



# Luxembourg Global Entrepreneurship Monitor

## 10 Years of Entrepreneurship



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de l'Économie

HOUSE OF  
**ENTREPRENEURSHIP**  
powered by the Luxembourg Chamber of Commerce

**STATEC**  
RESEARCH



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DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de l'Économie

**CHAMBER  
OF COMMERCE  
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# Why entrepreneurship?

## **Stimulates economic growth and job creation.**

Entrepreneurship plays a crucial role in driving economic growth by creating new businesses, industries, and employment opportunities.

## **Fosters innovation and technological advancements.**

Entrepreneurs often bring fresh ideas, innovations, and ground-breaking technologies to the market, leading to advancements that benefit society as a whole.

## **Promotes competition and market efficiency.**

Entrepreneurial ventures increase competition, which promotes efficiency, quality, and ultimately benefits consumers.

## **Drives social and community development.**

Entrepreneurship can address societal challenges, create social impact, and contribute to community development through initiatives such as social entrepreneurship and local business growth.

# Global Entrepreneurship Monitor (GEM)

## What is GEM?

International research consortium to **gather data & study entrepreneurship**.

Data collected through **harmonised surveys** in 120+ economies since 1999.

STATEC Luxembourg joined in 2013 with financial support from the Ministry of the Economy, the Chamber of Commerce, and the House of Entrepreneurship. This marks the **10th anniversary** of GEM in Luxembourg.

Users: Luxembourg, EU, OECD, World Bank.

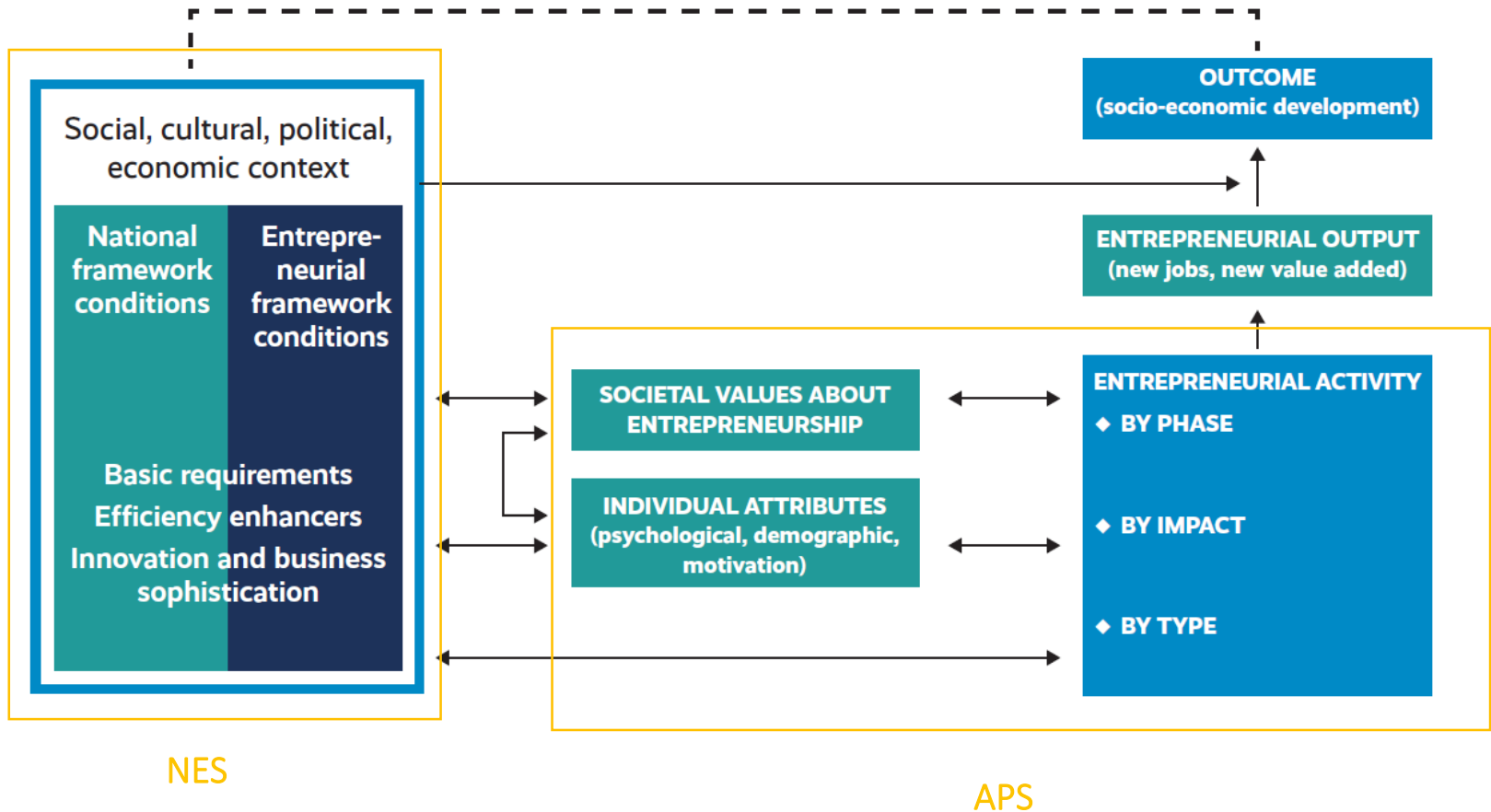
## GEM key indicators:

**TEA - Total early-stage Entrepreneurial activity** – focus on entrepreneurs who are currently setting up or running a new business (**0-42 months**).

TEA rate is the percentage of resident population aged 18–64 who are TEA entrepreneurs (comparable estimate of entrepreneurial intensity in a country).

# GEM framework: individuals and ecosystem

Adult Population Survey (APS): entrepreneurial activity of **resident** population (18-64 years old).  
National Experts Survey (NES): the “entrepreneurial context” (e.g. institutions, infrastructures).



# This report

Takes stock of **10 years** of GEM in Luxembourg.

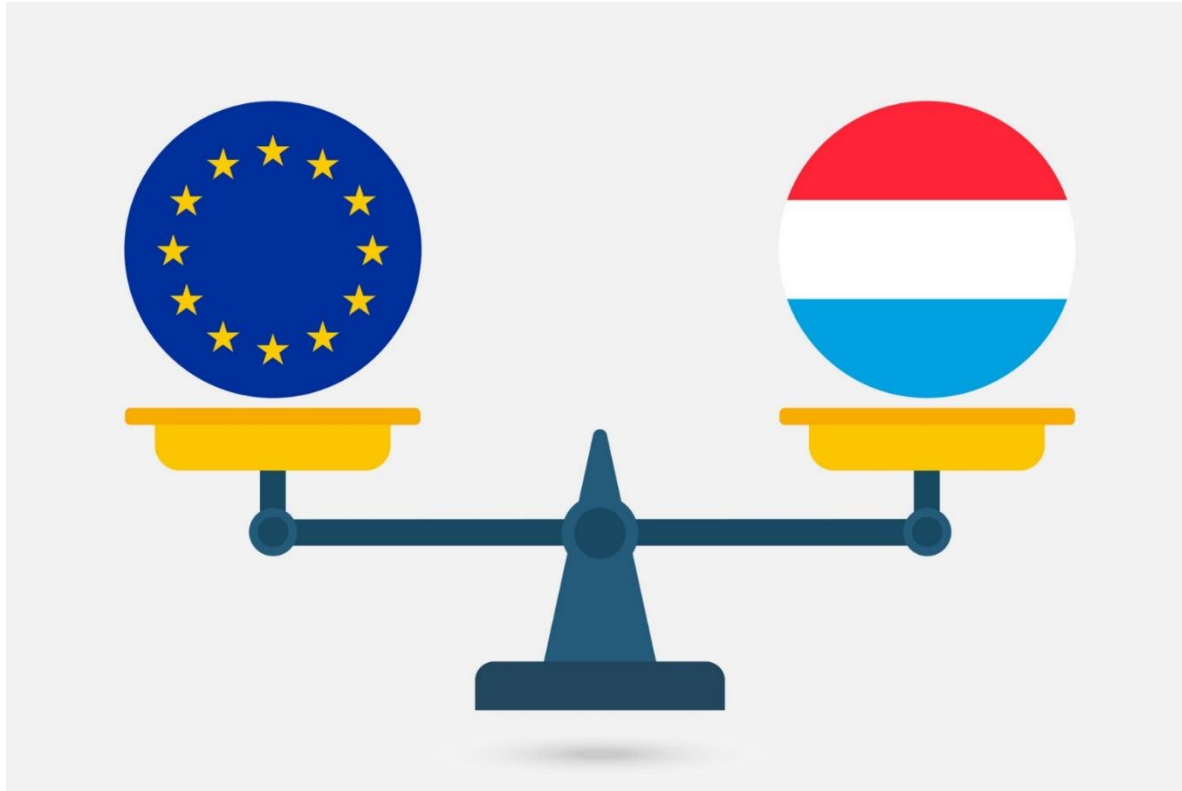
- Characteristics of new ventures.
- Profile of Luxembourg's entrepreneurs.
- Perception of the barriers to entrepreneurship.

Documents the effects of **polycrisis on entrepreneurship**, including the pandemic.

- Across European countries participating to GEM.
- Comparison of two periods: pre-covid (**2019**) and **2022**.



