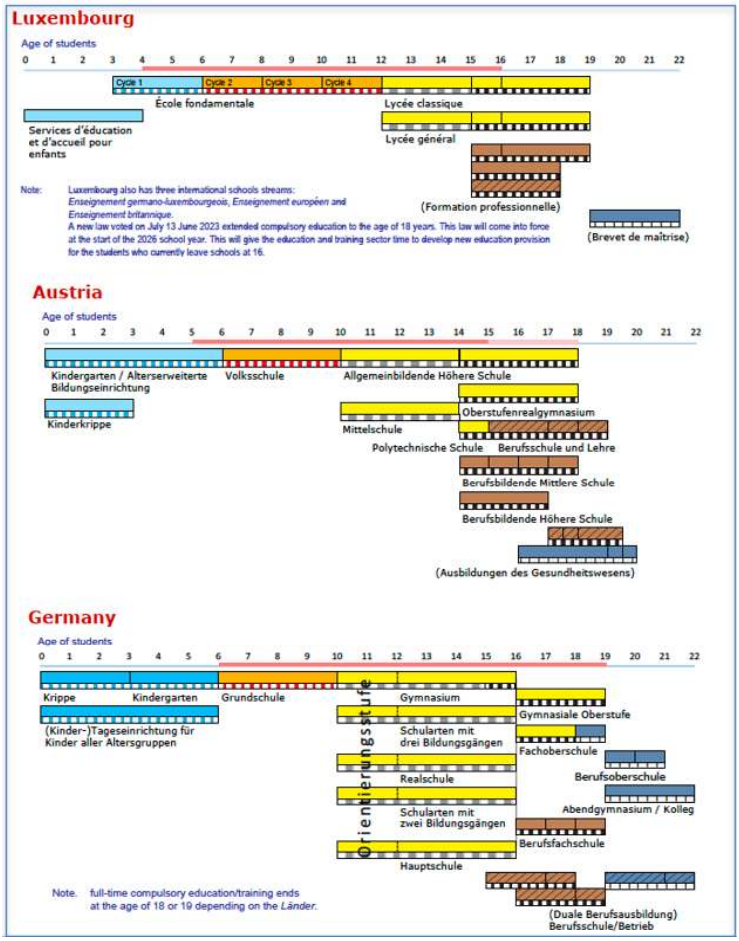
III. International Comparison and Luxembourg's Position

When examining tracking and differentiation across European education systems, Luxembourg represents a hybrid model (cf. Figure 2). In countries such as Germany and Austria, early tracking and high stratification tend to yield strong vocational outcomes, but they simultaneously restrict upward mobility for lower-achieving students. By contrast, France and Belgium implement later tracking with relatively low differentiation – an approach that fosters greater equality but presents challenges in vocational preparation and reveals regional disparities in educational attainment. Luxembourg stands

apart by combining early tracking with a trilingual curriculum and integrated vocational pathways within secondary education. While recent reforms have sought to strengthen vocational tracks after Grade 10, persistent challenges remain. Language requirements are particularly stringent, transitions between educational tracks are restricted, and vocational education continues to carry lower social prestige compared with the well-established dual systems in Germany and Austria. Empirical data from ÉpStan, OECD, and PISA assessments underscore significant achievement gaps in Luxembourg both between native and migrant students and between students from high and low socio-economic status (SES) backgrounds. Early language barriers are particularly pronounced for children from households where neither German nor French is spoken, and the successive transitions in the language of instruction exacerbate these disparities. Consequently, immigrant and working-class students face disproportionate obstacles, thereby limiting equitable access to higher-performing tracks and narrowing their educational opportunities.

Figure 2: Tracking and differentiation in different countries (Eurydice, 2004)



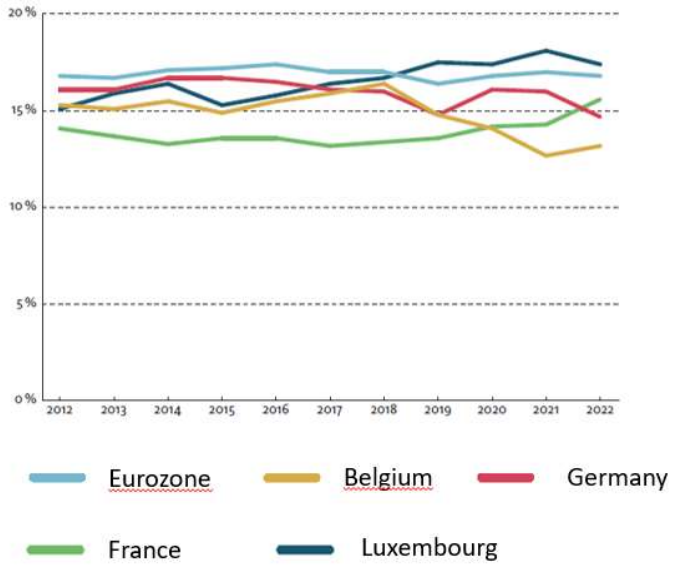


IV. Demographic Changes in the School Population

Luxembourg's population is characterized by pronounced super-diversity. As of 2023, only approximately 50% of residents held Luxembourgish

nationality, a notable decline from 62% in 2003 (STATEC), reflecting both sustained immigration and a growing number of dual nationals. The country is home to over 170 nationalities, placing it among the most culturally and linguistically diverse societies in Europe. Multilingualism is pervasive, with more than 60% of residents routinely using multiple languages in private and professional contexts (Eurydice, 2022). Yet these demographic developments are concurrently accompanied by rising socio-economic vulnerabilities. The increasing risk of poverty, particularly among certain segments of the population, underscores the complex interplay between diversity and inequality (cf. Figure 3).

