



REPORT

2025/2026

Global Entrepreneurship Monitor Luxembourg



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Executive summary

Entrepreneurship is an important driver of innovation, productivity growth, and job creation. Since its inception in 1999, the Global Entrepreneurship Monitor (GEM) research programme collects internationally comparable evidence on entrepreneurship and entrepreneurial ecosystems through annual surveys conducted in many countries. This data provides essential evidence for institutions and policy makers who aim to support entrepreneurs and business creation.

Luxembourg joined the GEM consortium in 2013. Since then, GEM country reports have provided unique evidence on entrepreneurial activity in the country. Continuing on this endeavour, GEM Luxembourg 2025/2026 describes the state of entrepreneurship in Luxembourg by documenting recent developments in entrepreneurial activity, as well as the characteristics and motivations of entrepreneurs. It also describes the characteristics of entrepreneurial activity and the country's entrepreneurial environment. The report adopts a comparative perspective, contrasting Luxembourg with other European countries.

The 2025 survey took place in a context of continued economic and geopolitical uncertainty. Rising trade tensions, changes in migration policies, and increasing uncertainty regarding international economic relations affected the global business environment. At the same time, rapid technological progress, linked to the emergence of artificial intelligence (AI) tools, is creating new challenges and opportunities for entrepreneurs. Sustainability considerations including both social and environmental aspects, remain a relevant factor in the entrepreneurial landscape.

In this context, the report includes special features on the views of entrepreneurs on AI and their attitudes towards sustainability. Two special modules for Luxembourg investigate for the first time, the impact of changes in the international trade environment on entrepreneurial activity, as well as access to finance.

The **main findings** of the Luxembourg GEM report 2024/2025 are as follows:

Early-stage entrepreneurial activity stabilised in 2025, while entrepreneurial intentions remained high compared to other European countries.

- *Total early-stage Entrepreneurial Activity (TEA)*, which captures nascent and new entrepreneurial ventures, reached 9.4% in 2025, slightly below the 9.9% recorded in 2024 but close to Luxembourg's long-term average.
- *Entrepreneurial intentions* recorded a slight decline from the 2024 peak, but remained comparatively high at 19.8%, slightly above the European average (17.6%).

Expectations regarding the future growth of entrepreneurs' own businesses remain weak, while perceptions of business opportunities among the general population have improved.

- *Entrepreneurs' expectations for the growth of their businesses remain weak.* Although the share of entrepreneurs expecting low business growth declined slightly, from 44% in 2024 to 42% in 2025, Luxembourg continued to record a comparatively high proportion of entrepreneurs with pessimistic growth prospects. The corresponding European Union average was 29% in 2025.
- *Across the population, perceived business opportunities improved moderately in 2025.* 52% of survey respondents continued to report that Luxembourg is an easy place to start a business compared to 48% in 2024.

Entrepreneurs in Luxembourg seek new business opportunities, and exhibit a lower fear of failure than their counterparts in other European countries.

- *Fear of failure remained stable.* In 2025, 42% of respondents who perceived good opportunities to start a business reported that fear of failure would prevent them from doing so. This is broadly unchanged from 2024, and remains below the 2025 European average of 46%.
- *Necessity-driven entrepreneurship declined further.* The share of early-stage entrepreneurs reporting that they started a business because jobs were scarce declined slightly, from 37.9% in 2024 to 35.6% in 2025. Luxembourg continues to rank among the European countries with the lowest prevalence of necessity-driven entrepreneurship, recording the third lowest share in 2025.

Luxembourg's entrepreneurs remain strongly committed to sustainability.

- *Luxembourg's leading position on sustainability indicators weakened in 2025, although sustainability remains an important feature of entrepreneurship.*

The share of early-stage entrepreneurs reporting actions to maximise social impact declined from 56% to 45%, while the share reporting actions to minimise environmental impact fell from 61% to 53%. As a result, Luxembourg no longer ranks among the top-performing countries on these indicators. Nevertheless, early-stage entrepreneurs in Luxembourg continue to report levels of social and environmental sustainability that are above the 2025 European averages (44.6% and 52.1%, respectively).

Luxembourg's entrepreneurs remain highly aware of digital transformations, and expected benefits and perceived risks associated with AI adoption are evolving.

- *Artificial intelligence is embedded in entrepreneurial strategies.* In 2025, 32% of early-stage entrepreneurs (TEA) considered AI to be very important for their business models and strategies. Although Luxembourg remained above the European average in 2025 (30%), it no longer ranked among the leading countries on this indicator, as it did in 2024.
- *Perceived benefits and risks associated with AI adoption are evolving.* The share of entrepreneurs expecting AI to have a strong positive impact on business growth fell from 47% to 24%, while concerns related to data security and privacy declined from 58% to 45%.

Significant socio-demographic gaps in entrepreneurial engagement persist.

- *The entrepreneurship gender gap remains significant, although it narrowed slightly.* In 2025, the share of TEA entrepreneurs stood at 11.5% for men and 7.2% for women, compared to 13.2% and 6.4%, in 2024. Women remained less confident in their entrepreneurial capabilities than men.
- *Immigrants exhibit a greater propensity to entrepreneurship than natives, and report more favourable views regarding entrepreneurial opportunities in Luxembourg.*

The entrepreneurial ecosystem remains supportive, but financial barriers have intensified.

- *Entrepreneurs continue to report that Luxembourg is an easy place to start a business.* Around 59% of respondents agreed that starting a business in Luxembourg is easy, above the European average (50%).
- *Perceived barriers increased in 2025, especially access to finance.* The main concerns reported by early-stage entrepreneurs are affordability of office space, access to funding and hiring skilled workers. Difficulties in accessing finance increased substantially, with the share of entrepreneurs reporting financing constraints rising from 33% to 52%.
- *The National Entrepreneurship Context Index (NECI)* indicates that the evaluation of Luxembourg's entrepreneurial ecosystem remains stable, with comparatively favourable assessments of governmental programmes and policies to support entrepreneurship.

Luxembourg's special topics in the 2025 report are entrepreneurs in the face of the international trade environment and sources of entrepreneurial finance.

Concerns about the shifting international trade environment are widespread among early-stage entrepreneurs, especially those exporting outside the European Union.

- *Early-stage entrepreneurs perceive recent changes in trade and migration policies as having predominantly negative effects, especially if exporting outside of European Union.* In 2025, around 40% of early-stage entrepreneurs expect higher production costs, compared with 20% expecting an improvement.
- *31% of entrepreneurs anticipated worsening funding opportunities, while 26% expected reduced access to foreign markets and 24% more difficult recruitment conditions.*
- *Early-stage entrepreneurs exporting outside the European Union are especially exposed to international uncertainty, and worried about reduced market access and higher production costs.* They report substantially greater concerns regarding access to foreign markets and rising production costs than their counterparts operating within the European Single Market.

Early-stage entrepreneurs are largely self-financing and resorting to informal funding networks.

- *Early-stage entrepreneurs rely primarily on self-financing and informal funding networks.* Personal savings remain the main source of finance (57% of early-stage entrepreneurs), followed by personal credit cards (37%) and family members (29%). Men entrepreneurs are more likely to rely on personal savings (65% vs 45%) and formal sources of finance (22% vs 14%) , while women rely relatively more on family members (32% vs. 27%).

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Introduction

1

The Global Entrepreneurship Monitor (GEM) is an international research programme launched in 1999 to study entrepreneurship. For this purpose, GEM collects data through surveys that are conducted annually in many countries. The harmonised cross-country data provide insights into entrepreneurial activities, their impact, characteristics of entrepreneurs and those of entrepreneurial ecosystems, serving as evidence for policy actions. STATEC joined this endeavour in 2013 in collaboration with Luxembourg's Ministry of the Economy and the Chamber of Commerce. Since then, Luxembourg's GEM reports have provided unique information on the intensity and evolution of entrepreneurial activities in the country. What is more, GEM provides information on individual traits of entrepreneurs, the challenges they face, their attitudes and perceptions, and the context in which they operate, including the policy environment, all in a comparative perspective.

In recent years, the economic environment has been marked by considerable uncertainty. The global business environment has been shaped by rising trade and geopolitical tensions, shifts in migration policies, disruptions to value chains, and persistent inflationary pressures. At the same time, the emergence and rapid diffusion of artificial intelligence are driving a new wave of technological transformation. Together these forces are reshaping industries and business models. In this context, questions arise about their impact on entrepreneurs and entrepreneurship, as well as the strategies entrepreneurs are adopting to adapt and seize opportunities related to digitalisation, sustainability, and innovation.

The current report describes the state of entrepreneurship in Luxembourg in a comparative perspective. Specifically, it documents the evolution of entrepreneurship in Luxembourg over time, focusing on key indicators of entrepreneurial intensity, including early stage entrepreneurship and established business ownership. It also provides information on the individual characteristics of the entrepreneurs, and on population traits, perceptions and sentiments that shape the entrepreneurial environment in the country.

GEM indicators and figures found in this report are compiled using data from Luxembourg's Adult Population Survey (APS) collected over the period 2013 – 2025, and the cross-national dataset harmonised by the global consortium. These data provide the reference points for the assessment of entrepreneurship trends and features in the country. They also help us gauging the consequences of the new global environment on entrepreneurial activities and entrepreneurs. Furthermore, since 2022, particular attention is devoted to the contribution of entrepreneurship to the United Nations Sustainable Development Goals (SDGs), reflecting the growing importance of sustainable entrepreneurship for Luxembourg and Europe.

Given the rapid diffusion of artificial intelligence (AI), questions from the AI special module introduced for the first time in the 2024 global GEM survey have been included also in the 2025 questionnaire. This makes it possible not only to compare Luxembourg with other European countries, but also to analyse how entrepreneurs' perceptions of AI have evolved between 2024 and 2025.

In addition, the 2025 Luxembourg survey includes two country-specific modules that address issues of special policy relevance, specifically on entrepreneurship in the face of the international trade environment and sources of entrepreneurial finance. The first module examines how early-stage entrepreneurs perceive the impact of recent changes in international trade, tariffs, and migration policies. In response to the major policy changes announced or implemented during the first half of 2025, the GEM Luxembourg team has introduced a set of country-specific questions asking entrepreneurs whether they expected these developments to worsen, leave unchanged, or improve four key aspects of their businesses: production costs, access to foreign export markets, recruitment, and funding opportunities. The second module focuses on the sources of finance for entrepreneurs. Access to finance remains crucial for business creation and growth, particularly for young and innovative firms. The 2025 GEM Luxembourg survey therefore collected detailed information on the funding sources used by early-stage entrepreneurs, making it possible to examine financing patterns by gender and migration background.

The remaining of this report is structured as follows: Chapter 2 presents the GEM conceptual framework, which shapes the data collection and the structure of the report, and a general description of the APS and National Expert Surveys (NES) and GEM main indicators. Chapter 3 documents the evolution of entrepreneurship in Luxembourg over time, using data from the 2013 – 2025 waves of the GEM APS. The chapter describes individual features of Luxembourg's entrepreneurs, and also population's features that shape the entrepreneurial environment in the country. Chapter 3 provides a comparative analysis of entrepreneurship in Luxembourg and Europe using the GEM global dataset. Chapter 5 provides information on barriers, enablers and policy initiatives to foster entrepreneurship in Luxembourg. Chapter 6 reports on sustainable entrepreneurship. Chapter 7 gives results from the 2025 Global GEM's special topic on Digitisation and Artificial Intelligence. Next, chapters 8 and 9 present two Luxembourg's special topics for 2025, respectively international trade and policy changes and entrepreneurs' sources of funding. Finally, Chapter 10 illustrates the results of the GEM National Expert Survey (NES), which provides a qualitative assessment of the national entrepreneurial ecosystem based on experts' evaluations.

The report is complemented by four annexes: Annex 11 presents the abstracts of the papers featured in the scientific session held alongside the launch of the GEM

Luxembourg Report 2025/2026 on 2 July 2026; Annex 12 provides definitions of all GEM indicators used in this report; Annex 13 reports the numerical values underlying the charts that appear in the report; Annex 14 documents survey design, fieldwork procedures and data quality. It also contrasts GEM indicators with information from official statistics for Luxembourg, namely Business Demography and the Labour Force Survey (LFS).

Before moving to the next chapters, what follows presents key findings of this report.

Figure 1.1 presents the comparative evolution of the Total Early-stage Entrepreneurial Activity (TEA) rate, the flagship indicator of the GEM framework. The TEA rate measures the share of individuals (of working age) who are either in the process of starting a business or are running a business that is less than 42 months old. The chart shows that early-stage entrepreneurship in Luxembourg's has fully recovered to pre-pandemic levels in recent years. In 2025, TEA stands at 9.4%, slightly below the previous year's record, but in line with Luxembourg's long-term trend. The chart also compares Luxembourg's TEA rate to that observed across European countries.¹ We find that, while Luxembourg's TEA is below the European TEA in 2025, over the period the average share of population involved in early-stage entrepreneurship is higher in the country than across Europe (8.9% vs. 8.6%).

Table 1.1 summarises selected key GEM indicators, their changes compared to the previous year, and Luxembourg's rank among European countries.

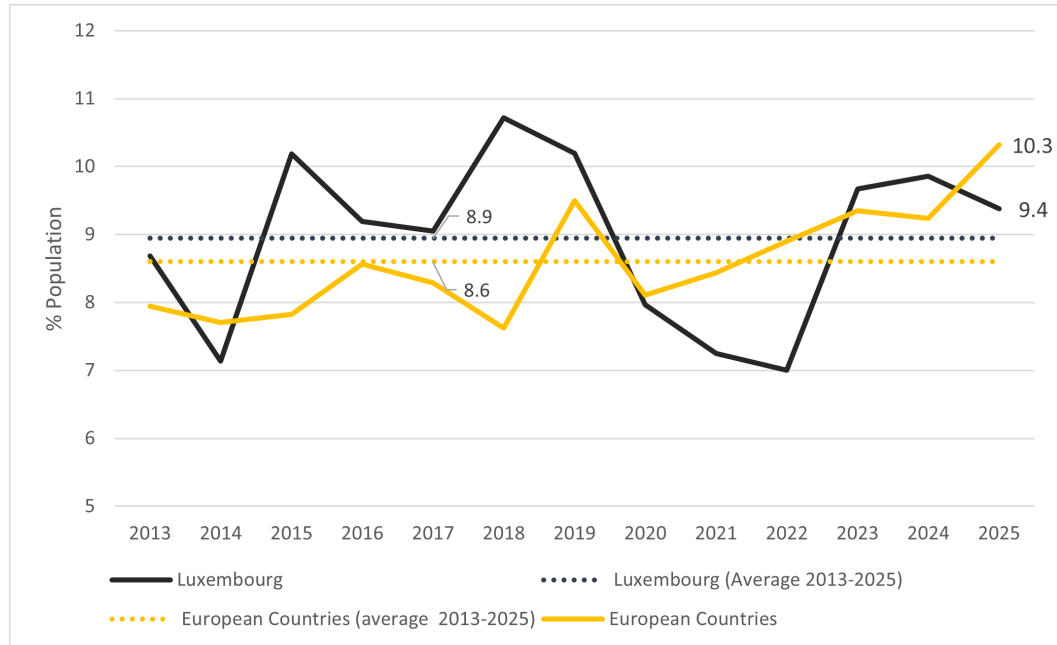
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¹Note that participation to the GEM data collection varies from year to year. The European average in figure 1.1 is constructed using, for each year, the entire sample of European countries that collected APS data in that specific year. As a result, the figure may slightly differ from the European average reported in Table 1.1 and elsewhere in this report, which are based on data for the European countries participating in two consecutive years, namely 2024 and 2025.

Figure 1.1: TEA rate in Luxembourg and Europe.



Source: 2013–2025 GEM APS data.

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- *Necessity-driven entrepreneurship declined further.* The share of early-stage entrepreneurs reporting that they started a business because jobs were scarce declined slightly, from 37.9% in 2024 to 35.6% in 2025. Luxembourg continues

Table 1.1: Dashboard of key GEM indicators

	Luxembourg		Europe		Luxembourg's Rank	
	2025	2024	2025	2024	2025	Position
<i>1. Perceptions</i>						
Good business opportunities	51.8	47.7	49.2	48.9	8 th	●
Knowledge and skills	46.5	48.8	52.6	51.4	15 th	●
Fear of failure	42.1	41.4	46.0	46.7	14 th	●
<i>2. Activities</i>						
TEA	9.4	9.9	10.4	9.6	13 th	●
EBO	3.7	4.4	7.0	6.6	19 th	●
<i>3. Motivations</i>						
Opportunity-driven TEA	46.6	57.9	44.6	43.2	9 th	●
Necessity-driven TEA	35.6	37.9	58.2	56.0	3 rd	●
<i>4. Exit and future intentions</i>						
Discontinued business	2.7	3.2	3.12	2.9	9 th	●
Entrepreneurial intentions (potential)	19.8	20.8	18.3	17.5	8 th	●

Source: 2025 and 2024 GEM Global APS data. Note: All figures are expressed as percentages of the adult population, except for opportunity-driven and necessity-driven entrepreneurship, which are shown as percentages of TEA. The column “Rank” reports Luxembourg’s position among the 19 European countries for which APS data are available for both years. The column “Position” indicates Luxembourg’s standing in 2025: *front-runner* (top 25%, green dot), *laggard* (bottom 25%, red dot), or *mid-range* (between the 25th and 75th percentiles, yellow dot). For all indicators, being in the top 25% reflects improvement, except for fear of failure, necessity-driven TEA, and business discontinuation, where lower values indicate better performance. Fear of failure indicates, among those who recognise good business opportunities, the proportion that would not start a business due to fear of potential failure. Opportunity-driven TEA and necessity-driven TEA refer to, respectively, the share of TEA entrepreneurs whose reasons for starting a business include the opportunity to make a difference in the world, and who start a business in order to earn a living because jobs are scarce. Discontinued business represents the share of the adult population who have exited a business that has not been continued by any other stakeholders.

to rank among the European countries with the lowest prevalence of necessity-driven entrepreneurship, recording the third lowest share in 2025.

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- *Luxembourg’s leading position on sustainability indicators weakened in 2025, although sustainability remains an important feature of entrepreneurship.*

The share of early-stage entrepreneurs reporting actions to maximise social impact declined from 56% to 45%, while the share reporting actions to minimise environmental impact fell from 61% to 53%. As a result, Luxembourg no longer ranks among the top-performing countries on these indicators. Nevertheless, early-stage entrepreneurs in Luxembourg continue to report levels of social and environmental sustainability that are above the 2025 European averages (44.6% and 52.1%, respectively).

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The GEM research approach

2

Entrepreneurial activities are essential drivers of job creation, and contribute to generating and diffusing new technologies, thus fostering productivity gains and overall economic activity (Carree and Thurik, 2010). As a result, entrepreneurship is the target of numerous policy initiatives around the world. For example, according to Bai et al., 2022, between 2010 and 2019, worldwide, governments' entrepreneurship finance programs totalled an average cumulative annual budget of 156 billion US dollars. In this context, the Global Entrepreneurship Monitor (GEM) project was established in 1999 at the London Business School (UK) and Babson College (US) to collect data and study entrepreneurship, with the goal of assessing outcomes and impact on economic development, and identifying the conditions for thriving entrepreneurs. Based on qualitative and quantitative surveys conducted by national teams in many countries, GEM provides a harmonised dataset at annual frequency, which enables researchers and analysts to investigate entrepreneurial activities adopting a cross-national perspective. Since its inception, the GEM project has grown from a consortium of 10 participating countries to involving researchers from over 120 different countries. GEM is now regarded as a prominent longitudinal study of entrepreneurship. In 2025, the GEM consortium published its 26th report (Global Entrepreneurship Monitor, 2026) based on 53 countries participated.¹

Luxembourg joined the GEM project in 2013. Since then, the two GEM Surveys - the Adult Population Survey (APS) and the National Experts Survey (NES) - have been administered on samples of the country's residents and panels of experts every year. The APS and NES Luxembourg surveys, whose results are documented in this report, have been conducted in May and June 2025 on a sample of 2011 individuals.

This chapter presents the GEM conceptual framework — which underpins the data collection and the analysis of this report — and provides a general description of the surveys and GEM main indicators. The framework comprises a definition of entrepreneurship, and a set of multi-directional relations between the entrepreneurial endeavour, the entrepreneurs, and the context. Entrepreneurship itself is seen as a cycle rather than a constant activity of an individual.

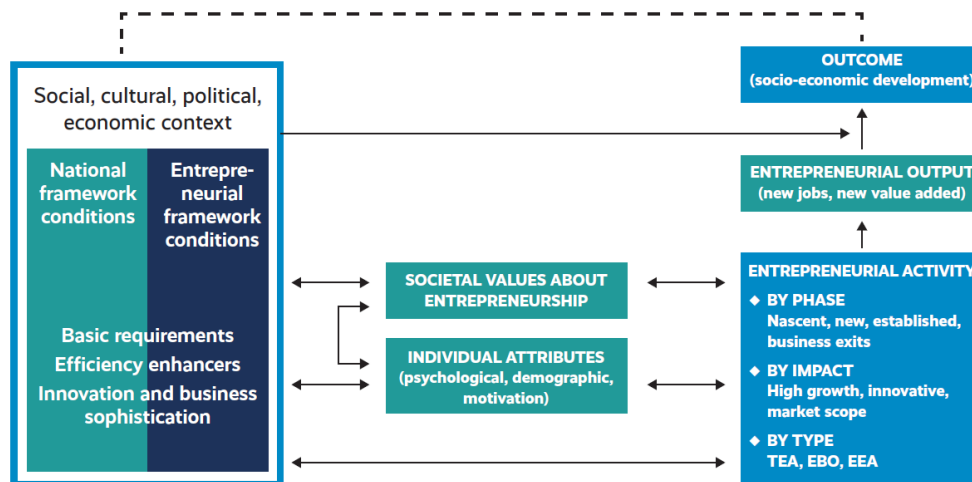
2.1 The GEM conceptual framework

GEM defines entrepreneurial activity as **“any attempt at new venture or new business creation, such as self-employment, a new business organisation or the expansion of an existing business, by an individual, a team of individuals, or an established business”** (Bosma et al., 2020, p.22). Entrepreneurial activity, however,

¹Of these, 48 countries took part in the 2025 GEM Adult Population Survey (APS), while five economies participated only in the National Expert Survey (NES).

should not be regarded as a purely individual endeavour. One of the main features of the GEM conceptual framework is that entrepreneurial activity does not take place in a vacuum, but rather within the specific context of a given environment, with its own social, cultural and economic characteristics. **Entrepreneurial activity is then jointly determined by the interaction between traits and characteristics of entrepreneurs and the overall “environment”.** In turn, entrepreneurial outcomes affect firm and job creation, innovation, and ultimately economic growth. The GEM conceptual framework outlined in Figure 2.1 portrays the relationship between entrepreneurship and its local, regional and national environment. To provide a comprehensive account of entrepreneurial activity and the context in which it takes place, GEM administers two surveys: the Adult Population Survey (APS) which captures the attitudes, behaviours and expectations of individual adults, and the National Expert Survey (NES) which focuses on the entrepreneurial context (see Section 2.2).

Figure 2.1: The GEM Conceptual Framework



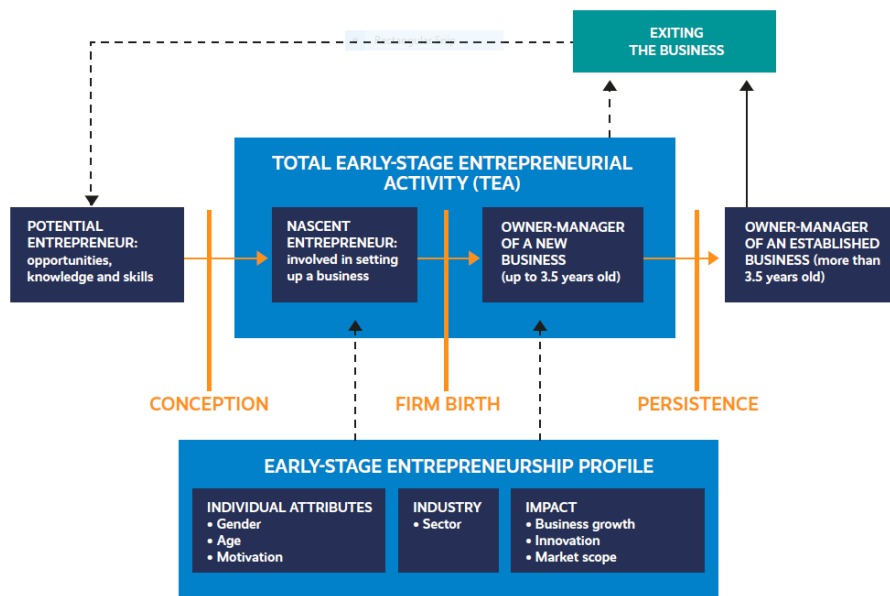
Source: Bosma et al., 2020.

An additional feature of the GEM framework is that **entrepreneurship is described as a “cycle”, or process** (e.g. Zwan et al., 2010) — *“from conception of entrepreneurial opportunities to its maturity or, alternatively to its demise”* (GEM, 2018, p. 21). GEM surveys are shaped by this framework, and are designed to track people along the entrepreneurship process to provide indicators of entrepreneurial activities. To this end, every person engaged in any activity related to the creation of a new business is regarded as having an impact on the national level of entrepreneurship. Figure 2.2 depicts the entrepreneurial process, and the corresponding operational definitions adopted by GEM for each stage of the process. Individuals along the various stages of the entrepreneurial process are characterized as follows: i) “potential entrepreneurs” are those who plan to start a new business in the next three years; ii) “nascent entrepreneurs” are those individuals involved in setting up a new

business, and who have paid wages (to employers or to themselves) for less than three months; iii) “new entrepreneurs” are owner-managers of firms that have paid wages for a period of time between 3 and 42 months; iv) “established entrepreneurs” are owner-managers of firms that have paid wages for a period longer than 42 months.

The most important indicator produced by GEM is Total Early-Stage Entrepreneurial Activity (TEA). TEA measures the proportion of the working-age adult population actively engaged in starting or running a new business. Specifically, TEA is the sum of “nascent entrepreneurs” and “new entrepreneurs”. In other words, TEA reflects the level of entrepreneurial dynamism in a country and represents an overall entrepreneurship rate. Another important indicator is the level of Established Business Ownership (EBO), or the percentage of adults owning and managing an established business, defined earlier as having paid wages or salaries for 42 months or more. If the new business is successful, then it will evolve over time to become an established business. Either the new business owner or the established business owner may exit the business at some stage, and that business may or may not continue without them.

Figure 2.2: Entrepreneurial phases and GEM entrepreneurship indicators



Source: Bosma et al., 2020.

GEM collects information on individuals’ entrepreneurial attitudes, activities and aspirations over all the phases of the entrepreneurship process. The focus on individuals differentiates GEM from other statistical sources, in particular from official statistics such as business registers and business surveys. Official records are collected at the firm-level and, as such, they neither measure entrepreneurship *per se* (although they are linked to it) nor capture attitudes and perceptions of entrepreneurs and

potential entrepreneurs. Another limitation of official firm-level data is that they are not fully comparable across countries, because of the differences in countries' laws and institutions (e.g. mandatory incorporation with different turnover thresholds). Moreover, business registers do not record informal business activities and informal investment which might be relevant to assess entrepreneurship rates across countries (Marchese, 2015).

2.2 GEM surveys

The conceptual features of the GEM framework are reflected in the two surveys that are administered annually.

2.2.1 Adult population survey (APS)

The APS is a survey addressed in each country to the population that is between 18 and 64 years old. Each of the participating countries conducts the survey by interviewing a representative sample of at least 2,000 individuals (2011 individuals in 2025). The fieldwork takes place during the spring/summer of each year. The basic questionnaire is common to all countries participating in the consortium. The questionnaire comprises core questions and modules on special topics, the latter varying every year. The core questions of the APS enquire about individual attitudes and perceptions on whether it is easy to start a business, whether there are good business opportunities, and whether fear of failure is an obstacle. Additional questions focus on whether that person is actively starting a new business or running an established business and what their motivations and ambitions are. Thus, the APS provides a comprehensive depiction of all phases of the entrepreneurial process.

Over time, the APS questionnaire has evolved to remain informative in a changing entrepreneurial and policy environment. In addition to the core GEM questions, special modules have been introduced to address emerging topics of common interest across all GEM participating countries (e.g. artificial intelligence), while each national team may include country-specific questions on issues of particular policy relevance. Some modules are administered only once, whereas others are retained for several years or become permanent components of the national questionnaire. For example, modules on immigrant entrepreneurship and subjective well-being were introduced across all GEM participating countries in 2013 (Xavier et al., 2013; Amorós and Bosma, 2013). Given their particular relevance for Luxembourg, these modules have been retained in the national questionnaire ever since.

During the COVID-19 pandemic, a special module was administered across all GEM participating countries to monitor entrepreneurial dynamics over the period 2020–2022. Since 2022, GEM has included a module on entrepreneurs' sustainability intentions and actions. Initially introduced as a special topic, the sustainability module has since become a permanent component of the core APS questionnaire. Similarly, the Artificial Intelligence (AI) module, first introduced in the 2024 GEM survey, was retained in 2025, allowing changes in entrepreneurs' perceptions of AI to be analysed over time.

In addition to the common GEM modules, Luxembourg has regularly introduced country-specific questions addressing issues of particular national relevance. In 2018, the questionnaire was expanded to include questions on barriers and enablers to entrepreneurship and entrepreneurship policies. In 2024, GEM Luxembourg conducted a pilot study on cross-border entrepreneurship, examining the entrepreneurial perceptions of residents of Luxembourg and neighbouring countries (GEM Luxembourg, 2025).

In 2025, two new country-specific modules were introduced. The first examines how entrepreneurs perceive the impact of recent changes in international trade, tariff, and migration policies. Entrepreneurs were asked whether they expected these developments to affect four key aspects of their businesses: production costs, access to foreign export markets, recruitment, and funding opportunities.

The second module focuses on sources of entrepreneurial finance. It collects detailed information on the funding sources used by early-stage entrepreneurs, making it possible to analyse financing patterns by gender and migration background.

The 2025 questionnaire comprises the following thirteen blocks of questions:

1. Nascent entrepreneurs;
2. Owner-managers;
3. Potential and discontinuing entrepreneurs;
4. Informal investors;
5. Employment and entrepreneurial employee activity;
6. Sustainable entrepreneurship ;
7. Digitalization and Artificial Intelligence entrepreneurship ;
8. Entrepreneurship programs (Luxembourg specific questions);
9. Barriers and enablers (Luxembourg specific questions);
10. Individual perceptions: health, trust, well-being, job satisfaction (Luxembourg specific questions);
11. Trade, tariff impact (Luxembourg-specific questions);
12. Source of funding (Luxembourg-specific questions);

13. Demographics of respondents.

To ensure consistency, the international GEM data team supervises the data collection process. During the field work, raw data are sent regularly to the GEM data team for quality checks. The observations are weighted to ensure that the joint distribution of the gender, age, education and immigration status of the respondents is equal to the distribution of the reference population as recorded in official registers.

Once collected at the country level, national records are harmonized to enable meaningful international comparisons of results. Indeed, a prominent goal of GEM is to collect comparable data to explore cross-country differences in the motivations of entrepreneurs, and to link these differences to job creation rates and economic growth.

2.2.2 National experts survey (NES)

The national experts' survey (NES) provides insights into the entrepreneurial environment in each country. National experts provide information regarding nine Entrepreneurial Framework Conditions that influence entrepreneurial activities. They range from the ease of access to finance to social support for entrepreneurship, and from the adequacy of entrepreneurial education to the availability and cost of essential business services. Each of these aspects is evaluated in the NES by a group of four or more national experts, summing up to a total of at least 36 experts per country. The current report exploits the entire Luxembourg GEM dataset, since its inception to the latest available observations collected in 2025, and cross-country data from the global consortium. The report uses APS data for Luxembourg and 18 other European countries, namely Croatia, Cyprus, Estonia, France, Germany, Hungary, Italy, Latvia, Lithuania, Norway, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.² Before moving on to present the results, it is important to consider the following caveat when interpreting the data. Throughout the period of analysis, key variables display changes. Some of these variations might reflect structural changes affecting entrepreneurship, others might be the consequences of the pandemic, or other economic shocks, or the effect of randomness, due to sampling across a large population. Whenever possible, appropriate statistical techniques are employed to assess the significance of changes.

²Additionally, NES includes Austria, whereas APS data are not available for this country.

Entrepreneurship in Luxembourg over time

This chapter describes the evolution of entrepreneurial intensity and environment in Luxembourg from 2013 till 2025. To do so, it uses data from the GEM Adult Population Surveys (APS) conducted during that period. Entrepreneurial intensity is captured by key GEM indicators such as total early-stage entrepreneurship (TEA) and established business ownership. Entrepreneurial intentions, and respondents' traits, attitudes and sentiments provide additional information on the country's entrepreneurial environment. The chapter also provides information on who are the entrepreneurs in Luxembourg, by investigating how entrepreneurial intensity varies across socio-demographic groups and the motivations of entrepreneurs for starting a business.

The most recent data suggest that **entrepreneurial activity in Luxembourg has broadly stabilised** following the recovery observed in last years. In 2025, 19.8% of respondents identified themselves as potential entrepreneurs, remaining among the highest levels observed since the beginning of the series despite a slight decline from the 2024 peak. Total early-stage Entrepreneurial Activity (TEA) reached 9.4%, slightly below the 9.9% recorded in 2024 but still close to Luxembourg's long-term average. Established business ownership declined moderately to 3.7%, while business exits also decreased compared to the previous year, although remaining elevated relative to earlier years.

Respondents generally maintain a favourable view of the **entrepreneurial environment** in Luxembourg, confirming that the country continues to be perceived as a favourable place to start a business. The share of respondents perceiving good business opportunities increased moderately in 2025, while the proportion declaring that it is easy to start a business in Luxembourg remained comparatively high and stable over time.

Fear of failure also remained comparatively low in 2025, confirming the decline first observed in 2024.

Personality traits and attitudes of respondents and entrepreneurs are typically more stable over time than outlook and activity indicators. Nonetheless, they provide valuable information to characterise (and capture slowly changing features) of the entrepreneurial environment.

As observed in previous reports, there are persistent gaps in entrepreneurial intentions and activity across socio-demographic groups. Men, individuals with higher education, immigrants, and younger people are more likely to report entrepreneurial intentions and to engage in early-stage entrepreneurship (TEA). In Luxembourg, **the entrepreneurship gender gap continues to persist**, with women remaining less likely than men to engage in entrepreneurial activity. While 2024 recorded a marked

widening of the TEA gender gap, more recent data suggest a partial narrowing of this difference in 2025.

Plausibly linked to the gender gap in TEA rate, shares of respondents declaring fear of failure are higher for women, who also reports less confidence in their entrepreneurial capabilities. Immigrants show higher propensity to engage in entrepreneurship, and have more favourable views on business opportunities and easiness of starting a business in Luxembourg.

Entrepreneurial motivations have changed, indicating a **decrease in necessity-driven entrepreneurship**, suggesting a possible change in entrepreneurial *quality*.

The chapter is organised as follows. Section 3.1 presents the evolution of key indicators of entrepreneurship in Luxembourg over time. Section 3.2 documents entrepreneurial networks, population's traits — such as attitudes to risk and capabilities — and the evolution of perceptions of the business environment in Luxembourg. Considered together, these aspects describe the overall entrepreneurial environment in the country. Section 3.3 describes Luxembourg's entrepreneurs by looking at their socio-demographic characteristics (gender, education, immigration status, and age). Finally, Section 3.4 illustrates the motivations for engaging in entrepreneurship, focusing on the distinction between opportunity-driven and necessity-driven entrepreneurs.

3.1 Quantifying entrepreneurial activity

This section describes **the evolution of entrepreneurial intensity in Luxembourg over time**. It uses data from the 2013 – 2025 waves of GEM's APS, which capture respondents' involvement in the various stages of the entrepreneurial process. Indeed, as seen in Chapter 2, GEM models entrepreneurship as a *process*, whereby entrepreneurs move through the following stages:

1. **Potential entrepreneur:** expecting to start a new business within the next three years;
2. **Nascent entrepreneur:** involved in setting up a business;
3. **New entrepreneur:** owner-manager of a firm younger than 42 months that has paid wages during the last three months;
4. **Established entrepreneur:** owner-manager of a firm that has paid wages for over 42 months.

5. **Discontinued entrepreneur:** owner-manager who has exited a business in the past 12 months, and the business was not continued.

As in an obstacle race, every entrepreneur moves through the stages. At each stage, they can either leave, or continue to the next one in their entrepreneurial "journey".¹

The indicators depicted in Figure 3.1 represent the shares of population involved in each stage of the entrepreneurial process. As such, they provide insights on the *intensity* of entrepreneurship in Luxembourg, and its evolution over time. The share of **potential entrepreneurs** captures entrepreneurial intentions. **Early-stage Entrepreneurial Activity (TEA)**, which combines information on nascent and new entrepreneurs (that is, stages 2 and 3 of the entrepreneurship process), is GEM's key indicator of entrepreneurial intensity. The share of **established entrepreneurs (EBO)** is another key indicator for assessing entrepreneurial intensity. Lastly, "exit" is the share of those respondents that declare they had exited a business in the last 12 months that did not continue.² Exit poses significant challenges for individuals and society, as it involves financial losses for the entrepreneur and stakeholders (such as suppliers and creditors), emotional distress for the entrepreneur, and job losses. At the same time, the literature also notes that business closure may provide learning opportunities that can support future entrepreneurial engagement, particularly in environments where entrepreneurial failure is not strongly stigmatized and prior experience can be redeployed in subsequent ventures (Simmons et al., 2014; Klimas et al., 2021). Potential entrepreneurship and business exits are linked to entrepreneurial dynamism.

In 2025, 19.8% of survey participants identified themselves as potential entrepreneurs. Although slightly below the 2024 peak of 20.8%, this value remains among the highest observed since the beginning of the GEM series and above the levels recorded in the aftermath of the European sovereign debt crisis and the COVID period (2013 and 2020, respectively). Entrepreneurial intentions therefore remain comparatively strong in Luxembourg despite a less favourable economic environment.

Entrepreneurial activity in Luxembourg has shown relatively moderate fluctuations over time, with Total early-stage Entrepreneurial Activity (TEA) generally remaining close to 10% before declining after COVID. In 2025, TEA stood at 9.4%, slightly below the 9.9% recorded in 2024, but still close to the long-term average observed in

¹ The GEM dataset consists of repeated cross-sections. At every wave of data collection, respondents report their entrepreneurial status, from inactive to exited.

² The questions captures the exit of business from markets, distinguishing it from the exit of the entrepreneur.

Luxembourg. This suggests that entrepreneurial dynamism has remained relatively resilient despite weaker economic conditions and rising uncertainty.

Established Business Ownership (EBO) decreased to 3.7% in 2025, down from 4.4% the previous year. At the same time, the share of individuals reporting having discontinued a business declined to 2.7%, after reaching a historical peak of 3.2% in 2024. Business exits nevertheless remain elevated compared to the earlier years of the GEM series.

