Global Entrepreneurship Monitor

2022/23

European Regional Report

Research insights for policymakers

shopify

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Foreword

During the main period covered by this report – 2015 to 2021 – the world emerged from one of the most disruptive events in living memory: the COVID-19 pandemic. At the same time, important parts of Europe are experiencing tensions because of the conflict in Ukraine, provoking events unprecedented since World War II with global economic and geopolitical ramifications. Both crises have impacted entrepreneurship in Europe in a plethora of ways.

By 2024, Global Entrepreneurship Monitor (GEM) will have existed for a quarter of a century. It is the most comprehensive worldwide research initiative that surveys entrepreneurs directly while at the same time monitoring their national ecosystems. With a strong participation of European teams, very little to do with European entrepreneurship escapes the keen scientific eye of empirical scrutiny that GEM has fine-tuned over the years, with the help of some 350 experts and researchers.

Perhaps paradoxically, European entrepreneurship activity decreased overall during the pandemic period since interestingly, much needed social safety nets had the added impact of making would-be entrepreneurs more complacent and risk averse in going forward with their entrepreneurial intentions. Yet, the pandemic literally changed the world as we know it; increasing opportunities for entrepreneurs on all levels. Globally, it accelerated a rethink of the world of work. It shifted e-commerce to mainstream. It strengthened connectivity between nations and communities, increasing innovations in technology, while future-proofing education, for example.

It is our collective hope at GEM that the results and analyses published in this report will enable policymakers to find a path to playing a strong role in enabling entrepreneurs to further innovate, creating businesses and scaling them to become the type of high growth value-adding enterprises that Europe so urgently requires, as noted in the European Union's 2022 Conference on the Future of Europe proposal. As can be observed in this report, GEM results can contribute to policy design that will improve the way the European Union supports its entrepreneurs, thus offering European citizens the promise of a positive and constructive perspective while creating wealth.

Broadly, the GEM research presented in this report points to enabling mechanisms for European policymakers to move closer together on promoting entrepreneurship that focuses, for example, on health solutions for the future, on accelerating the transition to a sustainable world through climate action, as well as other important strategic initiatives. If European policymakers can find a way to revitalize business and industry throughout the continent, while championing entrepreneurs and "future-proofing" their efforts at the same time, Europe can look forward to a robust and flourishing future for many years to come.

Aileen Ionescu-Somers,
GEM Executive Director

José Ernesto Amorós,
Chair of the GEM-GERA Board of Directors

Collaborate with GEM to assess city and regional readiness for entrepreneurship

What makes a city or region attractive to entrepreneurs? Which factors draw creative entrepreneurs to a city or region ... indeed, to any entrepreneurial ecosystem? What gives them the confidence that they can build successful, value-adding and profi table companies in a nurturing context? How good are cities and regions at building these contexts and nurturing entrepreneurship?

Collaborate with GEM to find answers to these questions in cities and regions that are important to you! Our Entrepreneurial Ecosystem Quality Composite Index (ESI) is a diagnostic tool that provides frameworks and data to analyse just about any subnational ecosystem. ESI reports have been conducted in several ecosystems around the world.

> The GEM ESI methodology provided a valuable contributio n to deepen our knowledge of Madrid's entrepreneurial ecosystem. It is a solid scientific approach and offers the possibility to analyse a number of variables aligned to different key pillars. This enabled us to identify how the main actors interact and the key issues to be addressed to foster ecosystem development. The ESI tool is a great input for diagnosis and policymaking.
>
> **Isidro de Pablo López,**
> Universidad Autónoma de Madrid

> Reporting on the fi ndings from the Global Entrepreneurship Monitor's Entrepreneurial Ecosystem Quality Index in our region of Nova Scotia, Canada, generated a signifi cant amount of interest from policymakers and ecosystem actors. Some of the notable fi ndings, based on our data, have informed debate and helped leading ecosystem players to think about strategies for further ecosystem development.
>
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It is our great pleasure to present GEM's 2021/22 European Regional Report: Research insights for policymakers. At GEM, we say, "it takes a village" (and sometimes even a town) to produce our GEM reports: the annual GEM Global Report, the GEM Women's Entrepreneurship Report, and special reports on topics such as youth entrepreneurship or family business entrepreneurship, to name but a few. The same could be said for this special regional report on European entrepreneurship.

The breadth and scope of research from European GEM National Teams and their collected data and analysis simply cannot be equaled by any other entrepreneurship research initiative worldwide. Incredible work goes into gathering input directly from the source – entrepreneurs. That is what makes GEM so exceptional. Therefore, our first warm thanks go to our dedicated GEM National Teams across Europe for their constant dedication and research efforts.

This report would not have been possible without the support of our strategic partner and sponsor: Shopify. We are proud to collaborate with this impressive organization that supports entrepreneurs and helps them to expand and grow. GEM and Shopify synergies since our mutual objective is to break down barriers to entrepreneurship and allow entrepreneurs to take center stage in tackling significant global challenges such as climate change or assuring a sustainable future for one and all. Our acknowledgement and special thanks go to Clark Rabbior and Kostas Rossoglou at Shopify. We are grateful for their support and input on earlier drafts of this report.

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And last but certainly not least, we were fortunate to have three lead authors that are exceptionally knowledgeable about entrepreneurship in Europe, as well as deeply familiar with GEM's methodology and data: sincere thanks to Niels Bosma, Utrecht University, (GEM Senior Research Advisor), Steve Hill and Rolf Sternberg, University of Hannover (GEM Germany).

To all, warm thanks, and appreciation.

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*** GRIPS = GEM Research & Innovation Projects**

About GEM

Entrepreneurship is an essential driver of societal health and wealth. It is also a formidable engine of economic growth. It promotes the essential innovation required not only to exploit new opportunities, promote productivity and create employment, but to also address some of society's greatest challenges, such as the United Nations Sustainable Development Goals (SDGs) or shocks from different global events.

Governments and other stakeholders increasingly need hard, robust and credible data to make key decisions that stimulate sustainable forms of entrepreneurship and promote healthy entrepreneurial ecosystems worldwide. To capture a complete picture of an entrepreneurial ecosystem, it is important to go beyond official statistics, like the number of registered businesses. Stakeholders need to understand on the ground perceptions about entrepreneurship. Global Entrepreneurship Monitor (GEM) is the only global research source that collects data directly from the source – entrepreneurs.

During its 24 years of existence, GEM has repeatedly provided policymakers with valuable insights on how to best foster entrepreneurship to propel growth and prosperity. The networked consortium of national country teams, primarily associated with top academic institutions, carries out survey-based research on entrepreneurship and entrepreneurship ecosystems around the world. GEM tools and data are unique and benefit numerous stakeholder groups. By becoming involved with GEM:

- Academics are able to apply unique methodological approaches to studying entrepreneurship at the national level;
- Policymakers are able to make better informed decisions to help entrepreneurs and entrepreneurial ecosystems thrive;
- Entrepreneurs have better knowledge nowhere to invest sometimes scarce resources and how to influence key stakeholders so that they get the support they need;
- Sponsors both advance their organizational interests and gain a higher profile through their association with GEM;
- International organizations leverage insights, but can also incorporate or integrate GEM indicators to their own data sets, or use GEM data as a benchmark for their own analyses.
- GEM has an impressive and highly credible track record. In numbers, GEM represents:
- 24 years of data, allowing longitudinal analysis in and across geographies on multiple levels;
- Up to 170,000+ interviews annually with experts and adult populations including entrepreneurs of all ages;
- Data from 120 economies across five continents;
- Collaboration with over 370+ specialists in entrepreneurship research;
- Involvement of some 150+ academic and research institutions;
- Support from more than 150+ funding institutions.

GEM began in 1999 as a joint research project between Babson College (USA) and London Business School (UK). The consortium has become the richest source of reliable information on the state of entrepreneurship and entrepreneurial ecosystems across the globe, publishing not only the GEM Global Report annually, but also a range of national and special topic reports each year.

GEM's first annual study covered 10 countries; since then, some 120 countries from every corner of the globe have participated in GEM research. As a result, GEM has gone beyond a project to become the highly networked organization that it is today. GEM can confidently stake a claim to be the largest ongoing study of entrepreneurial dynamics in the world.

Join our research project

It is dificult for policymakers to make informed decisions without having the right data. Global Entrepreneurship Monitor (GEM) fi lls this void. GEM is the only global research project that collects data on entrepreneurship directly from the source–entrepreneurs!

It is your one-stop shop for everything you need to know about entrepreneurship in your country, region or city.

Be part of future Global Reports, providing a snapshot of entrepreneurial activity across the world. You can contribute towards National Reports that include international benchmarking, local context and national entrepreneurship policy recommendations.

GEM offers academics the opportunity to be part of a prestigious network, explore various dimensions of entrepreneurship and gain a full picture about the entrepreneurial activity of a country."

Virginia Lasio, Team Leader of GEM Ecuador and Professor at the ESPAE Graduate School of Management

Executive Summary

This European Regional Report uses data from the GEM Adult Population Survey (APS, usually at least 2,000 adults ages 18-64 per) to delve deep, pooling samples in each participating European economy over several years in order to derive (subnational) regional results for entrepreneurial activity levels and entrepreneurial perceptions within each economy. This level of detail, available for the first time across a multitude of European regions, provides for richer analysis and description, and allows for regional patterns to be assessed throughout Europe.

Indeed, we observe a wide variation in entrepreneurial activity rates, as well as entrepreneurial perceptions across regions in Europe. By and large, this confirms entrepreneurship to be a predominantly 'regional event', even though national level influences are also apparent.

The results presented in this report show a common pattern in some European countries. There is often a dominant region, usually encompassing a city, that enjoys high levels of GDP/capita paired with high levels of entrepreneurial activity (such as Ile de France, and London and the South East region of the UK) surrounded by less prosperous, often post-industrial regions with lower levels of prosperity and entrepreneurial activity. At the same time we also observe a multi-centric model of development, whereby higher prosperity and entrepreneurial activity is shared between several city regions, each surrounded by more rural and less prosperous regions. For example Lombardy (Milan), Emilia-Romagna (Bologna) and Lazio (Rome) enjoy high prosperity in Italy, while in Germany, the city regions of Hamburg, Bremen and Berlin dominate.

At the heart of this European Regional Report are a number of highly-detailed maps that set out selected entrepreneurship variables, and their level, across 226 European regions and 28 European countries. Three of these variables refer to different dimensions of entrepreneurial activity, namely:

- Total early-stage Entrepreneurial Activity (TEA), or the percentage of adults starting or running a new business,
- Established Business Ownership (EBO), or the percentage of adults owning and running an established business, and
- Employee Entrepreneurial Activity (EEA), or the percentage of adults undertaking entrepreneurial activity as part of their job.

The entrepreneurial perception variables refer to the percentage of adults who perceive good opportunities to start a business locally; consider themselves to have the knowledge, skills and experience to be able to start a business; and see good opportunities but who would not start a business for fear it may fail.

This Report presents a generic picture of these entrepreneurial activity levels and perceptions across European regions. It demonstrates that the patterns of entrepreneurial activities and perceptions are not only influenced by national characteristics, but also by local and regional conditions, values and norms. For many European countries, these interregional differences (within the same country as well as across different countries) are larger than the differences between countries (averages). This reveals the importance of the regional context in understanding variations in entrepreneurial activity across Europe.

Where possible, this Report provides confidence intervals alongside point estimates, enabling informed inferences. Entrepreneurial activity and perception rates are set out against key demographics, such as age, gender and location. This Report also distinguishes between regions that are predominantly rural, urban or intermediate between the two.

KEY FINDINGS:

- GEM tracks the percentage of adults that are starting or running a new business (referred to as Total early-stage Entrepreneurial Activity or TEA). Starting from the global perspective, early-stage entrepreneurial activity rates in Europe are typically lower than in other global regions, especially North and South America. On average, TEA levels in European countries are around two thirds of the levels in North America, and one third of the levels in many South American countries.

- Entrepreneurial perceptions in Europe show much less deviation from entrepreneurial activity levels compared to other parts of the world. This raises the question of why comparable perceptions are not translated into comparable entrepreneurial activity levels. One explanation is that employment conditions and opportunities in Europe tend to be more favourable than elsewhere, so that the opportunity cost of starting a business may be much higher. This explanation is supported by the higher employee entrepreneurial activity (EEA) rates that GEM finds to be prevalent in Europe (especially in the North), meaning that some talented individuals can find outlets for their entrepreneurial ambitions within employment.

- Among the four largest European economies, the UK had the highest TEA rate of 12.9% of adults in 2022, with France at 9.2%, Germany at 9.1% and Spain with 6.0%. Italy did not participate in the GEM APS in 2022, but had a TEA rate of 4.8% in 2021. Eastern European economies typically have the highest TEA rates.

The above findings raise important questions for policymakers as well as identify key areas for further research:

- Do economic or cultural factors drive the identified differences in each context? For example, North Americans appear more enterprising than Europeans in general, but what contributes to this?
- Why do TEA rates vary so much across Europe? Is it cultural factors, or do the long-term impacts of policies on entrepreneurial mindsets or on development account for these substantial differences in entrepreneurial activity between Western and Eastern European countries.
- From an economic point of view, social security systems, typically well developed in Western Europe, assure a safety net ensuring a certain degree of social well-being. But given the relative differences between economic development in Western and Eastern European countries, do these safety nets play a role in constraining entrepreneruship at the grassroots level? In fact, GEM identified a decrease in European entrepreneurship during the COVID-19 pandemic period. Was this at least partly attributable to the economic programs in place to support businesses that might otherwise have failed (leading to more entrepreneurship) during the crisis?

- Many of the richest subnational regions in Europe (often incorporating a major city) also have the highest levels of TEA, including Paris, Hamburg, London, Madrid, Barcelona and Milan. TEA rates tend to be higher in densely populated regions than in surrounding areas that are less populated (but not rural).

- Careful mapping across European regions shows that early-stage entrepreneurial activity rates varied much more within some countries than others. For example, TEA rates ranged from 10% to 19% across Estonia, and from 7% to 17% across Romania, but only from 4% to 6% across Polish regions.

Since entrepreneurial ecosystems are primarily a local phenomenon, it behooves decision-makers to investigate this phenomon on a local, regional or at least national level. However, policymakers can also ask themselves a variety of questions such as:

- How important are factors that operate on a national level, compared to local factors, when it comes to promoting entrepreneurship?
- Are there policies or regulatory issues that are discouraging entrepreneurship in rural areas?
- With limited resources to encourage entrepreneurship, how are these best used? Is there a better return on investment if resources are focused on areas where entrepreneurship is highest?
- With that in mind, and assuming more widespread entrepreneurship is the goal, what can be done to encourage more entrepreneurship in rural areas? For example:
    - Are there technology solutions that can enable and encourage entrepreneurship regardless of location?
    - What types of educational programs can be put in place, particularly in rural areas, to encourage entrepreneurship?
    - How can entrepreneurial hubs, networks and mentorship programmes be promoted in rural areas?
    - Many occupations in rural areas are conducive to entrepreneurship (agriculture/craft/food production), so how can more entrepreneurship be promoted in these specific sectors?

- Some regions score very high on all three entrepreneurial activity indicators (TEA, EEA – Entrepreneurial Employee Activity, and Established Business Ownership – EBO), including in Ireland (East), the United Kingdom (Eastern England), Finland (Helsinki), Estonia, the Netherlands (especially the Randstad area which includes Amsterdam, Rotterdam and The Hague) and Austria. Just three regions were in the bottom group for all three: Bosnia and Herzegovina, Toscana (Italy) and Molise (Italy).

- The wealth of entrepreneurial data at a regional level allows national governments to identify areas of entrepreneurial strength and weakness within their national economies, while the European Commission can do the same in comparing across European regions. For example, detailed mapping of TEA across Europe shows clusters with high levels of early-stage entrepreneurial activity in North East and Central Eastern Europe, both of which transcend national boundaries. Levels of entrepreneurial employee activity tend to be higher in Central, Western and Northern Europe, but also show ample regional differences.

- Perceived opportunities to start a new business locally were highest in northern Europe, including Poland (Pomorskie 81%) and Sweden (Vast Sverige 77%) and lowest in regions of Spain (Castilla-y-Leon 20%) and Germany (Sachsen-Anhalt 23%). There were large regional differences in opportunity recognition in the United Kingdom and in France.

- Individuals perceived fear of failure when it comes to starting a business is lowest in Norway (Sor-ostlandet, 23% of those seeing good opportunities, and Vestlandet 25%) and in regions of Central Europe, also displaying limited regional differences. Fear of failure is highest in regions of Spain (Ciudad Autónoma de Ceuta, 67%), Romania (Sud-Muntenia, 66%) and Greece (Ionia Nisia, 61%). Large regional differences in this measure are observed for France, the United Kingdom and Romania. South-Western Europe had the highest levels of adults who would be deterred by fear of failure, which is especially high in parts of Spain, Portugal, France and the UK, but lowest in Northern Europe.

- For many key demographics, differences between regions within economies were much less than differences between economies. For example, entrepreneurial gender gaps between rural, intermediate and urban regions are much smaller than those between economies in Europe. Note also that gender gaps between perceptions tend to be much smaller than gender gaps in entrepreneurial activities.

- Levels of TEA are highest in urban regions (except in Southern Europe), with intermediate regions typically lagging behind both urban and rural regions (except in Southern Europe).

- Across Europe, young adults (18-34) are more likely than older adults (35-64) to be starting or running a new business. Conversely, older adults are more likely to be owning and running an established business.

With regard to these findings, the reasons why activity rates vary so much from country to country and even within countries need to be investigated at a local, regional or at least national level. Policymakers can also ask themselves questions such as:

- How can success be fostered across all phases of entrepreneruship, taking account of the local characteristics of entrepreneuirship in the region under scrutiny?
- What are the factors in a given region of governance that are leading to imbalances/varying degrees of entrepreneurial activity?
- What are common characteristics of particular locations that are replicable in terms of promoting entrepreneurship across all regions and countries? Is there a common characteristic amongst, for example, Central Europe countries, that particularly encourages entrepreneurship?
- What is the relationship between level of development (e.g. opportunities to grasp “lower hanging fruits”, for example, in less developed economies) and levels of entrepreneurship? For example, is there more opportunity for entrepreneurship in Eastern Europe since it is less developed in certain sectors whereas in these same sectors, Western Europe has reached a saturation point?
- Can less developed countries leapfrog to new technologies, without having to run down assets, and therefore can do better across the different phases of entrepreneurship?
- In regard to employee entrepreneurship, do structural factors intervene? For example, European headquarters or main strategic bases of companies may be located in Western Europe, while manufacturing bases are often outsourced in Eastern Europe. Is this a factor in explaining differences in employee entrepreneurship ?
- Does the weighting of public versus private sector employees in economies affect employee entrepreneurship? There may be less opportunity to be entrepreneurial in the public sector, for example.
- Why is the gender gap in entreprepenurial activity so persistent when the gender gap in perception of opportunities for entrepreneurship has visibly narrowed? What stops women from turning entrepreneurial opportunity into activity?

- What educational or training programmes can be put in place to reduce, for example, regional or gender differences?
- What can be done about the prevalence of fear of failure, through education or programmes in risk management?
- What can be done to reduce the cost of business failure by limiting liabilities or changing insolvency laws?
- Also, what can be done to reduce fear of failure by promoting role models of entrepreneurs that had initially failed and then later succeeded.
- Is the definition of success different between generations? How can older people be encouraged into entrepreneurship by, for example, putting into place policies to reduce their specific risks, or by developing tailor made training programs?

This Report provides strong evidence suppporting an argument that European Union policy should be place-based, given the relevance of local context to entrepreneurial attitudes and activity levels. For example, regional policies to reduce spatial inequalities must recognise urban-rural disparities in entrepreneurial activity levels.

As is evident in the plethora of questions provided above, that policymakers can ask themselves about the findings presented here and in the rest of this report, regional GEM data provides fertile ground for future investigation and research, including the quantitative analysis of the determinants of differences in regional entrepreneurial activity levels.

It is interesting for venture capitalists, for example, to know that some regions do better than others when it come to entrepreneurship. After all, since entrepreneurship can help solve some of the world's biggest challenges, why not invest in those regions where entrepreneurship is more likely to flourishe, and can grow faster to create Silicon Valley-like hubs of entrepreneurship?

In the interest of promoting regional balance and equity, the European Commission can also invest in areas where there is patently less entrepreneurship and rebalance the equation by reducing regional, gender and age disparities. There is a lot to be done also to promote entrepreneurship for individual autonomy and non-dependence, as opposed to more traditional models of working for successful companies or the public sector. The findings presented in this report can help policymakers to frame the "right" questions to correct weaknesses when it comes to entrepreneurship.

More than anything, this Report shows that *entrepreneurship is pervasive; and can be found everywhere*. However, it also shows that entrepreneurship manifests itself differently in different contexts, shaped by cultural, institutional, demographic, economic and geographic characteristics. This is why it is important – particularly for policymakers – to paint a picture of the local profile of entrepreneurship and its conditions. Given the overall objectives that local communities and governments have set for themselves, the GEM Entrepreneurial Ecosystem Index (ESI) instrument, described in Chapter 5 of this report, is an effective tool to diagnose the current state of local entrepreneurial ecosystems. It presents an opportunity to describe an evidence base of the strengths and bottlenecks that can be discussed with local experts and as such serves as input for new interventions to take place. Local leaders can initiate the discussion and put development of the local entrepreneurial ecosystem prominently on their strategic agenda, to ensure entrepreneurial dynamism and economic resilience in such a way that it fits comfortably with the characteristics and objectives of each region.

1

Introduction

Entrepreneurship is a key mechanism that facilitates innovative processes and as such fuels economic progress and renewal. Practically all countries across the globe emphasize the importance of entrepreneurial talents in starting new initiatives and growing them into ventures that contribute to the local, national and sometimes even the global economy, with policies and programmes in place to support entrepreneurship. The Global Entrepreneurship Monitor (GEM) has contributed to these policies by providing harmonised, robust data based on primary data collection since 2001 at the national level worldwide. At the same time, it is clear that the relevant context for entrepreneurship can only partially be drawn out by national borders. In fact, entrepreneurship is played out within a variety of contexts, including social, economic, cultural and political dimensions, but remains very much a "regional event", as Maryann Feldman coined it, i.e. at the subnational level.[1]

Entrepreneurship unfolds when individuals pursue opportunities that they perceive in their environment. Such an environment is typically a combination of a family setting, a local network that may be nurtured by schools or higher education institutions, local leaders serving as role models, local support organisations such as incubators, and by an abundance (and variety) of investors. Such an environment also enables new opportunity creation: while undergoing entrepreneurial processes, entrepreneurs validating their ideas for (new) products or services in the market may spot new opportunities based on the feedback from consumers, investors, policymakers and other relevant actors in the region.

Over the last decade, this set of interactive elements that form the breeding ground of entrepreneurial activity has become known as the 'entrepreneurial ecosystem'. Several descriptions of successful entrepreneurial ecosystems have been offered, also showing that successful entrepreneurial ecosystems can exhibit different characteristics and configurations. Well-developed entrepreneurial ecosystems may be more resilient to local and global economic shocks, or better prepared to take advantage of an exogenous shock such as a technological breakthrough, or a pandemic.

The key aim of the Report is to provide a picture of the overall landscape of entrepreneurial activity across Europe, focussed at a regional (i.e. sub-national) level. The report shows basic patterns of entrepreneurial attitudes and activities that are potentially caused by national and supra-national characteristics, but also by local economic conditions and local norms and values. It does so by including all regions in the participating countries and does not limit the analysis to cities and regions that are considered to exhibit advanced entrepreneurial ecosystems.

This overview will generate valuable insights as it is based on consistent and harmonised primary data collection. The GEM database, normally used for comparing and contrasting entrepreneurship indicators across countries (and over time) has, for this unique purpose, been analysed at the regional level. To make this happen, all GEM individual level data from the GEM Adult Population Surveys (APS) from 2015-2021 have been merged into a large, pooled sample. Even though this hampers a longitudinal analysis, we know that regional variations in entrepreneurship are very pervasive[2].

Why is entrepreneurship a regional event? From existing research we know that the vast majority of nascent entrepreneurs simply opt to start their business in the region they live and/or work before becoming an entrepreneur[3]. At a later stage they may choose to relocate, although the overwhelming majority will continue their operations in the same region. Some of the successful entrepreneurs will become ambassadors for entrepreneurship in their own region; they may act as investors or take initiatives to help develop the local

1 Feldman, M. P. (2001). *The entrepreneurial event revisited: firm formation in a regional context*. Industrial and corporate change, 10(4), 861-891.

2 See for example Fritsch, M., & Wyrwich, M. (2014). *The long persistence of regional levels of entrepreneurship: Germany, 1925–2005*. Regional Studies, 48(6), 955-973.

3 See Figueiredo, O., Guimaraes, P., & Woodward, D. (2002). *Home-field advantage: location decisions of Portuguese entrepreneurs. Journal of Urban Economics, 52(2), 341-361, and Dahl, M., Sorenson, O. (2012): Home sweet home: Entrepreneurs' location choices and the performance of their ventures*. Management Science 58 (6), 1059-1071 .

entrepreneurial ecosystems, as many entrepreneurs maintain a close affinity with the region in which they have been able to flourish with their businesses. Location decisions are therefore based on much more than a basic calculation of which places would yield high profits for a certain idea. Indeed the very concept of entrepreneurial ecosystems that facilitate entrepreneurial activity is based on insights from theories of innovation and regional economic development, inter-organizational networks, regional innovation systems, economic sociology and business ecosystems[4].

There are a multitude of findings within this Report, summarised at the end of each chapter and in the Executive Summary. For example, many of the richest European regions (all of these including a major city) also exhibit the highest levels of Total early-stage Entrepreneurial Activity (TEA), certainly compared to other regions in their country. Examples highlighted in the country case studies in this report include Paris, Berlin, Hamburg, London, Madrid, Barcelona, Rome and Milan. We also observe, on average, a positive link between urbanity and levels of TEA. However we also find examples of urban regions with limited levels of entrepreneurial activity, such as Athens.

Taken together, we can discern distinct patterns of entrepreneurship and its conditions, assessed by the different GEM measures of entrepreneurial activity, entrepreneurial perceptions and components of the entrepreneurial ecosystem. Whereas the usual GEM National Expert Surveys (NES) paint a picture of the national ecosystem for entrepreneurship, GEM's new diagnostic tool ESI (Entrepreneurial Ecosystem Index) assesses local entrepreneurial ecosystems. This diagnostic tool can be used to further probe the strengths and weaknesses of the local conditions for entrepreneurship and serves as an evidence-based starting point for further strengthening the local entrepreneurship ecosystem.

REGIONS AND KEY INDICATORS USED IN THIS REPORT

For the report we have merged GEM data over the period 2015-2021 (involving more than 500,000 individual data points) to provide regional level entrepreneurship indicators for 231 regions encompassing 28 European countries.[5] We present our data, obtained from rigorous, harmonised data collection methods based on representative samples of the adult population (18-64 year old). Having harmonised data facilitates comparisons of entrepreneurship within and across countries. At the same time readers should be aware that data was collected from samples of the national populations. The point estimates per region presented in the report should be seen in perspective, with a certain confidence level (usually GEM adopts a confidence level of 95%) and associated upper and lower bounds. Hence, we make primarily conclusions on patterns we observe in the data rather than conclusions on specific outcomes for a particular region. GEM was founded to assess levels of entrepreneurship between countries, rather than within countries. The sample sizes required to make comparisons between economies (at least 2,000 adults per economy), are typically insufficient to make comparisons between regions within an economy (France, for example, has 14 regions). Fortuitously, each Adult Population Survey response has a regional marker, so pooled data can be allocated to regions within an economy.

The countries and regions included in this report are listed in Table A2, in Annex 2 of this report. Aligning with European standards for regional data collection, we have adopted the NUTS categories of EUROSTAT, a standard classification adopted in most European data collection efforts, for our regional classification[6]. The default spatial level is the NUTS2 level. For some smaller economies we opted for NUTS3, in particular when the NUTS2 level presented rather limited geographic detail (e.g. less than three NUTS2 regions). In larger economies such as France,

4 See e.g. Stam, E. (2015). *Entrepreneurial ecosystems and regional policy: a sympathetic critique. European planning studies, 23(9), 1759-1769; and Feldman, M., Fleming, L., Heaton, S., Desai, S., & Teece, D. (2022). Uncommon methods and metrics for local entrepreneurial ecosystems.* Research Policy, 104583.

5 Countries included are: Austria, Belgium*, Bosnia & Herzegovina*, Bulgaria*, Croatia, Cyprus, Estonia*, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom. However, not all countries are evenly represented during 2015-2021. For economies indicated with * data availability is limited to a number of indicators as these economies did not participate in GEM between 2019-2021 when the entrepreneurial perception indicators had been newly designed. The activities underlying this data effort involved tracing back all individual responses and assigning these along the appropriate regional classification. Concerning data for the United Kingdom, 2018-2021 data used are based on the national sample only. Additional data collected in UK regions are reported in the GEM United Kingdom reports for more information.

6 The 2021 classification is adopted where possible, see https://ec.europa.eu/eurostat/web/nuts/background

Germany and the United Kingdom we resort to NUTS1, as for these economies adopting NUTS2 would result in limited sample sizes per region.[7]

Key GEM indicators used in this report include the percentage of adults aged 18-64 who:

- Perceived opportunities to start a business locally (responding 'fully agree' or 'somewhat agree' to the question: "In the next six months, there will be good opportunities for starting a business in the area where you live.")
- Perceived knowledge, skills and experience to start a business: (responding 'fully agree' or 'somewhat agree' to the question: "You personally have the knowledge, skill and experience required to start a new business.")
- Saw fear of failure as a reason not to start a business: (seeing good opportunities but also respond 'fully agree' or 'somewhat agree' to the question: "You would not start a business for fear it might fail.")
- Were engaged in Total early-stage Entrepreneurial Activity (TEA): (those who are currently (i) actively setting up a business they expect to own and manage; or (ii) owning and managing a new business, defined as one that has existed for up to 42 months).
- Were engaged in Established Business Ownership (EBO): (currently owning and managing a business that has existed for 42 months or more).
- Were enagaged in Entrepreneurial Employee Activity (EEA): (currently involved in entrepreneurial activity as part of their work as an employee).

We set out these entrepreneurship rates against some key demographic characteristics such as age, gender and education.[8] Additionally we look at differences between the four main areas categorised as Eastern Europe, Northern Europe, Southern Europe and Western Europe as classified by the UN Geoscheme.[9] Furthermore, we distinguish between regions that are predominantly rural, urban or intermediate between these two, based on Eurostat classifications.

STRUCTURE OF THIS REPORT

Before reporting on entrepreneurship in European regions, we first outline some generic features of 'Entrepreneurship in Europe' in comparison to other parts of the world (Chapter 2). We also show some of the key differences across the national economies, and highlight some of the trends observed over time. Chapter 3 presents the body of the report by describing differences in entrepreneurial activities and entrepreneurial perceptions across European regions. Chapter 4 zooms in on the characteristics of entrepreneurship (and regional differences herein) in six of the largest European economies: France, Germany, Italy, Poland, Spain and the United Kingdom, chosen both for their size and for their regular participation in GEM. Chapter 5 looks at regional ecosystems while Chapter 6 concludes.

7 This is a consequence of GEM being conceived as an international project with analyses at the national level. For this reason, sample sizes in less populated areas in larger countries tend to fall short.

8 This report focuses on generic indicators and does not include more specific types of entrepreneurship such as high-impact entrepreneurship, innovative entrepreneurship or scale-ups. These types (self-reported by the entrepreneurs in the sample) can be observed in GEM data, and are thus also part of the underlying database. However, given the small sample sizes in many of the regions discussed in the report, we have opted for not including these subdivisions of entrepreneurship.

9 See https://unstats.un.org/unsd/methodology/m49/

2

Entrepreneurship in Europe

As the Global Entrepreneurship Monitor (GEM) has documented consistently, there are wide variations in cross-national levels of entrepreneurship. Annual GEM Global and National Reports have contributed to a better understanding of these differences and have shown varioust trends over time within and between countries. The first two decades of this century can be characterised by an increasing acknowledgement of an interdependent and mainly positive relationship between entrepreneurship and economic growth in academic studies and policy documents, ranging from the EU-level to local regions. With an increasing emphasis on overall wellbeing and new focus on Sustainable Development Goals (SDGs), the discourse has also shifted towards the opportunities that entrepreneurship may bring for creating social and environmental value.

This chapter provides a scan of entrepreneurship in Europe. We first take a very wide angle by briefly comparing entrepreneurship levels and opportunity recognition in Europe against other global regions. We do this by showing patterns for two indicators of entrepreneurial activity (total early-stage entrepreneurial activity and entrepreneurial employee activity) and one indicator of entrepreneurial perceptions (perceived opportunities). We then identify some of the key differences between countries within Europe, while also displaying some interesting trends over time. Taken together this provides the overall background that will help in analysing regional differences.

