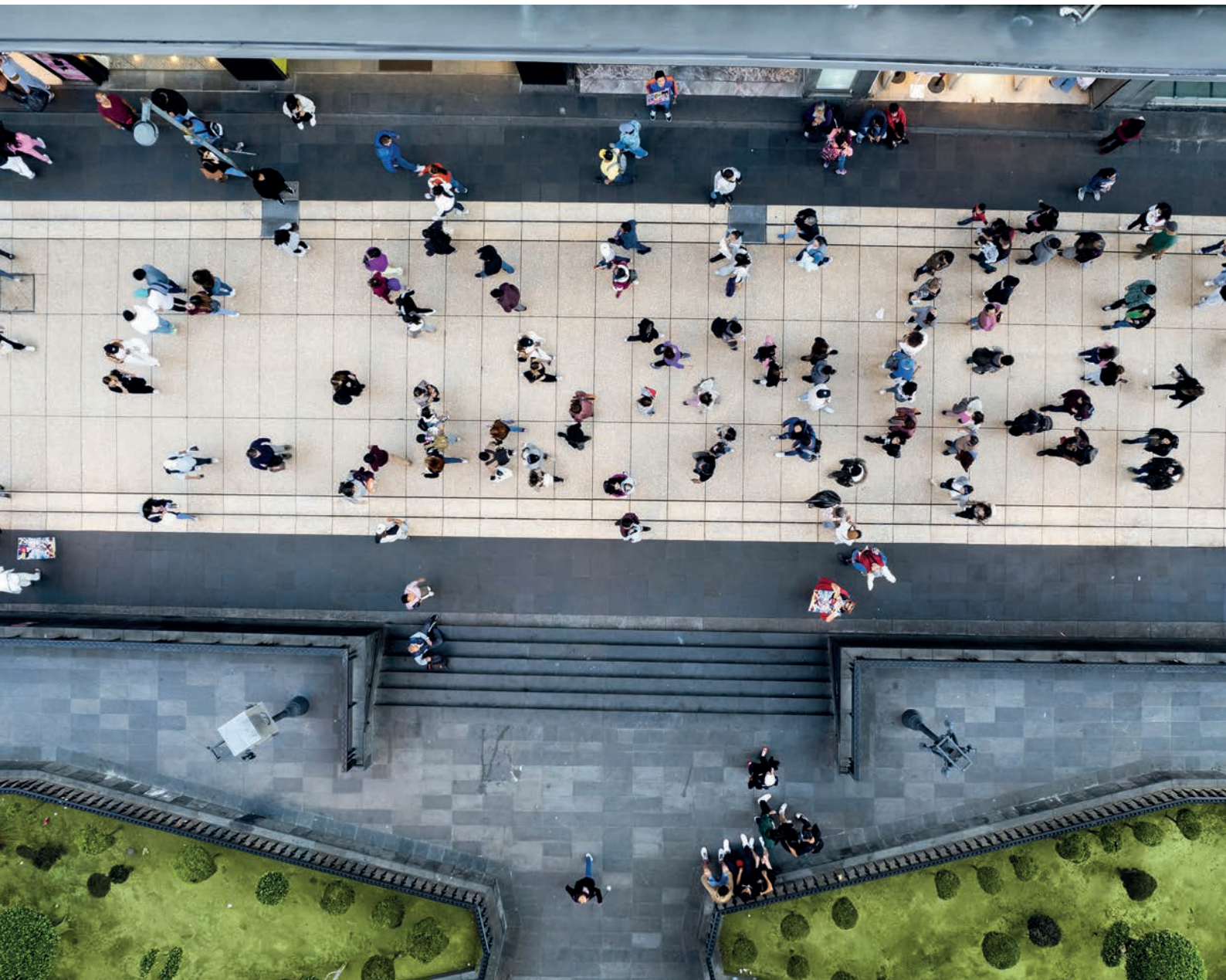
OECD Studies on SMEs and Entrepreneurship

Entrepreneurial Ecosystem Diagnostics



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Foreword

Entrepreneurship is a key driving force in economic growth and innovation. Its scale and quality vary across countries, reflecting differences in their enabling and hindering conditions for entrepreneurship. These conditions are set out in the concept of the entrepreneurial ecosystem, which identifies the relevant actors, factors and interactions in a place.

While the entrepreneurial ecosystem concept has been widely adopted in entrepreneurship policy and research in recent years, there remains a gap in our capacity to measure the different aspects of entrepreneurial ecosystems and diagnose where policy reforms may be required. This report offers a first theoretically and empirically informed dataset and benchmarking tool aimed at supporting the diagnosis of entrepreneurial ecosystems for all 38 OECD countries based on an operationalisation of the entrepreneurial ecosystem concept.

This work builds on and extends the OECD's pioneering role in developing entrepreneurship indicators over the past 20 years. It is seen as a first, pilot, step, in an ongoing exercise. It makes use of the best data available today for a sufficient number of countries but also provides an impulse for the generation and collection of improved entrepreneurship data, which can be reported on in future exercises.

The report contains indicators of entrepreneurial ecosystem inputs, outputs and variation for each OECD country, covering their recent evolution over time, cross-country benchmarking and individual country profiles. It aims to assist policy makers to compare performance on entrepreneurial ecosystem conditions within and across countries and to develop hypotheses on what may be supporting or holding back entrepreneurship in their countries and what policy reforms and actions may be needed.

The report therefore takes first step in entrepreneurial ecosystem diagnosis for policy development. It represents a high-level assessment offering initial insights on the ecosystem conditions that may require further development in different countries. These first insights can be followed up with more detailed country-level analyses and stakeholder dialogues on the nature and causes of any barriers and how to react through entrepreneurship policy.

The report forms part of the work of the OECD Committee on SMEs and Entrepreneurship on boosting SMEs and entrepreneurs as engines of resilience and growth, and notably its work on start-up and scale-up policies. The broad ecosystem measurement presented here is complemented by OECD country-level and thematic analyses in this area.

An earlier version of the report was presented for discussion at the 7th session of the Committee on SMEs and Entrepreneurship (CSMEE) on 5 November 2024 [CFE/SME(2024)18]. Further details on the data and methodology used for the diagnostics are provided in a companion working paper.

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The report has been prepared by Jonathan Potter (Head of the Entrepreneurship Policy and Analysis Unit, CFE), Roberto Crotti (Policy Analyst, CFE), and Pablo Shah (Policy Analyst, CFE), with the support of Erik Stam (Professor, Utrecht University). Lucia Cusmano (Acting Head of the SMEs and Entrepreneurship Division, CFE) supervised the production of the report. Nadim Ahmad (Deputy Director, CFE) provided productive insights and comments.

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Table of contents

FIGURES

TABLES

Executive summary

What are entrepreneurial ecosystems?

Entrepreneurial ecosystems are the broad set of interacting actors and factors that impact on the scale and quality of entrepreneurship in a place. They comprise institutional conditions, such as entrepreneurial culture and business regulations, access to resources conditions, such as entrepreneurial finance and talent, and entrepreneurial outputs, in the form of different types of business start-ups and scale-ups.

Content of the report

This report presents data to help assess the state and evolution of national entrepreneurial ecosystems in OECD countries. It offers a diagnostic tool highlighting ecosystem strengths and weaknesses, pointing to where policy action may need to be reinforced.

It represents the first time such a benchmarking has been produced for all OECD countries, but it builds on long-standing OECD work in this area, including the OECD-Eurostat Entrepreneurial Indicators Programme. As a first-edition, it is a pilot exercise, designed to demonstrate the relevance of entrepreneurial ecosystem diagnostics, provide first results, and motivate and accommodate improvements in indicators and data for future years.

Report aims

The report aims to help policy makers and other entrepreneurial ecosystem stakeholders to:

- Identify areas of strength and weakness in their entrepreneurial ecosystem conditions;
- Start policy dialogues with entrepreneurial ecosystem actors on the nature and causes of bottlenecks and the potential responses;
- Monitor progress in entrepreneurial ecosystem conditions over time;
- Offer data for more detailed analysis of the functioning of entrepreneurial ecosystem inputs and outputs; and
- Motivate longer-term investments to improve entrepreneurship data and indicators.

The data presented in the report offer an entry point for the diagnosis of areas where reinforced policy action may be required to support entrepreneurship in a country. However, they are only starting points, providing guidance on where more targeted stakeholder dialogues and analytical deep dives are needed.

The indicators

The report presents quantitative data on levels of productive entrepreneurship, with an emphasis on the creation of employer firms and on the quality of the entrepreneurial ecosystem elements that affect the outputs. It also includes measures of the level of variation in entrepreneurial ecosystem conditions between the regions and social groups of a country. The presentation of results includes cross-country comparisons and country-level diagnostics. The report also gives examples of policies designed to strengthen entrepreneurial ecosystems as inspiration on how policy can intervene.

In summary, the indicators cover:

1. Measures of ten entrepreneurial ecosystem elements: Institutions, Culture, Networks, Infrastructure, Markets, Finance, Knowledge, Talent, Leadership, and Intermediate Services. Bottlenecks in any element are likely to have adverse impacts on entrepreneurship levels. The diagnostics include a summary score for each element and country and values for element sub-indicators. These indicators identify potential ecosystem bottlenecks.
2. Measures of productive entrepreneurship outputs, covering different aspects of start-up and scale-up performance. These aim to capture the extent to which new business ventures are created, survive and grow in a country. They can be related back to the quality of the elements, and show how well a country performs on different aspects of entrepreneurship relative to others.

Entrepreneurial ecosystem variation measures. These provide information on the extent of variation of productive entrepreneurship activity across regions and social groups in a country. This helps us understand the extent to which entrepreneurial ecosystem conditions differ between different regions and social groups, and consequently how far additional disaggregated information and more differentiated policy actions may be required.

These indicators aim to capture concepts and relationships that are well-grounded in the empirical research literature. They reflect the best indicators available at the current time covering a significant number of OECD countries.

Some key findings are as follows:

- Variations in the quality of entrepreneurial ecosystem elements:

  Countries vary significantly in the quality of their entrepreneurial ecosystem conditions. Some of the strongest differences are in the Leadership, Markets and Knowledge elements. These areas offer lagging countries the strongest potential for catch up by prioritising appropriate actions.
- Variations in entrepreneurship outputs:

  Countries vary in the amounts and types of entrepreneurship they generate. Theoretical and empirical literature indicate this is driven by the quality of the entrepreneurial ecosystem conditions and how they interact, although countries can use different combinations of ecosystem strengths to generate outputs and can be strong or weak on different entrepreneurship types. Between 2020 and 2023, the strongest countries in generating unicorns were Ireland, Israel, and the United States. For high-potential young start-ups, the best performers were Estonia, the Netherlands, and Switzerland. Countries with strong general enterprise birth rates included Colombia, Estonia, Korea, and Türkiye.
- Change over time:

  Overall, countries' element scores are fairly stable over time. However, countries can also make rapid improvements. For example, since 2021, France improved its Institutions score, driven by a range of reforms including in its corporate tax system; Colombia, Czechia, Greece, Mexico, and Türkiye improved on Markets by enhancing trade facilitation; Estonia and Türkiye strengthened on

Infrastructure by improving transport quality and mobile data use; and Portugal, Lithuania and Poland improved Talent by advancing digital skills.

- Regional and social variation:

  Some countries have more homogenous entrepreneurial ecosystems than others. For example, between 2020 and 2023 there was less variation in regional start-up rates in Belgium, the Netherlands, Switzerland and the United States than in countries such as Chile and the Slovak Republic. Similarly, gaps between the start-up rates of women, youth, seniors and foreign-born people and middle-aged men were less marked in Colombia, Greece, Ireland, Mexico, the Netherlands, and Sweden, compared with countries such as Japan and Italy.

- Entrepreneurial ecosystem policies:

  Several countries have introduced pioneering entrepreneurial ecosystem policies at national level. The report profiles the cases of TechLeap, the Netherlands; French Tech, France; and the Startup Act, Italy. Important features of these policies are that they are holistic (strengthening a number of ecosystem conditions at the same time), arms-length (working through independent entities), and focused on empowering entrepreneurs themselves to create initiatives. The first two also contain actions for regional entrepreneurial ecosystems within the country.

Next steps

As a first edition, this report is a pilot. It is based on the best data available with wide OECD-area coverage at the current time and uses a simple diagnostic approach. Having made this first step, the exercise can be expanded on and refined in later editions.

One of the areas with potential for further developments is the addition of subnational analyses. Entrepreneurial ecosystems operate at both national and subnational levels, in a nested fashion. This report focuses on the national level, reflecting in part the greater availability of data at the national level, but also, the importance of national framework conditions. However, regional disaggregation can help help point to specific regional issues and challenges within countries.

In addition, if data availability improves over time, new indicators could be introduced particularly for ecosystem elements where current data are relatively weak, such as on Leadership or Networks. Moreover, presenting data for clubs of peer countries could assist benchmarking of ecosystems across similar contexts. Some analytical findings could also be included on the drivers of ecosystem performance.

This report provides initial evidence. However, for policy makers to make better decisions on where to prioritise entrepreneurship policy supports, it is also important that governments invest in improved entrepreneurship data, as well as foster country-level dialogue, discussion and research on entrepreneurship.

1 Introduction

This chapter provides a brief introduction to the entrepreneurial ecosystem diagnostics report, covering the entrepreneurial ecosystem concept, methodological issues, information gaps and possible future steps for the work.

Scale-ups and growth-oriented start-ups are highly beneficial to economies. They promote innovation by introducing new products, services, and business models (OECD, 2023[1]; Kolev et al., 2023[2]). They create market dynamism by injecting competition, inducing incumbents to innovate, and stimulate productivity growth by encouraging productive reallocation to higher productivity firms (Kritikos, 2014[3]). And they create new jobs and incomes as they grow. This type of entrepreneurship is known as productive entrepreneurship, and it is becoming more important over time as economies become more knowledge-based and shift from managerial towards entrepreneurial capitalism (Audretsch and Thurik, 2000[4]).

Productive entrepreneurship does not occur in a vacuum but is strongly influenced by the institutions and resources of the places that host it, either enabling or hindering its development (Welter, 2011[5]). This is the insight behind the widespread adoption in recent years of the entrepreneurial ecosystems concept, defined by (Stam, 2015[6]) as:

> *"the set of interdependent actors and factors coordinated in such a way as that they enable productive entrepreneurship."*

This report operationalises this concept for the purposes of benchmarking the determinants and outputs of entrepreneurship in OECD countries. It builds on work conducted since 2008 through the OECD-Eurostat Entrepreneurship Indicators Programme, originally published in the discontinued OECD Entrepreneurship at a Glance series and based on a measurement framework set out by (Ahmad and Hoffman, 2008[7])The current report renews the work, but modifies its structure in line with the more recent entrepreneurial ecosystem approach.

The diagnostics cover ten determinants of entrepreneurship, which we refer to as entrepreneurial ecosystem elements. These are inputs to the generation of entrepreneurship that have each been identified as important by the research literature. For each element, we present individual variables and a summary measure per OECD country. In addition, we benchmark productive entrepreneurship levels across the OECD countries and provide measures of the extent to which levels of entrepreneurship in a country vary across regions and social groups. Finally, examples are provided of entrepreneurial ecosystem development policies as sources of policy inspiration. Biennial data are provided for three periods (2016-2020, 2018-2022 and 2020-2023). It is pilot work, which can be updated, refined and extended in future issues.

The aim is to help policy makers identify bottlenecks in their entrepreneurial ecosystems that may need more or different policy efforts and to track the progress of their ecosystems over time by comparing with other OECD countries. It offers high-level information, which can be used as a starting point for deeper analyses.

The OECD diagnostics fill an important empirical gap. Although some comparative data-driven measures of entrepreneurial ecosystems do exist at international level, they provide only partial pictures. Often, they are based only on selected cities and regions, cover only a sub-set of key entrepreneurship determinants or sub-set of OECD countries, and focus only on a particular type of entrepreneurship, such as venture capital-backed or technology-intensive firms. There is no tool that gives comprehensive measures across all the entrepreneurial ecosystems elements and all the types of productive entrepreneurship outputs in this report at national level for all 38 OECD countries.

Furthermore, the OECD exercise has some key methodological strengths relative to many others. It is transparent about how scores are calculated, clearly separates the inputs and outputs of entrepreneurial ecosystems, and is grounded in academic research that shows the empirical validity and importance of each of the relationships included. More information on the concepts used and the measurement approach is provided in a companion working paper to this report (Crotti et al., 2025 (forthcoming)[8]).

Another strength is the use of the entrepreneurial ecosystem concept as a framework for analysing entrepreneurship. This concept has gained large significance in academic and policy circles in recent

years, as witnessed by contributions such as (Audretsch, Cruz and Torres, 2022[9]; Isenberg, 2010[10]; Huggins et al., 2024[11]; Brown and Mason, 2017[12]; Qian and Acs, 2023[13]; Feld, 2012[14]; Spigel, Kitagawa and Mason, 2020[15]), and has strong implications for understanding how governments and stakeholders can strengthen entrepreneurship.

Certain academic criticisms of the entrepreneurial ecosystem concept have been put forward, e.g. (Fritsch, 2024[16]; Naudé, 2024[17]; Fernandes and Ferreira, 2022[18]). These points are recognised in the OECD diagnostics and it can be argued that the responses are the best currently available, although this is an ongoing exercise and improvements can be made in later exercises.

First, it can be argued that entrepreneurial ecosystem processes are largely regional not national. However, both are clearly at play and intertwined. While some factors vary substantially by region, others, like business regulations, largely do not. And national conditions provide a backstop for regional elements, allowing for mitigations and compensations from further afield. Critically also, national information is needed for national government policy actors who develop policy at national level. Both national and regional benchmarking are therefore relevant, and while our diagnostics are currently at national level, regional data could be added in a second step.

Second, it might be argued that there is limited empirical evidence of the inter-relationships that are assumed to occur in entrepreneurial ecosystems that lead to them working as the complex systems we analyse. However, many individual studies show the validity of the input-output relationships we examine, and a recent World Bank paper provides a theoretical model that validates the inter-relatedness of entrepreneurial ecosystem elements and the relevance of examining them as a whole (Audretsch, Cruz and Torres, 2022[9]). By putting together the relevant data in this report, we aim to make it easier to analyse the inter-relationships further in the future.

Third, it is sometimes argued that entrepreneurial ecosystems analysis focuses only on knowledge-intensive, venture-based or growth-oriented start-ups, which are not necessarily the most impactful on the economy. However, entrepreneurial ecosystem work often covers other sectors and kinds of entrepreneurship. In this report, we deliberately include a range of measures of productive entrepreneurship, which may be more or less suited to different country strengths. The framework is also open to tailoring in a second step to different sectors (e.g. deep tech entrepreneurship) and different kinds of entrepreneurs (e.g inclusive entrepreneurship).