Figure 3: Poverty risk in Europe over time (STATEC, 2024)

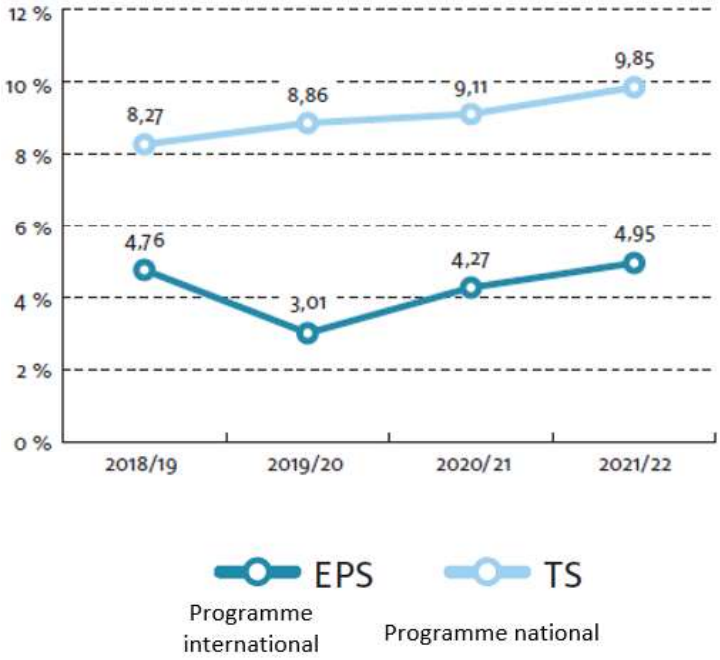


This socio-economic, linguistic and cultural diversity has a direct and visible impact on the educational landscape. Within schools, these demographic changes are increasingly evident. The proportion of students who speak Luxembourgish as their primary home language has declined sharply, from 45.8% of primary school students in 2009/10, to only 31.9% in 2022/23. In secondary education, the drop is even more pronounced: from 58.5% in 2009/10 to 36.7% in 2022/23.[5]

In addition, the share of students whose family receives *Revenu d'inclusion sociale* (REVIS) [social inclusion income] benefits has increased (cf. Figure 4). Notably, this percentage is lower in international school programmes (especially the European public schools, EPS) than in the national programme.

[5] The first language is not always the only language of a student, nor is it the most important, but only the one entered first by the responsible. Thus, it can be understood as a proxy.

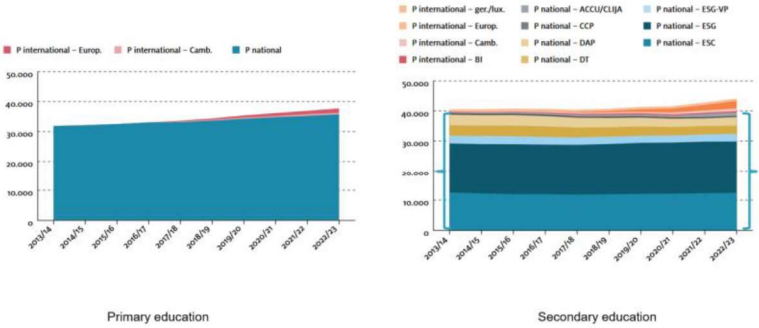
Figure 4: Percentage of primary school students in Luxembourg whose family receives REVIS benefits (Sattler et al. 2024)



Another important trend is the diversification of school offerings. While the traditional national system continues to serve the majority of students, the expansion of international programmes has reshaped enrolment dynamics. The Cambridge curriculum, the IB, the European public schools, and private international schools now attract a growing share of students (cf. Figure 5). Between the academic years 2013/14 and 2022/23, enrolment in international programmes rose steadily, reflecting a

marked increase in demand for alternative educational options in parallel with demographic change.

Figure 5: Changes in numbers of students in terms of programmes (Backes & Lenz, 2024)



Primary education Secondary education

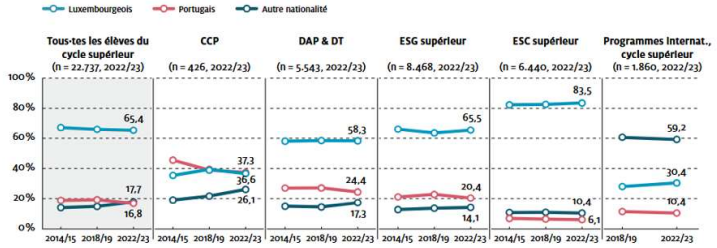
Another key issue in Luxembourg's student demographics is the mismatch between the increasingly diverse student body and the predominantly Luxembourgish teaching staff (Haas & Hadjar, 2024). This mismatch underscores the urgent need to prioritize teacher recruitment, training, and professional development so that teachers are equipped to teach in multilingual classrooms and to support learners from varied cultural and socio-economic backgrounds.

V. Placement of Student Groups in the Education System

Patterns of student placement within the Luxembourgish education system reveal enduring inequalities along socio-economic, linguistic, and national lines. Luxembourgish students remain

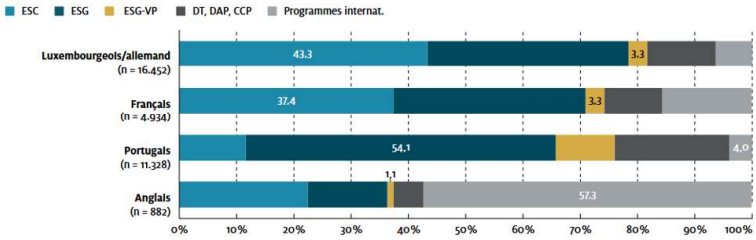
disproportionately represented in the academic track (ESC), whereas students of Portuguese origin are notably overrepresented in vocational pathways (cf. Figure 6). Students from other national backgrounds tend to be more frequently enrolled in international programmes. This stratification reflects not only individual performance and parental choices but also structural constraints, including the effects of the multilingual instructional regime and prevailing social expectations.

Figure 6: Changes in the placement of student groups in terms of programme and nationality (Backes & Lenz, 2024)



The language spoken at home emerges as a particularly strong predictor of student placement. Luxembourgish- and German-speaking students are significantly more likely to enter the ESC, whereas Portuguese-speaking pupils are more often clustered in ESG and vocational programmes (see Figure 7).