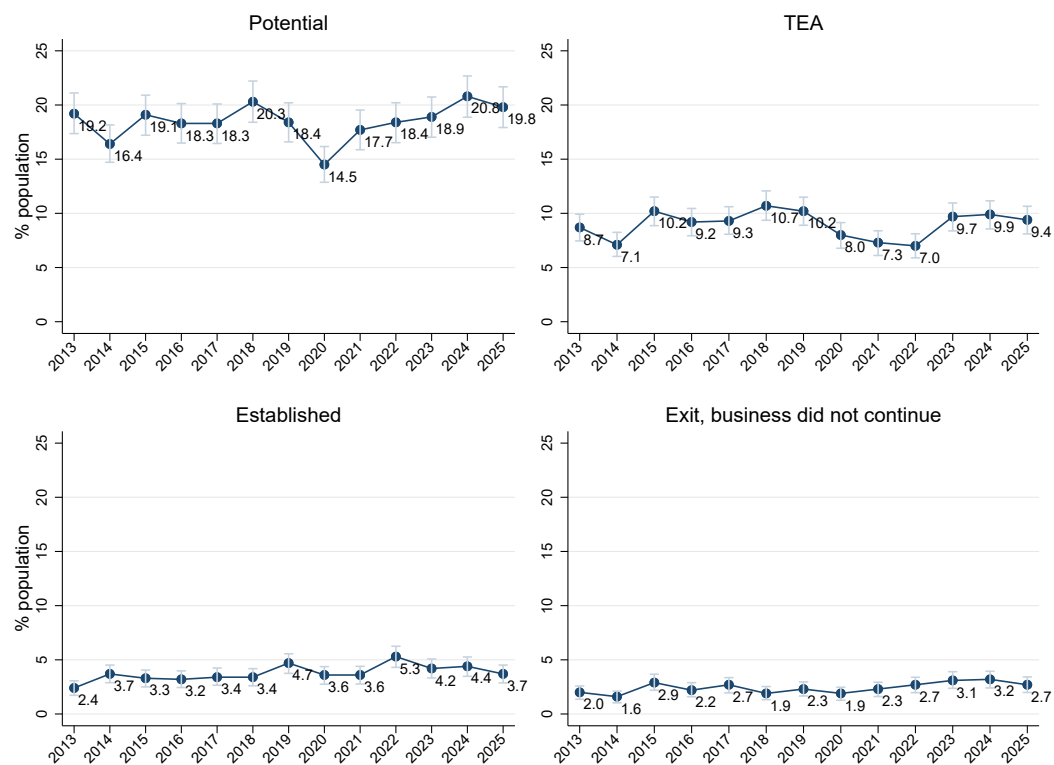
Business failures also remained elevated. In 2025, 1 187 bankruptcies were declared in Luxembourg, representing a 2.4% increase compared to 2024 (STATEC, 2026). The number of bankruptcies declined in construction, but increased in commerce, hospitality, and professional and technical services.³

At the international level, geopolitical tensions, uncertainty surrounding trade tariffs and international commercial relations, particularly involving the United States, and weaker growth prospects in Europe contributed to a less predictable business environment (STATEC, 2025a). At the same time, the rapid development and diffusion of Artificial Intelligence (AI) technologies continued to reshape competitive conditions and skill requirements across sectors (Calvino et al., 2025).

Overall, despite a marginal decline in potential entrepreneurship, Total early-stage Entrepreneurial Activity (TEA), and established business ownership in 2025, **the recovery in entrepreneurial activity first observed in 2023 and 2024 appears to be broadly confirmed.** Business exits declined from the record levels observed in 2024, while the share of early-stage entrepreneurs remained close to its historical average. Entrepreneurial intentions also remained comparatively high despite a slight decrease from the previous year. At the same time, perceptions of business opportunities improved, although assessments of the ease of starting a business weakened somewhat. Taken together, these results point to continued entrepreneurial activity in Luxembourg despite a more uncertain economic environment.

³Potential job losses linked to bankruptcies amounted to more than 3 100 in 2025. Construction, administrative and support services, hospitality, and retail trade were among the sectors most affected.

Figure 3.1: Entrepreneurship in Luxembourg (2013 – 2025).



Population shares (in %).

Source: 2013 – 2025 GEM Luxembourg APS data.

3.2 The entrepreneurial environment: respondents' networks, attitudes and perceptions

According to the GEM framework depicted in Figure 2.1, **individual attributes** — such as **psychological traits, perceptions, and socio-demographics characteristics** — **interact with the social, economic, and institutional context to form countries' "entrepreneurial ecosystems"**. This section provides insights on how respondents perceive their attitude to entrepreneurship and **the entrepreneurial environment in Luxembourg**, or Luxembourg's ecosystem, based on answers to the following question and statements: ⁴

1. **Personally Know Entrepreneurs:** How many people do you know who have started a business in the past two years?
2. **Personally Have the Skills:** You have the knowledge, skills, and experience required to start a new business.
3. **Fear of Failure:** You would not start a business for fear it might fail.
4. **Good Opportunities:** In the next six months, there will be good opportunities to start a business in Luxembourg.
5. **Easy to Start a Business:** It is easy to start a business in Luxembourg.

The questions above intend to capture variables that are known to affect individuals' decisions to engage in entrepreneurship. Indeed, the decision to become an entrepreneur depends on the interplay between personality traits, attitudes, and perceptions of the surrounding environment (Boyd and Vozikis, 1994; Kerr et al., 2018). Perceived favourable economic conditions and business opportunities shape entrepreneurial intentions (Linan, 2008; Tsai et al., 2016) and the decision to launch a business (Shane, 2003; Bade, 2022). Conversely, a negative perception of the economic environment can discourage entrepreneurial intentions and constrain business creation (Koellinger and Roy Thurik, 2012). Perceived ease of starting a business reflects features of the business environment, including regulation, access to resources, and market conditions. These are key indicators of how the socio-economic context can shape entrepreneurial activity (Djankov et al., 2002; World Bank, 2024b; OECD, 2025). Turning the intentions of pursuing entrepreneurial

⁴Note that data collection and treatment have undergone a methodological change in 2019. Before that date, survey responses for Good Opportunities, Personally Have the Skills, Fear of Failure, and Ease of Starting a Business were gathered using a binary yes/no question. Since 2019, answers are provided on a 5-point Likert scale, from "strongly disagree" to "strongly agree". The shares reported in the charts are shares of respondents that indicate to "agree" or "strongly agree" with the statements. Another change has involved the questions on networks, where from a binary answer required prior to 2019, respondents are now asked to indicate the number of entrepreneurs they know. What is more, the fear of failure question was initially administered to the entire population. From 2015 onward, the question is administered only to those that agree or strongly agree to the statement on business opportunities. This might result in some discrepancies with data reported in previous reports.

activities into practice, however, also requires confidence in one's abilities, as well as overcoming fears about the possible failure of the new venture. Research has shown that individuals' belief in their entrepreneurial capabilities strongly predicts their involvement in starting a business (Shinnar et al., 2014). Fear of failure, linked to individuals' attitudes towards risk, is often regarded as a barrier to entrepreneurship. It can be related to concerns of being involved expensive insolvency procedures, and social stigma (Autio et al., 2013; Cacciotti and Hayton, 2015). Finally, social networks are often essential in providing resources, knowledge, and support to new entrepreneurs (Greve and Salaff, 2003).

Figure 3.2 illustrates the evolution of the five indicators compiled from the five questions listed above. As already observed in previous reports, individuals' perceptions of the business environment display larger fluctuations — plausibly reflecting changes in the overall economic outlook — than personality traits, that are typically more stable over time.

In 2025, 47.4% of respondents declared knowing at least one new entrepreneur, a level broadly stable compared to 2024 and among the highest values observed in the series. The indicator remained relatively stable at approximately 36% over the observed years until 2018, before increasing markedly to approximately 46% in 2019. (The jump recorded in 2019 should be interpreted cautiously, due to a methodological change in the survey.) After a decrease during the pandemic, in 2025, the indicator reached 47.6%, the highest value recorded in the observed period. These figures suggest a sustained presence of entrepreneurs within respondents' social networks.

In 2025, fear of failure stood at 42.1%, remaining close to the historically low level observed in 2024 (41.4%). More specifically, fear of failure among respondents perceiving good opportunities to start a business has remained relatively stable over the years, fluctuating around 40–50%.

After increasing moderately between 2020 and 2023, fear of failure declined markedly in 2024 and remained comparatively low in 2025. Fear of failure is one of GEM's flagship indicators and is frequently used in international analyses of entrepreneurial ecosystems (OECD, 2025). The recent decline may reflect several concurrent factors. In recent years, Luxembourg introduced measures aimed at facilitating entrepreneurial re-entry after business failure, including the “new chance” scheme (*"nouvelle chance"*) approved as part of the 2024 reform of the right of establishment.⁵

⁵Under certain conditions, the reform allows individuals to obtain a new business permit following bankruptcy or compulsory liquidation. Further de-

At the same time, the stabilisation of entrepreneurial activity after recent economic shocks, together with persistently high entrepreneurial intentions, may also have contributed to more favourable perceptions of entrepreneurial risk. Nevertheless, changes in fear of failure should be interpreted cautiously, as survey variability remains substantial from one year to another.⁶

Confidence in **having the necessary skills, knowledge, and experience** to start a business has declined moderately in recent years, falling from a peak of 52.9% in 2021 to 46.5% in 2025. Despite this decline, perceived entrepreneurial capabilities remain above the levels observed during most of the 2010s, when the indicator generally fluctuated around 40–45%.

The recent decrease may be related to rapid technological change and the increasing diffusion of Artificial Intelligence (AI), which is reshaping entrepreneurial skill requirements and business practices. While AI may lower some barriers to entry by facilitating access to knowledge and capabilities, it may also increase uncertainty regarding the skills needed to remain competitive in evolving markets (OECD, 2025a; Calvino et al., 2025).

Data show that respondents generally maintain a **favourable view of Luxembourg as a place to start a business**. While perceptions regarding the ease of starting a business weakened slightly in 2025, the share of respondents perceiving good business opportunities increased compared to 2024.

In 2025, 51.8% of respondents declared that there would be **good opportunities to start a business** in Luxembourg within the next six months, up from 47.7% in 2024. Perceived business opportunities had reached comparatively high levels before 2020, peaking at 58% in 2019, before declining sharply in 2020 and subsequently fluctuating around 50%. The increase observed in 2025 therefore suggests some improvement in short-term perceptions, although the indicator remains below the peak levels observed before 2020.

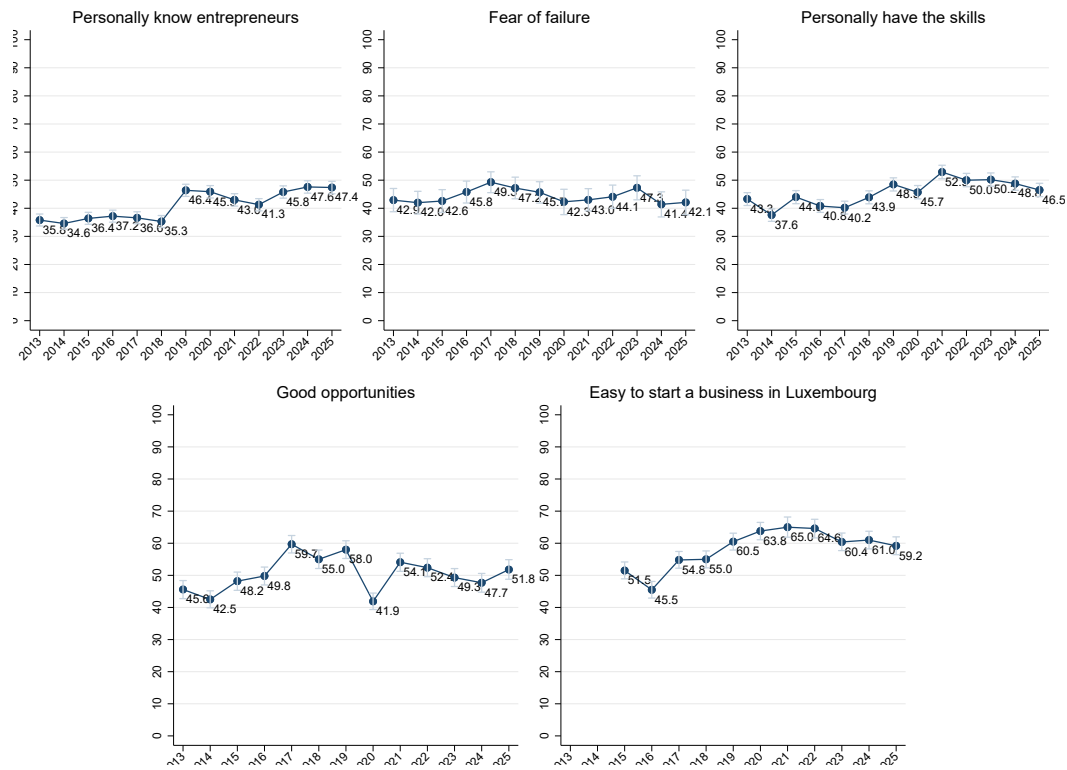
At the same time, perceptions regarding the **ease of starting a business** in Luxembourg remained broadly stable. In 2025, 59.2% of respondents considered that it is easy to start a business in Luxembourg, compared to 61.0% in 2024. Although below the peak levels of approximately 65% observed during 2018–2020, the indicator continues to point to a comparatively favourable assessment of the entrepreneurial environment overall.

tails are available at <https://www.cc.lu/en/all-information/news/detail/reform-of-the-right-of-establishment-what-you-need-to-know>.

⁶Data for 2025 confirm the lower levels of fear of failure observed in 2024. However, the difference between the 2019–2023 average (44.5%) and the 2024–2025 average (41.7%) is not statistically significant at conventional levels ($\alpha = 10\%$).

This evolution may reflect growing economic uncertainty linked to geopolitical tensions, weaker growth prospects in Europe, and a less favourable business environment more generally. Business confidence among non-financial corporations remained comparatively weak in first half of 2025 (STATEC, 2025).⁷

Figure 3.2: The Luxembourg environment (2013 – 2025): networks, attitudes and perceptions.



Population shares (in %). Break in the series in 2019. Easy to start a business introduced in 2015. Source: 2013-2025 GEM Luxembourg APS data.

3.2.1 Socio-demographic characteristics of respondents

What follows examines the indicators of the previous section — **entrepreneurial networks, fear of failure, and perceptions of the business environment** — for **different population groups**. The groups are identified by socio-demographic characteristics of respondents, namely gender, age, immigration background and education.

The charts report the values of the indicators for the population subgroups. The values are read as follows. Taking, for example, "know entrepreneurs by gender" in 2013 (top left panel), the figures indicate that 41 % of male respondents knew at

⁷While confidence in non-financial services improved somewhat from mid-2024, the recovery became more hesitant in early 2025, whereas confidence in construction remained historically low amid weak demand and continued difficulties in the real-estate sector (STATEC, 2025; STATEC, 2025a).

least one entrepreneur. In contrast, only 31 % of female respondents knew at least one entrepreneur.

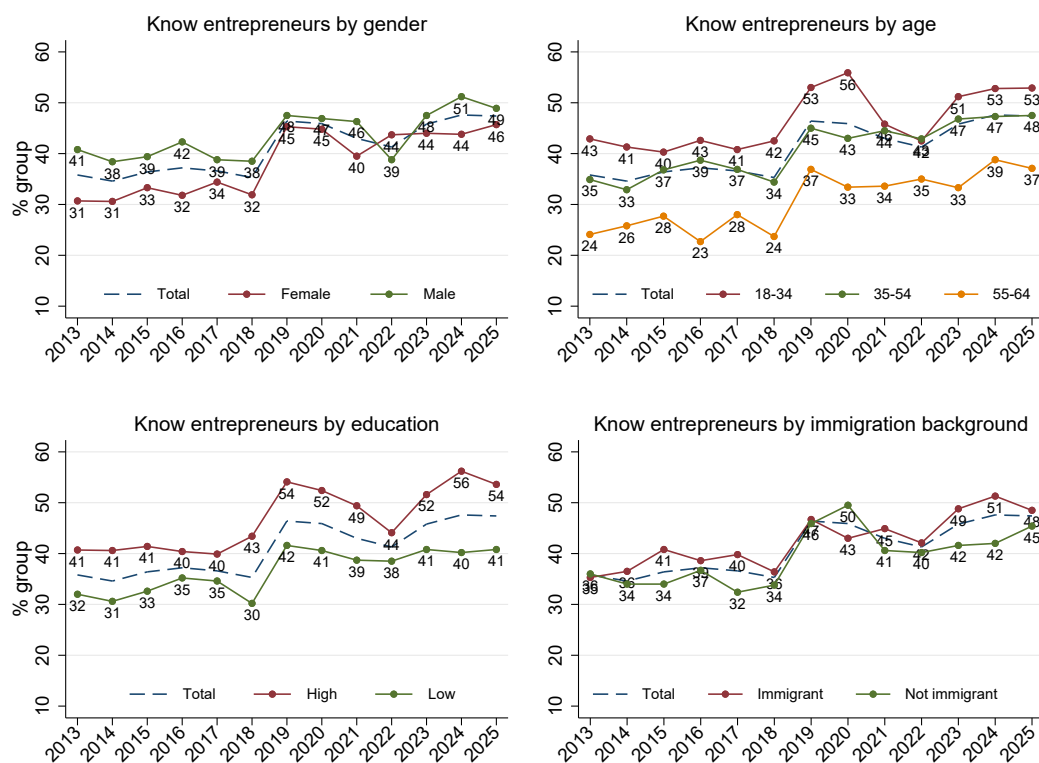
As observed in previous report (GEM Luxembourg, 2024; GEM Luxembourg, 2025), data reveal the generalised **existence of gaps in traits and perceptions across the population groups** in Luxembourg. For example, it appears that higher shares of **immigrants express consistently more positive views of the business opportunities, and of the easiness of starting a business in Luxembourg**, compared to natives. Higher shares of men and immigrants, individuals with higher education and of younger age tend to express confidence in their entrepreneurial skills compared to the other categories. There is also an **apparent gender and age gap in fear of failure**.

Figure 3.3 shows that younger and more educated individuals report higher proportions of personally knowing entrepreneurs compared to older age groups and individuals with lower education levels. These differences are relatively persistent over time, suggesting that entrepreneurial social networks vary systematically by age and education.

In 2025, 54% of highly educated respondents reported personally knowing an entrepreneur, compared to 41% among individuals with lower education levels. Similarly, the proportion reached 53% among individuals aged 18–34, compared to 37% among those aged 55–64.

Differences by gender remain comparatively limited over the whole period, although men reported slightly higher levels than women in recent years. In 2025, 49% of men declared personally knowing an entrepreneur, compared to 46% among women. Differences by immigration background also became more visible after 2022. In 2025, 48% of respondents with an immigration background reported personally knowing an entrepreneur, compared to 45% among non-immigrants.

Figure 3.3: Personally know entrepreneurs by socio-demographic groups.



Shares of population groups (in %). High education is defined as obtaining at least a tertiary education degree (Master craftsman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample. Break in the series in 2019.

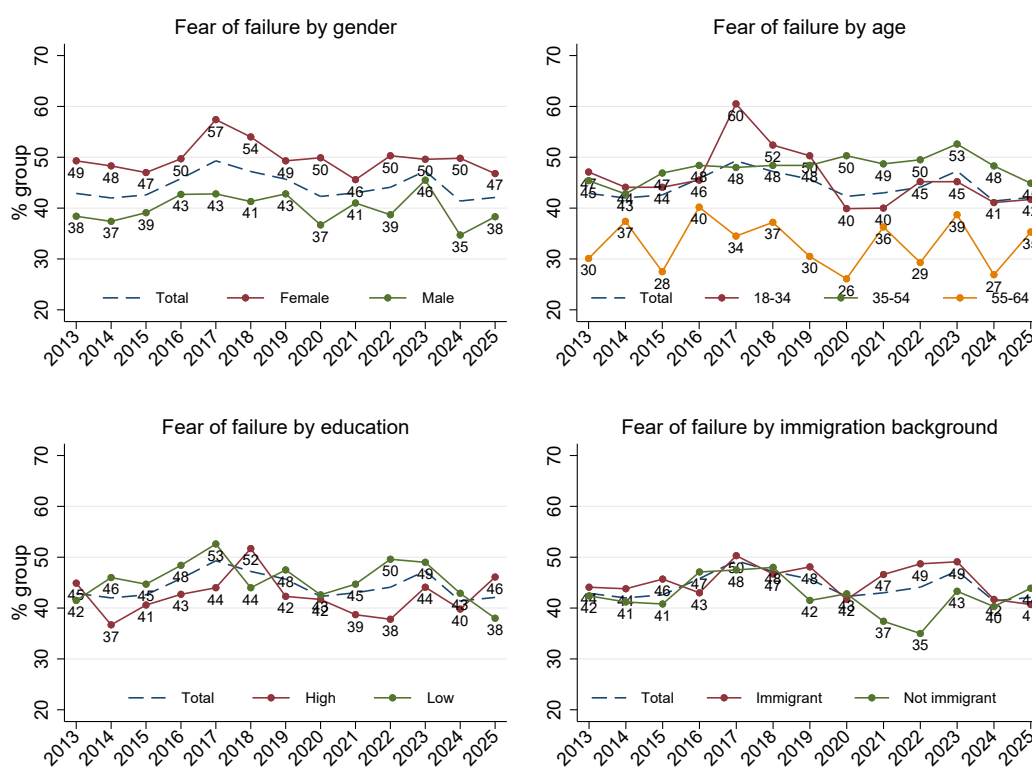
Source: 2013-2025 GEM Luxembourg APS data.

Figure 3.4 shows persistent gender and age differences in fear of failure among individuals perceiving good business opportunities. Women have consistently reported higher levels of fear of failure than men throughout the observed period. In 2025, fear of failure reached 47% among women, compared to 38% among men. Compared to 2024, fear of failure increased moderately among men, while remaining comparatively stable among women, leading to a slight narrowing of the gender gap.

Differences by age are also visible. Individuals aged 55–64 generally report lower levels of fear of failure than younger age groups, although the gap narrowed in recent years. In 2025, fear of failure stood at 35% among individuals aged 55–64, compared to 42% among those aged 18–34 and 45% among respondents aged 35–54.

By contrast, differences by education level and immigration background appear comparatively limited and less stable over time. In 2025, fear of failure ranged between 38% and 46% across education groups and between 41% and 44% across immigration-background categories.

Figure 3.4: Fear of failure by socio-demographic groups.



Shares of population groups (in %). High education is defined as obtaining at least a tertiary education degree (Master craftsman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample. Break in the series in 2019.

Source: 2013-2025 GEM Luxembourg APS data.

Figure 3.5 shows persistent differences in self-perceived entrepreneurial skills across socio-demographic groups. Men, immigrants, and highly educated individuals consistently report higher confidence in their entrepreneurial skills than women, non-immigrants, and individuals with lower education levels. These gaps appear relatively stable over time.

In 2025, 54% of men declared having the skills, knowledge, and experience required to start a business, compared to 38% of women. Differences by age are also substantial. Individuals aged 35–54 reported the highest level of self-confidence, with 52% believing they possess the skills to start a business. This compares to 49% among individuals aged 55–64 and 38% among those aged 18–34.

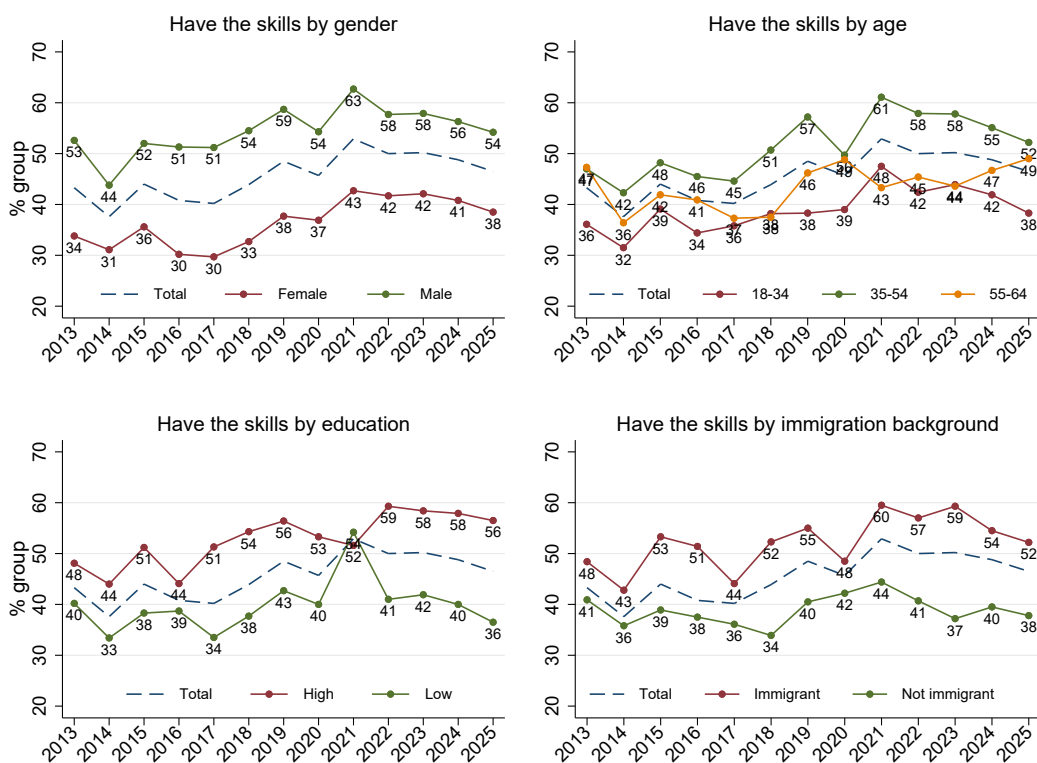
Education remains one of the strongest correlates of perceived entrepreneurial capabilities. In 2025, 56% of highly educated respondents reported confidence in their entrepreneurial skills, compared to 36% among individuals with lower education levels. Similarly, immigrants reported substantially higher confidence levels than non-immigrants (52% versus 38%). Overall, these results suggest that perceptions of entrepreneurial capabilities remain unevenly distributed across demographic groups in Luxembourg.

Figure 3.6 illustrates differences in the perception of entrepreneurial opportunities across socio-demographic groups. Male respondents and individuals with an immigration background have generally reported more favourable perceptions of business opportunities over time. Differences by education were also pronounced before 2020, with highly educated individuals consistently reporting more optimistic views than respondents with lower education levels. In recent years, however, these differences have narrowed considerably.

The sharp decline in perceived business opportunities observed in 2020 affected all demographic groups. Since then, perceptions have partially recovered, although important differences across groups remain visible. In 2025, younger individuals reported the highest levels of optimism, with 61% of respondents aged 18–34 perceiving good opportunities to start a business, compared to 49% among those aged 35–54 and 41% among individuals aged 55–64.

Differences by immigration background also remained substantial in 2025. Approximately 54% of respondents with an immigration background perceived good business opportunities, compared to 48% among non-immigrants. Similarly, men continued to report slightly more positive perceptions than women (55% versus 49%). Overall, the results suggest that perceptions of entrepreneurial opportunities remain unevenly distributed across demographic groups in Luxembourg.

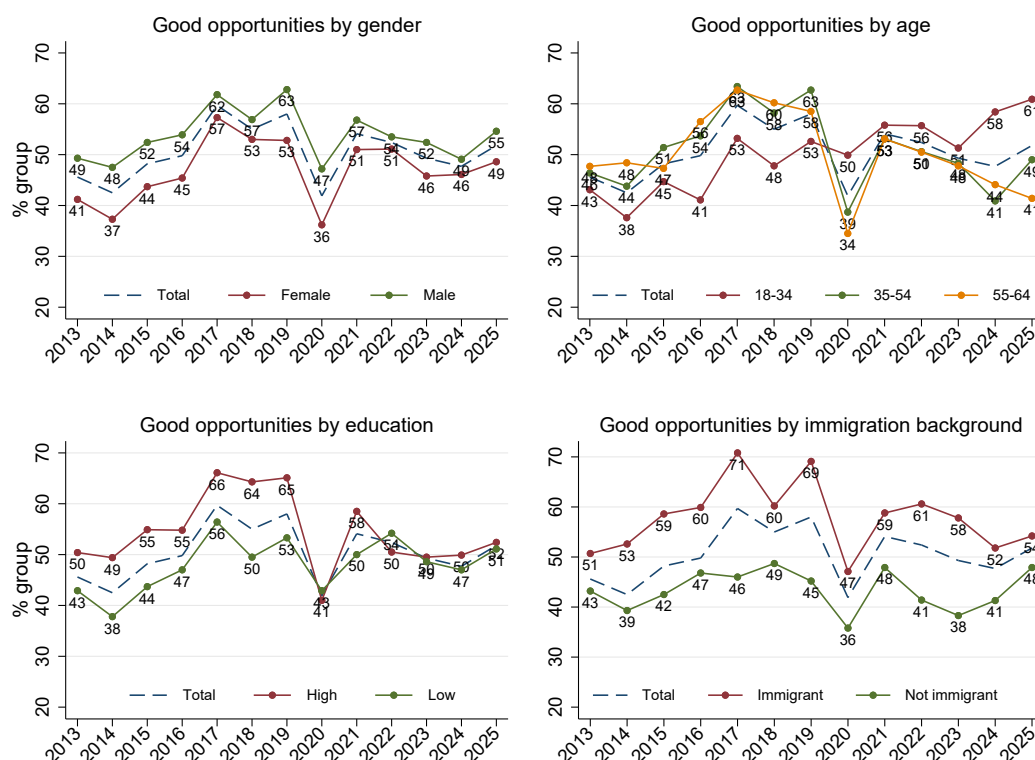
Figure 3.5: Personally have the skills by socio-demographic groups.



Shares of population groups (in %). High education is defined as obtaining at least a tertiary education degree (Master craftsman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample. Break in the series in 2019.

Source: 2013-2025 GEM Luxembourg APS data.

Figure 3.6: See good opportunities in the next six months by socio-demographic groups.



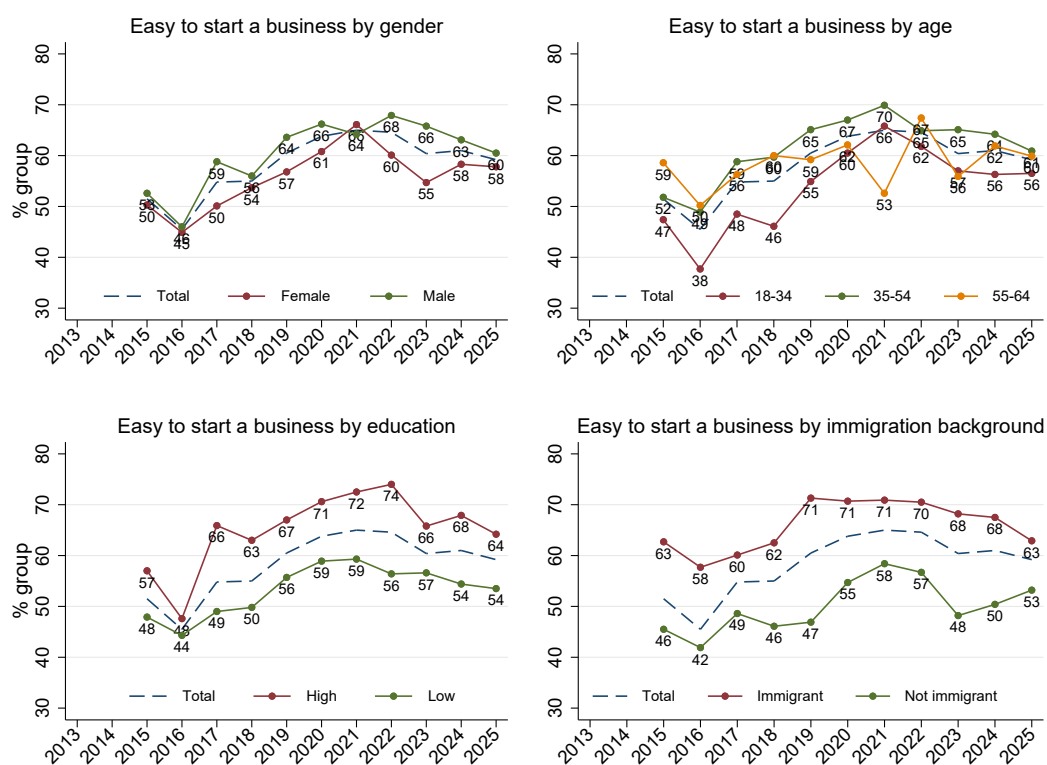
Shares of population groups (in %). High education is defined as obtaining at least a tertiary education degree (Master craftsman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample. Break in the series in 2019.

Source: 2013-2025 GEM Luxembourg APS data.

Figure 3.7 illustrates respondents' perceptions regarding the ease of starting a business in Luxembourg across socio-demographic groups. Immigrants and highly educated individuals have consistently reported more favourable perceptions of the ease of starting a business throughout the observed period. These differences remain substantial in 2025. Around 63% of immigrants considered that it is easy to start a business in Luxembourg, compared to 53% among non-immigrants. Similarly, 64% of highly educated respondents reported favourable perceptions, compared to 54% among individuals with lower education levels.

Differences by gender and age appear comparatively limited and have narrowed in recent years. In 2025, 60% of men considered that it is easy to start a business in Luxembourg, compared to 58% among women. Similarly, perceptions across age groups were relatively close, ranging from 56% among individuals aged 18-34 to 61% among those aged 35-54. Overall, the results suggest a broadly shared perception across demographic groups that Luxembourg remains a comparatively favourable environment for starting a business.

Figure 3.7: Easy to start a business in Luxembourg by socio-demographic groups.



Shares of population groups (in %). Variable introduced in 2015; break in the series in 2019. High education is defined as obtaining at least a tertiary education degree (Master craftman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample.
Source: 2013-2025 GEM Luxembourg APS data.

3.3 The profiles of potential and early-stage entrepreneurs

This section provides information on the **entrepreneurial intentions and engagement of different population subgroups**. The groups are identified according to selected socio-demographic characteristics: gender, education, immigration status, and age. We focus on entrepreneurial intentions and early-stage entrepreneurship.⁸

This analysis reveals that **entrepreneurship gaps exist across all the socio-demographic dimensions considered**, shows the **persistent entrepreneurship gender gap in Luxembourg**, and **confirms immigrants' higher propensity to engage in entrepreneurship**. Gaps tend to be persistent over time, while trends do not seem to depart from those observed for the population.

The scientific literature highlights several factors that may explain the observed gaps. These include prevailing cultural norms (Hechavarria and Reynolds, 2009) and self-efficacy, which refers to an individual's belief in their ability to perform the behaviours necessary to achieve specific goals (Wilson et al., 2007). The latter is frequently discussed as a possible explanation for gender differences in entrepreneurship.

Recent research suggests that gender gaps in entrepreneurial propensity are largely associated with differences in perceived entrepreneurial skills. Indeed, figure 3.5 in the previous section illustrates that women consistently perceive themselves as having fewer entrepreneurial skills than men, which provides support to the self-efficacy view. In 2025, 38% of women reported having the knowledge, skills, and experience required to start a new business, compared to 54% of men. Using GEM data, Abbasianchavari and Block (2022) show that, once differences in skill perception are taken into account, women may exhibit an entrepreneurial propensity equal to or even higher than that of men.

The gender gap in entrepreneurship has been observed in nearly all GEM countries (Elam et al., 2021; GEM (Global Entrepreneurship Monitor), 2023; GEM (Global Entrepreneurship Monitor), 2025a) and is supported by evidence from alternative indicators such as self-employment and sole proprietorship (OECD and Global Women's Entrepreneurship Policy Network, 2025). While recent studies suggest that this gap is gradually narrowing in many GEM countries (GEM (Global Entrepreneurship Monitor), 2023) and women are increasingly leading high-growth and export-oriented companies (GEM (Global Entrepreneurship Monitor), 2025a), the latest OECD report

⁸Due to sample size issues we do not report breakdowns for established entrepreneurs (EBO) and business exits.

(OECD, 2025b) confirms that, in Luxembourg, men remain significantly more likely than women to be self-employed.

Figure 3.8 shows substantial differences in entrepreneurial intentions across socio-demographic groups. Men, younger individuals, highly educated respondents, and immigrants consistently report higher intentions to start a business than their respective counterparts. These differences remain relatively persistent over time.

In 2025, 24% of male respondents declared that they intended to start a business within the next three years, compared to 15% of women. Entrepreneurial intentions were also comparatively high among immigrants (22%) and highly educated individuals (23%), compared to 16% among non-immigrants and 17% among respondents with lower education levels.

Differences by age remain particularly pronounced. In 2025, 24% of individuals aged 18–34 reported entrepreneurial intentions, compared to 21% among those aged 35–54 and only 10% among individuals aged 55–64. Younger individuals have consistently reported the highest entrepreneurial intentions throughout the observed period.

The data also suggest that the sharp decline in entrepreneurial intentions observed in 2020 affected all demographic groups, although it contributed to a temporary narrowing of some gaps, particularly between education and immigration-background groups. Since then, differences across groups have re-emerged, especially by gender.

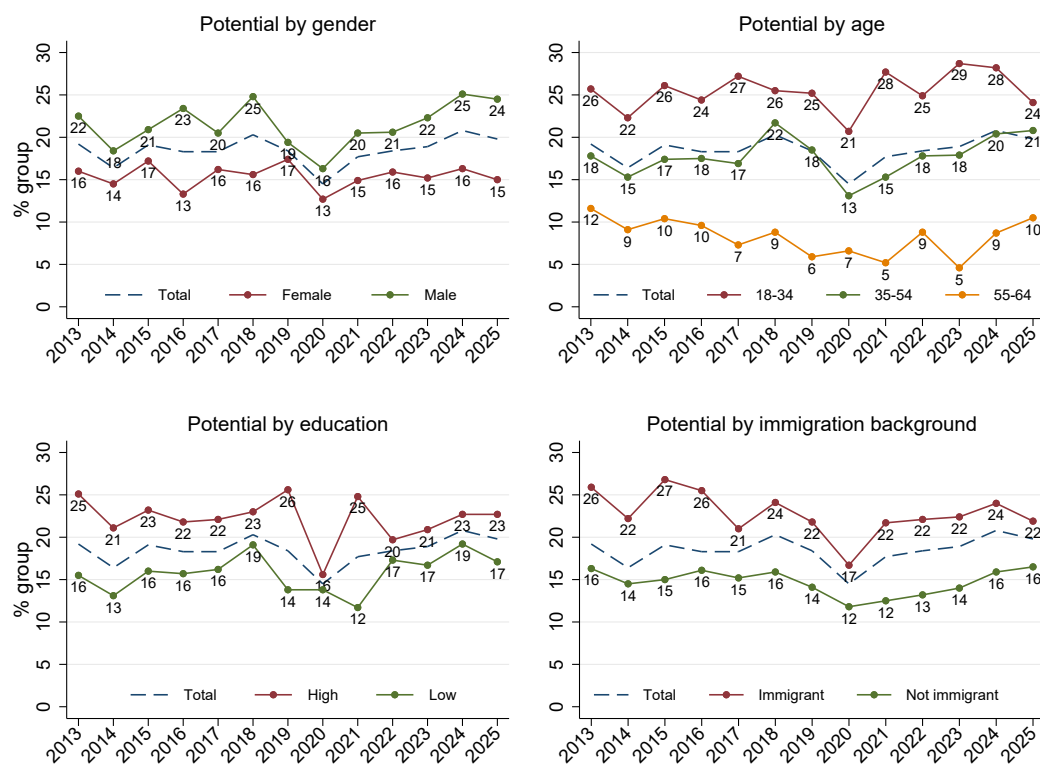
Figure 3.9 presents the evolution of Total early-stage Entrepreneurial Activity (TEA) across socio-demographic groups. The figure reports TEA by gender (top left panel), age (top right), education (bottom left), and immigration background (bottom right), together with the aggregate TEA rate (dashed line).

Male respondents consistently report higher TEA rates than female respondents throughout the observed period. While trends for both groups broadly follow similar dynamics,⁹ the gender gap that widened substantially in 2024 narrowed again in 2025, when the TEA rate reached 11.5% among men, compared to 7.2% among women.

Differences by age are also substantial. Individuals aged 18–34 and 35–54 generally report considerably higher TEA rates than older respondents. In 2025, TEA stood at 11.6% among individuals aged 18–34 and 8.6% among those aged 35–54, compared

⁹The TEA rates for men and women are positively correlated, with a Pearson correlation coefficient of 0.46.