A final criticism is that the entrepreneurship performance of a place might be better addressed by other conceptual frameworks like clusters or innovation systems, rather than entrepreneurial ecosystems. However, the advantage of entrepreneurial ecosystem approach that we seek to exploit here is to inform an entrepreneurship policy that puts the entrepreneur and support for entrepreneurs at the centre of the analysis.

Overall, this report therefore offers a fresh perspective, grounded in research evidence, organised around a central concept of entrepreneurship, and addressing the issues with a broader, global outlook than other exercises. However, it is important to view this diagnostics tool as a complement to existing entrepreneurship benchmarking tools, each with its unique scope and focus."

Furthermore, as a pilot, this is a first step in a developing exercise. Further development of the analysis, presentation and data can be expected in subsequent editions. In particular, efforts are expected to refine the indicators, introduce some component of sub-national analysis, and undertake econometric analysis of the relationships between ecosystem inputs and outputs. In addition, deeper qualitative assessments are planned at country level to explore the nature and causes of the possible bottlenecks and to gather stakeholder inputs on possible policy responses. The benchmarking is nonetheless restricted by the quality of data available, and it is to be hoped that the presentation of this report will help stimulate further investments by governments in the relevant entrepreneurship data.

Chapter 2 offers more information on the concept and approach before we go into the results. A companion working paper (Crotti et al., 2025 (forthcoming)[8]) presents additional information on statistical details and methodological choices, including a complete set of robustness tests and correlation analyses comparing results based on alternative specifications.

References

Ahmad, N. and A. Hoffman (2008), "A Framework for Addressing and Measuring Entrepreneurship: OECD Statistics Directorate Working Paper", *STD/DOC (2008)* January. [7]

Audretsch, D., M. Cruz and J. Torres (2022), "Revisiting Entrepreneurial Ecosystems", *Finance, Competitiveness and Innovation Global Practice* November. [9]

Audretsch, D. and A. Thurik (2000), "Capitalism and democracy in the 21st century: From the managed to the entrepreneurial economy", *Journal of Evolutionary Economics*, Vol. 10/1-2, https://doi.org/10.1007/s001910050003. [4]

Brown, R. and C. Mason (2017), "Looking inside the spiky bits: a critical review and conceptualisation of entrepreneurial ecosystems", *Small Business Economics*, Vol. 49/1, https://doi.org/10.1007/s11187-017-9865-7. [12]

Crotti, R. et al. (2025 (forthcoming)), "Data and methods for entrepreneurial ecosystem", OECD. [8]

Feld, B. (2012), *Startup Communities: Building an Entrepreneurial Ecosystem in Your City*. [14]

Fernandes, A. and J. Ferreira (2022), *Entrepreneurial ecosystems and networks: a literature review and research agenda*, https://doi.org/10.1007/s11846-020-00437-6. [18]

Fritsch, M. (2024), "Struggling with Entrepreneurial Ecosystems", School of Economics and Business Administration. [16]

Huggins, R. et al. (2024), "Entrepreneurial Ecosystems in Cities and Regions: Emergence, Evolution, and Future", University of Edinburgh. [11]

Isenberg, D. (2010), "The big idea: How to start an entrepreneurial revolution", *Harvard Business Review*, Vol. 88/6. [10]

Kolev, J. et al. (2023), "Of Academics and Creative Destruction: Startup Advantage in the Process of Innovation", *Academy of Management Proceedings*, Vol. 2023/1, https://doi.org/10.5465/amproc.2023.15844abstract. [2]

Kritikos, A. (2014), "Entrepreneurs and their impact on jobs and economic growth". [3]

Naudé, W. (2024), "The African Entrepreneurial Ecosystem Index: Conceptual, Methodological and Empirical Flaws and the Way Forward", *IZA Discussion Paper No. 17075*. [17]

OECD (2023), *SME and Entrepreneurship Outlook 2023*. [1]

Qian, H. and Z. Acs (2023), *Entrepreneurial Ecosystems and Economic Development Policy*, https://doi.org/10.1177/08912424221142853. [13]

Spigel, B., F. Kitagawa and C. Mason (2020), "A manifesto for researching entrepreneurial ecosystems", *Local Economy*, Vol. 35/5, https://doi.org/10.1177/0269094220959052. [15]

Stam, E. (2015), “Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique”, *European Planning Studies*, Vol. 23/9, https://doi.org/10.1080/09654313.2015.1061484. [6]

Welter, F. (2011), “Contextualizing Entrepreneurship—Conceptual Challenges and Ways Forward”, *Entrepreneurship: Theory and Practice*, Vol. 35/1, https://doi.org/10.1111/j.1540-6520.2010.00427.x. [5]

2 Conceptual and measurement framework

This chapter introduces the conceptual framework and data underpinning the entrepreneurial ecosystem diagnostics. The diagnostics include measures of ten entrepreneurial ecosystem inputs, each summed up in a composite index derived from approximately 40 indicators. Ecosystem output measures capture levels of entrepreneurial activity. Ecosystem variation measures reflect social and regional concentration in entrepreneurship outcomes. The chapter also discusses the time periods and aggregation methods to develop the data.

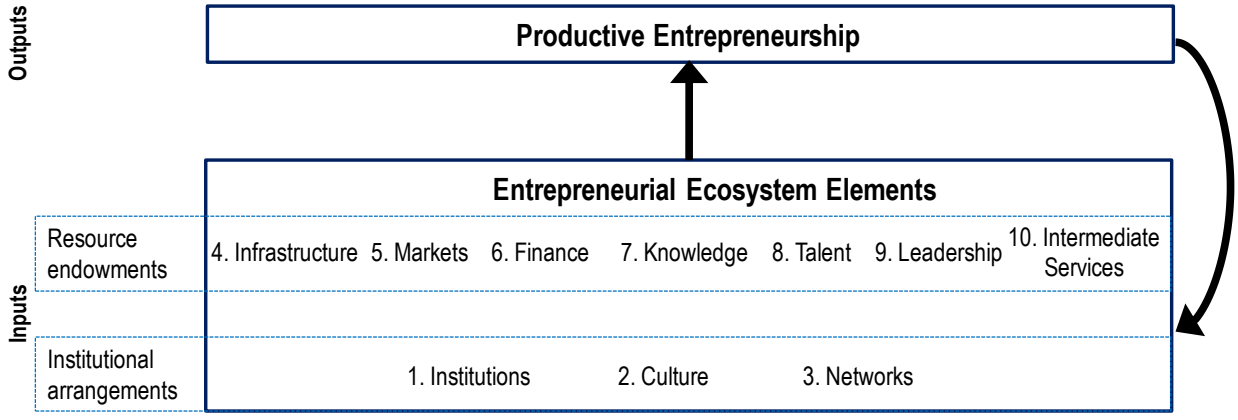
Conceptual framework

The entrepreneurial ecosystem diagnostics have been built following the approach of (Stam and Spiegel, 2018[1]; Stam, 2015[2]), which has benefitted from inputs from OECD and has been used in previous OECD work, including the OECD's local entrepreneurial ecosystem analyses across various countries, and notably the case of Cambridgeshire and Peterborough, UK (OECD, 2021[3]).

The underlying model is presented in Figure 2.1. It is characterised by four important features. First, it separates inputs (entrepreneurial ecosystem elements) from outputs (productive entrepreneurship). Second, among the entrepreneurial inputs, it distinguishes between institutional arrangements and resource endowments. Third, although analytically independent, inputs are linked to other inputs as well as to outputs. Inputs interact and influence one another, which means that a gap in one element can act as a bottleneck for the overall capacity of the ecosystem to generate productive entrepreneurship. Fourth, inputs and outputs recursively feed back into each other. Thus, an improvement in productive entrepreneurship outcomes can improve the quality of entrepreneurial ecosystem elements, for instance through re-investments of income from successful ventures into the ecosystem. However, modelling these feedback loops is complex, and from an analytical perspective it is important to keep the measurement of inputs and outputs separate.

Figure 2.1. The entrepreneurial ecosystem conceptual framework

Conceptual visualisation of the elements and interactions driving entrepreneurship in an entrepreneurial ecosystem



Source: Adapted from (Stam and van de Ven, 2021[4])

Measuring inputs (ecosystem elements)

Ten entrepreneurial ecosystem elements (ecosystem inputs) are selected and defined through an assessment of the existing research evidence, as reviewed for example by (Wurth, Stam and Spigel, 2023[5]) and (OECD, 2022[6])).

Based on this literature, the ten entrepreneurial ecosystem elements are:

1. **Institutions.** This refers to formal institutions, including business regulations. These are a fundamental influence on economic growth and development. They affect the allocation of entrepreneurial talent into productive and unproductive activities, reduce uncertainty for long-term investments and determine incentives and conditions to channel knowledge, capital and labour towards productive entrepreneurship (Djankov, 2009[7]; Granovetter, 1992[8]).

2. **Culture.** Entrepreneurial culture is an informal institution that reflects how entrepreneurship is perceived in society. A cultural context that values entrepreneurs influences the aspirations of people and their willingness to try to become an entrepreneur (Wyrwich, Stuetzer and Sternberg, 2016[9]). Another key element of culture is trust. Trust is a critical component of "social capital" and matters for measurable economic performance (Knack and Keefer, 1997[10]). Societies where people trust others tend to have greater economic interactions and investments, hence favouring productive entrepreneurship (Zak and Knack, 2001[11]).
3. **Networks**. Information and labour flows allow firms to access human resources, financial resources, and knowledge. For start-ups, access to networks is an important way to build social capital (Malecki, 2018[12]).
4. **Infrastructure**. Digital and physical (transport) connectivity is essential to enable entrepreneurs to access markets, exchange information, trade and interact with other people and organisations (Audretsch, Heger and Veith, 2015[13]).
5. **Markets**. Access to competitive markets and strong consumer and business demand for innovative products and services is a key condition for entrepreneurial success (Sato, Tabuchi and Yamamoto, 2012[14]).
6. **Finance**. Capital constraints hinder investments in the creation and growth of start-ups and scale-ups (Kerr and Nanda, 2009[15]). Access to credit and venture capital are particularly important for these firms.
7. **Knowledge**. This refers to the knowledge base that entrepreneurs can exploit through start-ups and scale-ups. In particular, technological know-how and scientific discoveries are important sources of new business opportunities, and can be developed in universities and corporations (Kim, Kim and Yang, 2012[16]). This technological knowledge is a key output of research with potential commercialisation possibilities (Acs et al., 2009[17]). A deep knowledge base also increases the possibility of using such knowledge in new ways.
8. **Talent**. Human capital and talent provide knowledge, know-how and capabilities for start-up creation and development (Acs and Armington, 2004[18]). This includes talented and mobile entrepreneurs. It also includes skilled workers needed to support the development of start-ups and scale-ups such as in digital skills, technology development or marketing.
9. **Leadership**. This involves the presence of actors that can develop a leadership for the ecosystem in terms of creating a shared vision among ecosystem actors on how different public, private and non-profit players can develop the ecosystem (Feldman and Zoller, 2012[19]). Ideally this should include the role of public-private partnerships and collective action organisations in stimulating entrepreneurial ecosystem development. Leadership of an ecosystem can also be spearheaded by highly visible and influential serial entrepreneurs.
10. **Intermediate Services**. The presence of entrepreneurship-targeted business services – such as legal support, accountancy, and consultancy and advice – lower entry barriers for new projects and innovative ideas (Howells, 2006[20]).

To operationalise these concepts into quantitative measures, a summary score for each element is produced through a composite index. The indicators within each element were selected based on their fit with the underlying literature and data availability. The complete list and definitions of the indicators used to measure each element is provided in Table 2.1. More details on the indicator definitions and the methods used to select, standardise and aggregate the variables are given in Annex A.

Table 2.1. Indicators used to measure entrepreneurial ecosystem elements

Element	Indicator (units)	Description	Source
1.Institutions	Rule of law, 0-100 best	Composite index that combines measures of enforcement of contract, legal process/courts transparency, crime, speed of judicial processes, risk of expropriation of foreign assets, intellectual property protection, private property rights.	Economist Intelligence Unit (EIU) accessed via World Bank - Worldwide Governance Indicators
	Effective tax rate, % taxable income	Effective average tax rate, which is a composite of different taxes.	OECD - Corporate Tax Statistics Database
	Product Market Regulation, Index 0-6 stringent	Measure of the degree to which policies promote or inhibit competition in areas of the product market where competition is viable. A higher value indicates a higher level of regulatory stringency.	OECD
	Control of corruption index, 0-100 low incidence	Index measuring the frequency and spread of corruption in different domains.	Varieties of Democracy Project (Videm) accessed via World Bank - Worldwide Governance Indicators
	Entrepreneurship as a good career choice, % 18-64 pop.	Percentage of adults who consider starting a business as a desirable career choice.	Global Entrepreneurship Monitor (GEM)
	High status to successful entrepreneurs, % 18-64 pop.	Share of adults who consider successful entrepreneurs to receive high social status.	Global Entrepreneurship Monitor (GEM)
	Trust in others, % respondents	Share of adults who believe that most people can be trusted.	World Values Survey (WVS)
3.Networks	SMEs collaborating on innovation, % total SMEs	SMEs with innovation cooperation activities with other SMEs, as a share of all SMEs.	European Commission - European Innovation Scoreboard
	University-business collaboration, 1-7 best	Extent to which business and universities collaborate on research and development (R&D)	World Economic Forum
4. Infrastructure	Fixed broadband, subscriptions per 100 pop.	Total fixed broadband subscriptions per 100 population. Fixed broadband technologies corresponds to DSL, cable modem, fibre-to-the-home and other fixed technologies (such as broadband over power-line and leased lines).	OECD - Telecommunications database
	Mobile data use, Gb per subscrip./month	Gigabits of mobile data usage per mobile broadband subscription per month	OECD - Broadband and telecom databases
	Transport infrastructure quality, 1-5 high	Quality of trade and transport-related infrastructure.	World Bank - Logistic Performance Index (LPI)
5. Markets	Gross domestic product, PPP$ million	Gross domestic product, expenditure approach, expressed in Purchasing Power Parity international dollars.	OECD - Annual GDP and components
	Trade facilitation index, 0-2 best	Average trade facilitation in terms of burdensome of border procedures.	OECD - Trade Facilitation Indicators
6.Finance	Venture capital early-stage investment, USD per capita	Early-stage (seed and start-up) venture capital investments per capita expressed in USD.	OECD - SME and Entrepreneurship Financing Database
	Venture capital later-stage investment, USD per capita	Later-stage venture capital investments per capita expressed in USD.	OECD - SME and Entrepreneurship Financing Database
	Outstanding SME loans, thousands USD per capita	Outstanding loans to SMEs expressed in thousands USD per capita	OECD - SME and Entrepreneurship Financing Database
	Factoring, thousands USD per capita	Total value of factoring expressed in thousands USD per capita	OECD - SME and Entrepreneurship Financing Database
7.Knowledge	Patents, per million pop.	Number of patents divided by the population.	OECD - Main Science and Technology Indicators
	R&D expenditure, % GDP	Gross Domestic Expenditure on R&D as a percentage of GDP.	OECD - Main Science and Technology

			Indicators
	GitHub software uploads, per thousand people	Number of times developers in a country uploaded codes to GitHub, divided by the population.	GitHub
8.Talent	Perceived entrepreneurial capabilities, % 18-64 pop.	Percentage of adults who believe they have the required skills and knowledge to start a business.	Global Entrepreneurship Monitor (GEM)
	Mean years of schooling, years	Average number of completed years of education of a country's population aged 25 years and older.	UNESCO
	Pisa, score	Average of Math, Reading, and Science OECD Programme of International Student Assessment (PISA) scores.	OECD - PISA
	Internet users, % pop.	Individuals who have used the internet over the past 3 years as a share of the total population.	World Bank, World Development Indicators
9.Leadership	Serial entrepreneurs, unit count	Total number of serial entrepreneurs registered in Crunchbase.	Crunchbase
10.Intermediate services	Coaches, unit count	Total number of mentors and coaches registered in Crunchbase.	Crunchbase
	Incubators, per million pop.	Number of incubators, accelerators, and other start-up support programmes, divided by the population.	Crunchbase and OECD
	Technical employment, % total employment	Proxy measure for availability of experts in technical domains, measured as the share of employees in professional, scientific, and technical activities in total employment.	OECD – Employment Indicators

Measuring outputs (productive entrepreneurship)

As shown in Figure 2.1, the entrepreneurial ecosystems inputs are seen to drive productive entrepreneurship outputs, which in turn feed back into the ecosystem. Our output focus is on productive entrepreneurship, i.e. entrepreneurship with job creation beyond the proprietor, innovation, survival, and growth potential (OECD, 2020[21]). Although non-employer firms (enterprises with no employees except working proprietors or partners) make up more than half of all enterprises in OECD countries, they often carry little innovation, have low productivity and bring only the founder into employment (OECD, 2017[22]). However, we adopt a broad view of productive entrepreneurship, spanning from high-growth scale-ups (such as gazelles and unicorns) to small employer start-ups that are less innovative yet have the potential to hire employees and increase productivity. Moreover, the definition, by design, captures all former non-employer firms as soon as they hire their first employee. The set of metrics used to capture productive entrepreneurship is detailed in Part A of Table 2.2.

Measuring social and regional variation

Our diagnostic tool also tracks the extent to which countries' entrepreneurship outcomes are homogenous or uneven across regions and social groups, including women and men. Tracking ecosystem diversity helps policy makers to be aware of potential entrepreneurship policy issues that are not picked up in national averages. The information on homogeneity and heterogeneity of entrepreneurship outcomes within countries is also useful for judging how far national measures need to be complemented with additional regional and social group data. The set of metrics used to capture entrepreneurial ecosystem variation is detailed in Part B of Table 2.2.