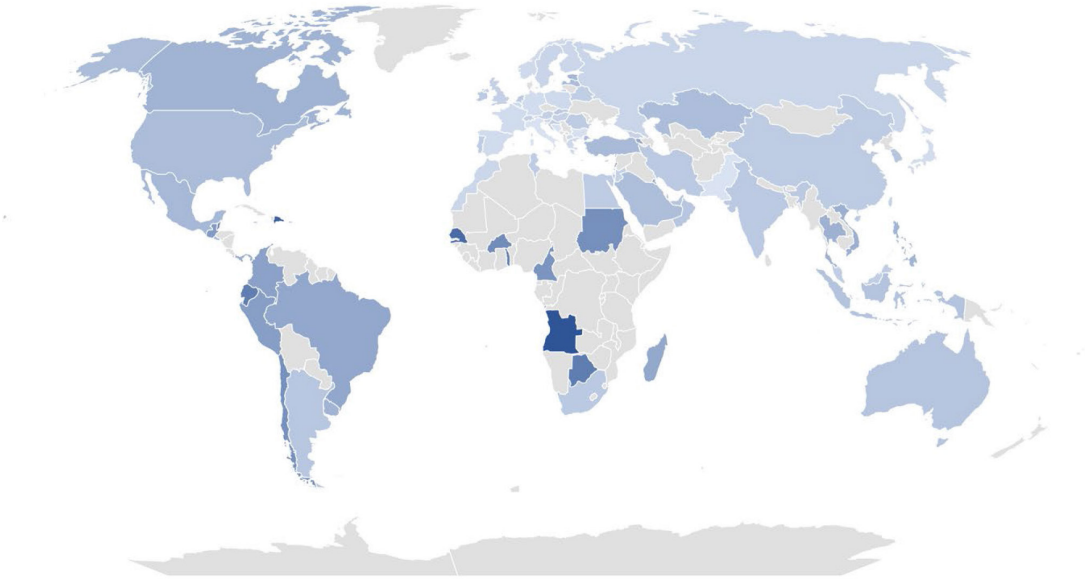
2.1 ENTREPRENEURSHIP IN EUROPE: A COMPARISON WITH OTHER GLOBAL REGIONS

When it comes to involvement in Total early-stage Entrepreneurial Activities (TEA; the percentage of 18-64-year old adults actively involved in either setting up a business or owning and managing a new business that has existed up to 42 months), Europe is far from the most entrepreneurial part of the world. The numbers presented in Map 2.1 refer to early-stage entrepreneurial activity for GEM 2015-2021 participating economies. This is certainly not a new observation. An earlier GEM/World Economic Forum report found that European economies did not exhibit the same levels of entrepreneurial activity as other global regions.[10]

For example, some South American economies and the United States perform significantly better than Europe with regards to entrepreneurship levels. The European continent on average exhibits approximately two-thirds of the entrepreneurship level of the United States, and just over a third of levels among some South American economies. However, this masks substantial national, and even more regional heterogeneity in entrepreneurial activities: European countries with relatively high TEA rates include the Baltic States, the United Kingdom, Ireland, the Netherlands, Croatia, Portugal and Turkey.

10 http://www.weforum.org/reports/leveraging-entrepreneurial-ambition-and-innovation-global-perspective- entrepreneurship-compe

MAP 2.1
TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY BY NATIONAL ECONOMY: PERCENTAGE OF ADULT POPULATION 18-64 (AVERAGES 2015-2021)



Total early-stage Entrepreneurial Activity (TEA)

3.7 45.2

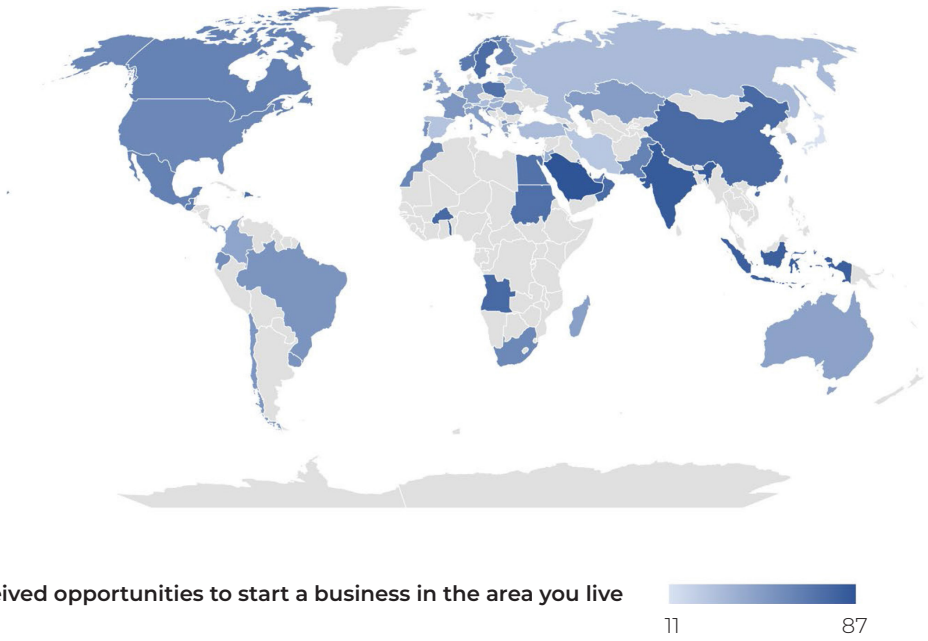
Source: Global Entrepreneurship Monitor
Note: data entries include averages of GEM 2015-2021 data per economy; grey indicates no data

Can this apparent gap of European entrepreneurial activity in comparison to other parts of the world be explained? Do European inhabitants identify fewer opportunities to start a business? This can be assessed by examining the extent to which European adults report that they see good opportunities to start a new business in the area where they live. Map 2.2 shows that even though differences within Europe exist, the overall difference between European countries and other global regions is not as clear as with TEA in Map 2.1. Then why do these fairly positive perceptions for starting new businesses not materialise?

The previous GEM/WEF report noted above considered this question. A key explanation may be the extent to which conditions for employment are favourable in Europe. Many European countries offer a good social-security safety net and favourable conditions for employment (in comparison to self-employment), which influences the attractiveness of being or becoming an independent entrepreneur relative to being an employee. It may also be the case (however not sufficiently researched so far) that organisations in particular countries tend to offer positions in which talented entrepreneurial individuals can actually pursue entrepreneurial activities as an employee (so-called intrapreneurship). GEM has included the Entrepreneurial Employee Activity (EEA) measure since 2011 in order to be able to monitor this important component of entrepreneurship[11]. Map 2.3 highlights that European countries host many entrepreneurial employees, along with economies such as the United States, Chile and Australia.

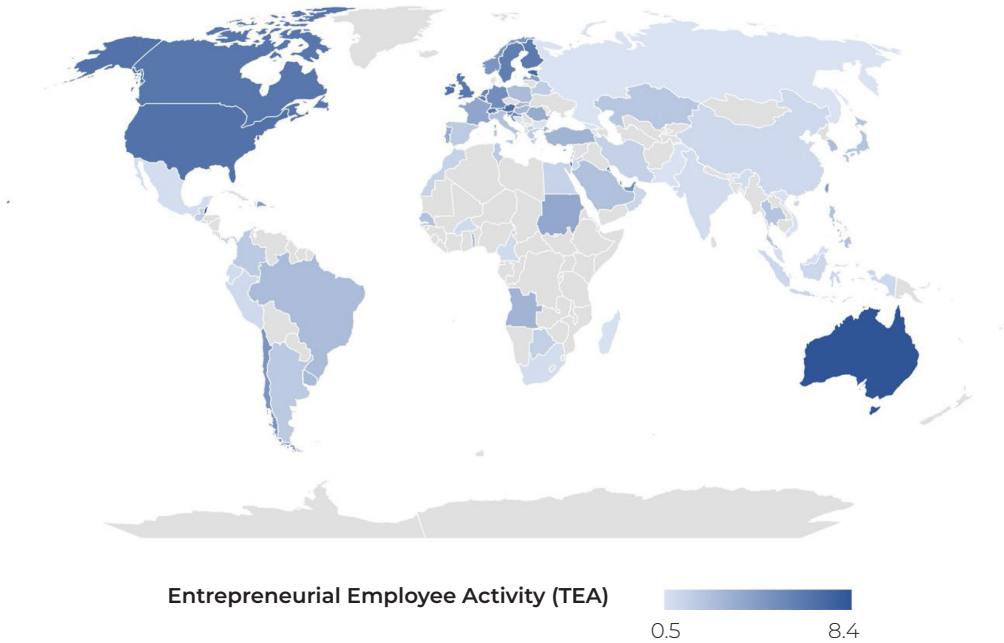
11 Entrepreneurial Employee Activity, is also captured in generally acknowledged definitions of entrepreneurship in the academic literature, such as the definition put forward by Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.

MAP 2.2
PERCEIVED OPPORTUNITIES TO START A BUSINESS BY NATIONAL ECONOMY: PERCENTAGE OF ADULT POPULATION 18-64 (AVERAGES 2019-2021)



Source: Global Entrepreneurship Monitor
Note: data entries include averages of GEM 2019-2021 data per economy; grey indicates no data

MAP 2.3
ENTREPRENEURIAL EMPLOYEE ACTIVITY BY NATIONAL ECONOMY: PERCENTAGE OF ADULT POPULATION 18-64 (AVERAGES 2015-2021)



Source: Global Entrepreneurship Monitor
Note: data entries include averages of GEM 2015-2021 data per economy; grey indicates no data

2.2 PATTERNS OF ENTREPRENEURSHIP ACROSS EUROPEAN ECONOMIES

We now turn towards national differences in entrepreneurial perceptions and entrepreneurial activity levels across national economies within Europe. Table 2.1 shows the outcomes of six key GEM measures, obtained by averaging the annual outcomes of each indicator over time. It should be acknowledged that these averages are not subject to the exact same time window; while some economies participated in GEM throughout 2015-2021, others have not collected data in one or more of these years. We therefore focus on some overall patterns without highlighting specific economies too much. We do this by showing maps of the indicators.

This helps to establish that, as Map 2.2 has already hinted, perceived opportunities to start a business in the area where GEM survey respondents live differ vastly across Europe. Map 2.4 shows that these rates of opportunity recognition vary roughly from one in every four inhabitants seeing such opportunities to three in four. Whether values tend to be high or low may have many causes; current economic conditions may be assessed as (un)favourable for starting a business, but it may also be dependent on perceptions of the extent to which entrepreneurship is supported by the government. We also note the effects of the coronavirus pandemic, which may have caused perceived opportunities to be lower overall, particularly in 2020. In some countries this was maintained in 2021, in others entrepreneurship rates increased again from 2021 onwards (see section 2.3), as new business opportunities were recognised and as motives for starting a business shifted somewhat.

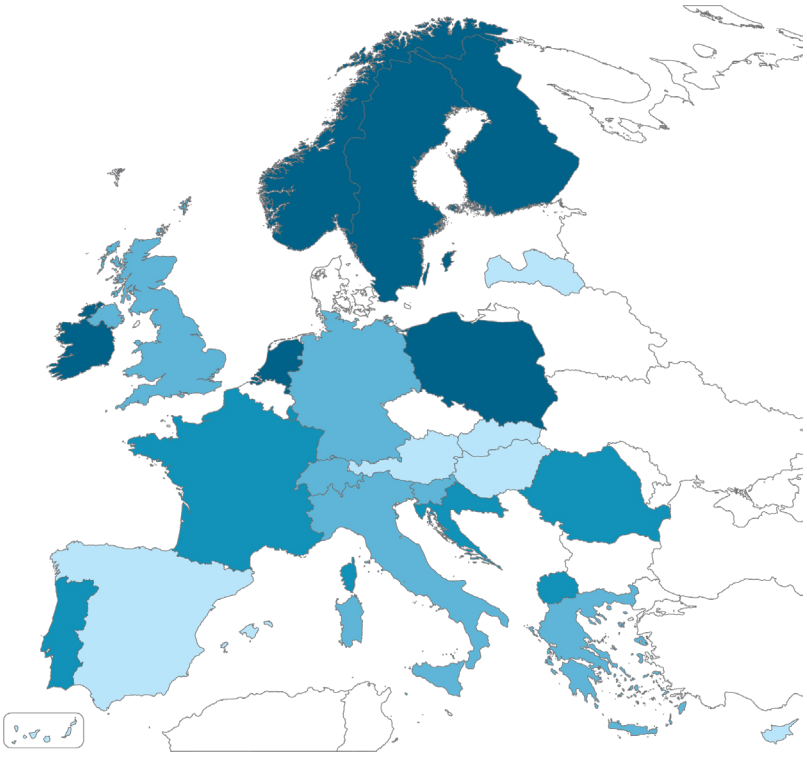
We also see a wide variety of TEA levels across European countries, with lowest rates around 4 percent of the 18-64 population and highest rates of over 16 percent. Overall, Eastern European countries exhibit relatively high TEA rates, even though exceptions can also be seen, both from economies in Eastern Europe with low TEA rates and from national economies in Western and Southern Europe with high TEA rates.

It should be borne in mind that TEA represents all types of entrepreneurial activity, ranging from solo self-employment to entrepreneurs expecting to employ many people. Map 2.5 again confirms that, for example, Northern European countries that signal good opportunities for entrepreneurship without high actual early-stage entrepreneurial activity in terms of start-ups, do witness higher rates of entrepreneurial employee activity. Thus, in these countries, entrepreneurial opportunities tend to be picked up more frequently by intrapreneurship (within organisations) rather than by independent entrepreneurs.

MAP 2.4
PERCEIVED OPPORTUNITIES TO START A BUSINESS IN EUROPE, GEM COUNTRY AVERAGES 2015-2021

Dimension: % of 18-64 year old who think that in the next 6 months there will be good opportunities for starting a business in the area where they live

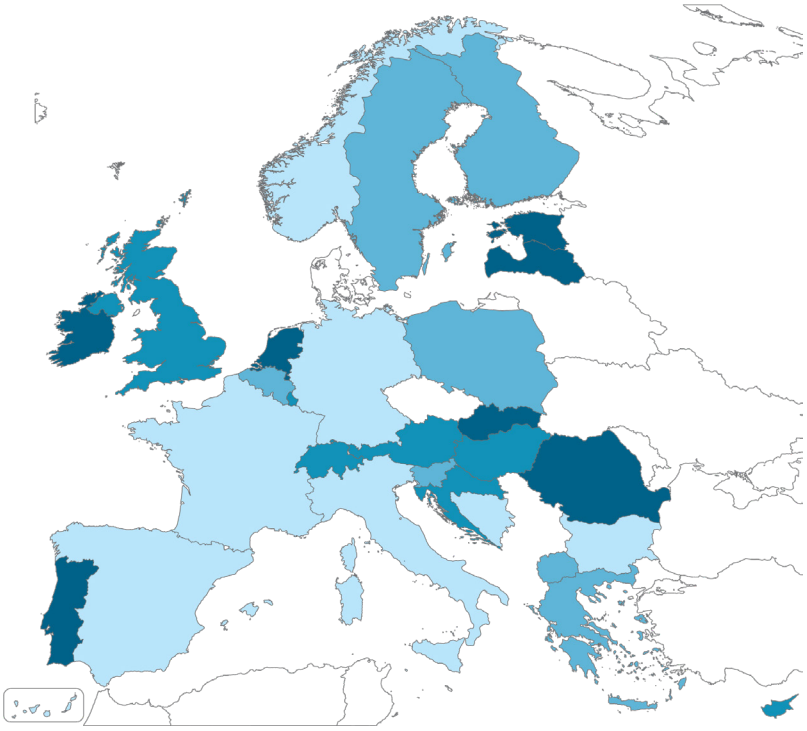
- < 40.00 %
- 40.00 % - 48.00 %
- 48.00 % - 53.75 %
- > 53.75 %
- no data



MAP 2.5
EARLY-STAGE ENTREPRENEURIAL ACTIVITY IN EUROPE, GEM COUNTRY AVERAGES 2015-2021

Dimension: % of 18-64 year old

- < 6.20 %
- 6.20 % - 8.00 %
- 8.00 % - 10.10 %
- ≥ 10.10 %
- no data



MAP 2.6
ENTREPRENEURIAL EMPLOYEE ACTIVITY IN EUROPE, GEM COUNTRY AVERAGES 2015-2021

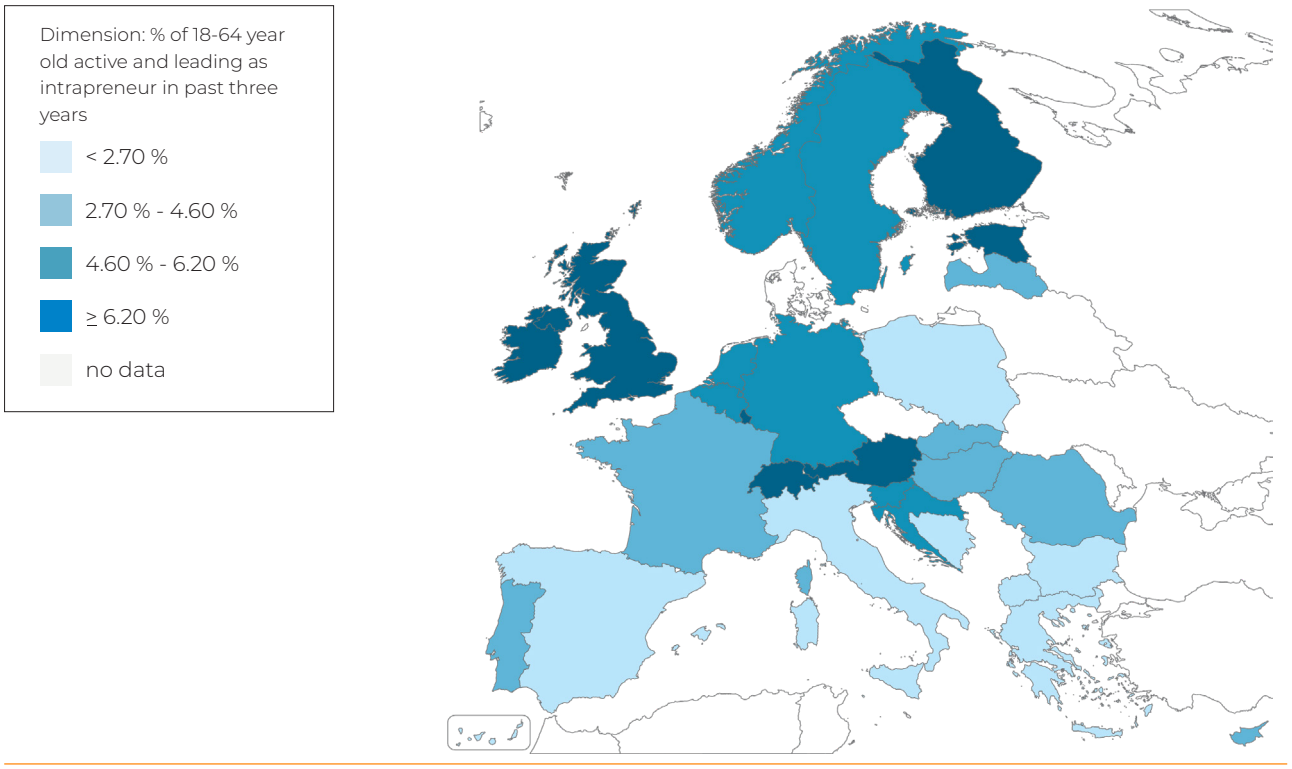


TABLE 2.1 Entrepreneurship Indicators across Europe, country-averages 2015-2021, all % adults

	Perceived local opportunities	Perceived capabilities	Fear of failure rate	Total early-stage Entrepreneurial Activity (TEA)	Established Business Ownership (EBO)	Entrepreneurial Employee Activity (EEA)
Austria	31	53	37	8.9	7.7	6.9
Belgium				6.2	3.8	6.1
Bosnia and Herzegovina				4.0	1.4	0.5
Bulgaria				4.5	6.6	0.5
Croatia	54	72	49	10.0	3.9	5.9
Cyprus	37	60	45	8.7	8.2	4.4
Estonia				16.2	9.0	7.2
Finland	61	43	45	7.1	8.8	6.3
France	52	49	44	5.8	3.5	3.9
Germany	45	44	33	5.6	6.0	5.2
Greece	42	53	48	6.6	13.4	1.7
Hungary	37	36	34	8.5	6.8	2.9
Ireland	54	50	41	10.6	5.8	6.9
Italy	47	51	34	3.9	4.8	2.3
Latvia	37	55	42	14.8	10.1	4.1
Luxembourg	51	49	44	9.2	3.6	6.4
Netherlands	61	44	34	10.9	9.3	5.8
North Macedonia	50	61	47	6.3	7.0	1.8
Norway	67	38	32	6.2	4.9	4.8
Poland	70	57	44	6.4	10.3	2.6
Portugal	54	61	53	10.2	8.4	3.5
Romania	49	50	48	10.3	5.8	3.6
Slovakia	37	50	46	10.9	6.5	2.9
Slovenia	47	58	43	6.8	6.9	6.1
Spain	28	51	51	5.8	6.7	1.8
Sweden	74	51	43	7.6	4.9	6.1
Switzerland	41	48	29	8.6	10.0	6.5
United Kingdom	44	54	48	8.9	6.3	6.4

Note: GEM Countries participated unevenly during 2015-2021

2.3 TRENDS IN ENTREPRENEURSHIP INDICATORS

GEM is able to identify long term developments in entrepreneurial activity linked to important socio-economic phenomena that may have influenced these entrepreneurship levels. By examining four of the larger European countries that have collected GEM data over the past two decades with a data gap of at most one year (Germany, Italy, Spain and United Kingdom, see Figure 2.1), some interesting trends can be observed. While rates were close together in 2002, they soon diverged. For example, TEA increased in Spain between 2005 and 2008, and then decreased, followed by a further gradual increase after the financial crisis (2010-2013) which hit the country hard.

On further inspection, this increase can mainly be attributed to necessity-driven entrepreneurship: with entrepreneurs indicating that the main reason for starting the business was because they could not find a better way to earn an income[12]. Another interesting feature of Figure 2.1 is the United Kingdom's rise in TEA rates after 2019, when Brexit became a reality. While 2020, the year in which the coronavirus pandemic manifested, still showed a drop in TEA, 2021 saw a large increase – most likely due to postponement of start-up decisions paired with the recovery of the economy as lockdown restrictions were eased[13]. Germany had a more stable TEA rate, fluctuating between 4-9 percent of the aged 18-64 population. TEA rates in Germany, the United Kingdom and Spain increased in 2022. (Italy did not participate in the GEM Adult Population Survey in 2022).

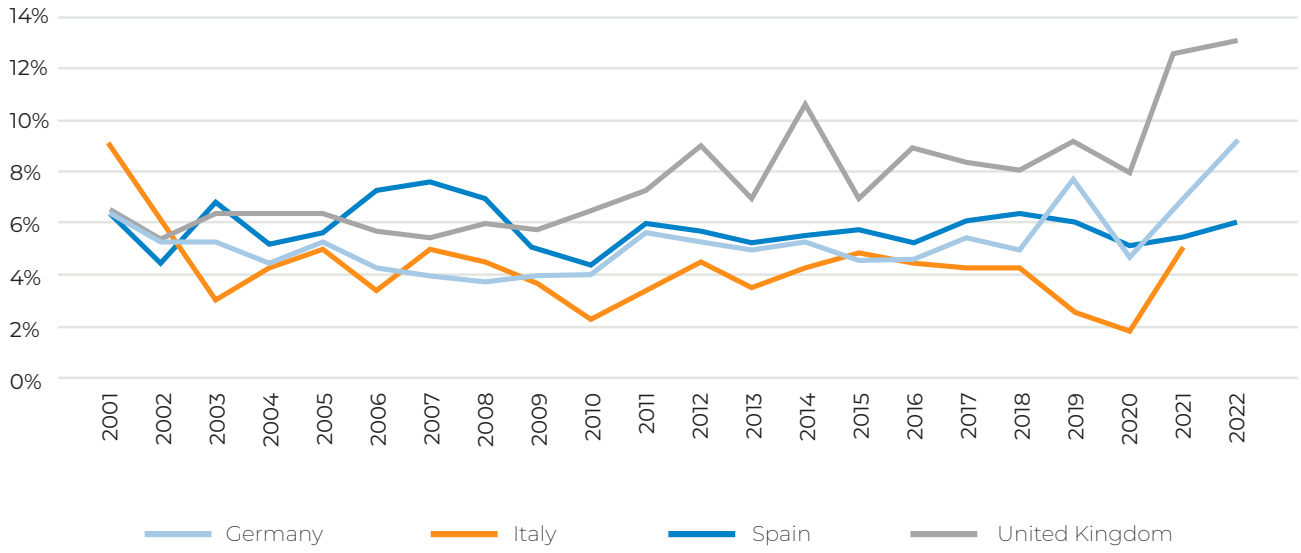


FIGURE 2.1 Total early-stage Entrepreneurial Activity rates, selection of larger European countries, 2001-2022

12 See Peña, I., Guerrero, M., González-Pernía, J.L., and Montero, J.(2018). *Global Entrepreneurship Monitor. Informe GEM España 2017-2018. Since 2019*, GEM has utilised a different way to derive motivations for starting a business in order to move away from a constructed opportunity-necessity dichotomy which was found to not accurately reflect reality.

13 Hart, M., Bonner, K., Prashar, N., Ri, A., Mwaura, S., Sahasranamam, S. and Levie, J. (2022). *Global Entrepreneurship Monitor UK Report 2021/22*.

Figure 2.2 shows the development of this entrepreneurship indicator over the past decade[14]. Among these four larger European countries, EEA is generally higher in the United Kingdom and Germany, as Map 2.6 has already shown. However, both countries experienced some decline in 2020 and 2021, possibly due to uncertainty caused by the pandemic. Spain and Italy instead seem to be doing better by 2021. More years of data will yield clearer patterns in terms of differences over time and across countries, such as with the GEM measure of perceived opportunities to start a business in Figure 2.3, where business cycle patterns and the shock of the coronavirus pandemic effect can clearly be observed.

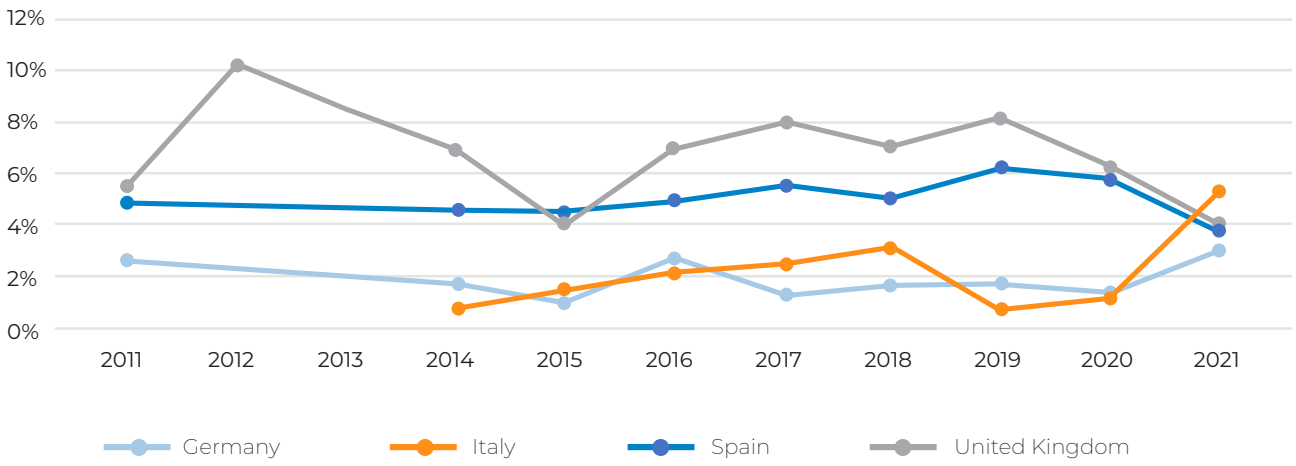


FIGURE 2.2 Entrepreneurial Employee Activity (EEA) rates, selection of larger European countries, 2011-2021

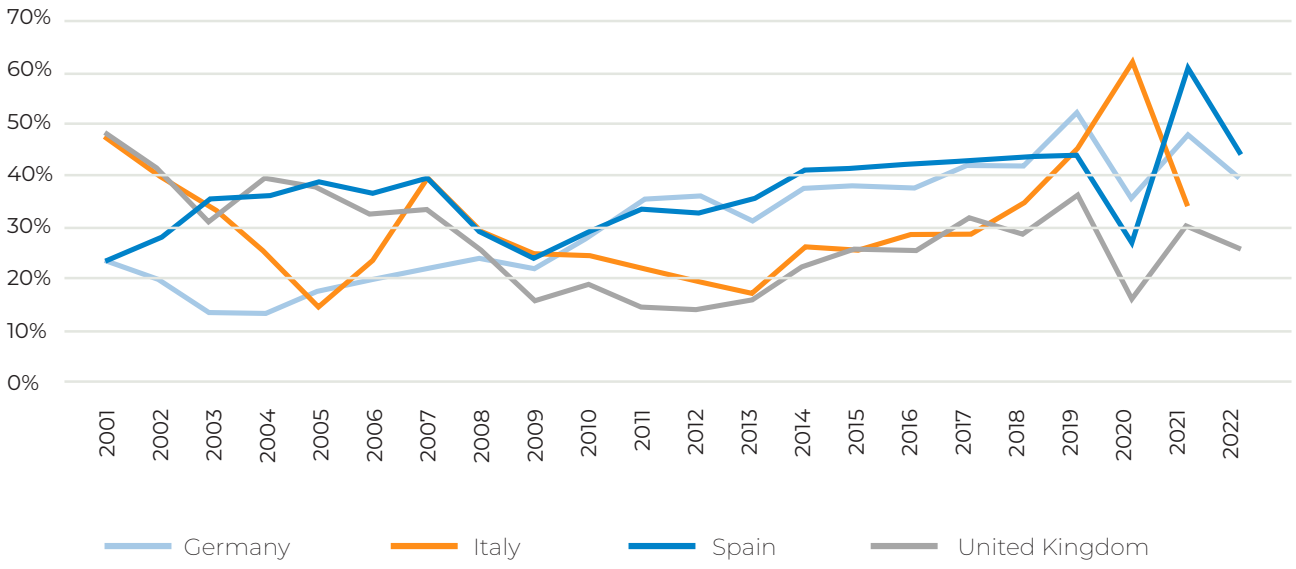


FIGURE 2.3 Perceived opportunities to start a business locally, selection of larger European countries, 2001-2022

14 In 2022, GEM omitted questions related to entrepreneurial employee activity in order to make room for questions related to the coronavirus pandemic and to Sustainable Development Goals.

2.4 CONCLUSIONS

This chapter has provided an overview of entrepreneurship across Europe and has demonstrated that levels of entrepreneurial activity are generally lower across Europe than in many other parts of the world, particularly in North and South America.

These entrepreneurial activity level differences are despite rates of opportunity recognition in Europe that are much closer to global averages, suggesting societal, economic and cultural factors reduce entrepreneurial activity in Europe more than in other parts of the world. High on this list of factors may be the greater employment opportunities available in Europe, and the widespread availability of a social security "safety-net" for those unable to find employment. Given higher levels of employment, one important outlet for entrepreneurial talent in Europe may be the greater prevalence of Employee Entrepreneurial Activity, i.e. those employees undertaking entrepreneurial activities as part of their paid work.

There are of course substantial differences in TEA levels across Europe, summarised in Table 2.1 on page 25. The highest average levels were in some former Soviet states, including Estonia and Latvia, followed by the Netherlands, Ireland and Slovakia. The lowest levels were in Bosnia and Herzegovina, Italy and Bulgaria.

Of the six large European economies considered in detail in this Report, the highest levels of TEA in 2022 were in the United Kingdom, France and Germany, with Spain and Poland well behind.

The pandemic severely reduced levels of TEA initially (2020) in many countries, with some recovery in TEA rates in Spain and Italy in 2021 and in Germany and the United Kingdom in 2022.

ENTREPRENEUR HIGHLIGHT

Vitja and Marjana Sikošek

Co-founders of Vitjashop d.o.o. (Slovenia)

How government programs can propel entrepreneurs

Vitja Sikošek has loved nature and exercise ever since he was a little boy. He now has the opportunity to incorporate his hobbies and passion into his work having co-founded Vitjashop d.o.o. together with his wife Marjana.

The company runs the vitja.si website, which raises awareness about the importance of health, fitness, well-being and appearance. It offers comprehensive solutions for achieving goals through dietary changes and optimization of trace elements in the body.

Fulfilling this childhood dream has been made possible thanks in part to a government program. Vitjashop d.o.o. was incubated within the scale-up program of Venture Factory, made possible by SPIRIT Slovenia. The company received a convertible loan from the Slovene Enterprise Fund and joined the startup Plus program in 2020. Today, Vitjashop d.o.o. markets its own and other innovative products and has built a large community of trusting customers.

According to Vitja, he decided to become an entrepreneur because he truly enjoys working on his hobby and appreciates the freedom to work in different places, including summers by the seaside. He inspired Marjana to become an entrepreneur as well and join the company as a co-founder. Marjana and Vitja say that they complement each other perfectly in their work and are like yin and yang. What one lacks, the other makes up for. They say:

> *"Entrepreneurship allows us to live a fulfilled life. It is like a never-ending game. The work never ends, but if you love what you do, you are happy to do it even on holidays, weekends and wherever you are."*

3

Patterns of Entrepreneurship across European Regions

This chapter uses pooled data (2015-2021) to provide an overview of regional patterns in entrepreneurship across European countries. As previously discussed, it is relevant to discern subnational regions in assessing entrepreneurial activity, since much entrepreneurial activity can be described as regional events. As noted before in this Report in Table 2.1, the analysis is limited to three entrepreneurial activity measures and three perception measures (see also Annex 1 for information on the Global Entrepreneurship Monitor and a description of these indicators). The corresponding indicators for every region are shown in Table A2 in Annex 2.

3.1 ENTREPRENEURIAL ACTIVITY IN EUROPEAN REGIONS

Starting with observed entrepreneurial activity, and given the country-level analysis in Chapter 2, it is insightful to observe a combination of three key indicators on entrepreneurial activity rather than one isolated measure. Map 3.1 presents GEM indicators on Total early-stage Entrepreneurial Activity (TEA), Established Business Ownership (EBO) and Entrepreneurial Employee Activity (EEA). It represents a mix of entrepreneurship that can bring new dynamism (TEA), stability for local communities (EBO) and entrepreneurial opportunities for employees (EEA). Figure 3.1 shows how these three different types of entrepreneurial activity rates compare across gender and different degrees of population density (discerning predominantly rural, urban and intermediate regions). Furthermore, Figure 3.2 shows different patterns across gender and the four larger European zones along the UN classification. A number of general observations can be made:

1. Variations in entrepreneurship rates are apparent within most national economies.

For example, TEA ranges between 2.9% and 8.9% in Germany and 7.0% and 17.1% in Romania. In other economies there is less of a regional difference, for instance in Poland where it ranges between 4.4% and 6.4%. Overall, note that established business ownership and entrepreneurial employee activity exhibit less regional variation than early-stage entrepreneurial activity.[15]

Within Eastern Europe, regional TEA is highest in Romania (Bucuri, 17.1%) and lowest in Poland (Kujawsko-Pomorskie, 4.4%), while EEA is also highest in Bucuri (6.3%) but lowest in Hungary (Del-Alfold, 1.0%).