Figure 3.8: Potential entrepreneurs: gender, age, education and immigration (2013 – 2025).



Shares of population groups (in %). High education is defined as obtaining at least a tertiary education degree (Master craftsman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample.
Source: 2013-2025 GEM Luxembourg APS data.

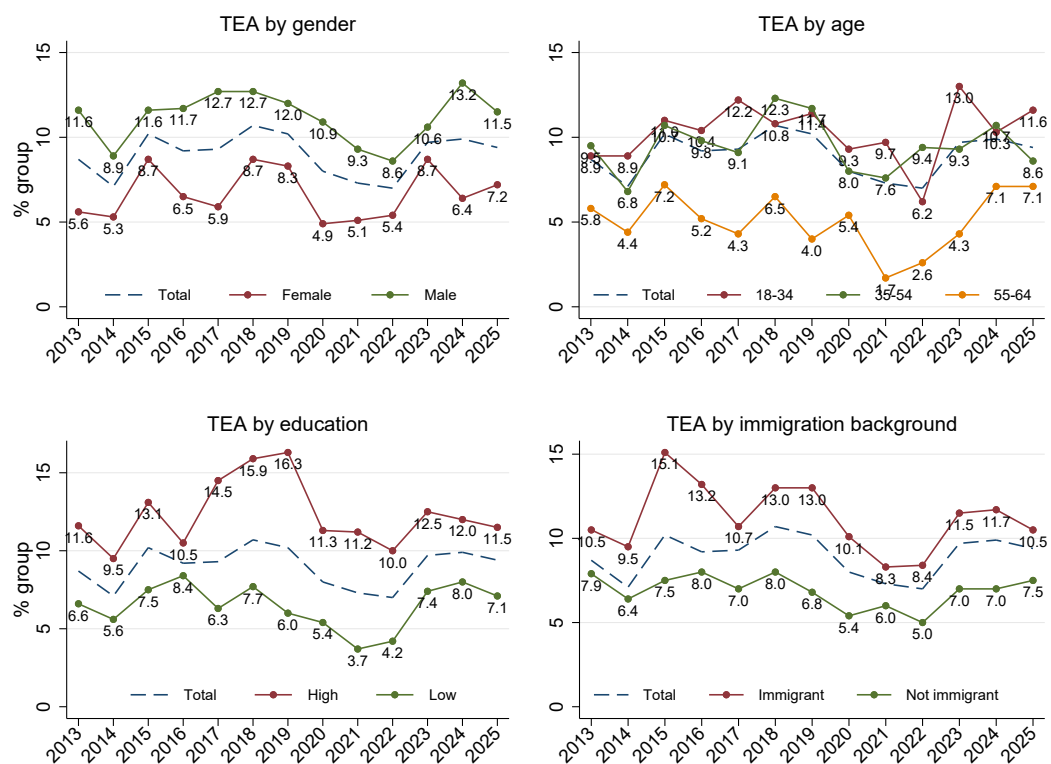
to 7.1% among respondents aged 55–64. The increase observed among older individuals in recent years partly reduced the age gap.

The bottom left panel in Figure 3.9 depicts TEA by education level. **Education remains strongly associated with entrepreneurial activity.** Highly educated individuals consistently report substantially higher TEA rates than respondents with lower education levels. This is in line with previous research that highlights the positive impact of education on the decision to start a business (Block et al., 2013). In 2025, TEA reached 11.5% among highly educated individuals, compared to 7.1% among respondents with lower education levels.

Differences by immigration background also remain visible over the whole period. **Immigrants generally report higher TEA rates than non-immigrants**, although the gap narrowed somewhat in recent years. In 2025, TEA stood at 10.5% among immigrants, compared to 7.5% among non-immigrants. This result highlights the contribution of immigrants to Luxembourg's entrepreneurship, and is in line with research on immigrants' entrepreneurs.¹⁰

¹⁰Previous studies highlighted immigrants' higher propensity for entrepreneurship in Luxembourg, but also the lower success rates that immigrants exhibit in the subsequent stages of entrepreneurship (Peroni et al., 2016).

Figure 3.9: TEA: gender, age, education and immigration (2013 – 2025).



Shares of population groups (in %). High education is defined as obtaining at least a tertiary education degree (Master craftsman's diploma is not included); immigrants are those residents who were not born in Luxembourg; age groups are defined as 18-34 year-olds, 35-54, and 55-64. Dashed lines refer to the whole sample.
Source: 2013-2025 GEM Luxembourg APS data.

3.4 Entrepreneurial motivations

GEM data provide information on the **motivations that drive people to become entrepreneurs**. Motivations are generally thought as providing indications on qualitative aspects of entrepreneurship: entrepreneurship studies place emphasis on the distinction between opportunity-driven and necessity-driven entrepreneurship. **Opportunity-driven entrepreneurs** are those individuals engaging in entrepreneurial activities because they see a business opportunity. **Necessity-driven entrepreneurs** are individuals who establish new ventures due to a lack of paid employment opportunities. These types of entrepreneurship typically display different patterns along the business cycle (Thurik, 2014), with necessity and opportunity entrepreneurship showing, respectively, anti-cyclical and pro-cyclical patterns. Economic downturns are usually characterised by an increase in necessity-driven entrepreneurs. In contrast, opportunity-driven entrepreneurship numbers are higher during period of growth (Fairlie and Fossen, 2019). What's more, the literature shows that opportunity-driven entrepreneurs create firms that tend to have higher growth prospects and create more jobs than necessity-driven entrepreneurs (Fairlie and Fossen, 2019; Schoar, 2010). For this reason, necessity-driven entrepreneurship is seen as less desirable than opportunity-driven entrepreneurship.

Since the programme's inception, the GEM has attempted to capture the distinction between the two types of entrepreneurship, and to explore the reasons that drive individuals to become entrepreneurs. In 2019, GEM has expanded the questionnaire by asking TEA entrepreneurs to evaluate their motivations by selecting one or more of the following statements:¹¹

- To make a difference in the world;
- To build great wealth or very high income;
- To continue a family tradition;
- To earn a living because jobs are scarce.

Note that the four entrepreneurial motivations are not mutually exclusive. The last statement correspond to the prevailing definition of necessity-driven entrepreneurship found in the literature. As for *opportunity-driven entrepreneurs*, since 2019 GEM Luxembourg has been capturing it by the share of TEA entrepreneurs who are motivated by a desire to make a difference in the world.

¹¹In the period from 2013 to 2019, the Global GEM defined 'opportunity TEA' as the share of TEA entrepreneurs who were pulled towards entrepreneurship by business opportunities, and driven by a desire for autonomy and independence or to increase their income. Autonomy and independence were subsequently excluded as reasons because tests revealed them being common among early-stage entrepreneurs (Niels and Kelley, 2019).

Figure 3.10 shows how entrepreneurial motivations evolved in Luxembourg between 2019 and 2025. While necessity-driven entrepreneurship continued to decline from the peak levels observed in 2022 and 2023, the share of entrepreneurs motivated by the desire to “make a difference in the world” also decreased markedly in 2025, reaching its lowest level over the observed period.¹²

In 2025, the share of TEA entrepreneurs motivated by the desire to “make a difference in the world” declined markedly, from 57.9% in 2024 to 46.6%. By contrast, the motivation to “build great wealth or very high income” remained stable, at 51.7% in 2025, compared to 51.8% in 2024.

Necessity-driven entrepreneurship continued to decrease. The share of entrepreneurs reporting that they started a business “to earn a living because jobs are scarce” fell from 47.2% in 2023 to 37.9% in 2024 and 35.6% in 2025.¹³

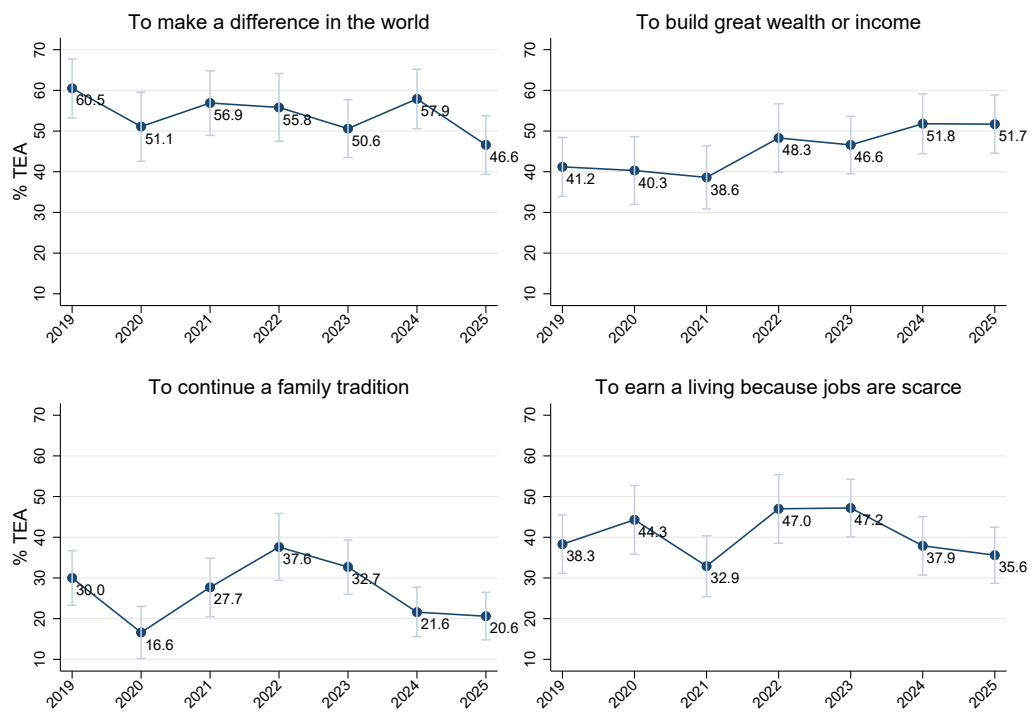
The motivation to “build great wealth or very high income” remained comparatively stable over the period and continued to represent one of the most frequently reported entrepreneurial motivations in Luxembourg. In 2025, 51.7% of TEA entrepreneurs reported this motivation, a level almost unchanged compared to 2024.

By contrast, the motivation to “continue a family tradition” remained comparatively limited throughout the observed period. After peaking at 37.6% in 2022, the indicator declined steadily to 20.6% in 2025, suggesting that family-business continuity represents a less central driver of entrepreneurial activity in Luxembourg than income-related or purpose-driven motivations.

¹²and exhibit relatively low pairwise correlations in the Luxembourg data over the period 2019–2025. The correlation between “making a difference in the world” and “earning a living because jobs are scarce” is close to zero (0.01), suggesting that opportunity- and necessity-related motivations capture distinct dimensions of entrepreneurial motivation.

¹³A preliminary test linking unemployment and necessity-driven entrepreneurship is not conclusive, as the time series remains too short to provide reliable statistical evidence, especially because changes in labour market conditions may affect entrepreneurial motivations only with a time lag (O’Leary, 2022).

Figure 3.10: Entrepreneurial Motivations (2019 – 2025).



Shares of TEA entrepreneurs (in %). Source: 2019 – 2025 GEM Luxembourg APS data.

Entrepreneurship in Luxembourg: a comparative perspective

This chapter presents a comparative analysis of entrepreneurship in Luxembourg and several European countries. The analysis, which uses APS data from 19 European countries that participated in both the 2024 and 2025 GEM waves,¹ provides additional context for interpreting Luxembourg's entrepreneurial activity and ecosystem described in the previous chapter.

Each year, the Global Entrepreneurship Monitor (GEM) collects data and documents entrepreneurship across countries worldwide, countries that feature different economic structures and levels of economic development. To ensure comparability, GEM classifies countries according to their income levels (low, medium, and high), and presents the analysis of entrepreneurship by group. In the same spirit, this chapter compares Luxembourg with other European countries that share similar economic structures, and for which observations are available for the years 2024 and 2025.

Compared with 2024, the European average shares of potential entrepreneurs, early-stage entrepreneurs, and established business owners all increased slightly. The share of individuals reporting a recent business exit also rose.

Despite these developments may suggest an increase in business dynamism across Europe, the GEM indicators of entrepreneurial activity exhibit considerable cross-country variation. (The latest available Eurostat business demography statistics also reveal substantial cross-country variation in enterprise birth and death rates in 2023 Eurostat, 2025c, p. .)

Focusing on Luxembourg, the latest results indicate that the country continues to rank above the European average in terms of potential entrepreneurship, but this strong entrepreneurial potential is not fully reflected in business creation, as the TEA rate stands below the European average. In contrast, Luxembourg records the lowest level of Established Business Ownership (EBO) among the observed countries. At the same time, the proportion of individuals reporting a business exit fell below the European average in 2025.

As noted in previous reports (GEM Luxembourg, 2024; GEM Luxembourg, 2025), **perceptions of the entrepreneurial environment tend to vary substantially across countries, whereas individual attitudes and traits exhibit less variation.** In Luxembourg, the shares of respondents reporting that they possess the skills to start a business and that they personally know an entrepreneur were slightly below the cross-country average, although the differences were relatively small. **Fear of failure** remained substantially unchanged in 2025, at 42%, compared to 41% in 2024. This level remains below the European average of 46%.

¹Austria is excluded because it collected NES but not APS data in both years.

The population's **perceptions of business opportunities** in Luxembourg were broadly in line with those in other European countries in 2025. About half of Luxembourg residents believed there were good opportunities to start a business in the country. What is more, 59% of respondents agreed that it is easy to start a business in Luxembourg. This compares to an average of 50% across Europe.

At the same time, Luxembourg's **entrepreneurs reported comparatively low growth expectations of growth for their business**, although the indicator improved slightly compared to 2024 (42% vs 44%). While Luxembourg no longer recorded the highest proportion of entrepreneurs reporting weaker growth prospects, it remained well above the cross-country average of 29%. This finding is broadly consistent with STATEC's *Notes de Conjoncture*, which describe a gradual economic recovery despite continued uncertainty (STATEC, 2025b).

In terms of entrepreneurial quality, Luxembourg recorded a **substantially lower share of necessity-driven entrepreneurship** than the European average (36% compared to 58%). At the same time, the share of entrepreneurs motivated by the desire to make a difference in the world was slightly above average (47% versus 45%).

The chapter is organised as follows. Section 4.1 presents indicators of entrepreneurial intensity for the various stages of the entrepreneurial process. Section 4.2 reports on perceptions of the business environment and attitudes towards risk, providing a comparative evaluation of Luxembourg's entrepreneurial environment. The chapter concludes with Section 4.3, which provides information on TEA entrepreneurs' motivations for engaging in entrepreneurship, and growth expectations. These indicators provide information on the impact and quality of entrepreneurship. This is relevant because well-motivated entrepreneurs are generally perceived as drivers of productivity and economic growth (e.g., Acs et al., 2008; Murnieks et al., 2020).

4.1 Entrepreneurial activity in Europe

This section provides information on entrepreneurial intensity in Luxembourg in a comparative perspective. As in the previous chapter, we provide a set of indicators that allows us to gauge entrepreneurial intensity at all stages of the entrepreneurial process:

1. Potential entrepreneurs: individuals planning to start a new business within the next three years;
2. TEA entrepreneurs: individuals actively involved in setting up a business, and new entrepreneurs (owner-managers of firms younger than 42 months);
3. Established entrepreneurs (EBO): owner-managers of a firm that has been paying wages for over 42 months;
4. Discontinued entrepreneurs: owner-managers who have exited a discontinued business in the past 12 months.

The charts in the remainder of the section presents the indicators of entrepreneurship for the year 2025 (bars) for Luxembourg and the other 19 European countries. (For comparison, circles denote the record for the previous year, 2024.) The blue bars refer to group averages. Table 13 in the Annex reports the values of the indicators depicted in the charts.

Looking first at the average across the European countries considered, all entrepreneurship indicators increased slightly compared to the previous year. In 2025, the average share of potential entrepreneurs, TEA, and established business ownership all improved marginally. At the same time, business exits increased. Taken together, these developments may point to a modest increase of business dynamism in Europe.² The indicators nevertheless exhibit substantial cross-country variation, a pattern that is also visible in the latest available Eurostat business demography statistics for 2023 (Eurostat, 2025c, see Exhibit 4.1 for more details).

As shown in Chapter 3, all four entrepreneurship indicators declined in Luxembourg in 2025 compared to 2024. However, compared with the observed countries, Luxembourg continues to rank above average in terms of potential entrepreneurship, while its TEA rate remains slightly below the European average. In contrast, Luxembourg records the lowest level of Established Business Ownership (EBO) among the observed countries. At the same time, the proportion of individuals reporting a business exit fell below the European average in 2025.

²Business dynamism generally refers to the simultaneous creation and closure of businesses, reflecting an economy's capacity to reallocate resources, adapt to change, and support economic growth. It has been associated with productivity gains, innovation, and job creation (OECD, 2006).

Taken together, these results suggest that Luxembourg continues to perform comparatively well in a European context, combining strong entrepreneurial intentions with a relatively limited stock of established business owners and moderate levels of business discontinuation.

Potential entrepreneurship

Figure 4.1 compares Luxembourg's entrepreneurial intentions against other countries. In 2025, the proportion of potential entrepreneurs in Luxembourg was 21%, above the cross-country average of 17%. Compared to the previous year, entrepreneurial intentions either slightly increased or remained unchanged in a majority of countries (sixteen out of nineteen). The United Kingdom, Lithuania and Italy recorded considerable increases in potential entrepreneurship rates. Luxembourg is among the countries that saw a moderate increase in entrepreneurial intentions in 2025 compared to 2024.

Figure 4.1 compares entrepreneurial intentions across European countries. In 2025, 19.8% of respondents in Luxembourg identified themselves as potential entrepreneurs, compared to a European average of 17.6%. Luxembourg therefore remains above the European average, although entrepreneurial intentions declined slightly compared to 2024.

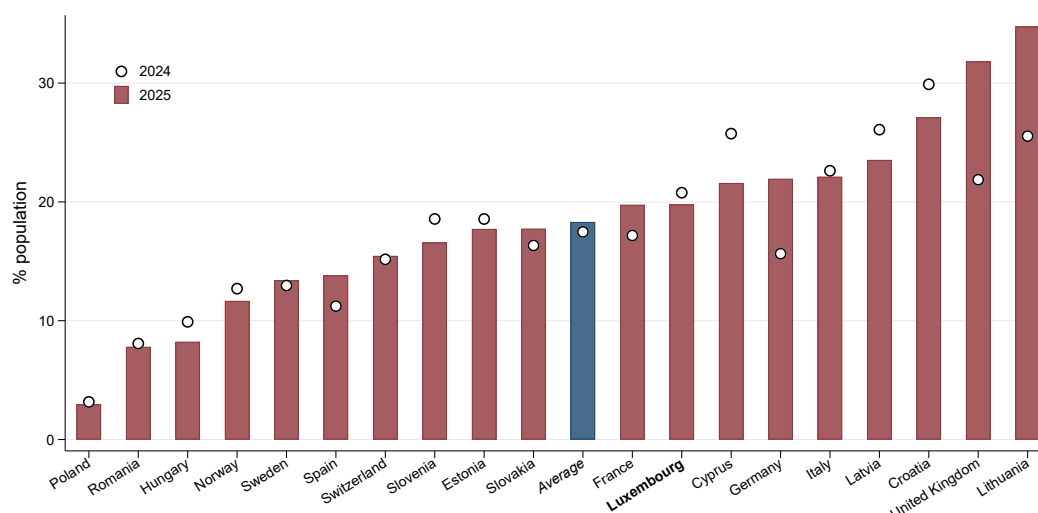
Across the countries considered, entrepreneurial intentions exhibited mixed developments. While some countries, including Lithuania, the United Kingdom, Latvia, and Croatia, recorded notable increases, many others experienced either stability or moderate declines. The European average decreased slightly between 2024 and 2025. Despite the marginal decline recorded in Luxembourg, the country continues to rank among the European economies with comparatively high levels of entrepreneurial intentions.

Early Stage Entrepreneurial Activity (TEA)

Figure 4.2 presents cross-country TEA rates for 2024 and 2025. The average TEA rate across the observed European countries declined slightly in 2025. In most countries, TEA rates remained relatively stable or changed only marginally. Notable increases were nevertheless observed in a few countries, particularly Lithuania and the United Kingdom.

As shown in Section 3.1, Luxembourg's TEA rate decreased slightly from 9.9% in 2024 to 9.4% in 2025. Despite this decline, the indicator remains close to its

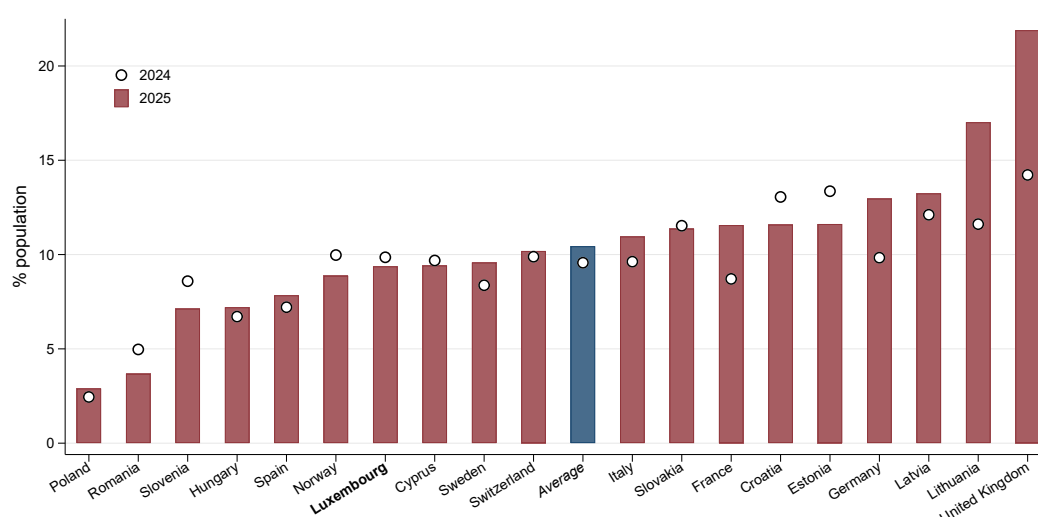
Figure 4.1: Potential entrepreneurs in Europe.



Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

historical average. TEA rates continued to vary substantially across countries, ranging from around 3% in Poland to more than 20% in the United Kingdom. Lithuania, Latvia, and the United Kingdom recorded some of the highest levels of early-stage entrepreneurial activity. Luxembourg's TEA rate remained close to the European average, placing the country near the middle of the distribution.

Figure 4.2: Total Early-stage Entrepreneurial Activity (TEA) in Europe.



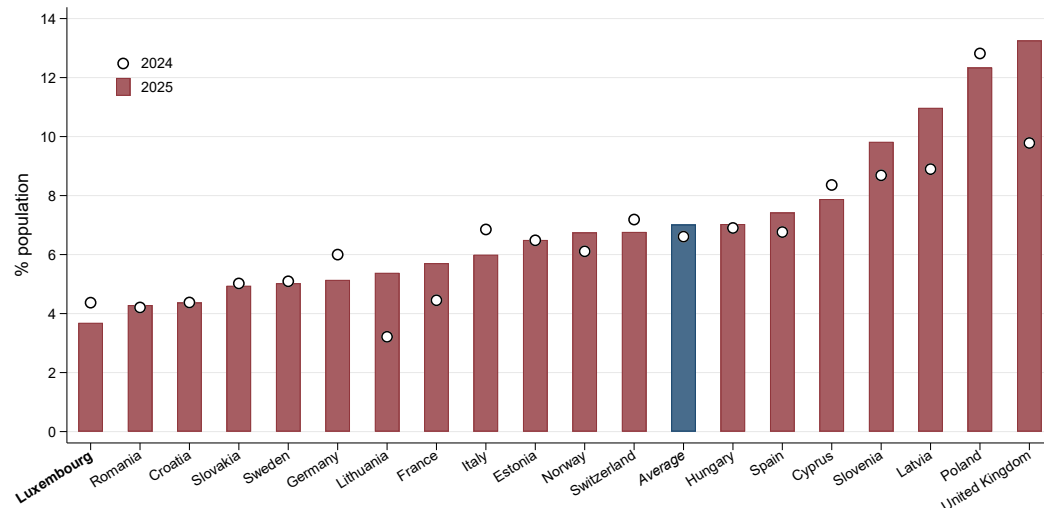
Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

Established Business

Figure 4.3 presents the share of established business owners (EBO) in 2025 and 2024. Compared with the previous year, Established Business Ownership (EBO) declined or remained broadly stable in a majority of the countries considered (12 out of 19). Nevertheless, several countries recorded noticeable increases, particularly the United Kingdom, Latvia and Lithuania.

The cross-country average EBO increased slightly, from 6.6% in 2024 to 7.0% in 2025. Nevertheless, substantial differences remain across countries, with rates ranging from 3.7% in Luxembourg to 13.3% in the United Kingdom. Poland and the United Kingdom recorded the highest levels of established business ownership, while Luxembourg remained at the bottom of the distribution, with its EBO rate declining from 4.4% in the previous year to 3.7%.

Figure 4.3: Established Business Ownership (EBO).



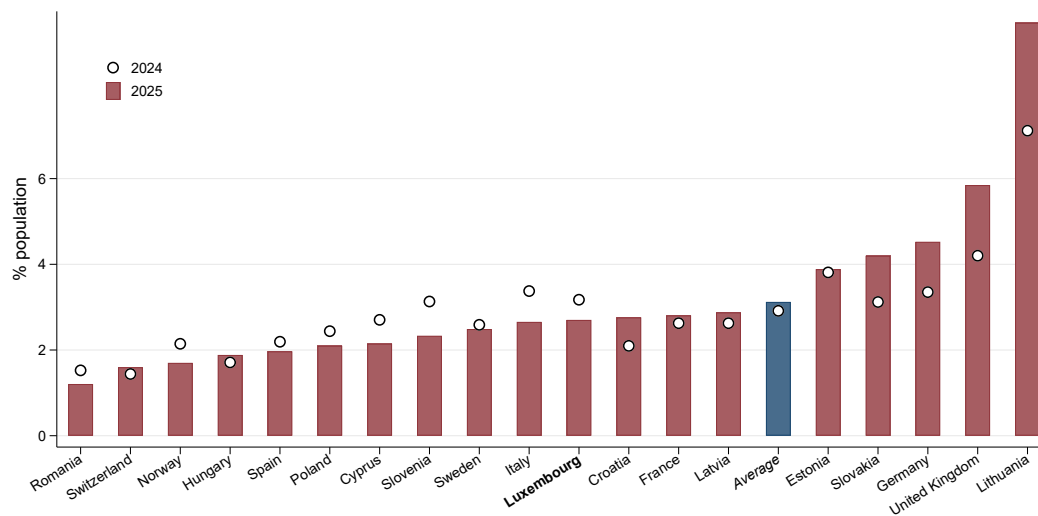
Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

Entrepreneurial exit

Figure 4.4 presents business discontinuation rates in 2025 and 2024. While developments varied across countries, the average share of individuals reporting a business exit increased slightly, from 2.9% to 3.1%. Lithuania recorded by far the largest increase, while several countries experienced stable or declining exit rates.

In Luxembourg, the business discontinuation rate declined from 3.2% in 2024 to 2.7% in 2025, placing the country slightly below the European average.

Figure 4.4: Share of adults discontinuing a business in the last 12 months.



Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

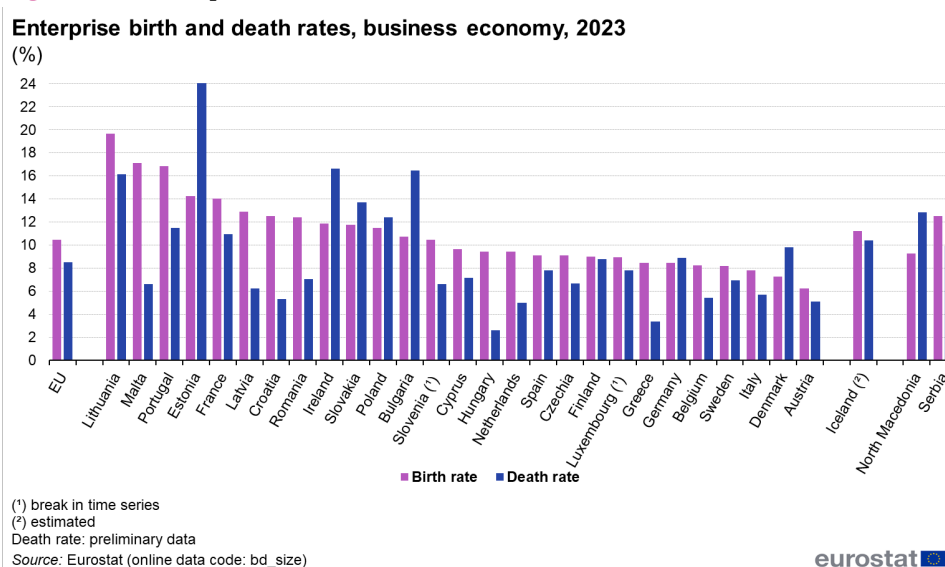
Exhibit: European business demography statistics

This exhibit presents evidence on business dynamism across European countries using Eurostat business demography statistics. Business demography data provide information on the birth, growth and closure of enterprises and therefore offer a useful complement to GEM indicators. While GEM focuses on individuals and their entrepreneurial activities, business demography statistics focus on firms and their demographic dynamics. The two sources are therefore not directly comparable, as they differ in their units of observation, coverage, and methodology. Nevertheless, they provide complementary perspectives on entrepreneurship and business dynamism.

The latest available Eurostat data refer to 2023. Although they do not capture the most recent developments, they provide useful context for interpreting cross-country differences in entrepreneurial activity. Figure 4.5 highlights substantial variation in enterprise birth and death rates across Europe. In 2023, enterprise birth rates ranged from around 6–8% in countries such as Austria and Denmark to nearly 20% in Lithuania, while enterprise death rates varied from less than 3% in Hungary to almost 24% in Estonia. These differences point to considerable heterogeneity in business dynamism across European economies.

The European Union average enterprise birth rate stood at 10.4%, while the average death rate was 8.4%. Luxembourg was broadly aligned with these averages, recording a birth rate of 9.0% and a death rate of 7.8%. Compared with many other European countries, Luxembourg therefore exhibited moderate levels of business creation and business closure, suggesting a relatively stable business environment rather than exceptionally high business turnover.

Figure 4.5: Enterprise birth and death rates



Source: (Eurostat, 2025c).

4.2 The entrepreneurial environment: respondents' traits, perceptions, and networks

This section reports on respondents' traits, perceptions of the business environment, and entrepreneurial networks across Europe, as these variables are known to affect individuals' decisions to engage in entrepreneurship.

The indicators considered are the following:

1. **Personally Know Entrepreneurs:** How many people do you know who have started a business in the past two years?
2. **Personally Have the Skills:** You have the knowledge, skills, and experience required to start a new business.
3. **Fear of Failure:** You would not start a business for fear it might fail.
4. **Good Opportunities:** In the next six months, there will be good opportunities to start a business in Luxembourg.
5. **Easy to Start a Business:** It is easy to start a business in Luxembourg.

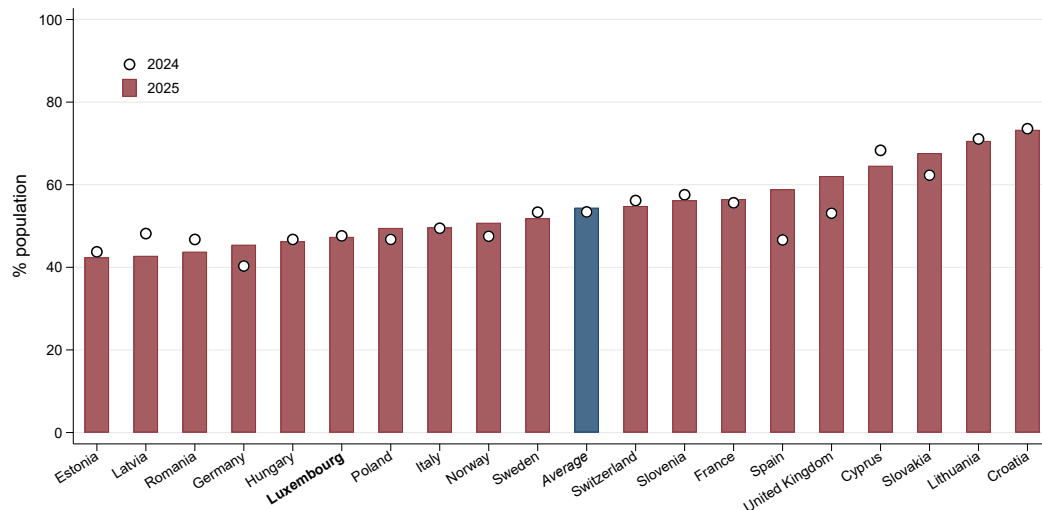
Overall, indicators related to individual attitudes and perceptions, such as fear of failure and perceived entrepreneurial skills, tend to exhibit comparatively limited variation across countries. In contrast, perceptions of the entrepreneurial environment, captured by perceived business opportunities and the ease of starting a business, display substantially greater cross-country differences.

Figure 4.6 presents cross-country differences in entrepreneurial networks, measured by the share of respondents who personally know someone who started a business in the previous two years. Compared with 2024, the indicator increased slightly in most countries. As a result, the cross-country average rose from 53.4% to 54.4% in 2025. Nevertheless, substantial cross-country differences persist, with the indicator ranging from around 42% in Estonia and Latvia to 73% in Croatia.

In Luxembourg, the share of adults reporting that they personally know an entrepreneur remained essentially unchanged, moving from 47.6% to 47.4%. The indicator therefore remained below the European average.

Figure 4.7 shows the percentage of adults who believe they have the necessary knowledge, skills, and experience to start a business. Overall, this indicator remained relatively stable across countries, although some declines were observed, particularly in Romania. The cross-country average stood at 52.6% in 2025. Considerable

Figure 4.6: Personally know entrepreneurs.

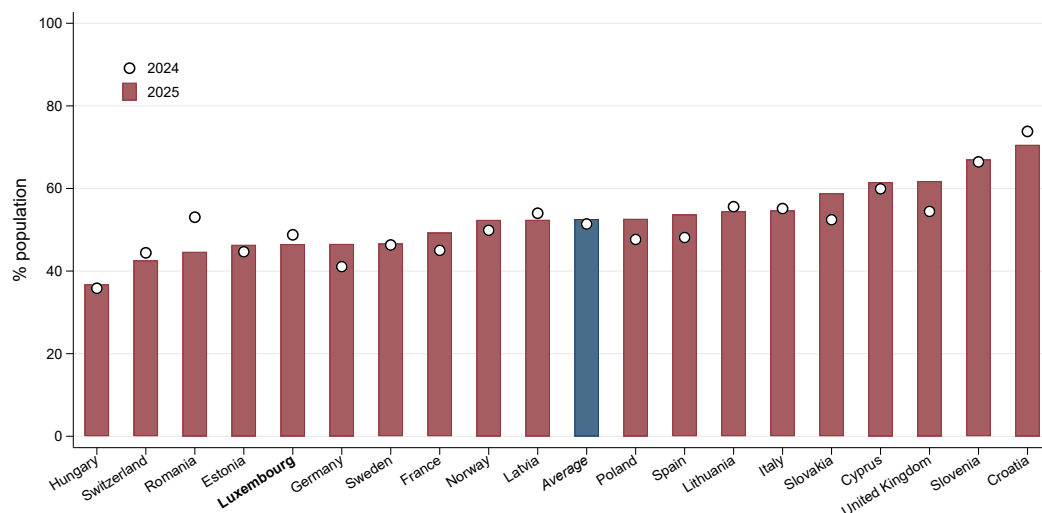


Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

differences nevertheless persist, with values ranging from 36.8% in Hungary to 70.6% in Croatia.

In Luxembourg, 46.5% of adults reported having the skills required to start a business. Although broadly stable compared to the previous year, this proportion remained below the European average.

Figure 4.7: You personally have the knowledge, skills, and experience required to start a business.



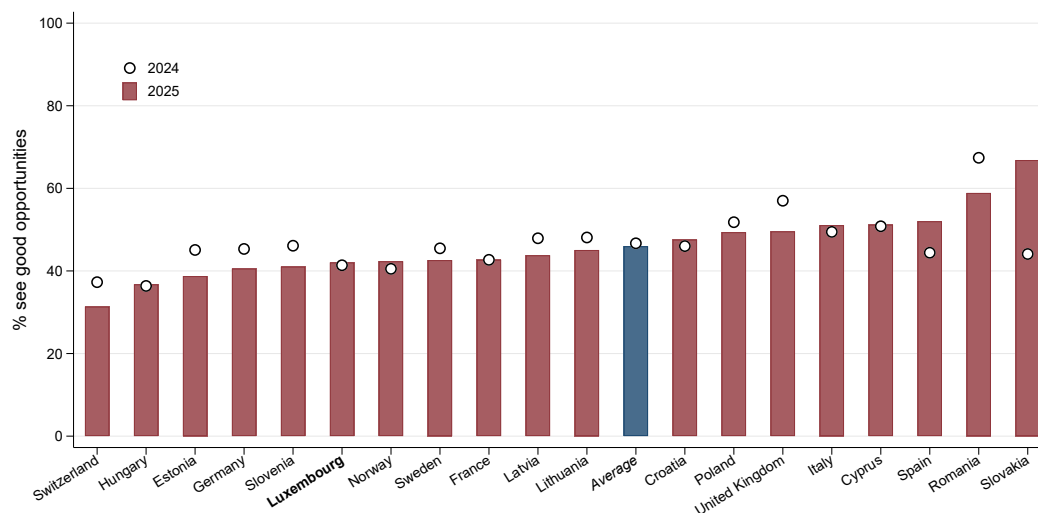
Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

Figure 4.8 illustrates the share of adults who perceive good business opportunities but report that fear of failure would prevent them from starting a business. Across

the countries considered, this indicator remained broadly stable in 2025, with a cross-country average of 45.9%. Nevertheless, substantial differences persist, ranging from 31.4% in Switzerland to 66.9% in Slovakia, that also recorded one of the largest increases, with fear of failure rising from 44.1% in 2024 to 66.9% in 2025.

In Luxembourg, fear of failure increased marginally from 41.4% in 2024 to 42.1% in 2025, remaining below the European average.³

Figure 4.8: Fear of failure: you see good opportunities, but would not start a business for fear it might fail.



Shares of respondent who see good opportunities to start a business (in %). Bars and circles refer, respectively, to the year 2025 and 2024.

Source: 2025 and 2024 GEM Global APS data.