Table 2.2. Indicators used for entrepreneurial ecosystem outputs and variation

Element	Indicator (units)	Description	Source
		Part A	
Productive entrepreneurship output measures	Birth rate of employer enterprises, % business pop.	New firm creation among employer firms (i.e. with at least one employee), as a proportion of active business population.	OECD – Structural and Demographic Business Statistics
	Equity-based young firms, per million pop.	Number of companies newly added to the Crunchbase dataset during the previous 5 years	Crunchbase, OECD
	Unicorns, per million pop.	Number of private companies with a valuation over USD 1 billion, divided by the population.	CB Insights
	Enterprise churn rate, % business pop.	Sum of births and deaths of employer enterprises (firms with at least 1 employee) as a proportion of active business population.	OECD – Structural and Demographic Business Statistics
	Medium and high-growth enterprises, %	Rate of medium and high-growth enterprises (10%+ growth based on employment).	OECD – Structural and Demographic Business Statistics
	3-year survival rate of employer enterprises	3-year survival rate of employer enterprises, as a proportion of new employer enterprises.	OECD – Structural and Demographic Business Statistics
	Expectation to create jobs, % entrepreneurs	Percentage of those involved in early-stage entrepreneurial activity who expect to create 6 or more jobs in 5 years.	Global Entrepreneurship Monitor (GEM)
	Employment share of 2-year-old employer enterprises	Employment share of 2-year-old employer enterprises as a proportion of the active business population.	OECD – Structural and Demographic Business Statistics
		Part B	
Entrepreneurial ecosystem variation measures	Geographical dispersion of start-ups, 0-100 high concentration	Herfindahl Hirschman Index, calculated using the share of start-ups located in different cities within a country.	Crunchbase
	Missing entrepreneurs' rate, % early stage entrepreneurs	Size of estimated "missing entrepreneurs" group divided by all early-stage entrepreneurs. Missing entrepreneurs are the additional entrepreneurs there would be in a country if women, youth, seniors, and immigrants created businesses at the same rate as 30-49 year old males.	OECD – Missing Entrepreneurs dataset
	Women founders, % founders	Share of start-up founders and CEOs that are women.	Crunchbase

Time period and computations

The data presented in this report are for three data periods: the most recent data period presented uses moving averages of data within the years 2020-2023, the intermediate period uses moving averages for the years 2018-2022, and earliest data period presented uses moving averages of data within the years 2016-2020. The data used are the latest available up to December 2024. More detail is offered in the Annex, including rationale for selecting indicators, detailed descriptions of indicators, methods of computing indicator scores, and method of aggregating values to give element level summary scores. The full methodology is presented in a companion OECD working paper (Crotti et al., 2025 (forthcoming)[23]).This provides full statistical details, methodological rationales and sensitivity analyses.

References

Acs, Z. and C. Armington (2004), "The impact of geographic differences in human capital on service firm formation rates", *Journal of Urban Economics*, Vol. 56/2, https://doi.org/10.1016/j.jue.2004.03.008. [18]

Acs, Z. et al. (2009), "The knowledge spillover theory of entrepreneurship", *Small Business Economics*, Vol. 32/1, https://doi.org/10.1007/s11187-008-9157-3. [17]

Audretsch, D., D. Heger and T. Veith (2015), "Infrastructure and entrepreneurship", *Small Business Economics*, Vol. 44/2, https://doi.org/10.1007/s11187-014-9600-6. [13]

Crotti, R. et al. (2025 (forthcoming)), "Data and methods for entrepreneurial ecosystem", OECD. [23]

Djankov, S. (2009), "The regulation of entry: A survey", *World Bank Research Observer*, Vol. 24/2, https://doi.org/10.1093/wbro/lkp005. [7]

Feldman, M. and T. Zoller (2012), "Dealmakers in Place: Social Capital Connections in Regional Entrepreneurial Economies", *Regional Studies*, Vol. 46/1, https://doi.org/10.1080/00343404.2011.607808. [19]

Granovetter, M. (1992), "Economic Institutions as Social Constructions: A Framework for Analysis", *Acta Sociologica*, Vol. 35/1, https://doi.org/10.1177/000169939203500101. [8]

Howells, J. (2006), "Intermediation and the role of intermediaries in innovation", *Research Policy*, Vol. 35/5, https://doi.org/10.1016/j.respol.2006.03.005. [20]

Kerr, W. and R. Nanda (2009), "Democratizing entry: Banking deregulations, financing constraints, and entrepreneurship", *Journal of Financial Economics*, Vol. 94/1, https://doi.org/10.1016/j.jfineco.2008.12.003. [15]

Kim, Y., W. Kim and T. Yang (2012), "The effect of the triple helix system and habitat on regional entrepreneurship: Empirical evidence from the U.S.", *Research Policy*, Vol. 41/1, https://doi.org/10.1016/j.respol.2011.08.003. [16]

Knack, S. and P. Keefer (1997), "Does social capital have an economic payoff? A cross-country investigation", *Quarterly Journal of Economics*, Vol. 112/4, https://doi.org/10.1162/003355300555475. [10]

Malecki, E. (2018), "Entrepreneurs, networks, and economic development: A review of recent research", in *Advances in Entrepreneurship, Firm Emergence and Growth*, https://doi.org/10.1108/S1074-754020180000020010. [12]

OECD (2022), *Financing Growth and Turning Data into Business: Helping SMEs Scale Up*, OECD Studies on SMEs and Entrepreneurship, OECD Publishing. [6]

OECD (2021), *Local entrepreneurship ecosystems and emerging industries: Case study of Cambridgeshire and Peterborough, United Kingdom*. [3]

OECD (2020), *International Compendium of Entrepreneurship Policies, OECD Studies on SMEs and Entrepreneurship*. [21]

OECD (2017), *Entrepreneurship at a Glance 2017*. [22]

Sato, Y., T. Tabuchi and K. Yamamoto (2012), "Market size and entrepreneurship", *Journal of Economic Geography*, Vol. 12/6, https://doi.org/10.1093/jeg/lbr035. [14]

Stam, E. (2015), "Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique", *European Planning Studies*, Vol. 23/9, https://doi.org/10.1080/09654313.2015.1061484. [2]

Stam, E. and B. Spiegel (2018), *Entrepreneurial Ecosystems, in The SAGE Handbook of Small Business and Entrepreneurship*, SAGE Publications Ltd, 1 Oliver's Yard, 55 City Road London EC1Y 1SP , https://doi.org/10.4135/9781473984080. [1]

Stam, E. and A. van de Ven (2021), "Entrepreneurial ecosystem elements", *Small Business Economics*, Vol. 56/2, https://doi.org/10.1007/s11187-019-00270-6. [4]

Wurth, B., E. Stam and B. Spigel (2023), "Entrepreneurial Ecosystem Mechanisms", *Foundations and Trends in Entrepreneurship*, Vol. 19/3, https://doi.org/10.1561/0300000089. [5]

Wyrwich, M., M. Stuetzer and R. Sternberg (2016), "Entrepreneurial role models, fear of failure, and institutional approval of entrepreneurship: a tale of two regions", *Small Business Economics*, Vol. 46/3, https://doi.org/10.1007/s11187-015-9695-4. [9]

Zak, P. and S. Knack (2001), "Trust and growth", *Economic Journal*, Vol. 111/470, https://doi.org/10.1111/1468-0297.00609. [11]

3 Cross-country diagnostic results

This chapter presents the main findings from the analysis of entrepreneurial ecosystem diagnostics data. It offers a performance overview for each country on each of the ten ecosystem elements and explores areas of progress or decline relative to earlier periods. The chapter also examines entrepreneurship levels by country and the extent of regional and social variations.

Performance overview across elements

The core of the diagnostics is a set of composite indexes that measure the ten entrepreneurial ecosystem elements. While some countries tend to perform better than others on multiple elements, no single country attains the top score in every element. In only two cases does a country attain the highest score on two elements. This shows that countries have advanced unevenly in the construction of their ecosystems, and no economy today is yet ready to offer a perfect context for entrepreneurs to operate. Even the most "entrepreneurship friendly" economies have areas to improve and can learn from the experience and policies of other countries.

Element summary scores

Table 3.1 presents the entrepreneurial ecosystem element scores by country. These results show significant variation both in element scores across countries and across elements within countries. Both types of information are relevant for policy development, with low scores on either indicating potential for remediating policy actions.

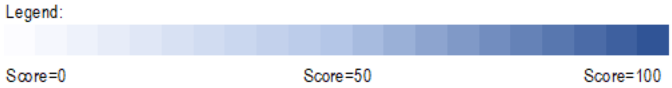
The variation in scores across countries and elements indicates that there are no rigid patterns across scores. Countries may attain a relatively high (low) score in one element, even if they perform relatively poorly (strongly) in most of the other elements. However, looking horizontally at performance within countries across the different elements, it is possible to identify four general types of ecosystems: i) ecosystems that are mostly still underdeveloped, where a large number of elements have below-OECD-average scores (e.g. Colombia, Costa Rica); ii) ecosystems that have started to develop but attain a mostly average performance across all elements and do not excel in any aspect (e.g. Czechia, Slovenia); iii) ecosystems that have developed unevenly with about average performance in some elements and strong performance in few other elements (e.g. France, Germany); iv) and ecosystems that are well advanced on the majority of the elements (United States, United Kingdom, or Switzerland).

Table 3.1 also helps show the relative performance of a country on different elements compared to the international context, by looking vertically in the table. For example, Australia attains relatively high scores on Markets, Talent and Leadership, and Intermediate Services, while its lowest scores are on Institutions and Knowledge. These can be interpreted as the weakest links in the ecosystem, which should be addressed first. However, by contextualising these scores it is possible to see that the distance between Australia's scores and top performer scores is larger on Knowledge than Institutions, which may indicate that addressing the Knowledge gap could be more impactful than addressing gaps in other elements.

Clearly, these data provide only an initial snapshot of the situation in a country. To move to action, policy makers should follow up the diagnosis produced by the tool with a deeper analysis on nature and causes of the performance.

Table 3.1. Summary scores by entrepreneurial ecosystem element, 2020-2023 period

Country	1. Institution	2. Culture	3. Networks	4. Infrastr.	5. Markets	6. Finance	7. Knowledge	8. Talent	9. Leadership	10. Interm. Services
Australia	40.3	.	49.9	55.0	68.0	.	43.2	64.0	73.6	65.9
Austria	49.6	43.0	49.3	59.8	51.9	50.8	57.0	55.4	47.9	54.8
Belgium	48.1	.	63.2	52.1	54.2	58.4	57.2	.	41.3	50.3
Canada	53.4	70.0	61.2	52.9	64.5	44.9	51.6	69.1	90.9	74.2
Chile	50.4	38.8	25.9	17.3	21.0	.	18.1	35.0	30.4	32.8
Colombia	6.6	14.7	.	5.3	25.1	.	17.8	3.0	37.5	17.7
Costa Rica	9.6	.	.	5.7	15.0	.	19.7	2.2	23.6	14.9
Czechia	51.7	.	44.9	32.3	36.0	39.7	42.2	.	27.7	36.2
Denmark	67.9	.	51.5	71.9	51.3	56.6	69.2	69.4	51.5	50.7
Estonia	65.3	43.7	44.8	51.4	24.1	45.6	48.9	61.3	33.8	48.6
Finland	68.1	.	65.4	71.5	51.0	57.6	72.1	52.9	60.2	61.1
France	51.0	27.1	40.4	63.5	70.3	44.1	48.9	42.0	70.0	51.5
Germany	46.9	53.1	50.8	59.9	69.2	49.5	60.2	52.1	84.0	49.3
Greece	31.8	37.3	6.7	46.4	26.3	38.2	29.4	27.7	32.7	34.4
Hungary	18.1	40.7	30.9	35.7	12.4	36.7	33.7	38.5	25.4	33.2
Iceland	56.3	.	50.8	57.2	4.4	.	65.2	62.6	7.0	46.9
Ireland	76.2	46.0	54.2	45.2	53.7	54.1	47.5	56.3	47.9	64.4
Israel	42.0	61.9	.	39.4	12.0	65.3	86.1	40.7	79.1	78.7
Italy	36.6	18.3	44.3	51.1	53.8	47.7	30.2	27.9	56.0	46.2
Japan	37.2	10.4	49.0	52.5	80.6	.	54.8	20.7	49.5	27.2
Korea	44.6	55.9	49.6	66.0	79.1	.	81.2	73.6	45.0	36.1
Latvia	54.8	28.0	27.5	39.5	20.7	36.6	30.9	57.6	29.7	27.2
Lithuania	62.5	43.3	42.9	44.4	33.9	37.3	35.8	50.0	17.2	30.1
Luxembourg	42.7	.	46.9	47.6	32.1	.	39.0	.	33.8	52.0
Mexico	4.6	28.3	.	6.9	35.3	.	14.1	3.7	50.1	29.3
Netherlands	60.1	.	57.8	55.3	70.9	57.3	64.6	51.5	55.2	69.1
New Zealand	48.6	.	.	44.4	45.9	.	44.7	49.0	37.1	50.7
Norway	66.0	82.0	.	59.3	59.0	52.6	58.5	57.1	53.4	43.9
Poland	58.6	28.7	17.4	29.4	63.3	41.3	34.6	53.3	49.5	32.6
Portugal	36.4	.	35.3	45.9	53.5	38.7	37.5	27.2	38.8	41.9
Slovak Republic	43.7	23.6	15.2	34.5	30.1	38.7	26.6	45.2	18.4	21.6
Slovenia	51.1	57.2	35.8	43.5	30.6	39.4	40.0	58.0	26.9	37.9
Spain	48.6	23.6	25.1	47.8	66.4	50.9	35.0	44.6	68.4	51.8
Sweden	70.1	67.1	54.6	69.7	60.9	46.7	79.7	57.8	62.9	67.9
Switzerland	63.0	33.7	.	77.0	55.0	52.2	87.3	62.5	68.4	76.6
Türkiye	3.0	39.8	23.1	25.2	31.4	.	21.7	14.8	45.3	33.4
United Kingdom	70.9	69.2	67.3	51.5	73.6	41.0	57.1	64.7	97.5	83.0
United States	52.6	67.0	95.3	54.0	86.8	59.3	65.5	70.6	100.0	79.8



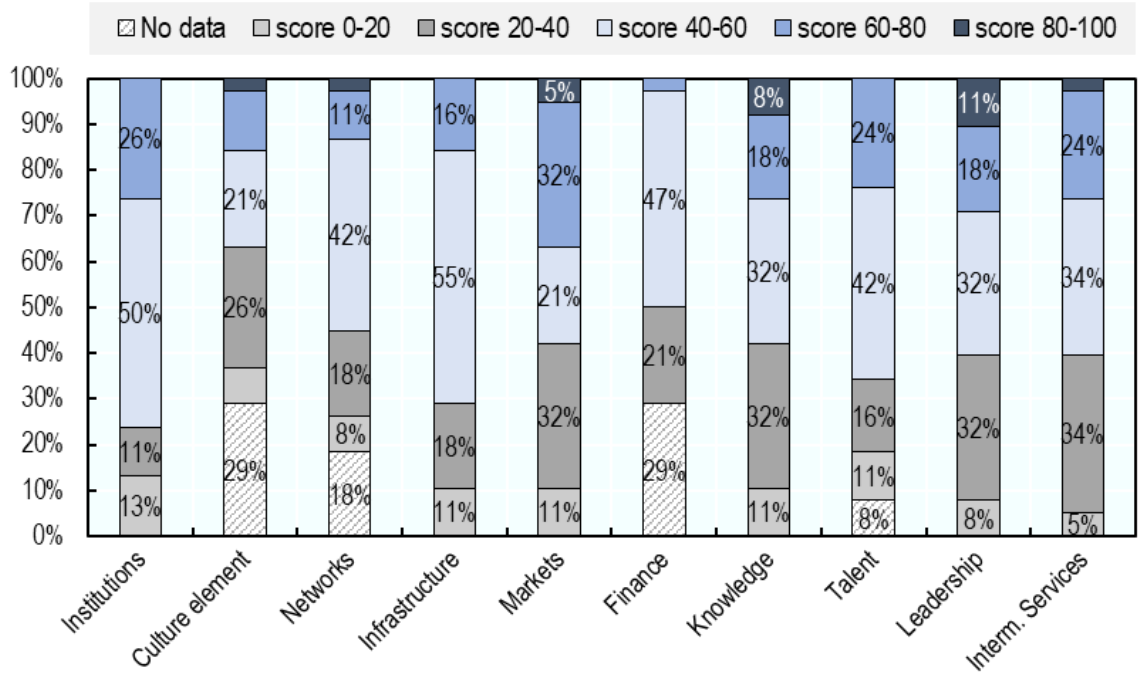
Note: Scores are composited indices, expressed as a 0-100 value, computed as the geometric means of the underlying indicators. The methodology is described in Annex A. Continuous shading indicates the level of performance, with darker blue shadings indicating higher scores. A dot indicates that there were not enough data for the reference period to compute an element score for a country. Element scores are not computed for countries if more than 1 indicator composing an element is missing or imputed.
Source: OECD's Entrepreneurial Ecosystem Diagnostics

Variation in country performance by ecosystem element

Figure 3.1 shows the share of OECD countries with scores in different brackets across the entrepreneurial ecosystem elements. Although the diagnostic tool reports relative performance across countries, there are differences in the variation of the scores around the averages. There are some elements with relatively high variation in scores across countries and others with relatively low variation. Elements with relatively high variation would tend to indicate greater scope for making improvements in entrepreneurial ecosystem conditions. One of the ways of exploring this further is to examine the share of countries with low scores on each element.

Institutions is the element where the smallest share of countries attained low scores. Only 24% of countries attained scores in the bottom 40% of values. On the other hand, larger shares of OECD countries attained low scores (in the bottom 20% of values) on Markets, Knowledge, Leadership, and Intermediate services. These are common weak links across OECD countries, which should be prioritised by the majority of OECD countries.

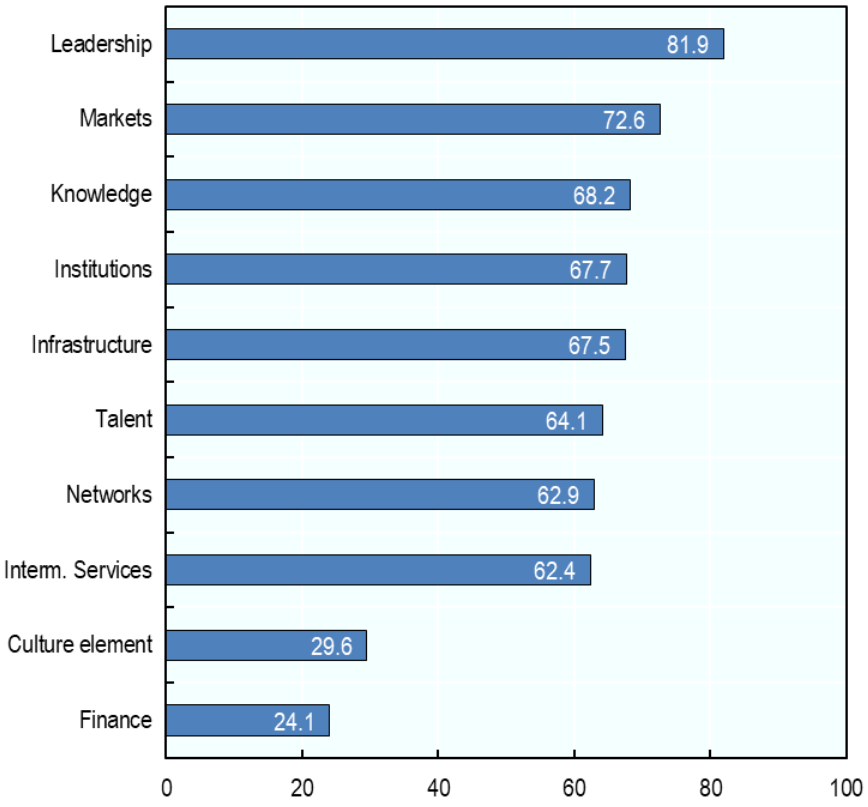
Figure 3.1. Country performance across entrepreneurial ecosystem elements



Note: These data show what percentage of the 38 OECD countries achieve an aggregate element score within each of the five bands (0-20 band, 20-40 band, 40-60 band, 60-80 band, 80 to 100 band) for the 2020-2023 period. Values below 5% are not visualised in the chart.
Source: OECD's Entrepreneurial Ecosystem Diagnostics

The variability by element can also be analysed in terms of differences between top and bottom performers in each element. Comparing the average scores of the top three countries with the average scores of the bottom three countries, Leadership emerges as the area with the largest score difference between top and bottom performers. This indicates that it is one of the differentiating factors of ecosystems that can actively support entrepreneurs. The gap between top and bottom performers is the smallest for the Finance element overall score, suggesting less room for large numbers of countries to catch up with leaders, although within that element, venture capital investment gaps between top and bottom performers are important.