Figure 7: Percentages of students who attended various school types per language group in 2022/23 (%) (Backes & Lenz, 2024)



Gender disparities are also apparent. Girls are consistently overrepresented in the ESC, while boys are more likely to be found in vocational or preparatory streams (Backes & Lenz, 2024). This gendered pattern reflects broader trends in education systems observed across Europe.

VI. Educational Inequalities in Luxembourg

As outlined in Chapter 5, student placement across Luxembourg's school tracks reveals enduring broader patterns of educational inequality. These disparities manifest along multiple axes, including socio-economic status (SES), migration background, home language, and gender, affecting not only track placement but also competencies, marks, grade repetition, and dropout rates (Backes & Hadjar, 2024). Among these factors, SES exerts a particularly powerful influence. Families with greater cultural and economic resources are better positioned to navigate complex orientation

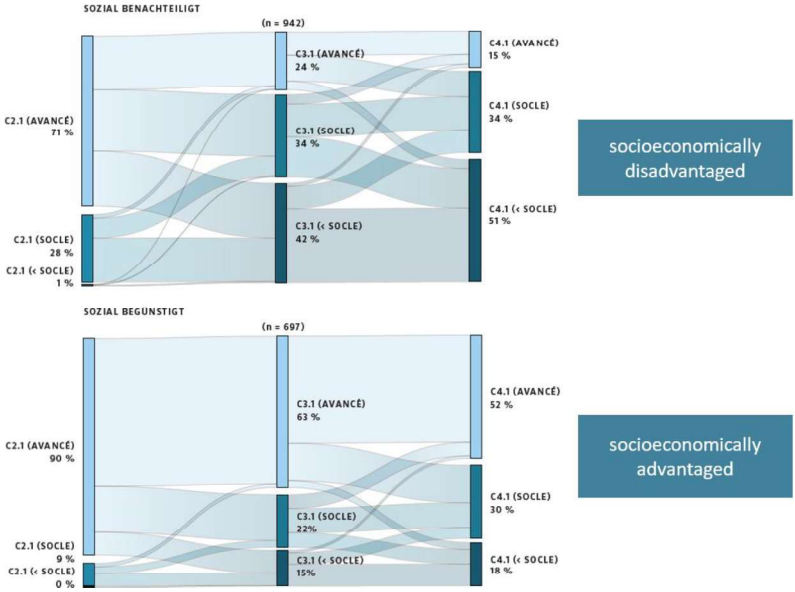
procedures, support multilingual learning environments, and access international or private school options (cf. Figure 4). Conversely, students from socio-economically disadvantaged backgrounds often face significant informational and structural barriers, limiting their upward mobility and perpetuating intergenerational inequalities. Figure 8 illustrates the divide starkly: After primary school, students from low-SES families are markedly underrepresented in the academic track (ESC) and overrepresented in the preparatory ESG-VP track.

Figure 8: Orientation recommendation and social background (Backes & Hadjar, 2024)

Socio-economic disparities are also reflected in patterns of competence development over time (cf. Figure 9). Students from low SES backgrounds often begin primary school with relatively strong initial performance, yet their progress over the first three years tends to be less successful compared with their peers. One contributing factor may be the

language transition from Luxembourgish in pre-school (C1.2) to German in primary school (C2.1).

Figure 9: Mathematical skills and Socio-Economic Status (SES) from Cycle 2.1 to 3.1 to 4.1 (Ottenbacher et al., 2024)



Geographical location plays a role as well (Lenz & Backes, 2024). Students residing in the region around Luxembourg City are more often oriented towards the academic track (ESC), whereas those from the industrialized South, agricultural North and urban city centre, are less likely to access this pathway. This regional variation reveals yet another axis of inequality in student placement.

In general, Luxembourg's highly stratified and choice-driven education system tends to amplify these disparities, as knowledge of the system and parental resources play a critical role (Van de Werfhorst & Mijs 2010; Pfeffer 2008).

VII. Student Perspectives on Educational Pathways

Quantitative data can be complemented by qualitative insights from students. Personal narratives reveal the challenges of navigating early and complex educational decisions. An analysis of students following different educational pathways gives insight into the retrospective subjective perceptions of those involved (Backes, 2018). One student remarked: 'The more choice I had, the less I could decide…'. Another noted: 'You're still so young, and you already have to get your life on track.' Others describe upward mobility as demanding extraordinary effort, particularly in the face of linguistic barriers. Language often functions as a gatekeeper: students report struggling to understand and express themselves when taught in languages not spoken at home, which undermines both their performance and confidence. In this context, teachers emerge as pivotal actors. Their capacity to recognize and support students through "unintended" or "interwoven" and challenging educational pathways can increase their future opportunities, not only in

education, but in employment and life more broadly.

VIII. Longer-Term Outcomes and Career Inequalities

Labour-force survey data from Luxembourg show that educational inequalities persist well into adulthood (Hartung, 2024). Individuals from higher parental SES are significantly more likely to attain tertiary qualifications, secure more skilled employment, and earn higher incomes.

IX. Current Reforms and Outlook

In response to demographic shifts, linguistic diversity, and entrenched inequalities, recent reforms in Luxembourg's education system have sought to enhance flexibility and inclusivity. Language reforms within the traditional educational system have aimed to make the system more flexible and more responsive to the needs of a multilingual student body. For example, early education now incorporates both Luxembourgish and French, reflecting the increasingly diverse linguistic repertoires of young learners. Ongoing pilot initiatives in Luxembourgish schools are also exploring greater flexibility in literacy acquisition, including options for students to learn reading in French rather than German. While these projects and school-level experiments are testing alternative educational pathways, their implementation remains limited in scope.

The establishment of European public schools has been one of the most significant educational innovations of the past decade. By allowing students to select a language section (English, French, German) and by offering the European Baccalaureate, these schools broaden access to international curricula without the barrier of tuition fees. Their rapid growth reflects both demand and political commitment to support them. The continued availability of the IB, Cambridge, and bilateral programmes adds further options for parents and students. Yet the diversification of educational offerings also entails potential risks, as social selection may be reinforced if international programmes are predominantly accessed by socially privileged or highly mobile families. Current evaluations of these reforms remain preliminary, given the relatively modest proportion of students enrolled compared with the overall population. This underscores the urgent need for systematic, longitudinal analyses to determine which groups benefit from new programmes, whether the intended target populations are effectively reached, and whether unintended consequences, such as increased segregation, arise.