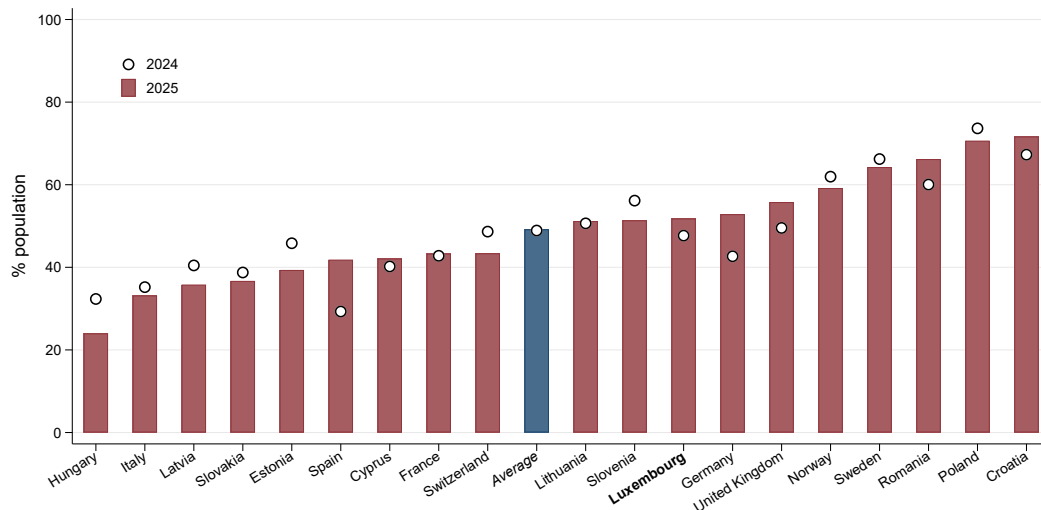
Figure 4.9 illustrates the share of adults who perceive good opportunities to start a business in their area. The indicator exhibits substantial cross-country variation, ranging from 24% in Hungary to 72% in Croatia. Overall, perceptions of business opportunities remained broadly stable across the countries considered, with the cross-country average increasing slightly from 49.5% in 2024 to 49.9% in 2025.⁴

Luxembourg recorded a more favourable development than the European average. The share of respondents perceiving good business opportunities increased from 47.7% in 2024 to 51.8% in 2025, placing the country slightly above the cross-country average.

³See the discussion in Section 3.2 on fear of failure and the reform of the right of establishment.

⁴This relative stability is consistent with broader measures of economic sentiment in the European Union. During the GEM 2025 data collection period, the European Commission's Economic Sentiment Indicator (ESI) fluctuated around 95 points, remaining below its long-term average of 100 despite some month-to-month variation (European Commission, Directorate-General for Economic and Financial Affairs, 2025c; European Commission, Directorate-General for Economic and Financial Affairs, 2025b; European Commission, Directorate-General for Economic and Financial Affairs, 2025a).

Figure 4.9: Good opportunities to start a business in next 6 months.



Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

Institutions, policy initiatives and legal and administrative frameworks form an essential part of a country’s entrepreneurial ecosystems. Specifically, well-functioning institutions that facilitate the creation and operation of businesses play a key role in supporting entrepreneurship.⁵

GEM captures this dimension by asking respondents whether they believe it is easy to start a business in their country. Figure 4.10 reports the share of adults aged 18–64 who responded positively and compares results for 2024 and 2025. Overall, perceptions remained relatively stable between the two years, with the cross-country average increasing only marginally from 51.2% to 49.9%. Nevertheless, substantial differences persist across countries, with values ranging from around 20% in Italy to more than 75% in Poland.

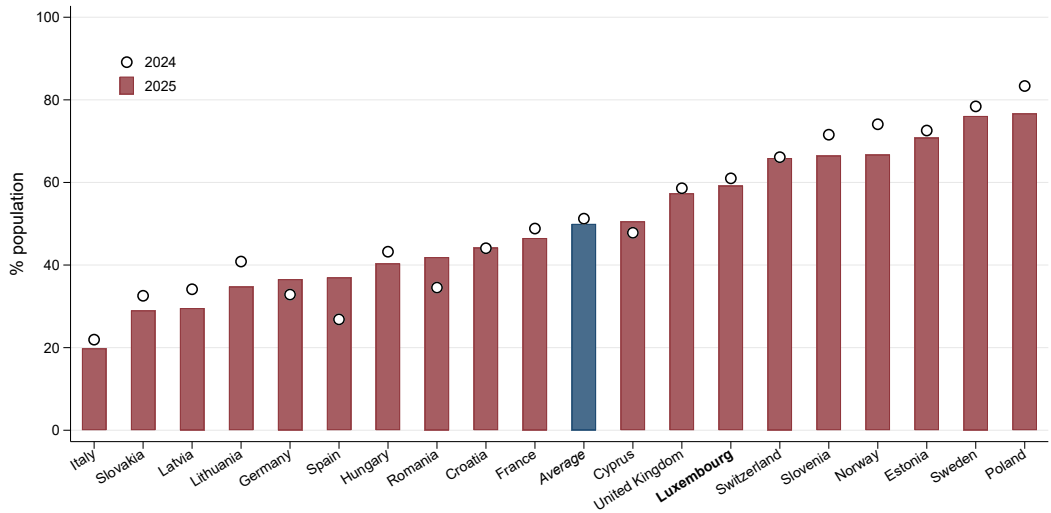
Luxembourg remained comparatively well positioned. In 2025, 59.2% of respondents considered that it was easy to start a business in the country, compared to a European average of 49.9%. Although the indicator declined slightly from 61.0% in 2024, Luxembourg ranked sixth among the 19 countries considered, reflecting a comparatively favourable assessment of the business environment.

The OECD’s Entrepreneurial Ecosystem Diagnostics confirms the favourable position of Luxembourg that emerges from these data. This structured benchmarking tool evaluates entrepreneurial ecosystems across all 38 OECD countries. (see Section

⁵This concept is the theoretical basis of many international studies, including the OECD’s Entrepreneurial Ecosystem Diagnostics (OECD, 2025) and the World Bank’s forthcoming B-Ready index, which will assess regulatory quality and efficiency of Luxembourg in 2026 (World Bank, 2025; World Bank, 2024a). See also Chapter 10 for a detailed summary of Luxembourg’s ecosystem assessment.

Chapter 10 for further details). In the period from 2020 to 2023, Luxembourg received a score of 78.4 out of 100 in the area of intermediate business services, which play a key role in lowering entry barriers for new ventures. This places Luxembourg 12th among the OECD countries assessed, indicating a generally supportive environment for entrepreneurship.

Figure 4.10: Easy to start a business.



Shares of adults (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

4.3 TEA entrepreneurs across Europe: motivation and expectations

This section uses the cross-country dataset to explore entrepreneurs' motivations and expectations of entrepreneurial ventures, in a comparative perspective. These aspects provide insights on quality and impact of entrepreneurship. Indeed, well-motivated and entrepreneurs are regarded as drivers of productivity and economic growth, one of the channel being technological improvements (e.g., Acs et al., 2008; Murnieks et al., 2020). We first explore the distinction between opportunity-driven and necessity-driven entrepreneurs in our data. The concepts identify, respectively, individuals engaging in entrepreneurial ventures in response to identifiable business opportunities, and those who turn to entrepreneurship due to the lack of paid employment opportunities (one can refer to Section 3.4 for discussion). Subsequently, we examine the proportion of entrepreneurs who report introducing products and services new to their market. We conclude by focusing on growth expectations.

Note that the statistics of this section are based on answers provided by TEA entrepreneurs.

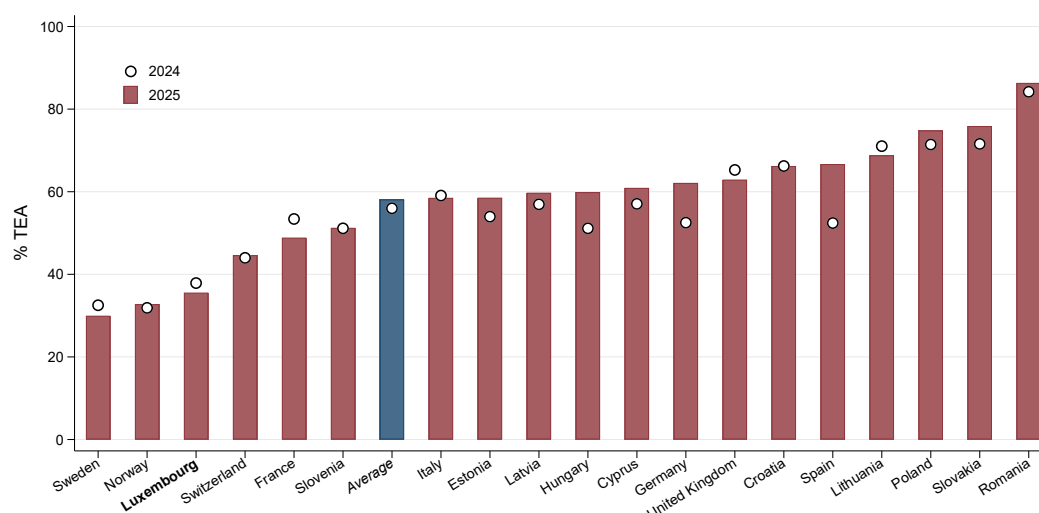
Necessity and opportunity-driven entrepreneurs

Figure 4.11 shows the percentage of TEA entrepreneurs who reported having engaged in entrepreneurship “to earn a living because jobs are scarce” in 2025 (bars) and 2024 (circles). The indicator exhibits substantial cross-country variation, ranging from 30% in Sweden to 86.4 % in Romania. Despite this heterogeneity, the cross-country average remained broadly unchanged, at approximately 56% in 2025 compared to 58.2% in 2024 .

Some countries experienced some changes between 2024 and 2025. Increases in necessity-driven entrepreneurship were observed in Spain, Germany, and Hungary, while declines occurred in several other countries. In Luxembourg, the proportion of TEA entrepreneurs reporting that they started a business because jobs were scarce declined slightly from 37.9% to 35.6%. As a result, Luxembourg remained among the countries with the lowest prevalence of necessity-driven entrepreneurship in 2025, ranking third after Sweden and Norway and remaining well below the European average.

Opportunity-driven entrepreneurship refers to the share of TEA entrepreneurs who report creating a business to make a difference in the world. Once again, we observe wide variations across countries. The overall average share remained

Figure 4.11: Motivation is “to earn a living because jobs are scarce” (% of TEA).



Shares of TEA entrepreneurs (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

stable, with values for 2023 and 2024 at, respectively, 42% and 43%. Out of the 19 countries observed, only six registered an increase in opportunity-driven entrepreneurship. The most notable case is Hungary, which in 2024 had the highest share of opportunity-driven entrepreneurship.⁶ Luxembourg recorded a 6 percentage point increase (from 38% in 2024 to 43%), ranking second among the 19 countries observed in 2025. In contrast, the majority of countries recorded either a decline or a stable share of individuals starting a business to make a difference in the world. These data are depicted in Figure 4.12.

Luxembourg traditionally features among the highest levels of opportunity-driven entrepreneurship in international comparison. **The country exhibits the third lowest share of necessity-driven entrepreneurs.**

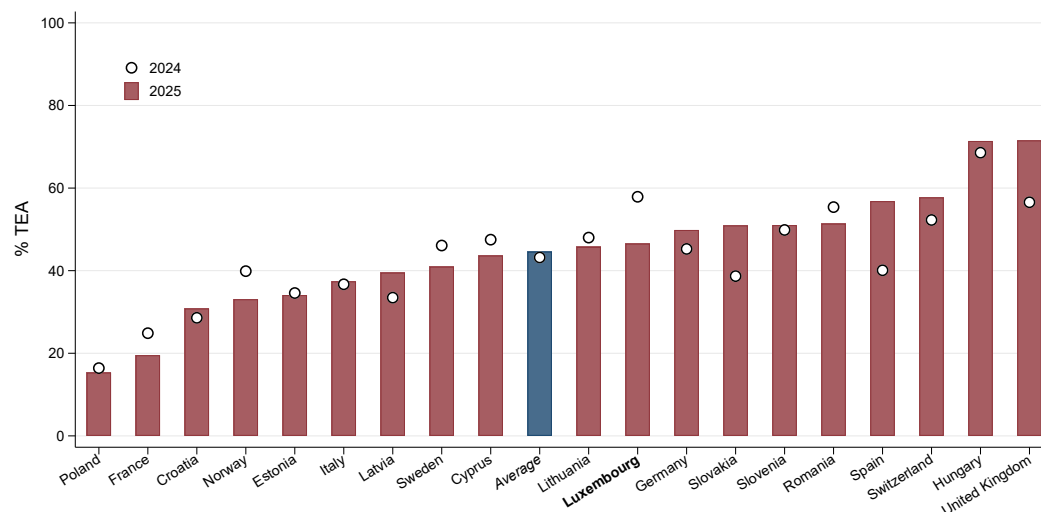
Opportunity-driven entrepreneurship refers to the share of TEA entrepreneurs who report starting a business in order to make a difference in the world. Figure 4.12 reveals substantial cross-country variation in this motivation. In 2025, the indicator ranged from 15.3% in Poland to 71.5% in the United Kingdom and Hungary.

Compared with 2024, the cross-country average increased from 43.2% to 44.6%, indicating a moderate strengthening of opportunity-driven motives among European entrepreneurs. While several countries recorded substantial increases, including the United Kingdom, Spain, and Slovakia, others experienced declines or little change.

⁶For reference, in Hungary, GDP contracted by 0.8% in 2023 and grew by 0.5% in 2024. Growth is projected at 0.8% in 2025 and 2.5% in 2026 (European Commission, 2025a)

In Luxembourg, the share of opportunity-driven entrepreneurs decreased from 57.9% in 2024 to 46.6% in 2025. As a result, Luxembourg remained close to the European average. This contrasts with the country’s comparatively low prevalence of necessity-driven entrepreneurship, discussed above.

Figure 4.12: Motivation is “to make a difference in the world” (% of TEA).



Shares of TEA entrepreneurs (in %). Bars and circles refer, respectively, to the year 2025 and 2024.
Source: 2025 and 2024 GEM Global APS data.

Business growth expectations

Despite a natural inclination among entrepreneurs towards excessive optimism (Hmieleski and Baron, 2009), research shows that entrepreneurs' expectations can serve as reliable indicators of overall business outcomes. (Kolvereid and Isaksen, 2017, have shown that expectations recorded during the business registration process can accurately forecast both immediate and future cumulative sales revenues and labour costs.) What is more, businesses' opinion surveys tend to be significantly correlated with business statistics (Remond-Tiedrez, 2005).

GEM investigates entrepreneurs' **expectations of future business growth**.⁷

Figure 4.13 shows the share of TEA entrepreneurs reporting much lower business growth expectations than one year earlier. The indicator exhibits substantial cross-country variation, ranging from around 12% in Poland to 50% in Estonia. The cross-country average remained stable at approximately 29% in both 2024 and 2025.

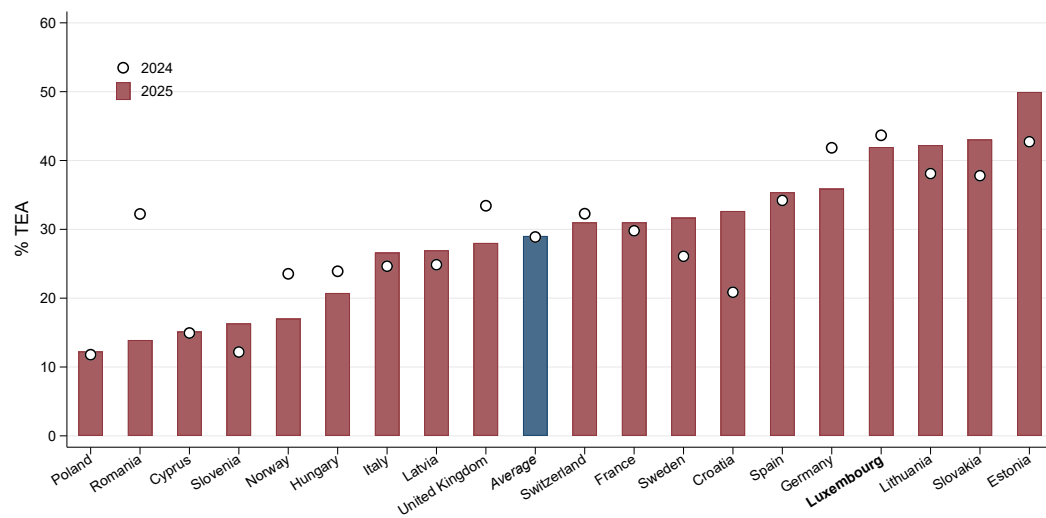
Several countries experienced notable changes over the period. The proportion of entrepreneurs reporting weaker growth expectations increased markedly in Croatia, Estonia, Slovakia, and Sweden, while declines were observed in Romania, Norway and Germany.

In 2025, 36% of TEA respondents in Luxembourg reported lower growth expectations, compared with 42% in 2024. This improvement is broadly consistent with other GEM indicators, such as the increase in perceived business opportunities (see Figure 4.9), as well as external evidence pointing to a gradual economic recovery despite continued economic uncertainty (STATEC, 2025b).

Nevertheless, while this represented a substantial decline from the previous year, when Luxembourg ranked first among the countries considered (GEM Luxembourg, 2024; GEM Luxembourg, 2025), the country remained among those with the highest share of entrepreneurs reporting weaker growth prospects in 2025, exceeded only by Estonia, Slovakia, and Lithuania.

⁷Entrepreneurs are asked: *Compared to one year ago, are your expectations for business growth much lower, somewhat lower, about the same, somewhat higher, or much higher?*

Figure 4.13: Business growth expectations are lower than one year ago (% of TEA).



Bars and circles refer, respectively, to the year 2025 and 2024. Shares of TEA entrepreneurs (in %).
Source: 2025 GEM Global APS data.

The entrepreneurship ecosystem in Luxembourg: barriers, enablers and policy actions

This chapter provides descriptive evidence on institutional aspects and other contextual features of the **Luxembourg's entrepreneurial ecosystem**, based on questions administered only in Luxembourg. We focus on barriers, enablers and policy initiatives aimed at fostering entrepreneurship in Luxembourg. This information is valuable because it contributes to understanding what hampers, or favours, entrepreneurial activity in Luxembourg, and whether respondents have changed their view on these aspects over time. It also allows us to provide a first correlational assessment of the impact of policies initiatives for entrepreneurship.

The main concerns reported by TEA entrepreneurs in Luxembourg are the affordability of office space, the availability of skilled workers, and access to finance. Compared with 2024, perceptions worsened across all indicators. The most pronounced increases concerned access to finance and the availability of skilled workers. The share of TEA entrepreneurs reporting difficulties in accessing finance rose from 33% in 2024 to 52% in 2025, while the share reporting difficulties in hiring skilled workers increased from 36% to 48%.

For what concerns Luxembourg's policies, the analysis of answers suggest a **positive association between initiatives supporting entrepreneurial engagement and education, and entrepreneurship in the country.** This evidence is descriptive, but results are encouraging. Specifically, the share of people declaring that the deployment of institutional and ministerial initiatives have increased their interest in entrepreneurship has increased over time, and more so for TEA entrepreneurs . Entrepreneurial training is increasingly popular.

Next, Section 5.1 presents data on perceived barriers to early-stage entrepreneurship in Luxembourg. Section 5.2 illustrates responses to a set of questions concerning the relevance and effectiveness of programmes to foster entrepreneurship in Luxembourg.

5.1 Barriers to early-stage entrepreneurship

Since 2016, seven dedicated questions ask GEM's APS respondents to assess **barriers and enablers of entrepreneurship in Luxembourg**. Respondents are asked to report their agreement with the following statements:¹

1. I can easily access funding for launching and running my company.
2. I have time to launch a new company.
3. I can easily access needed information to start my company.

¹ Answers ranges on a Likert-scale from 1 (i.e. completely agree) to 5 (i.e. completely disagree).

4. Dedicated training programs to start a new company are available and adequate.
5. I can easily access potential customers.
6. I can easily access office spaces that are affordable.
7. Qualified and affordable human resources, needed for launching and running a new company, are available.

Figure 5.1 illustrates the evolution of perceived barriers to entrepreneurship during the period 2016 – 2025 *according to TEA entrepreneurs*. (The figures in the charts refer to the share of TEA entrepreneurs that strongly disagree or disagree with the statements, so that higher percentages represent a negative evaluation of the specific factor.)

The primary concern of entrepreneurs in 2025 remained the availability of affordable office space. Approximately 57% of entrepreneurs disagreed with the statement that they had easy access to affordable office facilities.

Access to funding ranked a close second, with 52% of entrepreneurs reporting it as a significant barrier, followed by difficulties in recruiting qualified and affordable human resources, cited by 48% of respondents.

Compared with 2024, all indicators deteriorated. The most pronounced increases were observed for access to funding, which rose from 33% to 52%, and for human resources, which increased from 36% to 48%. Difficulties related to access to potential customers also increased, from 17% to 27%, while concerns regarding access to information rose from 12% to 21%.² Access to training programmes remained broadly stable, increasing only marginally from 18% to 21%.

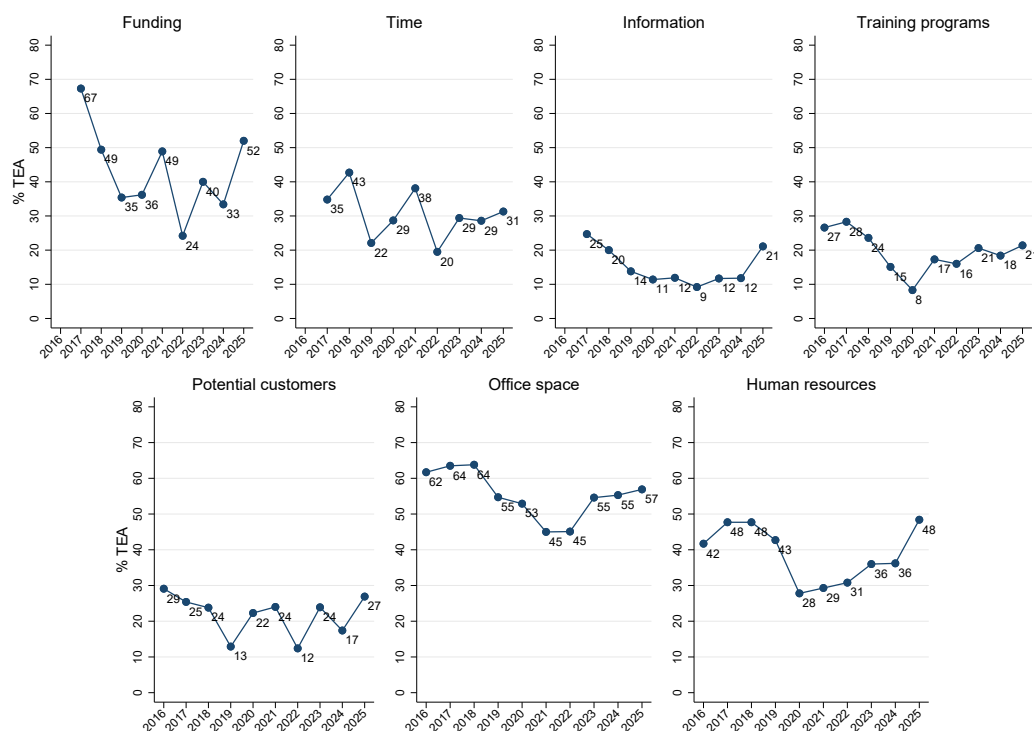
Looking at the longer-term evolution, the indicators exhibit different patterns. Some barriers, particularly access to funding and the availability of qualified human resources, display substantial year-to-year variability. Access to affordable office space also fluctuates over time, although it remained a less pressing concern during the pandemic years. These patterns may reflect changes in credit conditions, labour market developments, real-estate market conditions, and broader business cycle fluctuations.

By contrast, factors such as access to information, training programmes, and, to a lesser extent, time availability and access to potential customers appear comparatively more stable over time. These barriers may be more closely related to structural features of the entrepreneurial environment. For several of these indicators, a gen-

²The differences between the 2024 and 2025 estimates are statistically significant at conventional significance levels ($\alpha = 10\%$).

eral downward trend can be observed up to the onset of the pandemic, suggesting that entrepreneurs perceived them as becoming less problematic during that period. Since then, however, most indicators have shown signs of deterioration, pointing to a more difficult environment for entrepreneurs.

Figure 5.1: Barriers according to TEA entrepreneurs (2016 – 2025).



Shares of TEA entrepreneurs that strongly disagree or disagree to the statements (%).
Source: 2016 – 2025 GEM Luxembourg APS data.

Caveats concern both the persistence of the observed trends and the coverage of the survey. With regard to the former, additional years of data will be required to assess whether the recent developments represent lasting changes or short-term fluctuations. Regarding coverage, the survey includes resident entrepreneurs only and therefore does not capture the experiences of non-resident entrepreneurs, who may face different challenges and perceive barriers differently. Nevertheless, the pilot study on cross-border entrepreneurs reported in GEM Luxembourg (2025) found a broad alignment in the perceived barriers across resident and non-resident groups.

The findings are only partially consistent with evidence from other sources, which mainly reflect conditions faced by established firms rather than early-stage entrepreneurs. According to the 2025 European Investment Bank Investment Survey (EIBIS), Luxembourg firms identify skilled labour shortages and uncertainty about the future as the main obstacles to investment, while access to finance is among the least frequently reported constraints (European Investment Bank, 2025). Similarly, Banque

centrale du Luxembourg indicators point to some easing in financing conditions in 2025.³

The increase in perceived financing constraints among GEM entrepreneurs should therefore be interpreted with caution. Early-stage entrepreneurs rely primarily on personal savings and informal funding networks: only 18% of TEA entrepreneurs reported obtaining funding from banks and other financial institutions in 2025 (see Chapter 9). Consequently, financing conditions at the business creation stage may differ from those captured by investment and credit-market statistics, which mainly reflect established firms and small and medium-sized enterprises.

5.2 Policy actions for entrepreneurship

In recent years, governments and international organisations have intensified efforts to support entrepreneurial activity through dedicated policies and programmes. At the European level, the *Entrepreneurship 2020 Action Plan* focused on strengthening entrepreneurial education and reducing administrative barriers to business creation.⁴ More recently, the *SME Strategy for a Sustainable and Digital Europe*, the *Single Market Programme*, *InvestEU*, and the *SME Relief Package* have expanded support for small and medium-sized enterprises through measures targeting digitalisation, sustainability, access to finance, and regulatory simplification.⁵

Luxembourg has also strengthened its support for entrepreneurship in recent years, with policies aimed at improving business creation conditions and facilitating the growth of innovative firms. The 2023 roadmap *From Seed to Scale* identified key priorities for the national start-up ecosystem, including entrepreneurship support, talent attraction, access to capital, and scale-up development. Building on this roadmap, the 2025 Action Plan to Support Start-ups and Scale-ups introduced ten actions and allocated €300 million to scale-up financing, alongside new tax incentives and initiatives such as a national Talent Desk and an AI Experience Center (Ministry of the Economy, Luxembourg, 2025). In 2025, these priorities were further operationalised through the government's *Start-up and Scale-up Action Plan*, which introduced measures to strengthen access to finance, support spin-offs, attract talent,

³The average interest rate on variable-rate loans of up to EUR 1 million granted to non-financial corporations declined by 72 basis points, while the volume of newly granted loans increased by approximately EUR 30 million (Banque centrale du Luxembourg, 2025). Such indicators are commonly used as proxies for financing conditions faced by small and medium-sized enterprises (OECD, 2026a).

⁴The main legal basis for the plan is the *Small Business Act* of 2008. For an overview of related initiatives see https://single-market-economy.ec.europa.eu/smes/supporting-entrepreneurship_en.

⁵See https://single-market-economy.ec.europa.eu/access-finance/investeu/investeu-fund-sme-window/sme-relief-package_en.

encourage private investment, and facilitate the development of high-growth firms. Administrative procedures have also been simplified.⁶

Among the main initiatives are the House of Entrepreneurship, Nyuko, Fit 4 Start, and Fit 4 Entrepreneurship. Fit 4 Start, in particular, has become a flagship programme supporting innovative start-ups through coaching and financial assistance.⁷ Other initiatives focus on entrepreneurial education. For example, the *Mini-Companies* programme organised by Jonk Entrepreneuren encourages secondary school students to develop business ideas and create their own ventures. Such initiatives are particularly relevant given that entrepreneurship education continues to be identified as an area for improvement within Luxembourg's entrepreneurial ecosystem.⁸ Together, these initiatives illustrate a policy emphasis on supporting entrepreneurial growth while reducing administrative burdens.

Since 2015, the GEM Luxembourg's APS includes questions on the relevance and effectiveness of those programmes. The questions are as follows:⁹

1. *Has a campaign from institutional actors like the Chamber of Commerce, Government or an initiative that promotes entrepreneurship (Nyuko, Fit4Start, Fit4Entrepreneurship, etc.) raised your interest in entrepreneurship?*
2. *Have you ever taken part in a training about how to start a business at secondary school? For example through specific projects like mini-enterprise or corporate relevant lessons in economics, accounting or management?*
3. *Have you ever attended a training which would help you to start a business after leaving school?*

Since many initiatives are designed to support individuals involved in early-stage entrepreneurial activity, Figure 5.3 compares responses from TEA entrepreneurs (green line), non-TEA respondents (red line), and the overall population (dotted line). Throughout most of the observation period, TEA entrepreneurs were more likely than non-TEA respondents to report that institutional campaigns and initiatives

⁶Key initiatives include the *Start-up and Scale-up Action Plan* launched by the Ministry of the Economy and the Ministry of Finance in March 2025, the associated *€300 million financing initiative for start-ups and innovation*, and the *One-Stop Shop* reform integrating applications for business permits, VAT registration and employer registration with the CCSS into a single administrative procedure. See (Ministry of the Economy, 2025a; Ministry of the Economy, 2025b; Luxinnovation, 2025).

⁷Fit 4 Start is an initiative of Luxinnovation and the Ministry of the Economy, supported by Technoport, the Luxembourg-City Incubator, the Luxembourg Space Agency, LuxProvide, the Luxembourg House of Financial Technology and the Luxembourg House of Cybersecurity. See <https://www.fit4start.lu/>.

⁸The National Expert Survey (NES) consistently identifies entrepreneurial education as a relative weakness of Luxembourg's entrepreneurial ecosystem; see Chapter 10.

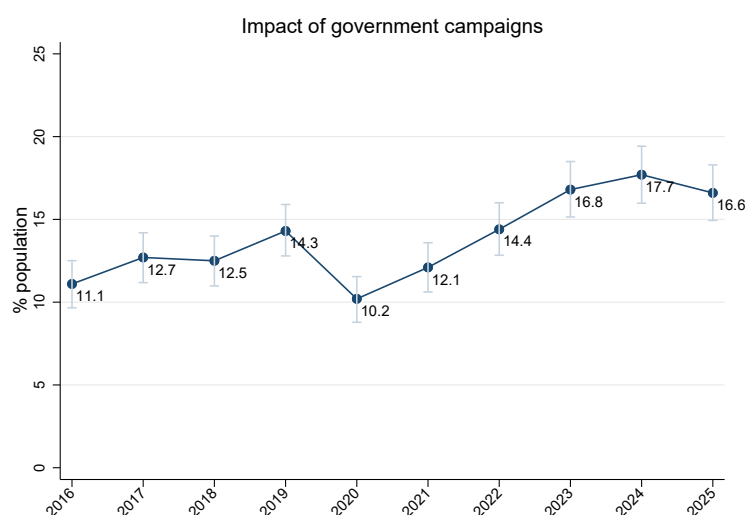
⁹Question 1 is answered on a 1 (strongly disagree) to 5 (strongly agree) Likert scale, the remaining questions are answered with yes/no.

had increased their interest in entrepreneurship. This gap widened substantially after 2021, suggesting that policy initiatives were particularly visible among individuals already engaged in entrepreneurial activity.

However, the latest survey wave shows a notable change. In 2025, the share of TEA entrepreneurs reporting that government initiatives increased their interest in entrepreneurship declined sharply, from 47% in 2024 to 34%. Despite this decrease, the corresponding share remains considerably higher than among non-TEA respondents and above the population average.¹⁰

This pattern suggests a **positive association between initiatives supporting entrepreneurial activities and interest in entrepreneurship**.

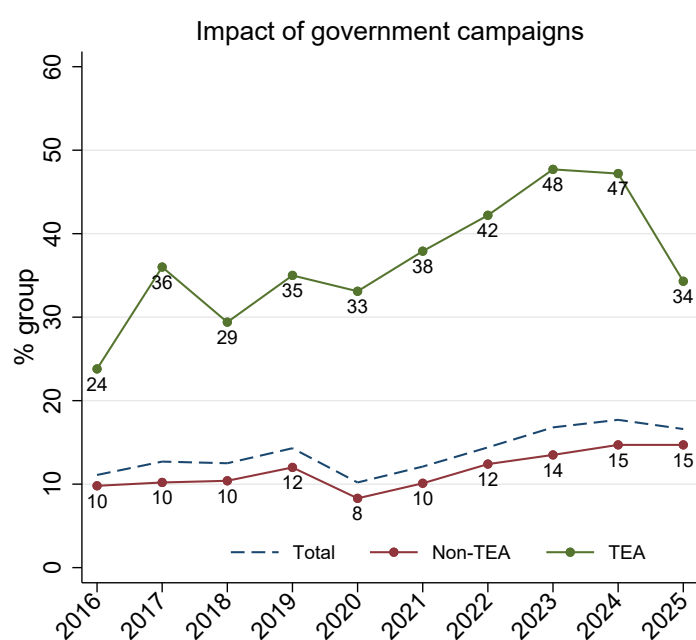
Figure 5.2: Interest in entrepreneurship raised by campaign.



Share of population that agree or strongly agree that campaign have raised their interest in entrepreneurship. Data for 2015 not reported due to changes in coverage.
Source: 2016 – 2025 GEM Luxembourg APS data.

¹⁰The population average is naturally closer to that of non-TEA respondents due to the relatively small proportion of TEA entrepreneurs in the population. The non-TEA group includes both potential and established entrepreneurs.

Figure 5.3: Interest in entrepreneurship raised by campaign by TEA status.



Shares by population groups (%). Data for 2015 not reported due to changes in coverage. The dashed line refers to the whole sample. The non-TEA sample includes both potential and established entrepreneurs.
Source: 2016 – 2025 GEM Luxembourg APS data.

Finally, Figure 5.4 reports the share of respondents who received entrepreneurship-related training at secondary school (left panel) and after leaving school (right panel). Figure 5.5 further distinguishes between early-stage entrepreneurs (TEA) and non-TEA respondents.

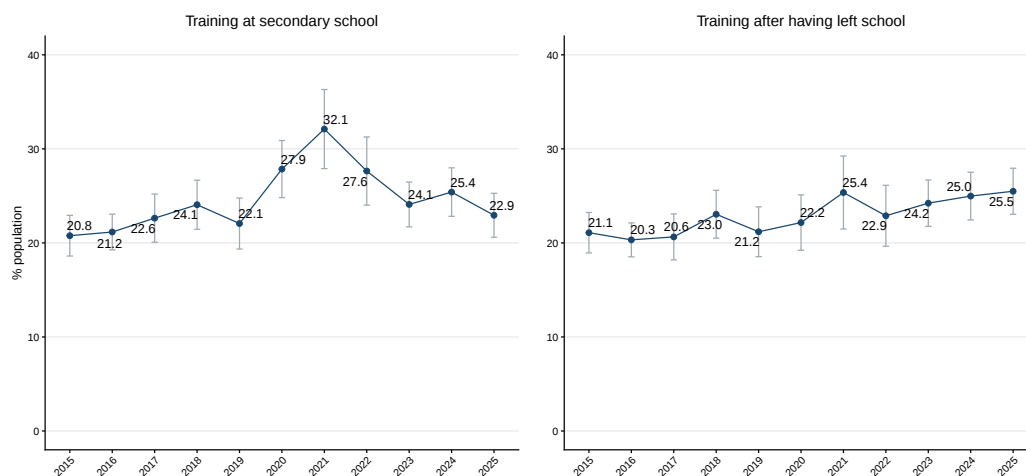
Figure 5.4 shows that training received at secondary school displays a clear peak during the pandemic period. The share of respondents reporting such training increased from 22% in 2019 to 32% in 2021, before declining in subsequent years. After reaching 25% in 2024, the indicator fell slightly to 22% in 2025. A different pattern emerges for training undertaken after leaving school. At the population level, participation increased gradually over time, from around 21% in 2015 to 26% in 2025.

As shown in Figure 5.5, participation in entrepreneurship-related training, both at school and after leaving school, is consistently higher among TEA entrepreneurs than among non-TEA respondents. Among TEA entrepreneurs, the share reporting entrepreneurship training at school increased from 28% in 2019 to 52% in 2021, before declining steadily to 29% in 2025. The corresponding share among non-TEA respondents also peaked in 2021 (31%), but remained considerably more stable over the period, fluctuating between 20% and 24%.

A similar pattern is observed for training undertaken after leaving school. Between 2015 and 2024, approximately one-half of TEA respondents declared having followed entrepreneurship-related training after leaving school, compared with around one-fifth among non-TEA respondents. In 2025, however, the share among TEA entrepreneurs declined markedly, from 51% to 41%, while participation among non-TEA respondents increased slightly from 22% to 24%.

Overall, entrepreneurship training remains substantially more prevalent among TEA entrepreneurs than among the rest of the population. This suggests a **positive association between the provision of entrepreneurial training and setting up and running a new business**. These results are encouraging, but they should be interpreted with care. They show that training programmes are popular, especially among entrepreneurs. What is more, they show that overall entrepreneurship training are increasingly popular. These answers, however, do not allow us to establish that institutional initiatives lead to an increase in entrepreneurial activities; in other words, results should not be read as "training have led people to become entrepreneurs ". Nonetheless, nearly half of entrepreneurs take part into these training. This suggests that individuals that are more willing/are starting a business are also more receptive to entrepreneurship-oriented initiatives, or are more motivated to learn entrepreneurial skills.

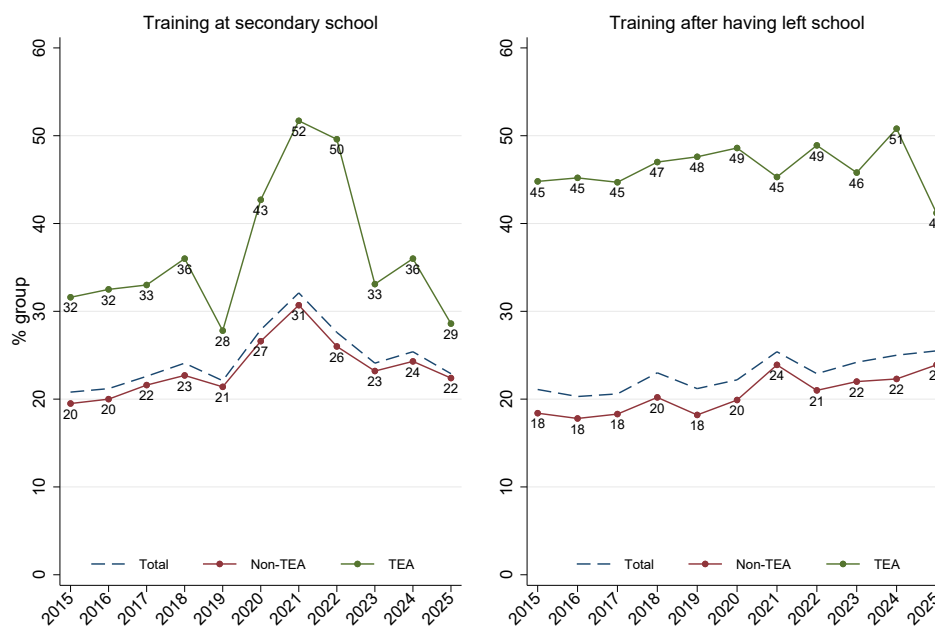
Figure 5.4: Training at secondary school and after leaving school.



Shares by population groups (%). Data for 2015 not reported due to changes in coverage. The dashed line refers to the whole sample.

Source: 2016 – 2025 GEM Luxembourg APS data.

Figure 5.5: Entrepreneurship trainings at school by TEA status.



Data for 2015 not reported due to changes in coverage. The dashed line refer to the whole sample. Non-TEA sample includes both potential and established entrepreneurs.

Source: 2016 – 2025 GEM Luxembourg APS data.

Sustainable development and entrepreneurship

"Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs." World Commission on Environment and Development (1987, point 3.27)

This chapter reports on the 2025 Global GEM's questions on sustainable entrepreneurship, focusing on the answers provided by early-stage entrepreneurs. The GEM's questions on sustainability interrogate entrepreneurs on the relevance they attribute to social and environmental considerations when making business decisions, and on the extent to which they prioritise maximising social impact and minimising environmental of their business actions.