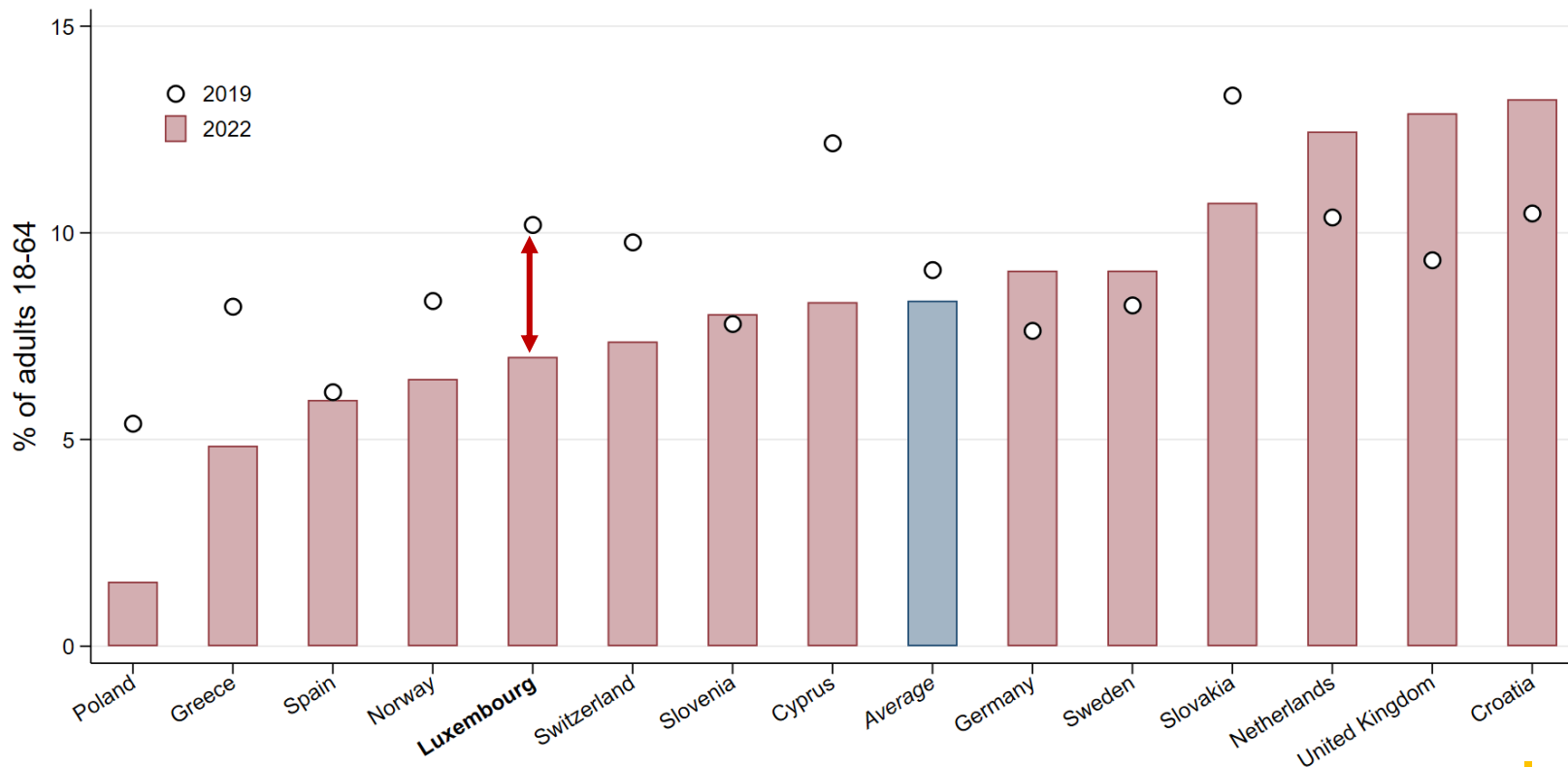
# How does Luxembourg compare to European countries?



# COVID-19 affected entrepreneurialial activity differently across European countries.

In 2022, Croatia ranks first with a TEA rate of 14%, Poland has the lowest TEA rate (2%).

Luxembourg has the fourth largest decline in TEA share, following Poland, Cyprus and Greece.



# Average entrepreneurship rate is higher in Luxembourg

Between 2013 and 2022, the average share of TEA entrepreneurs is 8.7% in Luxembourg and 8.2% in European countries.

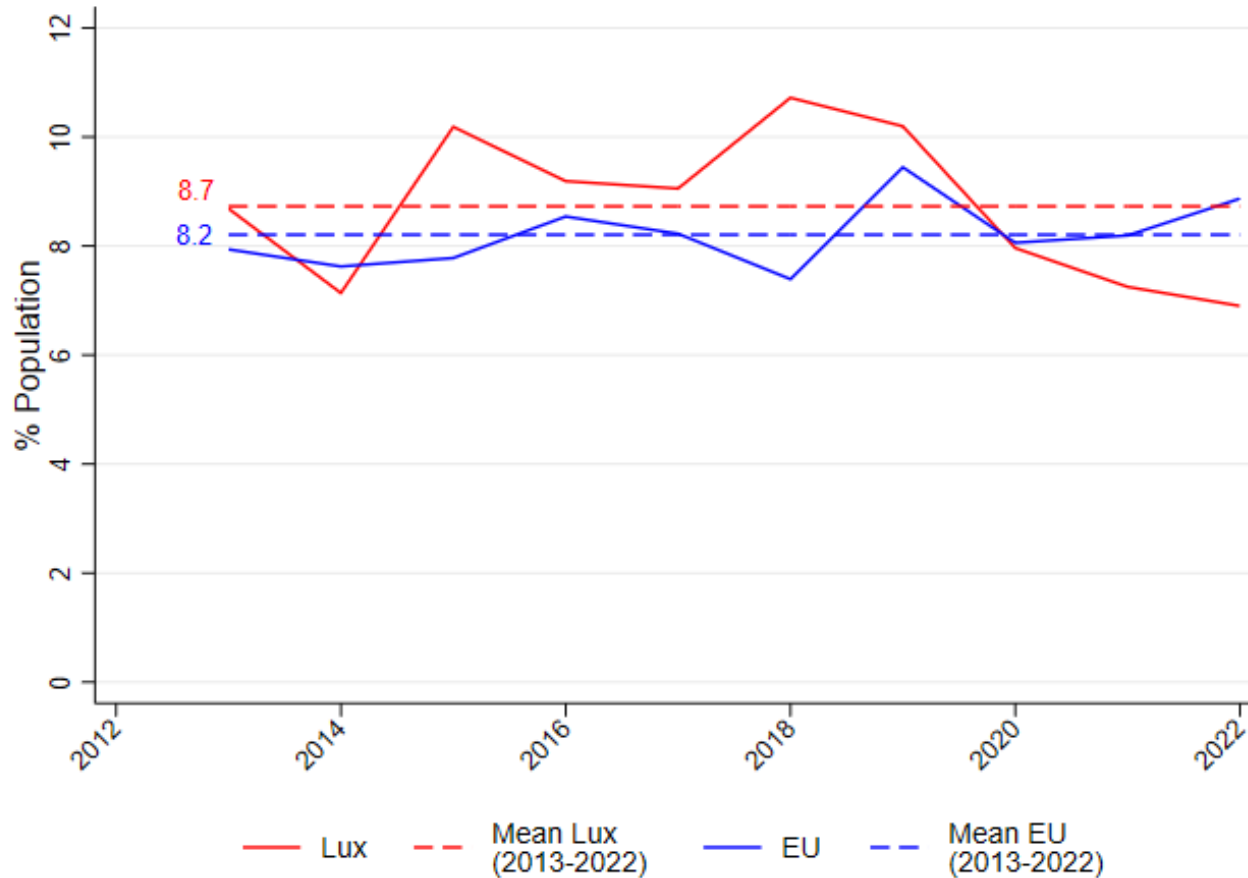


Figure 2. Share of Total early-stage Entrepreneurial Activity [TEA] [% of adults 18–64] in Luxembourg and other European countries.

# Luxembourg TEA declined in last two years

In the same period, European countries experienced a significant rebound.

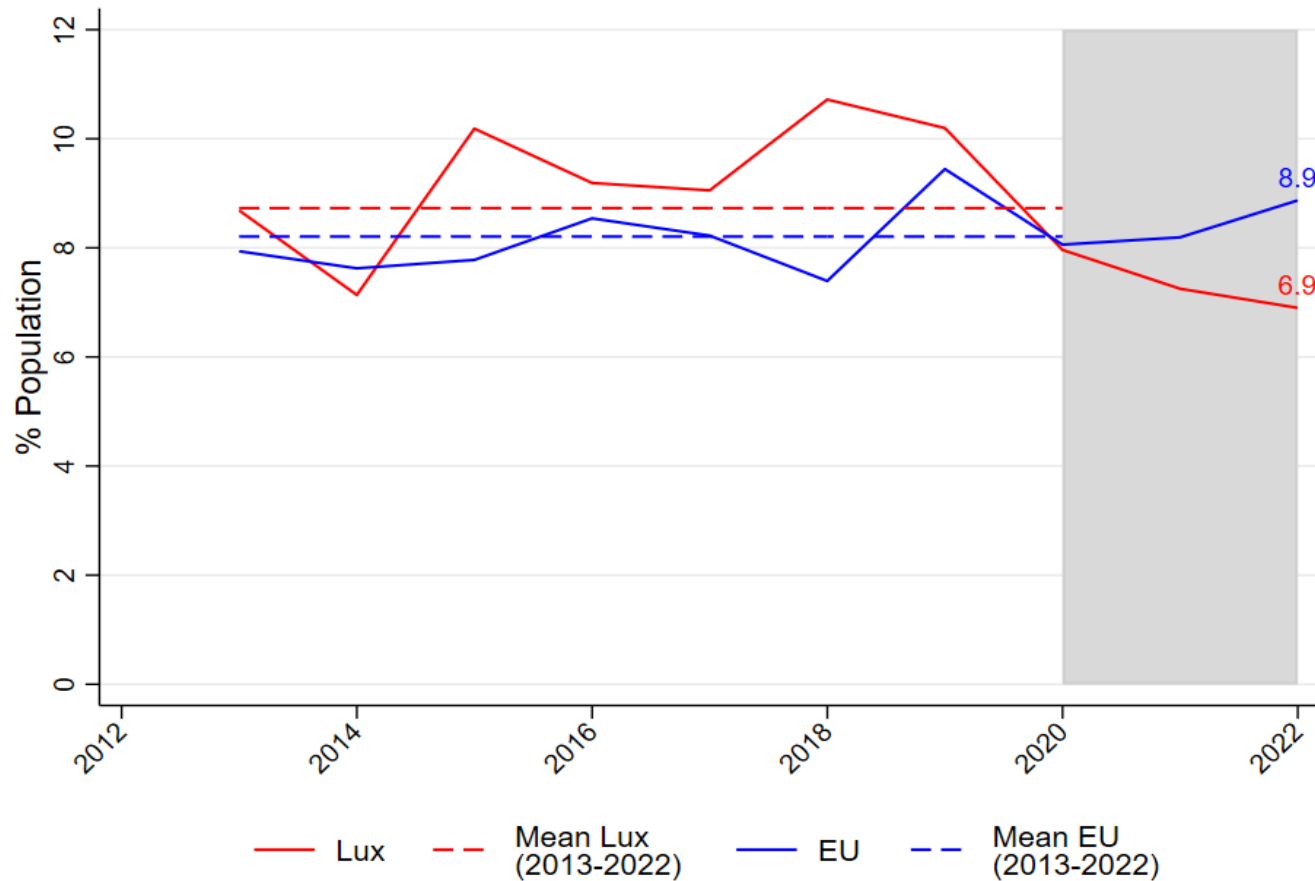


Figure 3. Share of Total early-stage Entrepreneurial Activity [TEA] [% of adults 18–64] in Luxembourg and other European countries.

# However, expectations on starting a business are rebounding

The proportion of people expecting to start a business in next 3 years is higher in Luxembourg compared to the European average.