Early disadvantage tends to compound over time, particularly for students from families with limited resources. Looking ahead, Luxembourg's education system faces both opportunities and pitfalls. Opportunities lie in its willingness to innovate, to expand offers, and to invest in data-driven policy. Pitfalls, however, are also evident: the risk of fragmentation

between the national and international systems, the persistence of early selection, and the challenge of maintaining cohesion in a super-diverse society. The coming years will be decisive in determining whether (and which) reforms can genuinely promote 'education for all' or whether inequalities will be reconfigured in new forms.

References

Backes, S., & Hadjar, A. (2024). Unterschiede in Schullaufbahnen von Schüler:innen in Luxemburg. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 164–167). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Backes, S., & Lenz, T. (2024). Das luxemburgische Schulsystem. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 46–49). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Backes, S., & Lenz, T. (2024). Die Schülerinnen und Schüler im luxemburgischen Schulsystem. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 130–133). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Backes, S. (2018). Heterogenität im luxemburgischen Schulsystem: Eine Mixed-Method-Studie zu Bildungsverläufen aus ungleichheitstheoretischer Perspektive. Weinheim & Basel: Beltz

European Commission/EACEA/Eurydice. (2022). Luxembourg – Education system overview.

Eurydice. https://eurydice.eacea.ec.europa.eu/eurypedia/luxembourg/overview

Gezer, E. T.; Backes, S. & Lenz, T. (2025). An Idea Whose Time Has Come: Establishment of European Public Schools, Rationale, Patterns of Legitimation, and Narratives. 7th International Conference on Public Policy, Chiang Mai, Thailand (02.07.-04.07.2025).

Haas, C., Backes, S. & Lenz, T. (2024). Das Lehrpersonal im luxemburgischen Schulsystem. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 170–173). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Hartung, A. (2024). Fällt der Apfel weit vom Stamm? Auswirkungen des Bildungshintergrunds auf den beruflichen Erfolg. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 198–201). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Lenz, T., & Backes, S. (2024). Orientierungen im luxemburgischen Schulsystem. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 126-127). Esch–Belval & Luxembourg: LUCET & SCRIPT.

LUCET & SCRIPT. (2018). Nationaler Bildungsbericht Luxemburg 2018. Luxembourg: LUCET & MENJE.

LUCET & SCRIPT. (2021). Nationaler Bildungsbericht Luxemburg 2021. Esch-Belval & Luxembourg: LUCET & SCRIPT.

LUCET & SCRIPT. (2024). Nationaler Bildungsbericht Luxemburg 2024. Esch-Belval & Luxembourg: Luxembourg Centre for Educational Testing (LUCET) & Service de coordination de la recherche et de l'innovation pédagogiques et technologiques (SCRIPT).

Ottenbacher, M., Wollschläger, R., Keller, U., Sonnleitner, P., Hornung, C., Esch, P., Fischbach, A., & Ugen, S. (2024). Negativer Trend bei Kompetenzverläufen und wirkungslose Klassenwiederholungen: Neue längsschnittliche Befunde aus dem nationalen Bildungsmonitoring ÉpStan von der 1. bis zur 5. Klasse. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 55–64). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Pfeffer, F. T. (2008). Persistent inequality in educational attainment and its institutional context. European Sociological Review, 24(5), 543–565.

Sattler, S., Kyzyma, I., & Schmit, P. (2024). Der sozioökonomische Status der Schülerinnen und Schüler: Ein Vergleich zwischen traditionellen und öffentlichen europäischen Schulen in Luxemburg. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 150–153). Esch-Belval & Luxembourg: LUCET & SCRIPT.

STATEC. (2024). Kontext für das Bildungswesen in Luxembourg. In LUCET & SCRIPT (Eds.), Nationaler Bildungsbericht Luxemburg 2024 (pp. 24–27). Esch-Belval & Luxembourg: LUCET & SCRIPT.

Université du Luxembourg (UL) & SCRIPT. (2015). Bildungsbericht Luxemburg 2015. Luxembourg: Université du Luxembourg & SCRIPT.

van de Werfhorst, H. G., & Mijs, J. J. B. (2010). Achievement inequality and the institutional structure of educational systems: A comparative perspective. Annual Review of Sociology, 36, 407–428.

Major Challenges in the Luxembourgish Education System: Insights and Future Directions from the Luxembourg School Monitoring Programme

Dr. Sonja Ugen, Acting Head of LUCET, and
Dr. Joanne Colling, Research and Development Specialist, LUCET, University of Luxembourg

Luxembourg is a multilingual country with three official languages (e.g., Luxembourgish, German, and French), and this multilingualism is embedded in the national education system. Whereas Luxembourgish is the main instruction language in preschool, the language of literacy acquisition in primary school is German and key school competencies (e.g., reading, writing, mathematics) are taught in German. Furthermore, French is introduced as an additional language in primary education.

Another layer of linguistic complexity is added by the country's high levels of immigration, which result in a school population that is highly diverse in terms of home languages. Recent figures indicate that a high share of students speak a language other than Luxembourgish at home – 68% in primary education and 66% in secondary education (SCRIPT & MENJE, 2024)

International large-scale assessments (e.g., the OECD's PISA studies) have consistently shown that educational systems, including Luxembourg, face challenges in adequately addressing increasingly diverse student populations. In fact, mean performance scores in reading comprehension, mathematics, and science among 15-year-old students in Luxembourg have repeatedly been below the OECD average since 2003. Furthermore, results reveal significant achievement gaps between different student groups. Evidence indicates that students from low socioeconomic backgrounds, students with a migration background and those speaking another

language than Luxembourgish and/or German at home are particularly at risk of struggling academically in Luxembourg's education system (e.g., Boehm et al., 2016; Weis et al., 2020).