The link between sustainable development and entrepreneurship emerges from the growing need of new production methods and technologies to meet environmental and social objectives, as set forth by the United Nations Sustainable Development Goals (UNSDGs). The relevance of this issue is outlined by the UN General Assembly's adoption, in December 2020, of the **UN Resolution 75/211 on entrepreneurship for sustainable development**.

The evidence suggests that environmental and social considerations stay relevant for early-stage entrepreneurs across Europe. In Luxembourg, TEA entrepreneurs continue to report a comparatively strong engagement with sustainability issues. **Sustainability appears to play an important role in entrepreneurial decision-making and business practices.** At the same time, the 2025 results indicate a weakening of sustainability practices and commitment compared with the previous year. The share of Luxembourg's early-stage entrepreneurs reporting actions to maximise social impact declined from around 56% in 2024 to 45% in 2025, while the share reporting actions to minimise environmental impact decreased from approximately 61% to 53%. As a result, Luxembourg no longer ranks among the top-performing countries on these indicators and now stands closer to the cross-country average. Nevertheless, its performance compares favourably to European countries, with figures above the cross-country average on three of the five sustainability indicators examined. Future GEM waves will help determine whether the observed decline reflects temporary fluctuations or a more persistent shift in entrepreneurial priorities.

6.1 United Nations Sustainable Development Goals

Sustainable development, defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs", aims to reconcile economic activity with environmental preservation to ensure the well-being of both current and future generations. The definition of sustainable development was first introduced by the United Nations Brundtland Commission's Report, "Our Common Future", in 1987. This concept has gained global recognition with the adoption of the 2030 Agenda for Sustainable Development by the United Nations (UN), in September 2015. The Agenda, which extends the scope of sustainability to the social dimension, lists 17 Sustainable Development Goals (SDGs), and includes 169 measurable targets to enable the quantitative assessment of progress towards SDGs. Goals and targets span social, environment, and economic dimensions. Figure 6.1 provides an overview of the goals. The 2025 progress assessment reveals that the world remains far off track from achieving the 2030 Agenda (United Nations, 2025, p. 4).¹

The UN recognises the role that entrepreneurship can play in reaching the SDGs. In December 2020 the UN General Assembly adopted the UN Resolution 75/211 on entrepreneurship for sustainable development. The resolution recognises the significant contribution that entrepreneurship makes to sustainable development by creating jobs, driving inclusive economic growth and innovation, improving social conditions, and addressing economic, social, and environmental challenges within the SDGs agenda. The resolution emphasises the role of social entrepreneurship, and of micro, small and medium-sized enterprises in social and economic development (UN General Assembly, 2020).

6.2 Sustainability and TEA entrepreneurship across Europe

In the context of the efforts to meet the Agenda's SDGs, since 2022, GEM administers questions on sustainability and entrepreneurship (GEM (Global Entrepreneurship Monitor), 2025b).² Specifically, the questions aim to investigate the importance

¹Progress is slow. According to most recent available data, in 2025, 18% of the 135 measured targets are on track—compared to 17% in 2024 and 15% in 2023 (United Nations, 2025; United Nations, 2024; United Nations, 2023).

²The 2023/2024 global GEM report shows that many entrepreneurs integrate sustainability into business strategy, though practices vary by region. Entrepreneurs in Latin America and East Asia are particularly active in this area (GEM (Global Entrepreneurship Monitor), 2025b).

that entrepreneurs attach to social and environmental implications when making business decisions, and the extent to which entrepreneurs implement sustainability practices.

Figure 6.1: UN Sustainable Development Goals



Source:United Nations.

Sustainability considerations in decision making.

Entrepreneurs are asked to rate their agreement, on a scale from 1 (lowest) to 5 (highest), to the following statements:

- When making decisions about the future of your business, **you always consider social implications** such as access to education, health, safety, inclusive work, housing, transportation, and quality of life at work.
- When making decisions about the future of your business, **you always consider environmental implications** such as preservation of green areas, reduction of the emission of pollutants and toxic gases, selective garbage collection, and conscious consumption of water, electricity, and fuels.
- **You prioritize** the social and/or environmental impact of your business above profitability or growth.

Sustainability implementation.

Additionally, entrepreneurs are asked whether they implement specific actions, with the following yes/ no questions:³

³Interviewers are instructed to provide relevant examples to help clarifying the questions.

- **Have you taken any steps to minimize the environmental impact of your business over the past year?** This could include energy-saving measures, reducing carbon emissions, introducing more efficient machinery, managing solid waste, using recyclable materials, and promoting alternative transportation methods such as cycling, walking, collective rides, and public transportation.
- **Have you taken any steps to maximize the social impact of your business over the past year?** This could include hiring young unemployed individuals and other groups with limited access to the labour market; incorporating social enterprises into your supply chain; ensuring workforce diversity; prioritizing companies and/or suppliers that respect human rights and the environment when purchasing products or services; combating child or slave labor; invest or support projects or social organizations that develop the community and include less favored groups.

Using the answers to the questions above, what follows provides comparative evidence on the sustainability preoccupations and engagement of TEA entrepreneurs across Europe. Data refers to the year 2025 (2024 data are also reported for comparison). Results suggest that social and environmental considerations are very relevant for early-stage entrepreneurs.

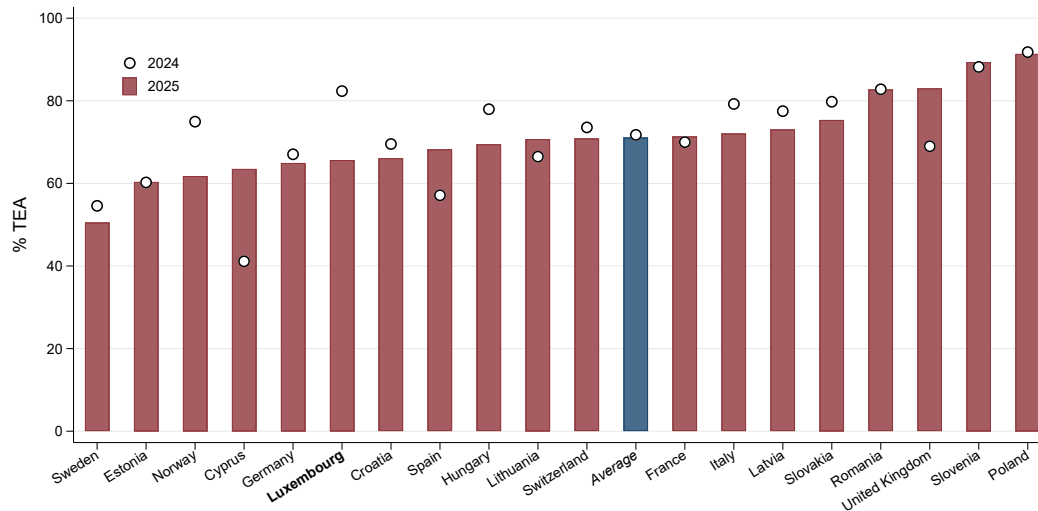
Figure 6.2 shows that, on average, 73% of TEA entrepreneurs consider environmental implications in business decision making, a slight increase from the 69% recorded in 2023. In all countries but one, more than 50% of TEA entrepreneurs reported considering environmental implications. (An exception is Cyprus, which, despite a significant increase from 12% in 2024 to 41% in 2025, remains below the 50% level.) Luxembourg is above the average, with 82% of early-stage entrepreneurs considering the environmental implications of their business decisions (it was 76% in 2024).

Figure 6.2 reports the share of early-stage entrepreneurs (TEA) who declare that they consider the environmental implications of their business decisions. In 2025, the average across the countries considered was approximately 71%, indicating that environmental considerations remain an important aspect of entrepreneurial decision-making. All countries scored above 50%, with values ranging from 50% in Sweden to 92% in Poland.

Luxembourg ranks slightly below the cross-country average in 2025. Approximately 66% of Luxembourg's early-stage entrepreneurs declared that they consider the environmental implications of their business decisions, compared with around 82% in 2024. This represents one of the largest declines observed among the countries considered. As a result, Luxembourg moved from being among the top-performing

countries in 2024 to a position close to the middle of the international ranking in 2025. Similar, although generally less pronounced, declines were also observed in Norway and Hungary. By contrast, Cyprus and Spain recorded the largest increases between 2024 and 2025.

Figure 6.2: Always consider environmental implications when making business decisions.



Share of TEA entrepreneurs that strongly disagree or disagree to the statement (in %).
Source: 2025 GEM Global APS data.

Figure 6.3 shows a pattern broadly similar to that observed for environmental sustainability. In 2025, approximately 73% of early-stage entrepreneurs across the countries considered reported taking the social implications of their business decisions into account, a figure broadly unchanged from the 72% recorded in 2024.

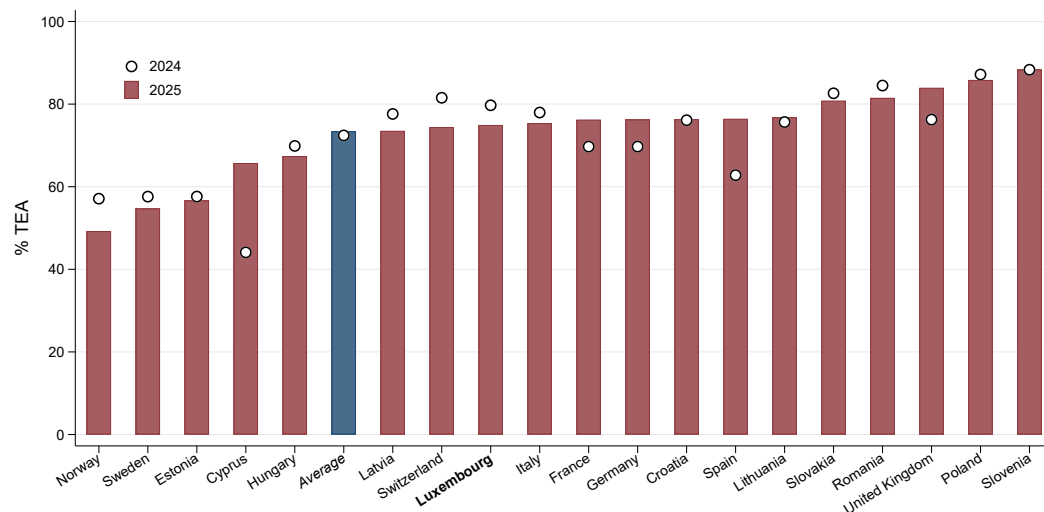
Luxembourg is very close to the cross-country average. In 2025, approximately 73% of Luxembourg's early-stage entrepreneurs declared that they consider the social implications of their business decisions, compared with approximately 80% in 2024. As in the case of environmental sustainability, Luxembourg moved from a position above the international average in 2024 to a position close to the average in 2025. Similarly, Cyprus and Spain recorded the largest increases between 2024 and 2025.

Overall, the similarity between Figures 6.3 and 6.2 suggests that social and environmental considerations are closely related dimensions of a broader sustainability orientation among entrepreneurs.⁴

GEM also provides information on the objectives entrepreneurs prioritise when making business decisions. Figure 6.4 reports the share of early-stage entrepreneurs

⁴In 2025, the Pearson correlation between environmental and social sustainability indicators is 0.83 (Spearman's $\rho = 0.80$, $p < 0.001$)

Figure 6.3: Always consider social implications when making business decisions.



Share of TEA entrepreneurs that strongly disagree or disagree to the statement (in %).
Source: 2025 GEM Global APS data.

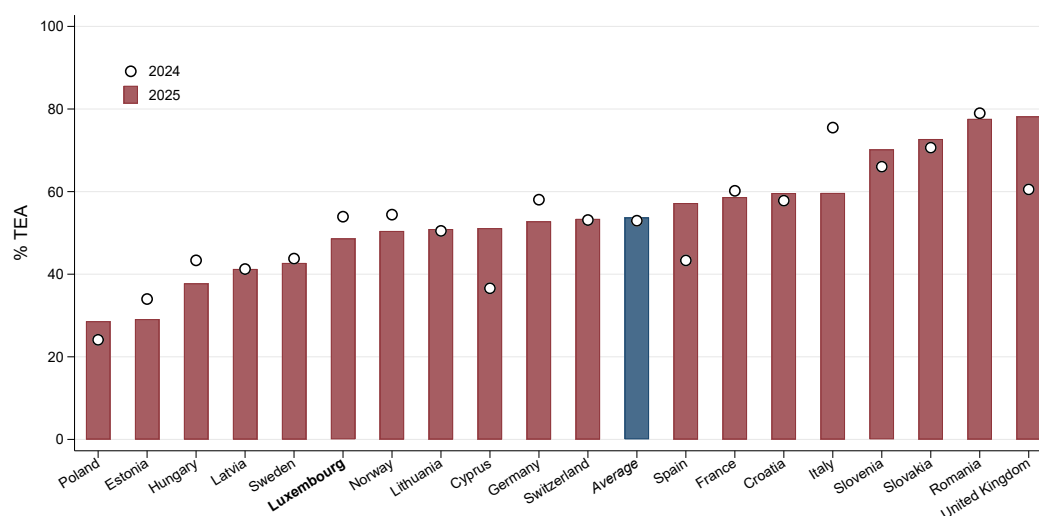
who declare that they prioritise the social and environmental impact of their business over profitability or growth. Compared with the indicators presented above, country differences are more pronounced and the shares are generally lower, suggesting that while many entrepreneurs consider sustainability issues, fewer are willing to prioritise them over traditional business objectives.

In 2025, the cross-country average stood at 54%, unchanged from 2024. In thirteen out of nineteen countries, more than 50% of TEA entrepreneurs prioritise social and environmental impacts considerations when making decisions. Country values ranged from around 29% in Poland and Estonia to 78% in the United Kingdom, highlighting substantial cross-country variation.

Luxembourg is close to the cross-country average. In 2025, approximately 49% of Luxembourg's early-stage entrepreneurs reported prioritising social and environmental impacts over profitability or growth.

To effectively contribute to sustainability, entrepreneurs' consideration of social and environmental impacts must translate into concrete actions (Hall et al., 2010). This issue has gained increasing policy relevance in Europe following the introduction of the Corporate Sustainability Reporting Directive (CSRD), which aims to improve the transparency of corporate sustainability disclosures. Although the extension of the CSRD to additional firms has been postponed following the EU's 2025 Omnibus simplification package, sustainability-related information is still important for businesses through regulatory requirements, supply-chain relationships, and investor expectations. Against this background, GEM explicitly asks entrepreneurs whether

Figure 6.4: Prioritize social and/or environmental impact of business over profitability or growth.



Share of TEA entrepreneurs (in %). Source: 2025 GEM Global APS data.

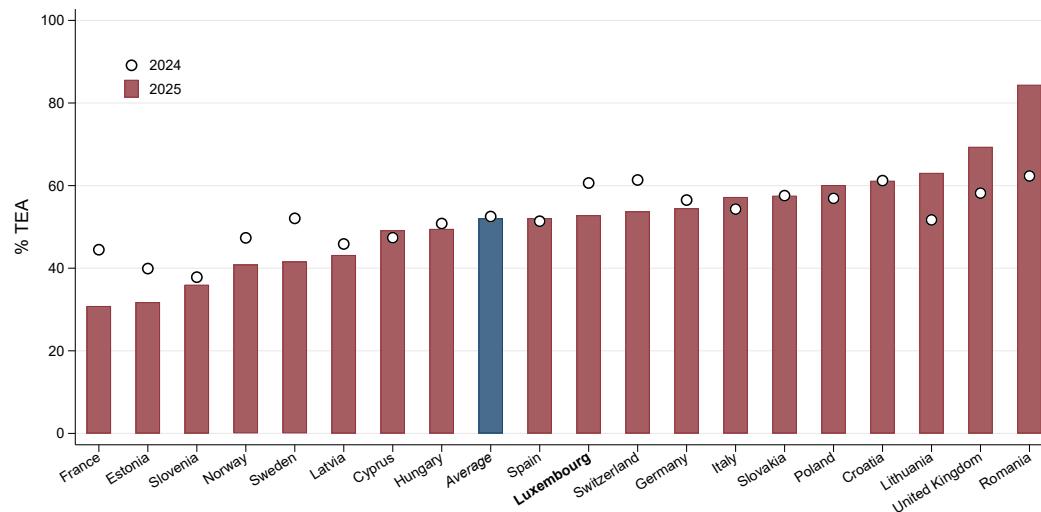
they have taken steps to minimise the environmental impact of their business or to maximise its social impact.

Figure 6.5 reports the proportion of TEA entrepreneurs who have taken actions to minimise environmental impact in the past year. About half of TEA entrepreneurs respond affirmatively. In 2025, 11 out of 19 countries score above this average. Luxembourg ranks fourth among the countries considered, with 53% of its TEA entrepreneurs reporting efforts to actively minimise environmental impact, down from 61% in 2023.

Figure 6.5 reports the share of early-stage entrepreneurs who have taken actions during the previous year to minimise the environmental impact of their business. In 2025, the cross-country average stood at approximately 52%, indicating that around one-half of TEA entrepreneurs had implemented concrete measures to reduce their environmental footprint. Eleven of the nineteen countries considered recorded values above this average, although substantial cross-country variation remains. The indicator ranges from around 31% in France and Estonia to more than 80% in Romania, which also recorded the largest increase over the period, from approximately 62% in 2024 to 84% in 2025.

Luxembourg ranks close to the cross-country average. In 2025, 53% of Luxembourg's early-stage entrepreneurs reported having taken actions to minimise their environmental impact, compared with approximately 61% in 2024. Despite the decline, Luxembourg still remains slightly above the international average.

Figure 6.5: Have taken steps to minimize the environmental impact of the business over the past year (% of TEA).



Share of TEA entrepreneurs (in %). Source: 2025 GEM Global APS data.

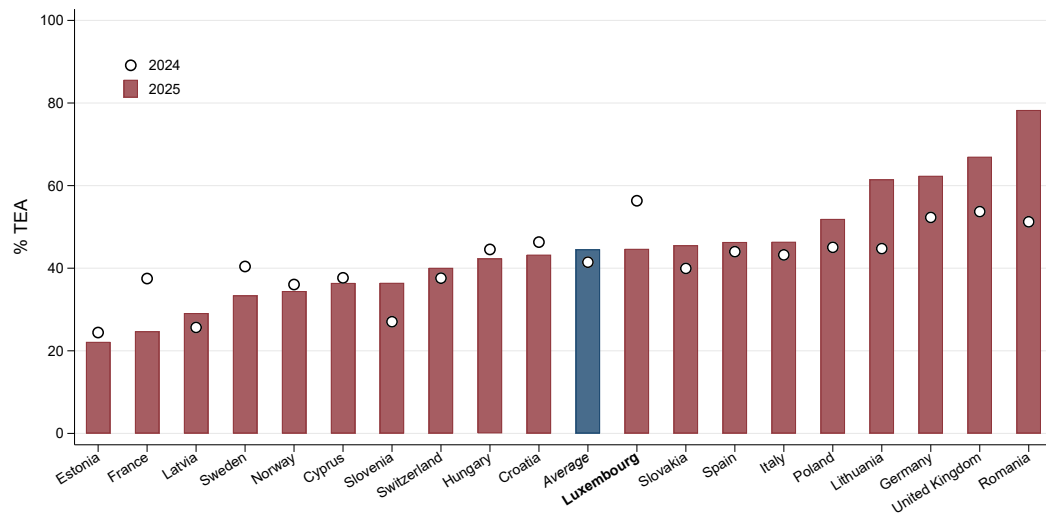
Figure 6.6 reports the share of early-stage entrepreneurs who have taken actions during the previous year to maximise the social impact of their business. In 2025, the cross-country average stood at approximately 45%. Considerable differences can be observed across countries, with values ranging from around 22% in Estonia to almost 80% in Romania. As with the indicators presented above, country rankings for environmental and social actions are positively related.⁵

While Luxembourg ranked first among the countries considered in 2024, in 2025 it moved close to the cross-country average. Approximately 45% of Luxembourg's early-stage entrepreneurs reported having taken actions to maximise their social impact, compared with around 56% in 2024. Together with France, Luxembourg recorded one of the largest declines among the countries considered.

Although Luxembourg's share declined between 2024 and 2025, the difference is not statistically significant at conventional levels and should therefore be interpreted with caution. Moreover, Luxembourg's institutional environment continues to provide dedicated support for social entrepreneurship, including a legal framework for the *Société d'Impact Sociétal* (SIS), specialised support organisations, and the *IMPACT LUXEMBOURG* label. See <https://economie-sociale-solidaire.public.lu/fr.html>. Finally, the GEM indicator captures a broad range of socially oriented actions and is not limited to social entrepreneurship.

⁵Countries with a higher share of TEA entrepreneurs taking actions to minimise environmental impact also tend to report a higher share taking actions to maximise social impact. In 2025, the correlation between the two indicators was 0.92 (Spearman's $\rho = 0.89$, $p < 0.001$).

Figure 6.6: Have taken steps to maximize the social impact of the business over the past year (% of TEA).



Source: 2025 GEM Global APS data.

Overall, the data indicate that, while the cross-country average remained broadly stable, entrepreneurs in Luxembourg reported lower engagement in sustainability-oriented business practices than in the previous year. Nevertheless, Luxembourg continued to perform above the cross-country average on three of the five sustainability indicators examined. As several of the observed changes are not statistically significant at conventional levels, caution is warranted in their interpretation.

The findings may reflect a broader evolution in the entrepreneurial environment. Recent developments in European policy suggest a growing emphasis on competitiveness and regulatory simplification alongside sustainability objectives, as illustrated by both the Competitiveness Compass and the 2025 Omnibus Package (European Commission, 2025b; European Commission, 2025d). At the same time, sustainability remains a central component of entrepreneurship and innovation policy in Europe, particularly in the context of the European Green Deal and the transition towards a more sustainable economy (European Commission, 2024). Future waves of GEM data will help determine whether the recent decline reflects a temporary adjustment in entrepreneurial priorities or a more persistent change in the orientation of entrepreneurial activity.

Artificial Intelligence and entrepreneurship

This chapter presents the results from the Global GEM special module on Digitalisation and Artificial Intelligence (AI) collected in 2025. The special module on AI was first introduced in 2024 and, given the growing relevance of these technologies for businesses, was included again in the 2025 survey. Entrepreneurs were asked to assess the importance of digital technologies and AI for their businesses. Specifically, they evaluated the importance of digital tools and AI for day-to-day business operations, as well as their role in supporting the firm's business model and strategic objectives. Respondents were also asked about their expectations regarding the future importance of AI for business development and about the potential benefits and risks associated with AI adoption.

AI is an important transformative technology that is reshaping the business environment, and changing how firms discover, design and produce products and services. By lowering the cost of prediction, classification and content generation, AI allows entrepreneurs to experiment faster with new products and services, reach more customers, and lower operational costs. It also reduces the costs of implementing data-driven business models. In this sense, AI augments the capabilities of entrepreneurs (Chalmers et al., 2021; Fossen et al., 2024).

AI adoption and its economic and societal consequences are at the forefront of the policy debate. For example, macro- and micro-economic studies on innovation indicate attainable, but non-automatic, productivity gains from AI adoption (Filippucci et al., 2024; Aghion et al., 2019).

In Luxembourg, recent policy initiatives aim to accelerate AI adoption across the economy while strengthening the country's digital sovereignty. In 2025, the government launched the *Artificial Intelligence Strategy* as part of the broader *Accelerating Digital Sovereignty 2030* initiative. The strategy aims to support the development and adoption of trustworthy, human-centric AI through investments in digital infrastructure, skills, innovation, and data governance (Government of the Grand Duchy of Luxembourg, 2025b; Government of the Grand Duchy of Luxembourg, 2025a).

A central component of this agenda is the *Luxembourg AI Factory*, established within the European High Performance Computing (EuroHPC) framework. The initiative provides firms, start-ups, and research organisations with access to AI-optimised computing resources, data, training, expertise, and implementation support. Together with complementary national strategies on data and quantum technologies, these measures seek to facilitate AI diffusion, enhance competitiveness, and support innovation in key sectors of the Luxembourg economy (LuxProvide et al., 2025).

AI refers to a broad set of computational systems that can perform tasks that typically require human intelligence, like learning, reasoning, and problem-solving. In this

report, the term “AI” is used as an umbrella concept encompassing the wide range of artificial intelligence applications, including traditional AI systems, Generative AI (Gen-AI), agentic AI, and related emerging technologies. This terminology reflects both the rapid evolution of the field and the fact that entrepreneurs may not always distinguish between specific AI technologies when assessing their business implications.¹

Since 2024, GEM APS special module on digitalisation and AI consisted of the following questions, aimed at capturing entrepreneurs’ current and expected use of digital technologies, as well as their perceptions of AI’s potential opportunities and risks for their business activities:

1. How important are the following to your day-to-day business operations: (1) Email communication with customers and employees; (2) Email marketing (e.g., MailChimp); (3) A company-branded website for information and communication; (4) Social media platforms such as Instagram, X/Twitter, Facebook, and TikTok;
2. How important are the following to implementing your business model and strategy: (1) A company-branded website for e-commerce; (2) Data analytics tools (e.g., Excel, Tableau, Google Cloud Datalab); (3) Cloud computing services (e.g., Dropbox for storage, Zoom for video conferencing, Xero for accounting); (4) Artificial Intelligence (e.g., ChatGPT); (5) Open-source solutions (e.g., MySQL/MariaDB for databases, Linux-based distributions, JavaScript, Python, R, C);
3. How important do you anticipate artificial intelligence tools will be for implementing your business model and strategy in the next three years;²
4. For each of these, please rate how you believe they would impact your business when introducing AI: (1) Data security and privacy concerns; (2) Increased costs and implementation challenges; (3) Employee resistance; (4) Ethical dilemmas; (5) Customer resistance or mistrust;
5. For each of these, please rate how you believe they would impact your business when introducing AI: (1) Enhanced customer personalization; (2) Improved productivity and efficiency; (3) Innovative product and service development; (4) Better risk management and compliance; (5) Increased revenue and business growth.

¹The AI landscape is evolving rapidly, with new concepts, architectures, and applications emerging continuously. Recent developments include Generative AI (Gen-AI), which generates new content such as text, images, audio, and software code from user prompts (Fossen et al., 2024), and so-called agentic AI, referring to systems capable of pursuing goals more autonomously through planning and iterative decision-making (OECD, 2026b).

²Answers for questions 1 — 3 are provided on the following scale: very important, somewhat important, or not important.

The remaining of this chapter examines twelve harmonised indicators on AI for entrepreneurs, derived from responses to the questions above introduced in 2024 and 2025. These indicators refer to TEA respondents. They are based on the share of entrepreneurs who selected “very important” when assessing the importance of AI, and “high” when evaluating its positive or negative impacts.

The results suggest that **AI has become an increasingly important component of entrepreneurial strategies in both Luxembourg and Europe**. In Luxembourg, the share of early-stage entrepreneurs considering AI to be very important for their business model and strategy increased slightly, from 31% in 2024 to 32% in 2025. Over the same period, the European average rose from 22% to 30%, reflecting a positive shift across countries. Consequently, Luxembourg no longer ranks among the leading countries on this indicator, despite remaining slightly above the EU average.

Luxembourg’s entrepreneurs remain highly aware of digital transformations, but **expected benefits and perceived risks associated with AI adoption are evolving**. In particular, in 2025 **Luxembourg recorded declines across most indicators of perceived benefits**. The most pronounced decrease referring to expectations about increased business revenue and growth, where the share of TEA entrepreneurs anticipating a high positive impact from AI fell from 47% in 2024 to 24% in 2025.

Similarly, concerns regarding the negative consequences of AI also diminished among TEA entrepreneurs in Luxembourg. The largest declines were observed for data security and privacy concerns (from 58% to 45%) and increased costs and implementation challenges (from 39% to 26%).

One possible interpretation of these patterns is that, as AI continues to diffuse, entrepreneurs in Luxembourg may be becoming more familiar with these technologies, leading to a shift from the initial enthusiasm and concerns surrounding AI towards more realistic assessments of its potential.

7.1 Early-stage entrepreneurs and the importance of AI

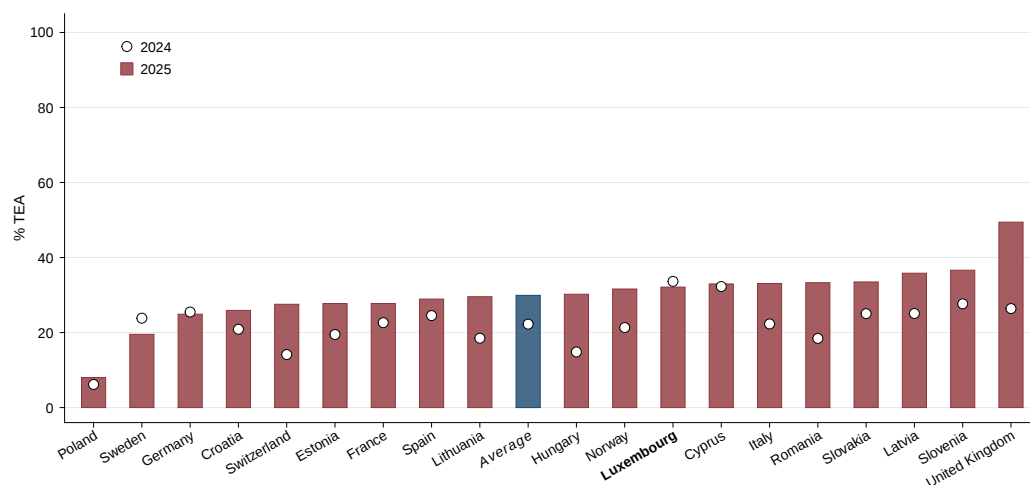
Figure 7.1 reports the share of TEA entrepreneurs who rate **artificial intelligence (AI) as “very important” for implementing their business model and strategy**. The data reveal substantial cross-country variation, ranging from 8% in Poland to 49% in the United Kingdom. The European average increased from 22% in 2024

to 30% in 2025, suggesting a growing recognition of the strategic importance of AI among early-stage entrepreneurs.

Several countries recorded substantial increases between 2024 and 2025, particularly the United Kingdom, Hungary, and Switzerland. In Luxembourg, the share of entrepreneurs considering AI to be very important increased only slightly, from 31% to 32%. As a result, Luxembourg no longer ranks among the leading countries, although it remains above the European average.

Overall, the results suggest that AI has become an increasingly important component of entrepreneurial strategies across Europe. While Luxembourg continues to display a comparatively strong orientation towards AI, other countries have experienced a more rapid increase in the perceived strategic importance of these technologies. The results are only partially consistent with official statistics pointing to the rapid diffusion of AI technologies in Europe and Luxembourg. Among EU enterprises with at least 10 employees, the share using AI technologies increased from 13.5% in 2024 to 20.4% in 2025. In Luxembourg, the corresponding share rose from 24% to 34%, well above the EU average and ranking fourth among the 27 Member States (Eurostat, 2025b).

Figure 7.1: Artificial Intelligence is very important for business model and strategy.

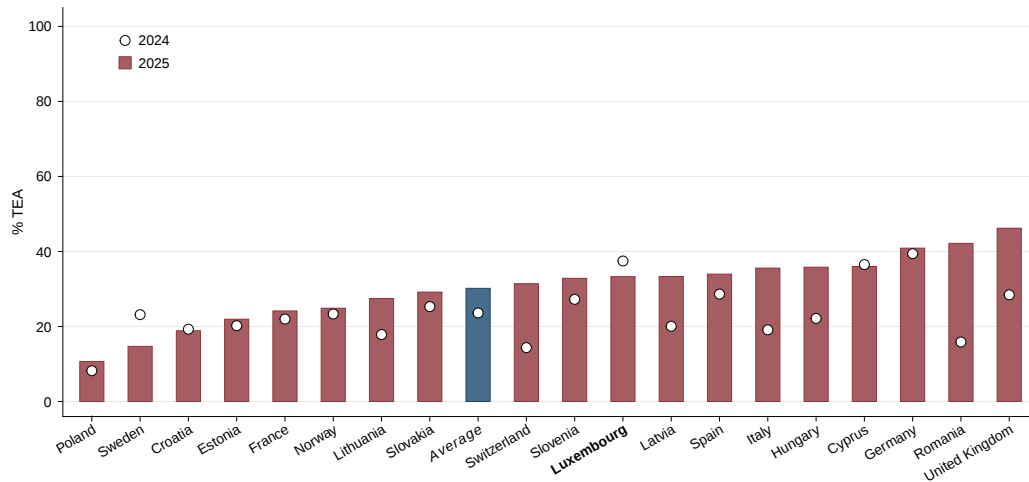


Shares of TEA entrepreneurs rating "Artificial Intelligence" as "very important" for implementing business model and strategy (in %).
Source: 2025 GEM Global APS data.

Figure 7.2 reports the share of TEA entrepreneurs who consider **artificial intelligence (AI) to be "very important" for implementing their business model and strategy over the next three years**. The results reveal substantial cross-country variation, ranging from around 10% in Poland to nearly 50% in the United Kingdom. The European average increased from 24% in 2024 to 30% in 2025.

Luxembourg remains among the countries reporting relatively high expectations regarding the strategic importance of AI. In 2025, 33% of early-stage entrepreneurs considered AI to be very important for their business model and strategy over the next three years, placing Luxembourg slightly above the European average.

Figure 7.2: Artificial intelligence very important for the business model 3 years from now.



Shares of TEA entrepreneurs anticipating AI will be “very important” for implementing their business model and strategy in the next three years (in %).
Source: 2025 GEM Global APS data.

7.2 Perceived Benefits from AI among TEA entrepreneurs

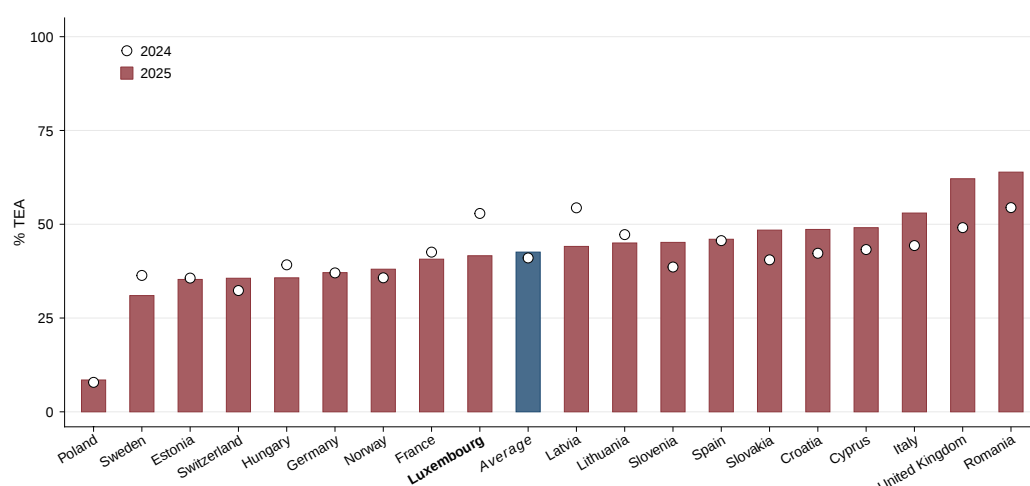
Figure 7.3 provides an overview of entrepreneurs’ **perceptions of the positive impacts of AI**. It reports a composite indicator calculated as the average share of TEA entrepreneurs who rated each of the five potential benefits of AI as “very important.”

Compared with 2024, the cross-country average remained broadly stable, increasing only slightly from 43% to 44%. In contrast, Luxembourg recorded a noticeable decline, from 53% in 2024 to 42% in 2025. As a result, Luxembourg moved from being one of the highest-ranked countries in 2024 to a position close to the European average in 2025. The highest values are now observed in Romania (64%), the United Kingdom (62%), and Italy (50%), whereas Poland (8%) and Sweden (31%) report the lowest levels of perceived positive impacts.

Overall, the results suggest that while entrepreneurs across Europe continue to view AI positively, perceptions in Luxembourg have become more moderate. While the available evidence does not allow causal conclusions, one possible interpretation

is that the widespread diffusion of AI technologies has contributed to a gradual adjustment of expectations, with entrepreneurs gaining practical experience and moving from initial enthusiasm towards more realistic assessments of AI's potential business benefits.

Figure 7.3: Average positive impact of AI.



Country-specific averages of the share of TEA entrepreneurs anticipating a high positive impact of AI, across five dimensions (in %).

Source: Authors' computations based on 2025 GEM Global APS data.

The following figures present a comparison of the cross-country rankings for each of the five perceived benefits, showing Luxembourg's precise position relative to other European economies and how it changed over time.

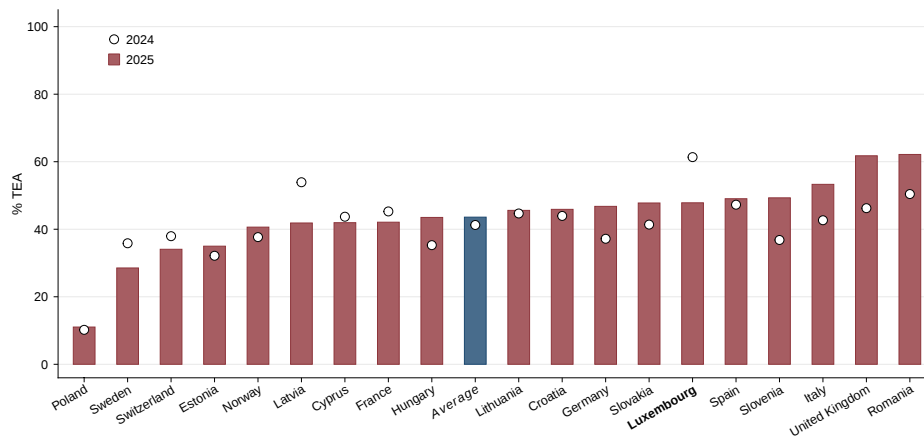
Figure 7.4 reports the share of TEA entrepreneurs who believe that AI-enabled personalised customer experiences will have a **high positive impact** on their business. The indicator ranges from 11% in Poland to 62% in Romania. The cross-country average increased only modestly, from 41% in 2024 to 44% in 2025.

In Luxembourg, 48% of early-stage entrepreneurs expected AI-driven personalisation to have a high positive impact on their business, down from 61% in the previous year. This places Luxembourg above the European average, although several countries, including Romania, the United Kingdom, Italy, reported even higher shares.

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Figure 7.5 documents that **improved productivity and operational efficiency** is another most widely anticipated benefit of AI in Luxembourg's TEA community. Fully 68% of TEA entrepreneurs in Luxembourg expect a high positive impact here, the top score among all countries and over 21 percentage points above the European mean of 46%. The next best performers are Latvia (62%), Romania (59%), and

Figure 7.4: Enhanced personalization for customers as an AI positive impact.

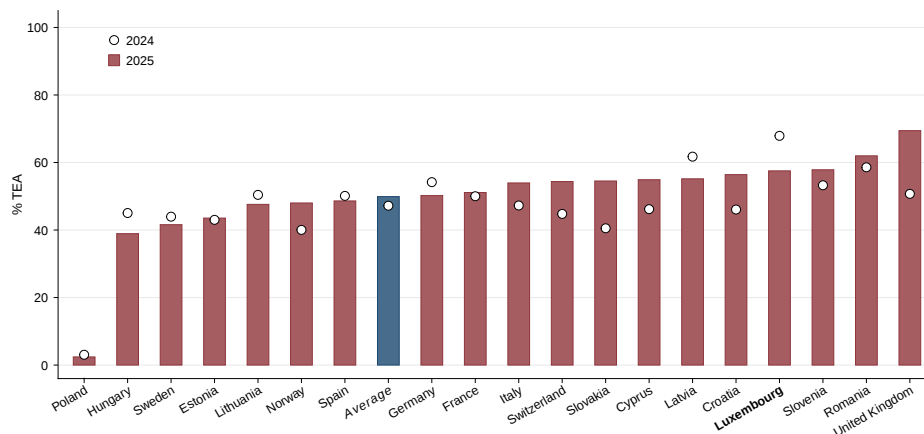


Shares of TEA entrepreneurs expecting a “high” positive impact from “enhanced personalization for customers” when introducing AI (in %).
Source: 2025 GEM Global APS data.