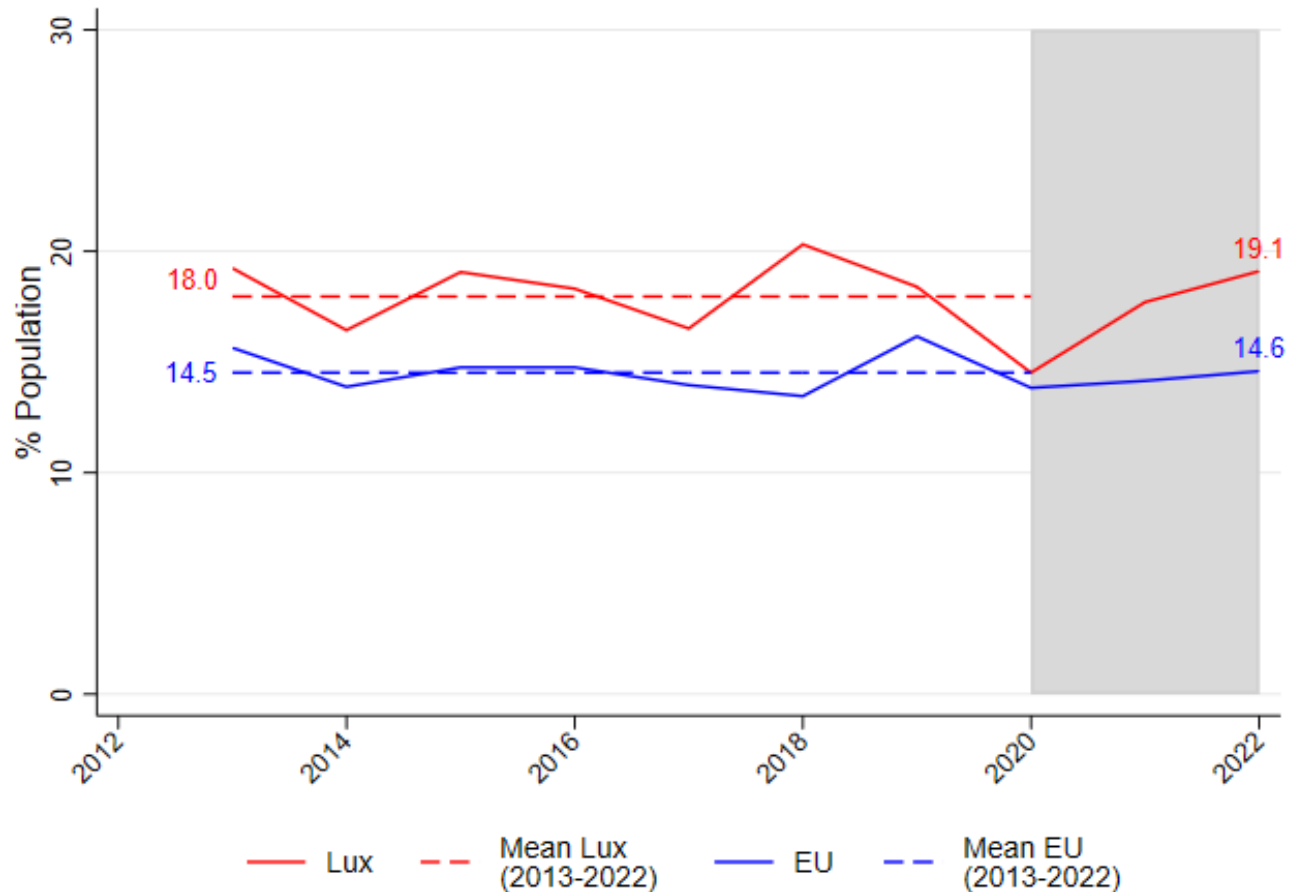


Figure 4. “Are you expecting to start a new business, within the next three years?” (% of adults 18–64).

# Luxembourg: Business dynamism and cross-validation of GEM data



# Creation of new firms outnumbered closures (2004-2020)

The number of active firms increased during the period, reaching approximately 41,000 in 2020. However, the birth rate experienced a slowdown, reaching its lowest value at 7.8% in 2020.

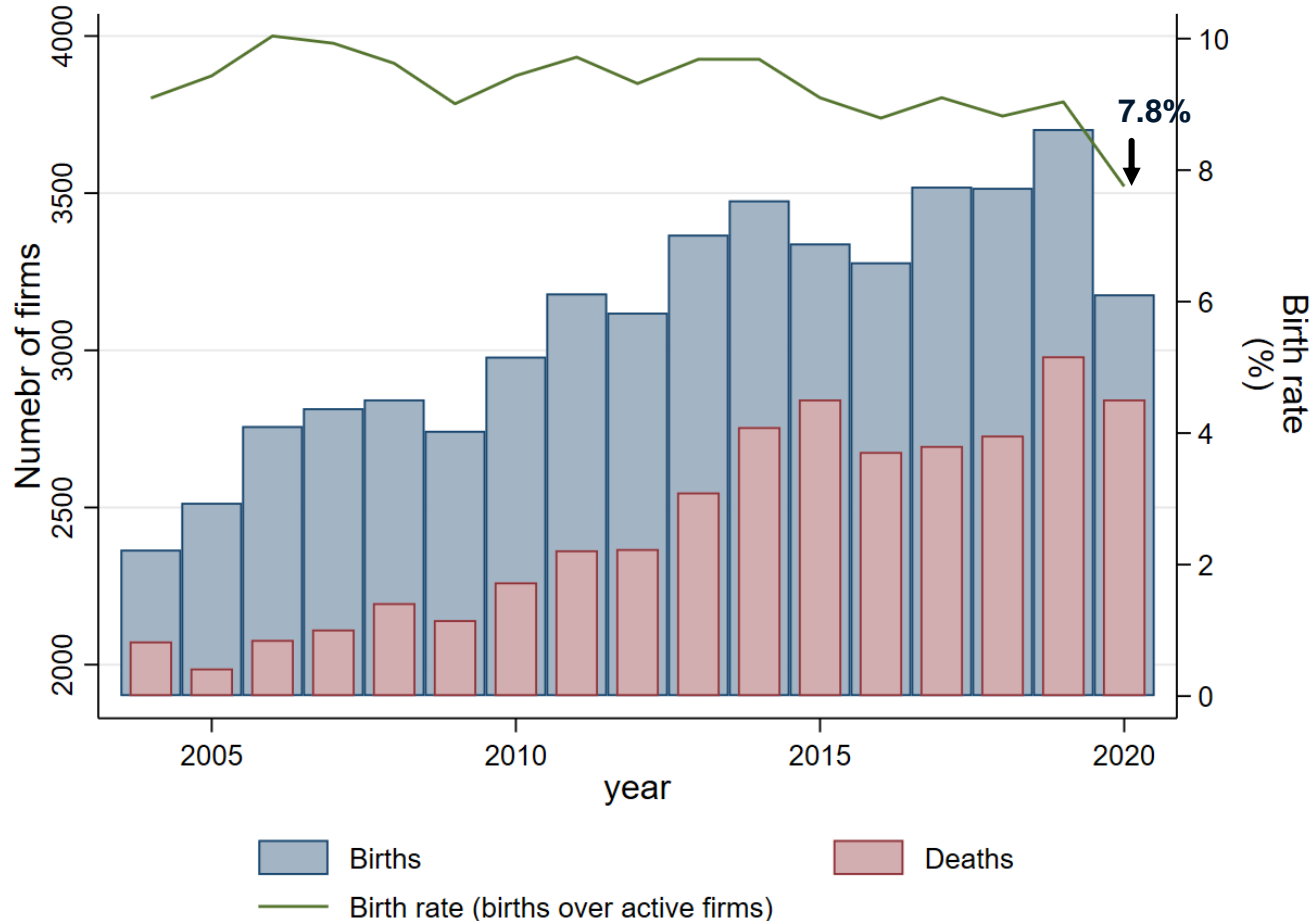
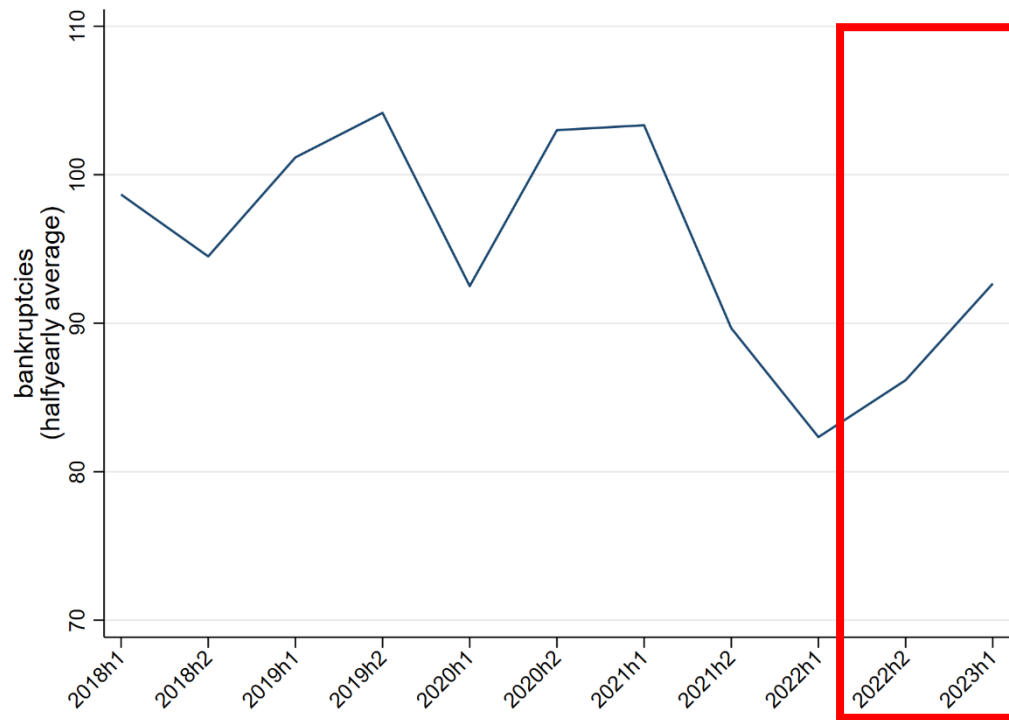


Figure 5. Birth and death of enterprises. Source: STATEC business demography.

# Recent increase in number of bankruptcies

287 companies were declared bankrupt on the 1st quarter 2023, a 5% rise from the same period in 2022 (STATNEWS 22/2023).