In Northern Europe, TEA for regions is highest in Estonia (Pohja-Eeste, 18.7%) but less than a quarter of this in Norway (Innlandet, 3.9%). Meanwhile, regional EEA is generally stronger than elsewhere in Europe, although ranging from a low of 0.7% in Latgate (Latvia) to a high of 7.1% in Pohja-Eeste.

Southern Europe has generally lower levels of regional TEA, from 2.4% in Piemonte in Italy up to 9.5% in Zasavsk in Slovenia. Regional Entrepreneurial Employee Activity (EEA) is also typically low, ranging from 0.8% in Asturia (Spain) to 6.6% in Algarve (Portugal).

Finally Western Europe generally has high levels of both TEA and EEA, with the former ranging from 2.9% in Mecklenberg (Germany) to 13.9% in Utrecht (Netherlands), while the latter varying from 1.1% in Hauts-de-France to 9.8% in Vlaams-Brabant (Belgium).

The overall positive association between TEA and EEA at a regional level can be demonstrated quite simply. In nine European countries, the region with the highest

15 This is consistent with earlier analysis on GEM-based data, see Bosma, N., & Schutjens, V. (2011). *Understanding regional variation in entrepreneurial activity and entrepreneurial attitude in Europe. The Annals of Regional Science*, 47(3), 711-742.

level of TEA also has the highest level of EEA (Romania, Slovakia, UK, Sweden, Finland, Estonia, Portugal, Netherlands and Austria), while in eight countries, the region with the lowest level of TEA also has the lowest level of EEA (Croatia, Sweden, Norway, Finalnd, Portugal and Slovenia). This might suggest that indidivual and employee entrepreneurship may be complementary rather than competing features of the regional economy. However, there are also clear exceptions: in Belgium for instance, Vlaams-Brabant has both the lowest level of TEA and the highest level of EEA.

The overall pattern is shown in Figure 3.1, which plots the level of TEA against the level of EEA for each of the 231 regions of Europe in the 27 European economies with some participation in the Global Entrepreneurship Monitor over the period 2015-2021. While there is some evidence of positive association, there are plenty of contradictory cases: regions with high TEA but low EEA, or vice versa. Examples of the former include Latgate in Latvia, Kirde-Eesti in Estonia and Nyuget-Dunantul in Hungary [16]. The latter are fewer, but include both Vlaams-Brabant and Brabant-Wallon in Belgium.

More generally, the chart provides some guide to the most (and least) entrepreneurial regions in Europe. Among the most entrepreneurial were Pohja-Eesti and Kesk-Eesti in Estonia, Dublin and Mid-East regions in Ireland, Riga in Latvia and Utrecht in the Netherlands. Among the least entrepreneurial were Canarias and Calabria in Spain, Brandenberg and Mecklenberg in Germany, Bosnia Herezegiovona, Normandy in France and Innlandet in Norway.

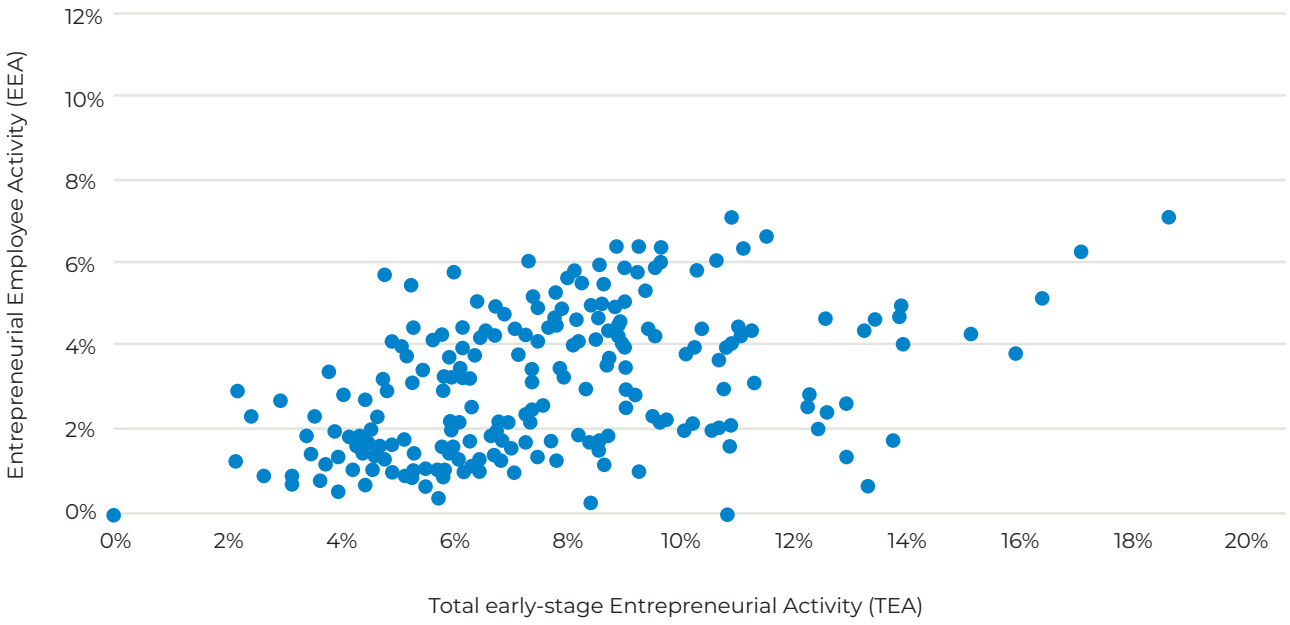


FIGURE 3.1 Total early-stage Entrepreneurial Activity (TEA) and Employee Entrepreneurial Activity,(EEA) both % adults between 18-64 years, 231 European Regions.

16 Data for individual regions is tabulated in appendix 2.

2. Regional patterns of the three different measures of entrepreneurship diverge.

In densely populated areas, TEA rates tend to be higher than in surrounding areas that are less heavily populated but not rural (see Figure 3.1). This is illustrated for instance in urban regions Paris and Mediterranean France, Berlin and Hamburg, the Western part of the Netherlands, the Helsinki area, various regions in the United Kingdom, Madrid, Catalunya and Athens. Note that entrepreneurial gender differences persist across all region types.

Established business ownership tends to be higher in Southern and Eastern European countries (see Figure 3.2). Entrepreneurial employee activity, instead, appears to be a prominent mode of entrepreneurship in Northern and Central European economies. From Figure 3.3, in Southern Europe, urban areas show relatively lower TEA rates in comparison to, for example, Northern and Western Europe. In Eastern Europe, regions with an intermediate degree of urban areas show lower TEA in comparison to rural and urban regions.

3. The resulting entrepreneurship profiles differ.

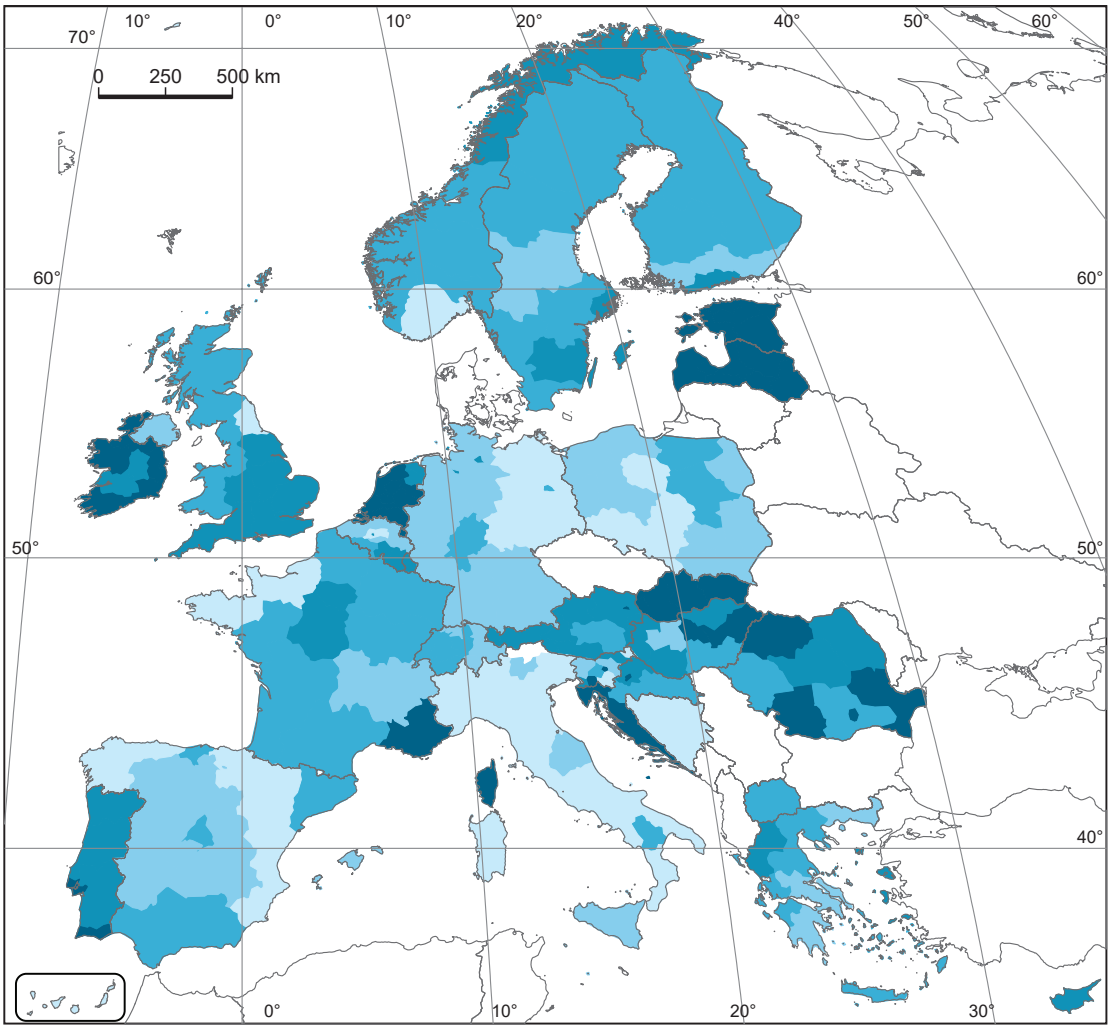
A group of regions have above-average scores on all three measures. This group includes regions in Eastern Ireland (Dublin area), Eastern England (London and surroundings), Southern Finland (Helsinki area), Estonia, Netherlands (mainly Randstad area) and Austria. In these regions there appears to be a promising mix of entrepreneurial dynamism and stability, where entrepreneurial opportunities can be pursued either independently as self-employed or as an employee. This may be caused by favourable entrepreneurial ecosystems; a mix of supporting, interrelated national (e.g. national regulations and programs) and local conditions that enable productive entrepreneurship.[17]

Looking at the other end of the spectrum, there are very few regions scoring low on all three indicators. There are just three regions out of 231 that have values in the lowest dimension of all three indicators of entrepreneurial activity[18]. This suggests that, no matter what, a basic level of entrepreneurship is always prevalent. This is an important observation as it signals entrepreneurial potential from the side of the inhabitants. These regional GEM results thus offer an initial diagnosis of what type of entrepreneurial activity might be improved. Yet, at the same time information from other relevant sources, including the expert opinions of stakeholders, should be taken on board when designing measures and policies aimed at enhancing the quality and quantity of regional entrepreneurship. Depending on the local economy, some regions may try to spur new entrepreneurial activity (TEA) in regions where established entrepreneurship is relatively high. Other regions may wish to spur entrepreneurial employee activity in particular, and ensure that innovation continues to take place in some of the larger organisations that the region hosts. Obviously, this is an interplay between local and national policymakers jointly with large established businesses.

17 For a detailed description on entrepreneurial ecosystems, see Stam, E. (2015). *Entrepreneurial ecosystems and regional policy: a sympathetic critique. European planning studies*, 23(9), 1759-1769.

18 These regions are Bosnia & Herzegovina, Toscana (IT) and Molise (IT). However, remember that due to the statistical nature of the data, we cannot state with 95% confidence that these three regions score lower than the threshold of the lowest dimension in these figures.

MAP 3.1
TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) LEVELS ACROSS EUROPEAN REGIONS (2015-2021)

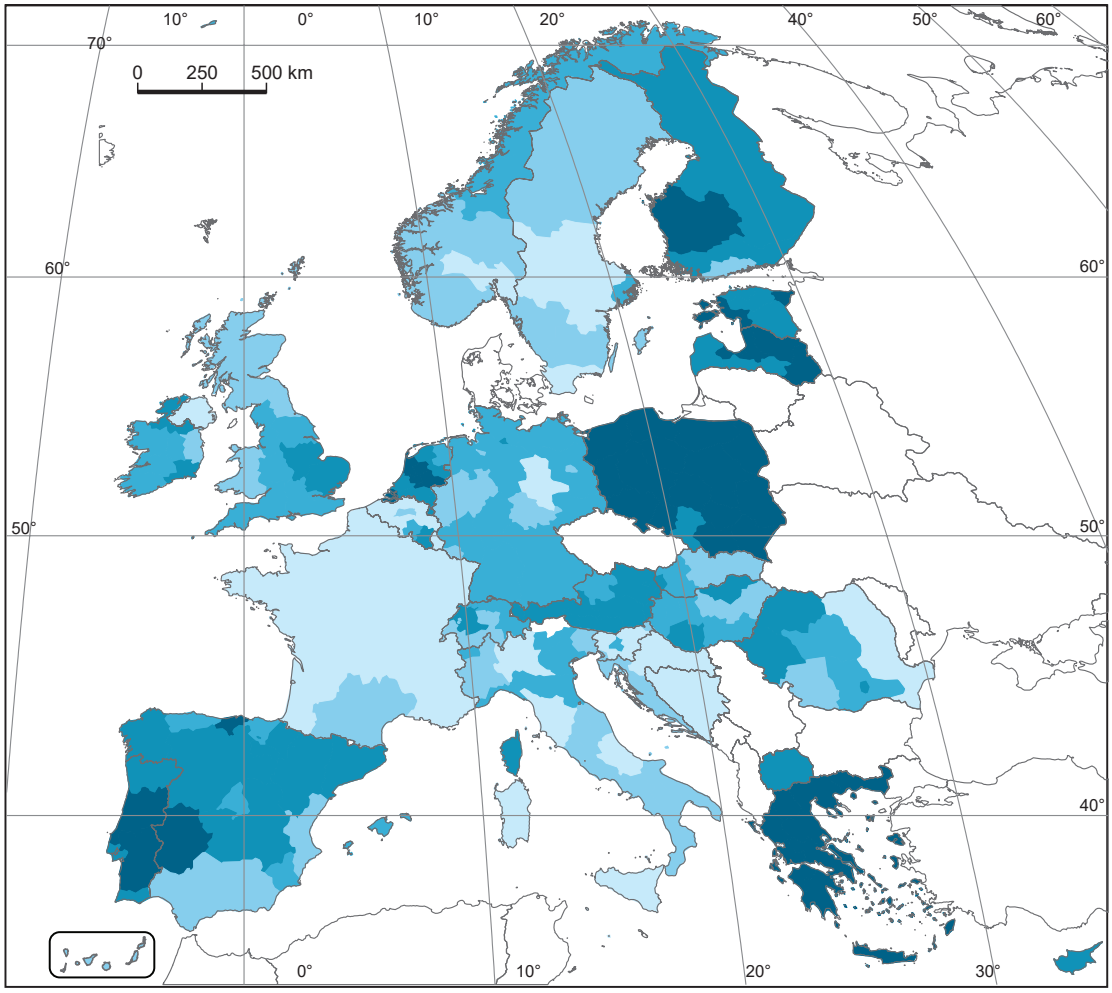


Dimension: % of 18-64 year old

- < 4.90 %
- 4.90 % - 6.10 %
- 6.10 % - 7.85 %
- 7.85 % - 9.70 %
- ≥ 9.70 %
- no data

Source: Global Entrepreneurship Monitor 2015-2021. Data have been merged over years to generate regional samples; regional weights have been applied to ensure representativeness across age and gender groups.

MAP 3.2
ESTABLISHED BUSINESS OWNERSHIP (EBO) LEVELS ACROSS EUROPEAN REGIONS (2015-2021)

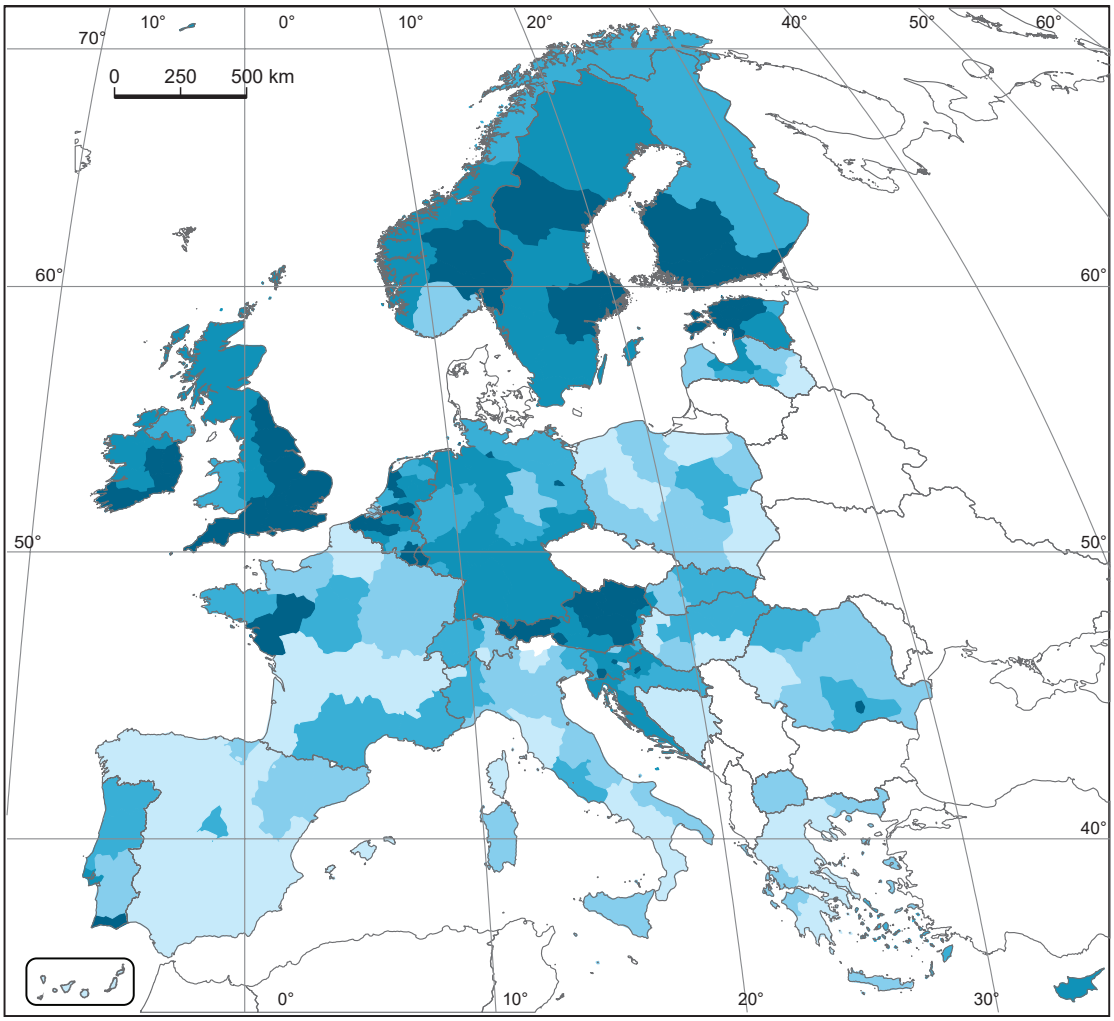


Dimension: % of 18-64 year old involved in established firm as owner and manager for which salaries or wages have been paid for more than 42 months

- < 4.40 %
- 4.40 % - 5.65 %
- 5.65 % - 7.00 %
- 7.00 % - 9.40 %
- ≥ 9.40 %
- no data

Source: Global Entrepreneurship Monitor 2015-2021. Data have been merged over years to generate regional samples; regional weights have been applied to ensure representativeness across age and gender groups.

MAP 3.3
ENTREPRENEURIAL EMPLOYEE ACTIVITY (EEA) LEVELS ACROSS EUROPEAN REGIONS (2015-2021)



Dimension: % of 18-64 year old active and leading as intrapreneur in past three years

- < 1.41 %
- 1.41 % - 2.10 %
- 2.10 % - 3.35 %
- 3.35 % - 4.43 %
- ≥ 4.43 %
- no data

Source: Global Entrepreneurship Monitor 2015-2021. Data have been merged over years to generate regional samples; regional weights have been applied to ensure representativeness across age and gender groups.

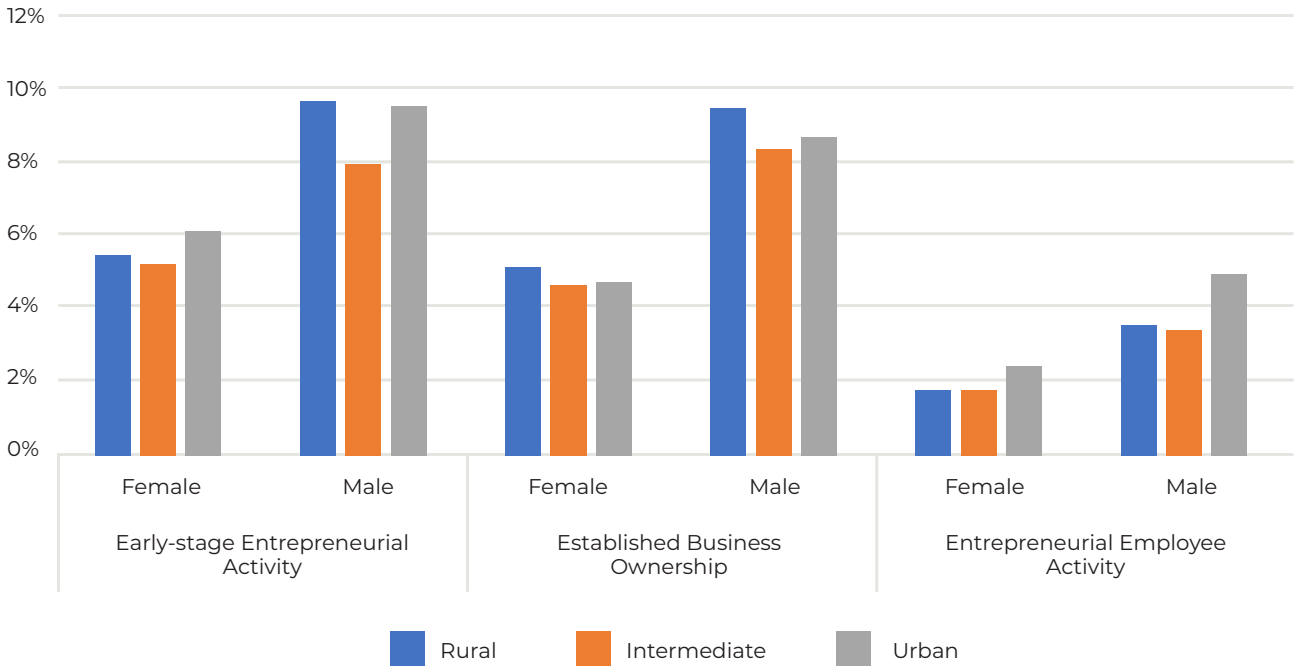


FIGURE 3.2
Different types of entrepreneurship across rural, intermediate and urban European regions, by gender (2015-2021)
Note: unweighted averages across regions

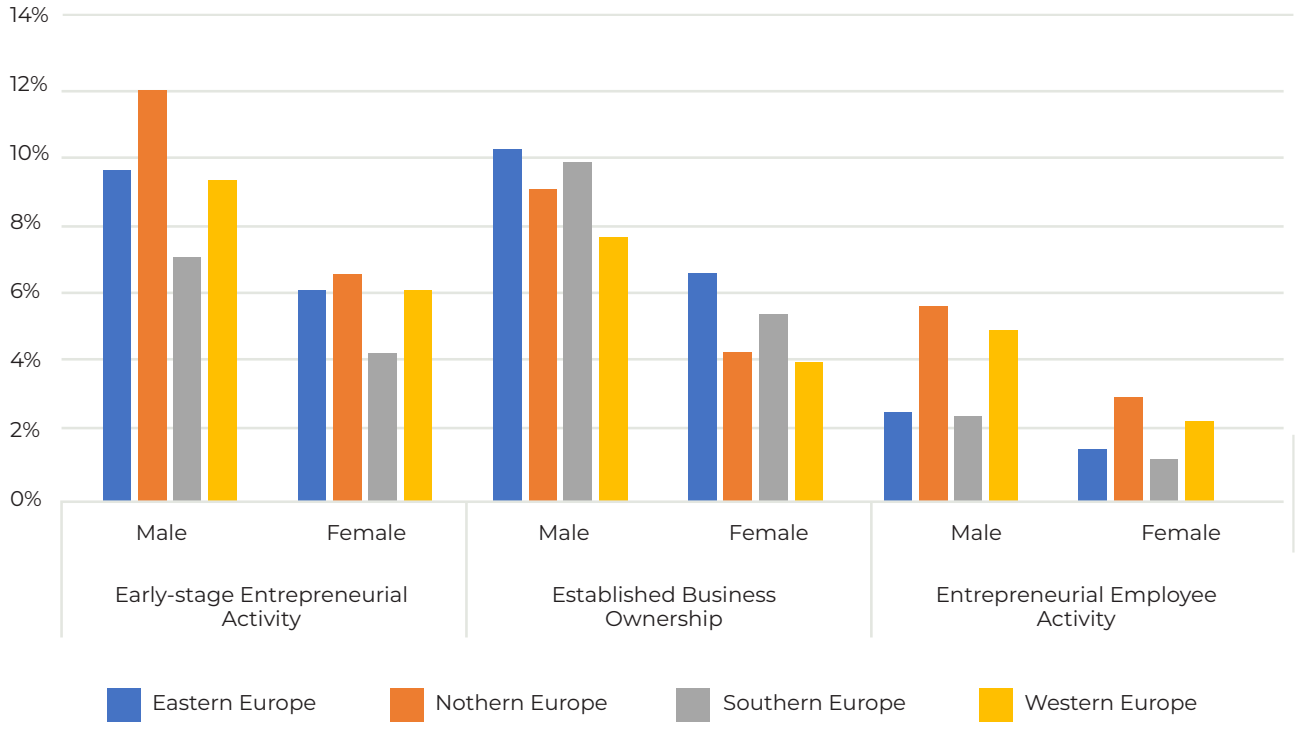


FIGURE 3.3
Different types of entrepreneurship across groups of European countries, by gender and location. (2015-2021)

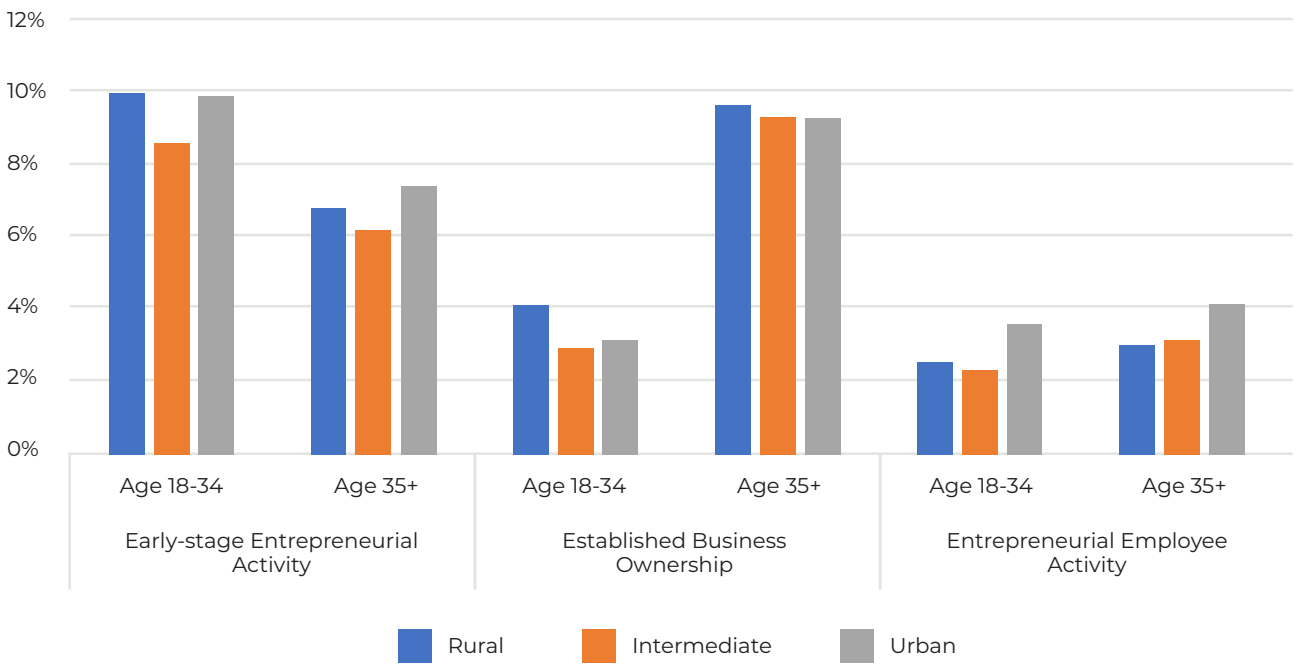


FIGURE 3.4
Different types of entrepreneurship across rural, intermediate and urban European regions, by age groups (2015-2021)

3.2 ENTREPRENEURIAL PERCEPTIONS AND ATTITUDES ACROSS EUROPEAN REGIONS

Substantial regional variation in entrepreneurial perceptions

When examining regional patterns in entrepreneurial perceptions in Maps 3.4-3.6, perceived skills and fear of failure exhibit high degrees of variation, both across and within countries.

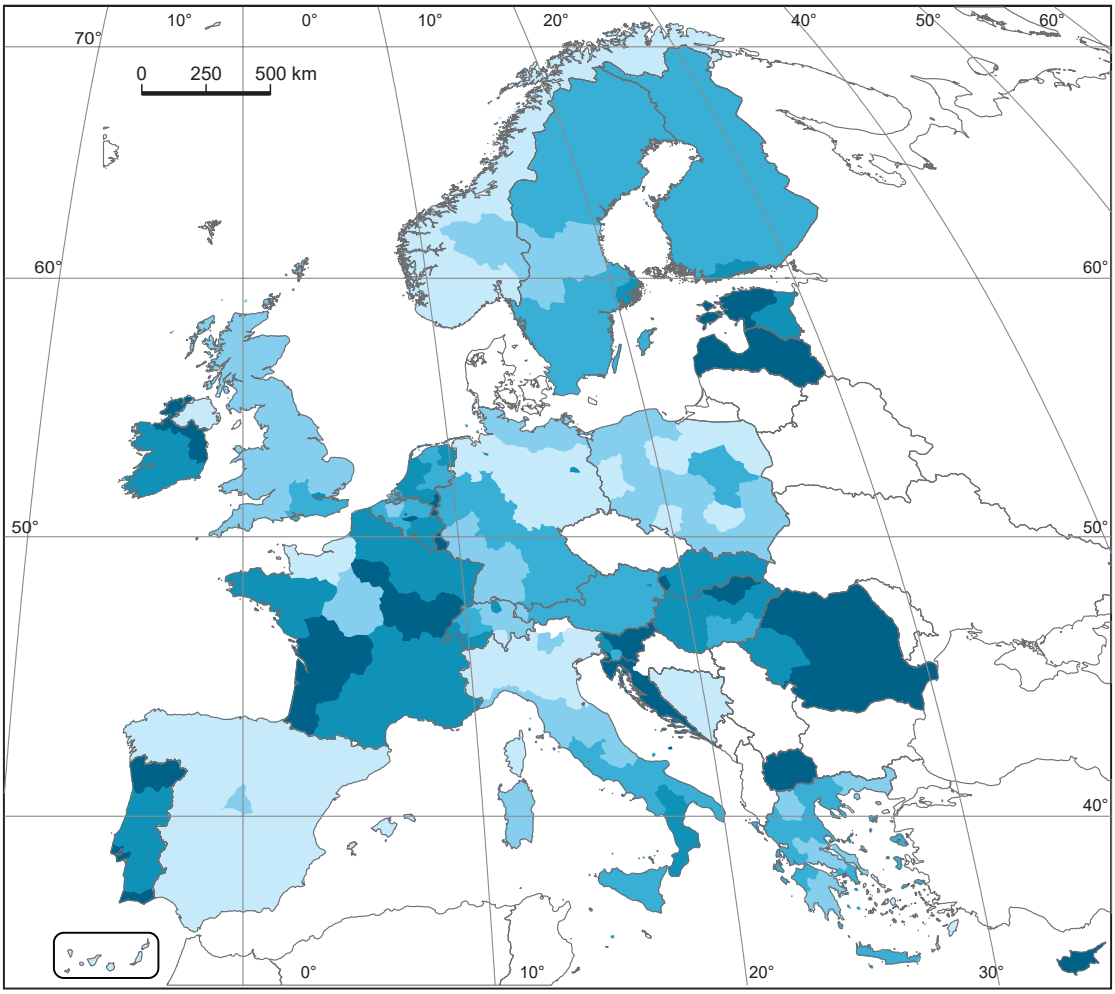
Perceived opportunities appear relatively more determined at the national level, and highest in Norway, Sweden, Netherlands and Poland. Among the countries included in this analysis, rates are lowest in regions throughout Spain and Austria. Still, in some countries there are also large regional differences for this indicator, for example in the UK and Hungary. Care needs to be taken as this indicator was heavily affected by COVID-19, in particular in 2020. Therefore, for more relevant country contexts, refer to the appropriate GEM National Reports that are available on the GEM website.