While international studies such as PISA make it possible to identify the challenges of an educational system and situate them in an international context, they focus exclusively on the outcomes of the educational curriculum at a relatively late stage; namely by providing insights whether 15-year-old students have acquired competencies necessary to navigate the world.

In contrast, the Luxembourg School Monitoring Programme "*Épreuves Standardisées*" (ÉpStan, www.epstan.lu) was introduced to provide more fine-grained information on the academic achievement of primary and secondary school students in Luxembourg. It thereby allows to determine at which points in the educational trajectory inequalities emerge and to identify potential adjustments needed to address them.

The Luxembourg Centre for Educational Testing (LUCET) at the University of Luxembourg has been commissioned by the Luxembourg Ministry of Education, Children and Youth as an independent body to evaluate the national school system. At the beginning of each new learning cycle of mandatory schooling (i.e., in grades 1, 3, 5, 7, and 9), the ÉpStan examine whether the educational goals from the previous cycle have been achieved by all

students in the respective grade levels. The ÉpStan thereby consist of paper-based (primary school level) or computer/tablet-based (secondary school level) standardized achievement tests assessing competences in key school areas (e.g. mathematics and languages). In addition, the ÉpStan include student (all grades) and parent questionnaires (primary school), offering encompassing information on student background variables that have been shown to significantly impact educational success (e.g., gender, SES, language and migration background) as well as on central features of students' learning environments such as school/class climate, student wellbeing, and motivation (see *Figure 1*).

Using standardized measures, the ÉpStan evaluate the performance, equity, and long-term development of the Luxembourg school system. Based on its encompassing full-cohort data, the ÉpStan continuously provide meaningful information to stakeholders at the system level and facilitate evidence-based policymaking; thereby playing a central role in the country's empirical education monitoring and research.

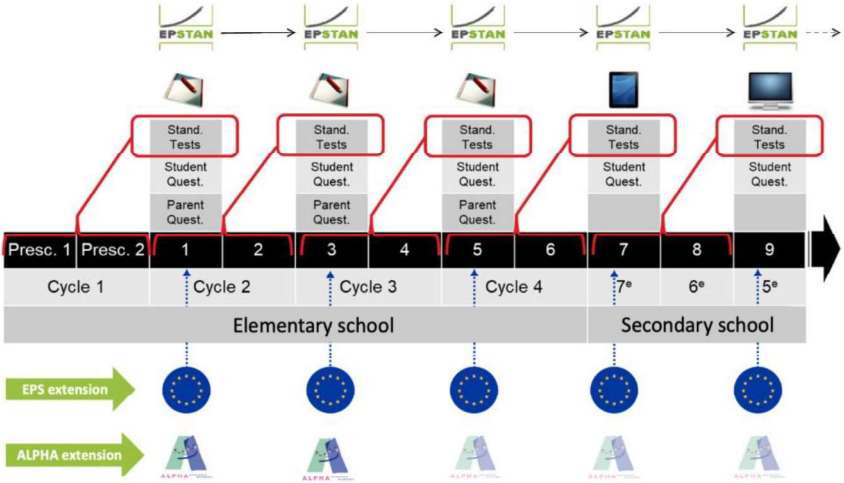
In this context, the ÉpStan have repeatedly identified students who speak a language other than Luxembourgish and/or German at home as being at a greater risk of struggling academically in schools following the Luxembourgish curriculum. As early as from Grade 3 onwards, clear disparities emerge in the proportion of students who fail to reach the

minimum performance standards based on their language background. Slightly more French-speaking students and roughly twice as many Portuguese-speaking students do, for example, fail to meet the minimum standards in mathematics compared to their peers with a Luxembourgish and/or German language background (Ottenbacher et al., 2024). Overall, students with a non-Luxembourgish/German language background are more likely to repeat one or more grades and less likely to enrol in a higher secondary school track (Hadjar et al., 2018; Sonnleitner et al., 2021).

To address these existing educational inequalities, the Luxembourgish government has recently expanded the educational offer by introducing (1) European Public Schools (EPS) following the European curriculum and allowing students to select German, French, or English as their main instruction language alongside the regular Luxembourgish school system and (2) a pilot project on French literacy acquisition providing parents the option to choose between French and German as language of literacy instruction within schools following the Luxembourgish curriculum ("*ALPHA – zesumme wuessen!*"). These two offers thus allow students to learn in a language linguistically closer to their home language.

By gradually including these new school offers into the ÉpStan, the data collected in autumn of every school year enables educational research to provide a first evaluation of whether the diversification of the school offer through the implementation of EPS and the French literacy pilot project can contribute to the reduction of previously observed inequalities in Luxembourg's education system. *Figure 1* provides an overview of the test time points of the ÉpStan in general and on the stepwise integration of the two new offers.

Figure 1: Overview of the ÉpStan and its recent extensions

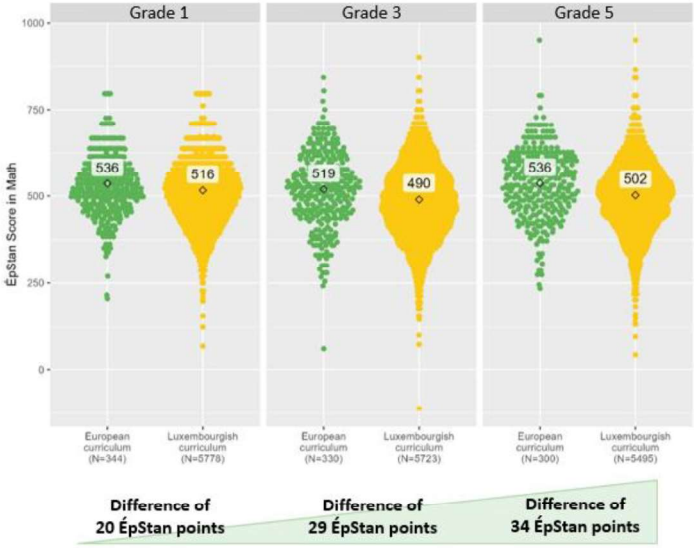


As can be seen in *Figure 1*, students attending EPS are assessed at all five time points of the ÉpStan. When looking at the composition of the EPS student population, first results indicate that the student

population in EPS differs considerably from the one following the Luxembourgish curriculum, particularly with regard to socioeconomic status (higher share of socioeconomically advantaged students attending EPS), as well as to language background (higher share of French-speaking students attending EPS).