Figure 3.2. Performance difference between top and bottom scores by element



Note: Difference between the average score of the top-3 countries and the average score of the bottom-3 countries for the period 2020-2023.
Source: OECD's Entrepreneurial Ecosystem Diagnostics

Performance on sub-elements and evolution over time

This section examines country performance by element. In each section, a first chart shows countries' scores sorted on the 2020-2023 period's element scores from weak performers (on the left of the charts) to top performers (to the right of the charts). The chart also features the evolution of country performance on each element over the three data periods (2016-2020, 2018-2022, and 2020-2023) of the tool. A second chart for each section then presents the values of the sub-indicators that contribute to the element summary scores. The data are presented in terms of normalised scores. They are sorted from weak performers (on the left of the charts) to top performers (to the right of charts). Countries for which data were not available for the 2020-2023 period are not featured in these charts. In some cases, data are available for the 2018-2022 period or the 2016-2020 period. These data are provided in the country profiles in chapter 4.

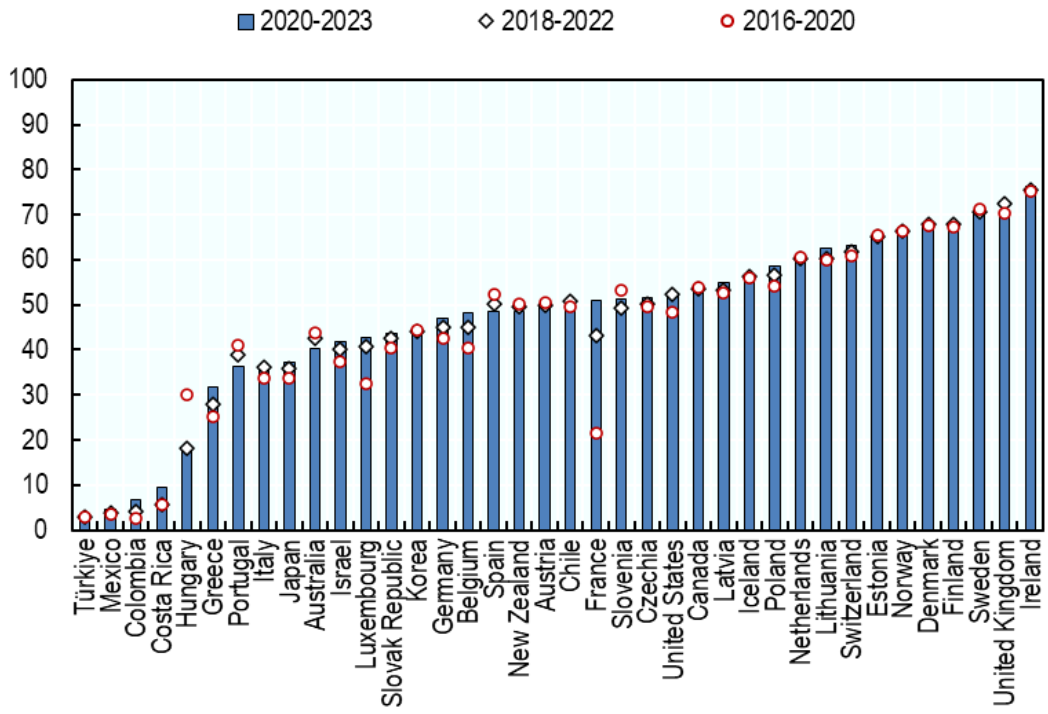
1. Institutions

The Institutions element measures the extent to which a country has in place an administrative system, regulatory structure and taxation levels that facilitate economic activity and allow entrepreneurs to operate. The institutional framework determines the conditions in which new businesses are created and incentivised to grow. It is measured through four indicators that capture a country's control of corruption, rule of law (justice system, crime, property rights), product market regulation (degree to which policies are red tape promote or inhibit competition), and taxation rates.

Figure 3.3 shows aggregate scores on Institutions across the OECD countries, sorted from the lowest to the highest score in the 2020-2023 period. Ireland, the United Kingdom, and the Scandinavian countries (Denmark, Finland, Norway, Sweden) are among the countries offering the most conducive institutional contexts for productive entrepreneurship.

Most of these countries have maintained a relatively stable performance since the 2016-2020 period, with the United Kingdom's score slightly improving over the past four years. Ireland has performed at the top throughout the period. Ireland scores slightly below Scandinavian countries in terms rule of law and control of corruption levels but it offers significantly more favourable corporate tax rates and product market regulation, making its ecosystem a particularly low-burden environment for start-ups and scale-ups.

Figure 3.3. Institutions element scores by country and year



Note: These scores are computed as the geometric mean for countries across the following indicators: i). Rule of law (crime, enforcement of contract, legal process/courts transparency, speed of judicial processes, risk of expropriation of foreign assets, intellectual property protection, private property rights, source: World Bank – Worldwide Governance Indicators; ii.) Control of corruption index, Source: Vi-dem Project; iii.) Effective tax rate, % taxable income, Source: OECD - Corporate Tax Statistics Database; iv. Product Market Regulation Index, Source: OECD. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period.

Among the countries where the Institution scores have varied the most over time, France, Belgium, and Luxembourg have improved, while Hungary, Portugal, Spain, and Australia have registered a relative decline in their performance.

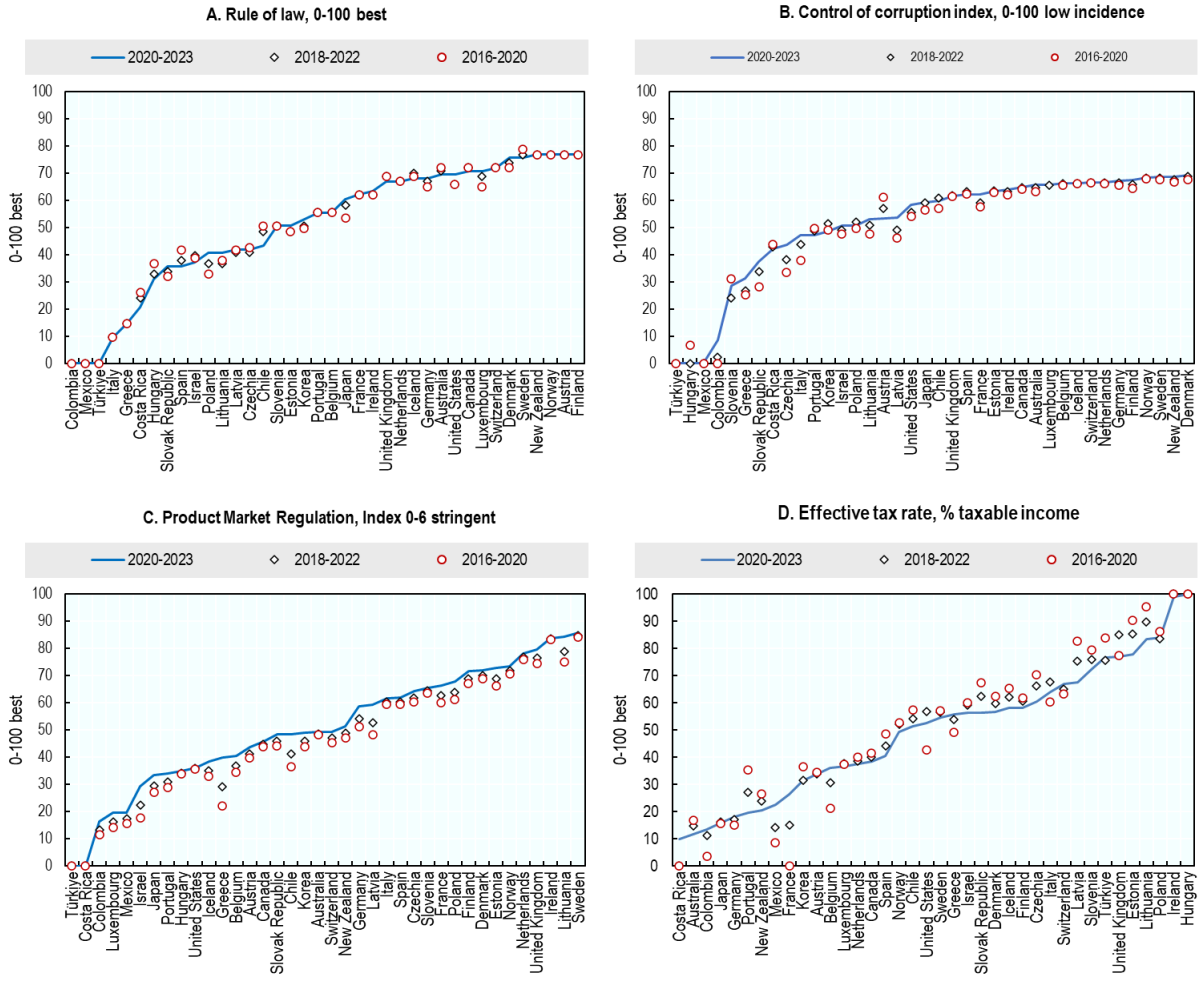
The performance of countries varies significantly across the indicators composing the Institutions element (Figure 3.4). Two indicators (rule of law and control of corruption) capture important aspects of the functioning of the public administration, one indicator measures the extent to which policies promote or inhibit competition, and one indicator measures the tax burden for businesses.

Some countries perform consistently well over time across the two public administration indicators. Notably, Scandinavian countries are well positioned across both aspects. There are however countries that tend to perform better on one of these two dimensions than the other. For instance, in Slovenia, entrepreneurs can benefit from relatively sound rules of law, yet they need to cope with lower control of corruption levels than in other OECD countries. The opposite is true for Spain where control of corruption is above the OECD average, but the implementation of the rule of law is below that of many countries. Most countries tend to show relatively stable performances over time on these dimensions, underlining the structural feature of institutional mechanisms.

In terms of product market regulation (PMR), Sweden, Lithuania and Irelands are among the countries where entrepreneurs can benefit from accessible markets and absence of red tape. This is also a factor where countries do not change performance rapidly over time. The only exception is Greece, who managed to improve its PMR score significantly between the 2018-2022 period and the 2020-2023 period.

On taxation, corporate tax rates in Hungary, Ireland and Poland are among the lowest in the OECD contexts, contributing to incentivize business activities. Notably, in Hungary, an above average score on low tax rates, contrasts with below OECD-average performances on product market regulation control of corruption and rule of law. Over time, few countries, including France, and Costa Rica made important efforts in reducing their tax rates, resulting in scores upgrades. In several other countries the tax rates have increased including the United Kingdom, who, however, has remained one of the OECD countries applying moderate corporate tax rates.

Figure 3.4. Institution sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023's period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

2. Culture

The culture element measures the extent to which people in the country tend to have a propensity to entrepreneurship and the extent to which a country's social norms, values and customs reward entrepreneurial efforts. These cultural and value systems can play an important role in boosting or holding back entrepreneurship. The Culture element is measured through three indicators that capture the share of adults who consider entrepreneurship as a desirable career choice, the share of adults who believe that successful entrepreneurs attain a high social status, and the share of adults who believe that most people can be trusted.

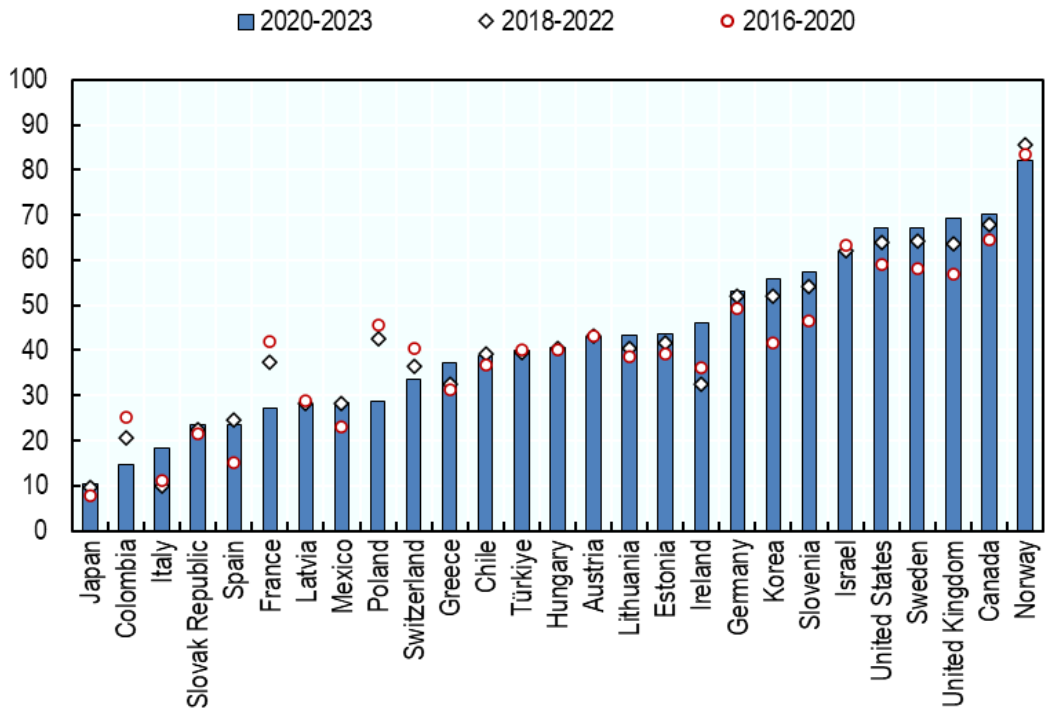
The aggregate Culture element scores for all countries are presented in Figure 3.5. For many countries data on these dimensions have not been updated recently, thus only a sample of 27 OECD countries is available for the 2020-2023 period. Among these countries, the top three are Norway, Canada and the

United Kingdom who all achieve score between 69 and 82/100. Other countries performing well, with scores above 60/100 are Israel, the United States, and Sweden.

Among these well-performing countries in this area, Norway has slightly declined since the 2016-2020 period, Israel has remained stable, and the other four countries have improved. The United Kingdom is the countries among the top performers who improved the most.

Beyond the top performers, countries who did register a significant shift, include Poland, France and to a lesser extent Switzerland and Colombia, have seen their culture scores declining, while Italy, Spain, Ireland, Korea and Slovenia's scores are on an upward trend.

Figure 3.5. Culture element scores by country, and year

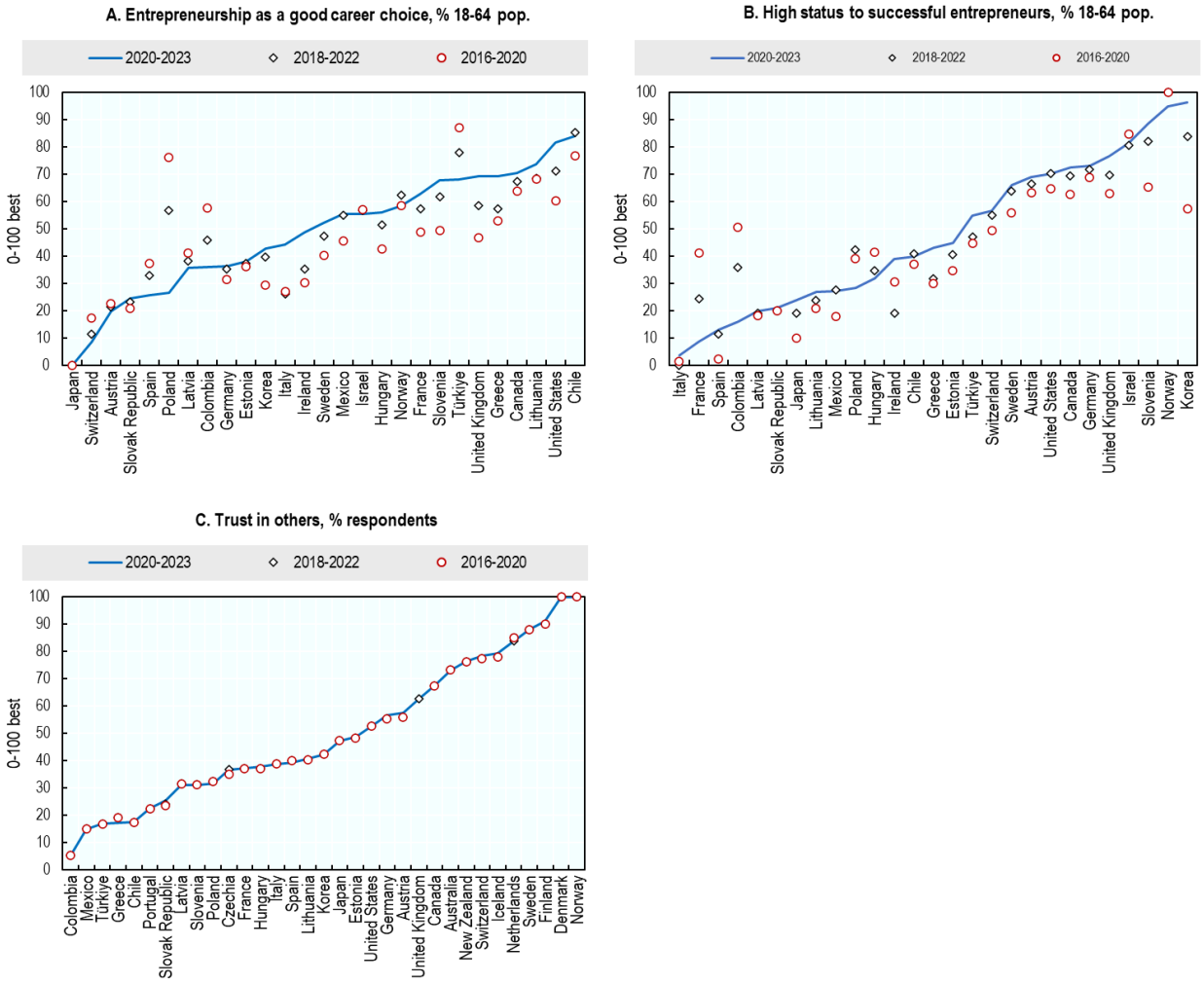


Note: These scores are computed as the geometric mean for countries across the following indicators: i). Percentage of 18-64 population who consider starting a business as a desirable career choice, Source: Global Entrepreneurship Monitor (GEM); ii.) Percentage of 18-64 population who agree that successful entrepreneurs receive high status, Source: Global Entrepreneurship Monitor (GEM); iii) Share of people who believe that most people can be trusted, Source: World Value Survey (WVS). Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

Analysing countries' performances at sub-element indicator level provides more detailed and diverse picture than the aggregate element scores. Among the three top element performers (Norway, Canada and the United Kingdom), Norway is among the top 5 performers on two indicators (trust in others and status of successful entrepreneurs). Canada and the United Kingdom also performs well on two indicators (Entrepreneurship as a good career choice and status of successful entrepreneurs) and less well on trust. None of the top countries in each indicator is among the elements' best. Korea is first in terms of High status of successful entrepreneurs but performs below the OECD average on the other two indicators. Chile excels on perceptions of entrepreneurship as a good career choice but attains low levels of trust, while Denmark is the country where trust levels are the highest, but due to an incomplete dataset it cannot be reliably assessed on the other two aspects.