Fear of failure to start a business shows the highest rates in regions in Spain, Greece, France, Poland and the United Kingdom, and lowest in Norway and Central Europe. Perhaps in these places in general people have less to lose (obviously there is still substantial variation within regions). In Map 3.6 there are slightly higher averages in Southern and Eastern European regions.

Apparent discrepancies between different measures of entrepreneurial perceptions

There are interesting discrepancies between perceived opportunities and perceived skills, e.g. in Norway. It should be acknowledged that to some degree the average Norwegian inhabitant may have a different notion of a 'business' and what it takes to start a business in comparison to other countries. But it may also signal an underdeveloped appetite for entrepreneurship given the perceived opportunities. In any case, it shows that the GEM measures of entrepreneurial perceptions capture different dimensions.

MAP 3.4
PERCEIVED OPPORTUNITIES TO START A BUSINESS IN THE AREA ACROSS EUROPEAN REGIONS (2015-2021)

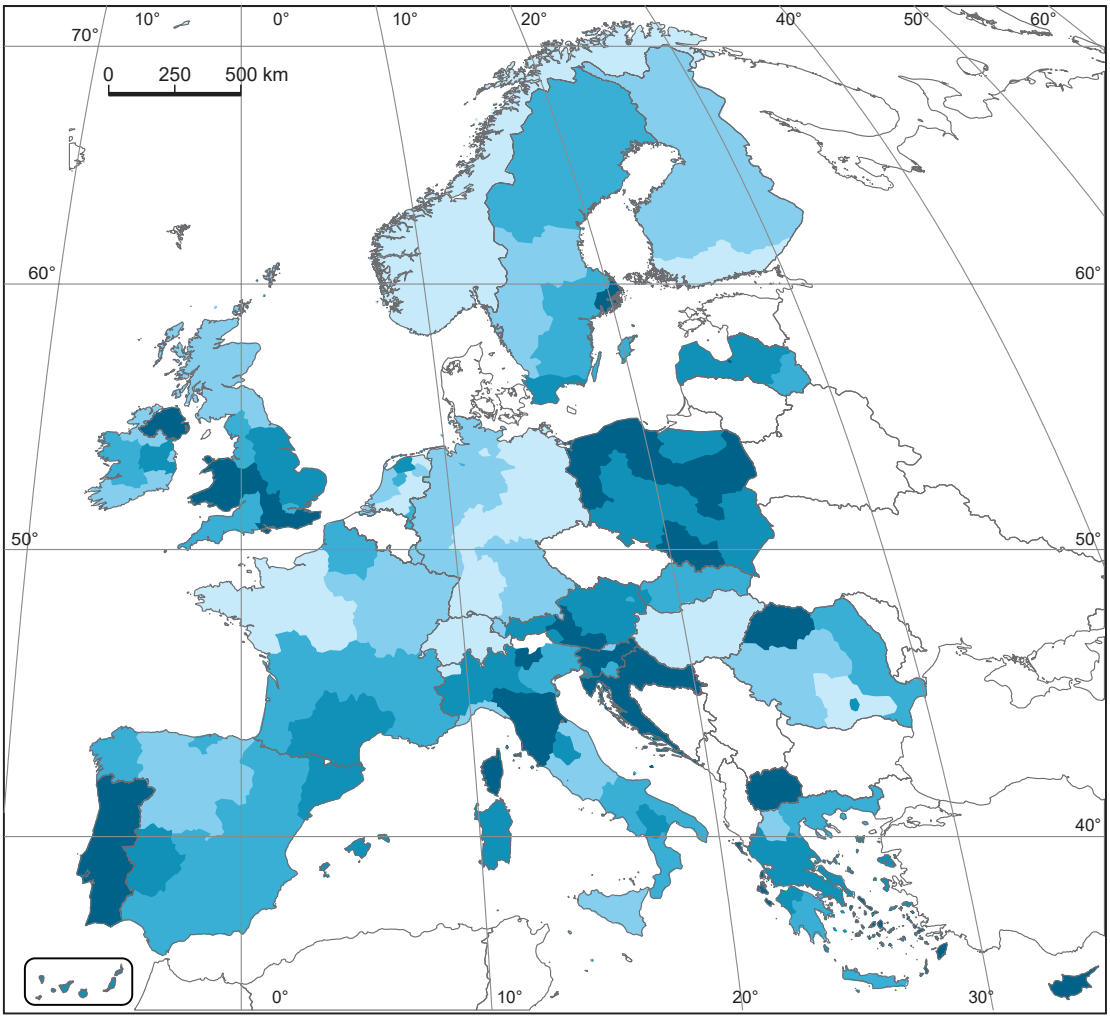


Dimension: % of 18-64 year old who are, alone or with others, expecting to start a new business, including any type of self-employment within the next three years

- < 7.60 %
- 7.60 % - 10.0 %
- 10.0 % - 13.1 %
- 13.1 % - 17.5 %
- ≥ 17.5 %
- no data

Source: Global Entrepreneurship Monitor 2015-2021. Data have been merged over years to generate regional samples; regional weights have been applied to ensure representativeness across age and gender groups.

MAP 3.5
PERCEIVED KNOWLEDGE, SKILLS AND EXPERIENCE TO START A BUSINESS ACROSS EUROPEAN REGIONS (2015-2021)



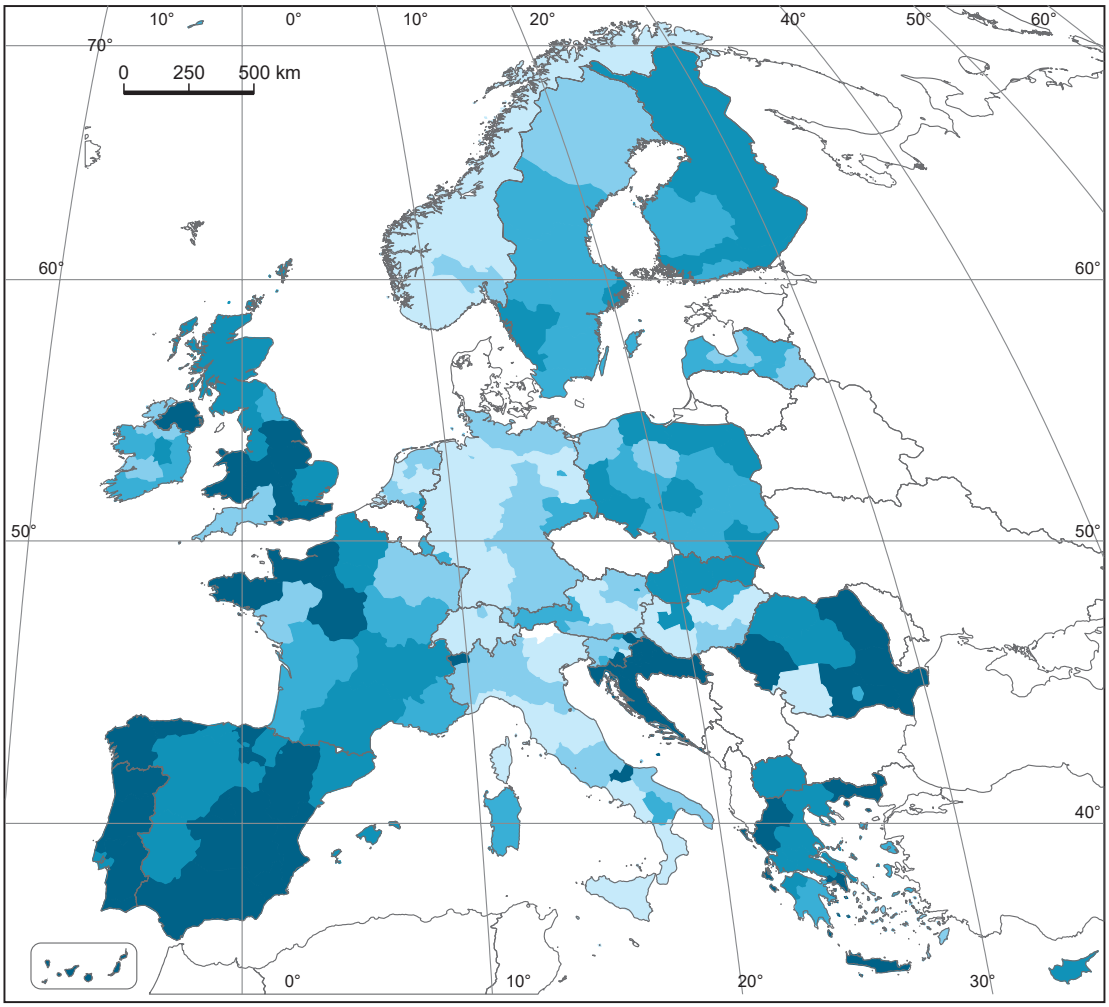
Dimension: % of 18-64 year old who say they have the knowledge, skill, and experience required to start a new business

- < 42.3 %
- 42.3 % - 49.3 %
- 49.3 % - 51.7 %
- 51.7 % - 56.2 %
- ≥ 56.2 %
- no data

"good" means the sum of percentages of values "4" and "5" (minus value "3") of following answering options:
5 – strongly agree,
4 – somewhat agree,
3 – neither agree nor disagree,
2 – somewhat disagree,
1 – strongly disagree regarding this statement: "You personally have the knowledge, skill and experience required to start a new business."

Source: Global Entrepreneurship Monitor 2015-2021. Data have been merged over years to generate regional samples; regional weights have been applied to ensure representativeness across age and gender groups.

MAP 3.6
FEAR OF FAILURE WHEN IT COMES TO STARTING A BUSINESS, ACROSS EUROPEAN REGIONS (2015-2021)



Dimension: % of 18-64 year old who see good start-up opportunities but fear of failure would prevent them from starting a new business

- < 32.0 %
- 32.0 % - 39.2 %
- 39.2 % - 44.5 %
- 44.5 % - 49.3 %
- ≥ 49.3
- no data

"good" means the sum of percentages of values "4" and "5" (minus value "3") of following answering options:
5 – strongly agree,
4 – somewhat agree,
3 – neither agree nor disagree,
2 – somewhat disagree,
1 – strongly disagree regarding this statement: "You would not start a business for fear it might fail."

Source: Global Entrepreneurship Monitor 2015-2021. Data have been merged over years to generate regional samples; regional weights have been applied to ensure representativeness across age and gender groups.

ENTREPRENEUR HIGHLIGHT

Anna Niszkács

Owner and Managing Director of Gerbeaud Gasztronómia Kft. (Hungary)

Innovating in the midst of global disruption

Taking over a reputable family business in the midst of a pandemic is no small undertaking. Just ask Anna Niszkács, owner of Gerbeaud, one of the best-known Hungarian confectionery brands. Begun in 1858 as a stand-alone café, the Gerbeaud group now includes multiple restaurants and other hospitality services.

Prior to 2020, Gerbeaud had never needed to shut down because of a global pandemic in its over 160 years of operation. Anna, however, has experienced a different reality ever since she took over in February of that year. Essentially, she only knows what it is like to own and manage a business that is operating in the midst of disruption due to global events. Once the pandemic emerged in March 2020, all the thriving business's units had to close and Gerbeaud lost over 90% of its revenue overnight. Difficult as these circumstances were, Anna used them as an opportunity to innovate.

> *"The COVID-19 pandemic has been an important multiplier for us and provided us with the opportunity to rethink our well-established brands. During times of peace and normalcy, leaders are reluctant to rethink their successful products."*

An example is the Gerbeaud-owned restaurant Onyx, which opened in 2007 as a pioneer in fine dining and had received two Michelin stars before the pandemic closed it down. The company took this as an opportunity to launch a large-scale professional development program.

Another of the company's units – Émile, a restaurant located in the residential area of Budapest – launched a home delivery service

out of necessity shortly after being obliged to terminate in-person dining. When on-site service became possible again in June 2021, Émile was able to improve on previous years' results thanks to its new delivery service. Just as the extreme pandemic-related disruptions were subsiding, Anna has been forced to lead Gerbeaud through another global disruption: the outbreak of the war in Ukraine (a neighbour of Hungary).

> *"I now see that the handling of the pandemic was an opportunity to prepare for the war between Russia and Ukraine, inflation and the rise in energy prices. COVID-19 was a disaster for companies in the hospitality sector – we are focusing on stabilizing the business. But this does not mean we're staying the same. Rather, we are looking to the future and innovating even more boldly."*

Gender gaps lower for perceptions compared to entrepreneurial activity

The relative gaps between female and male entrepreneurial perceptions in Figure 3.5 are lower than those observed earlier with entrepreneurial activity indicators in Figure 3.2. This suggests that there is still untapped potential among female entrepreneurs. The gender gap is particularly low when it comes to perceiving opportunities to start a business in the area where the respondent lives. In urban, intermediate and rural regions alike however, men do more often self-report themselves as having the required knowledge and skills to start a business. From Figure 3.6, it can be observed that this gap is lowest in Southern European regions.

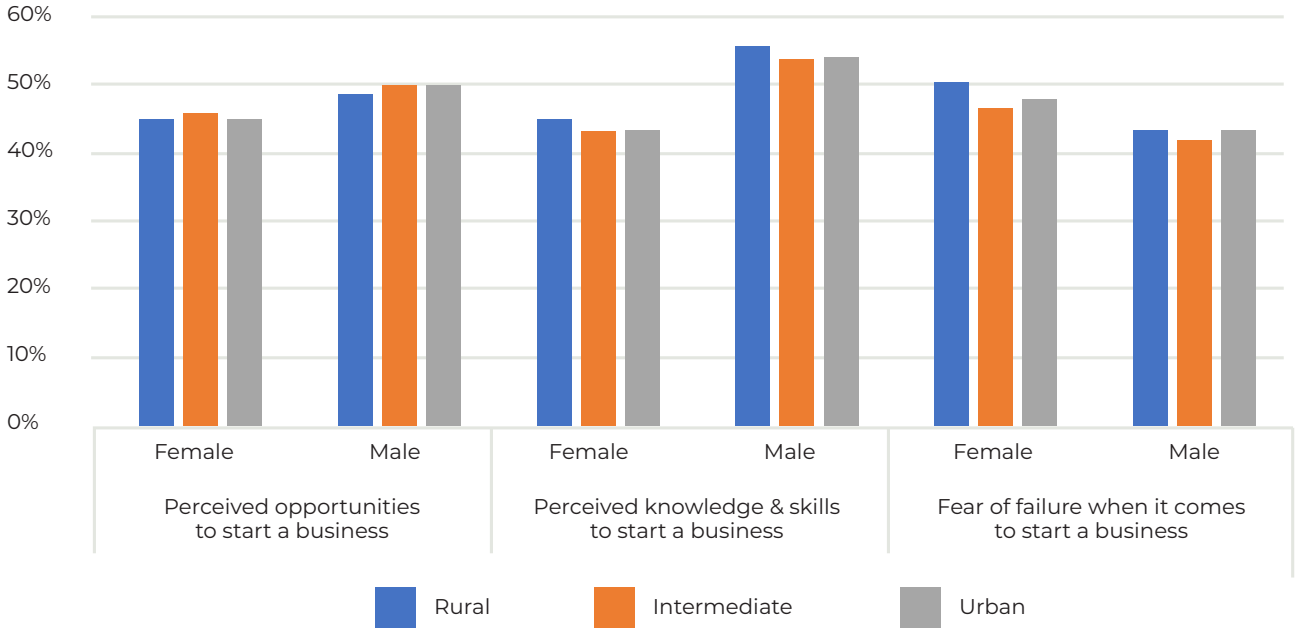


FIGURE 3.5 Entrepreneurial perceptions across rural, intermediate and urban regions, by gender (2019-2021)

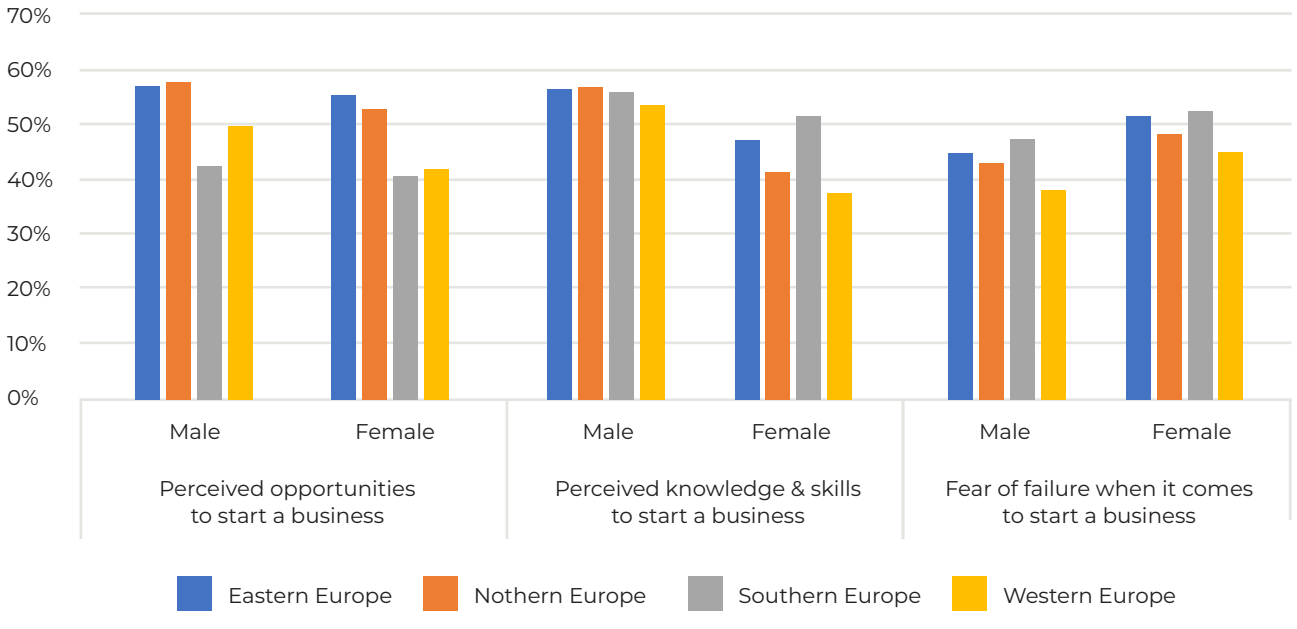


FIGURE 3.6 Entrepreneurial perceptions across groups of European countries, by gender. (2019-2021)

3.3 CONCLUSIONS

This chapter has examined in detail three entrepreneurial activity indicators and three perception indicators across 231 regions within the 28 European countries that participated in GEM at least once between 2015 and 2021. It confirms that TEA rates vary considerably, both within and between countries. Mapping those levels across those regions shows a prevalence of high levels of TEA in Northern and Eastern Europe, as well as in major metropolitan areas and in Ireland. Levels of TEA were relatively low around Mediterranean regions except South East France and the Adriatic coast.

At the same time, EBO and EEA levels typically exhibit less variation than TEA, although EBO was highest in parts of Central Europe, as well as some Spanish, Portuguese and Greek regions, but lowest in much of Italy and France. Meanwhile EEA was highest in Northern Europe and the UK, and lowest in Mediterranean regions.

Gender disparities persist across all parts of Europe, and across all three measures of entrepreneurial activity. However gender differences in entrepreneurial perceptions were much smaller than differences in entrepreneurial activity, with men a little more likely to see good opportunities to start a business locally and women a little more likely to be deterred by fear of failure.

Levels of TEA are highest in urban regions (except in Southern Europe), with intermediate regions typically lagging behind both urban and rural regions (again, except in Southern Europe). Meanwhile younger adults (18-34) are more likely than older adults (35-64) to be starting or running a new business across European regions, whereas older adults were much more likely than younger ones to be owning and managing an established business, and a little more likely to be an entrepreneurial employee.

Entrepreneurial perceptions across European regions varied rather less than entrepreneurial activity rates, with opportunity recognition highest in Northern Europe and lowest in Mediterranean regions. Confidence in one's own ability to start a business was generally high across European regions, and highest of all in parts of Central Europe. Meanwhile Western Europe had the highest levels of adults seeing good opportunities to start a business locally but who would be deterred from doing so by fear of failure, which is especially high in parts of Spain, Portugal, France and the UK, and lowest in Northern Europe.

4

Conditions for Entrepreneurship and Country Cases

4.1 INTRODUCTION

Large economies have different regions with various underlying entrepreneurial ecosystems and different levels of entrepreneurship. This chapter will look in detail at six major European economies: France, Germany, Italy, Spain, Poland and the United Kingdom.

Teams participating in the annual GEM Adult Population Survey (APS) gather responses from at least 2,000 individuals. However, this sample size is not sufficient to reliably establish Total early-stage Entrepreneurial Activity (TEA) rates at a regional level, especially in countries with up to 20 regions. To overcome this, APS data for each country was pooled between 2015-2021. Hence the regional TEA estimates presented later are averages for this period, and then, for example, no inferences can be made about changes within this period. Nevertheless, these estimates are the first consistent and comparable regional entrepreneurial perceptions and entrepreneurial activity rates across major European nations.

This chapter will first set out how GEM describes and assesses an economy's entrepreneurial ecosystem against 13 Economic Framework Conditions (EFCs), with Finance, Government Policy, Entrepreneurial Education and Ease of Entry each divided into two parts, as set out in Table 4.1. These EFCs, derived from two decades of research and experience, are used to assess the quality of a particular entrepreneurial environment, and are key influencing factors on the impact of entrepreneurial activity on economic growth. The state of these EFCs can encourage, constrain or completely discourage either the setting up of new businesses, or the development of new start-ups into established businesses which can generate sustained incomes and jobs.

TABLE 4.1 NES Framework Conditions

Framework Condition: Key questions	
A1.	Entrepreneurial Finance: Are there sufficient funds for new start-ups?
A2.	Ease of Access to Entrepreneurial Finance: And are those funds easy to access?
B1.	Government Policy: Support and Relevance: Do they promote and support start-ups?
B2.	Government Policy: Taxes and Bureaucracy: Or are new businesses burdened?
C.	Government Entrepreneurial Programs : Are quality support programs available?
D1.	Entrepreneurial Education at School: Do schools introduce entrepreneurship ideas?
D2.	Entrepreneurial Education Post-School: Do colleges offer courses in starting a business?
E.	Research and Development Transfers: Can research be translated into new businesses?
F.	Commercial and Professional Infrastructure: Are these sufficient and affordable?
G1.	Ease of Entry: Market Dynamics: Are markets free, open and growing?
G2.	Ease of Entry: Burdens and Regulation: Do regulations encourage or restrict entry?
H.	Physical Infrastructure: Is this sufficient and affordable?
I.	Social and Cultural Norms: Does culture encourage and celebrate entrepreneurship?

Having defined the characteristics of an entrepreneurial environment, the question then becomes: How can these be assessed? Each condition is multidimensional, with no available objective and quantifiable measure. To overcome this limitation, GEM seeks out expert views on the sufficiency or otherwise of each condition by carrying out a National Expert Survey (NES) in each economy. The NES asks the same questions to at least 36 national experts in each economy, and often more, each of whom has an identified high level of expertise in at least one of the framework conditions. Note that these are national, rather than regional, experts, so no inferences can be made from the NES about regions. In 2022 for example, the 51 National Teams participating in the GEM NES surveyed more than 2,000 national experts, each one identified by the corresponding National Team with prior approval by GEM Global.

All experts completed the NES questionnaire by assessing their national economy against the extent to which they agreed or did not agree to statements about each framework condition. The Framework Conditions, summarised in Table 4.2, are scored according to an 11-point Likert scale, ranging from completely untrue (0) to completely true (10).

In 2018, GEM introduced the National Entrepreneurial Context Index (NECI), capturing in one number the pooled expert assessment of each economy's EFCs. The NECI is simply a composite indicator that summarises the average state of the 13 framework conditions in Table 4.1, and resultant NECI scores are presented for the six European countries below.

TABLE 4.2 National Entrepreneurship Context Index (NECI) scores, six large European economies, 2018-2022

	2018	2019	2020	2021	2022
France	5.6	-	5.6	-	5.6
Germany	5.4	5.0	5.4	5.0	5.4
Italy	4.5	4.3	4.5	4.3	4.5
Poland	5.2	4.2	5.2	4.2	5.2
Spain	5.4	5.2	4.7	5.2	4.0
United Kingdom	4.9	4.8	4.9	4.8	4.9

Germany has been the most consistent in the scores for the quality of its entrepreneurial environment, dipping just once below sufficient (score=5.0) at the onset of the pandemic in 2020. Spain has seen large fluctuations in its NECI scores, with smaller fluctuations for the UK. France is the only economy among these six whose score did not dip below sufficient, but there were two years when France did not participate in GEM. Finally, Poland's score fell substantially between 2018 and 2019, and then fell again somewhat in 2022. Rather than focusing mostly on differences between countries, we encourage policymakers and other actors in the entrepreneurial ecosystems to examine in particular how the different components are assessed, as we do later in this chapter for each of the six economies listed above. This facilitates capitalising on the positive components and working on those that are assessed more poorly.

A brief overall description is provided, followed by an explanation of the regional structure of each, and an assessment of that economies overall position in relation to entrepreneurship levels, before considering regional variations in those levels of entrepreneurship. It will become clear that economic, demographic and entrepreneurial disparities between regions are very different in these six economies, with some having one dominant prosperous urban agglomeration, often (but not always) the capital city (the monocentric model), while others have a relatively dispersed structure with several large urban regions (the multi-centric model).

4.2 THE FRENCH ECONOMY AND ITS REGIONS

According to the 2022/2023 GEM Global Report, France had a population of 67.5 million in 2021, with a GDP per capita of $50,700 (international $, Purchasing Power Parity (PPP)). Its OECD profile reported Public Administration as the largest contributing sector to GDP (22.8%), followed by Trade, Transport and Accommodation (17.7%), with Industry at 13.7% and Agriculture contributing less than 2%. Self-employment was relatively high at 13.8% overall, but rather greater for men (15.6%) than for women (9.5%) (so three men were self-employed for every two women).[19]

As these figures illustrate, France has a diversified economy, with high levels of government spending alongside being the largest foreign direct investment recipient in Europe, and a substantial tourism sector. The greater Paris metropolitan area is reported by the OECD to generate around a third of all French GDP, even though France has a number of other major cities, including Lyon, Toulouse, Marseille and Lille, each with populations of more than 1 million people.

A historical analysis of French regions' economic development illustrates a familiar pattern of increasing inequality in the early stages of industrialisation, followed by a trend towards more equality up until the 1990s, after which inequalities increased again.[20] For example, the most prosperous region, Ile-de-France, including Paris, doubled its share of the French population from 15% in 1900, to 30% in 2010. In recent years (2016-2019) however, Ile-de-France is losing around 2% of its population per annum to other French regions, according to a recent OECD report.[21]

The Ile-de-France is not only France's largest region, it is the largest and wealthiest in Europe, with a 2020 population of 12.3 million and total GDP of €710bn, nearly twice the size of the next wealthiest region (Lombardy). GDP per inhabitant is €52,700 (EU PPS units)[22]. Its income is generated by being a major financial centre and the seat of central government, as well as a major tourist destination. In terms of income, the region is followed, fairly distantly, by Auvergne-Rhône Alpes, with a population of just over 8 million and a GDP/capita of €30,400, generated by services, high technology businesses, chemicals and tourism. At the other end of the regional scale is Corsica, by far the smallest and poorest French region (population 0.35 million, GDP/cap €23,400, largely from tourism and agriculture), and much larger Centre Val de Loire (2.6 million, €25,500, agriculture, tourism, wine and green industries).

Entrepreneurial activity in France

Despite its high level of average-income, France scored just slightly better than sufficient in terms of the overall quality of its entrepreneurial environment in the GEM NECI in 2022. This overall assessment was the product of fairly low scores for its entrepreneurial education at school level (2.8), its internal market dynamics (3.7), research and development transfers (4.1) and social and cultural norms

19 OECD (2022) *OECD Regions and Cities at a Glance*, 2022, OECD Publishing, Paris
20 Sanchis, M., Roses J. and Diez A., (2015) *Regional Inequality in France 1860-2010: Structural Change Dynamics*, International Conference in Regional Sciences, Universistat Rovira I Virgili, Tarragona, Espana.
21 OECD (2022) *OECD Regions and Cities at a Glance*, 2022, OECD Publishing, Paris
22 Data from European Commission, Eurostat: Cities and Regions, https://ec.europa.eu/eurostat/web/regions-and-cities

(also 4.1), offset by better scores for government policy support (6.0) and physical infrastructure (6.9).

Overall, France is towards the lower end of entrepreneurial activity in relation to other European countries. Table 2.1 earlier showed France with a Total early-stage Entrepreneurial Activity rate of 5.8%, an Established Business Ownership (EBO) rate of 3.5% and an Employee Entrepreneurial Activity (EEA) rate of 3.9%, all as percentages of the adult population (aged 18-64), and each averaged over the years of France's GEM participation between 2015 and 2021. Of the 28 European economies in Table 2.1, France ranked fifth lowest for TEA, second lowest for EBO and 12th lowest for EEA. Figure 4.1 shows that TEA rates have increased in recent years. This is mirrored by a very strong increasing trend of perceived opportunities to start a business over the past two decades (see Figure 4.2). Including the confidence intervals for these TEA rates allows some assertions to be made: for example the French TEA rate in 2022 was significantly higher than in 2018.

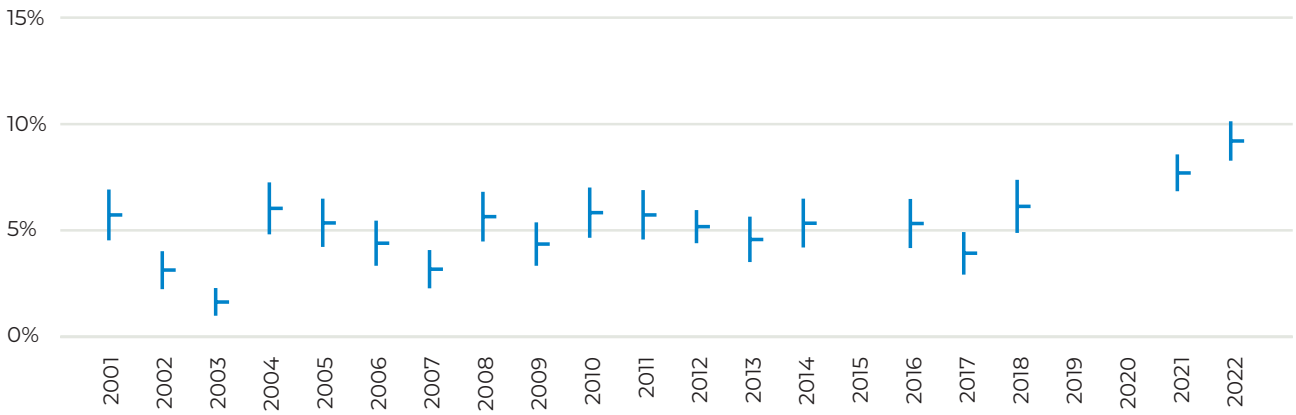


FIGURE 4.1 TEA rates in France, 2001-2022[23]

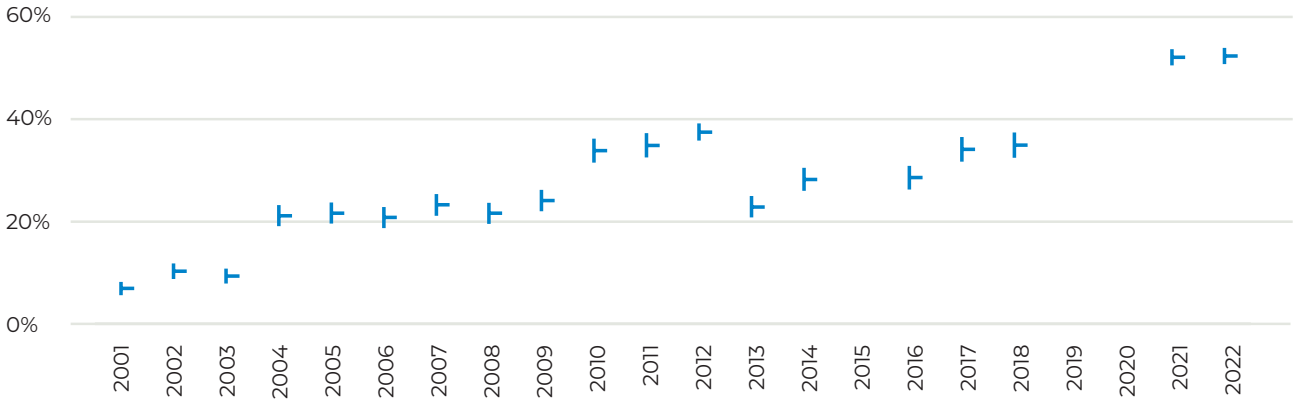


FIGURE 4.2 Perceived opportunities to start a business in France, 2001-2022

23 Note: The vertical bars indicate confidence intervals associated with the point estimates. This means that, where bars do not overlap, it can be stated with 95% confidence that the year with a higher estimate outperforms the other year concerning the TEA rate. Larger confidence intervals are primarily caused by lower sample sizes.

Similarly, the percentage of adults seeing good opportunities to start a business locally was significantly higher in 2021 and 2022 than in 2017 and 2018.

Regional entrepreneurship in France

At a broad (NUTS1) level, France has 13 regions, some of which were outlined earlier. Like in many European economies, regional development is monocentric, with a major city and its surrounding area much better off than other parts of the country, with a GDP/capita more than twice that of the poorest region.

Figure 4.3 shows the TEA level by region, using data pooled from the years of French participation in the GEM APS between 2015 and 2021. Corsica and the Region Ultrapéripheriques (including Guadeloupe, la Guyenne, la Reunion and Martinique) are excluded because of their small samples. Figure 4.3 demonstrates that TEA is highest in Provence-Alpes-Côte d'Azur, at around 12%, followed by Ile-de-France at around 9%, a level presumably constrained by the large public sector in that region. The lowest levels were in Normandy and Bretagne, both a little over 4%, or roughly a third of the level of the highest region. Hence there are considerable regional disparities in TEA – the range is much wider than for any of the other five European economies. Note also that even with the pooled data, small sample sizes mean fairly wide confidence intervals, so that, for example, the level of entrepreneurial activity in Provence Alpes Cote D'Azur can only be described as significantly higher (with 95% confidence) than that of Normandy, since these are the only regions where confidence intervals do not overlap. Note also the narrow confidence interval for Ile de France, which, as the largest region, has the highest sample size.