**Figure 6.** “Number of bankruptcy per month since January 2018. Source: STATEC, LBR, and the Statistical Service of the Ministry of Justice. The “h” in the horizontal labels denotes semesters. Figures are half-year averages on monthly observations

# More in depth:

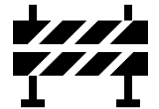
**What are the characteristics of new firms?**



**Who are Luxembourg's entrepreneurs?**

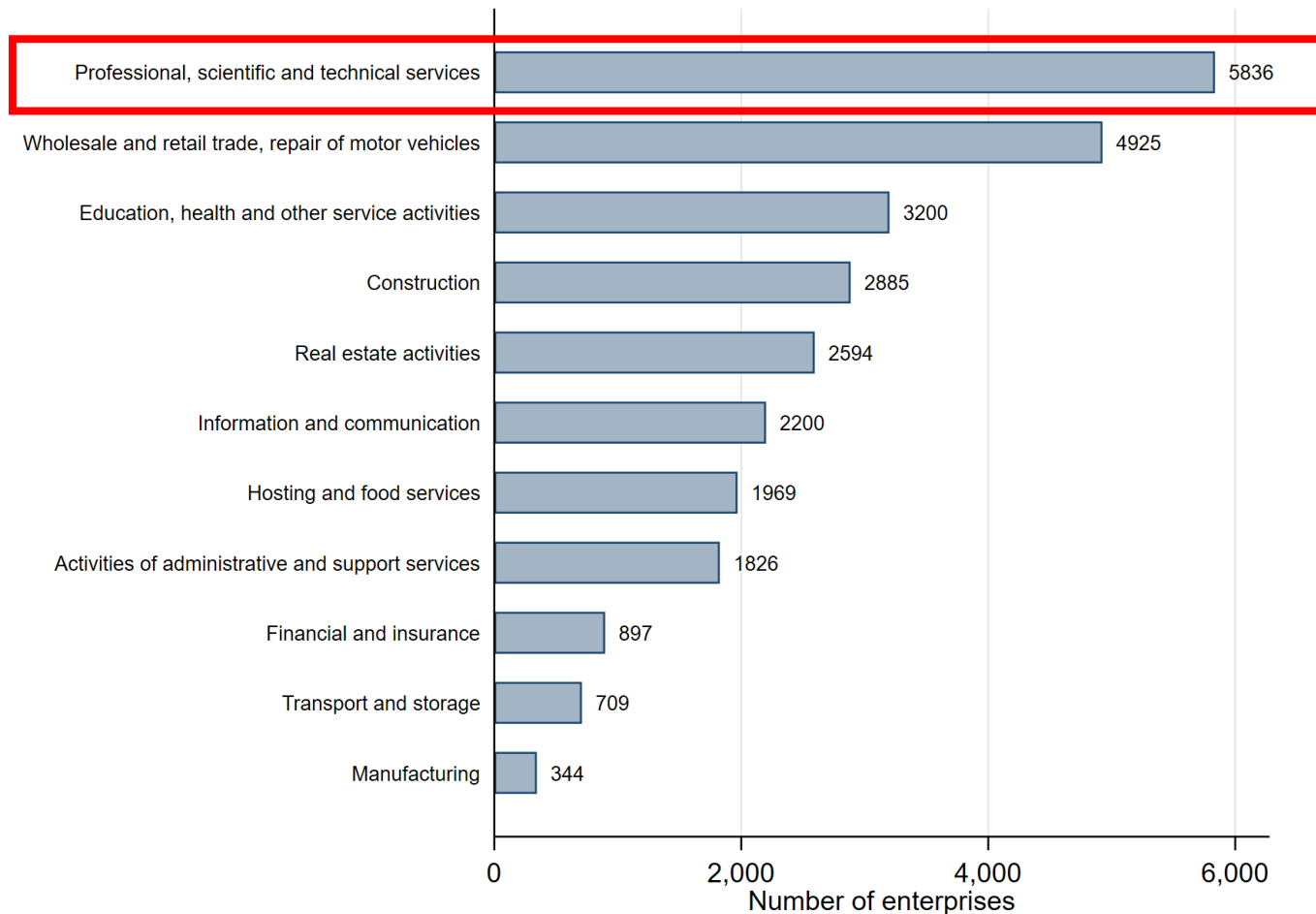


**What are the perceived barriers to entrepreneurship?**



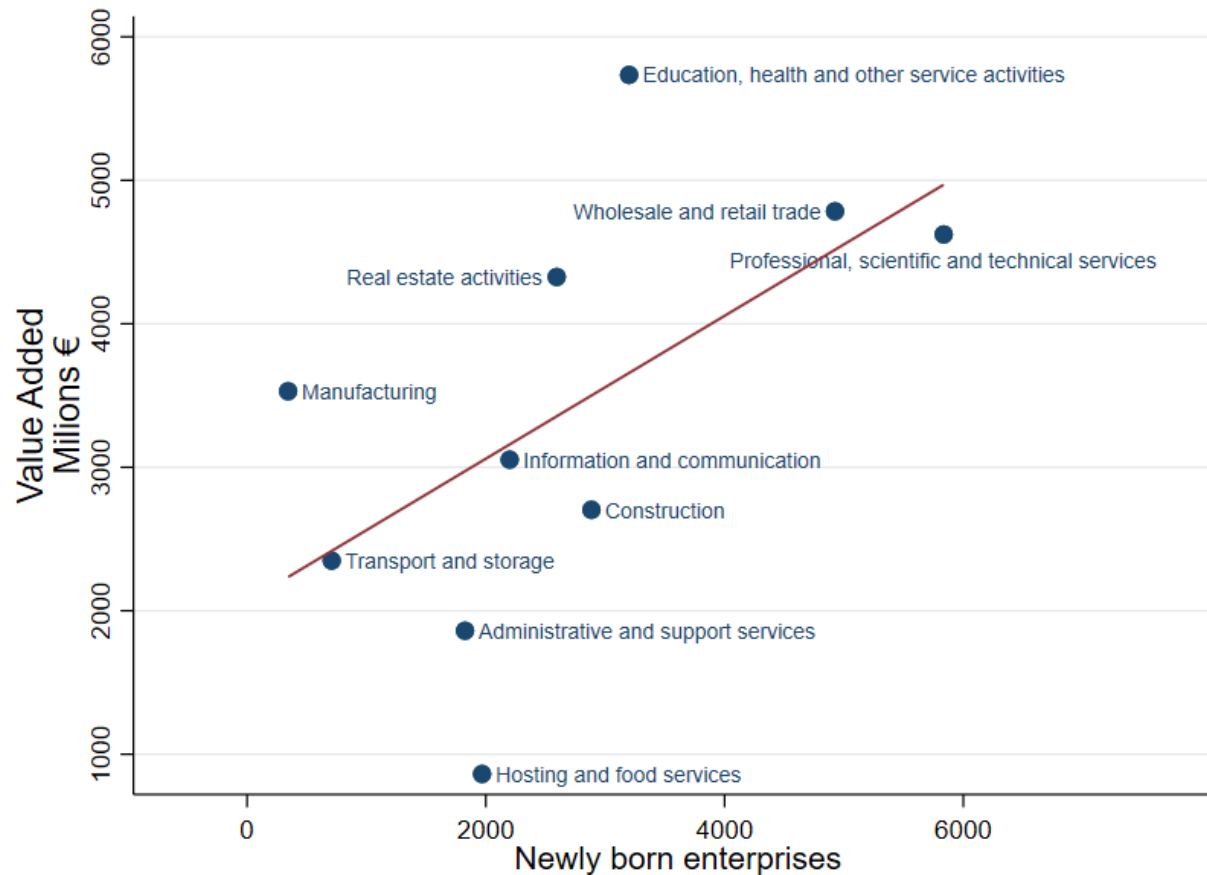
# Majority of new firms are created in knowledge-based industries

Approximately 6000 firms have been created in professional, scientific, and technical services between 2013 and 2020.



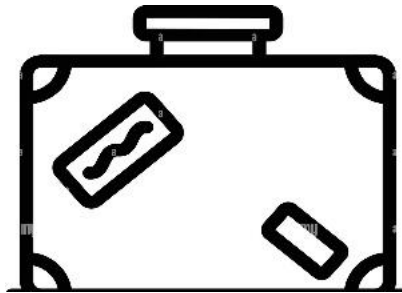
# Firm creation is higher in high value added industries

Professional, scientific, and technical services are characterized by both high value added and high enterprises birth.



**Figure 8.** Firm creation by industry (2013 – 2020). Source: STATEC business demography and national accounts. Notes: Each point represents a pair of observations on value added – number of newly created firm in the corresponding industry. Figures for value added are yearly averages over the period. Figures for newly born firms are total over the period.

# Who are Luxembourg's entrepreneurs?



# Gender disparity in entrepreneurial activities



The proportion of TEA entrepreneurs is lower among women than among men.

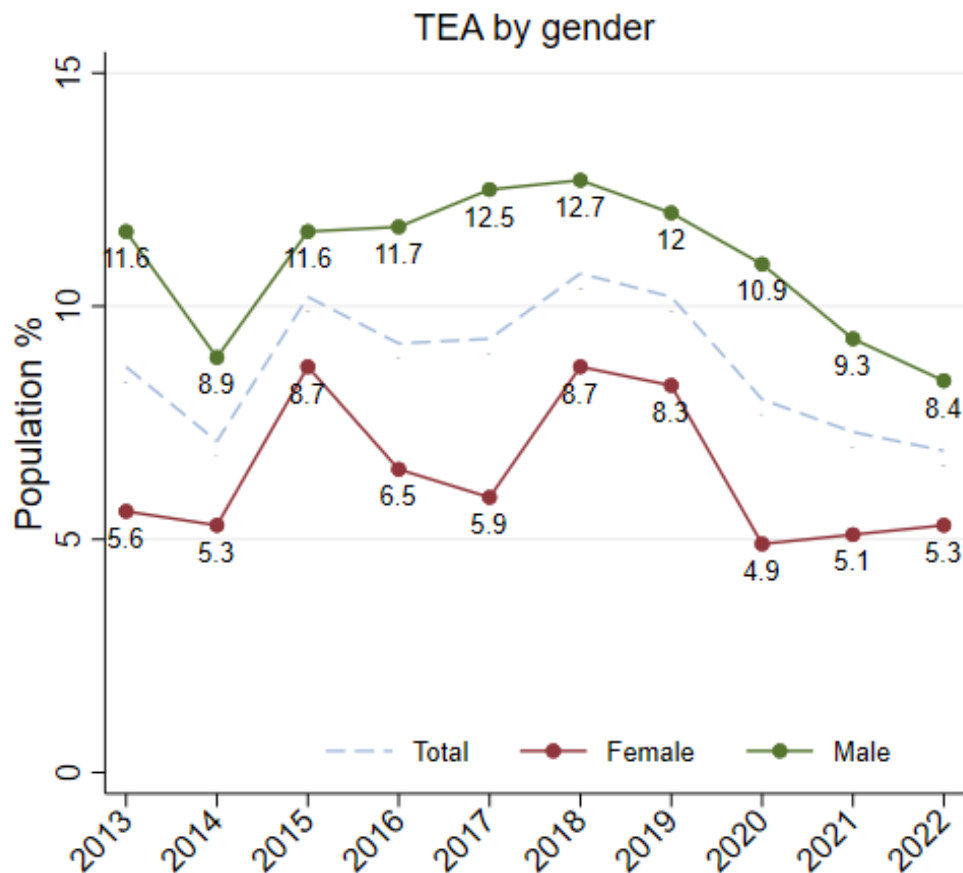


Figure 9. TEA entrepreneurs among women and men in Luxembourg [% of adults 18–64].