First results on academic achievement in the subject of mathematics published in the *European Public School Report 2023* (Colling et al., 2023) illustrate that EPS students showed a higher mean performance in mathematics than students in schools following the Luxembourgish curriculum across all three primary school grades with differences consistently exceeding the regularly observed fluctuations of ±10 ÉpStan points, and this particularly so in higher grades (e.g., C4.1/P5). This finding has been confirmed by data collected in 2024 as illustrated in *Figure 2*.

Figure 2: **Achievement in Mathematics at Primary School Level Split by Curriculum**



Note. Each student's ÉpStan score is represented by an individual dot and the density of the dots reflects the size of each group (i.e., the total *N* of students as indicated on the x-axis). The mean values are depicted in the center of each distribution.

On average, students in EPS perform better in mathematics irrespective of their language background. Of note, student groups that have repeatedly been found to be at a higher risk of struggling academically in schools following the Luxembourgish curriculum (e.g.,

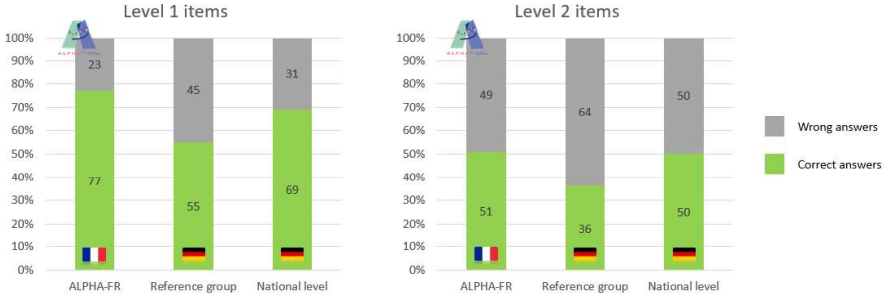
those speaking a language other than Luxembourgish and/or German at home) perform better on average in mathematics than their peers with the

same language background following the Luxembourgish curriculum.

With regard to the French literacy pilot project "ALPHA – zesumme wuessen!", students are gradually being included into the ÉpStan with data available for the first assessment time point in C2.1 thus far (see *Figure 1*). First results indicate that students from the French literacy acquisition group perform better in listening comprehension (tested in French) compared to students with similar background variables (that were matched via the statistical method of propensity score matching based on gender, SES, language and migration background) learning to read and write in German and thus tested in German. This observation can be made both for items at difficulty level 1 (e.g., identifying where a story took place) as well as at difficulty level 2 (e.g., understanding complex instructions). More encompassing information on the comparability of the French and German listening comprehension tests as well as on the creation of the propensity score matched groups can be found in the first ALPHA-Report published in 2024 (Colling et al., 2024).

***Figure 3:* Achievement in Listening Comprehension in C2.1 at Item Level**

Note. ALPHA-FR = students learning to read and write in French in the



scope of the French literacy pilot project. Reference group = students with comparable background characteristics (matched via the statistical method of propensity score matching) learning to read and write in German and following the regular Luxembourgish curriculum. National level = full cohort of C2.1 students at national level excluding the students participating in the pilot project.

In addition, students learning to read and write in French expressed a higher academic motivation to learn in their language of literacy acquisition (i.e., French) compared to their peers with similar background characteristics learning to read and write in German, and their parents furthermore perceive themselves as better able to support their child academically based on their own language skills in French.

The ÉpStan results on EPS and the French literacy pilot project provide first indications that broadening the educational offer may contribute to reducing existing educational inequalities. Academic achievement and motivational measures are generally higher for students in the new offers, and the

at-risk student population (e.g., low socioeconomic background, Portuguese-speaking students) appears to benefit particularly from the possibility of learning in a language that is linguistically closer to their home language background.

However, these initial findings should be interpreted with considerable caution due to several methodological limitations. As described in more detail above, the EPS student population differs considerably (e.g., higher share of students from a high socioeconomic status) from the student population in schools following the Luxembourgish curriculum, which might contribute to explaining observed achievement differences in favour of EPS students. In addition, student numbers in EPS and particularly in the French literacy pilot project are still small, which increases the risk that outliers (i.e., students with very high or low achievement scores) impact mean scores considerably stronger than in bigger groups. The interpretation of the results is further limited by the restricted comparability of tests (e.g., students learning to read and write in French taking the test in French while students learning to read and write in German are taking the test in German).

The full EPS and Alpha policy reports, along with other related (policy) reports and the national education report, are available on the LUCET website (lucet.uni.lu > reports).

References

Boehm, B., Ugen, S., Fischbach, A., Keller, U., & Lorphelin, D. (2016). Zusammenfassung der Ergebnisse in Luxemburg. In SCRIPT & LUCET (Eds.), *PISA 2015: Nationaler Bericht Luxemburg* (pp. 4–12). https://men.public.lu/dam-assets/catalogue-publications/statistiques-etudes/secondaire/pisa-2015-de.pdf

Colling, J., Grund, A., Keller, U., Esch, P., & Ugen, S. (2023). *Mathematics Achievement at Primary and Secondary School Level: A Comparison Between Curricula*. In LUCET & SCRIPT (Eds.), European Public School Report 2023. Preliminary Results on Student Population, Educational Trajectories, Mathematics Achievement and Stakeholder Perceptions (pp. 98 - 150). https://doi.org/10.48746/EPS2023-4

Colling, J., Hornung, C., Esch, P., Keller, U., Hellwig, A.-L., & Ugen, S. (2024). *Literacy Acquisition in German or French in the Pilot Project "Zesumme wuessen!" – Preliminary ÉpStan Results of Student Characteristics, Achievement, Motivation, and Parental Support*. Luxembourg Centre for Educational Testing (LUCET). https://doi.org/10.48746/ALPHA2024