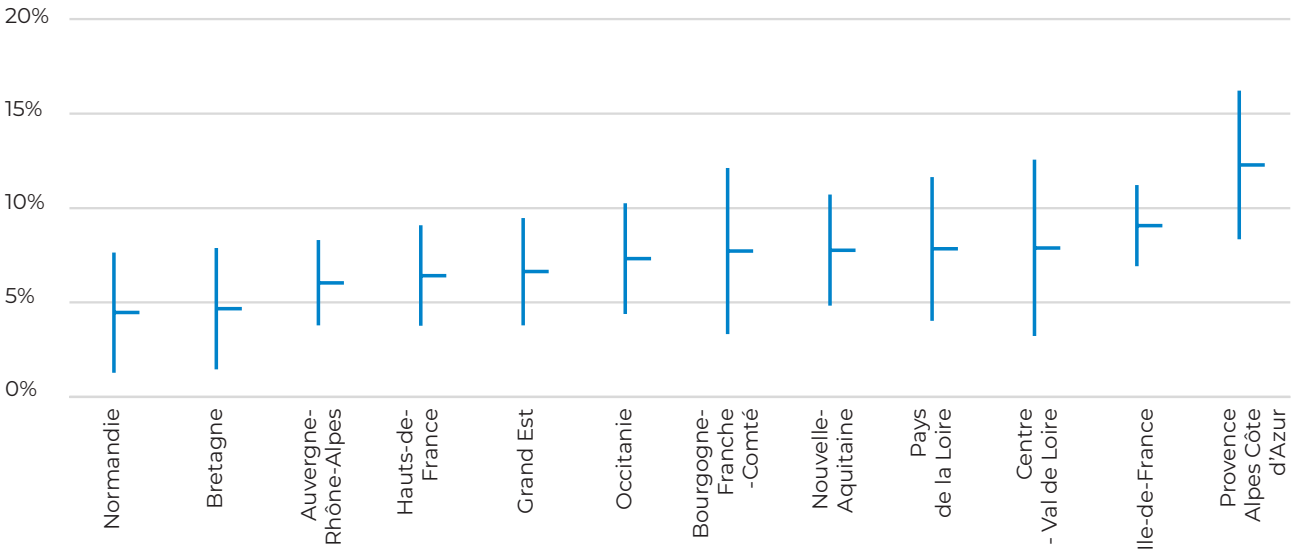


FIGURE 4.3
Total early-stage Entrepreneurial Activity in French regions

4.3 THE GERMAN ECONOMY AND ITS REGIONS

Entrepreneurship in Germany: economic context

In 2021 Germany had a population of 83.1 million, and an average GDP/capita of 57,900 (international $, PPP), according to the 2022/2023 GEM Global Report. The German economy remains heavily dependent on export goods. This was also the reality for both East and West German states until 1990, as well as for reunified Germany since 1990. When it comes to large (and relatively old) manufacturing companies, the comparative strengths of the German economy are related to the automotive industry (e.g. VW, Audi, Mercedes, BMW), some electronic industries (e.g. Siemens) and the chemical industry (e.g. Bayer). The "German Mittelstand" – medium-sized companies, often family businesses, especially in machinery, textiles and handicrafts – were crucially relevant for the recovery of the (West) German economy after WWII, however, and served as the backbone of the "Wirtschaftswunder" since the late 1950s. In Baden-Württemberg in particular, but also in other federal states in western Germany, these SMEs were and are economically very important, provided they were able to meet the challenges of globalisation and the associated export orientation.

The economic situation of today's eastern part of Germany, the former GDR, was very different. The state-organised planned economy didn't provide entrepreneurial incentives for private-sector enterprises in the western sense nor for the intensive export relations with capitalist foreign countries. The 45 years of central planning in what is now East FRG has still left visible traces, including in the start-up landscape and in start-up behaviour.

Entrepreneurial activity in Germany: GEM indicators

Figure 4.4 shows that the TEA level in Germany fell sharply at the start of the pandemic in 2020 but has recovered since, reaching 9.1% in 2022. This is above the pre-pandemic level of 7.6% in 2019 (although not significantly higher, since the confidence intervals overlap), and the highest level recorded since Germany participated in the first GEM Adult Population Survey in 2001. EBO fared less well, falling to just 3.6% of adults in 2022, implying five adults starting or running a new business in Germany for every two adults running an established business. Perceived opportunities to start a business have risen gradually in Germany over the past two decades (Figure 4.5), moving from levels of around 20% in the first decade in this century, to around 40-50% in recent years, again with a sharp drop in 2020 due to the coronavirus pandemic. There was another drop in 2022, possibly affected by the war in Ukraine

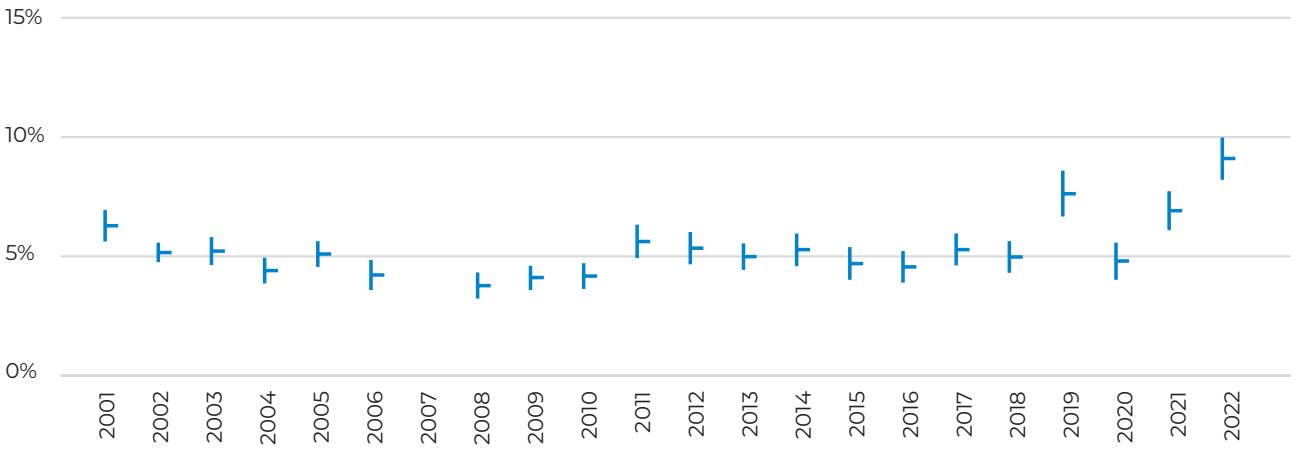


FIGURE 4.4 TEA rates in Germany, 2001-2022

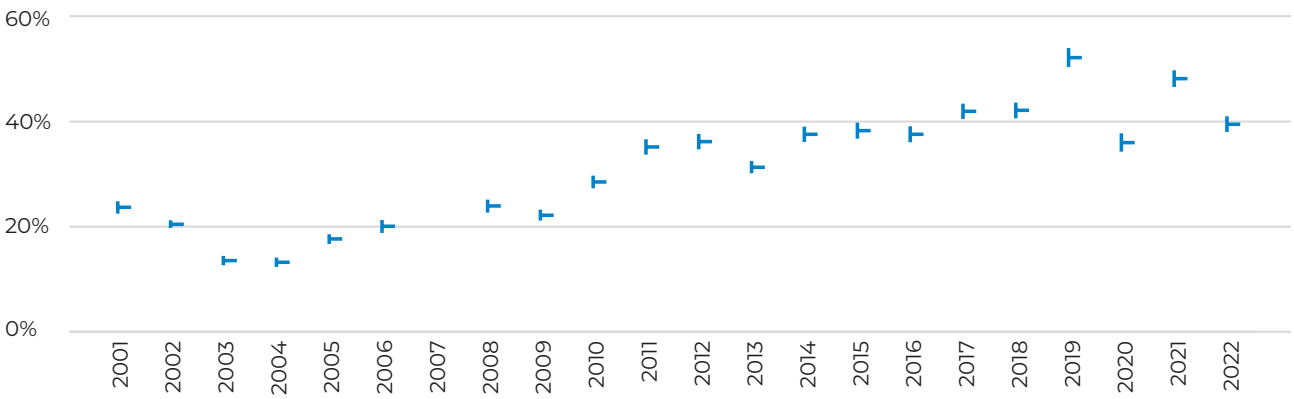


FIGURE 4.5 Perceived opportunities to start a business in Germany, 2001-2022

Conditions for entrepreneurship in Germany

In 2022 Germany had fairly poor national expert framework condition scores for entrepreneurial education, government support, infrastructure, etc., summarised in the GEM NECI. In 2022, Germany's score was 5.1, ranked 17th among 51 countries worldwide. Some glaring weaknesses in Germany's entrepreneurial framework conditions have been constant over many years, including school-based entrepreneurial education, cultural values and social norms, policy prioritisation and engagement, and digital infrastructure. These results may partially explain the low start-up rate.

Germany's comparative strengths in entrepreneurial framework conditions (e.g. effective patent and trademark protection, an attractive market environment for new products and services, and a broad range of public start-up programmes), cannot fully compensate for these weaknesses. In addition, other factors not directly captured in the NECI were responsible for what were, until recently, relatively low start-up rates. Particularly noteworthy were high transaction costs, which in Germany prevented many well-paid employees with viable start-up ideas who are, in principle, willing to start a business, from actually doing so. Due to the relatively stable economy with low unemployment and comparatively high wage levels, the incentive for highly-skilled people in full-time employment to give up their secure and well-paid jobs in favour of a business start-up that is naturally risky and, at least initially, associated with a low income, is relatively low.

Regional variations in entrepreneurship

Germany with its 16 federal states and more than 400 districts shows considerable interregional disparities in economic characteristics, even if these disparities are less severe than in the USA, China, the UK or France, for example. There are still noticeable economic differences between West and East Germany, a good 30 years after reunification, which are also reflected in entrepreneurial activities.

As map 3.1 in Chapter 3 showed, TEA rates (as well as start-up intentions, another GEM indicator) are higher in the 10 West German states than in the five new states in East Germany. Figure 4.6 is very clear: the five east German NUTS1 regions have the five lowest TEA rates and the 10 western ones show the 10 highest TEA rates. Together with the comparatively high share of rural regions in Eastern Germany, the socialist heritage still – even more than three decades after reunification – explains best why the TEA rates in the East are lower, although this is less valid for younger than for older people. A similar picture emerges with regard to perceptions of entrepreneurial opportunities and of one's own entrepreneurial skills, but not with regard to the fear of failure as a start-up obstacle.

There are also clear differences in entrepreneurial activity rates between the north and the south of West Germany, which has a stronger entrepreneurial culture, as well as between rural and urban areas. As maps 3.1-3.2 in Chapter 3 show, Berlin is one of the strongest German regions for most of the indicators shown there (including the TEA rate as depicted in Figure 4.6). However, this also applies largely to the other two city states, Bremen and Hamburg. Berlin's strength compared to the other German states is at least partly due to its urbanity, which the 13 non-city federal states do not have, because urban regions generally have higher start-up rates than rural regions. Figure 4.6 illustrates a multi-centric model of regional entrepreneurship, with the city-regions of Hamburg and Bremen having higher levels of TEA than the capital.

ENTREPRENEUR HIGHLIGHT

Andrea Barber

Co-founder of RatedPower (Spain)
Cartier Women's Initiative Fellow, 2021

Creating change in clean energy systems

Renewable energy can play a significant role in mitigating the impact of climate change. However, designing and building large renewable energy plants is a time-consuming process.

Andrea Barber saw first-hand the complexity of designing and engineering large solar plants. Determined to do something about this, she co-founded RatedPower with the mission of digitizing the renewable energy industry and maximizing clean energy's potential through a software as a service (SaaS) strategy. RatedPower helps solar photovoltaic (PV) energy enterprises design and engineer utility-scale PV plants, thereby furthering a green transition to clean energy systems. Andrea said:

> *"We developed cloud-based software to instantly carry out the design and engineering of large-scale solar plants to accelerate the transition to solar energy. We've always loved thinking outside the box to make things more efficient."*

Despite concerns about the global economy, RatedPower's customers have not reduced their software acquisition budgets. Massive deployment of renewable energy is a critical part of most governments' responses to both COVID-19 recovery packages and policies to fight the effects of the war in Ukraine. This includes REPowerEU in the European Union and the Inflation Reduction Act in the United States.

Andrea noted:

> *"The fact is that diversifying the global energy mix is key for both fighting climate change by reducing greenhouse emissions and guaranteeing world security. Renewable energy – specifically solar photovoltaics – is playing a role."*

In addition to the impact she is creating at RatedPower, Andrea is also co-founder of Vostok 6, a podcast in Spanish that aims to raise the visibility of women who are breaking barriers and doing incredible work in different areas. Andrea is positioned 30th in the current Choiseul 100 Spain ranking of Future Economic Leaders and has recently been chosen by *Forbes* as one of the 100 Most Creative People in Business from Spain.

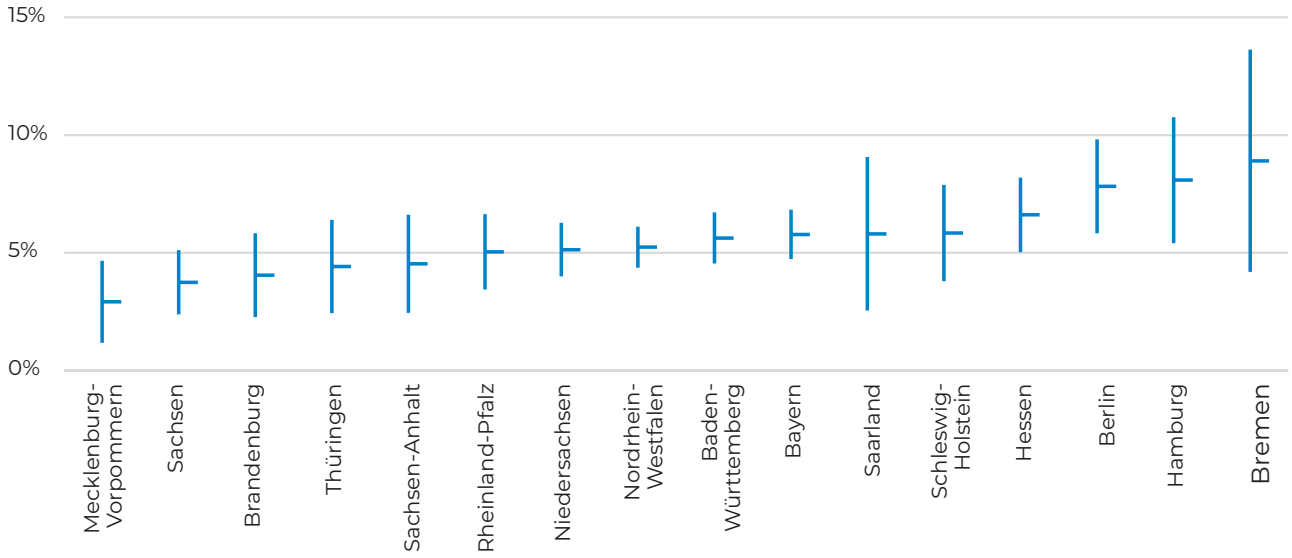


FIGURE 4.6 Total early-stage Entrepreneurial Activity in German regions

4.4 THE ITALIAN ECONOMY AND ITS REGIONS

In 2021, Italy had a population of 59.1 million, and an average GDP per capita of $45,900 (International $, Purchasing Power Parity, (PPP)).The Italian state is relatively recent in European terms, with the region Friuli-Venezia-Trieste joining as late as 1954, although most of Italy has been unified since the mid 19th century. Many parts of Italy have much longer histories as independent states, with ancient Italy including the Papal States, the Venetian Republic, the Republic of Florence, the Duchy of Milan, the Kingdom of Naples and the Kingdom of Sicily. Venice, for example, was an independent state for more than 1,000 years.

Italy has 13 cities with more than 500,000 inhabitants[24], but only 35% of the population live in these metropolitan areas, while 56% of its population live in cities of more than 50,000 people. Milan is the richest city in Italy, and has increased its GDP compared to other Italian metropolitan areas since 2000.

Italy has an ageing population. While the elderly dependency rate has increased across all regions since 2000, those furthest from metropolitan areas still have the highest elderly dependency rates. For every 100 individuals of working age, Italy now has 37 older than 65, compared to, for example, 30 in the UK.

Industry in Italy is concentrated in the north, with twentieth-century industrialisation driven by mechanical engineering, including automobiles, industrial machinery, precision engineering, motorcycles and firearms, often produced by small to medium sized businesses. A large number of these SMEs in light engineering operate in North East Italy, where often each had its own district specialisation, such as Prato in Tuscany focused on textiles; in Emilia-Romagna, Sassuolo producing ceramic tiles; and Cento centred on mechanical engineering, (the so-called "Third Italy", different from the economically strong and manufacturing-oriented north and the economically weak south). Some of these SMEs grew into household names, including Olivetti and Zanussi. However, steel transformed the Italian economy. This was propelled by Italy's founding membership of the European Coal and Steel Community, the precursor to the European Union, set up in 1951 to organise the free movement of coal and steel. By 1980, Italy was producing more than a fifth of EU steel.

In 2020[25] the Lombardy region in Italy (which includes Milan) had the second highest total GDP (at €366bn) of the 242 NUTS2 European regions, behind only Ile-de-France. Meanwhile, Italy also showed the largest disparities in

24 OECD(2022), *Regions and Cities at a Glance 2022*, OECD Publishing, Paris
25 Eurostat, *"GDP at regional level"*, May 2022 ec.europa.eu

terms of unemployment rates, and the second highest in terms of household income, according to the OECD. While regional disparities in Italy are normally described as a north/south divide, the contemporary reality is more subtle. In 2020, GDP per capita in Lombardy reached €36,800 (European PPS units), more than twice that of the poorest regions (Calabria, €16,600 and Sicilia €17,300, both firmly in the South). Lazio (including Rome) and Tuscany (including Florence) were not far behind Lombardy, both with a GDP/cap above €30,000. Clearly, while prosperity in many European economies is monocentric around some large city, in Italy (and to a lesser extent Germany) prosperity is polycentric, around not one but several cities. In Italy, Milan is most prosperous, but there is also considerable prosperity around Florence and Rome, as well as Venice (Veneto), Bologna (Emilia-Romagna) and Trento (Trentina).

Entrepreneurial activity in Italy

Table 2.1 earlier showed Italy averaging a TEA rate of 3.9% in the period 2015-2021, lowest of the six economies, with an EBO rate of 4.8% (second lowest) and an EEA rate of 2.3% (also lowest). Amongst these six large European economies, Italy has the fewest total share of adults engaged in these three forms of entrepreneurial activity.

Figure 4.7 illustrates the evolution of TEA in Italy since 2001. We observe drops in TEA in 2003 and 2010, both years characterised with economic downturns. The drop in 2020 is likely caused by the coronavirus pandemic that hit northern parts of Italy severely at the start of 2020. Interestingly, this was paired with an increase in perceived opportunities to start a business (see Figure 4.8). Overall the long term trend in TEA in Italy is slightly downwards, a trend that may have accelerated with the pandemic, but with some recovery since.

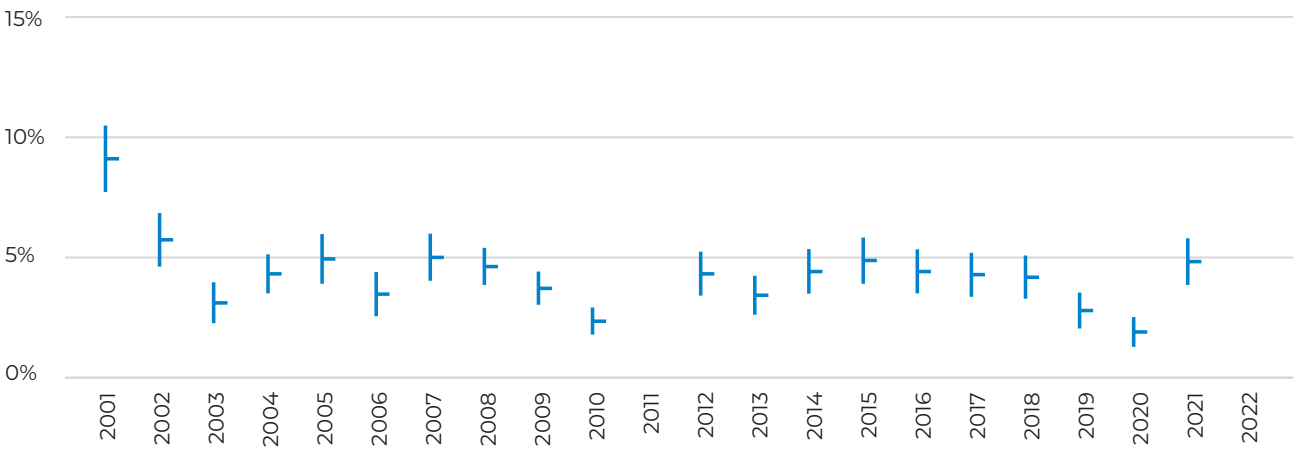


FIGURE 4.7 TEA rates in Italy, 2001-2022

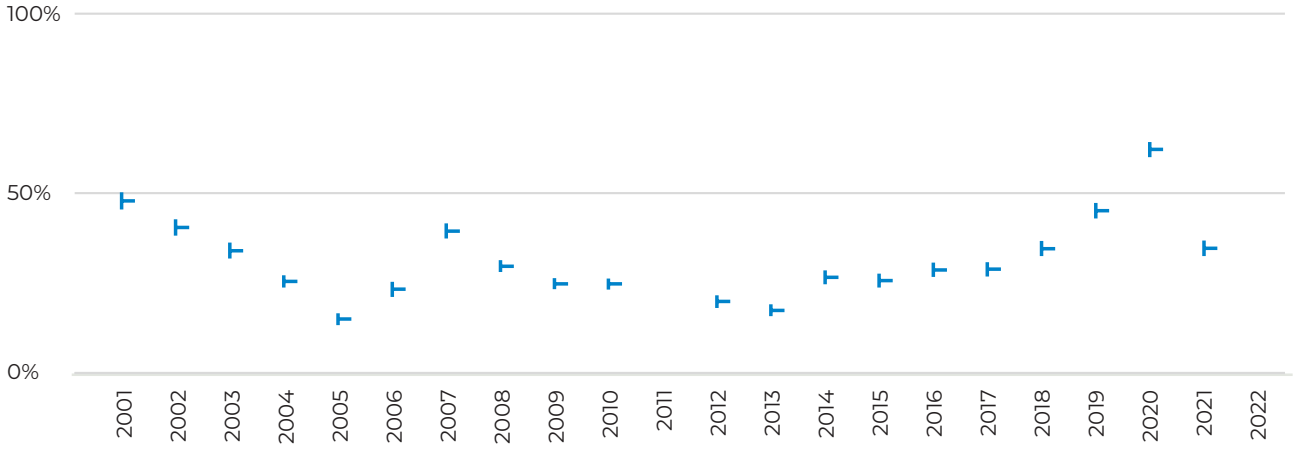


FIGURE 4.8 Perceived opportunities to start a business in Italy, 2001-2022

In 2022, the overall quality of the Italian entrepreneurial environment, as measured by the GEM NECI score, was rated as much less than sufficient at 4.2, ranking Italy 37th of 51 GEM participating economies. Only two of thirteen Entrepreneurial Framework Conditions were rated by its experts as sufficient (Physical Infrastructure and Commercial and Professional Infrastructure), while nine others were ranked in the bottom three of the 22 high-income economies participating in GEM that year.

Regional variations in entrepreneurship

As Figure 4.9 makes clear, even pooling data may not allow the estimation of entrepreneurial activity rates for small regions, with both Valle d'Aosta and Molise having populations of less than 300,000. Note also the wide confidence intervals for some other relatively small regions (eg Umbria, Liguria). For regions where TEA rates can reasonably be estimated, the surprise in Figure 4.9 is that TEA rates are not more varied, given the so-called north/south divide and the high levels of regional disparities in GDP/capita, unemployment rates and household incomes outlined earlier. It is difficult to make definitive regional comparisons due to the overlapping confidence intervals highlighted in Figure 4.9, although the highest levels of TEA appear to be more focused on the least-urbanised regions.

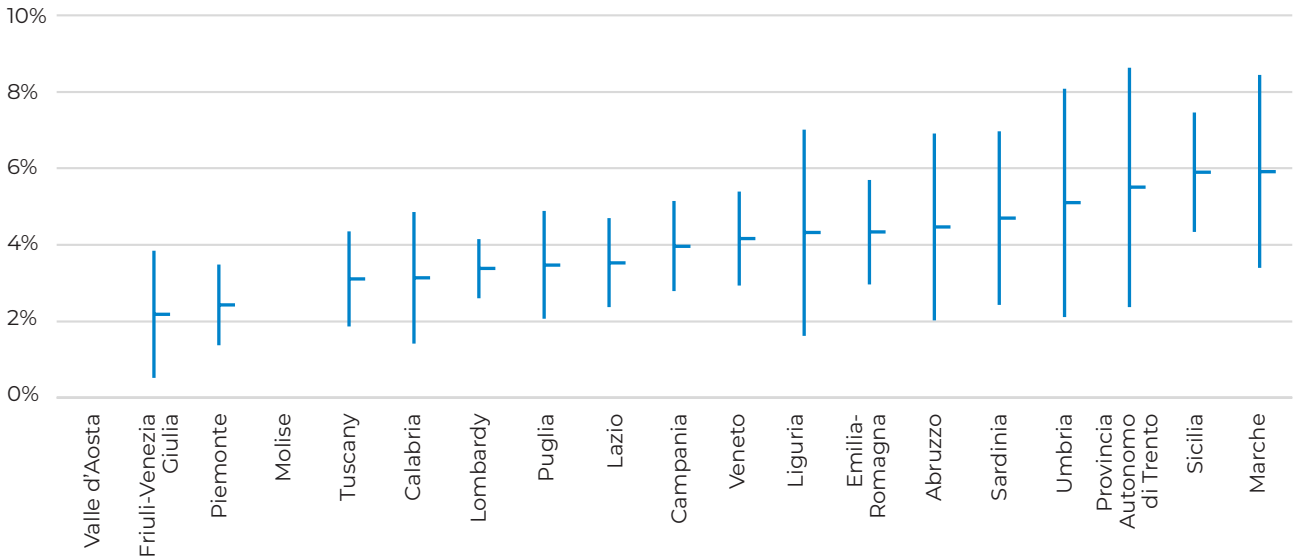


FIGURE 4.9 Total early-stage Entrepreneurial Activity in Italian regions

4.5 THE POLISH ECONOMY AND ITS REGIONS

In 2021, according to the 2022 GEM Global Report, Poland had a population of 37.8 million, and an average GDP/capita of $37,500, making Poland the 10th largest economy in the European Union. Poland's population is both ageing and declining, having fallen by a quarter of a million people over the last decade, with the fall greatest in the east of the country. However, while unemployment is relatively low, one in four employees has a temporary contract, twice the EU average. Agriculture remained important in employment terms (9% of the workforce), but contributed just 2.5% to Polish GDP, largely because of the roughly 1.5 million small farms (<9ha) in the country. Industry, mainly machine manufacture, telecommunications, transport and construction, together contributed 28% to GDP and 32% to employment. The tertiary service sector was much larger, providing 58% of GDP and 59% of employment, and growing, especially in financial services, logistics, information technology, and, increasingly, tourism[26].

At a NUTS2 level Poland has 17 regions, with the richest, Warszawski-Stołeczny, including the capital Warsaw and its 3.1 million inhabitants, with an average GDP in 2020 of €49,800 (EU units, PPP's), more than three times that of the poorest region, Lubelskie, whose 2.1 million inhabitants had an average GDP of just €15,400. Poland is therefore another economy whose capital region is by far its most prosperous, with the next well-off region being Dolnoslaskie with a GDP per capita of €25,100, just over half that of the capital region. With the exception of the area around Warsaw, regional prosperity is generally higher in western Poland than in the east.

Entrepreneurial activity in Poland

Averaged over the period 2015-2021, the level of entrepreneurial activity in Poland looks reasonably high in European terms, with Table 2.1 earlier reporting a TEA rate of 6.4%, alongside an EBO rate of 10.3% and an EEA rate of 2.3%. These results imply that just under one in five Polish adults was engaged in some form of entrepreneurship, second highest in this group of six European economies.

However, there are some concerns. Take Figure 4.10, plotting the level of TEA in Poland since the first GEM Global Report in 2001 (Poland has not participated in GEM every year, with an absence between 2005 and 2010). After falling at the start of the period, the level of TEA recovered by 2004, and, while Poland did not then participate again in the GEM Adult Population Survey (APS) until 2011, the TEA level that year was similar to that of 2004. The TEA rate remained fairly stable at around 9% until 2018, when it fell sharply to just 5%, and has since declined further, reaching just 1.6% in 2022, ranking Poland at the bottom of the 49 economies that participated in the GEM APS in that year. Figure 4.10 shows that TEA in Poland in 2022 was significantly lower than in 2020. However, the EBO level has been much more consistent, with the 2022 level of 9.8% not much different to the 2015-2021 average.

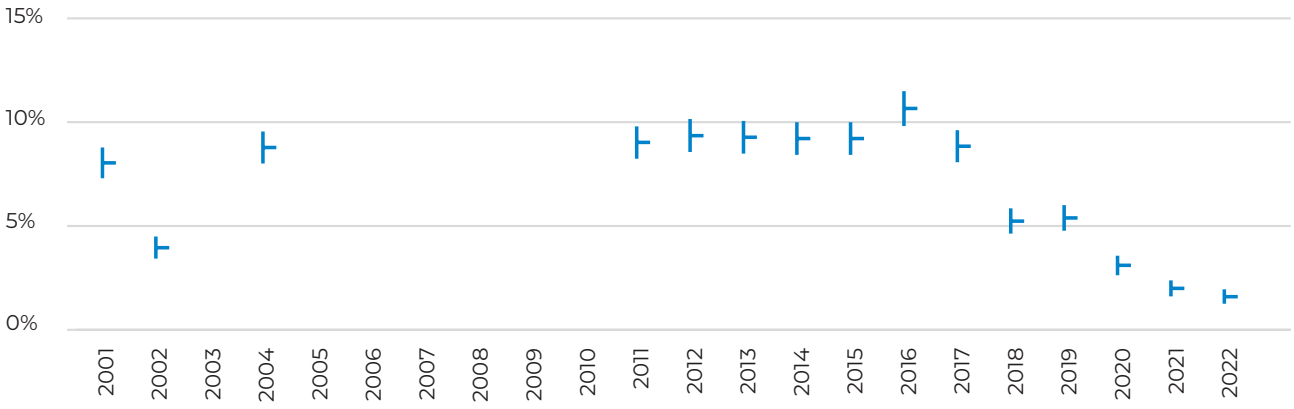


FIGURE 4.10 Total early-stage Entrepreneurial Activity (TEA) in Poland, 2001-2022

26 Data in this section is from the Ministry of Finance, Polish Office of Statistics and Eurostat.

Figure 4.11 uses GEM APS data over time to show that the recent decreases in TEA were not matched by substantial falls in the proportion of adults in Poland who saw good opportunities to start a business locally. Given that the opportunity perception rates remained relatively high, certainly in a European context. The explanation for the recent decline in TEA must lie elsewhere, including, most recently, the impacts of war in Ukraine, and high uncertainty regarding inflation and the rising cost of labour, as well as tax changes.

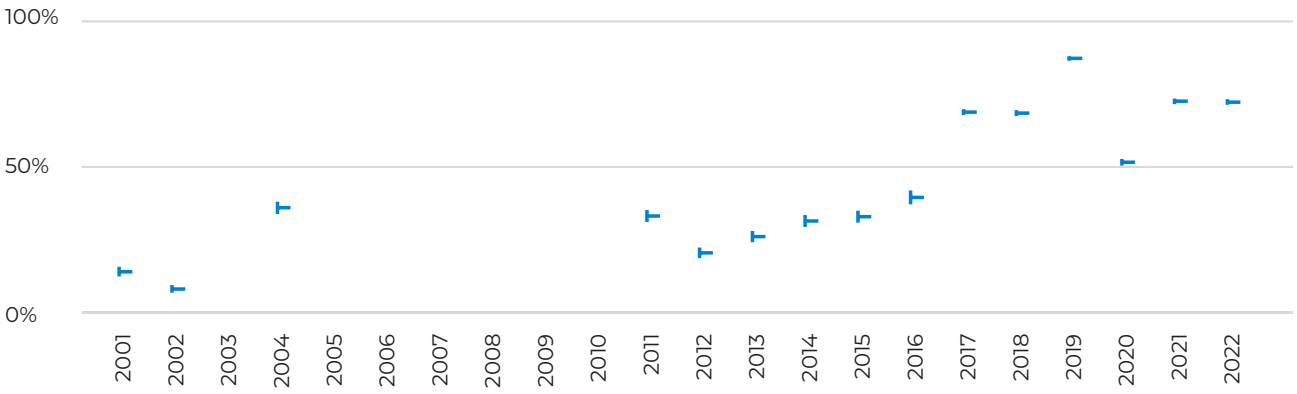


FIGURE 4.11 Perceived opportunities to start a business in Poland, 2002-2022

One contributing factor may be the state of the entrepreneurial environment in Poland, rated by its own experts with a National Entrepreneurial Context Index (NECI) score of just 3.8 in 2022 as much less than sufficient (45th of 51 GEM economies that year). Of the 13 entrepreneurial framework conditions, only Market Dynamics and Physical Infrastructure were rated as sufficient, leaving 11 rated as insufficient, often by a wide margin. It is very difficult to start a business without, for example, adequate access to finance, or sufficient policy or social support, although there have been challenges to the view that in Poland entrepreneurial ecosystem frameworks represent an implementable public policy solution to issues of stimulating entrepreneurship[27].