Notably, the scores on the indicators of entrepreneurship sentiment fluctuate over time significantly more than indicators measuring societal values such as trust in others, which are arguably structurally more difficult to change over a short time period. The score of the indicator Entrepreneurship as a good career choice and the scores of the indicator High status of successful entrepreneurs have increased in most OECD countries over the past four years. Notably, these shares were low around the period of the pandemic as conditions for entrepreneurship were seen less positively temporarily in many OECD countries. The upward trend in most OECD countries indicate a return of greater interest towards entrepreneurship post-pandemic. Among the countries that have registered the higher increase in perceptions in terms of entrepreneurship as a good career choice are the United Kingdom, the United States, Slovenia, Ireland, and Italy. While in terms of high status of successful entrepreneurs, sentiment increased particularly in Korea, Slovenia and Japan. There are however few countries where sentiment has been on a declining trend in this period including Poland, Colombia and Türkiye on entrepreneurship as a good career choice, and France and Colombia on High status of successful entrepreneurs. Going forward, it will be important to monitor the evolution of these perceptions over a longer time period to assess if there have been permanent effects on entrepreneurial intentions years after the pandemic.

Figure 3.6. Culture sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

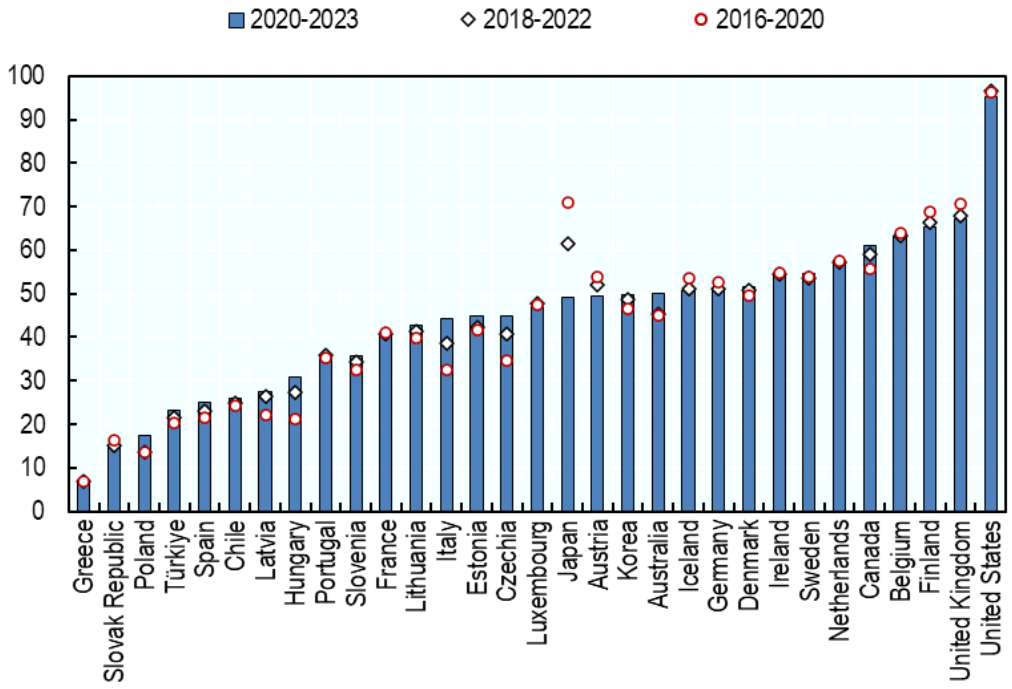
3. Networks

The network element measures the extent to which start-ups and scale-ups can leverage collaborations with other firms and stakeholders so that they can access information, technology, support, finance, form partnerships, and identify customers and/or suppliers. It is measured through two indicators, the extent to which SMEs collaborate with each other on innovation, and the extent to which firms collaborate with universities on R&D.

The aggregate scores (provided in Figure 3.7), show that the United States, with a score of about 95/100 benefits from the most interconnected network, while Canada, Belgium, Finland, and the United Kingdom also perform among the best countries, all exceeding a score of 60/100.

Among the top performers, Canada has slightly improved its performance since the 2016-2020 period, while the other top countries have remained substantially stable. Among the other countries, Czechia, Italy and Hungary have improved their network scores over the past four years, while Japan has registered the most noticeable declines in score.

Figure 3.7. Networks element scores by country and year



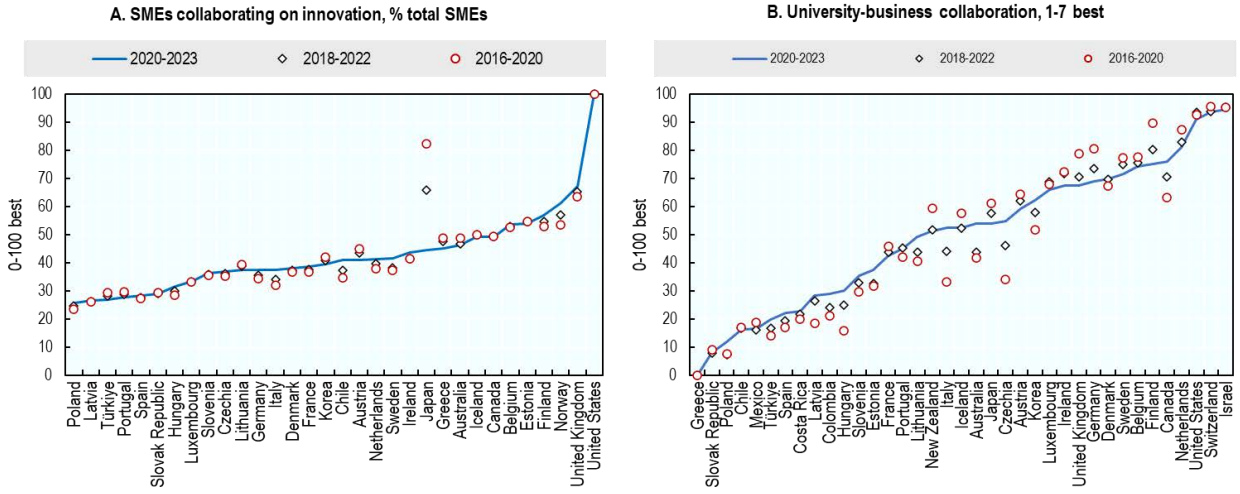
Note: These scores are computed as the geometric mean for countries across the following indicators: i.) Share of SMEs with innovation cooperation activities, Source: European Commission - European innovation scoreboard; ii.) Extent to which businesses collaborate with universities on R&D, Source: World Economic Forum, Executive Opinion Survey. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance the 2020-2023 period.

Looking at the two indicators that compose the element, the United States is by far the countries where SMEs cooperate on innovation. About 70% of US SMEs engage in innovation cooperation activities, and they have done so on a consistent basis over the past four years at least. This share is much lower in other countries, which explains the difference in score between the United States and the United Kingdom, the second on this aspect.

These scores have remained substantially stable over time for most OECD countries. The only notable exception is Japan, where SMEs collaboration has been on decline over time past few years.

The other aspects on which countries are benchmarked against is the extent to which businesses (not just SMEs) interact with universities for R&D projects. Israel, Switzerland, and the United States stand out on this dimension, attaining scores above 90/100. They are followed by Netherlands, Canada, Finland, Belgium, and Sweden who also perform well above average, with scores between 70 and 80/100. Among them Canada has gradually improved its performance over time, while Finland has slightly declined. Other top countries have remained stable. There also some countries that have improved their performance recently but remained in the lower part of the distribution. Among them the two most noticeable progresses are those of Italy and Czechia.

Figure 3.8. Network sub-element scores by country and year



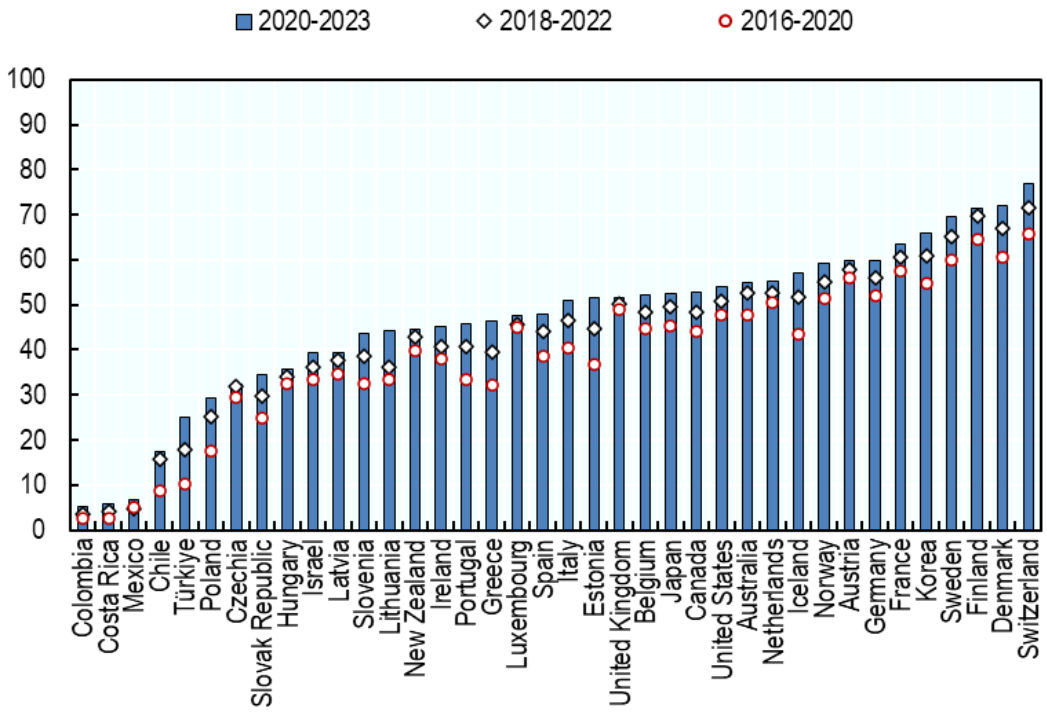
Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

4. Infrastructure

The infrastructure element measures the extent to which transport and telecommunications provide effective ways for people to connect, this in turn can facilitate the absorption of new ideas and technologies, and the delivery of goods and services. It is measured through three indicators: use of fixed telecommunications (in terms of subscriptions), the amount of mobile data downloaded (in terms of Kilobites per subscription, per month), and the overall quality of transport infrastructure.

Switzerland attains the highest aggregate score on the infrastructure element. It is followed by Denmark and Finland. These three countries are the only ones attaining a score above 70/100. Other countries that perform relatively well include Sweden, Korea, and France, who attain scores between 60 and 70/100. On the opposite front, Mexico, Colombia, Costa Rica, and Chile still have yet to close significant infrastructure gaps vis-à-vis other OECD countries.

Figure 3.9. Infrastructure element scores by country and year



Note: These scores are computed as the geometric mean for countries across the following indicators: i.) Fix broadband, subscriptions per 100 population, Source: OECD - Telecommunications database, iii.) Mobile data use, Gb/per subscription/month, Source: OECD – Broadband and telecommunications database; iv.) Transport infrastructure quality index, Source: World Bank - Logistic Performance Index (LPI). Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

On average, most countries are improving their performance over time, especially thanks to greater use of IT services and infrastructure. Improvements, however, vary considerably across countries. Some countries upgrade their scores very little, other have made important strides. For example, in the case of Chile and Türkiye, improvements have started to close the gap between these countries and the average OECD level, compared to the 2016-2020 period.

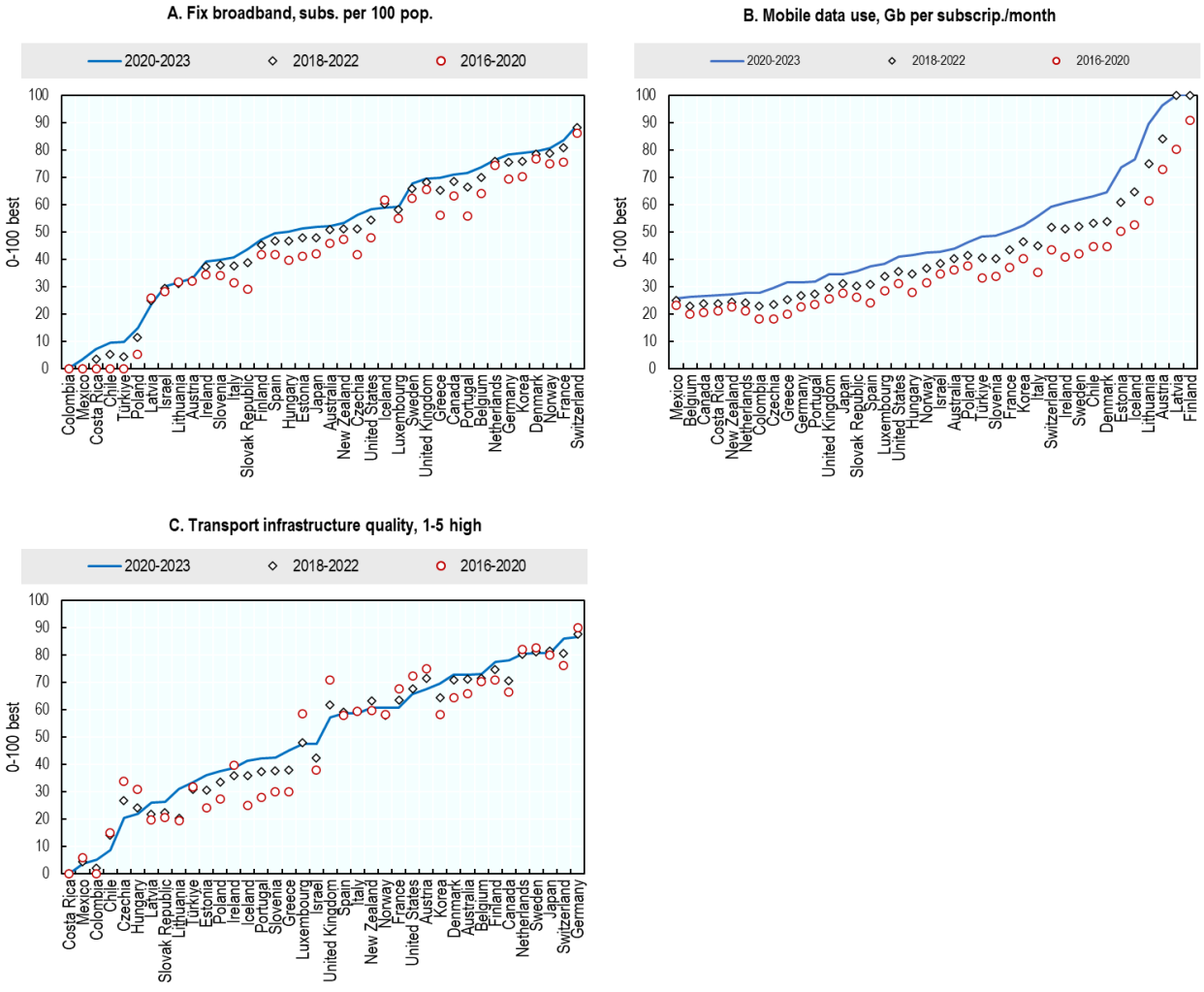
Looking at the indicators composing the element score, the use of fixed broadbands and mobile data do not always go hand in hand. Only Denmark and to a lesser extent Switzerland attain high scores on both aspects. France, and Norway instead attains the highest scores among OECD countries on the use of fixed broadband but are less advanced on the use of mobile data. The countries leading on the use of mobile data include Austria, Estonia, Finland, Iceland, Latvia, Lithuania. All of them feature significantly lower scores on the use of fixed broadband internet, possibly indicating that they rely more on mobile technology than on fixed broadband.

Over time, fixed broadband scores have slightly improved over time for most countries, with Portugal, Czechia, and Slovak Republic recording the most visible increases in scores. More variability is found in terms of mobile data use. This is a dimension where technologies have changed significantly recently, and most countries have increased their scores. Some countries were able to leapfrog while have only marginally improved. Among the countries that improved the most, Lithuania, Iceland, Austria, and Italy have all been able to expand the use of mobile data significantly, while Mexico and New Zealand have improve less than others, the facto losing ground on this technology.

In terms of transport infrastructure quality, Germany, Switzerland, Japan, Sweden, and the Netherlands attain the higher scores among OECD countries, passing the 80/100 mark. On the opposite front Colombia, Mexico, and Costa Rica have yet to bridge important gaps on transport infrastructure with respect most other OECD countries.

Transport quality scores have also shifted in most countries over time. Since the 2016-2020 period about two-thirds of OECD countries have experienced relative improvement in their scores, and roughly one-third of OECD countries have reduced their relative score. Among the countries that improved the most, Iceland, Greece, and Portugal stand out, while among the countries that experienced relatively large declines including Luxembourg, Czechia, and the United Kingdom.