Germany (54%). The distribution exhibits considerable heterogeneity across Europe, with some countries — most notably Poland at 3.1% — reporting vastly lower expectations. For Luxembourg, this variable records the highest of all five positive impact dimensions, underscoring a prevailing view that AI will be integrated first and foremost as a performance and efficiency lever in early-stage ventures.

Figure 7.5 reports the share of TEA entrepreneurs who expect AI to have a **high positive impact on productivity and operational efficiency**. In 2025, 58% of Luxembourg’s early-stage entrepreneurs reported such expectations, placing the country among the top performers and above the European average of 50%. However, this represents a decline compared with 2024, when the corresponding share was close to 68%.

Figure 7.5: Improved productivity and efficiency across operations as an AI positive impact.

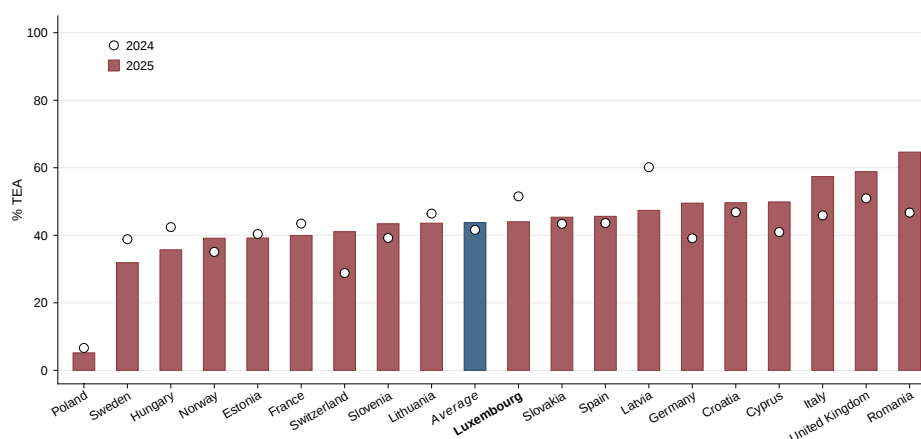


Shares of TEA entrepreneurs expecting a “high” positive impact from “improved productivity and efficiency across operations” when introducing AI (in %).
Source: 2025 GEM Global APS data.

Figure 7.6 reports the share of TEA entrepreneurs who expect AI to have a **high positive impact on product and service innovation**. Across the countries considered, this indicator increased slightly, from 41% in 2024 to 44% in 2025. The highest values of the indicator were recorded in Romania (65%), the United Kingdom (59%), and Italy (57%).

In Luxembourg, 44% of early-stage entrepreneurs reported that AI would have a high positive impact on innovation in 2025, broadly in line with the European average. This represents a decline compared with the 52% in 2024. As a result Luxembourg is no longer ranks among the leading countries on this indicator, even if a substantial proportion of entrepreneurs continue to view AI as a tool for developing new products, services, and value propositions.

Figure 7.6: Innovative product and service development as an AI positive impact.



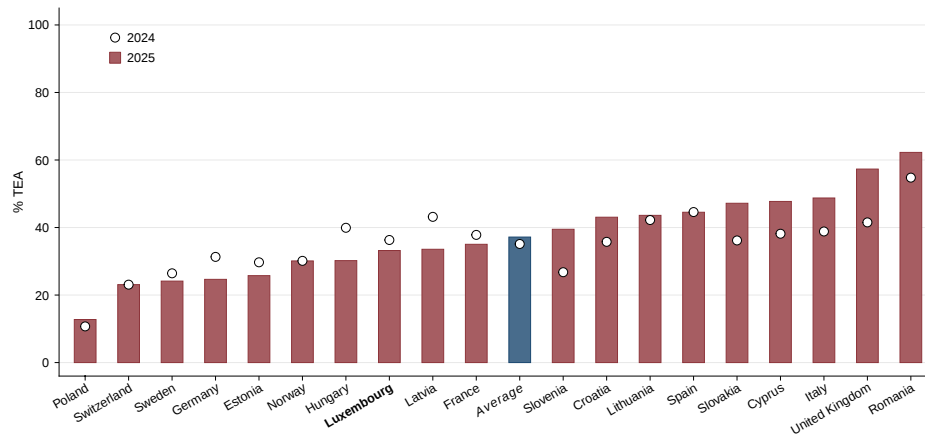
Shares of TEA entrepreneurs expecting a “high” positive impact from “innovative product and service development” when introducing AI (in %).

Source: 2025 GEM Global APS data.

The share of TEA entrepreneurs who expect AI to have a **high positive impact on risk management and compliance** is reported in Figure 7.7. Across the countries considered, expectations increased slightly, with the cross-country average rising from 35% in 2024 to 37% in 2025. The highest shares were recorded in Romania (62%), the United Kingdom (57%), and Italy (49%). In Luxembourg, 33% of early-stage entrepreneurs expected AI to have a high positive impact in this area, compared with 36% in 2024. As a result, Luxembourg moved below the European average and ranked in the lower half of the distribution.

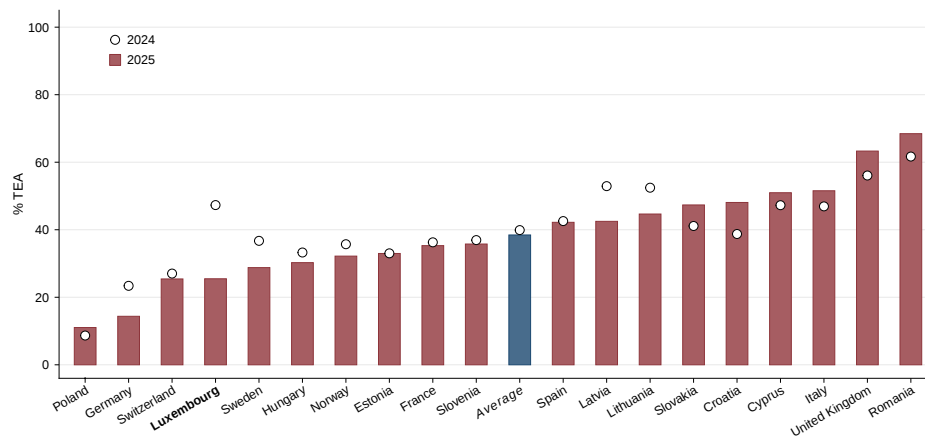
Figure 7.8 reports the share of TEA entrepreneurs who expect AI to have a **high positive impact on business revenue and growth**. Across the countries considered, expectations increased slightly, with the European average rising from 35% in 2024 to 39% in 2025. The highest shares were recorded in Romania (68%), the United Kingdom (63%), and Italy (52%).

Figure 7.7: Better risk management and compliance as an AI positive impact.



Shares of TEA entrepreneurs expecting a “high” positive impact from “better risk management and compliance” when introducing AI (in %).
Source: 2025 GEM Global APS data.

Figure 7.8: Increased business revenue and business growth as an AI positive impact.



Shares of TEA entrepreneurs expecting a “high” positive impact from “increased business revenue and business growth” when introducing AI (in %).
Source: 2025 GEM Global APS data.

In contrast, expectations declined markedly in Luxembourg. In 2025, only 24% of early-stage entrepreneurs anticipated a high positive impact of AI on revenue and growth, compared with 47% in 2024. This represents the largest decline among the countries considered. As a result, Luxembourg ranked fourth from the bottom among the nineteen countries observed and remained well below the European average. These findings suggest that, despite generally positive views regarding the role of AI, Luxembourg's entrepreneurs have become considerably more cautious about its potential contribution to business growth and revenue generation.

Overall, the perceived benefits of AI remained broadly stable across the countries considered. Luxembourg, however, recorded a decline across most AI-benefit indicators. The largest decrease concerns expectations about increased business revenue and business growth: the share of TEA entrepreneurs expecting a high positive impact from AI fell from 47% in 2024 to 24% in 2025.

This decline should be interpreted cautiously. In 2024, Luxembourg reported among the highest values on several AI-related indicators, and part of the decrease may therefore reflect a return towards the cross-country average. More broadly, the results may indicate that entrepreneurs are becoming more cautious about translating the promise of AI into concrete business growth. While recent OECD research highlights AI's potential to enhance productivity, innovation, and entrepreneurship, these benefits depend on complementary investments in skills, data, organisational change, and business-model adaptation (Calvino et al., 2025).

This interpretation is particularly relevant for Luxembourg, where AI policy in Luxembourg has focused on accelerating the adoption of artificial intelligence while strengthening the country's digital sovereignty (Government of the Grand Duchy of Luxembourg, 2025b).

The results suggest that entrepreneurs increasingly distinguish between AI's operational and commercial effects. While expectations regarding efficiency, personalisation, and innovation remain comparatively strong, expectations concerning revenue growth have weakened. This pattern is consistent with recent evidence indicating that AI's most immediate benefits arise through productivity improvements and cost reductions, whereas revenue gains typically require complementary investments in skills, organisational change, and business-model innovation (Filippucci et al., 2024; Calvino et al., 2025; Acemoglu, 2025).

The sharp decline in expectations regarding business revenue and growth suggests a more cautious assessment of AI's economic impact. This finding is consistent with recent contributions arguing that, although AI is likely to generate meaningful productivity gains, its aggregate effects on growth may be more gradual and less

transformative than initially anticipated (Acemoglu, 2025). Similarly, STATEC estimates that more than 90% of workers in Luxembourg could see their tasks affected by AI, with the dominant effect expected to be task augmentation and productivity enhancement rather than widespread automation or immediate business expansion (STATEC, 2025b). Taken together, the evidence suggests that entrepreneurs increasingly distinguish between AI's ability to improve business processes and customer interaction, and its more uncertain capacity to generate rapid revenue growth.

7.3 Perceived risks from AI among TEA entrepreneurs

This section uses **the average of the five “high-impact” negative perceptions** — data security and privacy, increased costs and implementation challenges, resistance among employees, ethical dilemmas in AI decision-making, and customer resistance or mistrust — to summarize how TEA entrepreneurs expect AI to affect their business.

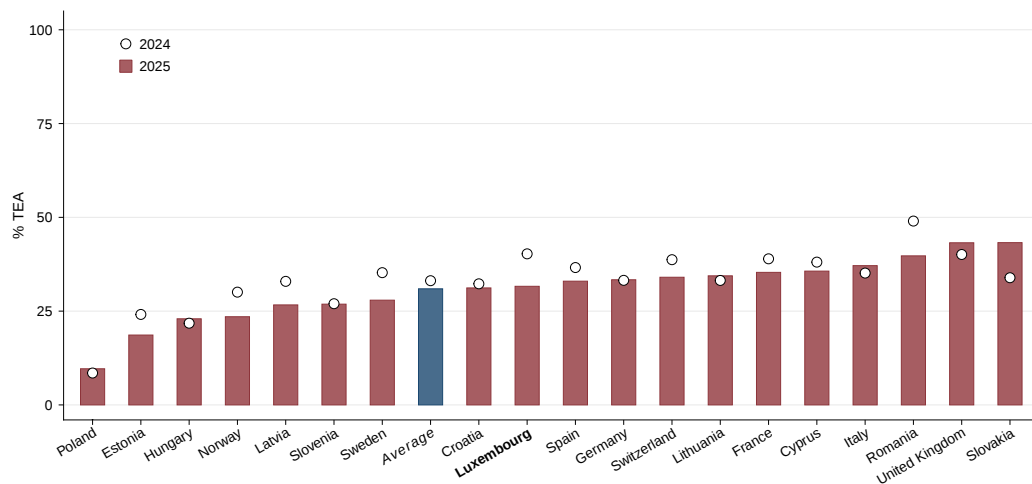
Overall, the cross-country average remained broadly stable between 2024 and 2025, whereas Luxembourg recorded declines across all five indicators. The largest decreases were observed for data security and privacy concerns, which fell from 58% to 45%, and for increased costs and implementation challenges, which declined from 39% to 26%. As a result, Luxembourg no longer ranks near the top of the European distribution. While TEA entrepreneurs in Luxembourg continue to perceive meaningful risks associated with AI adoption, these concerns have moderated considerably compared with the previous year.

The following figures present the cross-country rankings for each of the five perceived negative impacts of AI and show how Luxembourg's relative position has changed over time.

Figure 7.10 shows that, across the countries considered, concerns about data security and privacy remained broadly stable, with the cross-country average decreasing only marginally from 44% in 2024 to 42% in 2025. However, substantial cross-country variation persists, ranging from around 2% in Poland to 52% in United Kingdom and Italy.

In Luxembourg, 45% of early-stage entrepreneurs expected data security and privacy issues to have a high negative impact on their business, compared with approximately 58% in 2024, one of the largest decreases among the countries considered. As observed for several indicators of the perceived benefits of AI, Luxembourg's

Figure 7.9: Average negative impact of AI.

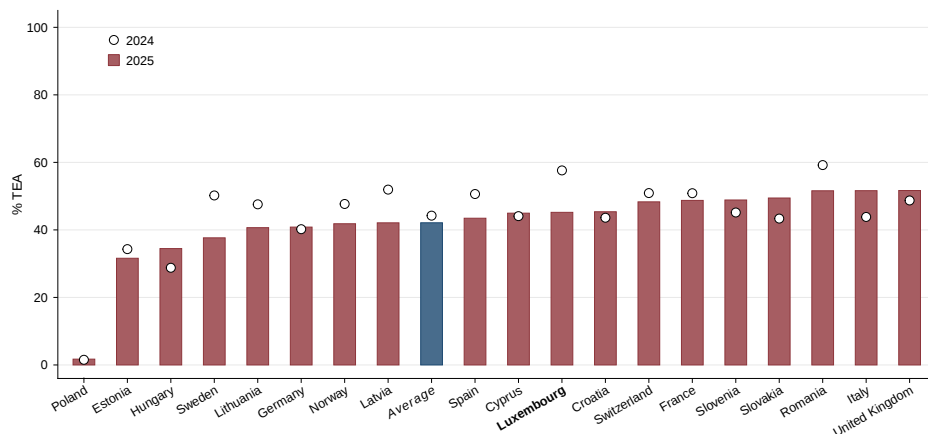


Country-specific averages of the share of TEA entrepreneurs anticipating a high negative impact of AI, across five dimensions (in %).

Source: Authors' computations based on 2025 GEM Global APS data.

entrepreneurs also reported a marked decline in the perceived risks associated with AI adoption. Nevertheless, Luxembourg remained above the European average. The results suggest that data governance and privacy concerns remain an important consideration for entrepreneurs adopting AI technologies. As noted in the previous report (GEM Luxembourg, 2025), this may reflect Luxembourg's highly regulated and data-intensive economic environment.

Figure 7.10: Data security and privacy concerns as an AI negative impact.



Shares of TEA entrepreneurs expecting a "high" negative impact from "data security and privacy concerns" when introducing AI (in %).

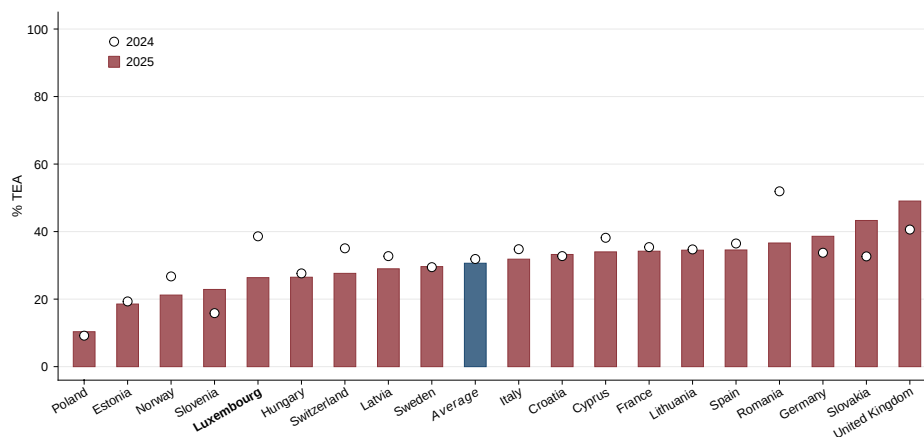
Source: 2025 GEM Global APS data.

Figure 7.11 reports the share of TEA entrepreneurs who expect AI to have a **high negative impact through increased costs and implementation difficulties**. Across the countries considered, concerns about implementation costs remained broadly stable, with the cross-country average increasing only marginally from around 30%

in 2024 to 31% in 2025. Poland consistently records the lowest levels of concern, while the United Kingdom continues to report the highest perceived costs and implementation challenges.

In Luxembourg, 26% of early-stage entrepreneurs anticipated significant cost and implementation challenges associated with AI adoption, compared with approximately 39% in 2024. This represents one of the largest declines among the countries considered and places Luxembourg below the European average in 2025. The results suggest that, while implementation costs remain a concern for a sizeable minority of entrepreneurs, perceived barriers related to AI adoption have moderated considerably over the past year.

Figure 7.11: Increased cost and implementation challenges as an AI negative impact.

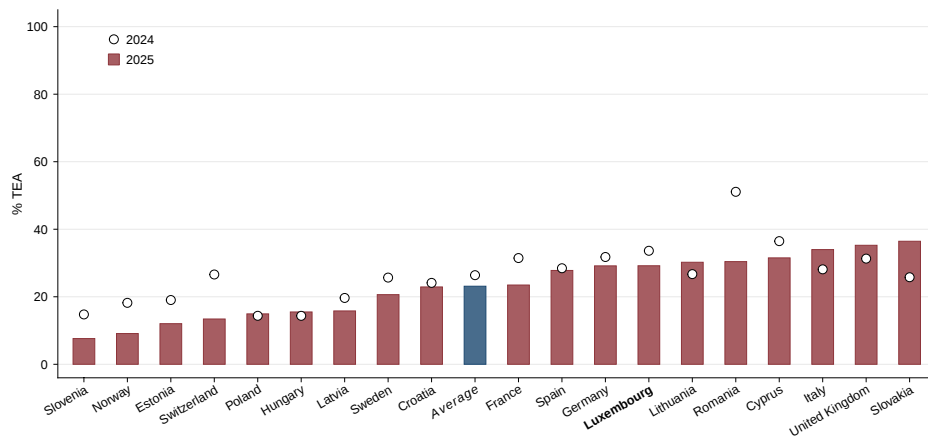


Shares of TEA entrepreneurs expecting a “high” negative impact from “increased cost and implementation challenges” when introducing AI (in %).
Source: 2025 GEM Global APS data.

Figure 7.12 presents the share of TEA entrepreneurs anticipating a high negative impact from employee resistance to AI introduction. At the cross-country level, concerns about employee resistance remained broadly stable, with the average edging up marginally from 26% in 2024 to 23% in 2025. Yet considerable variation persists across economies, ranging from fewer than 10% of entrepreneurs in Slovenia and Norway to approximately 35% in the United Kingdom and Slovakia.

In Luxembourg, roughly three in ten early-stage entrepreneurs (29%) expected employee resistance to pose a significant obstacle to AI adoption, a decline from the approximately 34% recorded in 2024. Notwithstanding this improvement, Luxembourg continued to sit above the European cross-country average and retained a position in the upper half of the national distribution, suggesting that concerns over workforce acceptance of AI remain comparatively pronounced among the country’s entrepreneurial community.

Figure 7.12: Resistance among employees as an AI negative impact.



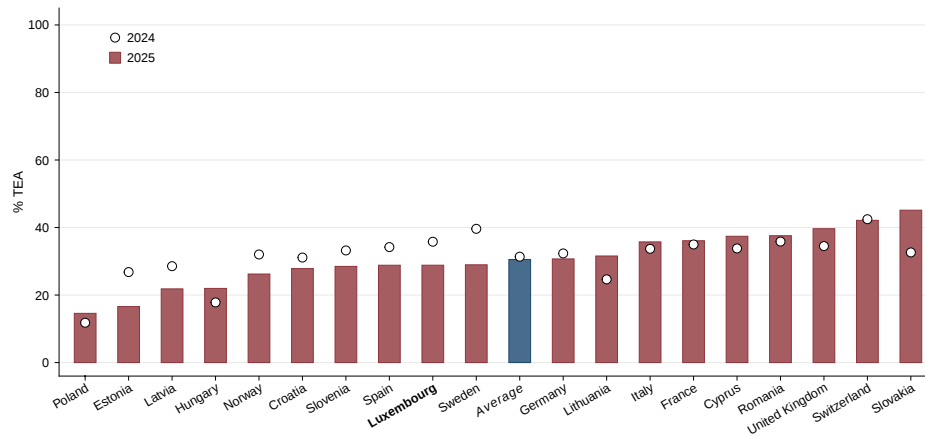
Shares of TEA entrepreneurs expecting a “high” negative impact from “resistance among employees” when introducing AI (in %).
Source: 2025 GEM Global APS data.

In 2025, 29% of Luxembourg’s TEA entrepreneurs expected a high **impact from ethical dilemmas associated with AI decision-making**, down from 36% in 2024. This placed Luxembourg slightly below the European average of 31%. As shown in Figure 7.13, concerns about ethical dilemmas varied substantially across countries, ranging from 45% in Slovakia to 15% in Poland, which again reported the lowest value on this indicator.

Ethical concerns were generally perceived as less important than data security and privacy issues. Across the countries considered, the average share of entrepreneurs reporting a high impact from ethical dilemmas was 31%, compared with 42% for data security and privacy concerns (see Figure 7.10 above). In other words, although ethical issues remain a relevant concern, they are less salient than data governance and privacy risks in shaping entrepreneurs’ perceptions of AI adoption.

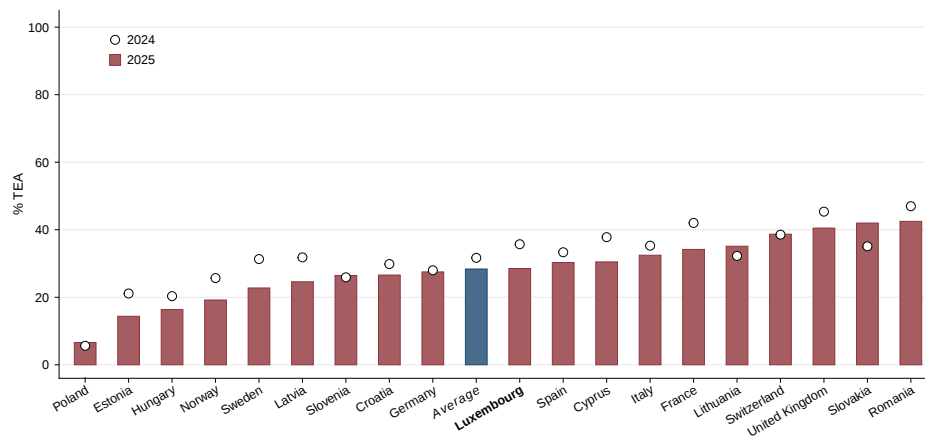
Customer resistance or mistrust of AI was anticipated by 29% of TEA entrepreneurs in Luxembourg in 2025. This represents a marked decline from 36% in 2024. A similar pattern is observed across Europe, where the cross-country average fell from 32% to 28%, suggesting that entrepreneurs increasingly perceive customers as more receptive to AI-driven activities. However, as shown in Figure 7.14, substantial cross-country differences remain, ranging from 42% in Romania to 15% in Poland, which consistently records among the lowest values across most AI-related indicators.

Figure 7.13: Ethical dilemmas in AI decision making as an AI negative impact.



Shares of TEA entrepreneurs expecting a “high” negative impact from “ethical dilemmas in AI decision-making” when introducing AI (in %).
Source: 2025 GEM Global APS data.

Figure 7.14: Customer resistance or mistrust as an AI negative impact.



Shares of TEA entrepreneurs expecting a “high” negative impact from “customer resistance or mistrust” when introducing AI (in %).
Source: 2025 GEM Global APS data.

Luxembourg special topics 2025: The impact of trade tariffs impact

The 2025 GEM Adult Population Survey (APS) was conducted during a period of significant changes and turmoil in the global economic environment - involving international trade and migration policies - which affected countries worldwide. Rising protectionism, tariff announcements, increasing geopolitical tensions, all generated considerable uncertainty in global trade relations, and affected the mobility of goods, capital, and labour. Recognising the potential implications of these developments for a small and highly open economy such as Luxembourg, the GEM Luxembourg team introduced a set of additional questions to investigate how entrepreneurs' perceive these developments.

This chapter provides a brief overview of recent developments in trade and migration policies, and summarises the main insights from the economic literature regarding their potential implications for entrepreneurship. It then presents evidence on the perceived impact of these developments on early-stage entrepreneurs in Luxembourg, focusing on areas such as access to foreign markets, production costs, recruitment, and funding opportunities.

The results indicate that approximately **one quarter of TEA entrepreneurs expected policy changes to worsen export opportunities, recruitment conditions, and access to finance, while approximately 40% anticipate higher production costs.** Moreover, **TEA entrepreneurs exporting in markets outside the European Union report greater concerns regarding rising production costs (63%)** and access to foreign markets (40%) than entrepreneurs operating only within the European Union (respectively, 36% and 25%). By contrast, differences are considerably smaller with respect to recruitment and funding opportunities, suggesting that entrepreneurs perceive the European Single Market as continuing to provide relatively stable conditions for accessing labour and capital, in spite of growing uncertainty in external trade relations.

8.1 Context and evidence

Measures of global uncertainty, including the World Uncertainty Index and the World Trade Uncertainty Index, have risen substantially in recent years, reflecting increasing uncertainty surrounding trade relations and geopolitical developments (Ahir et al., 2022).¹

Before 2025, European Union - United States trade was generally characterised by relatively low tariffs. On 2 April 2025, the US announced a new package of tariffs, referred to by the US administration as the “Liberation Day” measures, covering

¹see <https://worlduncertaintyindex.com/>

a broad range of imports and signalling a more protectionist trade policy. The EU responded by announcing a set of countermeasures while simultaneously seeking a negotiated solution.

For Europe, these developments increased uncertainty regarding future trade relations, global supply chains, and the outlook for international economic integration. At the time of the GEM data collection (June - July 2025), trade policy uncertainty was particularly elevated. Released in June 2025, STATEC's *Note de Conjoncture* identified trade tensions and policy uncertainty as significant downside risks to economic activity (STATEC, 2025b).

Shortly after the end of the data collection, at the end of July 2025, the EU and the US reached a *Framework Agreement* partially stabilising bilateral relations and reducing the immediate risk of a broader trade confrontation.² With the *Framework Agreement 2025*, the US introduced a 15% tariff ceiling on most EU exports, while the EU committed to eliminating its remaining tariffs on US industrial products and expanding market access for selected agricultural goods (Đuricic et al., 2026). It is worthy to notice that several analysts have characterised the agreement as asymmetric, as it provides more favourable market access conditions for US exporters than for their European counterparts (Alcidi, 2025).

The situation is still evolving. In February 2026, the US Supreme Court invalidated the broad tariffs previously implemented in the “Liberation Day”. These measures were temporarily replaced by a 10% global tariff, which currently applies to most EU exports, while steel and aluminium products remain subject to tariffs of 50%. The temporary measures are due to expire on 24 July 2026 and are themselves the subject of ongoing litigation (Đuricic et al., 2026).

Migration policies also changed significantly in 20. The new US administration adopted a more restrictive approach to immigration, including tighter border controls, increased enforcement actions, and limited access to legal migration (Congressional Research Service, 2025). In the EU, interior ministers agreed on new regulation that accelerates deportation procedures, permits longer detention periods, extends entry bans, and enables the creation of offshore return hubs in third countries, which represents a substantial tightening of the bloc's migration enforcement framework (Council of the European Union, 2025). At the same time, a growing number of EU member states reintroduced temporary controls at their internal Schengen borders.³

²For more details, see https://commission.europa.eu/topics/trade/eu-us-trade-deal_en.

³Already in 2024, citing irregular migration flows and security concerns, some EU countries including Germany, France, Italy, the Netherlands, Austria, Denmark, Poland, and Sweden had reintroduced temporary border controls. European Commission, Directorate-General for Migration and Home Affairs, 2025.

Change in trade, tariffs and immigration policy are very relevant for Luxembourg. The country, as a small and highly open economy, relies extensively on international trade and on free movement of goods, services, capital, and labour. Luxembourg's economy is deeply integrated into European and global value chains and depends heavily on cross-border and international workers. As a result, restrictions affecting the mobility of goods, people, or capital may have a particularly strong impact on entrepreneurs operating in Luxembourg.

The economic literature suggests that trade barriers can have both positive and negative implications for entrepreneurship. On the one hand, tariffs may temporarily create opportunities for domestic producers by reducing foreign competition and encouraging import substitution. On the other hand, higher tariffs and greater trade policy uncertainty generally increase production costs, limit access to foreign markets, and disrupt international value chains. Such developments may discourage business creation and expansion, particularly for young and innovative firms that rely on imported inputs, external finance, and opportunities to scale in larger markets (Melitz, 2003; Caldara et al., 2020; Fajgelbaum et al., 2020). Empirical evidence from episodes of rising protectionism similarly suggests that trade policy uncertainty reduces investment and business dynamism and may adversely affect entrepreneurial activity (Handley and Limão, 2017; Caldara et al., 2020).

8.2 Survey results

Against this background, the 2025 GEM Luxembourg survey introduced a specific question to investigate entrepreneurs' perceptions of recent policy developments concerning trade, tariffs, and migration. Data were collected between 21 May and 27 June 2025, shortly after the announcement of the new US trade measures and during a period of heightened policy uncertainty.⁴

Entrepreneurs were asked how changes in trade, tariff, and migration policies were expected to affect their businesses in the near future.⁵ Specifically, TEA entrepreneurs assessed whether they believed recent changes in trade, tariff, and migration policies would worsen, leave unchanged, or improve the following aspects of their businesses:

⁴The survey period also overlapped with heightened geopolitical uncertainty. Between 13 and 24 June 2025, Israel and Iran were engaged in the so-called Twelve-Day War, which also saw direct US military intervention.

⁵The question asked to entrepreneurs was: *Numerous policy changes concerning trade, tariffs and migration have been implemented or announced. Please rate how you believe they would impact the following aspects of your business in the near future. You can choose worsen, stay the same, or improve (select one response per item).*

- Production costs, including goods and services;
- Access to foreign export markets;
- Recruitment (ability to hire workers);
- Funding opportunities.

What is more, the 2025 APS Luxembourg survey also introduce a modification to the existing main questionnaire, specifically to distinguish between those businesses operating primarily within the European Single Market and those with commercial links to markets outside the EU.⁶

The questions above do not measure the realised effects of policy changes. Rather, they captures entrepreneurs' expectations at a particular moment of heightened uncertainty. As such, they provide a timely indication of how early-stage entrepreneurs in Luxembourg perceive changes in the international policy environment.

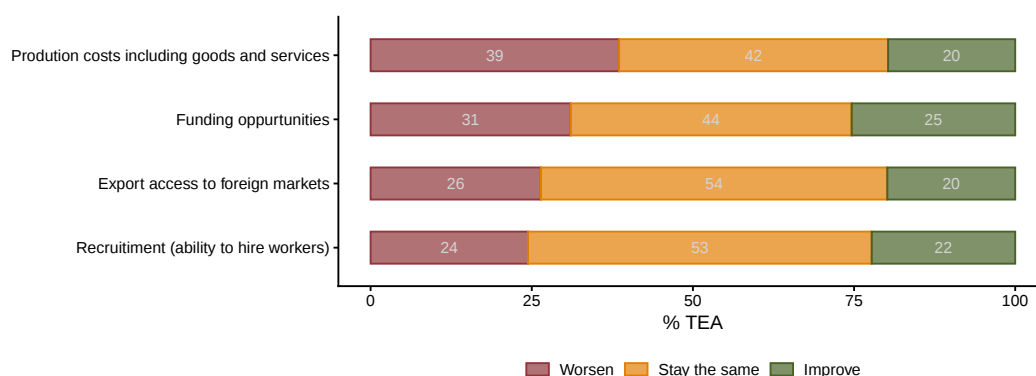
Figure 8.1 summarises TEA entrepreneurs' expectations regarding the impact of recent changes in trade and migration policies on four dimensions of their businesses. Overall, entrepreneurs were more likely to anticipate a deterioration than an improvement across all dimensions considered. The greatest concern relates to production costs, with 39% of respondents expecting recent policy changes to increase the cost of goods and services, compared with 20% expecting an improvement. Around one-third of entrepreneurs also anticipated worsening funding opportunities (31%), while approximately one-quarter expected reduced access to foreign markets (26%) and more difficult recruitment conditions (24%). At the same time, the largest group of entrepreneurs expected no substantial change. Between 42% and 54% of respondents indicated that recent policy changes would leave the different aspects of their business broadly unchanged.

The aggregate results are nevertheless likely to mask substantial differences across entrepreneurs. Businesses with greater exposure to international markets or stronger reliance on foreign labour may be disproportionately affected by changes in trade and migration policies. The followign chart focuses on entrepreneurs reporting worsening expectations, and distinguishes between businesses according to their exposure to non-EU export markets (Figure 8.2).

Figure 8.2 compares entrepreneurs that export to non-EU markets with those that do not. The most notable differences concern expectations regarding export access and funding opportunities. Among entrepreneurs exporting outside the EU, 64%

⁶The GEM global questionnaire includes questions on various characteristics of entrepreneurs' businesses, including the composition of their customer base, distinguishing between domestic and foreign customers. The revised questionnaire additionally differentiates between customers in other EU/EFTA countries and those outside the EU/EFTA area.

Figure 8.1: Expected impact of changes in trade, tariff, and migration policies on business conditions (% of TEA entrepreneurs).



Share of TEA entrepreneurs (in %).
Source: 2025 GEM Luxembourg APS data.

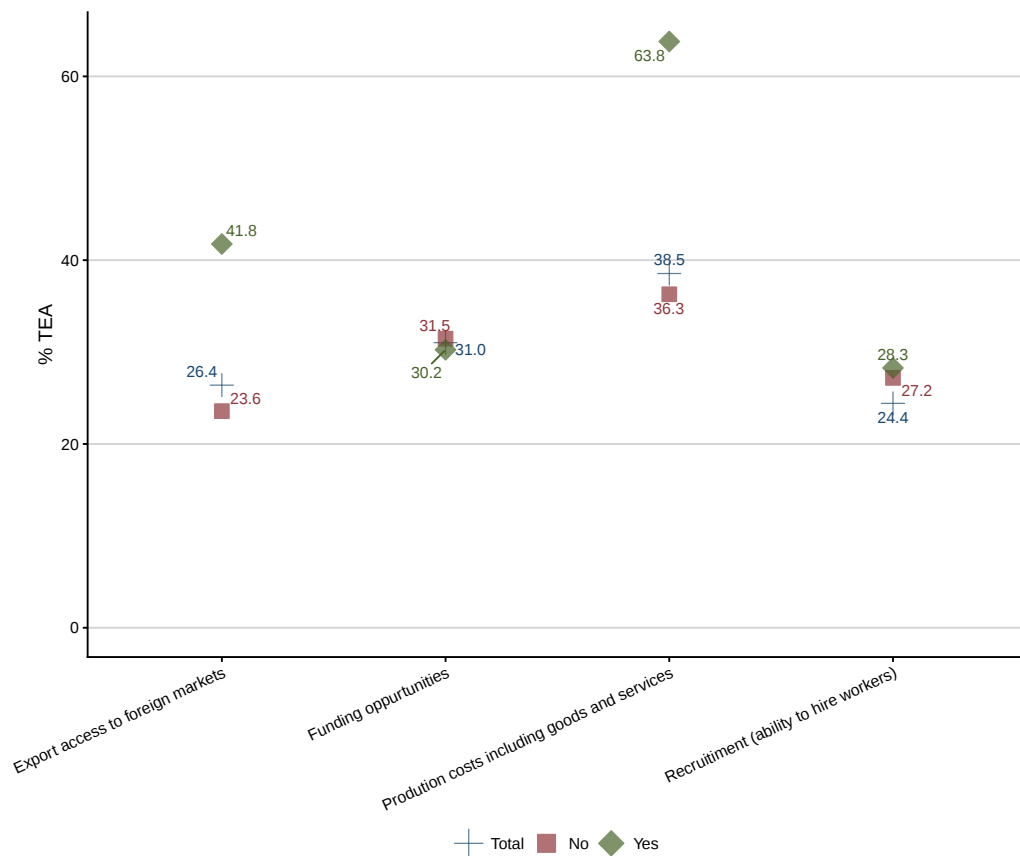
expect recent trade, tariff, and migration policy changes to worsen their access to foreign markets, compared with 36% among non-exporters. Similarly, 42% of non-EU exporters expect an impact on funding opportunities, compared with 24% among entrepreneurs without non-EU export activities. In contrast, differences in expectations regarding production costs and recruitment are comparatively small.

These patterns are broadly consistent with economic theory. Firms operating in non-EU markets are generally more exposed to tariffs, regulatory changes, and trade policy uncertainty because their activities depend more heavily on foreign demand, cross-border supply chains, and international financial networks (Melitz, 2003; Handley and Limão, 2017; Caldara et al., 2020). The Luxembourg evidence therefore suggests that entrepreneurs with exposure to non-EU markets perceive recent changes in trade and migration policies as more consequential for their business prospects than entrepreneurs whose activities are primarily domestic or confined to the European market.

By contrast, production factors such as capital and labour appear to be perceived as comparatively less affected. A possible explanation is that many Luxembourg entrepreneurs obtain financing and recruit workers primarily within the European Union, where the fundamental principles of the Single Market, including the free movement of capital and labour, remained comparably more stable during the period considered. At the same, the European Commission has promoted initiatives to enhance the Single Market by reducing non-tariff barriers within the EU.⁷

⁷In 2025, the *Competitiveness Compass*, the Commission proposed measures to simplify rules and legislation, facilitate cross-border business activities. Among the proposals is the introduction of a “28th legal regime”, a *EU Inc.* company form, designed to provide a single set of rules across Member States. The strategy also places renewed emphasis on advancing the Savings and Investments Union and completing the Banking Union in order to create a more integrated European financial system,

Figure 8.2: Expected worsening of business conditions following trade, tariffs and migration policy changes, by export status (customers outside EU or not)



Share of TEA entrepreneurs reporting worsening business conditions (in %). Export status distinguishes entrepreneurs with and without customers outside the European Union. Source: 2025 GEM Luxembourg APS data.

improve access to capital, and facilitate cross-border financing for firms and entrepreneurs (European Commission, 2025c).

Luxembourg special topics 2025: Sources of funding for entrepreneurs

Access to finance is widely recognised as an important determinant of entrepreneurship and business growth (Kerr and Nanda, 2011). The availability of financial resources influences not only the decision to start a business but also entrepreneurs' ability to invest, innovate, and scale their activities. Evidence from the ECB and European Commission's Survey on the Access to Finance of Enterprises (SAFE) shows that young and innovative firms frequently face greater difficulties in obtaining external finance and rely disproportionately on internal resources and bank financing. Although financing conditions have improved over the past decade, borrowing costs, collateral requirements, and the availability of external finance continue to represent constraints for many firms, particularly in periods of heightened economic uncertainty (European Central Bank, 2025). Indeed, access to finance remains one of the most frequently reported obstacles to entrepreneurship, particularly for young, innovative, and high-growth firms that often face information asymmetries and limited collateral (OECD, 2025c). Moreover, access to entrepreneurial finance is not evenly distributed across entrepreneurs. OECD evidence indicates that women entrepreneurs are more likely to rely on personal savings and informal sources of finance and often face greater difficulties in accessing external funding, including debt and equity finance (OECD, 2023). Similarly, Eurostat data show substantial differences across European countries in firms' use of external financing and in the obstacles encountered when seeking funding, suggesting that financing conditions remain heterogeneous even within advanced economies (Eurostat, 2025a).