Hadjar, A., Fischbach, A., & Backes, S. (2018). Bildungsungleichheiten im luxemburgischen Sekundarschulsystem aus zeitlicher Perspektive. In LUCET & SCRIPT (Eds.), *Nationaler Bildungsbericht Luxemburg 2018* (pp. 58–82).

https://men.public.lu/dam-assets/catalogue-publications/statistiques-etudes/themes-transversaux/nationaler-bildungsbericht-luxemburg-2018.pdf

Ottenbacher, M., Wollschläger, R., Keller, U., Sonnleitner, P., Hornung, C., Esch, P., Fischbach, A., & Ugen, S. (2024). Neue längsschnittliche Befunde aus dem nationalen Bildungsmonitoring ÉpStan von der 1. Bis zur 5. Klasse: Negativer Trend bei Kompetenzverläufen und wirkungslose Klassenwiederholungen. In LUCET & SCRIPT (Eds). *Nationaler Bildungsbericht* (pp. 54–63). https://doi.org/10.48746/bb2024lu-de-12a

SCRIPT, & MENJE (Eds.). (2024). *Education System in Luxembourg: Key Figures.* https://www.script.lu/sites/default/files/publications/2024-02/2024_SCRIPT_Enseignement_fondamental_Flyer_EN.pdf

Sonnleitner, P., Krämer, C., Gamo, S., Reichert, M., Keller, U., & Fischbach, A. (2021). Neue längsschnittliche Befunde aus dem nationalen Bildungsmonitoring ÉpStan in der 3. Und 9. Klasse: Schlechtere Ergebnisse und wirkungslose Klassenwiederholungen. In LUCET & SCRIPT (Eds.), *Nationaler Bildungsbericht Luxemburg 2021* (pp. 109–115). https://doi.org/10.48746/bb2021lu-de-24a

Weis, L., Boehm, B., & Krug, A. (2020). *PISA 2018 – Luxemburg. Kompetenzen von Schülerinnen und Schülern im internationalen Vergleich.* SCRIPT.

https://www.script.lu/sites/default/files/publications/2020-10/pisarapport_2018_de_web_0.pdf

Does Luxembourg have a high-performing education system? And how would we know?

Edmund Misson, Head of the Innovation and Measuring Progress Division, Directorate for Education and Skills, OECD

Like people worldwide, Luxembourgers rightly expect a lot from their education system. Education systems are expected to prepare young people for a rapidly changing world, to pass on national culture, and to provide opportunities for lifelong learning. The Luxembourgish system does this in a unique context. Distinctive features of the system include the balance between teaching in German, French and Luxembourgish, and the very high percentage of foreign students at all levels of education.

Luxembourg collects a lot of useful data on schools, which can show patterns of performance in the system, and track improvement over time. However, to answer the question of whether the system is delivering the most it could be, international comparisons are needed.

This paper provides some international perspectives on Luxembourg's performance, based on data held by the Organisation for Economic Cooperation and Development (OECD). It also provides some observations on approaches to defining and measuring educational performance.

Data on Luxembourgish education in the international context

Looking at international data on education, there are some areas where Luxembourg stands out.

First, Luxembourg spends a lot on education. It has the highest expenditure per student of all OECD

and partner countries[1] at the primary, secondary and tertiary levels. However, among the same group of countries, Luxembourg's spending as a percentage of GDP was third-lowest in 2021. While spending on education is only weakly related to performance, this may leave room for some additional targeted investments in key priorities.

Second, Luxembourg's past performance has not matched the level of investment. The OECD's Programe for International Student Assessment (PISA) compares performance of 15 year-old students in over 80 countries and territories. Luxembourg did not participate in the latest round, in 2022, but participated in 2018, and is participating in the 2025 round. The latest data on Luxembourg's performance are therefore from 2018[2].

Luxembourg's results in PISA 2018 are just below the global average. Luxembourgish students scored an average of 470 points in reading, compared to the average of 487 across all participating countries. The gap was smaller in mathematics (Luxembourg 483 points, global average 489) and similar in science (Luxembourg 477, global average 489).

[1] Most of the data in this paper is drawn from the OECD's *Education at a Glance* publication, which provides data on all OECD member countries (where available) and a small number of other partner countries.
[2] It is important to note that the trilingual nature of Luxembourg's education system creates particular issues with measuring performance, as the language of the test will not necessarily be the language of instruction in that subject. The age of this data is also an issue. Reforms since 2018 may have improved performance. PISA 2025 results will be available in 2026.

Luxembourg was one of the lower performers in Europe.

Third, outcomes in Luxembourg are unequal. Luxembourg had the largest gap of any participating country between the performance of advantaged and disadvantaged students in reading (a gap of 122 points, compared to the global average of 89 points). Interestingly, this does not seem to be driven by the performance of immigrant students, where Luxembourg has a lower than average gap between the performance of immigrant and non-immigrant students (17 points compared to a global average of 24 points).

Another area where Luxembourg stands out is the returns on education. In Luxembourg, the private net financial returns of completing tertiary education are the fourth highest among OECD members and partner countries. A man completing tertiary education in Luxembourg receives a net lifetime return of around 500,000 USD, and a woman nearly 400,000 USD. However, this may reflect high wages in Luxembourg generally. The returns relative to completing upper secondary education are below average.

gap between the performance of immigrant and non-immigrant students (17 points compared to a global average of 24 points).

Another area where Luxembourg stands out is the returns on education. In Luxembourg, the private net financial returns of completing tertiary

education are the fourth highest among OECD members and partner countries. A man completing tertiary education in Luxembourg receives a net lifetime return of around 500,000 USD, and a woman nearly 400,000 USD. However, this may reflect high wages in Luxembourg generally. The returns relative to completing upper secondary education are below average.

The Goals of Education

The data do not provide answers about the next steps for Luxembourgish education, but they do provide some guidance on questions that need to be discussed. For example, why is the equity gap so large in Luxembourg? What can Luxembourg's own data tell us about which groups are not achieving at what educational levels? Should Luxembourgers expect better performance from a high level of investment in education?