Regional entrepreneurship in Poland

The regional distribution of prosperity in Poland appears to have been largely shaped by agglomeration, with GDP per capita in Warsaw being about three times the national average, whereas some eastern subregions in Poland barely achieve a half of that average[28]. Warsaw is the only Polish region with a GDP/capita that exceeded the EU27 average. Outside of the Warsaw area, regional disparities are more modest, with seven regions having average GDP per capita above €18,000, and six with GDP per capita between €15,400 and €18,000. The highest levels of poverty in Poland are in the east (Lubelskie, Podlaskie and Świętokrzyskie).

Despite tumultuous change in Poland over time, including widespread displacement following World War II, there is some evidence of a positive relationship between knowledge-intensive entrepreneurship in the past and regional start-up activity in the present, suggesting that the regional knowledge stock can be an important and stable root of modern entrepreneurship[29]. Government policy in Poland has long sought to support less well-off regions, with a significant role for European Union funds, managed by the Ministry for Regional Development, which was founded in 2005 and evolved into the Ministry for Development Funds and Regional Policy in 2019. Policy is implemented in the context of the "2030 Strategy for Responsible Development", which defines the key areas of state interventions as reindustrialisation, the development of innovative companies, the promotion of small and

27 Brooks C., Varley Y. and Gherhes C. (2019) *Entrepreneurial Ecosystems in Poland: Panacea, paper-tiger or Pandora's box? Journal of Entrepreneurship and Public Policy*, 8 (3) 319-338.

28 The data for this section comes largely from "*Regional Development of Poland – an analytical report*" (2021), Statistics Poland, Spatial and Environmental Surveys Department, Warsaw.

29 See Fritsch M., Pylak K. & Wyrwich M. (2021) *Historical roots of entrepreneurship in different regional contexts: the case of Poland. Small Business Economics*, 59, 397-412.

medium-sized enterprises, development capital, foreign expansion and territorially sustainable development.

As noted earlier, Poland has an ageing population, although employment has been increasing in all regions over the past decade. Educational attainment is improving, with the percentage of adults with higher education increasing from 20% in 2011 to 29% in 2020, although levels in Eastern Poland remain lower (18% in 2011, 26% in 2020). More positively, levels of expenditure on Research and Development in Poland in 2022 were more than twice that of 2011, while employment in this sector had increased by a third.

The final chart (Figure 4.12) uses 2015-2021 pooled GEM APS data to estimate Total early-stage Entrepreneurial Activity (TEA) for Polish regions, ranging from 4.4% in Kujawsko-Pomorskie to 6.4% in Warmińsko-Mazurskie, a narrower range than in Italy (2% to 6%), France (4% to 12%) or Germany (3% to 8%), and much less than for the United Kingdom (5% to 10%). Regional disparities in levels of TEA in Poland appear to be much lower, and much less significant, than other regional disparities, such as in GDP per capita, household incomes or educational attainment.

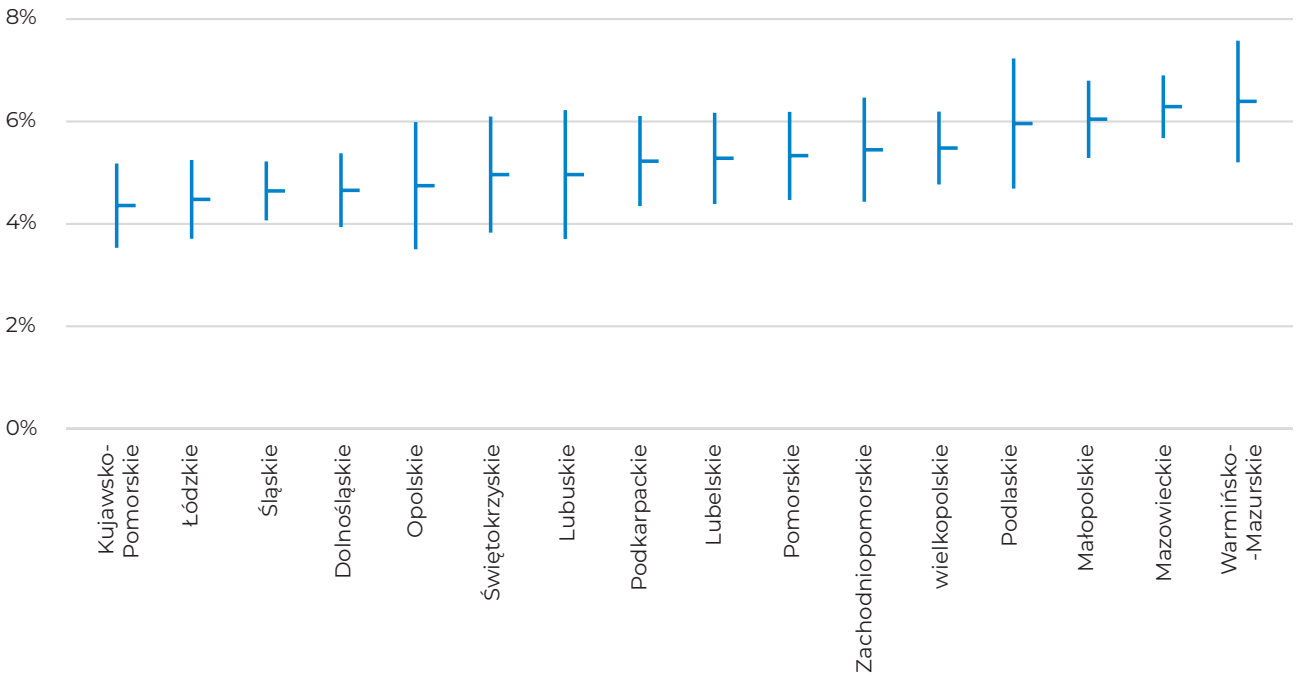


FIGURE 4.12 Total early-stage Entrepreneurial Activity in Polish regions

4.6 THE SPANISH ECONOMY AND ITS REGIONS

In 2021, Spain had a Gross Domestic Product (GDP) per capita of $40,600, measured in international $ (PPP), and a population of 47.3 million, (data from the GEM 2022/2023 Global Report), making it the sixth largest economy in Europe. Spain has a well-diversified economy, with important sectors including manufacturing, financial services, pharmaceuticals, textiles and chemicals, all progressing under the policy umbrella of Spain's "2030 Industrial Strategy" and the more recent "Internationalisation Strategy of the Spanish Economy, 2017-2027". Spain also has a very important tourism industry, contributing more than 10% of GDP, and is the second most-visited destination in the world (behind France), with 84 million tourists in 2019, before the pandemic took hold.

According to the National Statistics Institute, the primary sector (mostly agriculture and fishing) contributed 3% to Spain's 2021 GDP, while the secondary (industrial) sector was 21% of GDP, leaving the tertiary sector (services) with 67% of GDP. As in France, Spain's agricultural sector includes a large number (around 1 million) of small agricultural businesses. Spain is the world's largest producer of olive oil, and third largest producer of wine. However it is also Europe's second largest producer of automobiles, more than 80% of which are exported.

Spain is increasingly urban, with 70% of its population in towns and cities of more than 50,000 people, although its ratio of 46% in metropolitan areas of 500,000 or more is one of the lowest in the OECD. One issue common to many of the European economies under consideration here is an ageing population, a recurring theme across Spain, which has an elderly dependency ratio above the OECD average. Once again this is worse in places furthest away from metropolitan areas. In 8 out of 50 provinces in Spain, there are two or more elderly people for every five people of working age[30].

Spain has long had a regional focus, with regions having a high degree of legislative and fiscal autonomy. While Spain just about fits the monocentric model of regional development, with Comunidad de Madrid having the highest Spanish regional GDP per capita at €34,400 (European PPS units, 2020), others are not far behind, with Bilbao-led Pas Vasco at €32,400 and catching-up fast. Spain's second largest city – Barcelona – is in Cataluña, also fairly prosperous at €29,600. The polycentric model may better reflect the future for Spain's regions. Moreover regional inequalities in Spain are lower than elsewhere, with the OECD reporting a ratio of the top 20% regional GDP/cap to lowest 20% regional GDP/cap of just under two, much less than the other five European economies in this sample.

Entrepreneurial activity in Spain

Spain's levels of entrepreneurial activity rank in the middle for Europe. The country has a TEA rate of 5.8% averaged over the 2015-2021 period, with corresponding EBO and EEA rates of 6.7% and 1.8% respectively, meaning just over 14% of its adults were engaged in entrepreneurial activity in some form or other, slightly above France and Italy, but well below Germany, Poland and the United Kingdom.

Figure 4.13 shows the evolution of TEA rates in Spain since 2001. In 2022 the level of TEA in Spain reached 6%, its highest level since 2008. As we saw earlier in Italy, the business cycle is visible in Figure 4.13, with lows in 2002, 2010 and 2020. This is even further exemplified in Figure 4.14, where the evaluation of perceived opportunities to start a business is depicted. These perceptions regained their pre-pandemic values in 2021 and 2022.

Since 2008, the EBO rate has exceeded the level of TEA in every year but one (2018), whilst levels of EEA have been relatively modest at 3% or less since GEM introduced this variable in 2011. This probably reflects the relative paucity of large employers in Spain.

30 OECD (2020) *Regions and Cities at a Glance, Country Note:Spain*, OECD, Paris.

FIGURE 4.13 TEA Rates in Spain, 2001-2022

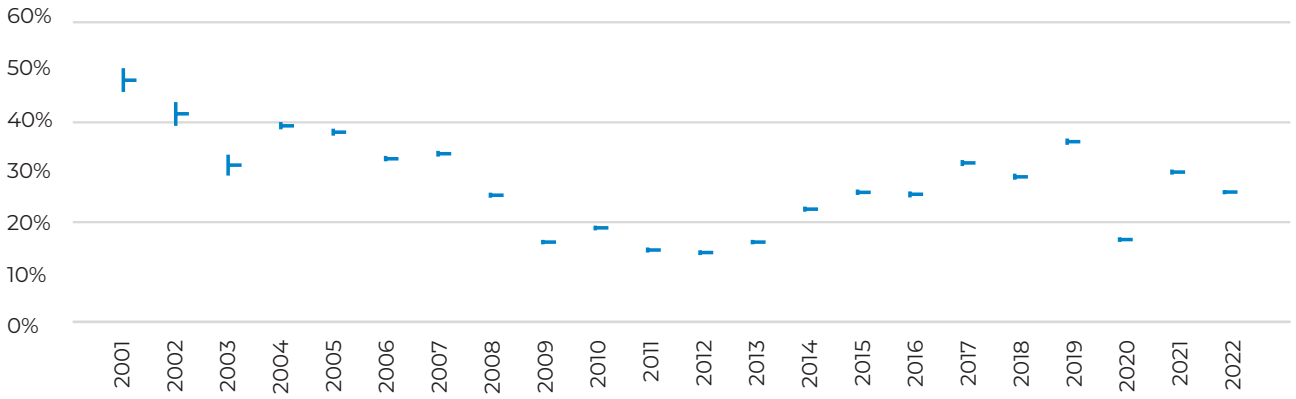


FIGURE 4.14 Perceived opportunities to start a business in Spain, 2001-2022

The quality of Spain's entrepreneurial environment, as assessed by the National Expert Survey, has been highly variable in recent years. As recently as 2021, Spain had an overall NECI score of 5.4, well-sufficient and ranking Spain at 10th of 47 economies for that year. But in 2022 that NECI score fell to just 4.0, much less than sufficient and ranking Spain at 41st of 51 participating economies. Just three of Spain's Entrepreneurial Framework Conditions (EFRC's) were rated by experts as sufficient: its Physical Infrastructure, Commercial and Professional Services infrastructure, and its provision of Entrepreneurial Education post-school. The new legal framework that supports startup creation, developed in 2022 and coming into effect in 2023, should improve perceptions of the entrepreneurial environment in Spain as it includes measures to reduce entry costs and favour the attraction of personnel and foreign investment, among others.

Regional entrepreneurship in Spain

Figure 4.15 looks at TEA levels across Spanish regions, using the pooled APS sample from 2015-2021. Note that large sample sizes mean narrow confidence intervals for these Spanish estimates. For example, the highest level of TEA in Cataluña is significantly higher than that of third-placed Cantabria, since its confidence interval lies everywhere above that of the latter.

Finally, and in line with comments earlier about relatively low Spanish regional disparities, levels of early stage entrepreneurial activity vary much less between mainland Spanish regions than they do between British, German or French regions, although rather more than between Polish regions. Interestingly Spain and Italy have a similar range of variation in levels of entrepreneurial activity between mainland regions, although Spain's was at a slightly higher level of entrepreneurial activity than Italy's.

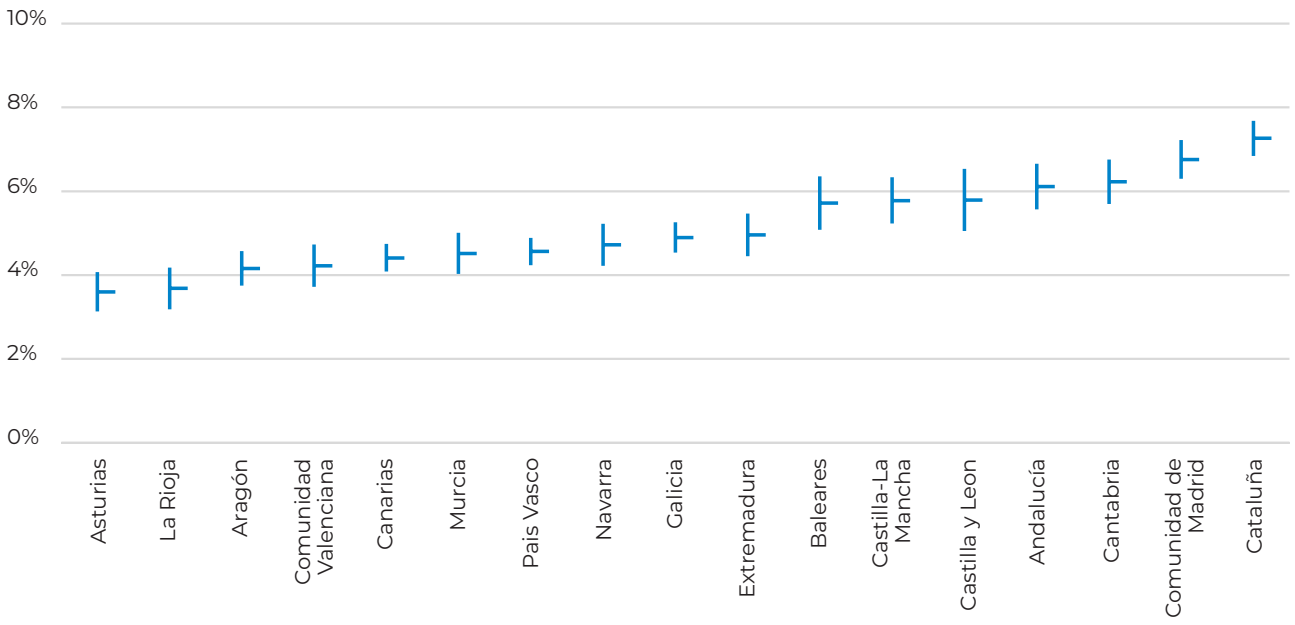


FIGURE 4.15 Total early-stage Entrepreneurial Activity in Spanish regions

4.7 THE UNITED KINGDOM ECONOMY AND ITS REGIONS

In 2021 the United Kingdom had a total population of 67.3 million, and an average Gross Domestic Product (GDP) per capita of $49.7 (thousands, international $, PPP). The UK economy has experienced a great deal of turbulence over the past two decades, with strong average growth (just under 4% per year) between 1992-2007, followed by recession in the global financial crisis of 2008. Steady growth then preceded the decision to leave the European Union (EU) in 2016, which then combined with the pandemic to ensure turmoil since. The UK's reliance on EU trade was considerable, with the EU receiving 46% of the UK's exported goods and 39% of UK exported services in 2019. Trade was inevitably impacted by Brexit and the pandemic, with non-tariff barriers with the EU pushing up transaction costs while barriers to migration have constrained UK outputs.

In May 2020, almost a quarter of the UK workforce was 'furloughed' under a government support scheme that compensated up to 75% of lost wages. In 2020, UK GDP fell by almost 10%, the worst recession since the "Great Frost" of 1709.

The UK's elderly dependency ratio (ratio of those aged 65+ to those aged 25-64) is increasing slowly, from 30% in 2011 to 32% in 2021, but is set to reach 40% by 2033. Meanwhile, in 2020, less than 2% of UK GDP was generated by the primary sector. The secondary sector – including manufacturing, construction and utilities – is together just under 20% of GDP, with manufacturing a little over a half of this. This left 79% of UK GDP as generated by the tertiary sector, of which retail and wholesale were largest, at nearly 11% of GDP, followed by financial services at 9% and health and social care with 8%. These figures provide a benchmark with which to assess regional contributions to sector GDP.

The UK is reasonably urbanised, with 80% of its population in towns or cities of 50,000 people or more, and 56% of the population in metropolitan areas of 500,000 or more. Five metropolitan areas have more than 1m people: London, by far the largest with over 11 million, Manchester (2.8 million), Birmingham/Wolverhampton (2.6 million), Leeds/Bradford (1.9 million) and Glasgow (1.3 million).

The United Kingdom comprises four nations: England, Scotland, Wales and Northern Ireland, each with their own elected assemblies, although the UK Parliament in London retains major responsibilities, including fiscal, monetary and defence authority. England is by far the larger of the nations, and is itself divided into nine regions, all but two of which have higher populations than the second largest nation, Scotland.

Regional disparities are both stark and increasing, despite the UK Government's "Plan for Growth" focused on infrastructure, skills and innovation to deliver prosperity, and its "Levelling up the whole of the UK" strategy approved in 2022. The UK has the fourth highest ratio, at more than three, of GDP/cap for the top 20% regions relative to GDP/cap in the bottom 20%, of the 29 OECD regions with comparable data, and recorded the fourth largest increase in disparities between 2000 and 2018[31]. Since 2020, London and Edinburgh are the top two UK metropolitan areas for both the level and growth of GDP/capita.

The basic cause of these regional disparities is differences in productivity, reflecting regional sector specialisation, agglomeration and skills differences. For example, for the UK as a whole, manufacturing contributes about 10% of GDP. But for every region and nation outside of the South East and London, manufacturing contributes more than 10% to GDP and often much more (e.g. 17% in both Wales and the East Midlands).[32] Conversely, financial services contribute nearly 9% to GDP nationally, but more than twice that in London, and around a half that in most other regions. So if manufacturing declines relative to financial services, UK regional disparities widen.

Entrepreneurial activity in the United Kingdom.

Table 2.1 earlier showed the UK as the most entrepreneurial of the six countries, with an average TEA of 8.9%, alongside an EBO rate of 6.3% and an EEA rate of 6.4%, over the period 2015-2021), ranking the UK first of the six economies for TEA and EEA and third for EBO. This sums to more than one in five UK adults engaged in entrepreneurial activity in some form or other (minus any doing both).

Figure 4.16 shows the evolution of TEA rates for the UK since GEM first reported in 2001. The chart illustrates a steady upward drift in TEA, which has accelerated recently despite a drop in the first year of the coronavirus pandemic in 2020. This is also very clear from the development in perceived opportunities to start a new business, as depicted in Figure 4.17, probably with a rebound effect in 2021. One important influence on increasing levels of TEA has been the narrowing of the entrepreneurial gender gap, as TEA for women has risen towards the male rate. By 2022 the female rate was just under 11%, compared to a male rate of 15%[33].

31 OECD Regions and Cities at a Glance 2022
32 Data from "*The Structure of GDP, 2020*", House of Commons Library.

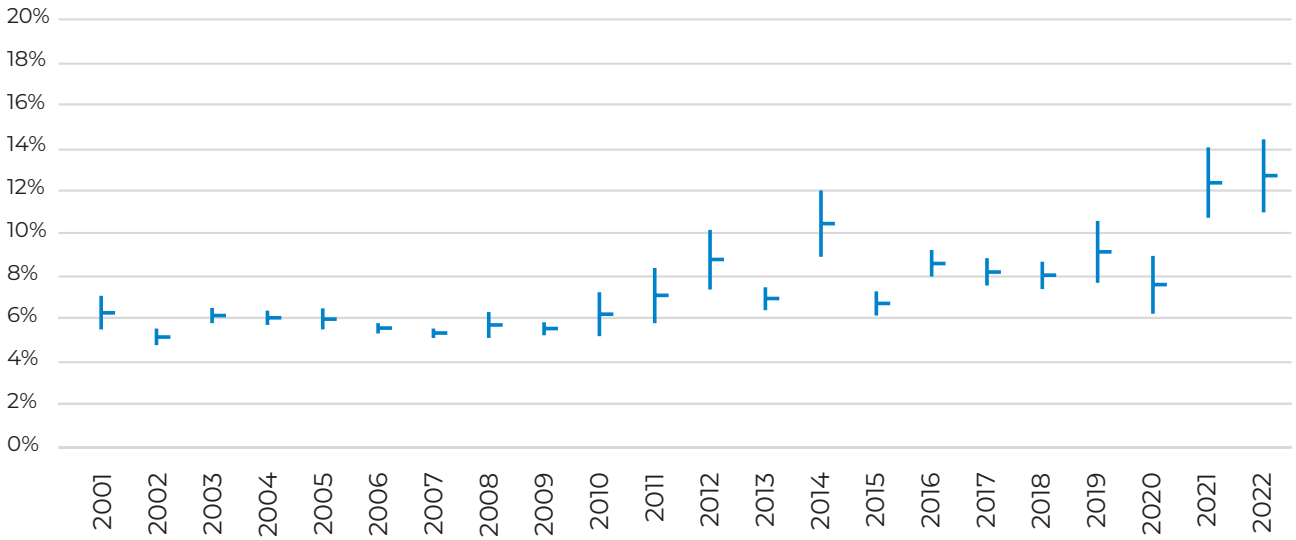


FIGURE 4.16 TEA rates in the United Kingdom, 2001-2022

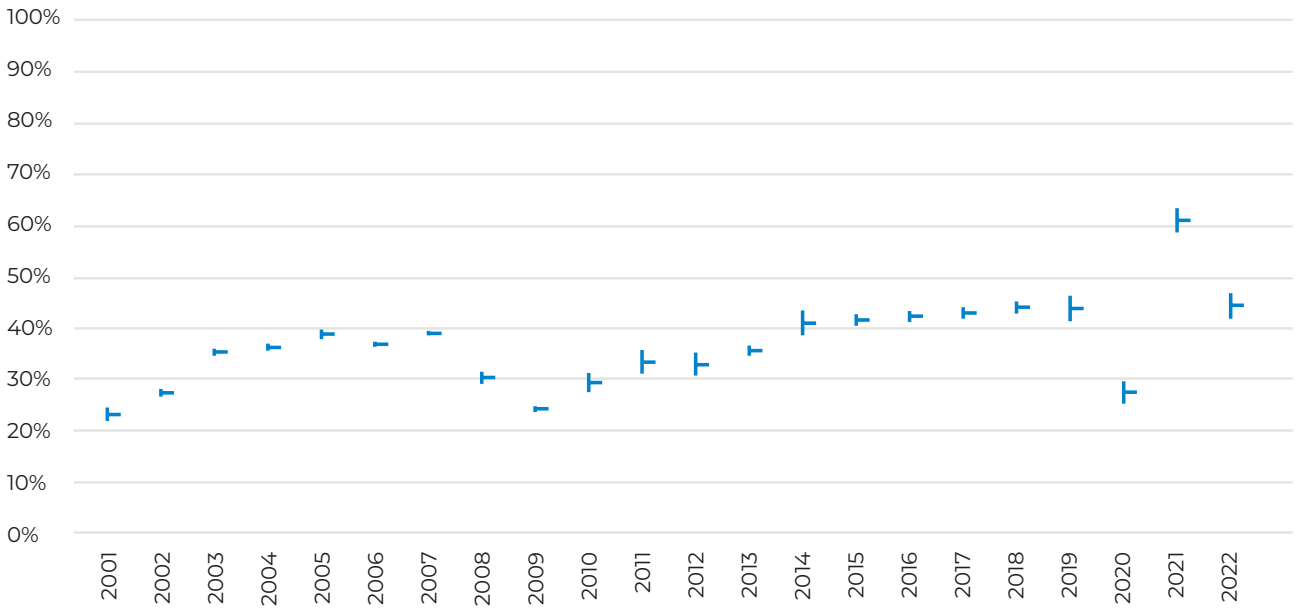


FIGURE 4.17 Perceived opportunities to start a business, 2001-2022

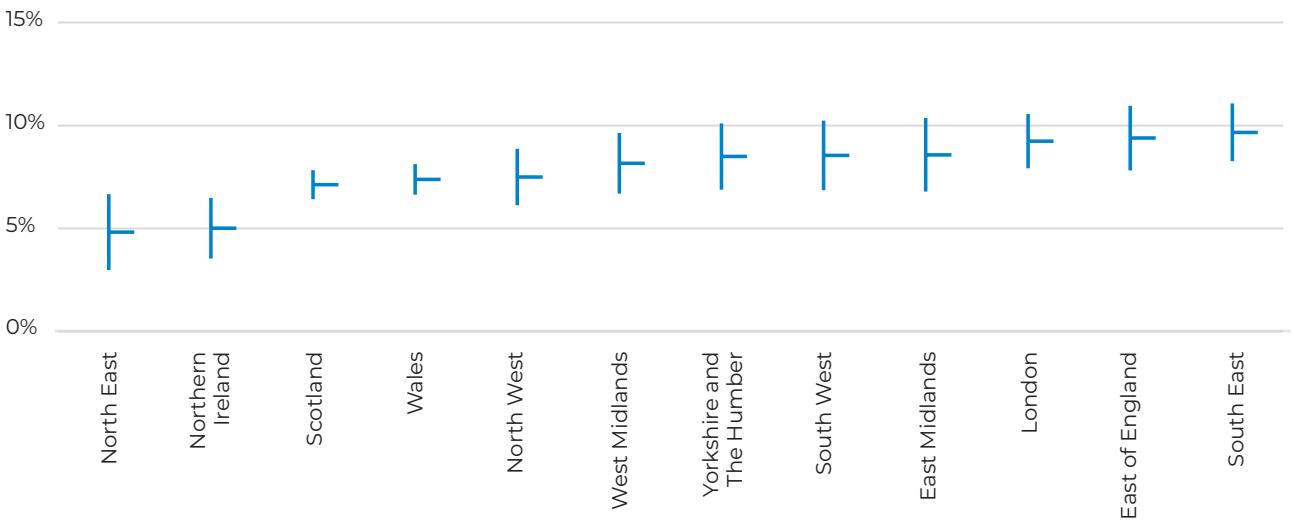
33 Female entrepreneurship in the UK was given a significant boost in 2019 by the Rose Review: https://www.gov.uk/government/publications/the-alison-rose-review-of-female-entrepreneurship

In 2022, the UK's NECI score of 4.7 was less than sufficient, and more or less ranked in the middle of the 51 GEM participating economies. Only five of its Entrepreneurial Framework Conditions were scored as sufficient, with eight rated as insufficient. The lowest scores were Entrepreneurial Education in Schools and Government Policy: Support and Relevance.

Regional entrepreneurship in the UK

The nature of UK regional disparities was outlined earlier, with the UK easily fitting the monocentric model of regional development, given that its capital region (London) had a GDP/capita almost twice that of every other region except for neighbouring South East, and nearly two and a half times that of the two poorest regions (Wales and the North East). Nor are UK disparities confined to regions, with, according to the OECD, women being paid 13% less than men, the third highest wage gap in the OECD behind Greece and Poland[34].

Given these disparities, regional differences in TEA rates revealed by data pooled from 2015 to 2021 cannot be a surprise. These rates ranged from 4.8% in the North East of England to 9.7% in the South East, although there was very little difference between the three highest rates, corresponding to the three most well-off regions of England (the South East, London and East of England). Even the lowest of these UK regional TEA rates exceeded those for 10 of 19 regions in Spain and 13 of 17 regions in Italy (Figure 4.18).



Note: Data for the United Kingdom 2018-2021 used are based on the national sample of 2000 adult individuals only. Additional data collected in several UK regions in those years are not included for this analysis. We refer to the GEM United Kingdom reports for more information.

FIGURE 4.18 Total early-stage Entrepreneurial Activity in United Kingdom regions, 2015-2021

34 OECD Economic Surveys (2022) United Kingdom.

4.8 CONCLUSIONS

This chapter has revealed substantial variation across the regions of the six highlighted economies, with significant disparities in regional entrepreneurial activity rates. To some extent this mirrors the variety observed in other dimensions of the regional economy, such as Gross Domestic Product (GDP) per capita, unemployment rates or household incomes.

Despite this variety, there are also some emerging commonalities, chief of which may be that each of these European economies, and most European regions, are grappling with the issue of an ageing population as reflected in rising elderly dependency rates. This appears to be increasing fastest furthest away from metropolitan areas.

Another commonality is the dominance of the tertiary (services) sector, now accounting for up to 80% of GDP in some economies, and even more in some capital regions. One offshoot of these structural changes is that for many of these economies, and not just France and Spain, tourism is now as important as manufacturing in terms of its contribution to jobs and incomes.

This Report has used pooled GEM Adult Population Survey data to estimate comparable and consistent estimates for regional TEA for regions within each economy, with some revealing results. For many years, successive GEM Global Reports have posited a negative association between GDP per capita and TEA, evidenced by high levels of TEA in the lowest income economies and lowest levels of TEA amongst the richest economies. Earlier chapters in this report have continued this theme, pointing to (generally) high-income Europe as having (generally) low levels of TEA in global terms, usually lagging behind lower income economies, especially in South America and much of Asia.

However, the regional estimates of TEA within this chapter may prompt some re-thinking. A regional disaggregation of TEA rates reveals that, across these six economies, many of the better-off regions (in terms of GDP per capita) have the highest average TEA rates. For example, the six highest regional levels of TEA across these six economies are in Alpes-Cote d'Azur (12.3% and France's third richest region in terms of GDP/cap), South East England (9.7%, UK's second richest region), East of England (9.4%, UK's third richest), London (9.2%, UK's richest region), Ile-de-France (9.1%, France – and Europe's – richest region) and in Bremen (8.9%, Germany's second richest region). Meanwhile, the six lowest levels of regional TEA, include both the poorest region of Germany (Mecklenburg-Vorpommern, 2.9%) and the poorest region in mainland Spain (Calabria, 3.4%). The bottom six also includes relatively well-off Lombardia (3.4%) and Valle d'Aoste (2.2%). So while the definitive association between TEA and GDP remains elusive, TEA rates across regions of these six European economies cast a long shadow over the assertion of a negative association.

5

Deepening the local analysis using the GEM Ecosystem Index tool

5.1 THE GEM ECOSYSTEM INDEX (ESI)

In order to boost high-value entrepreneurship, regions need to assess their ecosystem's strengths and weaknesses, particularly in terms of the conditions in their entrepreneurial ecosystem. The GEM ESI (Ecosystem Index) tool was developed based on the framework proposed by Stam (2015),[35] shown in Figure 5.1, and is designed to measure the entrepreneurial framework conditions outlined in Chapter 4. This is accomplished using a sample of at least 400 adults drawn from a representative sample, as well as a mix of experts familiar with the region. By surveying both groups, regions can determine how many potential entrepreneurs there are in the adult population, as well as how relevant experts evaluate the regional ecosystem. For more details on the ESI tool and how it was developed, based on Stam's interpretation of the entrepreneurial ecosystem concept, see Sternberg et al. 2019, as well as the description of ESI on www.gemconsortium.org[36].

In adopting ESI, regions are surveyed on questions related to the quality of their ecosystem. With these responses, scores are generated for the regional ecosystem as a whole, which are based on the aggregate scores of each of the regions' 10 underlying conditions. The ESI is designed to provide an overall measure of the quality of a regional entrepreneurial ecosystem. In line with Stam's conceptualization, it is determined as a weighted sum of two partial indexes: ESI_SC (Systemic Conditions Index) and ESI_FC (Framework Conditions Index). Here, the system conditions are formed by the pillars of formal institutions, culture, physical infrastructure and demand. The framework conditions include networks, leadership, finances, talent, knowledge and support services.

For an example of how the ESI tool works, consider talent, one of the elements of an entrepreneurial ecosystem. Talent is a necessary condition for the existence of an entrepreneurial ecosystem. It is associated with the innovativeness of the (potential) incubator organisations located in an entrepreneurial ecosystem (like incumbent public or semi-public research institutions, such as universities, and others), their openness regarding spin-offs, or the quantity and quality of skilled labour. These factors may be crucial in the rivalry between new and small firms and large incumbents, for example when it comes to the wages for highly skilled employees required by new as well as by established firms.

As the latter aspect is rather specific to entrepreneurs, three of the classical APS questions are addressed to young, emerging or established entrepreneurs only (but not to non-entrepreneurs). As the entrepreneurship experts know the situation in their respective subnational region very well, the focus of their questions is on the local standing of new and innovative (and usually small) firms (implicitly compared with incumbents) in terms of innovation and the affordability of skilled labour. The latter issue is covered by one question for each of the two target groups. This enables comparison between the perception of the entrepreneurs and those of the experts.

35 Stam, E. (2015). *Entrepreneurial ecosystems and regional policy: a sympathetic critique. European planning studies*, 23(9), 1759-1769.
36 Sternberg, R., von Bloh, J., Coduras, A. (2019): *A new framework to measure entrepreneurial ecosystems at the regional level. Zeitschrift für Wirtschaftsgeographie 63(2-4)*, 103-117. https://doi.org/10.1515/zfw-2018-0014

The ESI expresses the overall quality of a regional entrepreneurial ecosystem. Measured on a 10-point scale, this composite index facilitates comparative evaluation between different ecosystems and is useful for ranking them and showing their relative positions. The ESI is primarily a diagnostic tool; whereas the resulting index may say something about the overall quality of the entrepreneurial ecosystem, it is especially the analysis of the underlying pillars that will help local governments and stakeholders to improve the breeding ground for productive entrepreneurship in the region.

The ESI has now been applied to around a dozen regions globally. This chapter will consider only two examples. ESI is gaining recognition as a value-adding approach to understanding the regional ecosystem as a mechanism to initiate improvements, and hence to stimulate both the level of entrepreneurship and the pace of transition of new businesses into established ones, thereby helping in securing stable employment in the region.