The evidence presented in Chapter 5 also highlights the importance of financing conditions in Luxembourg's entrepreneurial ecosystem. Moreover, results from the National Expert Survey (NES) (see Chapter 10) consistently identify entrepreneurial finance as an important framework condition shaping entrepreneurial activity in the country. Although Luxembourg benefits from a developed financial system and a broad range of public support instruments, financing conditions may differ across types of entrepreneurs and stages of business development.

To provide additional evidence on this issue, the 2025 GEM Luxembourg survey introduced a country-specific question on sources of entrepreneurial finance. This allows us to identify the funding sources used by TEA entrepreneurs and to examine whether financing patterns differ across groups of entrepreneurs, particularly by gender and migration background.

Results show that **TEA entrepreneurs in Luxembourg rely primarily on self-financing and informal funding networks**. Personal savings are by far the most frequently reported source of funding (57%), followed by family members (29%). 18% rely on banks or other financial institutions. **Men entrepreneurs are more likely than women entrepreneurs to use personal savings** (65% versus 45%), banks and other financial institutions (16% versus 6%). **Non-immigrant TEA**

entrepreneurs rely more heavily on personal savings than immigrants (78% versus 47%) and are more likely to use banks and other financial institutions (19% versus 8%).

9.1 Survey results

In the 2025 APS, respondents were asked whether they had used specific sources of funding both as nascent entrepreneurs and as owner-managers of new businesses.¹ The funding sources considered were:

- Personal savings;
- Family members;
- Friends, neighbours, or colleagues;
- Employers;
- Banks and other financial institutions;
- Private investors or venture capital;
- Public programmes, subsidies, or grants;
- Crowdfunding;
- Personal credit cards;
- Other sources.

For each funding source, respondents had to indicate whether they received the funding or whether they applied for it but did not obtain it. However, due to the relatively small sample size, entrepreneurs who unsuccessfully applied for a specific type of financing were grouped together with those who did not use that funding source.² Note that entrepreneurs could indicate more than one source of funding.

Figure 9.1 ranks the sources of finance used by early-stage entrepreneurs in Luxembourg. Personal savings are by far the most frequently reported source of funding, used by 57% of TEA entrepreneurs. Personal credit cards constitute the second most important source (38%), followed by family members friends (29%), neighbours, or colleagues (18%). Together, these findings suggest that entrepreneurial finance in Luxembourg remains predominantly based on self-financing and informal sources of funding.

The use of formal financing mechanisms is considerably less widespread. Approximately 18% of entrepreneurs report relying on banks or other financial institutions, 12% on public programmes or grants, and 9% on private investors or venture cap-

¹The question asked was: *In the last 12 months, did you use any of the following funding sources?*

²All figures are reported in Figure 1 in the Annex.

ital. Crowdfunding (8%) and employer-based financing (6%) remain relatively uncommon.³

These figures are consistent with evidence from the Community Innovation Survey (CIS) for Luxembourg. According to Eurostat data for 2022, around 15% of firms with at least ten employees used equity finance, 20% used debt finance, and 24.4% received some form of public financial support.⁴

Taken together, these results suggest that early-stage entrepreneurial finance in Luxembourg remains predominantly based on informal and self-financing mechanisms. In particular, the three most frequently used sources of finance—personal savings, family members, and friends—correspond to the well-known “3F” model of entrepreneurial finance (*founders, family and friends*). The entrepreneurship literature emphasises that these informal sources play a critical role during the earliest stages of business creation, when ventures typically lack collateral, track records, and sufficient information to access external finance on favourable terms (Berger and Udell, 1998; Cassar, 2004).

The relatively limited use of bank financing and external equity is also consistent with evidence from the OECD and the ECB’s Survey on the Access to Finance of Enterprises (SAFE), which shows that young and innovative firms rely disproportionately on internal resources and informal networks during the initial phases of business development (OECD, 2025c; European Central Bank, 2025).

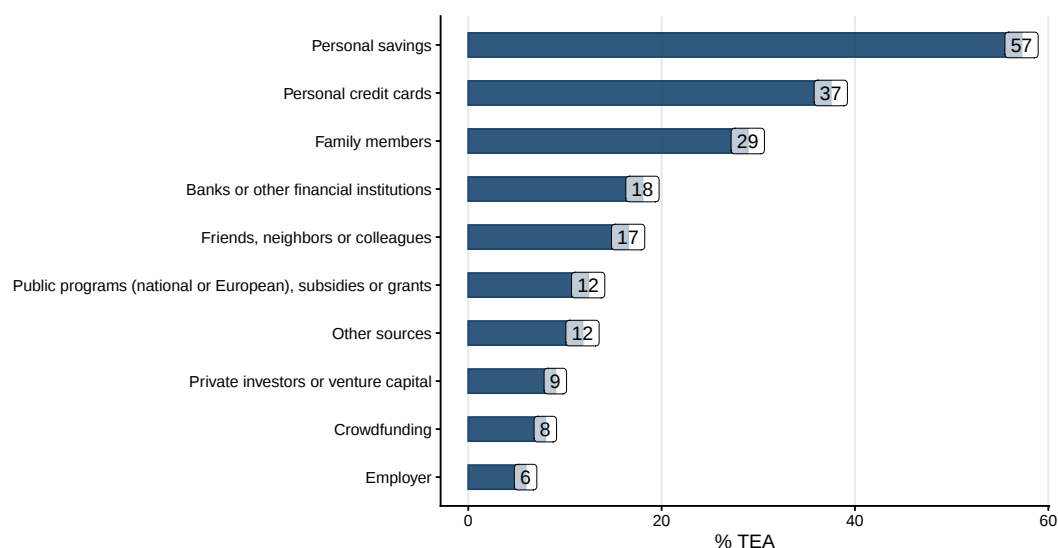
Figure 9.2 also reveals notable gender differences in the use of funding sources. Men report greater availability of personal savings to finance their businesses than women (65% versus 45%), suggesting that male entrepreneurs rely more heavily on self-financing. They are also more likely to obtain financing from banks and other financial institutions (20% versus 14%). By contrast, women report somewhat greater reliance on family members (32% versus 27%) and crowdfunding (13% versus 5%).

These differences are consistent with patterns evidenced by the literature on entrepreneurial finance (Marlow and Patton, 2005). Women entrepreneurs tend to rely more frequently on family members and less likely to access external debt and equity financing (OECD, 2023; OECD and European Commission, 2023). Explanations proposed in the literature include differences in accumulated wealth, entrepre-

³The percentages do not sum to 100 because entrepreneurs may report more than one source of funding.

⁴According to the Community Innovation Survey (CIS) 2022, 14.9% of Luxembourg firms with at least ten employees used equity finance, 20.4% used debt finance, and 24.4% received public financial support (Eurostat, 2026b; Eurostat, 2026a).

Figure 9.1: Funding variables



Share of TEA entrepreneurs that used the source of funding (in %)
Source: 2025 and 2024

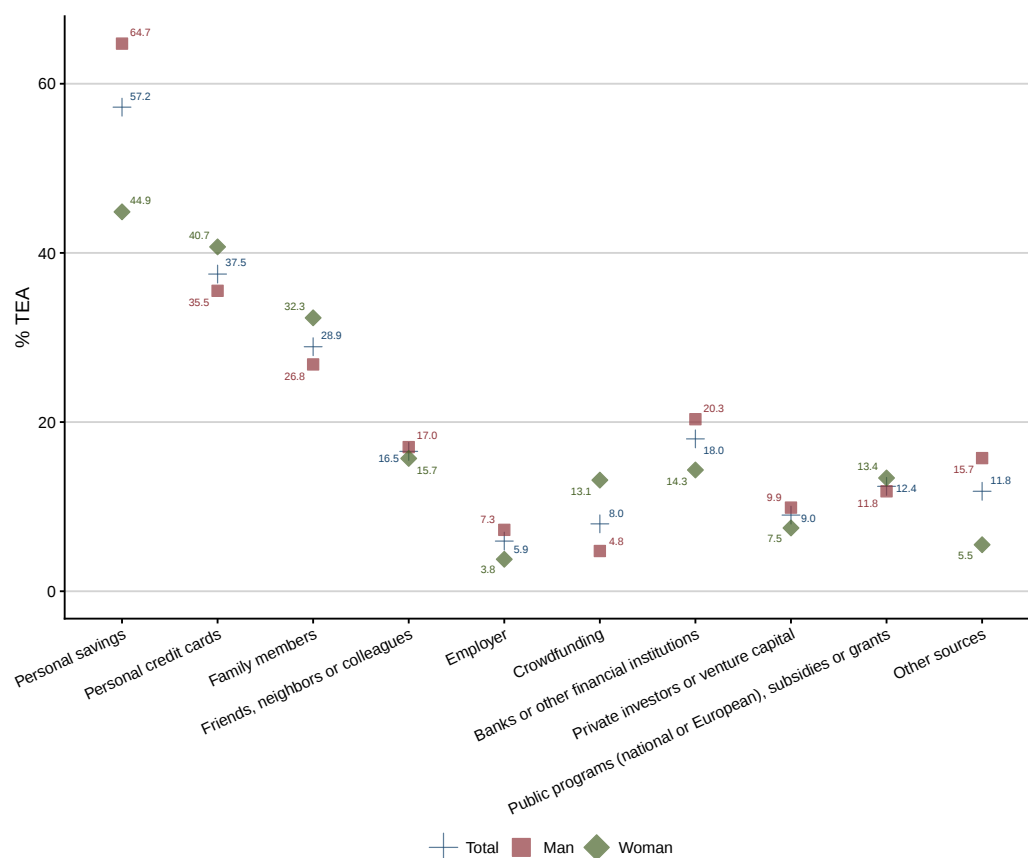
curial networks, sectoral specialisation, and investment patterns, as well as potential barriers in financial intermediation.

Figure 9.3 reveals notable differences in funding patterns between immigrant and non-immigrant entrepreneurs. Non-immigrant early-stage entrepreneurs (TEA) rely much more heavily on personal savings than immigrant entrepreneurs (78% versus 47%). They are also more likely to obtain financing from banks and other financial institutions (19% versus 8%), friends, neighbours, or colleagues (26% versus 11%), and public programmes or grants (19% versus 8%)

Once again, these gaps are consistent with what is reported by the literature on immigrant entrepreneurship. Migrant entrepreneurs often face greater barriers in accessing formal sources of finance because they tend to have shorter credit histories, lower accumulated wealth, and more limited collateral in the host country (Bewaji et al., 2015; Kerr and Mandorff, 2023).

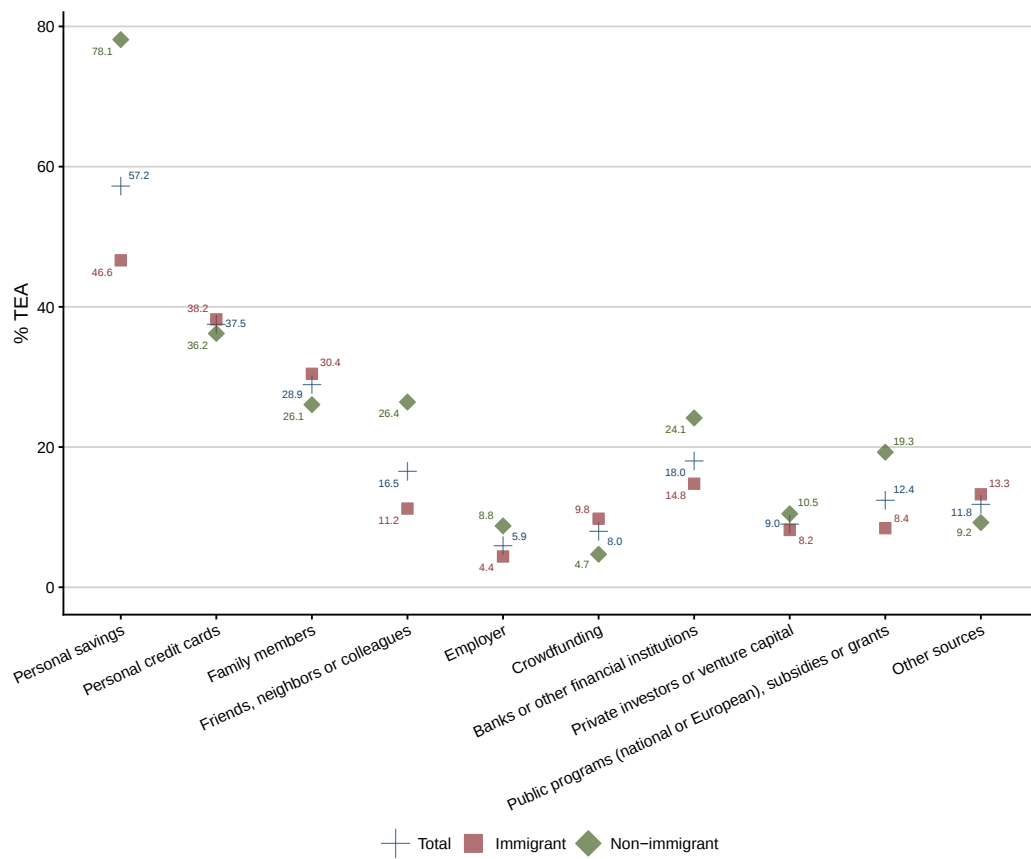
The Luxembourg results suggest that native entrepreneurs benefit from greater access to financial resources. They are more likely to rely on personal savings and to obtain financing through personal and professional networks, as well as formal sources such as bank loans and public subsidies.

Figure 9.2: Funding variables, by gender



Share of TEA entrepreneurs that used the source of funding (in %)
Source: 2025 and 2024

Figure 9.3: Funding variables, by migration status



Share of TEA entrepreneurs that used the source of funding (in %)
Source: 2025 GEM Luxembourg APS data.

Entrepreneurial framework conditions: the NES survey

The GEM research project places emphasis on the social, cultural and economic context — the entrepreneurial "ecosystem" — that shapes and fosters entrepreneurship. This section provides a comparative assessment of Luxembourg's entrepreneurial ecosystem based on the experts' views collected through the National Expert Survey(NES).¹

The NES assesses national contexts using the "Entrepreneurship Framework Conditions" (EFCs), that is, factors that are known to favour a thriving entrepreneurship. EFCs refer to business opportunities, entrepreneurial policies, infrastructure and norms. Table 10.1 describes in detail the framework conditions. Each year, the NES collects the views from at least 36 national experts per country. Each expert compiles a questionnaire that includes an assessment of the extent to which the statements about the EFCs are - on an 11-point Likert scale - completely untrue (0) to completely true (11). Then, the assessments are pooled and converted into an overall score for each EFC at the country level. This provides 13 overall scores evaluating the sufficiency of each framework condition for a given country, with a score of five representing "just sufficient". As the qualitative assessments are themselves context-dependent, however, cross-country comparisons of NES results should be interpreted cautiously. (In other words, national experts may have different views of sufficiency in various countries.)

Table 10.1: GEM's entrepreneurship context: Entrepreneurial Framework Conditions

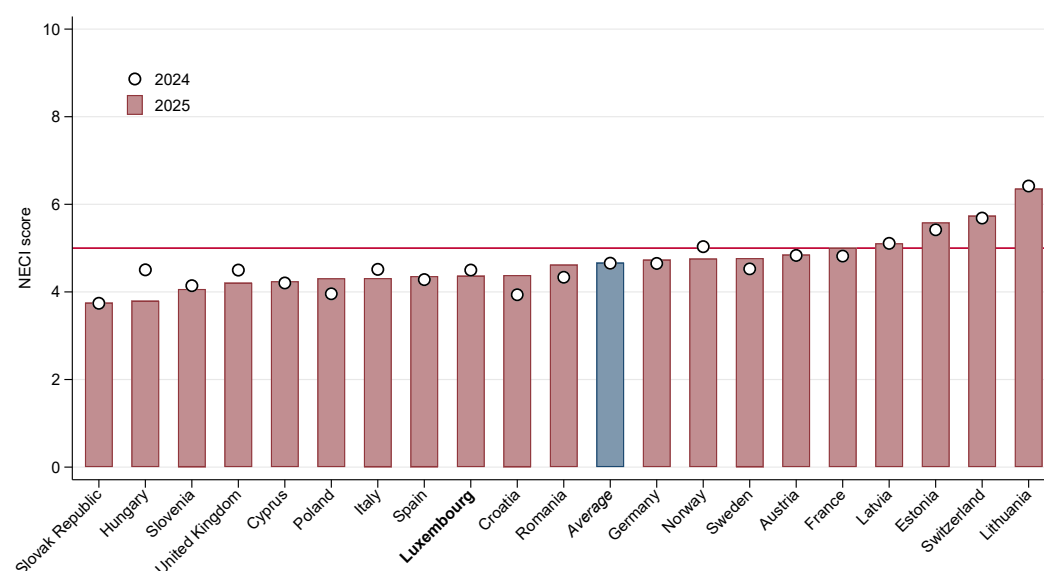
A1	Entrepreneurial Finance: there are sufficient funds for new start-ups
A2	Ease of Access to Entrepreneurial Finance: and those funds are easy to access
B1	Government Policy — Support and Relevance: policies promote and support start-ups
B2	Government Policy — Taxes and Bureaucracy: new businesses are not over-burdened
C	Government Entrepreneurial Programs: quality support programs are widely available
D1	Entrepreneurial Education at School: schools introduce entrepreneurial ideas
D2	Entrepreneurial Education Post-School: colleges offer courses in how to start a business
E	Research and Development Transfers: research is easily transferred into new businesses
F	Commercial and Professional infrastructure: quality services are available and affordable
G1	Ease of Entry — Market Dynamics: markets are free, open, and growing
G2	Ease of Entry — Burdens and Regulations: regulations encourage not restrict entry
H	Physical Infrastructure: good-quality, available, and affordable
I	Social and Cultural Norms: encourage and celebrate entrepreneurship

In 2018, GEM launched the National Entrepreneurship Context Index (NECI) to provide an overall score for an economy's entrepreneurial environment. The NECI score, calculated as the arithmetic mean of the scores from the Entrepreneurial Framework Conditions (EFCs), ranges on a Likert scale from 0 to 10. Figure 10.1 presents the

¹Recently, the Luxembourg Observatory of Entrepreneurship and Innovation (LOEI) developed an online tool that maps the main players in Luxembourg's entrepreneurship ecosystem. The tool is available at <https://www.uni.lu/fdef-en/news/a-new-interactive-map-unlocks-the-puzzle-of-luxembourgs-entrepreneurship-ecosystem/>.

NECI scores across 20 European countries for 2025 and 2024, revealing that five countries are above the sufficient threshold of 5 points² Lithuania, Switzerland and Estonia are the three top performers and Latvia and France are just few decimal above the 5 point threshold. Among the 20 countries surveyed, 17 experienced either no change or a marginal decline in their NECI scores from 2024 to 2025, with only Croatia and Poland showing a slight increase. Over the period 2024 to 2025, Luxembourg's NECI score remained essentially stable, standing at 4.4 in 2025 and at 4.5 in 2024. Overall, NECI scores have not changed substantially between 2024 and 2025. They highlight some degree of heterogeneity in the quality of the entrepreneurial environment across the countries, ranging from 3.8 of Slovakia to the 6.4 of Lithuania. Luxembourg overall score is in line with the cross-country average.

Figure 10.1: National Entrepreneurship Context Index.



Source: 2025 and 2024 GEM Global NES data.

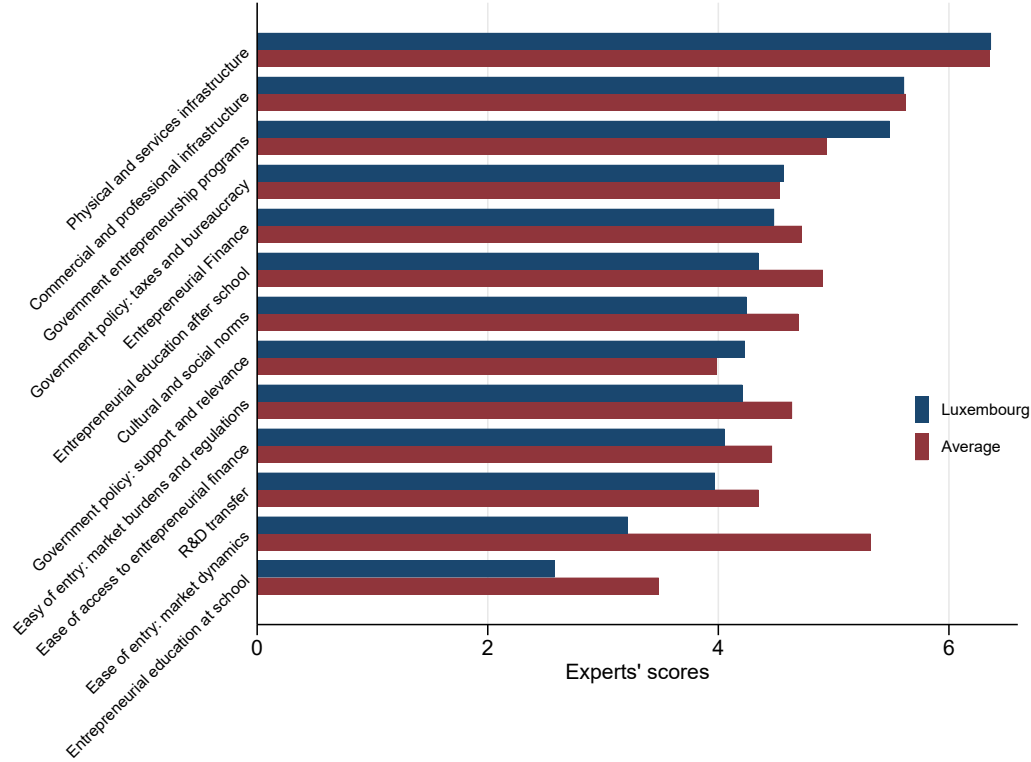
Figure 10.2 presents Luxembourg's scores across the individual components of the Entrepreneurial Framework Conditions (EFCs), ranked from highest (infrastructure) to lowest (internal markets), and compares them with the European average. In 2025, Luxembourg performed above the European average in 4 out of 13 indicators and — a slight decline from 2024, when it exceeded the average in 6 areas (GEM Luxembourg, 2025), although the differences are often small. As in previous years, Luxembourg's main strengths include government entrepreneurship programmes and government policy support. In contrast, the areas where Luxembourg scored significantly below the European average include market dynamics, followed by entrepreneurial education at school and after, cultural and social norms and regulation. Infrastructure both physical and commercial are the most highly rated

²International comparisons in this chapter are based on 20 countries, including Austria, which collected NES but not APS data in both 2024 and 2025.

factor within Luxembourg, in line with the European benchmark. **The national experts introduced slight changes in the internal ranking of strengths and weaknesses, but the overall profile of Luxembourg’s entrepreneurial ecosystem has remained comparable with previous years (GEM Luxembourg, 2024; GEM Luxembourg, 2025).**

The assessment provided by Luxembourg’s national experts in 2025 is broadly consistent with the OECD benchmarking of entrepreneurial ecosystems (OECD, 2025) that is based on approximately 40 indicators. Both point to strong institutions and good support services as key strengths, while structural constraints such as market dynamics and infrastructure continue to limit development (see Exhibit: OECD Entrepreneurial Ecosystem Diagnostics for more details).

Figure 10.2: Experts’ scores on Entrepreneurial Framework Conditions.



Source: 2025 and 2024 GEM Global NES data.

Exhibit: OECD Entrepreneurial Ecosystem Diagnostics – Luxembourg

In 2025, the OECD released the first edition of the *Entrepreneurial Ecosystem Diagnostics*, a benchmarking tool designed to evaluate the entrepreneurship ecosystem across OECD countries (OECD, 2025). The diagnostics cover ten entrepreneurial ecosystem inputs (Institutions, Culture, Networks, Infrastructure, Markets, Finance, Knowledge, Talent, Leadership, and Intermediate Services) each summarised in a composite index derived from around 40 indicators. Ecosystem output measures capture the level of entrepreneurial activity, while ecosystem variation measures reflect the social and regional distribution of entrepreneurship outcomes.

The OECD exercise builds on academic literature that conceptualises ecosystems as interdependent systems of institutions, culture, finance, and networks (Stam, 2015; Spigel, 2017; Autio et al., 2014), and is broadly consistent with the GEM framework. Notably, five of the OECD's indicators are based on data collected by the GEM consortium.

Results for 2024 indicate that Luxembourg's entrepreneurial ecosystem benefits from strong institutions and good support services. Yet structural constraints, particularly market size and infrastructure, continue to shape its development.

The main **strengths** for Luxembourg are strong institutional quality, one of the highest densities of incubators in the OECD, and a relatively high number of equity-based young firms relative to its population (OECD, 2025). Luxembourg also ranks among the leading countries where entrepreneurs expect to generate employment. On a scale from 0 (minimum) to 100 (maximum), Luxembourg scores reasonably well in Intermediate Services (52.0), Networks (46.9), and Infrastructure (47.3).

At the same time, there are **challenges**. Transport infrastructure indicators have weakened compared with peers, the small domestic market limits scaling opportunities, and Luxembourg has yet to reach the level of unicorn creation observed in larger ecosystems (OECD, 2025). On the same 0–100 scale, performance is weaker in Markets (32.1) and Leadership (33.8).

Invited Papers

11

Entrepreneurship Research Session: Invited Papers

The launch of the *Global Entrepreneurship Monitor (GEM) Luxembourg Report 2025/2026* included a research session dedicated to recent academic work on entrepreneurship. The three invited presentations illustrate the broad range of research questions that can be addressed using GEM data, from macroeconomic growth and knowledge spillovers to conflict, entrepreneurial motivations and regional economic resilience. The abstracts of the presented papers are reported below.

11.1 Entrepreneurship, Knowledge and Macroeconomic Growth

Authors

Martin Carree and Roy Thurik

Abstract

The knowledge spillover theory of entrepreneurship predicts that entrepreneurship plays a central role in transmitting the effects of the knowledge sector to macroeconomic growth. This study tests this relationship using a large cross-country panel in which entrepreneurial activity is measured by the Total Early-stage Entrepreneurial Activity (TEA) indicator from the Global Entrepreneurship Monitor (GEM). Economic growth data are obtained from the International Monetary Fund's World Economic Outlook database. The knowledge sector is measured using three complementary indicators: the number of top 100 universities worldwide (Shanghai Ranking), the number of scientific publications per capita (Scopus), and the number of top scientists per million inhabitants (Vasiliadis et al., 2024). The dataset consists of an unbalanced panel of 1,163 observations covering 103 countries over the period 2001–2024. The findings show that neither a strong knowledge sector without entrepreneurship nor entrepreneurial activity without a strong knowledge base significantly contributes to economic growth. Instead, the interaction between entrepreneurship and scientific excellence has a positive and statistically significant effect on economic growth, providing strong macroeconomic support for the knowledge spillover theory of entrepreneurship.

Reference

Carree, M., & Thurik, R. (Working paper, 2026). *Entrepreneurship, Knowledge and Macroeconomic Growth*.

11.2 War, Peace, and Entrepreneurship: Why Conflict Reshapes Who Starts a Business

Authors

Mirko Hirschmann, Christian Fisch and Paul P. Momtaz

Abstract

Violent conflict affects not only security and political stability but also entrepreneurial behaviour. Using approximately 1.5 million respondents from 90 countries between 2009 and 2021, this study combines data from the Global Entrepreneurship Monitor (GEM) with the Global Peace Index (GPI) to examine how conflict shapes entrepreneurial activity. The analysis shows that higher levels of violent conflict reduce the overall likelihood of starting a business. However, among those who do engage in entrepreneurship, necessity-driven entrepreneurship becomes substantially more prevalent than opportunity-driven entrepreneurship, reflecting the deterioration of labour market conditions and institutional environments. Individual characteristics also influence entrepreneurial responses to conflict. Individuals who perceive themselves as capable of running a business, or who report fear of failure, are less likely to engage in pure necessity entrepreneurship, whereas those with stronger opportunity recognition remain more likely to pursue entrepreneurial activities. The findings suggest that entrepreneurship policies in conflict-affected regions should combine short-term livelihood support with long-term investments in entrepreneurial capabilities and institutional development.

Reference

Hirschmann, M., Fisch, C., & Momtaz, P. P. (2026). *War, peace, and entrepreneurship: An institutional and socio-cognitive perspective on how violent conflict affects (necessity) entrepreneurship*. *Journal of Business Research*, 210, 116074. <https://doi.org/10.1016/j.jbusres.2026.1>

11.3 From Crisis to Recovery: The Role of Entrepreneurship in Local Economic Resilience

Authors

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Abstract

This paper investigates whether entrepreneurship contributes to local economic resilience and under which conditions. The analysis focuses on the local component of business creation, measured through a dynamic shift-share approach that isolates place-specific entrepreneurial activity. Using data for 304 French labour market areas over the period 2007–2015, the study evaluates local resilience through employment dynamics before, during and after the 2008–2009 global financial crisis. Spatial econometric models are employed to account for spatial dependence and regional heterogeneity. The results indicate that areas characterised by stronger locally embedded entrepreneurial activity experienced faster post-crisis recovery and more stable employment dynamics. These findings are robust across alternative spatial specifications. Overall, the evidence suggests that entrepreneurship strengthens both short-term adjustment capacity and longer-term economic resilience at the local level.

Reference

Kané, A., Levratto, N., & Dejardin, M. (Working paper, 2026). *From Crisis to Recovery: The Role of Entrepreneurship in Local Economic Resilience*.

Knowing an Entrepreneur Percentage of adults aged 18–64 who personally know someone who has started a business in the past two years.

Perceived Opportunities

Percentage of adults aged 18–64 who agree that they see good opportunities to start a business within the next six months in the area in which they live.

Ease of Starting a Business

Percentage of adults aged 18–64 who agree that it is easy to start a business in their country.

Perceived Capabilities

Percentage of adults aged 18–64 who agree that they have the required knowledge, skills, and experience to start a business.

Fear of Failure Rate

Percentage of adults aged 18–64 who agree that they see good opportunities but would not start a business for fear it might fail.

Nascent Entrepreneurship Rate

Percentage of adults aged 18–64 who are currently nascent entrepreneurs, i.e., are actively involved in setting up a business they will own or co-own; this business has not yet paid salaries, wages, or made any other payments to the owners for more than three months.

New Business Ownership Rate

Percentage of adults aged 18–64 who are currently owner-managers of a new business, i.e., who own and manage a running business that has paid salaries, wages, or made any other payments to the owners for more than three months, but not more than 42 months (3.5 years).

Total Early-stage Entrepreneurial Activity (TEA)

Percentage of adults aged 18–64 who are either nascent entrepreneurs or owner-managers of a new business, i.e., the proportion of the adult population who are either starting or running a new business.

Established Business Ownership Rate (EBO)

Percentage of adults aged 18–64 who are currently owner-managers of an established business, i.e., who are owning and managing a running business that has paid salaries, wages, or made any other payments to the owners for over 42 months (3.5 years).

Business Services

Percentage of TEA respondents involved in business services.

Consumer Services

Percentage of TEA respondents involved in consumer services.

Entrepreneurial Employee Activity (EEA)

Percentage of adults aged 18–64 who, as employees, have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment, or a subsidiary in the last three years.

Sponsored

Percentage of adults aged 18–64 involved in TEA and that business is part-owned with their employer.

Independent

Percentage of adults aged 18–64 involved in TEA and that business is independently owned.

Motive for Starting a Business: “To make a difference in the world”

Percentage of TEA respondents who agree that a reason for starting their business is “to make a difference in the world”.

Motive for Starting a Business: “To build great wealth or very high income”

Percentage of TEA respondents who agree that a reason for starting their business is “to build great wealth or a very high income”.

Motive for Starting a Business: “To continue a family tradition”

Percentage of TEA respondents who agree that a reason for starting their business is “to continue a family tradition”.

Motive for Starting a Business: “To earn a living because jobs are scarce”

Percentage of TEA respondents who agree that a reason for starting their business is “to earn a living because jobs are scarce”.

High Growth Expectation Entrepreneurial Activity

Percentage of adults aged 18–64 involved in TEA who expect to employ six or more people five years from now.

Internationally Oriented Entrepreneurial Activity

Percentage of adults aged 18–64 involved in TEA who anticipate 25% or more revenue coming from outside their country.

Scope (local/national/international)

Percentage of adults aged 18–64 involved in TEA having customers only within their local area, only within their country, or those having international customers.

Product/Services Impact (local/national/global)

Percentage of adults aged 18–64 involved in TEA having products or services that are new to the area, new to their country, or new to the world.

Technology/Procedures Impact (local/national/global)

Percentage of adults aged 18–64 involved in TEA having technology or procedures that are new to the area, new to their country, or new to the world.

Informal Investment

Percentage of adults aged 18–64 investing in someone else's new business in the last three years.

Business Exit Rate

Percentage of adults aged 18–64 who have exited a business in the past 12 months, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with that business.

Exit, Business Continues

Percentage of adults aged 18–64 who have exited a business in the past 12 months and that business has continued.

Exit, Business Does Not Continue

Percentage of adults aged 18–64 who have exited a business in the past 12 months and that business has not continued.

Country	Year	Potential	TEA	Established	Discontinued
<i>Average</i>	2025	18.32	10.44	7.02	3.12
	2024	17.48	9.57	6.61	2.91
Croatia	2025	27.12	11.59	4.37	2.76
	2024	29.90	13.06	4.38	2.10
Cyprus	2025	21.60	9.42	7.88	2.15
	2024	25.75	9.69	8.36	2.70
Estonia	2025	17.73	11.62	6.50	3.89
	2024	18.56	13.36	6.48	3.81
France	2025	19.77	11.57	5.71	2.81
	2024	17.18	8.71	4.45	2.63
Germany	2025	21.96	12.97	5.14	4.53
	2024	15.64	9.84	6.00	3.35
Hungary	2025	8.24	7.21	7.04	1.89
	2024	9.91	6.71	6.90	1.71
Italy	2025	22.13	10.96	6.00	2.66
	2024	22.62	9.63	6.85	3.38
Latvia	2025	23.54	13.24	10.98	2.88
	2024	26.08	12.11	8.90	2.63
Lithuania	2025	34.76	17.02	5.38	9.64
	2024	25.54	11.61	3.21	7.12
Luxembourg	2025	19.80	9.38	3.69	2.70
	2024	20.78	9.86	4.37	3.17
Norway	2025	11.68	8.88	6.75	1.70
	2024	12.70	9.98	6.11	2.15
Poland	2025	2.97	2.90	12.34	2.10
	2024	3.17	2.45	12.82	2.44
Romania	2025	7.81	3.68	4.29	1.21
	2024	8.08	4.97	4.21	1.52
Slovakia	2025	17.76	11.37	4.95	4.20
	2024	16.34	11.53	5.02	3.12
Slovenia	2025	16.59	7.13	9.82	2.33
	2024	18.57	8.59	8.69	3.13
Spain	2025	13.82	7.84	7.42	1.97
	2024	11.23	7.21	6.76	2.19
Sweden	2025	13.42	9.58	5.03	2.49
	2024	12.96	8.37	5.09	2.59
Switzerland	2025	15.47	10.19	6.77	1.60
	2024	15.16	9.89	7.19	1.44
United Kingdom	2025	31.84	21.90	13.26	5.85
	2024	21.87	14.22	9.78	4.20

Country	Year	Know ent.	Good opport.	Have skills	Fear fail.	Easy start
<i>Average</i>	2025	54.47	49.21	52.61	45.99	49.99
	2024	53.41	48.91	51.40	46.70	51.23
Croatia	2025	73.31	71.69	70.59	47.60	44.22
	2024	73.55	67.28	73.81	46.02	44.07
Cyprus	2025	64.61	42.13	61.54	51.22	50.57
	2024	68.32	40.22	59.91	50.82	47.82
Estonia	2025	42.42	39.36	46.39	38.76	70.84
	2024	43.75	45.84	44.68	45.08	72.57
France	2025	56.51	43.35	49.29	42.71	46.55
	2024	55.62	42.79	45.02	42.70	48.84
Germany	2025	45.49	52.87	46.59	40.58	36.58
	2024	40.31	42.68	41.07	45.33	32.86
Hungary	2025	46.31	24.02	36.77	36.77	40.39
	2024	46.74	32.34	35.83	36.37	43.23
Italy	2025	49.67	33.20	54.67	51.10	19.83
	2024	49.45	35.20	55.13	49.46	21.94
Latvia	2025	42.80	35.83	52.43	43.80	29.58
	2024	48.17	40.46	54.00	47.91	34.15
Lithuania	2025	70.62	51.20	54.45	45.08	34.79
	2024	71.06	50.64	55.59	48.10	40.85
Luxembourg	2025	47.38	51.83	46.52	42.07	59.21
	2024	47.60	47.68	48.79	41.38	60.99
Norway	2025	50.81	59.21	52.41	42.35	66.73
	2024	47.52	61.95	49.88	40.51	74.09
Poland	2025	49.54	70.68	52.68	49.39	76.71
	2024	46.76	73.65	47.66	51.81	83.35
Romania	2025	43.81	66.22	44.69	58.90	41.91
	2024	46.74	60.04	53.05	67.40	34.55
Slovakia	2025	67.66	36.72	58.81	66.86	29.01
	2024	62.31	38.75	52.43	44.10	32.56
Slovenia	2025	56.24	51.39	67.02	41.06	66.49
	2024	57.57	56.15	66.43	46.11	71.56
Spain	2025	58.90	41.87	53.70	52.05	37.00
	2024	46.62	29.30	48.13	44.41	26.85
Sweden	2025	51.88	64.29	46.66	42.63	76.11
	2024	53.34	66.21	46.32	45.48	78.42
Switzerland	2025	54.86	43.40	42.59	31.37	65.91
	2024	56.17	48.65	44.42	37.28	66.12
United Kingdom	2025	62.11	55.81	61.77	49.59	57.36
	2024	53.09	49.54	54.45	57.00	58.60

Country	Year	Lower growth exp.	Scarce jobs	Diff. In the world
Average	2025	29.05	58.15	44.61
	2024	28.89	55.98	43.20
Croatia	2025	32.67	66.24	30.84
	2024	20.86	66.23	28.59
Cyprus	2025	15.14	60.94	43.66
	2024	14.94	57.06	47.51
Estonia	2025	49.95	58.57	34.09
	2024	42.73	53.97	34.59
France	2025	31.02	48.90	19.53
	2024	29.79	53.41	24.87
Germany	2025	35.89	62.15	49.86
	2024	41.85	52.52	45.27
Hungary	2025	20.76	59.90	71.40
	2024	23.91	51.14	68.57
Italy	2025	26.62	58.53	37.42
	2024	24.64	59.07	36.71
Latvia	2025	26.95	59.76	39.52
	2024	24.86	56.95	33.48
Lithuania	2025	42.24	68.81	45.76
	2024	38.10	71.03	48.01
Luxembourg	2025	41.96	35.58	46.55
	2024	43.66	37.88	57.89
Norway	2025	17.01	32.78	33.08
	2024	23.54	31.88	39.89
Poland	2025	12.26	74.83	15.33
	2024	11.79	71.44	16.41
Romania	2025	13.93	86.35	51.39
	2024	32.23	84.20	55.40
Slovakia	2025	43.05	75.91	50.95
	2024	37.79	71.58	38.69
Slovenia	2025	16.32	51.27	51.04
	2024	12.18	51.13	49.86
Spain	2025	35.39	66.70	56.84
	2024	34.21	52.42	40.09
Sweden	2025	31.67	29.98	40.98
	2024	26.08	32.51	46.09
Switzerland	2025	31.01	44.64	57.75
	2024	32.27	43.99	52.27
United Kingdom	2025	28.04	62.95	71.54
	2024	33.43	65.28	56.56