Figure 3.10. Infrastructure sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

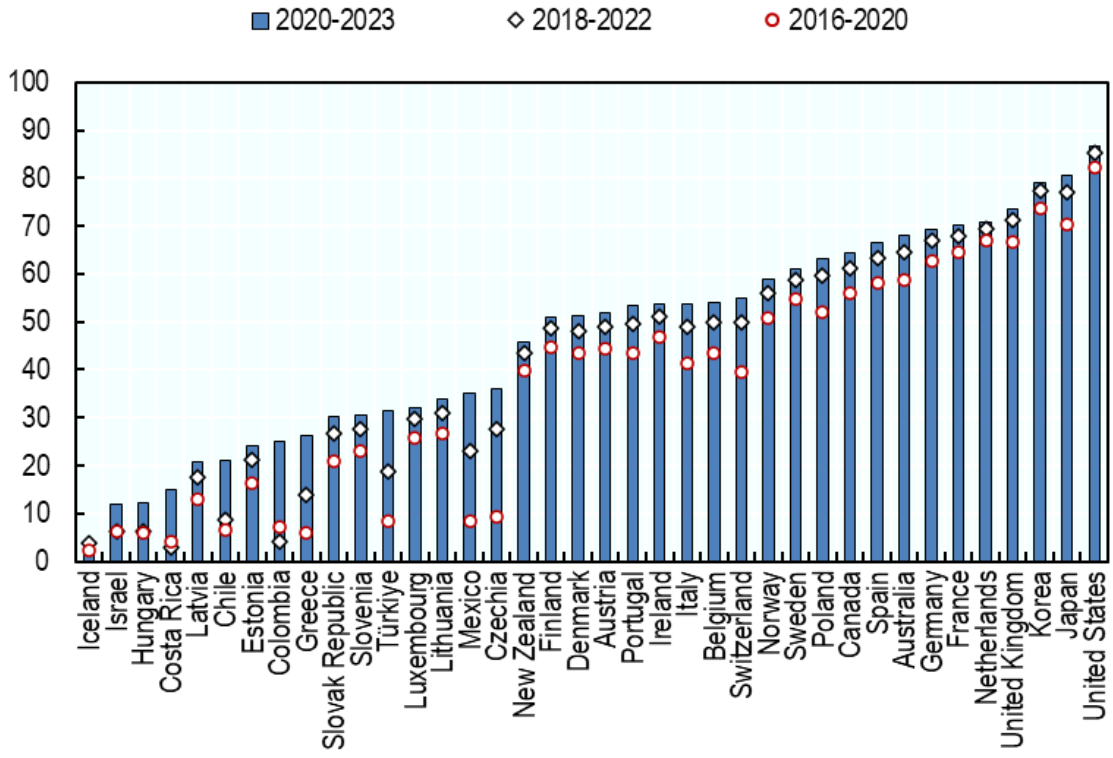
5. Markets

Start-ups and scale-ups often leverage domestic and international demand to take off. Access to a large (domestic and international) customer base, increases the likelihood that these ventures can expand their business. The empirical literature shows that firm entry rates tend to increase in expanding economies. Two indicators are used to measure the Markets element. The total GDP (expressed in Purchasing power parity terms) captures the size of the domestic market both in terms of consumer demand and business-to-business demand, while the trade facilitation index measures the access to foreign markets. To avoid that extremely large differences in total GDP drive the results, GDP values are first transformed to logarithm and then normalised. This allows to reduce the variance across countries while making sure that the larger economies are rewarded for offering significantly more opportunities to businesses and entrepreneurs.

Taking these two factors together, the United States, Japan, Korea are the largest markets among the OECD countries, all attaining a score between 80 and 87/100 (Figure 3.11). On the opposite front, Hungary, Iceland, and Israel have yet to develop their market potential.

Over time, the Markets element scores have improved over time in all countries, driven by GDP growth, better trade facilitation or both. Among them, Czechia, Mexico, Türkiye, and Greece are the countries who have improved the most since the 2016-2020 period, while the United States, Netherlands, and Iceland have improved very little in this time frame.

Figure 3.11. Markets element scores by country and year



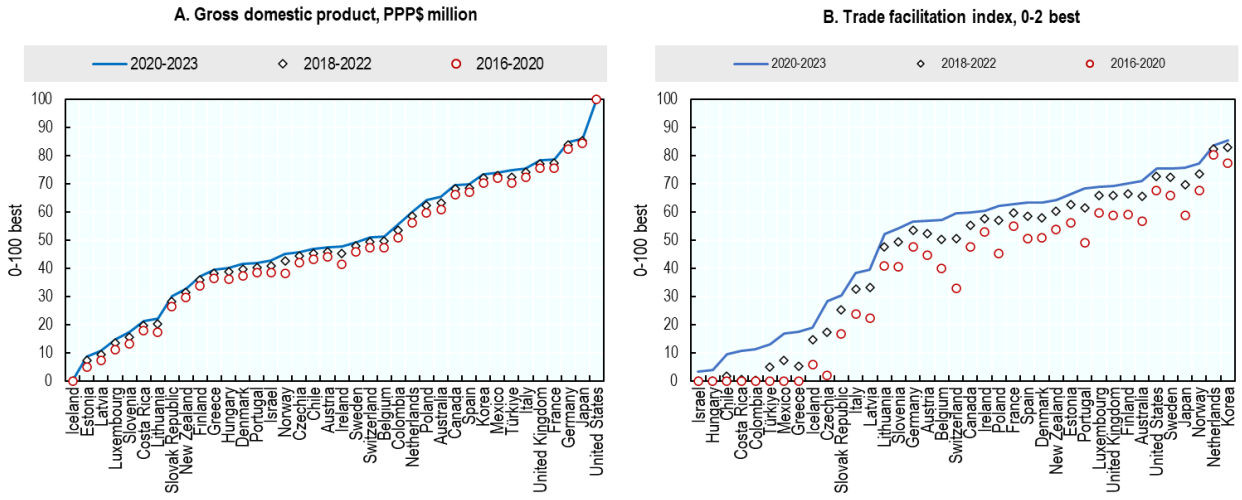
Note: These scores are computed as the geometric mean for countries across the following indicators: i.) GDP, PPP, Source: OECD, ii.) Trade facilitation index, Source: OECD - Trade Facilitation Indicators. GDP data are transformed to logarithms before normalisation. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance the 2020-2023 period.

Among the indicators driving these summary scores (Figure 3.12), GDP rewards large countries such as the United States, Japan, and Germany, while small countries such as Iceland, Estonia and Latvia need to overcome their small domestic market size to offer comparable opportunities to their start-ups. GDP growth has been slow but positive in all countries after the pandemic which explains why all countries scores have improved, albeit to different extents. Norway, Ireland, and, to a lesser extent Türkiye are the countries that have managed to improve their GDP scores relatively more than others in this period, while the scores of United States, Japan and Iceland have barely moved, due to their already high/low position in the ranking.

In terms of international markets, Korea and the Netherlands stand out as countries with the most favourable to border procedures. They attain scores above 80/100, and their followed by Norway, Japan, Sweden, the United States, and Australia who achieve scores between 70 and 77/100. On the opposite front Israel, Hungary and Chile are the countries that have in place more challenging border controls, which constrain markets given the small size of the domestic economies.

Most OECD countries have been improving border access over the past few years. Notably Switzerland, Czechia and Portugal have improved border access scores significantly more than other countries, while Hungary, the Netherlands and Israel have improved little, virtually remaining at the same level as four years ago.

Figure 3.12. Market sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

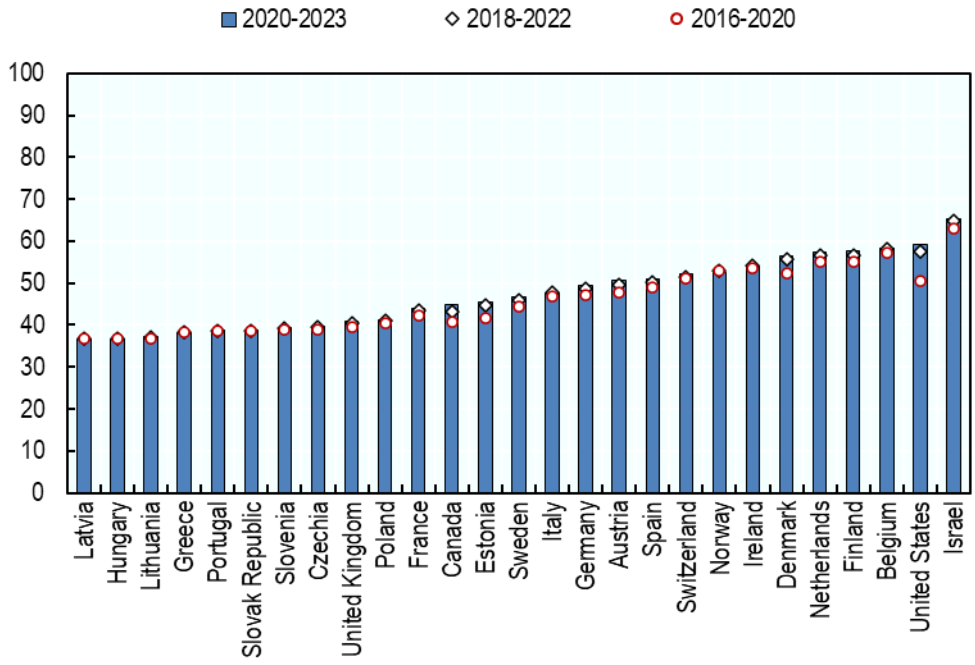
6. Finance

Access to finance is frequently mentioned as a critical challenge for entrepreneurs. Newly-created firms often either lack collateral or have limited credibility to access bank credit or lack a sufficient track record to access equity finance. This matters especially at the pre-seed stage. However, insufficient access to finance can also hit at a later stage, when moving from a small scale to a larger scale can be limited by insufficient funds for investments. Four indicators are used to measure this element, seed-stage venture capital investments per capita, later-stage venture capital investments per capita, SME loans stock per capita, and factoring contract value per capita.

The United States and Israel are the best countries in granting access to capital to SMEs, start-up and scale-up, attaining scores between 60 and 65/100. They are followed by Belgium, Finland, and Netherlands, but the composition of their elements scores are different. The United States and Israel excel on venture capital investments but perform significantly less well on more traditional bank credit and factoring services. On the contrary, Belgium, Finland and the Netherland perform significantly less well on venture capital investments but offers SMEs financial access through factoring and loans.

Performances have remained stable over time for most countries, with only Denmark and the United States improving their performance since 2016-2020 period.

Figure 3.13. Finance element scores by country and year



Note: These scores are computed as the geometric mean for countries across the following indicators: i. Seed VC investment per thousand pop. Source: OECD Entrepreneurship Financing Database; ii. Growth start-up VC investments per thousand pop., Source: OECD Entrepreneurship Financing Database; Factoring, thousands USD per capita; iii. Outstanding loans to SMEs, thousands USD per capita, Source: OECD Financing SMEs and Entrepreneurs: An OECD Scoreboard, iv. Factoring value, USD per capita, Source: OECD Financing SMEs and Entrepreneurs: An OECD Scoreboard. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance the 2020-2023 period.

In terms of early-stage venture capital, Israel and the United States are the countries where investments per capita are at the highest by far, attaining a score over 98/100. The next two countries, Luxembourg and Canada, attain scores between 60 and 65, while Estonia, the last country in the top 5, achieves a score of 52/100. Notably these five countries are also those where venture capital (VC) investments per capita scores increased the most over the past four years. In most other countries, scores increased but by a significantly smaller margin.

Investments in later-stage venture capital follow a similar pattern, but with even larger gaps between the top two countries and other economies. On this particular segment both Israel and the United States achieve a score of 100/100, while Canada, Sweden and Denmark, the other three countries in the top 5 attain scores between 49 and 56/100. Differently to early-stage investments, however, the countries that

have improved their scores the most on later-stage venture capital investments include both top countries (the United States, Canada and Sweden), but also countries that have attained lower scores such as Austria and Estonia. More generally, most countries have improved on this dimension, except Norway and Slovenia.

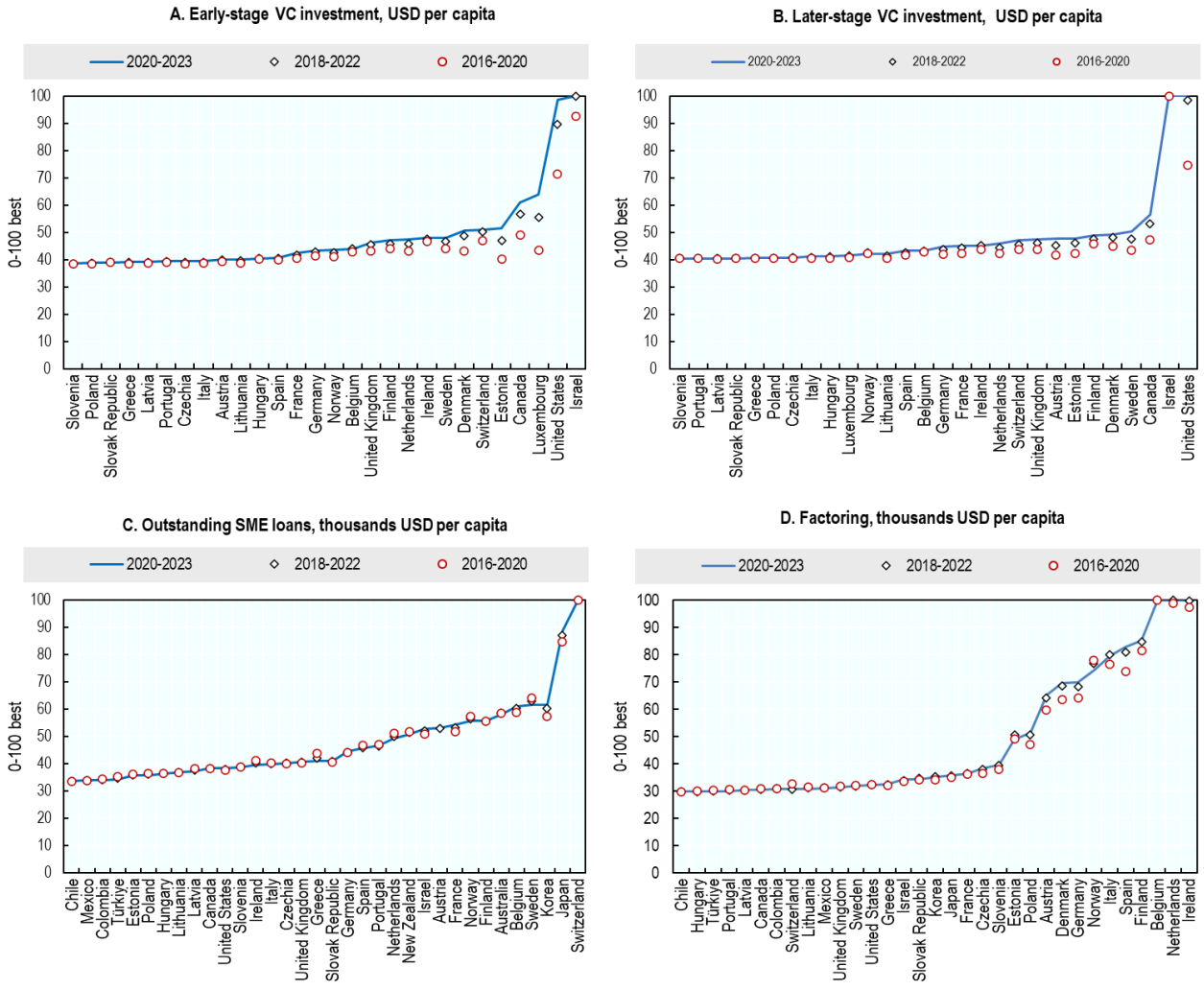
In addition to venture capital, the element also measures financial aspects that are less relevant to start-ups who growth through venture capital runaways, but are important to start-ups who need access to more traditional types of finance such as loans and factoring to expand.

In terms of SME loans (as a share of the population), Switzerland is the country who provides a higher volume of loans to SMEs, proportional to its population, resulting in the top score (100/100). It is followed by Japan with a score of 89/100, as well as Korea, Sweden, and Belgium with scores between 60 and 62/100. Notably, in less developed countries such as Chile, Mexico, Colombia and Türkiye access to bank credit remains significantly more difficult than in other OECD countries. These conditions have not changed significantly over time, however, about half of OECD countries have seen an increase of their scores or remained stable on this indicator, while the other half has seen a reduction in scores. These changes are small and barely visible in absolute term, but they can be important for local entrepreneurs. Among the countries who have changed their SME loans scores the most, Korea, Japan and France scores improved while Denmark, Sweden, and Greece scores have contracted.

Looking at factoring (as a share of the population), Belgium, Ireland, and the Netherlands who use this instrument the most, registering a score of 100/100. They are followed by Finland, Spain, and Italy with scores between 80 and 85/100. On the opposite front, Türkiye, Hungary, and Chile are the countries where factoring is less used. Notably, in Israel and the United States, two of the top countries on the finance element, factoring scores are below the OECD average.

Over the time frame considered, factoring scores have increased or remained stable in about two-thirds of OECD countries, and declined in one third of the countries. Countries that have registered the most important scores increase include Spain, Denmark, Germany, and Austria; while in Switzerland and Norway are the countries where factoring scores have decreased the most in the period considered.

Figure 3.14. Finance sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

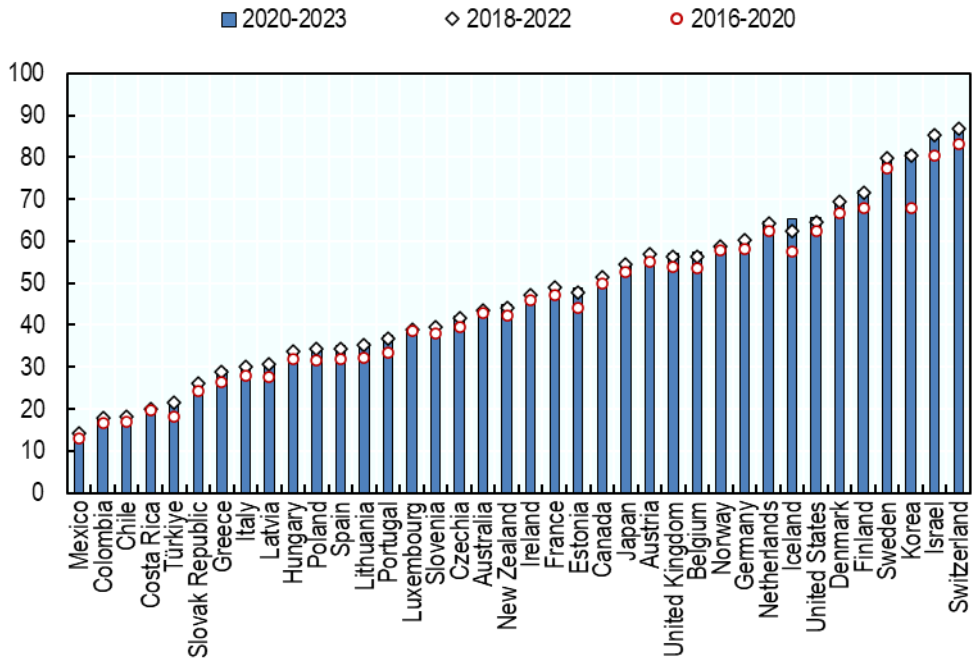
7. Knowledge

The availability of a substantial knowledge base is a necessary condition for entrepreneurs to turn ideas and research outcomes into new and innovative commercial products and services. To measure the knowledge base, this element includes R&D expenditure (as a share of GDP), patents (per capita), and GitHub software uploads (per thousand people).