# Gender disparity in perceived entrepreneurial skills



Women perceive having less entrepreneurial skills than men.

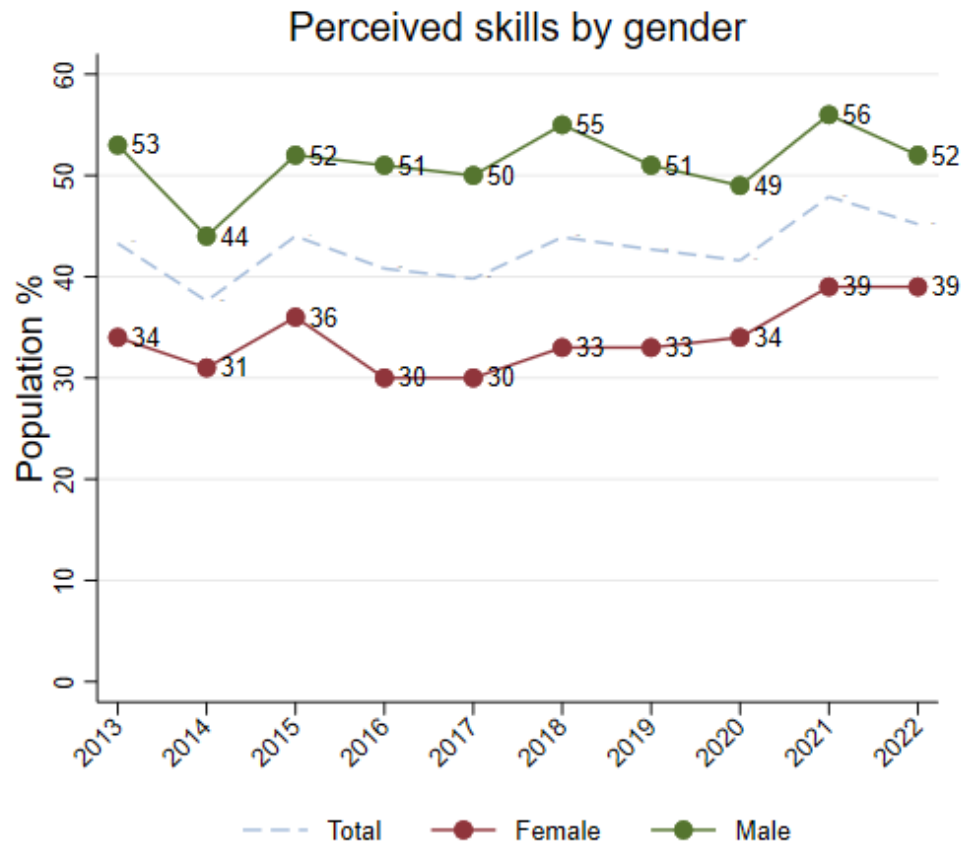
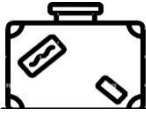


Figure 10. Perceived entrepreneurial skills among women and men in Luxembourg [% of adults 18–64].

# Immigrants significantly contribute to entrepreneurship



Immigrants have higher probabilities of starting a business than natives in Luxembourg.

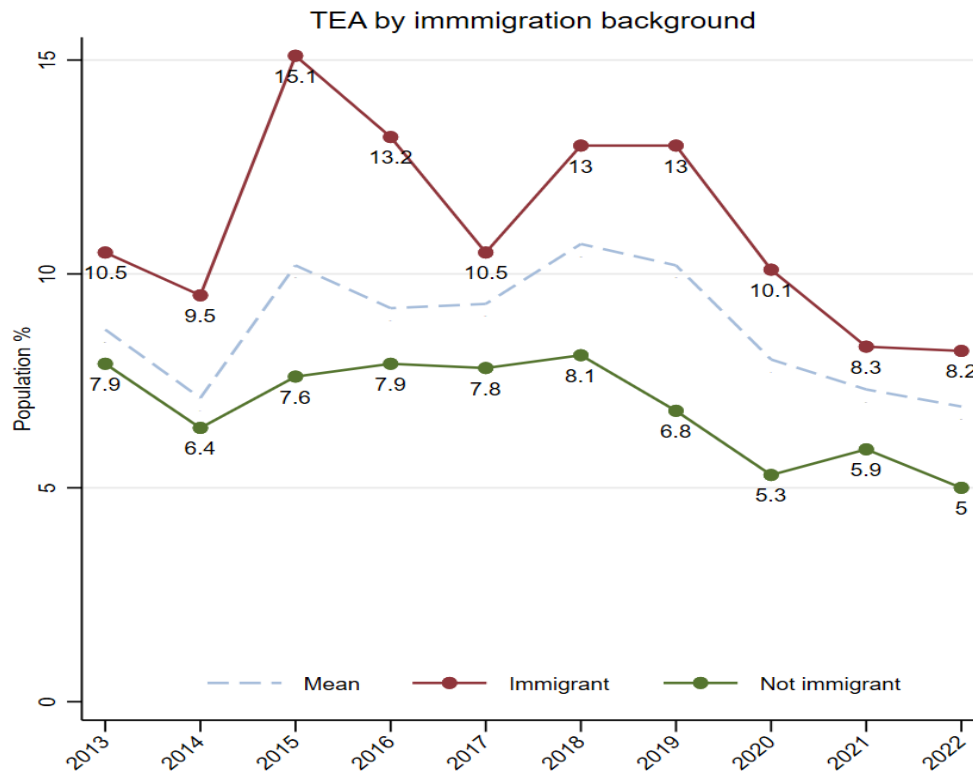


Figure 11. TEA entrepreneurs among immigrants and natives [% of adults 18–64]  
Immigrants are residents not born in Luxembourg.

# Entrepreneurship and education are related



The proportion of TEA entrepreneurs is higher among highly educated individuals compared to those with lower levels of education.

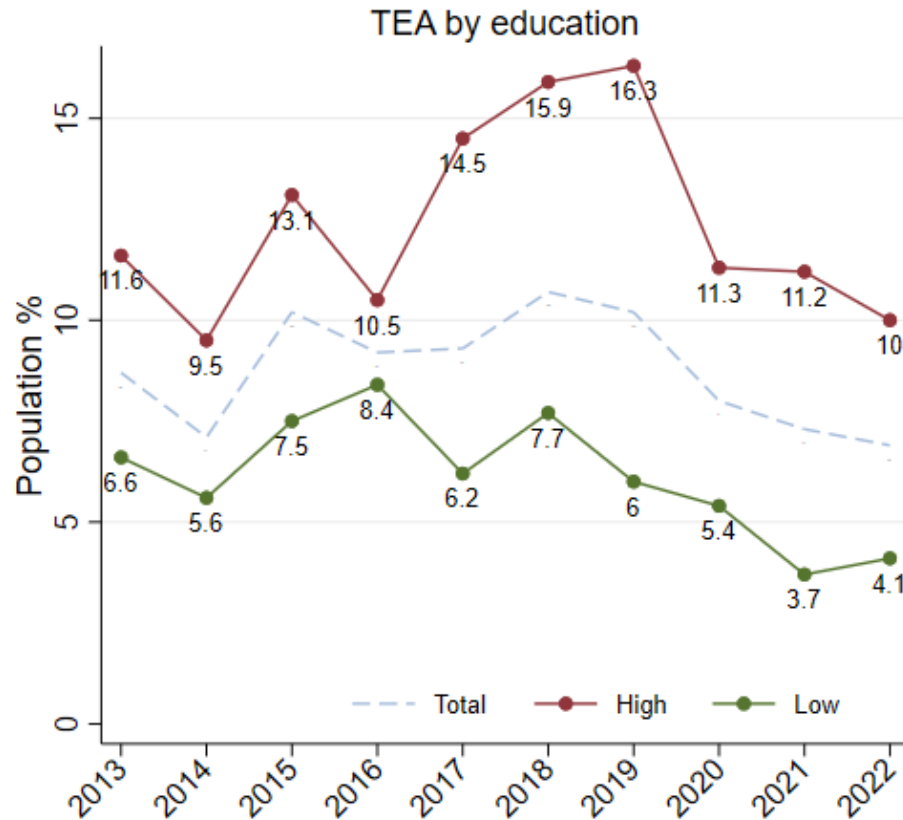


Figure 12. TEA entrepreneurs among higher and lower education [% of adults 18–64]  
High education is defined as obtaining at least a tertiary education degree.

# The determinants of entrepreneurship are stable over time

The econometric analysis confirms that being male, immigrant, and highly educated is positively associated with being a TEA entrepreneur both before and after the pandemic.

For instance, immigrants are approximately 45% more likely to be TEA entrepreneurs compared to natives.