Country	Year	Consider env.	Consider soc.	Soc./env. > profit
<i>Average</i>	2025	71.07	73.42	53.74
	2024	71.75	72.42	52.96
Croatia	2025	66.10	76.34	59.66
	2024	69.54	76.11	57.81
Cyprus	2025	63.52	65.74	51.15
	2024	41.13	44.10	36.59
Estonia	2025	60.38	56.69	29.13
	2024	60.23	57.62	33.99
France	2025	71.34	76.27	58.67
	2024	70.00	69.72	60.20
Germany	2025	64.95	76.30	52.81
	2024	67.05	69.72	58.04
Hungary	2025	69.47	67.43	37.78
	2024	77.97	69.87	43.36
Italy	2025	72.02	75.40	59.69
	2024	79.23	77.97	75.50
Latvia	2025	73.04	73.55	41.28
	2024	77.50	77.62	41.25
Lithuania	2025	70.72	76.80	50.94
	2024	66.49	75.66	50.49
Luxembourg	2025	65.65	74.95	48.66
	2024	82.35	79.72	53.93
Norway	2025	61.79	49.27	50.48
	2024	74.95	57.10	54.43
Poland	2025	91.38	85.86	28.62
	2024	91.79	87.18	24.12
Romania	2025	82.68	81.54	77.64
	2024	82.79	84.50	78.99
Slovakia	2025	75.38	80.87	72.74
	2024	79.78	82.62	70.65
Slovenia	2025	89.37	88.38	70.21
	2024	88.20	88.33	66.04
Spain	2025	68.22	76.47	57.24
	2024	57.12	62.79	43.34
Sweden	2025	50.48	54.75	42.74
	2024	54.57	57.61	43.78
Switzerland	2025	70.85	74.44	53.42
	2024	73.56	81.54	53.12
United Kingdom	2025	82.99	83.97	78.22
	2024	69.00	76.26	60.54

Country	Year	Env.: have taken steps	Soc.: have taken steps
<i>Average</i>	2025	52.08	44.57
	2024	52.52	41.46
Croatia	2025	61.20	43.30
	2024	61.21	46.33
Cyprus	2025	49.20	36.45
	2024	47.39	37.66
Estonia	2025	31.78	22.18
	2024	39.91	24.43
France	2025	30.86	24.73
	2024	44.48	37.50
Germany	2025	54.51	62.39
	2024	56.50	52.30
Hungary	2025	49.54	42.37
	2024	50.82	44.55
Italy	2025	57.25	46.43
	2024	54.32	43.23
Latvia	2025	43.21	29.14
	2024	45.87	25.66
Lithuania	2025	63.10	61.51
	2024	51.70	44.75
Luxembourg	2025	52.84	44.70
	2024	60.63	56.33
Norway	2025	40.90	34.48
	2024	47.35	36.05
Poland	2025	60.14	51.94
	2024	56.92	45.06
Romania	2025	84.45	78.32
	2024	62.33	51.24
Slovakia	2025	57.58	45.56
	2024	57.57	39.95
Slovenia	2025	36.04	36.48
	2024	37.83	27.05
Spain	2025	52.13	46.36
	2024	51.38	44.01
Sweden	2025	41.62	33.43
	2024	52.07	40.42
Switzerland	2025	53.77	40.10
	2024	61.36	37.59
United Kingdom	2025	69.41	67.01
	2024	58.18	53.71

Country	Year	AI very important	AI 3 years from now: very important
<i>Average</i>	2025	29.92	30.18
	2024	22.24	23.61
Croatia	2025	25.90	18.87
	2024	20.88	19.28
Cyprus	2025	32.96	36.00
	2024	32.27	36.50
Estonia	2025	27.74	21.94
	2024	19.48	20.22
France	2025	27.75	24.15
	2024	22.64	21.98
Germany	2025	24.90	40.88
	2024	25.48	39.40
Hungary	2025	30.21	35.81
	2024	14.82	22.15
Italy	2025	33.07	35.57
	2024	22.30	19.10
Latvia	2025	35.82	33.33
	2024	25.08	20.06
Lithuania	2025	29.55	27.47
	2024	18.49	17.86
Luxembourg	2025	32.12	33.30
	2024	33.65	37.46
Norway	2025	31.61	24.87
	2024	21.34	23.35
Poland	2025	8.01	10.69
	2024	6.16	8.21
Romania	2025	33.30	42.16
	2024	18.44	15.87
Slovakia	2025	33.49	29.17
	2024	25.04	25.31
Slovenia	2025	36.62	32.84
	2024	27.66	27.24
Spain	2025	28.93	33.96
	2024	24.52	28.64
Sweden	2025	19.53	14.71
	2024	23.83	23.16
Switzerland	2025	27.54	31.41
	2024	14.14	14.37
United Kingdom	2025	49.43	46.20
	2024	26.39	28.44

Country	Year	High positive impact	Enhanced personalization	Improved prod./efficiency
Average	2025	42.57	43.58	49.90
	2024	41.02	41.26	47.20
Croatia	2025	48.62	45.89	56.41
	2024	42.27	43.95	46.07
Cyprus	2025	49.08	41.94	54.90
	2024	43.26	43.71	46.18
Estonia	2025	35.29	34.99	43.54
	2024	35.65	32.15	43.02
France	2025	40.69	42.09	51.11
	2024	42.57	45.28	50.01
Germany	2025	37.10	46.78	50.20
	2024	37.03	37.18	54.18
Hungary	2025	35.72	43.50	38.92
	2024	39.19	35.29	45.04
Italy	2025	52.99	53.30	53.95
	2024	44.31	42.67	47.27
Latvia	2025	44.09	41.85	55.17
	2024	54.38	53.92	61.74
Lithuania	2025	45.01	45.59	47.60
	2024	47.24	44.67	50.42
Luxembourg	2025	41.61	47.83	57.52
	2024	52.88	61.36	67.89
Norway	2025	38.02	40.63	48.01
	2024	35.72	37.67	40.04
Poland	2025	8.48	11.03	2.41
	2024	7.85	10.21	3.06
Romania	2025	63.89	62.15	61.97
	2024	54.43	50.42	58.58
Slovakia	2025	48.44	47.78	54.52
	2024	40.52	41.38	40.52
Slovenia	2025	45.17	49.30	57.85
	2024	38.60	36.82	53.26
Spain	2025	46.00	49.04	48.62
	2024	45.63	47.27	50.11
Sweden	2025	30.99	28.53	41.58
	2024	36.36	35.85	43.96
Switzerland	2025	35.60	34.07	54.36
	2024	32.33	37.95	44.77
United Kingdom	2025	62.13	61.76	69.43
	2024	49.09	46.24	50.71

Country	Year	Innovation	Risk management	Increased revenue
Average	2025	43.76	37.18	38.45
	2024	41.60	35.13	39.89
Croatia	2025	49.64	43.06	48.08
	2024	46.83	35.76	38.74
Cyprus	2025	49.88	47.73	50.96
	2024	40.96	38.16	47.27
Estonia	2025	39.19	25.75	32.97
	2024	40.38	29.70	33.01
France	2025	39.92	35.03	35.29
	2024	43.46	37.82	36.27
Germany	2025	49.52	24.65	14.37
	2024	39.11	31.30	23.39
Hungary	2025	35.70	30.20	30.26
	2024	42.42	39.92	33.26
Italy	2025	57.39	48.75	51.55
	2024	45.89	38.83	46.92
Latvia	2025	47.39	33.56	42.49
	2024	60.17	43.16	52.91
Lithuania	2025	43.59	43.61	44.66
	2024	46.42	42.22	52.45
Luxembourg	2025	44.00	33.19	25.48
	2024	51.53	36.31	47.31
Norway	2025	39.14	30.11	32.19
	2024	35.08	30.13	35.71
Poland	2025	5.17	12.76	11.03
	2024	6.63	10.71	8.67
Romania	2025	64.63	62.25	68.46
	2024	46.71	54.78	61.68
Slovakia	2025	45.36	47.19	47.34
	2024	43.40	36.18	41.11
Slovenia	2025	43.42	39.49	35.77
	2024	39.22	26.77	36.93
Spain	2025	45.62	44.53	42.20
	2024	43.63	44.58	42.56
Sweden	2025	31.89	24.13	28.78
	2024	38.83	26.44	36.71
Switzerland	2025	41.08	23.09	25.43
	2024	28.82	23.08	27.02
United Kingdom	2025	58.84	57.32	63.31
	2024	50.94	41.52	56.06

Country	Year	High negative impact	Data security/privacy	Increased cost
<i>Average</i>	2025	30.95	42.11	30.63
	2024	33.11	44.22	31.88
Croatia	2025	31.19	45.38	33.23
	2024	32.28	43.61	32.74
Cyprus	2025	35.67	44.96	33.99
	2024	38.07	44.08	38.17
Estonia	2025	18.63	31.60	18.54
	2024	24.12	34.31	19.32
France	2025	35.34	48.74	34.20
	2024	38.95	50.87	35.41
Germany	2025	33.36	40.83	38.61
	2024	33.21	40.21	33.74
Hungary	2025	22.96	34.47	26.49
	2024	21.78	28.78	27.62
Italy	2025	37.13	51.62	31.83
	2024	35.15	43.84	34.79
Latvia	2025	26.66	42.10	28.98
	2024	32.94	51.93	32.73
Lithuania	2025	34.41	40.66	34.50
	2024	33.18	47.58	34.73
Luxembourg	2025	31.62	45.20	26.36
	2024	40.27	57.62	38.60
Norway	2025	23.51	41.82	21.20
	2024	30.06	47.68	26.73
Poland	2025	9.64	1.72	10.34
	2024	8.50	1.53	9.18
Romania	2025	39.74	51.59	36.62
	2024	49.01	59.20	51.93
Slovakia	2025	43.26	49.45	43.30
	2024	33.90	43.36	32.66
Slovenia	2025	26.86	48.86	22.86
	2024	26.98	45.15	15.84
Spain	2025	32.99	43.46	34.56
	2024	36.62	50.63	36.48
Sweden	2025	27.92	37.65	29.63
	2024	35.26	50.20	29.47
Switzerland	2025	34.03	48.31	27.63
	2024	38.71	50.91	35.05
United Kingdom	2025	43.22	51.67	49.05
	2024	40.10	48.72	40.61

Country	Year	Resistance employees	Ethical dilemmas	Resistance customers
<i>Average</i>	2025	23.13	30.54	28.37
	2024	26.40	31.36	31.68
Croatia	2025	22.91	27.84	26.58
	2024	24.11	31.10	29.84
Cyprus	2025	31.52	37.41	30.48
	2024	36.48	33.81	37.80
Estonia	2025	12.03	16.59	14.37
	2024	19.03	26.81	21.12
France	2025	23.48	36.09	34.17
	2024	31.47	34.98	42.02
Germany	2025	29.15	30.70	27.51
	2024	31.78	32.33	27.99
Hungary	2025	15.50	21.97	16.37
	2024	14.35	17.82	20.34
Italy	2025	33.98	35.75	32.45
	2024	28.13	33.70	35.28
Latvia	2025	15.80	21.83	24.59
	2024	19.65	28.55	31.82
Lithuania	2025	30.22	31.57	35.11
	2024	26.71	24.65	32.25
Luxembourg	2025	29.18	28.84	28.51
	2024	33.62	35.80	35.71
Norway	2025	9.11	26.23	19.19
	2024	18.20	32.02	25.68
Poland	2025	14.93	14.58	6.60
	2024	14.36	11.80	5.63
Romania	2025	30.41	37.57	42.48
	2024	51.09	35.85	46.97
Slovakia	2025	36.44	45.13	41.98
	2024	25.79	32.62	35.10
Slovenia	2025	7.62	28.49	26.45
	2024	14.77	33.22	25.91
Spain	2025	27.79	28.83	30.29
	2024	28.45	34.21	33.33
Sweden	2025	20.63	28.96	22.75
	2024	25.68	39.62	31.31
Switzerland	2025	13.42	42.13	38.68
	2024	26.60	42.46	38.55
United Kingdom	2025	35.25	39.65	40.49
	2024	31.30	34.50	45.36

Country	Year	New products
<i>Average</i>	2024	32.77
	2023	29.60
Croatia	2024	29.74
	2023	37.49
Cyprus	2024	35.68
	2023	31.01
Estonia	2024	26.29
	2023	22.82
France	2024	36.95
	2023	38.59
Germany	2024	37.20
	2023	28.65
Greece	2024	31.51
	2023	22.18
Hungary	2024	25.57
	2023	29.69
Italy	2024	51.07
	2023	45.18
Latvia	2024	27.57
	2023	24.43
Lithuania	2024	23.03
	2023	3.38
Luxembourg	2024	39.39
	2023	39.53
Norway	2024	26.61
	2023	27.49
Poland	2024	31.12
	2023	31.86
Romania	2024	10.63
	2023	15.73
Slovakia	2024	30.22
	2023	24.49
Slovenia	2024	22.85
	2023	27.30
Spain	2024	48.69
	2023	33.47
Sweden	2024	31.90
	2023	38.46
Switzerland	2024	44.65
	2023	33.90
United Kingdom	2024	38.30
	2023	29.54

Country	Year	NECI average
<i>Average</i>	2025	4.66
	2024	4.65
Croatia	2025	4.38
	2024	3.94
Cyprus	2025	4.24
	2024	4.20
Estonia	2025	5.59
	2024	5.42
France	2025	5.01
	2024	4.82
Germany	2025	4.74
	2024	4.65
Hungary	2025	3.80
	2024	4.50
Italy	2025	4.32
	2024	4.51
Latvia	2025	5.11
	2024	5.11
Lithuania	2025	6.36
	2024	6.42
Luxembourg	2025	4.37
	2024	4.50
Norway	2025	4.76
	2024	5.03
Poland	2025	4.31
	2024	3.96
Romania	2025	4.62
	2024	4.33
Slovakia	2025	3.75
	2024	3.74
Slovenia	2025	4.07
	2024	4.14
Spain	2025	4.36
	2024	4.28
Sweden	2025	4.77
	2024	4.53
Switzerland	2025	5.74
	2024	5.69
United Kingdom	2025	4.21
	2024	4.50

Country	Year	Infrastruct. (general)	Infrastruct. (pro./comm.)	Gvt: programs
<i>Average</i>	2025	6.21	5.52	4.78
	2024	6.26	5.38	4.80
Croatia	2025	5.35	4.95	4.65
	2024	5.74	4.39	3.99
Cyprus	2025	6.23	4.97	3.83
	2024	5.97	5.28	3.65
Estonia	2025	6.88	6.01	5.36
	2024	6.98	5.20	5.24
France	2025	6.90	5.88	5.84
	2024	6.67	5.62	5.87
Germany	2025	5.74	5.93	6.08
	2024	5.60	5.89	5.90
Hungary	2025	5.66	4.97	2.87
	2024	6.36	5.35	4.31
Italy	2025	5.15	5.03	3.95
	2024	5.46	4.94	4.42
Latvia	2025	4.90	4.76	5.24
	2024	4.95	4.98	5.23
Lithuania	2025	7.48	6.71	6.58
	2024	7.94	6.60	6.59
Luxembourg	2025	6.37	5.61	5.49
	2024	6.00	4.82	5.37
Norway	2025	7.17	6.18	5.79
	2024	7.45	6.59	6.26
Poland	2025	5.95	4.97	4.24
	2024	5.71	4.53	3.86
Romania	2025	6.57	6.29	3.82
	2024	5.96	5.83	3.64
Slovakia	2025	6.06	4.86	3.04
	2024	6.36	4.71	3.04
Slovenia	2025	5.78	5.13	4.27
	2024	5.81	4.88	4.42
Spain	2025	6.57	5.94	5.10
	2024	6.51	5.73	4.79
Sweden	2025	6.81	5.24	4.20
	2024	6.16	4.81	4.26
Switzerland	2025	7.60	6.40	6.63
	2024	7.59	6.74	6.10
United Kingdom	2025	4.85	5.10	3.78
	2024	5.67	5.35	4.34

Country	Year	Gvt: bureauc./taxes	Internal market	Entr. educ. after school
<i>Average</i>	2025	4.45	4.55	4.78
	2024	4.55	4.58	4.66
Croatia	2025	4.25	4.02	4.03
	2024	3.99	3.62	3.43
Cyprus	2025	4.78	4.09	4.23
	2024	4.87	4.05	4.46
Estonia	2025	5.41	5.51	5.92
	2024	5.13	5.33	5.15
France	2025	4.43	4.58	5.57
	2024	4.61	4.23	4.92
Germany	2025	4.16	4.97	4.54
	2024	4.11	4.89	4.90
Hungary	2025	4.26	3.26	4.11
	2024	4.74	4.51	4.87
Italy	2025	3.16	4.40	4.64
	2024	3.58	4.75	4.90
Latvia	2025	5.43	5.52	4.93
	2024	5.47	5.39	4.94
Lithuania	2025	6.25	6.30	6.54
	2024	6.56	6.25	6.45
Luxembourg	2025	4.57	4.21	4.35
	2024	4.64	4.50	4.30
Norway	2025	4.62	5.06	4.67
	2024	4.71	5.20	4.66
Poland	2025	4.33	4.09	3.55
	2024	3.92	4.16	2.74
Romania	2025	4.09	4.16	5.22
	2024	3.95	4.49	4.76
Slovakia	2025	2.91	3.88	4.87
	2024	3.03	4.01	4.09
Slovenia	2025	3.44	4.21	3.99
	2024	3.74	4.04	4.21
Spain	2025	3.84	3.84	5.09
	2024	3.75	4.00	5.21
Sweden	2025	4.64	4.43	4.69
	2024	4.94	3.33	4.48
Switzerland	2025	5.56	5.66	5.71
	2024	5.73	5.67	5.58
United Kingdom	2025	4.36	4.33	4.12
	2024	4.94	4.55	4.57

Country	Year	RD transfer	Gvt: support	Cultural/social norms
<i>Average</i>	2025	4.23	3.89	4.65
	2024	4.16	4.02	4.64
Croatia	2025	3.82	3.35	4.12
	2024	3.08	3.54	2.89
Cyprus	2025	3.70	4.06	4.14
	2024	3.60	3.99	4.62
Estonia	2025	4.48	4.15	7.15
	2024	4.62	3.99	7.31
France	2025	4.67	5.09	4.17
	2024	4.34	5.13	4.17
Germany	2025	4.70	4.28	4.20
	2024	4.55	4.08	3.99
Hungary	2025	3.01	2.85	3.45
	2024	4.01	4.02	4.09
Italy	2025	4.18	3.96	4.56
	2024	4.07	4.25	4.82
Latvia	2025	5.03	4.62	5.54
	2024	4.97	4.67	5.40
Lithuania	2025	5.69	5.61	6.75
	2024	5.70	6.09	6.77
Luxembourg	2025	3.97	4.23	4.24
	2024	4.34	4.70	3.81
Norway	2025	4.17	3.43	4.74
	2024	4.90	3.41	4.90
Poland	2025	3.60	3.61	4.81
	2024	3.12	3.56	4.25
Romania	2025	3.98	3.52	4.59
	2024	3.40	3.72	4.13
Slovakia	2025	2.60	2.00	3.22
	2024	2.63	2.30	3.18
Slovenia	2025	3.78	3.43	3.26
	2024	3.61	3.33	3.86
Spain	2025	4.23	3.44	4.15
	2024	3.75	3.45	4.26
Sweden	2025	4.47	3.14	5.13
	2024	4.04	3.18	5.19
Switzerland	2025	6.59	5.45	5.51
	2024	6.35	5.31	5.67
United Kingdom	2025	3.64	3.70	4.67
	2024	3.93	3.72	4.84

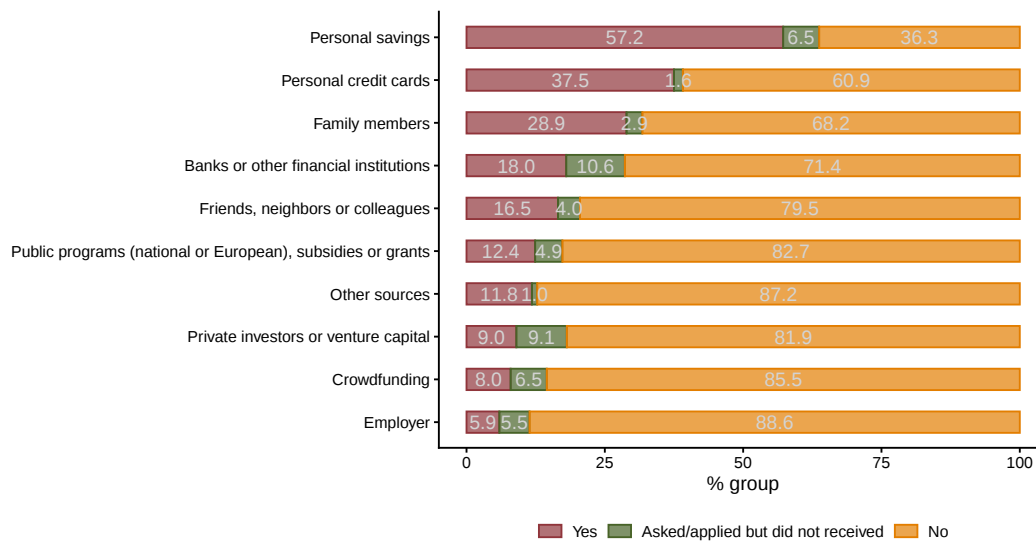
Country	Year	Market dynamics	Entr. educ. at school	Financing: sufficient
<i>Average</i>	2025	5.37	3.34	4.64
	2024	5.14	3.38	4.69
Croatia	2025	6.26	3.11	4.71
	2024	6.23	2.78	4.58
Cyprus	2025	5.16	2.81	4.12
	2024	4.24	3.10	3.64
Estonia	2025	5.61	5.38	5.20
	2024	6.26	4.71	5.32
France	2025	4.95	2.83	5.16
	2024	4.71	2.30	5.17
Germany	2025	5.26	2.63	4.81
	2024	5.20	2.43	4.72
Hungary	2025	5.23	2.38	4.18
	2024	5.36	2.68	4.25
Italy	2025	5.79	3.35	4.60
	2024	5.44	3.66	4.71
Latvia	2025	5.20	5.07	5.14
	2024	5.07	5.08	5.20
Lithuania	2025	6.38	5.66	6.00
	2024	6.17	5.62	6.15
Luxembourg	2025	3.21	2.58	4.48
	2024	3.60	3.66	4.70
Norway	2025	4.57	3.70	4.08
	2024	4.03	4.24	4.92
Poland	2025	6.63	2.34	4.57
	2024	6.56	1.96	4.16
Romania	2025	6.06	2.64	4.25
	2024	5.75	2.54	4.01
Slovakia	2025	5.24	3.19	3.71
	2024	5.16	3.04	3.97
Slovenia	2025	5.69	2.60	3.98
	2024	5.13	3.06	4.31
Spain	2025	4.65	2.45	4.06
	2024	4.00	2.84	3.92
Sweden	2025	5.47	4.10	5.23
	2024	5.69	3.93	5.07
Switzerland	2025	4.64	3.78	5.63
	2024	3.79	3.54	5.88
United Kingdom	2025	5.97	2.78	4.21
	2024	5.28	2.96	4.51

Country	Year	Financing: easiness
<i>Average</i>	2025	4.33
	2024	4.36
Croatia	2025	4.27
	2024	3.77
Cyprus	2025	3.85
	2024	3.73
Estonia	2025	5.00
	2024	5.04
France	2025	5.23
	2024	5.13
Germany	2025	4.45
	2024	4.52
Hungary	2025	3.89
	2024	4.36
Italy	2025	3.75
	2024	4.05
Latvia	2025	5.06
	2024	5.07
Lithuania	2025	5.95
	2024	5.97
Luxembourg	2025	4.05
	2024	4.15
Norway	2025	3.68
	2024	3.93
Poland	2025	3.77
	2024	3.51
Romania	2025	4.94
	2024	4.44
Slovakia	2025	3.96
	2024	3.75
Slovenia	2025	3.74
	2024	4.05
Spain	2025	3.83
	2024	4.04
Sweden	2025	4.24
	2024	3.92
Switzerland	2025	5.01
	2024	5.39
United Kingdom	2025	3.60
	2024	3.97

Methodological Section: survey design and fieldwork report

Additional figures.

Figure 1: funding variables, 3 categories of answers



Share of TEA entrepreneurs (in %).
Source: 2025 GEM Luxembourg APS data.

Methodological Appendix: GEM Luxembourg 2024/2025.

This appendix documents the key methodological features of the GEM Adult Population Survey (APS) and the National Expert Survey (NES) conducted in Luxembourg in 2024. Special attention is devoted to comparing APS figures with other indicators of entrepreneurship. Additional information about GEM's global methodology, technical documents, and instruments is available at <https://www.gemconsortium.org/about/wiki>.

APS Study Information

- **Purpose and Objectives:** The APS aims to collect internationally comparable data on individual entrepreneurial activity, motivations, attitudes, and perceived barriers. In Luxembourg, it supports policy-relevant research by STATEC Research.
- **Target Population:** Residents aged 18–64 living in Luxembourg at the time of the survey.
- **Survey Design:** Cross-sectional, conducted annually as part of the GEM international harmonised survey.

- **Legal Basis:** While not explicitly mandated by law, the survey is carried out within the framework of the Law of 10 July 2011 on the organisation of the National Institute for Statistics and Economic Studies (STATEC). Participation is voluntary.

Sampling and Weighting

- **Sampling Design:** A mixed-mode, multi-frame sampling approach was used:
 - **CAWI (Computer-Assisted Web Interviewing)** Conducted via the opt-in panel *mypanel.lu* managed by ILRES, stratified by age, gender, nationality, and region of residence.
 - **CATI (Computer-Assisted Telephone Interviewing) Mobile and Landline:** Random Digit Dialling (RDD) methods were used. For landlines, the "last birthday" method was applied to randomly select one adult in the household.
- **Sampling Frames:**
 - **CAWI:** Non-probability opt-in panel with over 17 000 registered members.
 - **CATI:** Validated telephone number database built by ILRES, including over 500 000 numbers. The CATI sample was drawn probabilistically using RLD (Random Last Digit) methodology.
- **Sample Size:** A total of 2011 interviews were completed: 1 233 via CAWI, 597 via CATI mobile, and 203 via CATI landline.
- **Weighting Procedure:** Unweighted data show that older respondents, especially males, are overrepresented compared to the target population. The extent of this imbalance varies by survey mode. Post-stratification weights were computed based on auxiliary variables from official population statistics: employment status (employed, self-employed, unemployed, inactive), gender by country of birth, age by gender, and education level. Mode-specific weights were computed and then calibrated to the total population. Final weights were rescaled to a mean of 1, with values trimmed at 15.

Data Collection

- **Mode:** Mixed-mode (60% CAWI, 25% CATI mobile, 15% CATI landline).
- **Fieldwork Period:** 21 May 2025 – 27 June 2025.
- **Languages:** The questionnaire was available in Luxembourgish, French, German, and English.
- **Vendor:** ILRES conducted the fieldwork on behalf of STATEC Research.

- **Instruments:** Harmonised GEM questionnaire; all materials available at <https://www.gemconsortium.org>.

Response Rates and Disposition Codes

- **Follow-ups:** Up to 5 call attempts or reminders per case.
- **Response Rate Calculation:** Response rate is reported according the guidelines of The American Association for Public Opinion Research (2023). AAPOR RR3 was computed using estimated eligibility for unknown cases. The eligibility rate was estimated from the observed ratio of eligible to known contacts.

Table 1: AAPOR Disposition Summary and Response Rates by Survey Mode (APS 2025)

Mode	I	P	R	NC	Inel.	UE	Calls	<i>e</i>	RR3	PR
Online	1206	124	3276	371	4609	0	4980	–	–	25.4%
Fixed	49	1	883	0	285	4541	5759	77%	1.1%	–
Mobile	756	19	10485	0	1808	26136	39204	86%	2.2%	–

Notes:

I = Completed interviews; P = Partial completes; R = Refusals; NC = Non-contacts but eligible; Inel. = Ineligible cases; UE = Unknown eligibility because non contact; Calls = Total contact attempts (phone numbers called or invitations sent); *e* = Estimated proportion of cases of unknown eligibility that are eligible; PR = *Participation rate*.

Estimated eligibility rate is calculated as the observed proportion of eligible cases among all known eligibility outcomes:

$$e = \frac{\text{Eligible}}{\text{Eligible} + \text{Ineligible}}$$

This rate is then applied to the unknown eligibility cases (UH) to estimate how many are likely to be eligible.

RR3 is calculated as:

$$RR3 = \frac{I}{I + P + R + NC + (UH \times e)}$$

Participation rate is defined as: $I/(I + I + P + R + NC)$. Online mode has no unknown eligibility cases; thus no estimation was applied.

Data Processing

- **Validation:** Quality and internal consistency checks were performed both locally and by the GEM data team.
- **Editing:** Anomalous responses were identified and removed. During fieldwork, 1,209 CAWI interviews were completed. However, three online responses were excluded because they were clearly invalid, as indicated by extremely short completion times and nonsensical answers to the open-ended questions. The final sample therefore consists of 1,206 observations.
- **Imputation:** No imputation was applied for item non-response.

Ethics and Confidentiality

- **Informed Consent:** Participation was voluntary and respondents were informed of their rights and the purposes of data collection.
- **Data Protection:** All procedures complied with GDPR. Data is collected and stored under statistical confidentiality provisions, as mandated by Luxembourg's national statistical law.

Dissemination and Access

- **Comparison to Benchmarks:** The sample was weighted to align with national population benchmarks (age, gender, education, etc.).
- **Metadata and Technical Files:** Available via the GEM website and from STATEC Research upon request.
- **Data Access:** Fully anonymised datasets are released to the public three years after data collection. GEM member teams may request access one year after the release of the Global GEM Report. Access to the Luxembourg APS dataset is also possible at STATEC premises under certain conditions.

APS and other official entrepreneurship measures

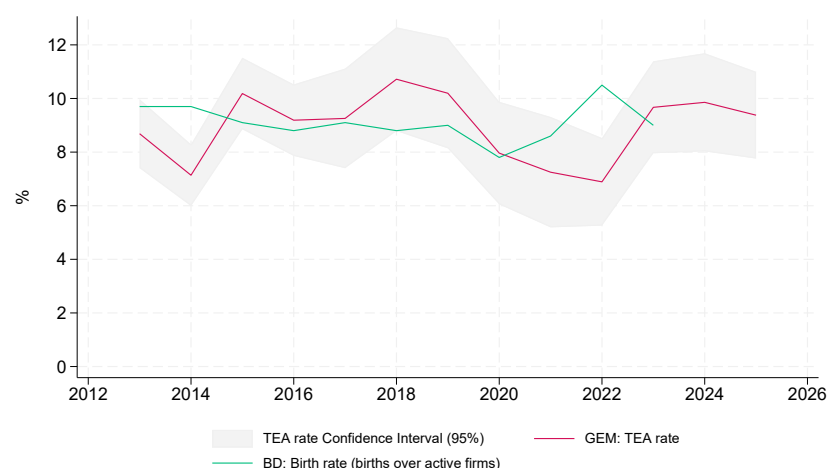
This section compares GEM measures with other entrepreneurship indicators based on official statistics. The aim is to assess how closely the GEM survey captures the underlying entrepreneurial phenomenon in Luxembourg over time.

Figure 2 shows the firm birth rate (green line) and the Total Early-stage Entrepreneurial Activity (TEA) rate (red line). The birth rate is measured as the number of *new firms* relative to the stock of existing firms and is based on the Business Demography dataset.¹ TEA measures the share of *new entrepreneurs* in the resident adult population. The shaded area represents the 95% confidence interval. For TEA, that is, a range of values within which the true TEA rate is likely to fall in the population. (For instance, in the most recent available data for 2025, the TEA rate was 9.4% with confidence intervals ranging from 7.8% to 11.0%). The data show a certain alignment of the two indicators, suggesting that the data provide consistent information. As documented in the previous GEM reports (GEM Luxembourg, 2023; GEM Luxembourg, 2025), the series generally shows consistent trends.²

¹Business Demography (BD) data for 2013–2023 were retrieved from STATEC (see <https://gd.lu/9jgHzS>). At the time of writing, 2023 is the latest year for which BD data are available.

²The methodology has evolved over time (STATEC, 2024), and there is a break in the series in 2022 concerning Sector M – professional, scientific, and technical activities – that covers 1134 new firm

Figure 2: New entrepreneurs and new firms.



Notes: BD = Business Demography; Break in the series of BD in 2022
Source: STATEC BD 2013–2023 and GEM Global APS data 2013–2024.

Figure 3 presents complementary indicators of entrepreneurship: self-employment from the Labour Force Survey (LFS) ³, national accounts (NA) ⁴, and the number of active enterprises from business demography statistics (BD)⁵.

To allow comparability, the figure includes the GEM measure of *any business ownership*, which combines TEA and established business rather than the TEA presented in Figure 2.

The measures show are not directly comparable, as they differ in scope and definitions, but together they provide complementary perspectives on entrepreneurship.

LFS data on self-employment measure individuals' labour market status. National accounts also record self-employment, but within the framework of production and income generation.⁶ Business demography statistics track the number of active enterprises and their dynamics. It is important to note that these indicators are not directly comparable with GEM measures and can differ considerably in level as shown in Figure 4. For example, GEM counts individuals, so several entrepreneurs may be involved in starting or managing the same firm. Moreover, self-employed workers represent only a subset of all entrepreneurs.

birth out of a total of 4747 firms (see <https://shorturl.at/Kfr1K>). Since 2022, the Business Demography data includes enterprises without employees, classified under NACE M – professional, scientific, and technical activities – (STATEC, 2024).

³<https://gd.lu/dj6kfb>

⁴<https://gd.lu/9BfKdf>

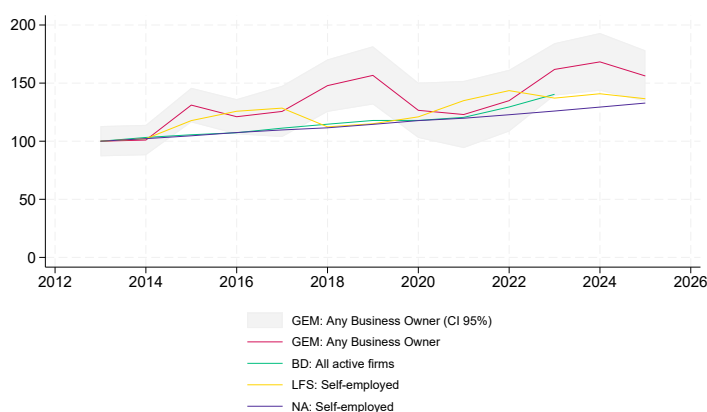
⁵BD data for 2013–2022 retrieved from STATEC (see <https://gd.lu/9jgHzS>).

⁶For differences between LFS, national accounts (ESA2010) and IGSS (Inspection générale de la sécurité sociale), see Eurostat (2010) and STATEC (2025).

To highlight long-term trends and account for level differences, Figure 3 shows all indicators indexed to 100 in 2013, the year GEM data collection began in Luxembourg. For GEM, 95% confidence intervals are also displayed.

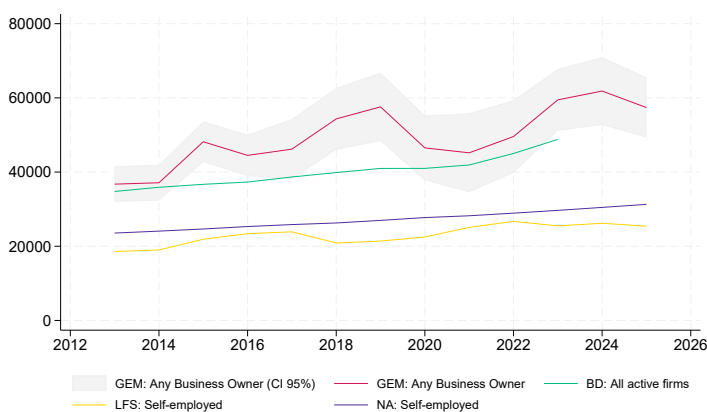
Results show that LFS and GEM measures fluctuate more strongly over time, while national accounts and business demography are more closely aligned. Overall, the indicators are consistent in pointing to a long-term upward trend, confirming that **GEM captures the same broad dynamics as official statistics**, while adding unique insights such as the COVID-related slowdown.

Figure 3: Entrepreneurship trends.(Index, 2013 = 100)



Notes: BD = Business Demography; NA = National Account; LFS = Labor Force Survey
Source: STATEC BD 2013–2023, STATEC NA; STATEC LFS and GEM APS data 2013–2025.

Figure 4: Entrepreneurship trends.(Absolute numbers)



Notes: BD = Business Demography; NA = National Account; LFS = Labor Force Survey
Confidenc interval of TEA are computed to mantinthe same ratio
Source: STATEC BD 2013–2023, STATEC NA; STATEC LFS and GEM APS data 2013–2025.

NES Study Information

- **Purpose and Objectives:** The NES complements the APS by assessing the national entrepreneurial ecosystem through the perspectives of recognised experts. It provides information on Entrepreneurial Framework Conditions (EFCs) and feeds into the construction of the National Entrepreneurship Context Index (NECI).
- **Target Population:** Experts with extensive knowledge of entrepreneurship and innovation in Luxembourg, including policymakers, academics, practitioners, and financial actors.
- **Survey Design:** Cross-sectional expert survey conducted annually in parallel with the APS.
- **Legal Basis:** The survey is voluntary and conducted under the responsibility of STATEC Research, in compliance with national statistical confidentiality rules and GDPR.

Sampling

- **Sampling Design:** Convenience sampling consistent with GEM global methodology.
- **Expert Categories:** The invited experts included policymakers, academics, entrepreneurs and practitioners, business support organisations, and financial actors.
- **Sample Size:** A total of 232 valid online invitations were sent, and 36 experts completed the survey. This corresponds to a *participation rate* of approximately 15%.

Data Collection

- **Mode:** The survey was self-administered online. Respondents who did not complete it were later contacted by phone, and some completed the survey via telephone.
- **Fieldwork Period:** Conducted from 09/05/2025 to 09/07/2025
- **Languages:** The questionnaire was available in French and English.
- **Vendor:** Fieldwork was carried out by *Opinomètre* on behalf of STATEC Research.
- **Instruments:** Harmonised GEM NES questionnaire covering Entrepreneurial Framework Conditions (EFCs).

Response

- **Reminders:** Up to five reminders were sent to maximise participation.
- **Response Rate:** 36 of 232 invited experts completed the survey (15%).
- **Non-response:** As in other NES rounds, non-response bias cannot be ruled out but the final achieved sample ensures a diversity of perspectives across domains.

Data Processing

- **Validation:** Data were checked by the GEM global team for consistency with international standards.
- **Editing:** Anomalous or incomplete responses were reviewed; qualitative comments were analysed alongside quantitative ratings.

Ethics and Confidentiality

- **Informed Consent:** Experts were informed of the purpose of the study and participation was voluntary.
- **Data Protection:** All procedures complied with GDPR and Luxembourg's national statistical confidentiality rules.

Dissemination and Access

- **Use of Results:** NES results provide contextual interpretation for APS findings and form the basis for constructing the NECI.
- **Metadata and Technical Files:** Available via the GEM website and from STATEC Research upon request.
- **Data Access:** Fully anonymised datasets NES datasets are released to the public three years after data collection. GEM member teams may request access one year after the release of the Global GEM Report. Access to the Luxembourg APS dataset is also possible at STATEC premises under certain conditions.

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