With scores between 80 and 87, Korea, Israel and Switzerland, are the OECD countries with the largest accumulation of knowledge and intangible assets, relative to the size of the countries (Figure 3.15). Sweden, Finland, and Denmark follow suit with scores between 69 and 80/100, just above the United States who attain a score of 65/100.

Among the top countries, Korea (since 2016-2020 period) increased its performance remarkably, while Israel and Switzerland improved as well but much less. Beyond the top performers, Iceland, Estonia, and Portugal have also managed to marginally improve their relative scores over time, while the scores of most other countries have remained substantially stable.

Figure 3.15. Knowledge element scores by country and year

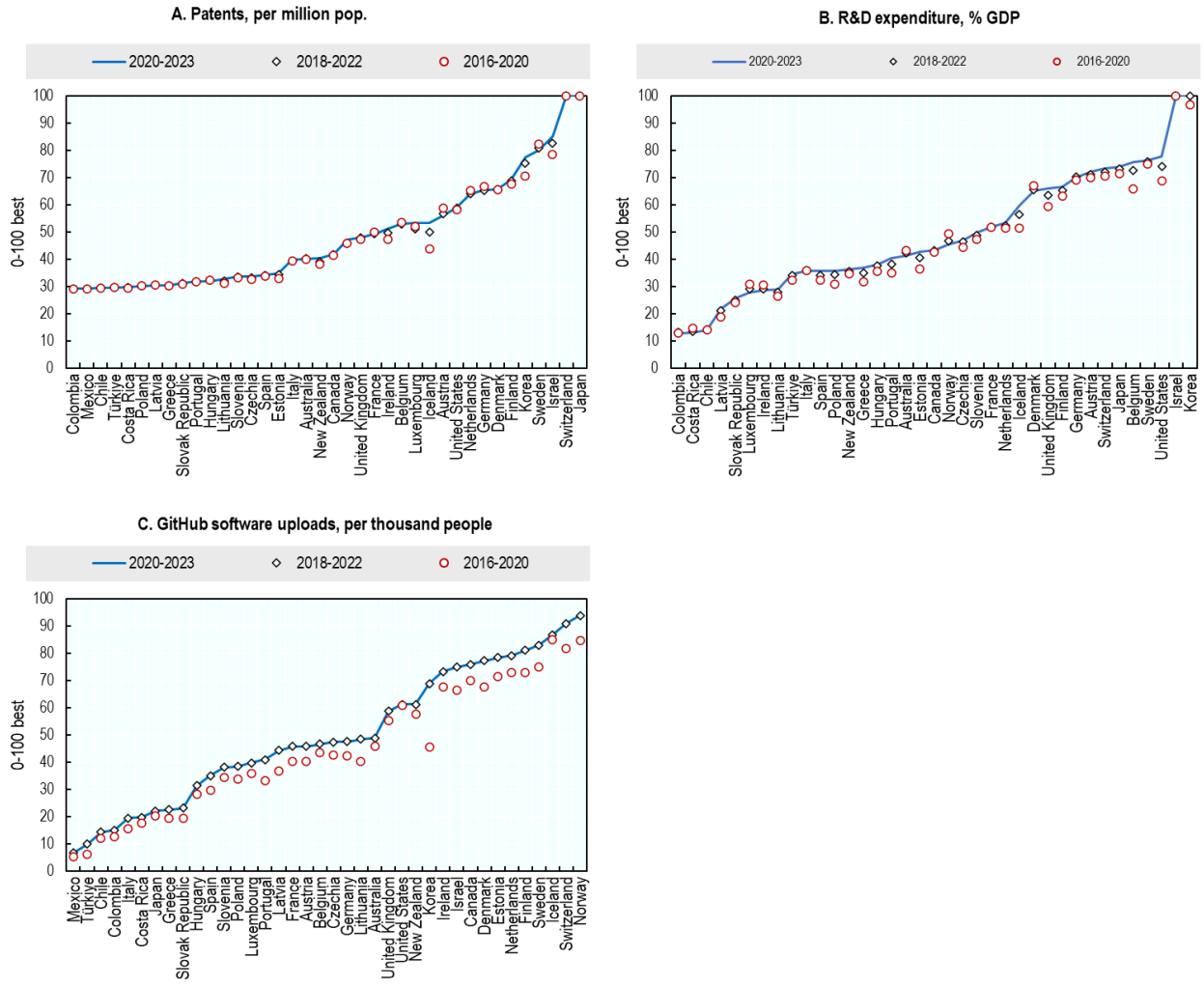


Note: These scores are computed as the geometric mean for countries across the following indicators: i.) Patents, per million population, Source: OECD - Main Science and Technology Indicators, ii.) R&D expenditure, % GDP, Source: OECD - Main Science and Technology Indicators; iii.) GitHub software uploads, per thousand people, Source: GitHub. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance the 2020-2023 period.

Among the sub-element indicators that compose the element's score two have remained virtually stable over time (Figure 3.16), pointing to structural differences across countries in their capacity to produce and accumulate knowledge over time. One indicator, measuring software production has instead increased over time for most OECD countries.

In terms of patent production, Switzerland and Japan, are in per capita terms the best positioned among OECD countries, attaining scores 15-25 points above those of Israel, Sweden and Korea. In per capita terms, these countries are also 40 points higher than the United States and Germany, which are regarded as innovation hubs, with a high share of total patents worldwide. In terms of R&D expenditure, another two relatively small economies, Israel and Korea, attain the highest scores among the OECD member countries. They are followed by the United States, with a score about 20 points below those of the top two countries, and Sweden, Belgium, Japan and Switzerland, with scores approximately 25 points lower. In terms of software production, Norway and Switzerland attain the two highest scores (both above 90/100), and they are followed closely by other Nordic countries (Iceland, Estonia, Denmark, Finland and Sweden), as well as Canada and Israel, all attaining scores between 75 and 90/100. These results show how some of the most entrepreneurial and innovative countries benefit from having a strong knowledge backbone.

Figure 3.16. Knowledge sub-element scores by country and year



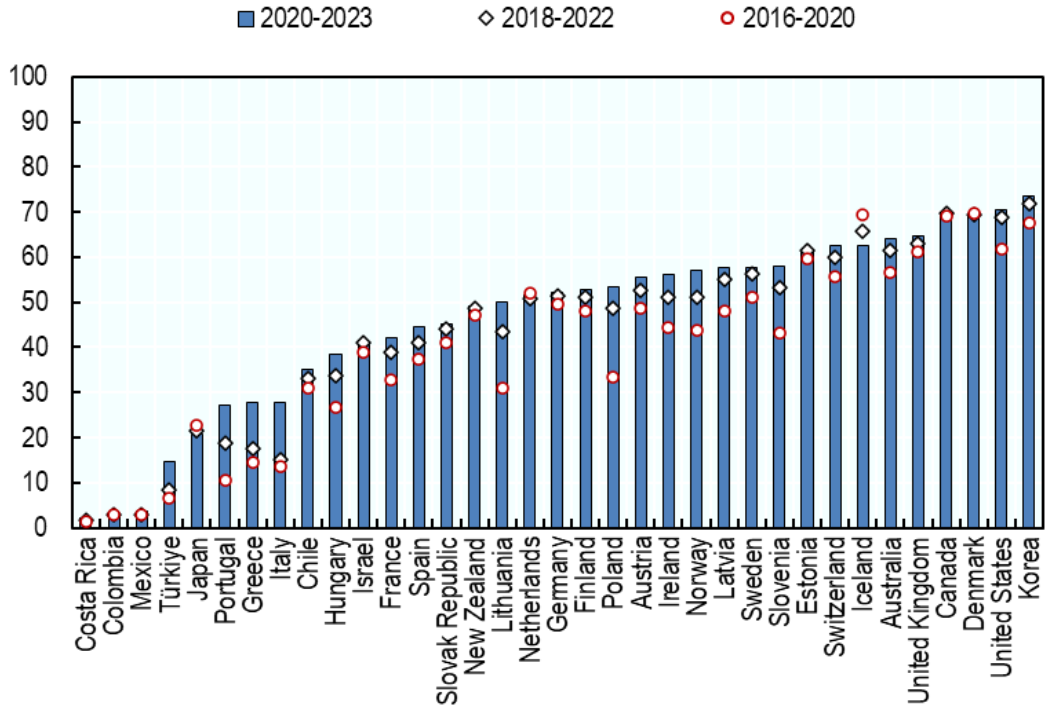
Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

8. Talent

Talent is another critical element in entrepreneurial ecosystems, both in terms of available entrepreneurial skills as well as broader technical skills available in the domestic labour market that start-up and scale-up businesses can tap into for their development. The element is measured through four indicators, a measure of perceived entrepreneurial capabilities (the percentage of adults who believe they have the skills necessary to start a business), two measures of average person education level and quality (mean years of schooling, and OECD PISA scores) and one proxy measure of digital skills (internet users as a share of total population).

Korea, the United States, Denmark and Canada are the best positioned countries on the Talent element, with scores above 69/100. Other strong performers are Estonia, Switzerland, Iceland, Australia, and the United Kingdom, which all achieve scores between 60 and 65/100.

Figure 3.17. Talent element scores by country and year



Note: These scores are computed as the geometric mean for countries across the following indicators: i.) Mean years of schooling, Source: UNESCO, ii.) Average of Math, Reading, and Science Pisa scores, Source: OECD; iii.) Percentage of 18-64 population who believe they have the required skills and knowledge to start a business, Source: Global Entrepreneurship Monitor (GEM); iv) Internet users, % of the population, Source: World Bank, World Development Indicators. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

Among the top-performing countries, Korea and the United Staes have increased their relative scores over the past four years, while other countries, have remained stable or slightly declined, leading Korea to attain the highest score in the latest iteration of the tool. Other countries who have increased their scores substantially over the past four years are Lithuania, Poland, Portugal and Slovenia. On the opposite front, Iceland is the country who has moved backwards the most, while Japan and the Netherlands' score declined only marginally.

Looking at the indicators composing the element, Mean years of schooling scores features\ Germany as the country attaining the top score (83/100). It is followed by Canada, Switzerland, Iceland, Korea, the United States, Estonia, and Lithuania all achieving scores between 70 and 77/100. On the opposite front, Mexico, Colombia, Costa Rica, and Türkiye, still attain much lower education participation than most other OECD countries, explaining their lower scores. Countries have maintained stable performances on this indicator over the past four years, yet Spain, Portugal, and Australia managed to improve relatively more than other countries.

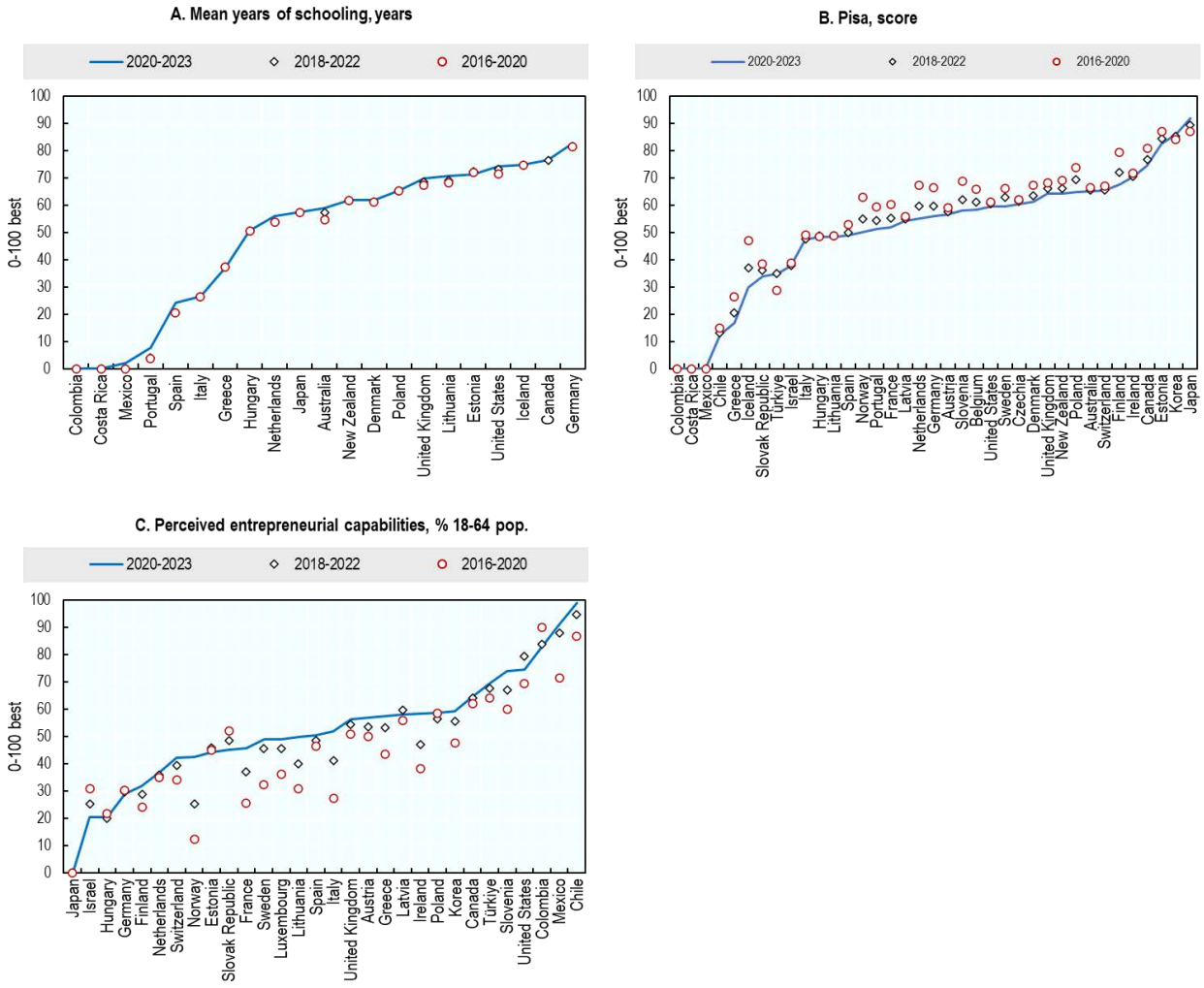
While means years of school measures the quantity of education, Pisa scores aim at measuring quality of educational attainment. On this aspect, the best positioned country is Japan, attaining a score above

90/100, followed by Korea and Estonia who attain scores between 80 and 86/100. On the opposite side, Costa Rica, Colombia, and Mexico have yet to close important educational gaps relative to OECD performances on this aspect. Notably, most OECD countries have reduced their scores over time, which indicates a worsening of student skills learnt in school. Countries that have seen a larger reduction of scores relative to other OECD members are Germany, Slovenia, Finland, the Netherlands, Norway, and Iceland. While most countries scores decline three countries (Türkiye, Japan, and Korea) increased their scores, albeit starting from different bases.

Moving to digital skills, as measures in terms of internet users (as a share of the total population), Iceland, Luxembourg, and Denmark achieve the highest scores ranging between 80 and 87/100. Norway, Korea, the United States, Switzerland, and New Zealand also perform well with score above 70/100. With the share of people using the internet close set above 90% in several OECD countries, having relatively lower shares of the population using the internet results in low scores. This is the case of Italy, Colombia, and Mexico, where internet users are below 80% of the population, explaining their performance. Another factor penalising slow adopters of digitalisation is the rapid increase in the use of digital technologies in virtually all OECD countries. Among the, Hungary, Slovenia, and Poland are some of the countries that increased their score the most since the 2016-2020 period edition, while Japan, in relative terms, moved backwards.

The last aspect composing the Talent element is the perceived entrepreneurial capabilities among the adult population. Chile and Mexico, with scores above 90/100 are the best performers on this dimension. Another two countries that have registered a strong performance, with scores between 74 and 85/100, are the United States, and Slovenia. Japan instead is the country where entrepreneurial capabilities perceptions are the lowest. These data are subject to some degree of variability, which, in most cases pointed towards an improvement over time. Notably, Norway, Italy and France scores have improved throughout the periods considered. Among the few countries where perception decreased over the period considered, Colombia, Slovak Republic and Israel registered the largest score reductions.