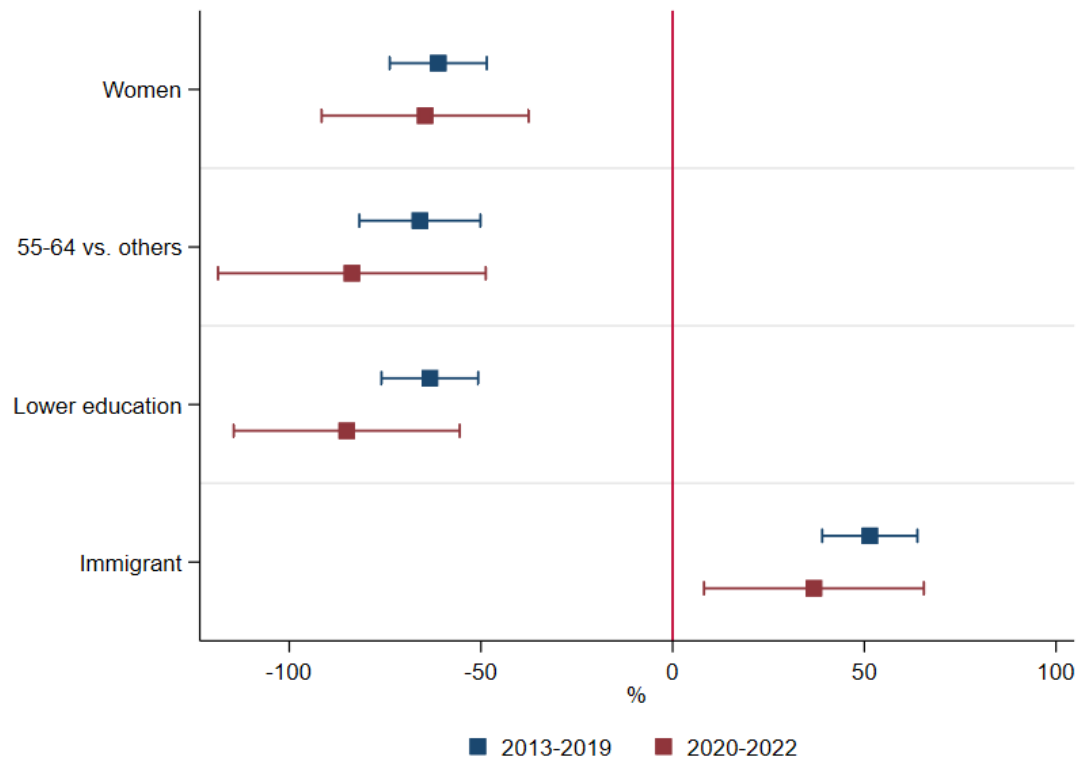
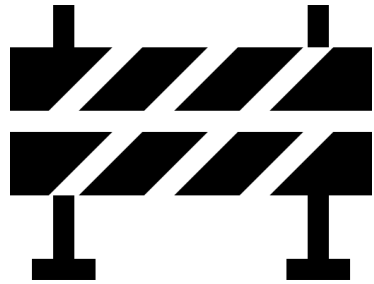


Figure 13. Drivers of being a TEA entrepreneur. Source: GEM Luxembourg APS data 2013-2022. Results are from the estimation of a logit regression model with robust standard errors. Bars indicate 90% confidence intervals.

# Obstacles and enablers of entrepreneurial activity



What are the perceived barriers to entrepreneurship?



Are initiatives and policies effective?

# The ecosystem is just above the EU average but meets the NECI threshold

The National Entrepreneurship Context Index (NECI) summarises the state of entrepreneurship ecosystem according to the national experts (NECI ranges 0-10).

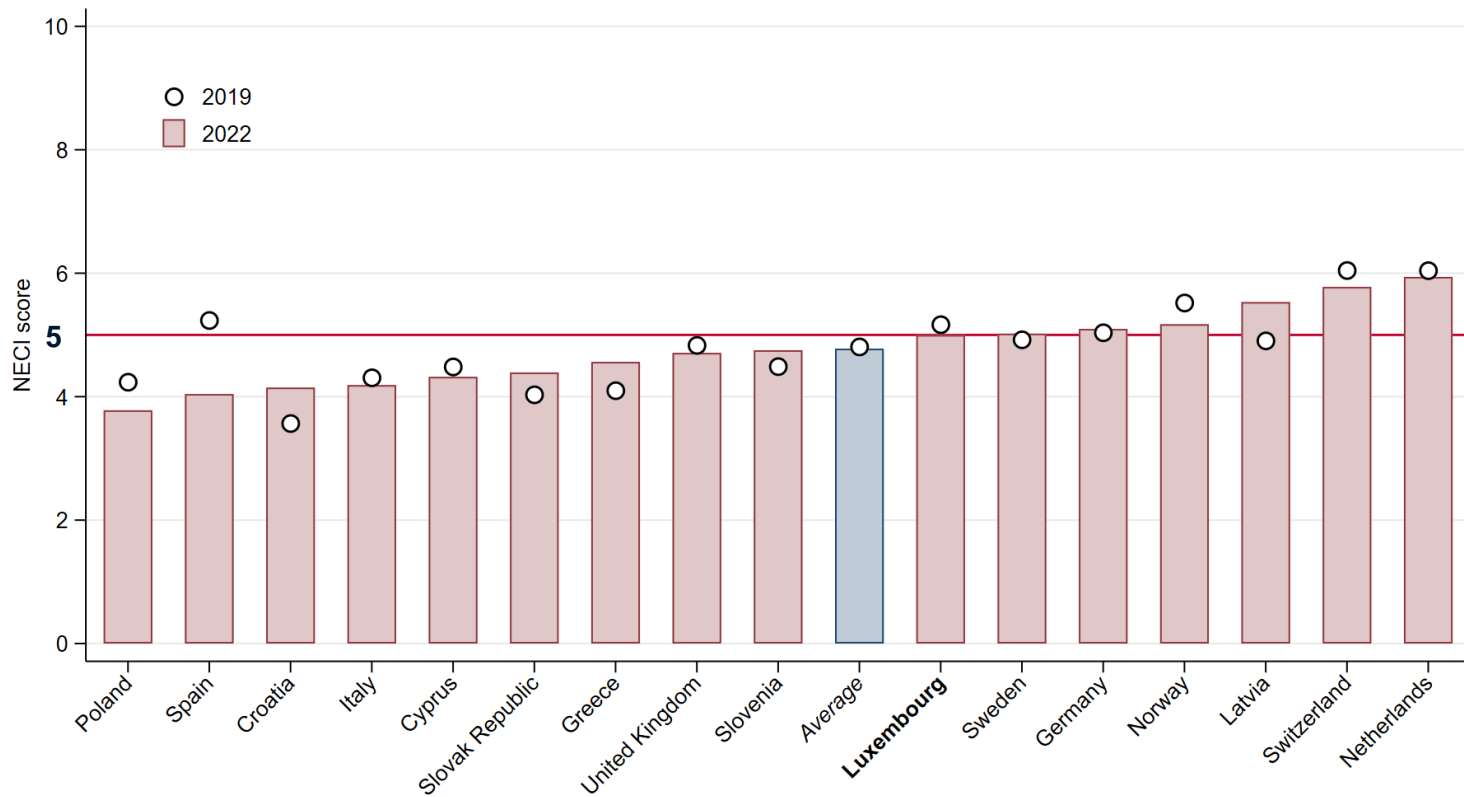


Figure 14. National Entrepreneurship Context Index. Source: GEM Luxembourg NES data 2019-2022.

# Entrepreneurs perceive a decline in barriers to entrepreneurship from 2016 to 2022

45% of TEA entrepreneurs report difficulties to access affordable office spaces, in 2022.

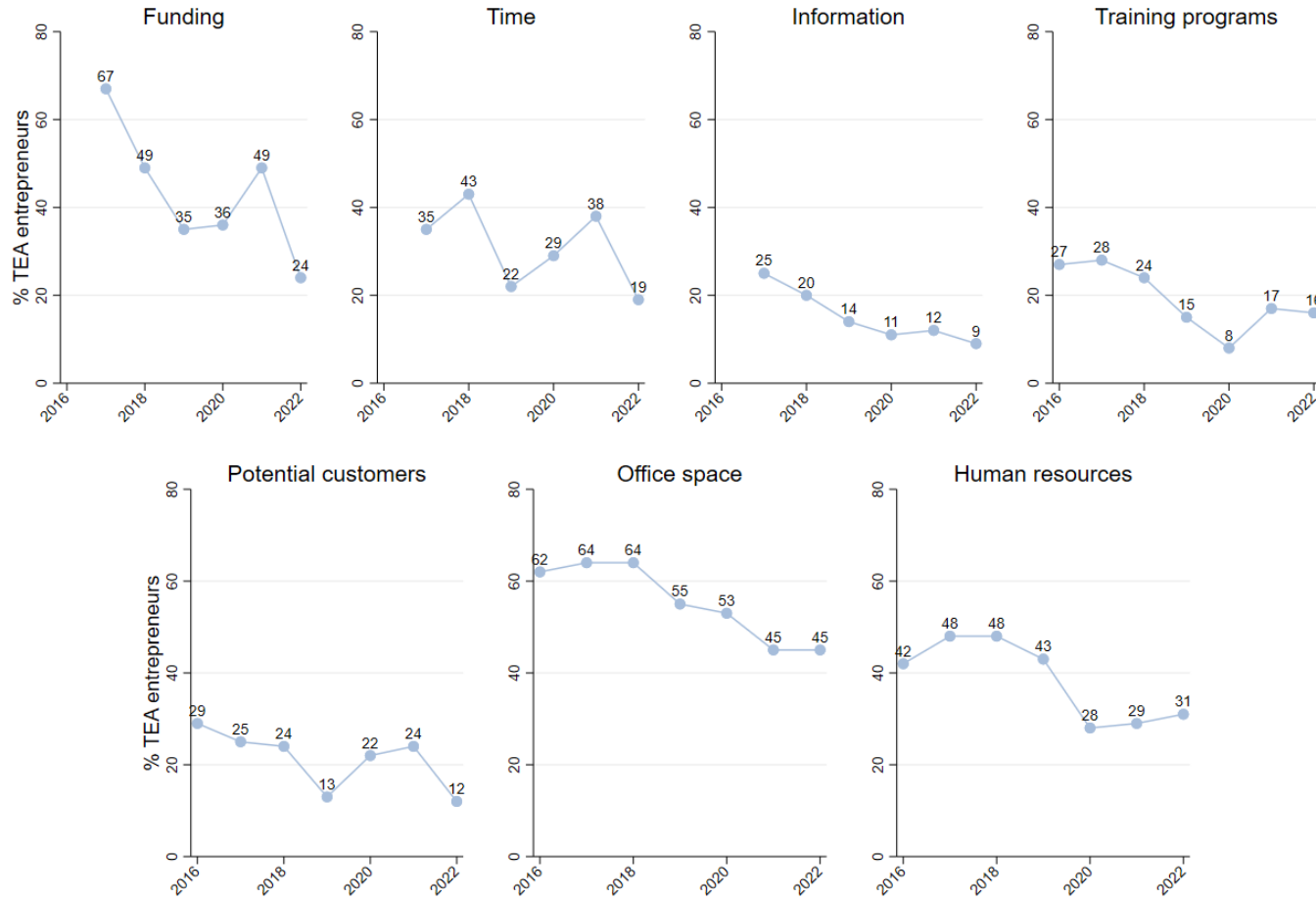
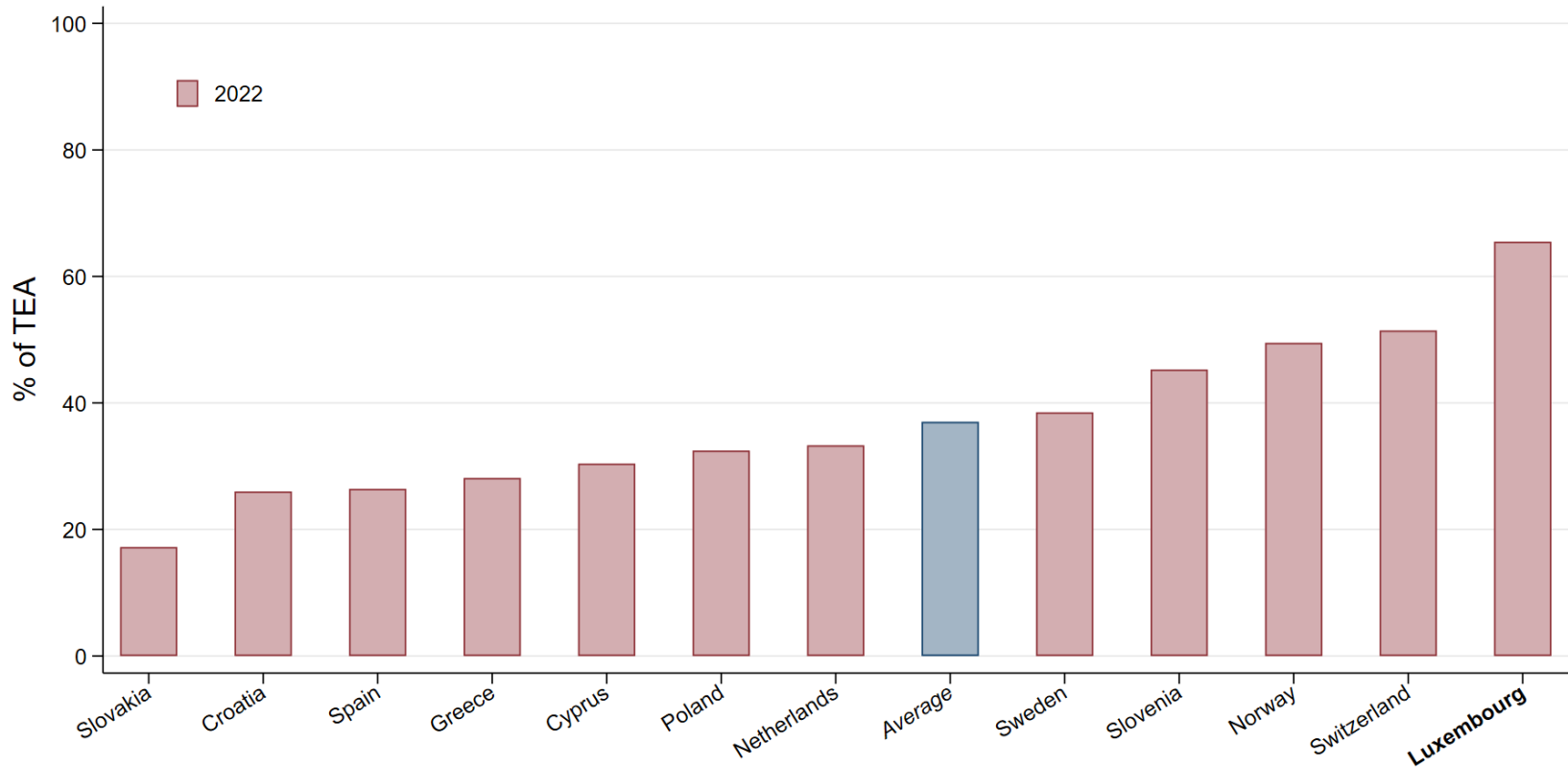