The ESI concept as a tool can be used by many more countries, cities or other kinds of subnational regions, with potential outcomes beyond those achievable from the use of usual GEM data (even broken down by subnational regions) for regional purposes. This is because the ESI surveys are region specific, with several additional questions added for both for experts and the general adult population. Thus, the potential for interregional comparison based upon ESI data is high, though it requires many more ESI studies and resultant data to be available.

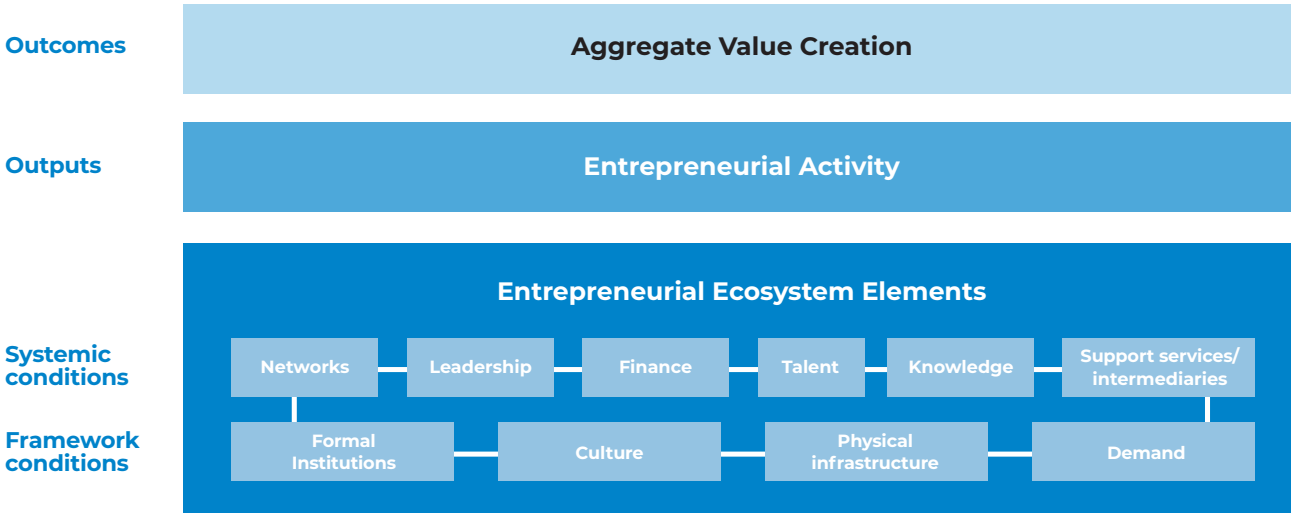


FIGURE 5.1
Entrepreneurial ecosystem framework
Source: Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. European planning studies, 23(9), 1759-1769.

5.2 THE ENTREPRENEURIAL ECOSYSTEM OF CADIZ, SPAIN

The province of Cadiz constitutes one of the regions of Andalucía. It is still recovering from a very adverse situation during the economic crisis of 2011-2014, with the 2014 unemployment rate reaching as high as 42%, the highest in Spain. The main industry is tourism, coming from non-coastal Spanish cities, Germany and the UK. Its once-important shipbuilding industry (Astilleros) has been struggling due to fierce competition from South Korea and China. The area includes Airbus and Delphi's factories. It also exports sherry (wine) as well as alimentary products. Against this backdrop, the region's proven vulnerability has sparked interest in enhancing the entrepreneurial ecosystem to improve resilience.

The ESI tool has been applied in Cadiz through dedicated GEM APS and NES data collection. Looking at the four pillars that constitute the systemic conditions, it can be seen that physical infrastructure scores relatively high with 6.1 points, whereas in particular the formal institutional setting is an area of concern with a 4.5 score. For Cadiz, the resulting ESI Systemic Conditions Index is valued at 5.2 out of a maximum score of 10.

In terms of the six pillars that shape the ESI Systemic Conditions Index, finance was clearly of most concern, scoring 4.4. Other relatively weak elements are formal institutions (4.5), support services (4.9), leadership (5.0), and culture (5.1). These are likely the most pressing bottlenecks holding back productive entrepreneurship in Cadiz. None of the other pillars scored higher than six points; although networks, knowledge and talent come closest. The resulting ESI Systemic Conditions Index equalled 5.3. The total ESI index was accordingly valued at 5.2.

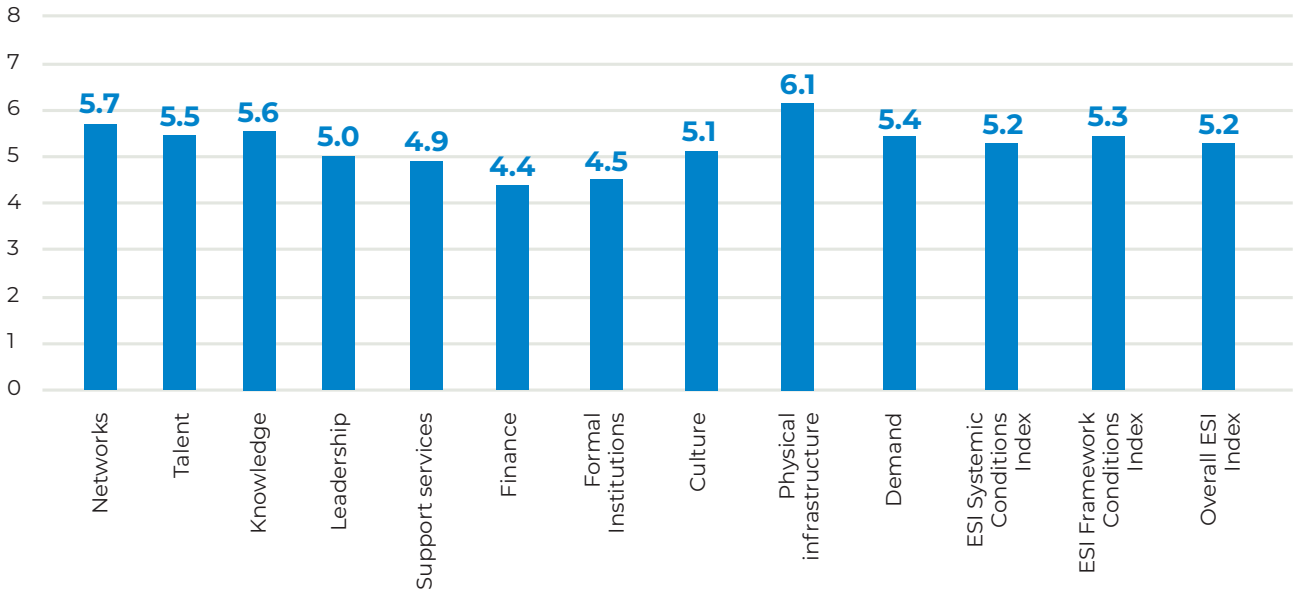


FIGURE 5.2 ESI Pillar scores for Cadiz

5.3 THE ENTREPRENEURIAL ECOSYSTEM OF TERRAS DE TRÁSOS-MONTES, PORTUGAL

In the northeastern part of Portugal, Terras de Trásos-Montes is a region stretching about 5,500 square kilometres. It has approximately 107,000 inhabitants and, like many rural areas, is characterised by a decreasing population.

As in Cadiz, physical infrastructure for entrepreneurship is scored relatively well in Terras de Trásos-Montes. Culture is another pillar of the systemic conditions for entrepreneurship that is valued positively. The overall ESI Systemic Conditions Index score equalled 5.63. The weakest ESI scores were finance (4.7), formal institutions (4.8), and support services (5.1), suggesting these are the most pressing bottlenecks for productive entrepreneurship in Terras de Trásos-Montes.

The sub-region of Terras de Trásos-Montes presents an overall satisfactory entrepreneurial ecosystem index (5.7). In the two other indexes calculated by GEM ESI, the ESI Systemic Conditions Index and the ESI Framework Conditions Index, Terras de Trás-os-Montes had scores of 5.6 and 5.9 respectively.

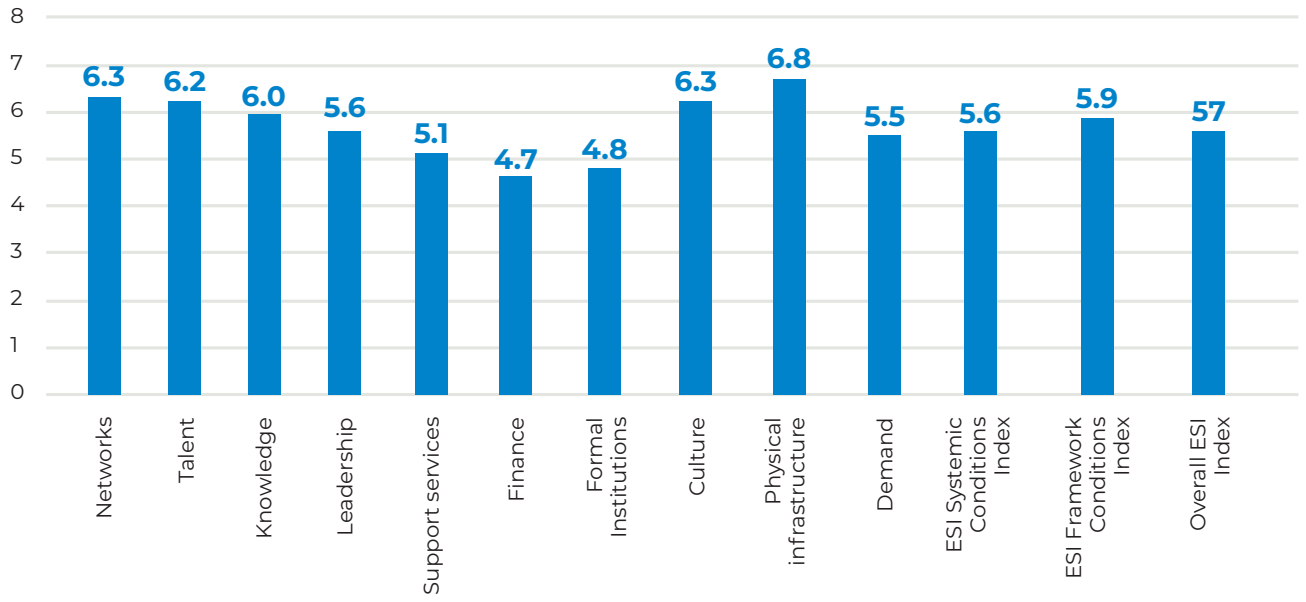


FIGURE 5.3 ESI pillar scores for Terras de Trásos-Montes

5.4 COMPARING AND DIAGNOSING REGIONAL ENTREPRENEURIAL ECOSYSTEMS

By jointly analysing the scores of each pillar and for both regions, we can better compare their local strengths and weaknesses. For instance, consider Figure 5.4 where all 10 conditions of both Cadiz and Terras de Trásos-Montes are shown, illustrating that both regions score relatively well for physical infrastructure, but have common weaknesses, especially in terms of support services, finance and formal institutions. Terra de Trasos-Montes, however, looks better placed to support entrepreneurship and to transition new into established businesses than Cadiz, with a particular difference being cultural support for entrepreneurship.

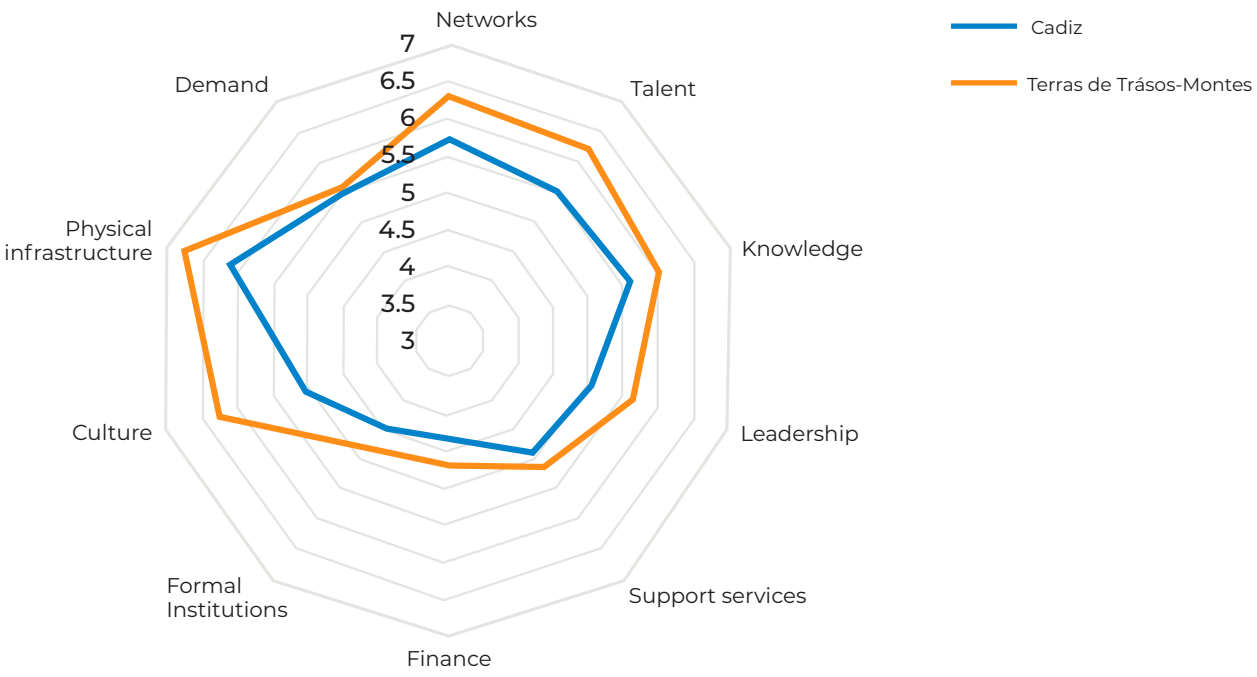


FIGURE 5.4 The entrepreneurial ecosystems of Cadiz and Terras de Trásos-Montes compared
Note: to facilitate comparison, the figure uses a lower bound of 3 and an upper bound of 7.

5.5 CONCLUSIONS

ESI is an effective tool for the comprehensive assessment and comparison of the quality of regional entrepreneurial ecosystems, providing the ability to make detailed assessments in identifying regional strengths and weaknesses in the entrepreneurial framework conditions.

Repeated assessments would allow the quality of the regional ecosystem to be monitored over time, while consistency in the ESI framework facilitates national (and indeed international) comparisons between subnational entrepreneurial ecosystems like the two just presented. ESI, however, is not appropriate to compare a selected subnational entrepreneurial ecosystem of a given country with the attributes of the national entrepreneurial ecosystem of that very country (as the questions and entrepreneurial ecosystems are similar but not the same). The strong comparative advantage of the ESI is the comparability of subnational entrepreneurial ecosystems of a given country with each other, of different countries with each other, and of the same subnational entrepreneurial ecosystem over time. No other tool currently offers these opportunities.

We should acknowledge that while the ESI offers a comprehensive assessment of the quality of regional ecosystems, the assumed interconnectivity between system elements and agents is still difficult to cover with reasonable indicators and appropriate data. While no other entrepreneurial ecosystem index attempt is currently able to solve this problem, using a fuzzy qualitative comparative analysis (QCA) to develop categories of combinations of elements' gives the suggested method an advantage in this field for measuring the different systemic settings of an entrepreneurial ecosystem at least indirectly[37]. By asking members of the respective entrepreneurial ecosystem for their assessments of entrepreneurial conditions, the method at least allows recognition of what some entrepreneurial ecosystem actors think about some of the potential connections between other agents within this entrepreneurial ecosystem. ESI also provides exactly this information.

37 See e.g. Schrijvers, M., Stam, E. and Bosma, N. (2021). *Figuring it out: Configurations of high-performing entrepreneurial ecosystems in Europe. U.S.E. Working Paper Series*, volume 21, issue 5

ENTREPRENEUR HIGHLIGHT

Gilles Suard

Founder, Almighty Tree (Switzerland)

How educational experiences can help inspire and inform future entrepreneurs

GEM's Adult Population Survey asks respondents about their highest level of educational attainment. A great example of someone who used their educational experiences to launch a company is Gilles Suard, founder of Almighty Tree and a graduate of the School of Management Fribourg (HEG-FR), University of Applied Sciences and Arts Western Switzerland (HES-SO).

The mission of Almighty Tree is to act against climate change, create a cleaner environment, and raise awareness about the role of business and the general public about carbon emissions. In response, the company plants trees in Switzerland and abroad.

> *"On one hand, my education inspired me to launch a business and, on the other hand, it prepared me to face the challenges associated with such an adventure."*

During Gilles' studies (MSc BA, major in entrepreneurship), he was exposed to success stories, entrepreneurs' presentations/lectures, case studies on entrepreneurship and innovation, company visits, and the entrepreneurship ecosystem in Boston.

> *"Such action-oriented activities inspired me, influenced my career choices and reinforced my deep desire to be an entrepreneur. I also received the appropriate knowledge for execution, from idea to the market. I was able to learn about the wide spectrum of fields needed to launch a business, such as marketing, finance, law, growth management and leadership."*

During his studies, he took part in Venture In Action, a project that allowed students to launch a real business. He went through all the steps needed to start a new business. He pitched an idea, created a team, tested and challenged the original idea, launched a go-to-market strategy, and truly lived an authentic entrepreneurial journey. In the process, he saw first-hand the importance of perseverance.

In conclusion, Gilles said:

> *"All my educational experiences informed me about how hard it is at the beginning of a venture and taught me how to keep going."*

6

Conclusions

6.1 BRIEF SUMMARY OF MAIN RESULTS

This report has pooled extensive Global Entrepreneurship Monitor (GEM) Adult Population Survey (APS) data over several years in order to derive entrepreneurial activity rates and entrepreneurial perception levels across European regions. This has provided unsurpassed insight into these key entrepreneurial variables revealed patterns of development and highlighted regional differences across Europe.

The estimation of regional entrepreneurship levels requires considerable amounts of primary data derived from very large sample sizes. Even the very large GEM APS, which in 2022 had over 170,000 respondents, is insufficient in deriving regional entrepreneurship rates for most participating economies for each year. Hence the need to pool data over several years to make those derivations. Here GEM has a considerable comparative advantage: no other annual entrepreneurship survey can approach the breadth and scope of the GEM APS, and therefore no other data source can produce regional entrepreneurial activity level estimates that are consistent and comparable between regions as well as between countries. The estimates presented in this report serve as a benchmark for each region to measure the effectiveness of its policies in promoting entrepreneurship.

Many European economies have levels of entrepreneurial activity that are substantially lower than other parts of the world, especially levels in North and South America. One explanation for these relatively lower rates may be the comparatively favourable employment conditions in Europe, raising the opportunity costs of starting a business relative to employment.

This report has revealed significant differences in regional levels of entrepreneurial activities and entrepreneurial perceptions across Europe. Many of these differences can be related to population density. Urban regions generally have higher levels of entrepreneurial activity than rural regions, while both are consistently higher than in intermediate regions. Part of the explanation may be the obvious predominance of agricultural activities in rural locations, although the significance of those activities may be diminishing over time, even in rural regions.

More importantly, there are substantial differences, particularly in Total early-stage Entrepreneurial Activities (TEA), between Western and Eastern European regions, with these early stage levels typically being higher in the East, partially offset by higher levels of Established Business Ownership (EBO) in the West. Meanwhile, levels of Entrepreneurial Employee Activity (EEA) tend to be highest in Northern European regions, perhaps reflecting the preponderance of large employers there.

Subnational regions are important, not just for entrepreneurship, but because regional differences can play a role in undermining national cohesion, and in reducing overall national prosperity, prompting many countries, and the European Union, to adopt policies promoting less well-off regions. Regional disparities in entrepreneurial activity rates are evident in many European economies, with, for example, average TEA rates in France ranging from just over 4% in Normandy to 12% in Provence-Alpes-Côte D'Azur, but, in Poland from just over 4% in Kujawsko-Pomorskie to just over 6% in Warmińsko-Mazurskie.

6.2 POLICY IMPLICATIONS

Recent European Union regional policy have pushed "place-based innovation policies" in particular and "place-based regional policies" in general, but not yet specifically in terms of European Union entrepreneurship policies. We recommend place-based policies also for entrepreneurship, given the importance of local/regional context for entrepreneurial activities and attitudes. This report provides crucial empirical evidence about where and why places differ in terms of entrepreneurship, which is the ideal starting point for place-sensitive entrepreneurship policies as part of wider EU regional policies.

The wealth of entrepreneurial data at a regional level can allow national governments to identify areas of entrepreneurial strength and weakness within their national economy, while the European Union can do the same in comparing across European regions. For example, detailed mapping of TEA across Europe has shown clusters of highly entrepreneurial regions in Nort-East and Central Eastern Europe, both of which transcend national boundaries.

Given identified entrepreneurial strengths and weaknesses at a regional level across Europe, it is then a strategic issue whether to focus resources on helping weaker regions to catch-up, or to seek to maximise returns by building on existing entrepreneurial strengths. What is clear is that urban-rural disparities in terms of entrepreneurship activities (in almost all EU countries) cannot be ignored by regional policies that aim to reduce (spatial) inequalities, given the positive economic consequences of entrepreneurship. Effective policies to raise levels of entrepreneurship could increase even interregional economic disparities, as long as entrepreneurship is more prevalent in cities than in rural areas. Certainly a "levelling-up" agenda implies policies to increase entrepreneurial activity in disadvantaged areas, which may necessitate support for new or fledgling businesses in those areas.

We make a call for including local experts (part of the entrepreneurial ecosystem) to help draft context-relevant policy conclusions. Based on this study, local policymakers would do well to use the indicators offered in this report as an initial diagnose of the 'entrepreneurial profile' in their region and discuss this with stakeholders. For instance, how does the balance between Total early-stage Entrepreneurial Activity (EEA) and Entrepreneurial Employee Activity (EEA), as shown in Figure 3.1 of this report, play out and is there a need for changing this balance? If so, what measures need to be taken? How do entrepreneurial perceptions compare to regions that can be considered as a relevant benchmark (within or outside the country) and again: what elements of the entrepreneurial ecosystem require attention in order to produce improvements? How much time is required before such changes will be materialized? These are questions that are best assessed jointly at the local level, obviously connecting to national policymakers when it comes to measures that concern national level decision making.

European politicians have to assess how relevant urban-rural (or other spatial) disparities are within their country. If these are very important (for example because of radical voting, interpreted by several economic geographers/ regional economists as the "revenge of the places that don't matter"[38]), then supporting entrepreneurship in rural areas (or other region types with low entrepreneurial activity levels) might be an option. After all, entrepreneurs are typically agents that fulfill a key connecting role between local society and economic interests.

6.3 FUTURE RESEARCH IDEAS

Alongside these regional entrepreneurial activity levels, this report has also provided estimates of entrepreneurial attitudes and perceptions, typically reflecting smaller differences than those exhibited by regional entrepreneurial activity levels. Variations in these attitudes and perceptions may provide fertile ground for future research, for example by looking at rural/urban divides, or by considering the relationship between demographics such as age or gender, and the propensity to see opportunities to start a new business or to see such opportunities but be deterred by fear of failure.

However the story is far from complete. There are many other avenues for future research which offer the prospect of further insight, some of which include:

- Developing other entrepreneurial and perception variables from the pooled data, which could include business exit rates and their relationship to new starts at a regional level, or regional perceptions of the ease of starting a new business locally, as well as more topical variables such as the proportion of those starting or running new businesses who report that they always consider social or environmental implications in their strategic decisions, or even regional variations in the proportion of adults reporting that the pandemic has reduced their household incomes.
- So far the analysis has been largely descriptive. Access to regional entrepreneurial activity data opens up a new world for potential quantitative analyses, that could for example seek to explain differences in regional entrepreneurial activity rates, or could re-assess the relationship between those regional entrepreneurial activity rates and income-levels, perhaps as measured by Gross Domestic Product per capita.
- As a final example, research into regional entrepreneurial ecosystems is at an early stage. Key questions remain about the relationship between that ecosystem and regional entrepreneurial activity levels, as well as the role of those ecosystems in the transmission of new to established businesses.

38 Rodríguez-Posé, A. (2018): The revenge of the places that don't matter (and what to do about it). Cambridge Journal of Regions, Economy and Society 11(1), 189–209.

Annex 1:
Indicators used in this report

Perceived opportunities to start a business	Percentage of adults aged 18-64 reporting they see good opportunities to start a business in the area where they live.
Perceived skills and knowledge to start a business	Percentage of adults 18-64 reporting that they have the required knowledge, skills and experience to start a business.
Fear of failure would refrain to starting a business	Percentage of aged 18-64 seeing good opportunities but reporting that they would not start a business for fear it might fail.
Total early-stage Entrepreneurial Activity (TEA)	Percentage of adults aged 18-64 who are either a nascent entrepreneur or owner-manager of a new business, i.e. the proportion of the adult population who are either starting or have been running a new business for no more than 42 months (3.5 years).
Established Business Ownership Rate (EBO)	Percentage of adults aged 18-64 who are currently owner-manager of an established business, i.e. who are owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 month (3.5 years).
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.

Annex 2:
Detailed Tables

EASTERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Hungary	HU10: Közép-Magyarország	39%	40%	35%	8,7%
	HU21: Közép-Dunántúl	40%	32%	44%	6,0%
	HU22: Nyugat-Dunántúl	38%	42%	38%	9,2%
	HU23: Dél-Dunántúl	34%	35%	36%	8,4%
	HU31: Észak-Magyarország	34%	30%	42%	9,5%
	HU32: Észak-Alföld	34%	40%	36%	10,2%
	HU33: Dél-Alföld	34%	31%	42%	6,1%
Romania	RO11: Nord-Vest	64%	59%	54%	11,3%
	RO12: Centru	37%	47%	62%	8,5%
	RO21: Nord-Est	35%	50%	54%	8,2%
	RO22: Sud-Est	62%	50%	64%	10,0%
	RO31: Sud - Muntenia	44%	41%	66%	7,0%
	RO32: Bucuresti - Ilfov	63%	56%	48%	17,1%
	RO41: Sud-Vest Oltenia	42%	45%	38%	12,9%
	RO42: Vest	44%	47%	48%	7,5%
Poland	PL11: Łódzki	65%	54%	48%	4,5%
	PL12: Mazowieckie	62%	61%	48%	6,3%
	PL21: Małopolskie	67%	56%	48%	6,0%
	PL22: Śląskie	66%	57%	45%	4,6%
	PL31: Lubelskie	68%	56%	47%	5,3%
	PL32: Podkarpackie	76%	52%	51%	5,2%
	PL33: Świętokrzyskie	73%	55%	47%	5,0%
	PL34: Podlaskie	72%	57%	49%	6,0%
	PL41: Wielkopolskie	70%	54%	44%	5,5%
	PL42: Zachodniopomorskie	72%	59%	43%	5,4%
	PL43: Lubuskie	79%	61%	49%	5,0%
	PL51: Dolnośląskie	65%	53%	46%	4,7%
	PL52: Opolskie	77%	56%	46%	4,7%
	PL61: Kujawsko-Pomorskie	76%	60%	44%	4,4%
	PL62: Warmińsko-Mazurskie	76%	53%	50%	6,4%
	PL63: Pomorskie	81%	57%	51%	5,3%
Croatia	HR02: Panonska Hrvatska	50%	70%	52%	7,5%
	HR03: Jadranska Hrvatska	53%	76%	53%	11,3%
	HR05: Grad Zagreb	58%	74%	52%	11,1%
	HR06: Sjeverna Hrvatska	54%	69%	51%	9,0%
Slovakia	SK01: Bratislavský kraj	51%	55%	48%	14,0%
	SK02: Západné Slovensko	39%	49%	51%	10,6%
	SK03: Stredné Slovensko	32%	51%	47%	9,7%
	SK04: Východné Slovensko	33%	51%	48%	10,8%

EASTERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Hungary	HU10: Közép-Magyarország	7,2%	3,5%	365	972
	HU21: Közép-Dunántúl	5,8%	2,2%	146	706
	HU22: Nyugat-Dunántúl	6,1%	1,0%	133	819
	HU23: Dél-Dunántúl	7,5%	1,8%	139	721
	HU31: Észak-Magyarország	8,2%	2,4%	138	1435
	HU32: Észak-Alföld	5,4%	2,2%	216	717
	HU33: Dél-Alföld	6,7%	1,0%	166	655
Romania	RO11: Nord-Vest	9,2%	3,2%	191	477
	RO12: Centru	6,0%	1,7%	132	433
	RO21: Nord-Est	3,4%	1,9%	204	601
	RO22: Sud-Est	3,7%	2,0%	158	469
	RO31: Sud - Muntenia	6,1%	2,2%	170	459
	RO32: Bucuresti - Ilfov	8,6%	6,3%	148	484
	RO41: Sud-Vest Oltenia	4,5%	1,4%	117	382
	RO42: Vest	7,4%	1,4%	86	314
Poland	PL11: Łódzki	11,4%	1,7%	1154	2779
	PL12: Mazowieckie	12,3%	2,6%	2384	6040
	PL21: Małopolskie	11,2%	1,4%	1551	3855
	PL22: Śląskie	9,1%	1,5%	1910	5157
	PL31: Lubelskie	11,2%	1,1%	964	2424
	PL32: Podkarpackie	12,2%	0,9%	1009	2466
	PL33: Świętokrzyskie	10,7%	1,7%	553	1419
	PL34: Podlaskie	11,8%	1,6%	550	1353
	PL41: Wielkopolskie	10,2%	1,0%	1458	3952
	PL42: Zachodniopomorskie	14,0%	1,2%	804	1944
	PL43: Lubuskie	13,6%	1,7%	467	1167
	PL51: Dolnośląskie	11,9%	1,5%	1326	3306
	PL52: Opolskie	10,7%	1,7%	445	1147
	PL61: Kujawsko-Pomorskie	11,1%	1,5%	988	2368
	PL62: Warmińsko-Mazurskie	12,4%	1,3%	680	1659
	PL63: Pomorskie	11,8%	1,5%	1071	2630
Croatia	HR02: Panonska Hrvatska	3,2%	2,6%	1194	3465
	HR03: Jadranska Hrvatska	5,0%	4,4%	1526	4401
	HR05: Grad Zagreb	3,3%	6,4%	1216	3675
	HR06: Sjeverna Hrvatska	4,1%	3,6%	868	2455
Slovakia	SK01: Bratislavský kraj	7,8%	4,1%	656	1538
	SK02: Západné Slovensko	6,3%	2,0%	1645	4005
	SK03: Stredné Slovensko	5,5%	2,2%	1265	3039
	SK04: Východné Slovensko	5,2%	2,1%	1417	3425

NORTHERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
United Kingdom	UKC: North East	32%	46%	58%	4,8%
	UKD: North West	40%	51%	51%	7,5%
	UKE: Yorkshire and the Humber	47%	55%	52%	8,5%
	UKF: East Midlands	36%	54%	51%	8,6%
	UKG: West Midlands	46%	59%	57%	8,2%
	UKH: East of England	46%	53%	55%	9,4%
	UKI: London	48%	51%	55%	9,2%
	UKJ: South East	52%	60%	54%	9,7%
	UKK: South West	47%	51%	54%	8,5%
	UKL: Wales	34%	57%	55%	7,4%
	UKM: Scotland	39%	48%	55%	7,1%
	UKN: Northen Ireland	39%	57%	57%	6,3%
Sweden	SE11: Stockholm	78%	58%	48%	9,5%
	SE12: Östra Mellansverige	73%	50%	44%	7,7%
	SE21: Småland med öarna	74%	51%	44%	8,1%
	SE22: Sydsverige	72%	52%	44%	7,1%
	SE23: Västsverige	77%	46%	45%	7,3%
	SE31: Norra Mellansverige	65%	48%	46%	5,9%
	SE32: Mellersta Norrland	76%	51%	44%	6,1%
	SE33: Övre Norrland	74%	50%	43%	6,5%
Norway	NO01: Oslo og Akershus	69%	38%	30%	7,3%
	NO02: Innlandet	66%	37%	31%	3,9%
	NO03: Sor-ostlandet	67%	30%	23%	6,7%
	NO04: Agder og Rogaland	69%	30%	27%	6,4%
	NO05: Vestlandet	69%	32%	25%	7,9%
	NO06: Trøndelag	65%	38%	34%	7,4%
	NO07: Nord-Norge	69%	39%	30%	4,8%
Ireland	IE041: Border	56%	48%	43%	11,1%
	IE042: West	56%	50%	49%	10,1%
	IE051: Mid-West	51%	50%	46%	9,4%
	IE052: South East	56%	48%	47%	10,4%
	IE053: South West	55%	48%	46%	11,0%
	IE061: Dublin	45%	47%	42%	10,9%
	IE062: Mid-East	59%	53%	47%	10,6%
	IE063: Midland	54%	56%	49%	8,8%
Finland	FI19: Länsi-Suomi	61%	45%	47%	7,1%
	FI1B: Helsinki-Uusimaa	74%	41%	50%	8,9%
	FI1C: Etelä-Suomi	52%	42%	50%	6,0%
	FI1D: Pohjois- ja Itä-Suomi	50%	45%	48%	6,8%

NORTHERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
United Kingdom	UKC: North East	4,8%	5,7%	163	645
	UKD: North West	5,7%	4,1%	335	1649
	UKE: Yorkshire and the Humber	6,1%	4,7%	261	1304
	UKF: East Midlands	7,1%	6,0%	171	1067
	UKG: West Midlands	5,8%	4,2%	305	1507
	UKH: East of England	7,2%	5,4%	289	1476
	UKI: London	6,4%	5,8%	408	2137
	UKJ: South East	6,4%	6,4%	374	1984
	UKK: South West	6,7%	4,6%	255	1215
	UKL: Wales	5,3%	3,1%	327	7435
	UKM: Scotland	5,2%	3,8%	565	5820
	UKN: Northen Ireland	5,3%	3,8%	172	3580
Sweden	SE11: Stockholm	6,2%	5,9%	923	3443
	SE12: Östra Mellansverige	4,2%	4,5%	1195	5284
	SE21: Småland med öarna	5,4%	4,1%	974	3944
	SE22: Sydsverige	4,4%	4,3%	710	3126
	SE23: Västsverige	4,7%	4,3%	762	3295
	SE31: Norra Mellansverige	4,2%	3,8%	703	3062
	SE32: Mellersta Norrland	5,3%	4,5%	492	2039
	SE33: Övre Norrland	4,5%	4,2%	537	2137
Norway	NO01: Oslo og Akershus	5,5%	6,1%	637	1374
	NO02: Innlandet	6,0%	2,0%	198	437
	NO03: Sor-ostlandet	5,4%	4,3%	210	658
	NO04: Agder og Rogaland	6,2%	3,8%	195	510
	NO05: Vestlandet	6,6%	4,9%	203	596
	NO06: Trøndelag	2,7%	3,5%	283	403
	NO07: Nord-Norge	4,7%	3,0%	783	1364
Ireland	IE041: Border	7,3%	4,3%	361	1257
	IE042: West	5,8%	3,8%	284	1077
	IE051: Mid-West	5,8%	4,4%	261	951
	IE052: South East	7,0%	4,5%	349	1314
	IE053: South West	6,3%	4,5%	477	1688
	IE061: Dublin	5,5%	7,1%	642	2046
	IE062: Mid-East	5,1%	6,1%	649	2925
	IE063: Midland	5,7%	5,0%	213	761
Finland	FI19: Länsi-Suomi	10,0%	4,5%	325	947
	FI1B: Helsinki-Uusimaa	5,3%	6,4%	450	1254
	FI1C: Etelä-Suomi	9,1%	3,2%	262	909
	FI1D: Pohjois- ja Itä-Suomi	8,8%	4,8%	315	891

NORTHERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Latvia	LV003: Kurzeme	40%	54%	41%	13,8%
	LV005: Latgale	26%	51%	41%	13,3%
	LV006: Rīga	36%	58%	43%	15,1%
	LV007: Pierīga	44%	56%	39%	15,9%
	LV008: Vidzeme	40%	52%	40%	12,4%
	LV009: Zemgale	37%	52%	45%	12,9%
Estonia	EE001: Põhja-Eesti				18,7%
	EE004: Lääne-Eesti				13,9%
	EE006: Kesk-Eesti				16,4%
	EE007: Kirde-Eesti				12,3%
	EE008: Lõuna-Eesti				10,2%

SOUTHERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Greece	EL30: Attiki	42%	54%	58%	5,6%
	EL41: Voreio Aigaio	33%	52%	50%	8,7%
	EL42: Notio Aigaio	48%	57%	50%	7,3%
	EL43: Kriti	46%	51%	54%	6,7%
	EL51: Anatoliki Makedonia, Thraki	36%	50%	58%	5,8%
	EL52: Kentriki Makedonia	44%	51%	54%	6,8%
	EL53: Dytiki Makedonia	29%	47%	55%	8,4%
	EL54: Ipeiros	44%	52%	60%	8,7%
	EL61: Thessalia	43%	52%	52%	7,1%
	EL62: Ionia Nisia	48%	60%	61%	7,0%
	EL63: Dytiki Ellada	35%	54%	58%	6,7%
	EL64: Sterea Ellada	37%	56%	56%	5,6%
	EL65: Peloponnisos	40%	52%	54%	5,7%
Spain	ES11: Galicia	26%	51%	60%	4,9%
	ES12: Principado de Asturias	22%	47%	62%	3,6%
	ES13: Cantabria	24%	51%	58%	6,2%
	ES21: Païs Vasco	30%	48%	61%	4,6%
	ES22: Comunidad Foral de Navarra	27%	51%	58%	4,7%
	ES23: La Rioja	24%	49%	60%	3,7%
	ES24: Aragón	27%	50%	58%	4,2%
	ES30: Comunidad de Madrid	28%	48%	61%	6,8%
	ES41: Castilla y León	20%	49%	61%	5,8%
	ES42: Castilla-La Mancha	24%	51%	62%	5,8%

NORTHERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Latvia	LV003: Kurzeme	9,3%	1,8%	473	1197
	LV005: Latgale	10,2%	0,7%	605	1501
	LV006: Rīga	10,3%	4,3%	1433	3433
	LV007: Pierīga	11,2%	3,9%	715	1858
	LV008: Vidzeme	11,1%	2,1%	376	943
	LV009: Zemgale	7,4%	2,7%	447	1163
Estonia	EE001: Põhja-Eesti	8,9%	7,1%	0	2565
	EE004: Lääne-Eesti	10,6%	4,7%	0	662
	EE006: Kesk-Eesti	9,2%	5,2%	0	1489
	EE007: Kirde-Eesti	10,8%	2,9%	0	573
	EE008: Lõuna-Eesti	7,8%	4,0%	0	679

SOUTHERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Greece	EL30: Attiki	11,4%	1,1%	1541	4726
	EL41: Voreio Aigaio	16,6%	1,9%	109	312
	EL42: Notio Aigaio	19,9%	2,2%	167	418
	EL43: Kriti	13,7%	1,4%	284	782
	EL51: Anatoliki Makedonia, Thraki	16,6%	1,7%	292	804
	EL52: Kentriki Makedonia	14,7%	1,3%	816	2331
	EL53: Dytiki Makedonia	17,1%	0,3%	153	406
	EL54: Ipeiros	12,2%	1,2%	175	480
	EL61: Thessalia	16,6%	1,0%	332	947
	EL62: Ionia Nisia	20,0%	1,6%	131	332
	EL63: Dytiki Ellada	12,4%	2,0%	343	956
	EL64: Sterea Ellada	18,7%	1,1%	271	724
	EL65: Peloponnisos	15,5%	0,4%	266	782
Spain	ES11: Galicia	9,3%	1,0%	5494	14000
	ES12: Principado de Asturias	6,2%	0,8%	4088	9300
	ES13: Cantabria	9,7%	1,2%	2723	9000
	ES21: Païs Vasco	6,1%	1,4%	7108	16301
	ES22: Comunidad Foral de Navarra	7,9%	1,3%	2652	7000
	ES23: La Rioja	7,2%	1,2%	2376	6100
	ES24: Aragón	7,6%	1,8%	3199	9700
	ES30: Comunidad de Madrid	5,7%	2,2%	4400	13600
	ES41: Castilla y León	8,1%	0,9%	2527	5100
	ES42: Castilla-La Mancha	9,4%	1,1%	2707	7000

SOUTHERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Spain	ES43: Extremadura	24%	52%	60%	5,0%
	ES51: Cataluña	29%	53%	55%	7,3%
	ES52: Comunidad Valenciana	27%	50%	58%	4,2%
	ES53: Illes Balears	27%	53%	59%	5,7%
	ES61: Andalucía	29%	52%	59%	6,1%
	ES62: Región de Murcia	27%	49%	61%	4,5%
	ES63: Ciudad Autónoma de Ceuta	22%	44%	67%	2,1%
	ES64: Ciudad Autónoma de Melilla	32%	58%	66%	3,1%
	ES70: Canarias	28%	52%	59%	4,4%
Italy	ITC1: Piemonte	48%	53%	34%	2,4%
	ITC2: Valle d'Aosta/Vallée	74%	26%	49%	0,0%
	ITC3: Liguria	47%	46%	29%	4,3%
	ITC4: Lombardia	46%	53%	37%	3,4%
	ITF1: Abruzzo	46%	47%	40%	4,5%
	ITF2: Molise	35%	51%	39%	2,6%
	ITF3: Campania	46%	52%	37%	4,0%
	ITF4: Puglia	47%	49%	38%	3,5%
	ITF5: Basilicata	49%	54%	31%	7,1%
	ITF6: Calabria	44%	51%	44%	3,1%
	ITG1: Sicilia	48%	46%	35%	5,9%
	ITG2: Sardegna	39%	52%	38%	4,7%
	ITH2: Provincia Autonoma di Trento	54%	58%	30%	5,5%
	ITH3: Veneto	51%	51%	36%	4,2%
	ITH4: Friuli-Venezia Giulia	50%	51%	34%	2,2%
	ITH5: Emilia-Romagna	52%	59%	37%	4,3%
	ITI1: Toscana	45%	58%	36%	3,1%
	ITI2: Umbria	48%	52%	39%	5,1%
	ITI3: Marche	47%	48%	30%	5,9%
	ITI4: Lazio	47%	49%	36%	3,5%
Portugal	PT11: Norte	50%	58%	57%	9,6%
	PT15: Algarve	43%	64%	55%	11,5%
	PT16: Centro (PT)	53%	61%	49%	9,0%
	PT17: Lisboa	62%	64%	49%	10,9%
	PT18: Alentejo	44%	64%	52%	8,5%
Slovenia	SI031: Pomurska	47%	56%	47%	5,1%
	SI032: Podravska	43%	57%	49%	6,7%
	SI033: Koroška	48%	51%	42%	6,2%
	SI034: Savinjska	47%	58%	46%	6,2%
	SI035: Zasavska	41%	55%	44%	9,5%

SOUTHERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Spain	ES43: Extremadura	9,7%	1,1%	2765	7200
	ES51: Cataluña	8,6%	1,7%	5765	14700
	ES52: Comunidad Valenciana	5,6%	1,1%	2566	6500
	ES53: Illes Balears	6,9%	1,1%	2697	5800
	ES61: Andalucía	5,6%	1,2%	11032	16149
	ES62: Región de Murcia	5,8%	1,1%	2714	7000
	ES63: Ciudad Autónoma de Ceuta	4,9%	1,3%	538	1800
	ES64: Ciudad Autónoma de Melilla	9,4%	0,7%	533	2600
	ES70: Canarias	4,4%	0,7%	6386	15106
Italy	ITC1: Piemonte	5,5%	2,3%	358	969
	ITC2: Valle d'Aosta/Vallée	5,8%	0,0%	7	34
	ITC3: Liguria	6,2%	1,5%	96	276
	ITC4: Lombardia	4,1%	1,9%	844	2470
	ITF1: Abruzzo	3,9%	1,8%	140	335
	ITF2: Molise	1,6%	0,9%	27	84
	ITF3: Campania	4,6%	1,4%	486	1332
	ITF4: Puglia	4,7%	1,5%	291	796
	ITF5: Basilicata	5,0%	1,1%	61	165
	ITF6: Calabria	4,6%	0,9%	155	516
	ITG1: Sicilia	4,4%	1,5%	418	1099
	ITG2: Sardegna	3,0%	1,6%	155	432
	ITH2: Provincia Autonoma di Trento	6,8%	0,7%	76	253
	ITH3: Veneto	5,9%	1,9%	432	1171
	ITH4: Friuli-Venezia Giulia	4,9%	2,9%	124	348
	ITH5: Emilia-Romagna	5,8%	1,8%	324	989
	ITI1: Toscana	4,4%	0,8%	324	948
	ITI2: Umbria	5,1%	1,8%	103	258
	ITI3: Marche	4,5%	2,0%	123	416
	ITI4: Lazio	4,6%	2,3%	447	1162
Portugal	PT11: Norte	7,9%	2,2%	621	2286
	PT15: Algarve	9,1%	6,6%	82	261

SOUTHERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Slovenia	SI036: Posavska	37%	50%	36%	4,7%
	SI037: Jugovzhodna Slovenija	54%	56%	49%	5,2%
	SI038: Primorsko-notranjska	39%	69%	44%	6,1%
	SI041: Osrednjeslovenska	48%	60%	45%	7,8%
	SI042: Gorenjska	52%	64%	40%	6,4%
	SI043: Goriška	49%	58%	51%	6,2%
	SI044: Obalno-kraška	49%	63%	45%	8,9%
Bosnia and Herzegovina	BA01: Bosnia & Herz				4,0%
Macedonia	MK00: Macedonia	50%	61%	47%	6,3%
Cyprus	CY00: Cyprus	37%	60%	45%	8,7%

WESTERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Netherlands	NL11: Groningen	51%	36%	33%	8,8%
	NL12: Friesland	60%	53%	28%	12,6%
	NL13: Drenthe	53%	45%	32%	9,2%
	NL21: Overijssel	64%	40%	28%	10,8%
	NL22: Gelderland	59%	37%	31%	10,1%
	NL23: Flevoland	67%	51%	31%	13,2%
	NL31: Utrecht	66%	43%	29%	13,9%
	NL32: Noord-Holland	65%	49%	32%	13,5%
	NL33: Zuid-Holland	65%	43%	38%	10,8%
	NL34: Zeeland	61%	44%	31%	10,9%
	NL41: Noord-Brabant	58%	42%	34%	12,6%
	NL42: Limburg	55%	50%	40%	10,8%
Belgium	BE10: Région de Bruxelles-Capitale				9,1%
	BE21: Prov. Antwerpen				5,4%
	BE22: Prov. Limburg (BE)				4,9%

SOUTHERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Portugal	PT16: Centro (PT)	9,8%	2,6%	352	1354
	PT17: Lisboa	8,1%	4,1%	446	1712
	PT18: Alentejo	9,5%	1,6%	119	408
Slovenia	SI031: Pomurska	6,8%	4,0%	232	717
	SI032: Podravska	6,4%	5,0%	568	1877
	SI033: Koroška	5,0%	3,3%	122	419
	SI034: Savinjska	6,9%	4,0%	474	1505
	SI035: Zasavska	1,8%	4,3%	97	298
	SI036: Posavska	7,5%	3,2%	142	430
	SI037: Jugovzhodna Slovenija	5,8%	5,4%	286	844
	SI038: Primorsko-notranjska	5,8%	3,5%	88	294
	SI041: Osrednjeslovenska	7,8%	5,3%	923	3112
	SI042: Gorenjska	8,6%	5,1%	346	1131
	SI043: Goriška	5,3%	4,5%	222	676
	SI044: Obalno-kraška	7,6%	4,6%	200	637
Bosnia and Herzegovina	BA01: Bosnia & Herz	1,4%	0,5%	0	2042
Macedonia	MK00: Macedonia	7,0%	1,8%	1812	5989
Cyprus	CY00: Cyprus	8,2%	4,4%		

WESTERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Netherlands	NL11: Groningen	7,0%	3,8%	142	355
	NL12: Friesland	8,0%	2,5%	125	317
	NL13: Drenthe	6,5%	2,9%	92	231
	NL21: Overijssel	7,9%	4,0%	221	581
	NL22: Gelderland	10,1%	3,9%	392	1023
	NL23: Flevoland	10,3%	4,4%	99	216
	NL31: Utrecht	11,4%	5,0%	271	679
	NL32: Noord-Holland	9,7%	4,7%	502	1273
	NL33: Zuid-Holland	8,5%	3,0%	695	1640
	NL34: Zeeland	10,3%	1,7%	97	223
	NL41: Noord-Brabant	8,4%	4,7%	430	1193
	NL42: Limburg	9,1%	4,0%	184	465
Belgium	BE10: Région de Bruxelles-Capitale	4,5%	5,9%	0	189
	BE21: Prov. Antwerpen	4,3%	3,5%	0	237
	BE22: Prov. Limburg (BE)	2,7%	4,1%	0	118

WESTERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
	BE23: Prov. Oost-Vlaanderen				6,0%
	BE24: Prov. Vlaams-Brabant				4,7%
	BE25: Prov. West-Vlaanderen				5,3%
	BE31: Prov. Brabant Wallon				5,0%
	BE32: Prov. Hainaut				7,3%
	BE33: Prov. Liège				5,9%
	BE34: Prov. Luxembourg (BE)				8,0%
	BE35: Prov. Namur				8,3%
France	FR1: Ile-de-France	54%	48%	49%	9,1%
	FRB: Centre - Val de Loire	58%	39%	52%	7,9%
	FRC: Bourgogne-Franche-Comte	45%	47%	49%	7,7%
	FRD: Normandie	43%	42%	53%	4,5%
	FRE: Hauts-de-France	52%	50%	52%	6,4%
	FRF: Grand Est	45%	44%	51%	6,6%
	FRG: Pays de la Loire	60%	37%	51%	7,8%
	FRH: Bretagne	60%	41%	50%	4,7%
	FRI: Nouvelle-Acquitaine	55%	51%	50%	7,8%
	FRJ: Occitanie	55%	52%	48%	7,3%
	FRK: Auvergne-Rhône-Alpes	52%	51%	51%	6,0%
	FRL: Provence-Alpes-Côte dAzur	53%	51%	47%	12,3%
	FRM: Corse	24%	70%	34%	10,8%
	FRY: Régions Ultrapériphériques Françaises	43%	60%	54%	10,7%
Switzerland	CH01: Région lémanique	34%	50%	32%	8,6%
	CH02: Espace Mittelland	38%	47%	39%	7,8%
	CH03: Nordwestschweiz	44%	46%	38%	7,5%
	CH04: Zürich	51%	52%	38%	9,6%
	CH05: Ostschweiz	38%	41%	41%	7,9%
	CH06: Zentralschweiz	42%	49%	37%	8,2%
	CH07: Ticino	23%	46%	20%	6,8%
Austria	AT11: Burgenland	31%	55%	39%	8,5%
	AT12: Niederösterreich	24%	52%	43%	8,6%
	AT13: Wien	33%	50%	49%	10,3%
	AT21: Kärnten	28%	58%	46%	8,9%
	AT22: Steiermark	32%	56%	41%	7,4%
	AT31: Oberösterreich	37%	54%	42%	9,0%
	AT32: Salzburg	33%	56%	47%	9,0%
	AT33: Tirol	27%	54%	45%	8,3%
	AT34: Vorarlberg	34%	49%	41%	8,5%

WESTERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
	BE23: Prov. Oost-Vlaanderen	3,6%	5,8%		195
	BE24: Prov. Vlaams-Brabant	4,7%	9,8%		148
	BE25: Prov. West-Vlaanderen	3,2%	4,5%		155
	BE31: Prov. Brabant Wallon	3,4%	9,0%		105
	BE32: Prov. Hainaut	3,0%	4,2%		359
	BE33: Prov. Liège	1,2%	2,2%		304
	BE34: Prov. Luxembourg (BE)	8,7%	5,7%		76
	BE35: Prov. Namur	6,4%	3,0%		136
France	FR1: Ile-de-France	2,7%	3,0%		722
	FRB: Centre - Val de Loire	2,9%	3,3%		141
	FRC: Bourgogne-Franche-Comte	0,0%	1,7%		151
	FRD: Normandie	2,7%	1,7%		177
	FRE: Hauts-de-France	3,9%	1,1%		346
	FRF: Grand Est	3,7%	1,9%		317
	FRG: Pays de la Loire	4,3%	4,8%		202
	FRH: Bretagne	3,7%	2,4%		186
	FRI: Nouvelle-Acquitaine	3,8%	1,3%		328
	FRJ: Occitanie	4,4%	2,5%		328
	FRK: Auvergne-Rhône-Alpes	3,5%	1,3%		447
	FRL: Provence-Alpes-Côte dAzur	2,9%	2,6%		277
	FRM: Corse	8,8%	0,0%		15
	FRY: Régions Ultrapériphériques Françaises	5,1%	3,7%		123
Switzerland	CH01: Région lémanique	8,8%	5,5%		2054
	CH02: Espace Mittelland	10,6%	4,6%		2682
	CH03: Nordwestschweiz	10,5%	5,0%		1509
	CH04: Zürich	10,3%	6,0%		1899
	CH05: Ostschweiz	11,7%	3,5%		1678
	CH06: Zentralschweiz	10,8%	4,6%		1267
	CH07: Ticino	9,4%	1,8%		1685
Austria	AT11: Burgenland	9,2%	4,2%		1003
	AT12: Niederösterreich	7,8%	5,0%		2228
	AT13: Wien	7,0%	5,9%		2596
	AT21: Kärnten	8,5%	4,3%		1048
	AT22: Steiermark	8,2%	5,2%		1685
	AT31: Oberösterreich	6,4%	5,1%		2000
	AT32: Salzburg	8,1%	4,0%		1049
	AT33: Tirol	9,1%	5,5%		1050
	AT34: Vorarlberg	6,8%	4,2%		3337

WESTERN EUROPE		Perceived opportunities from 2019	Perceived skills from 2019	Fear of failure from 2019	Involved in Total early-stage Entrepreneurial Activity
Germany	DE1: Baden-Württemberg	52%	41%	38%	5,6%
	DE2: Bayern	50%	46%	40%	5,8%
	DE3: Berlin	54%	40%	43%	7,8%
	DE4: Brandenburg	43%	41%	43%	4,0%
	DE5: Bremen	45%	51%	40%	8,9%
	DE6: Hamburg	61%	41%	37%	8,1%
	DE7: Hessen	49%	40%	40%	6,6%
	DE8: Mecklenburg-Vorpommern	23%	40%	46%	2,9%
	DE9: Niedersachsen	38%	43%	37%	5,1%
	DEA: Nordrhein-Westfalen	41%	45%	43%	5,2%
	DEB: Rheinland-Pfalz	43%	46%	38%	5,0%
	DEC: Saarland	33%	46%	42%	5,8%
	DED: Sachsen	44%	41%	45%	3,7%
	DEE: Sachsen-Anhalt	22%	39%	47%	4,5%
	DEF: Schleswig-Holstein	48%	44%	39%	5,8%
	DEG: Thüringen	33%	38%	46%	4,4%
Luxembourg	LU00: Luxembourg	51%	49%	44%	9,2%

WESTERN EUROPE		Manages and owns a business that is older than 42 months	Active and leading as intrapreneur now (base: adult population)	Sample size for Entrepreneurial perception measures	Sample size for Entrepreneurial activity measures
Germany	DE1: Baden-Württemberg	6,8%	4,2%		3337
	DE2: Bayern	6,6%	4,3%		4215
	DE3: Berlin	4,5%	4,5%		1235
	DE4: Brandenburg	6,2%	2,9%		771
	DE5: Bremen	4,7%	4,1%		227
	DE6: Hamburg	7,3%	5,8%		632
	DE7: Hessen	6,3%	4,4%		1947
	DE8: Mecklenburg-Vorpommern	6,0%	2,8%		542
	DE9: Niedersachsen	5,8%	3,8%		2536
	DEA: Nordrhein-Westfalen	5,3%	3,2%		5628
	DEB: Rheinland-Pfalz	6,8%	4,0%		1304
	DEC: Saarland	4,6%	3,0%		322
	DED: Sachsen	6,2%	3,5%		1253
	DEE: Sachsen-Anhalt	3,0%	2,0%		701
	DEF: Schleswig-Holstein	6,0%	3,3%		891
	DEG: Thüringen	5,4%	2,8%		693
Luxembourg	LU00: Luxembourg	3,6%	6,4%		14251

Annex 3:
Teams & Sponsors

GEM NATIONAL TEAMS	Institution	Funders
GEM Argentina	IAE Business School	IAE Business School
GEM Austria	FH Joanneum GmbH - University of Applied Sciences	Federal Ministry Labour and Economy (BMAW) Federal Ministry of Climate Action, the Environment, Energy, Mobility, Innovation and Technology (BMK) Austrian Federal Economic Chamber (WKO) Federal Economic Chamber of Vienna (WKW) Austrian Council for Research and Technology Development (Rat FTE) Austrian Economic Service (AWS) Austrian Research Promotion Agency (FFG) Joanneum Research FH JOANNEUM - University of Applied Sciences B&C Privatstiftung – eXplore!
GEM Brazil	ANEGEPE	Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE) ANEGEPE
GEM Canada	The Centre for Innovation Studies (THECIS)	Government of Canada Government of Alberta Government of Quebec
GEM Chile	Universidad del Desarrollo	Universidad del Desarrollo
GEM China	ShanghaiTech University	ShanghaiTech University
GEM Colombia	Universidad Icesi Pontificia Universidad Javeriana de Cali Universidad del Norte Institución Universitaria Americana Universidad EAN iNNpulsa Colombia	Universidad Icesi Pontificia Universidad Javeriana de Cali Universidad del Norte Institución Universitaria Americana Universidad EAN
GEM Croatia	J.J. Strossmayer University in Osijek, Faculty of Economics (EFOS)	Ministry of Economy and Sustainable Development Croatian Banking Association CEPOR SME & Entrepreneurship Policy Centre J.J. Strossmayer University in Osijek, Faculty of Economics
GEM Cyprus	University of Cyprus (UCY) Centre for Entrepreneurship (C4E)	Ministry of Energy Commerce and Industry PwC Cyprus
GEM Egypt	The American University in Cairo - School of Business	The American University in Cairo - School of Business Drosos Foundation

GEM NATIONAL TEAMS	Institution	Funders
GEM France	Labex Entreprendre (Entrepreneurship) University of Montpellier Montpellier Business School	Labex Entreprendre University of Montpellier Montpellier Business School
GEM Germany	Institute of Economic and Cultural Geography at the Leibniz University Hannover RKW Kompetenzzentrum Eschborn	RKW Competence Centre
GEM Greece	Foundation for Economic & Industrial Research (FEIR / IOBE)	EY Greece
GEM Guatemala	Kirzner Entrepreneurship Center at Francisco Marroquín University	Francisco Marroquín University -UFM-
GEM Hungary	Budapest Business School – University of Applied Sciences (BBS)	Budapest Business School – University of Applied Sciences (BBS)
GEM India	Entrepreneurship Development Institute of India (EDII) - Ahmedabad	Centre for Research in Entrepreneurship Education and Development (CREED)
GEM Indonesia	UNPAR (Parahyangan Catholic University)	UNPAR (Parahyangan Catholic University)
GEM Iran	Faculty of Entrepreneurship, University of Tehran	Iran Labour and Social Security Institute (LSSI)
GEM Israel	Ira Center of Business, Technology & Society, Ben Gurion Universit of the Negev	The Ira Foundation for Business Technology and Society Ben Gurion University of the Negev M51 Corporation The Ministry of the Economy and Industry Government of Israel
GEM Italy	Centre for Innovation and Entrepreneurship, Università Politecnica delle Marche	Fondazione Aristide Merloni Università Politecnica delle Marche
GEM Japan	Musashi University	Ministry of Economy, Trade and Industry, METI
GEM Latvia	Stockholm School of Economics in Riga (SSE Riga)	Stockholm School of Economics in Riga
GEM Lithuania	Vilnius University Business School	Moody's Lithuania Enterprise Lithuania Vilnius University Business School
GEM Luxembourg	STATEC Research	STATEC Research STATEC (National Institute of Statistics and Economic Studies of the Grand Duchy of Luxembourg) Chambre de Commerce Luxembourg House of Entrepreneurship Ministère de l'Économie
GEM Mexico	Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)	Instituto de Emprendimiento Eugenio Garza Lagüera (Tecnológico de Monterrey)

GEM NATIONAL TEAMS	Institution	Funders
GEM Morocco	Faculty of Law, Economics and Social Sciences	University of Hassan II Casablanca
GEM Netherlands	Panteia	The Ministry of Economic Affairs and Climate Policy of the Netherlands
GEM Norway	Nord University Business School	Innovation Norway The Norwegian Ministry of Trade, Industry and Fisheries Nord University Business School
GEM Oman	University of Nizwa SMEs Development Authority	University of Nizwa SMEs Development Authority
GEM Panama	City of Knowledge Foundation	AMPYME
GEM Poland	Polish Agency for Enterprise Development (PARP)	Ministry of Development Funds and Regional Policy University of Economics in Katowice
GEM Puerto Rico	University of Puerto Rico School of Business, Rio Piedras Campus	University of Puerto Rico School of Business, Rio Piedras Campus Banco Popular de Puerto Rico The Department of Economic Development and Commerce
GEM Qatar	Qatar Development Bank	Qatar Development Bank (QDB)
GEM Republic of Korea	Korea Institute of Startup & Entrepreneurship Development (KISED)	Ministry of SMEs and Startups
GEM Romania	Faculty of Economics and Business Administration, Babes-Bolyai University	Faculty of Economics and Business Administration, Babes-Bolyai University
GEM Saudi Arabia	Prince Mohammed bin Salman College (MBSC) Babson Global Center for Entrepreneurial Leadership (BGCEL)	The Babson Global Center for Entrepreneurial Leadership (BGCEL) at MBSC
GEM Serbia	University of Novi Sad, Faculty of Technical Sciences	World Bank – SAIGE project
GEM Slovakia	Comenius University in Bratislava, Faculty of Management	Slovak Business Agency (SBA) Comenius University in Bratislava, Faculty of Management
GEM Slovenia	University of Maribor, Faculty of Economics and Business	SPIRIT Slovenia – Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology Slovenian Research Agency Institute for Entrepreneurship and Small Business Management at Faculty of Economics & Business, University of Maribor

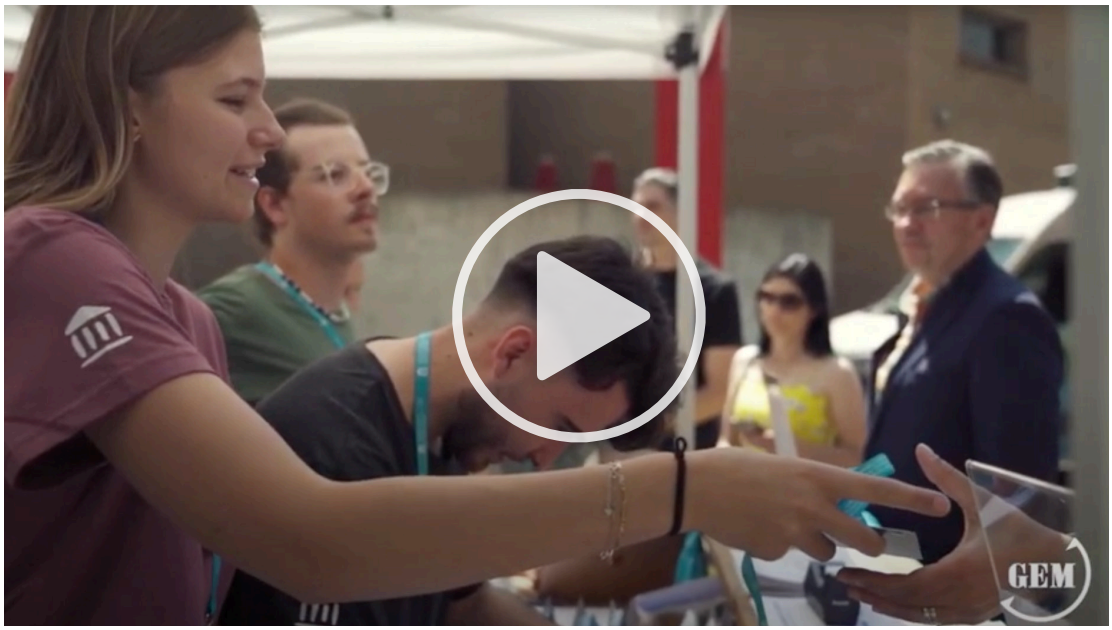
GEM NATIONAL TEAMS	Institution	Funders
GEM South Africa	Stellenbosch University	Stellenbosch Business School Small Enterprise Development Agency (Seda) Standard Bank of South Africa Limited
GEM Spain	Observatorio del Emprendimiento de España (OEE)	ENISA (Ministry of Industry, Commerce and Tourism)
GEM Sweden	Swedish Entrepreneurship Forum (Entreprenörskapsforum)	Confederation of Swedish Enterprise Triton Advisers Sweden
GEM Switzerland	School of Management Fribourg (HEG-FR)	School of Management Fribourg (HEG-FR) University of Applied Sciences and Arts of Western Switzerland (HES-SO)
GEM Taiwan	Taiwan Institute of Economic Research (TIER)	Small and Medium Enterprise Administration, Ministry of Economic Affairs of Taiwan
GEM Togo	Coalition Nationale Pour L'Emploi Des Jeunes (CNEJ)	Coalition Nationale Pour L'Emploi Des Jeunes (CNEJ)
GEM Tunisia	The Arab Institute of Business Leaders IACE	The Arab Institute of Business Leaders IACE
GEM United Arab Emirates	United Arab Emirates University (UAEU)	United Arab Emirates University (UAEU)
GEM United Kingdom	Aston Business School, Aston University	Department for Business, Energy and Industrial Strategy (BEIS) Welsh Government British Business Bank Hunter Centre for Entrepreneurship, University of Strathclyde Invest Northern Ireland NatWest Department for Education (NI)
GEM United States	Babson College	Babson College
GEM Uruguay	IEEM Business School, University of Montevideo	ANDE COUSA
GEM Venezuela	IESA UCAB	IESA/UCAB

European teams currently members of the GEM Consortium

Note: This list also includes European teams that are currently members of the GEM Consortium. It does not include teams that were previously members of the consortium but that have contributed with data to this report.

Sponsor GEM

Most stakeholders want to advance entrepreneurial activity. But it is difficult to make informed decisions without having the right data. Global Entrepreneurship Monitor fills this void. Watch this short video to learn why many organizations — such as Babson College, Cartier Women's Initiative, Fribourg School of Management, Shopify and the Women Entrepreneurs Finance Initiative — sponsor GEM, the world's longest-running study of entrepreneurship.
(Click on the image or go to https://www.youtube.com/watch?v=UAFWuMSUxJE.)



Global Entrepreneurship Monitor (GEM) is a consortium of national country teams, primarily associated with top academic institutions, that carries out survey-based research on entrepreneurship around the world. GEM is the only global research source that collects data on entrepreneurship directly from individual entrepreneurs. GEM's Adult Population Survey (APS) provides analysis on the characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship. The National Expert Survey (NES) looks at the national context in which individuals start businesses. The unique GEM tools and data benefit numerous stakeholder groups:

- Academics are able to apply unique approaches to studying entrepreneurship at the national level;
- Policymakers are able to make better-informed decisions to help their entrepreneurial ecosystems thrive;
- Entrepreneurs have better knowledge on where to invest and influence;
- Sponsors collaborate with GEM to advance their organizational interests;
- International organizations leverage the entrepreneurial insights from GEM through reports and events.

In numbers, GEM is:

- 24 years of data;
- 170,000+ interviews a year;
- 120+ economies;
- 370+ specialists in entrepreneurship research;
- 150+ academic and research institutions;
- 150+ funding institutions.

GEM began in 1999 as a joint project between Babson College (USA) and London Business School (UK). The consortium has become the richest resource of information on entrepreneurship, publishing a range of global, national and "special topic" reports on an annual basis.

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