These are important questions, but there are more fundamental questions about what Luxembourgers really value in education, and how to design an education system that delivers these goals. Evaluation of the system should flow from an agreement on objectives, rather than setting objectives based on the data that is currently available.

Education systems serve multiple goals. For individuals, they deliver knowledge and skills that can lead to better economic, health and other social outcomes. Education has value in itself and many people learn for interest and enjoyment, even while they

gain other benefits. Education develops skills that enable full participation in society, supporting democracy and civic engagement. At a system level, education systems seek to be efficient in the use of resources, to deliver equitable outcomes and to be sustainable over the longer term. At the societal level, governments invest in education because it delivers a wide range of benefits, from economic growth, to improved social cohesion, to reduced crime and health problems, to the capacity to generate innovation and new knowledge.

These goals are highly compatible, but there are times when societies need to make choices about which to pursue. This should be done explicitly and through wide consultation, rather than leaving people working in the system confused about what their aims are.

Moving from goal setting to change in the classroom

Setting goals is important, but the real challenge is to mobilize the system to achieve these goals. This paper proposes four broad elements of an approach to translating data and evidence into policy and practice:

- Strategic planning
- Measuring progress
- Use of evidence and data
- A culture of evaluation

Strategic planning in education needs to answer a series of questions:

- What is the world we are preparing students for? What skills and capabilities will they need to thrive, and to adapt to unforeseen developments?

- What are we trying to achieve? As mentioned above, everything in an education system should be based on a clear and shared view of what the system is trying to achieve. This in turn should be based on the values and aspirations of a society. As an example, in Luxembourg the trilingual education system may have reduced academic performance on some measures, but is vital to preserving Luxembourgish culture. The challenge, addressed by recent reforms, is to balance these considerations.

- What does evidence say will get us there? The strategy for achieving the agreed goals needs to be based in the best available evidence on what works to improve educational outcomes. While local evidence should be given weight, as a guide to what will work in a particular context, there is a wealth of evidence from around the world that can provide useful guidance.

- What is acceptable to local stakeholders? Successful change needs to start from where

> people are. There may be policies that have succeeded elsewhere, but are not compatible with the values and culture of a country or its education system. These issues need to be carefully considered. In some cases, it will be worth aiming for culture change, for example if a society does not place sufficient value on education or respect for teachers.

How will we know if we are on track? Evaluation should be built into the strategy and into the system itself. Measures must reflect the goals of the system, which is likely to mean new measures need to be developed. Goals should not be narrowed to their measurable elements.

Measuring progress requires that goals can be converted into measures that capture important aspects of progress towards the goals. This is never perfect, but paying attention to a broader range of measures can help in aligning actions at all levels of an education system to its goals.

This is a journey that the OECD has been on with its PISA tests. When it was first introduced, PISA shed important light on students' performance in reading, mathematics and science. However, as PISA became more influential on education policy within countries, this created a risk that systems would focus on improving academic performance at the expense of other important goals of education. PISA has now expanded to measure a wide range of attitudes and capabilities among students. PISA

can now produce dashboards showing how 15 year-olds in a particular country are doing on a range of measures. In this context, it is encouraging that Luxembourg is participating in PISA in 2025 and, for the first time, in the OECD's Survey of Social and Emotional Skills in 2026.

Having this extra information has changed views on what a successful education system looks like. Some systems that perform very well on academic measures are below average on measures like psychological well-being and resilience. For a country setting priorities for its own education system, it is important to have a conversation and reach a consensus about which goals are priorities to pursue.

One example of this approach was the development of a new curriculum in the Netherlands, which began with wide consultation to capture societal views, then had teachers work on the detail of the curriculum and then was the subject of political debate in the parliament. France regularly runs consultations with citizens on key educational issues. A recent example is the length and timing of school holidays, an issue where educational considerations need to be balanced with issues like the needs of employed parents.

Use of evidence and data is the link between strategy and practice. The OECD has conducted extensive research on knowledge mobilisation in education. This reveals that simply communicating research findings is not sufficient to create change in

schools, no matter how good or relevant the research is. Education systems must create relationships between researchers, 'knowledge intermediaries' who package research for use in the classroom, and policy makers. They must also build skills in evidence use, and create incentives for effective evidence use.

Finally, it is important to build a **culture of evaluation** at all levels of the system. It is important to regularly check progress against the system-level strategy and adjust implementation based on the results. However, this is unlikely to be sufficient to drive change. Evaluation needs to take place at all levels, and to be used as a basis for action. At different levels of the system, key questions include:

- At the system level – are our policies and programs working? What emerging issues do we need to be aware of?
- At the institution level – are we contributing to national goals and targets? Are we using resources efficiently?
- At the individual teacher level – are my students learning what they should be? How can I improve my practice to help them learn more?

It is this culture of evaluation and improvement, rather than specific targets, that is most likely to drive meaningful change in teaching and learning. Where teachers and leaders in educational

institutions are empowered and motivated to learn from evidence and improve their practice, great things are possible.

Explore past IDEA publications

Est-il venu le moment de fiscalement rompre ?

Fofo Senyo Ametepe, Fatima Chaouche; Pierre-Jean Estagerie , Jean-Jacque Rommes, Michel-Edouard Ruben, Alain Steichen

Economic Consensus: Lost in Transition

IDEA

Les politiques de transition énergétique du Luxembourg – l'impératif climatique sous contraintes multiples

Laurent Braun, Tom Eischen, Andrew Ferrone, Tom Haas, Claudia Hitaj, Frédéric Meys, Gaston Trauffler et Raphaël Trotignon

IDEA[S]

10 years of IDEA

This book is the result of discussions held during a seminar hosted by IDEA in July 2025. The purpose of this work is to try to answer some fundamental questions on the challenges of the education system in Luxembourg: what are the goals of the education system in Luxembourg, and how can its performance be measured? Are there performance indicators that would allow us to make credible international comparisons, considering our very specific context? What are the challenges related to linguistic and cultural diversity ? What solutions can be considered? What insights do the evaluations conducted in Luxembourg provide on these issues?

www.idea.lu | info@fondation-idea.lu