Figure 15. Proportion of TEA entrepreneurs that strongly agrees or disagrees to the statement: I can easily access...

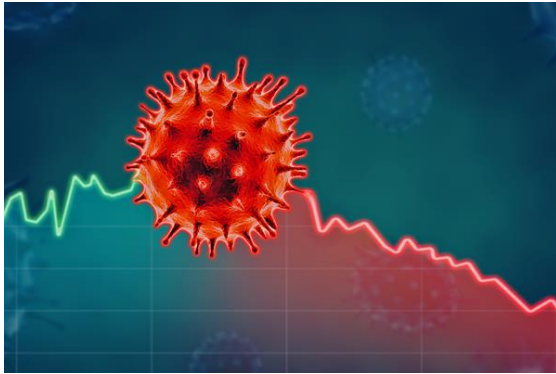
# Entrepreneurs appreciate the government' response to the pandemic

In 2022, 65.5% of TEA entrepreneurs in Luxembourg expressed satisfaction for the response to the pandemic's economic consequences, the highest proportion in Europe.



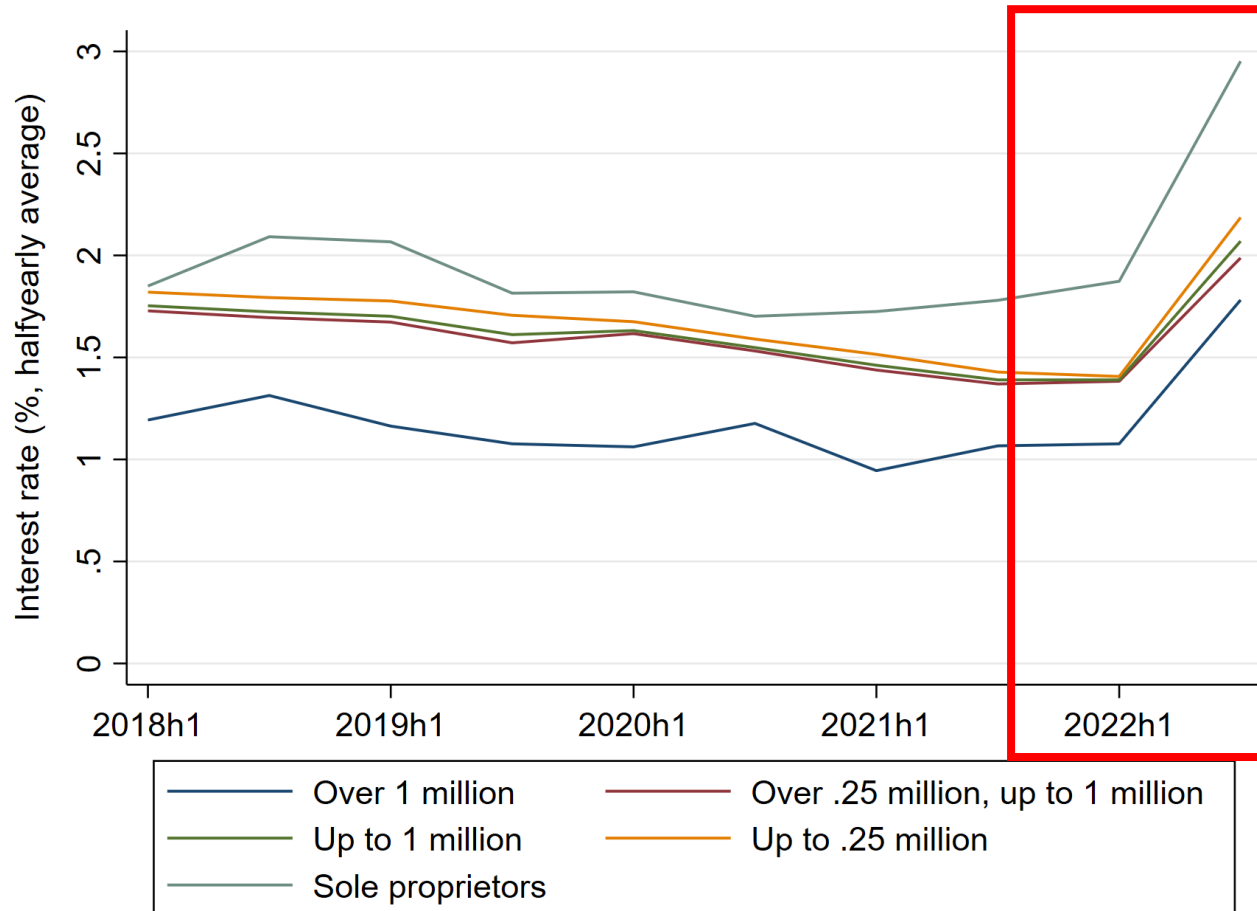
**STATEC** Figure 16. "Government response to the economic consequences of the pandemic was satisfactory" [% of TEA]

# The impact of polycrisis on entrepreneurship



# Credit conditions are worsening - particularly for small firms

The average interest rate for sole proprietors in Luxembourg reached 3% in the second half of 2022.



# There are more necessity-driven entrepreneurs

The percentage of necessity-driven TEA entrepreneurs was 40% in 2019 and increased to 47% in 2022. The European average is 56%.

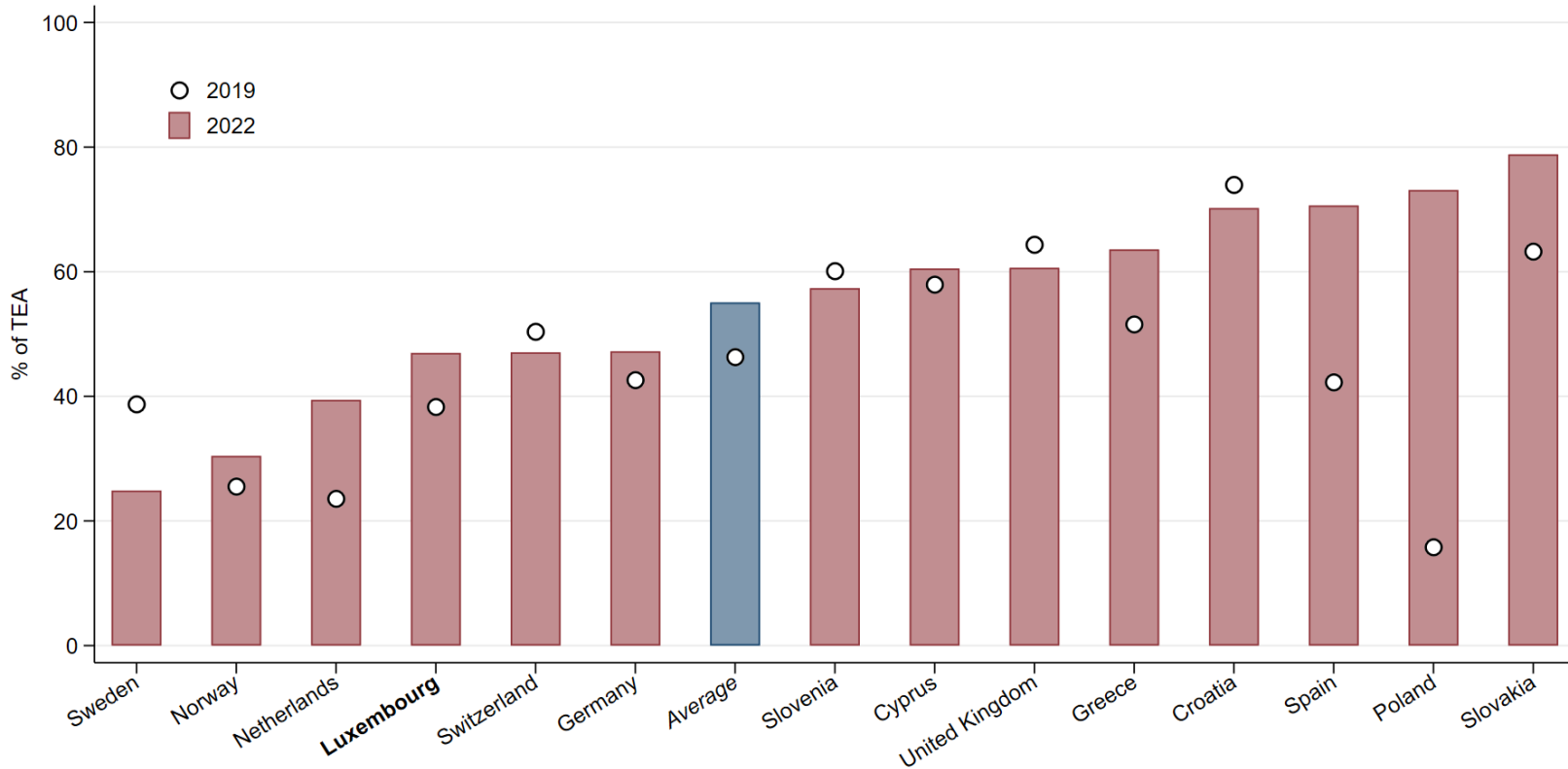


Figure 18. Motivation is “to earn a living because jobs are scarce” [% of TEA]

# Entrepreneurs envision opportunities

Crises as source of “creative destruction” characterized by the emergence of successful entrepreneurs: some early-stage entrepreneurs see the pandemic as a source of new opportunities.

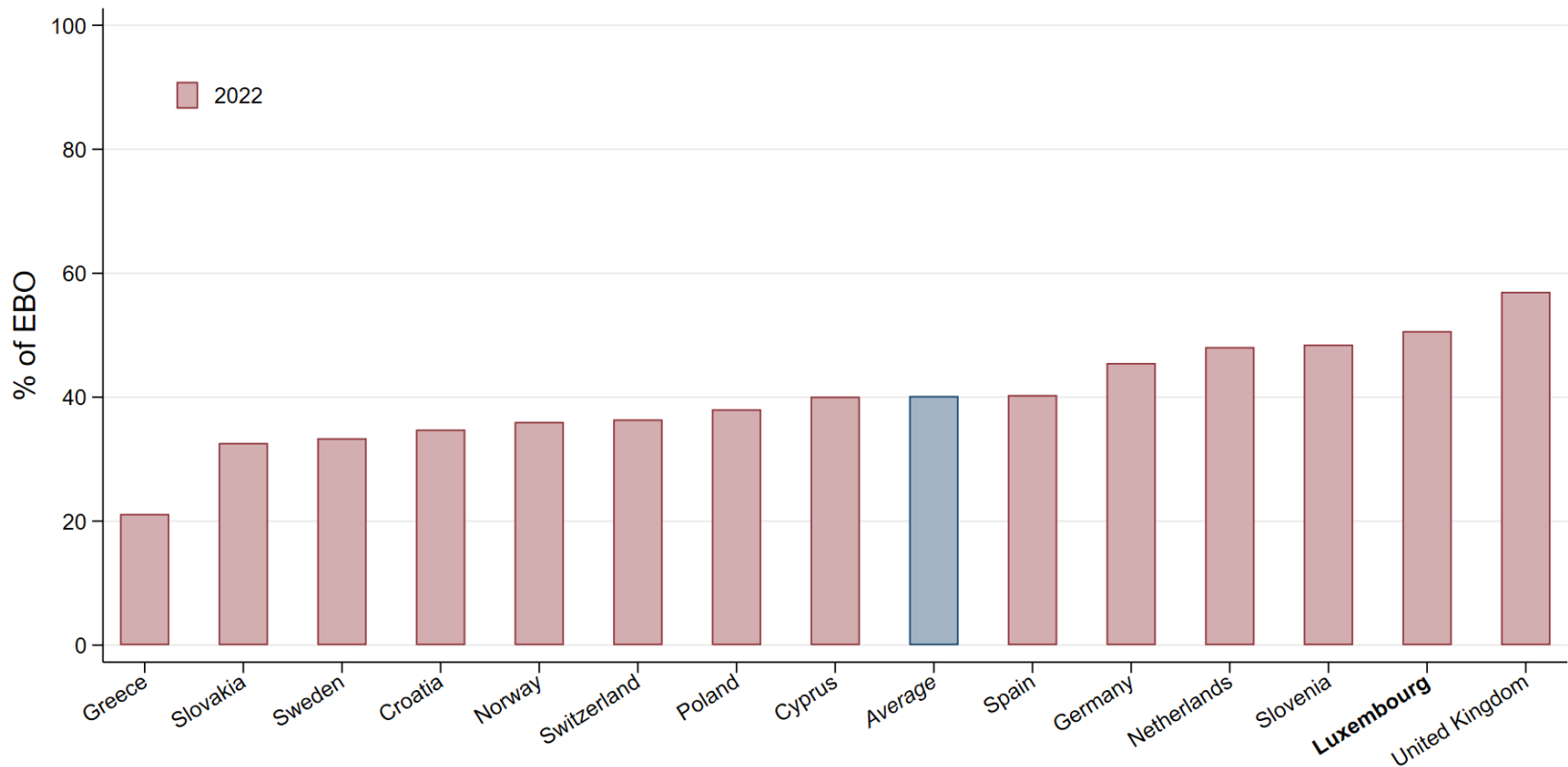
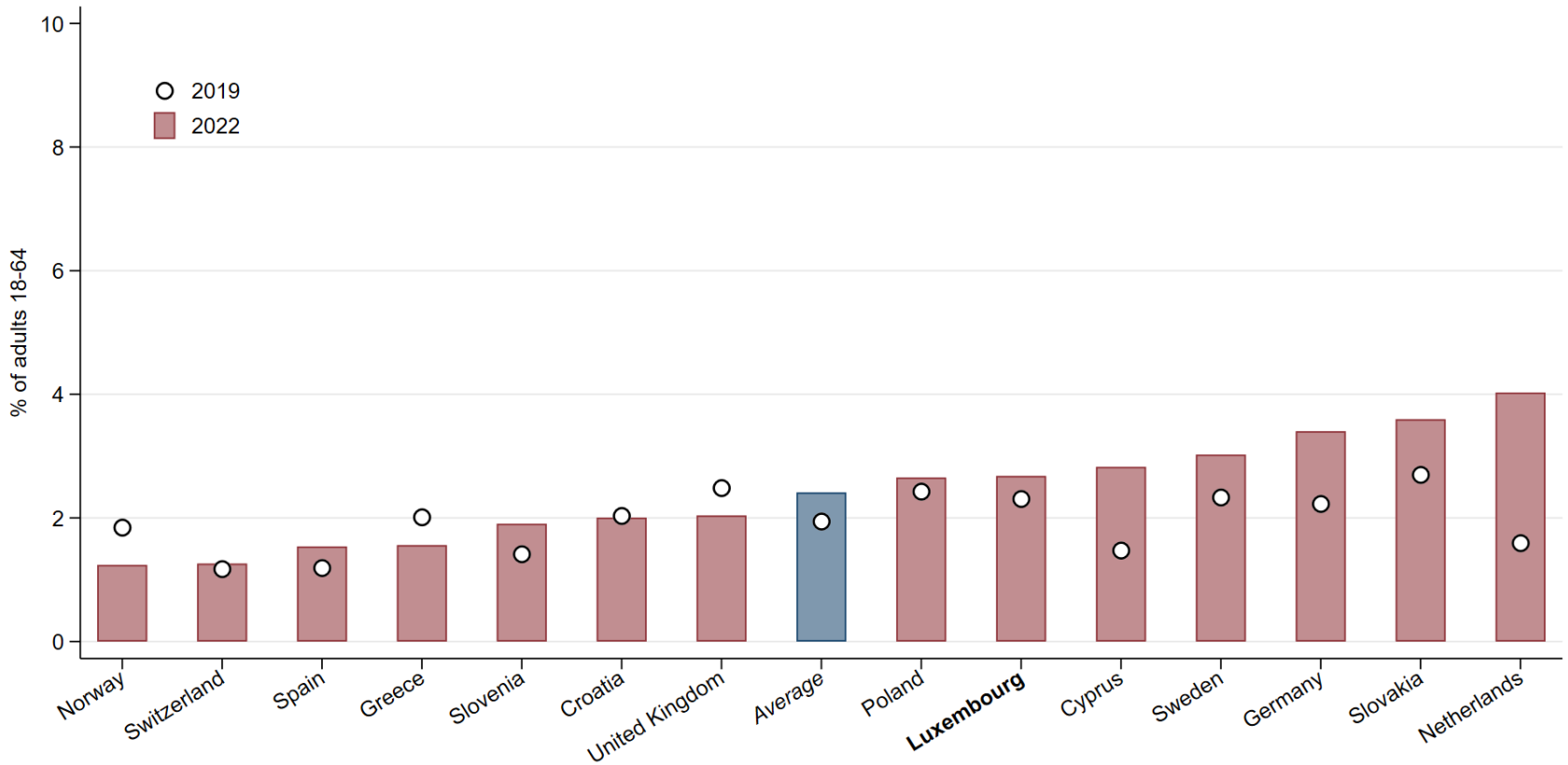


Figure 19. “There are new opportunities to pursue because of the pandemic” [% of TEA]

# Business closures did not dramatically increase in 2022

The government's response likely helped businesses stay afloat



# Main takeaways

1. The average new entrepreneurship rate between 2013 and 2022 is higher in Luxembourg than in other European countries. Enterprises births have outnumbered closures from 2004 to 2020.
2. Entrepreneurship has been affected by recent economic shocks, with Luxembourg experiencing a more significant decline in TEA between 2020 and 2022 compared to the rest of Europe. However, intentions about starting a business are higher in Luxembourg than in other countries.
3. Gender disparity: proportion of new entrepreneurs is systematically lower among women than among men.
4. Immigrants make significant contributions to entrepreneurship in Luxembourg.
5. Majority of new firms are created in knowledge-based industries.
6. Enterprises birth is higher in high value added industries.
7. Entrepreneurs perceive a decline in barriers to entrepreneurship from 2016 to 2022.
8. Crises are also periods of “creative destruction”: entrepreneurs envision opportunities to pursue.
9. In 2022, business closures did not substantially increase, plausibly due to governments’ interventions.

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