Figure 3.18. Talent sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

9. Leadership

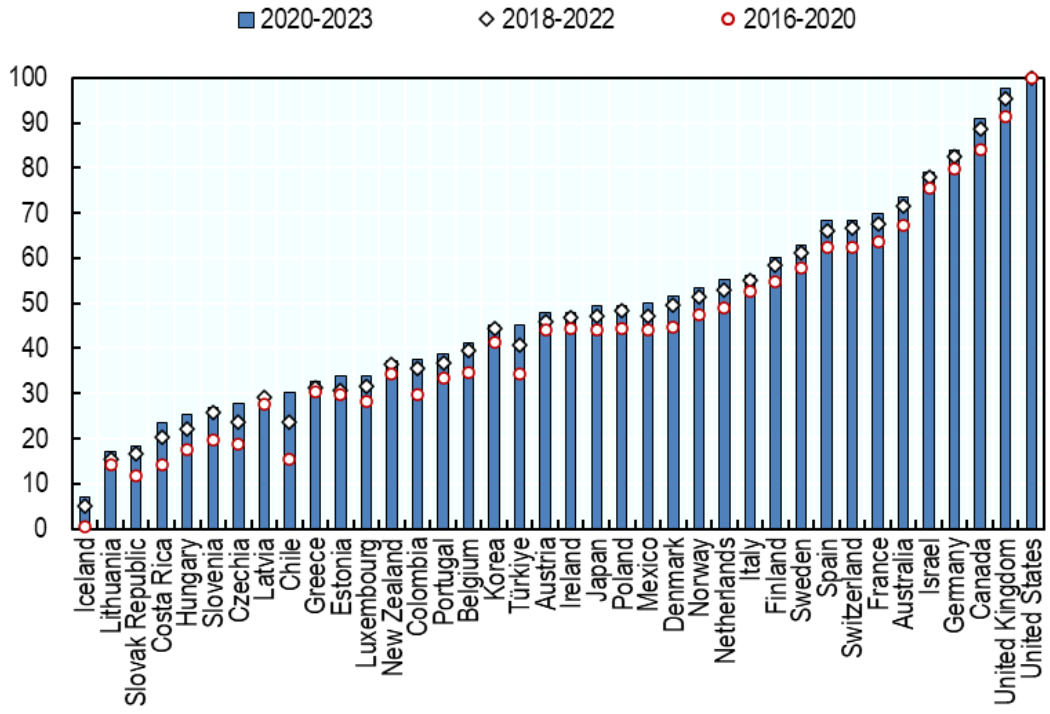
Founders of start-ups and scale-ups can benefit significantly from exchanges with former entrepreneurs who can guide them on how to improve their business ideas, and sometimes connect them to other relevant stakeholders, including investors. These experts can often take on the role of mentors, and their leadership is highly regarded by entrepreneurs. They can also be a source of inspiration for aspiring entrepreneurs and the presence of these leaders can sometimes make the difference between successful and unsuccessful ventures. The elements are measured in terms of number of serial entrepreneurs active in a country. There is only one indicator in this element. This indicator is expressed in total count rather than as a ratio to the total population. This is because the number of leaders do not need to increase linearly with the total population for a country to have a sufficient leadership base. Also, it can be argued that countries where a critical mass of leaders is present can be better positioned to sort inspirational and

vision-setting on other aspiring entrepreneurs. However, to avoid over-rewarding larger countries, a logarithm of the moving average value is applied before computing the normalised score.

The United States and the United Kingdom are the two countries with the highest numbers of these leaders available to entrepreneurs. They are followed by Canada and Germany. These four countries all attain scores between 84 and 100.

These scores have changed little over time among the top countries. However, among all other countries there have been a general increase in the availability of serial entrepreneurs. Among the countries who increased their scores the most Chile and Türkiye stand out, while also Costa Rica and Czechia have registered significant improvements. Nonetheless, the gaps between countries remain large, indicating that developing new leaders, and making them available to entrepreneurs and start-up founders takes time, and may require significant efforts.

Figure 3.19. Leadership element scores by country and year



Note: These scores correspond to the normalised values of the number of serial entrepreneurs total count. Source: Crunchbase and OECD. Values are transformed to logarithms before normalisation. Data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

10. Intermediate services

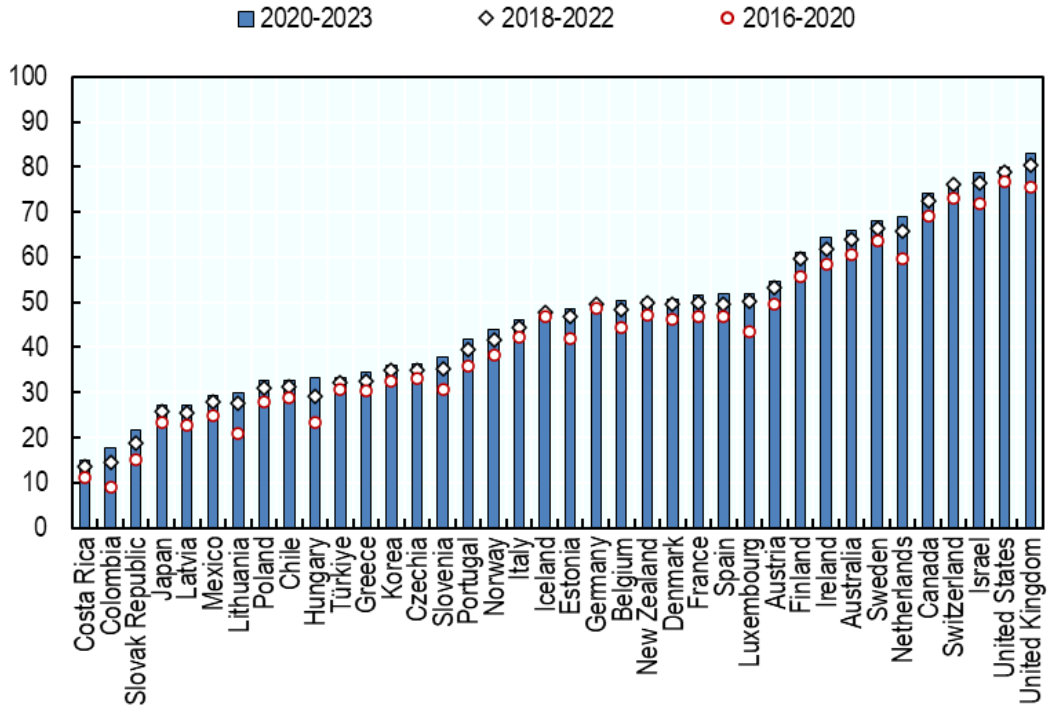
The availability of intermediate business services can play a role in reducing barriers to entry for entrepreneurs, helping them to channel their efforts and supporting them with improved marketing, pitching, network building, and connections with investors and customers. This element is measured with three indicators, the number of active incubators and accelerators (per million population), the number of available coaches or mentors, and the share of technical employees to total workers, a proxy measure for availability of experts in technical domains. Among these measures the number of coaches and mentors is expressed in absolute terms. Similarly to the logic applied to leaders, a countries' number of coaches

and mentors does not need to increase linearly with the population, and the availability of a critical mass of these experts plays an important role in offering help to aspiring and emerging entrepreneurs. However, to reduce cross-country variance, a logarithmic transformation is applied before computing the normalised score of this indicator.

The United Kingdom, the United States with scores between 79 and 83 are the countries with the most intermediate services available to entrepreneurs. Israel, Switzerland and Canada follow suit, with scores above 70/100.

These scores have remained essentially the same throughout the periods considered period, with no countries registering even marginal declines, while Lithuania, Netherlands, and Hungary managed to improve their scores relatively more than other countries.

Figure 3.20. Intermediate services element scores by country and year



Note: These scores are computed as the geometric mean for countries across the following indicators: i.) Number of incubators, accelerators and start-up support programmes per capita, Source: Crunchbase and OECD, ii.) Technical employment, % total employment, Source: OECD; iii. Coaches and mentors total count. Source: Crunchbase and OECD. Coaches and mentors values are transformed to logarithms before normalisation. Before aggregation, data are normalised using a min-max transformations where the max/min are equal to the sample mean +/- 2*sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 and 2018-2022 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

One of the critical services to start-ups are those provided by incubators and accelerators. On this aspect, Luxembourg and Iceland are the countries with the highest number of incubators relative to the population, resulting in top scores. They are followed by Switzerland, Israel, and Estonia with scores above 80/100. Most OECD countries have gradually improved their supply of incubations and acceleration services over time, resulting in slightly higher scores for all but two OECD countries, while Lithuania, Switzerland, and Luxembourg are those who progressed the most in the period considered.

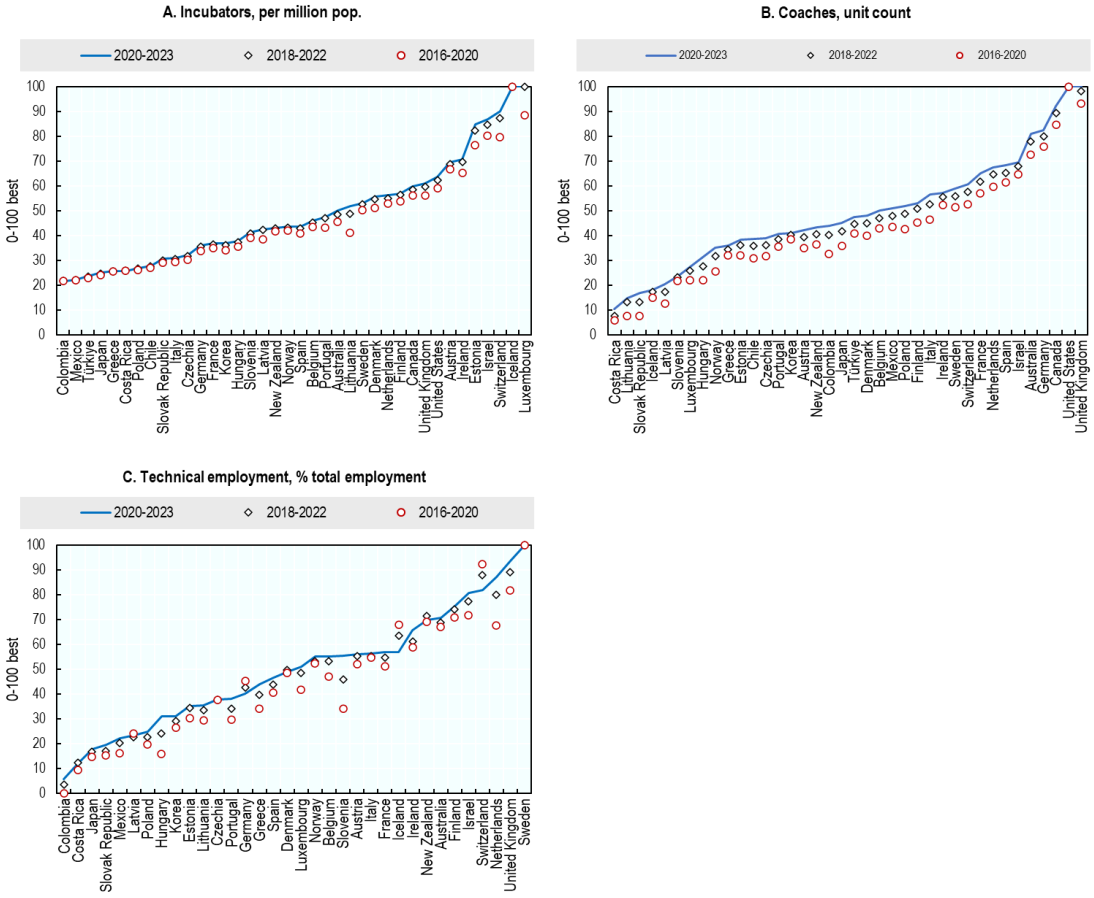
Complementary to incubation services, the availability of coaches and mentors plays an important role in supporting start-ups development. On this aspect, the highest availability of coaches and mentors is found

in United States, United Kingdom, and to a lesser extent Canada. All these countries attain scores above 90/100. In Lithuania and Costa Rica, instead, finding good mentors and coaches is significantly more difficult. However, the availability of this professionals is on the rise in all OECD countries, with particularly notable increases in Colombia, Italy, and Norway.

A further type of intermediate services to start-ups and entrepreneurs are those provided by technical experts (e.g. lawyers, IT technicians, accountants, etc.). Sweden and the United Kingdom are the countries with a relatively higher incidence of these experts, making it easier to access them. As a result, these countries attain the highest scores on this aspect, with values above 90/100. Other countries who perform well are Netherlands, Switzerland, and Israel with scores above 80/100.

In terms of technical employment, Belgium and Japan achieve the same very high score as Luxembourg, followed by Switzerland, the United Kingdom, and the Netherlands which register scores of between 75 and 78/100. Although technical employment incidence is a structural feature of countries' economies, there has been some variability over the past years. Notably Slovenia, Netherlands, Hungary, and the United Kingdom have increased their relative score on this indicator, while Germany, Switzerland, and Iceland registered lower scores in the 2020-2023 period compared to previous instances.

Figure 3.21. Intermediate services sub-element scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

Performance on entrepreneurship outputs

In this section, countries are benchmarked on entrepreneurial ecosystem outputs in terms of enterprise creation, growth and survival. The presented indicators report statistics as normalised scores of moving averaged data. Normalised scores are useful for benchmarking the performance of countries vis-a-vis others, and since these scores are anchored to the distribution of values in the latest iteration of the tool covering the period 2020-2023, they also enable a comparison of progress over time. The key entrepreneurship data underlying these statistics are reported in Tables B.1 – B.3 of the Annex data for the most recent datapoint available for each indicator and country.

Early-stage entrepreneurship

This section provides the diagnostic of four early-stage entrepreneurship output measures: Birth rate of employer enterprises as a share of active businesses; Medium and high growth enterprises, which is the incidence of firms that grow their employment base rapidly, as a share of employer enterprises; Equity-based young firms per million population, measured as the number of companies newly registered in Crunchbase, with an emphasis on more innovative and venture capital ready enterprises; and the number of Unicorns per million population, i.e. new companies with over one million dollars market capitalisation.

The first two indicators (birth rate of employer enterprises and incidence of high growth firms) represent broader measures of entrepreneurship, whereas the latter two (emerging start-ups, unicorns) tend to pick up more innovative, venture-backed start-up enterprises. The performance of the countries varies by these two categories of indicators.

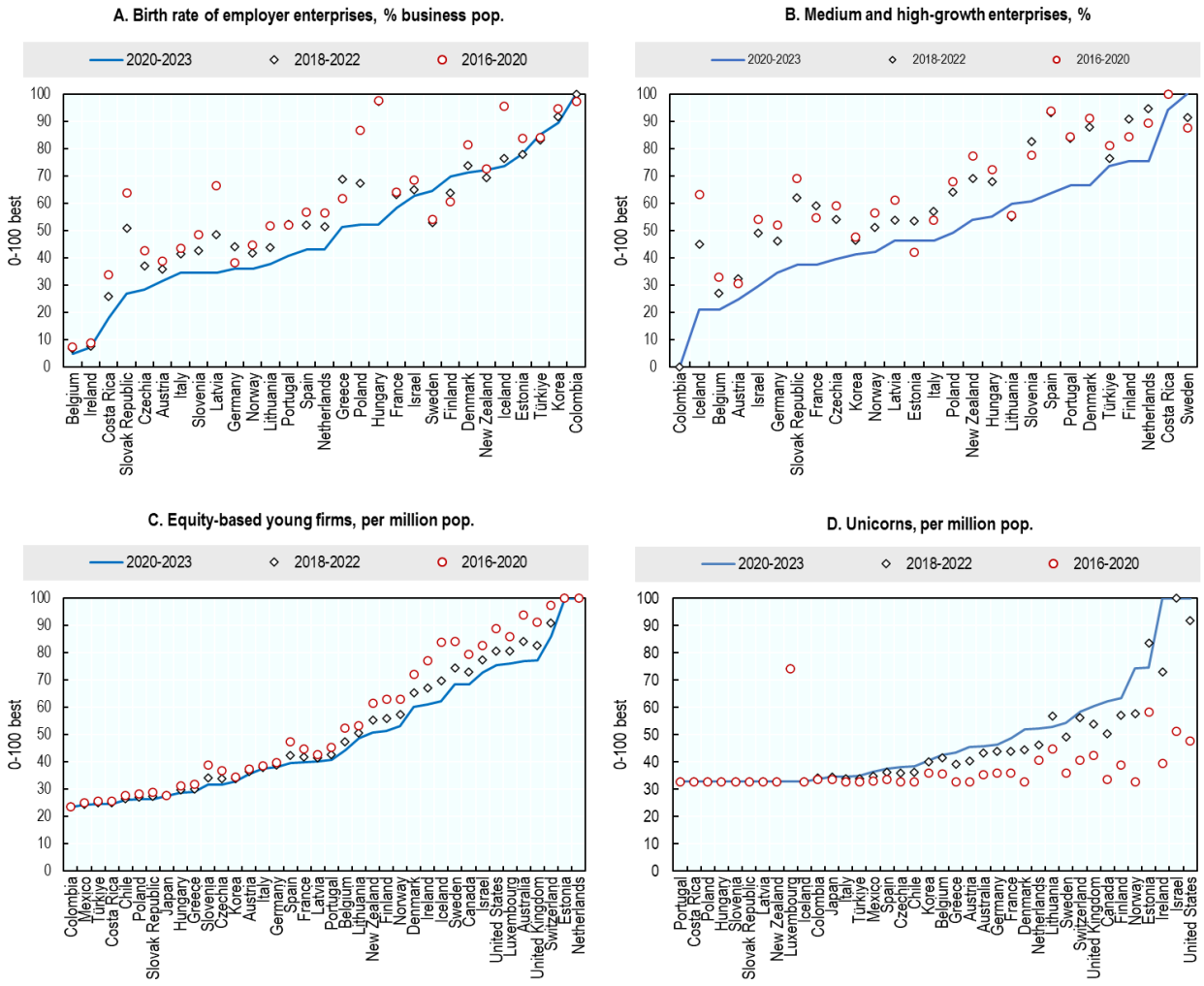
Figure 3.22 shows the normalised country scores on these indicators from 0-100, country rankings (from left to right of the charts) and changes over time.

Countries such as Colombia, Costa Rica and Türkiye have high performance on the more general measures (Panels A and B). These countries are doing well at getting large numbers of business starts and, in some cases, also to expand them in terms of headcounts. However, when more specific and sophisticated types of start-ups are investigated, in terms of the more innovation, equity seeking and growth-oriented companies captured in the Crunchbase database (Panel C), the countries attaining the highest scores (in per capita terms) are Netherlands, Estonia, and Switzerland. They are closely followed by the United Kingdom, Australia, Luxembourg, the United States and Israel. In the most extreme case, when the focus is only on a very specific subset of the highest growth entrepreneurial ventures of unicorns per capita population (Panel D), the United States, Israel and Ireland, and to a lesser extent Estonia, Norway and Finland stand out.

There are some significant changes over time in particular countries in many of these rates. Notably, in three out of four of these entrepreneurship outcomes, most OECD countries scores register a declining trend when compared to the 2020-2023 period, indicating a possible decline in entrepreneurial dynamism in this period. One possible explanation is the 2020-2023 data contain post-pandemic statistics, which registered a decline of business creation and growth, while the 2016-2020 and the 2018-2022 periods contain a mix of pre- and post-pandemic statistics. The registered decline in available statistics can thus be temporary, but it will be important to continue monitoring the evolution of these indicators to evaluate potential permanent effects in these trends.

The evolution of Unicorns scores (Figure 3.22, Panel D), however, in contrast with the indicators in panel A, B, and C presents an increase in several OECD countries. The upward trend appears more pronounced among top countries and subdued in countries where few unicorns are created. This dynamic highlights increasing concentration of unicorns creation in specific countries who act as hubs for the development of these types of venture. As a results gaps between top and less advanced ecosystems are widening with respect to large-capitalised start-ups.

Figure 3.22. Early stage entrepreneurship outputs – scores by country and year



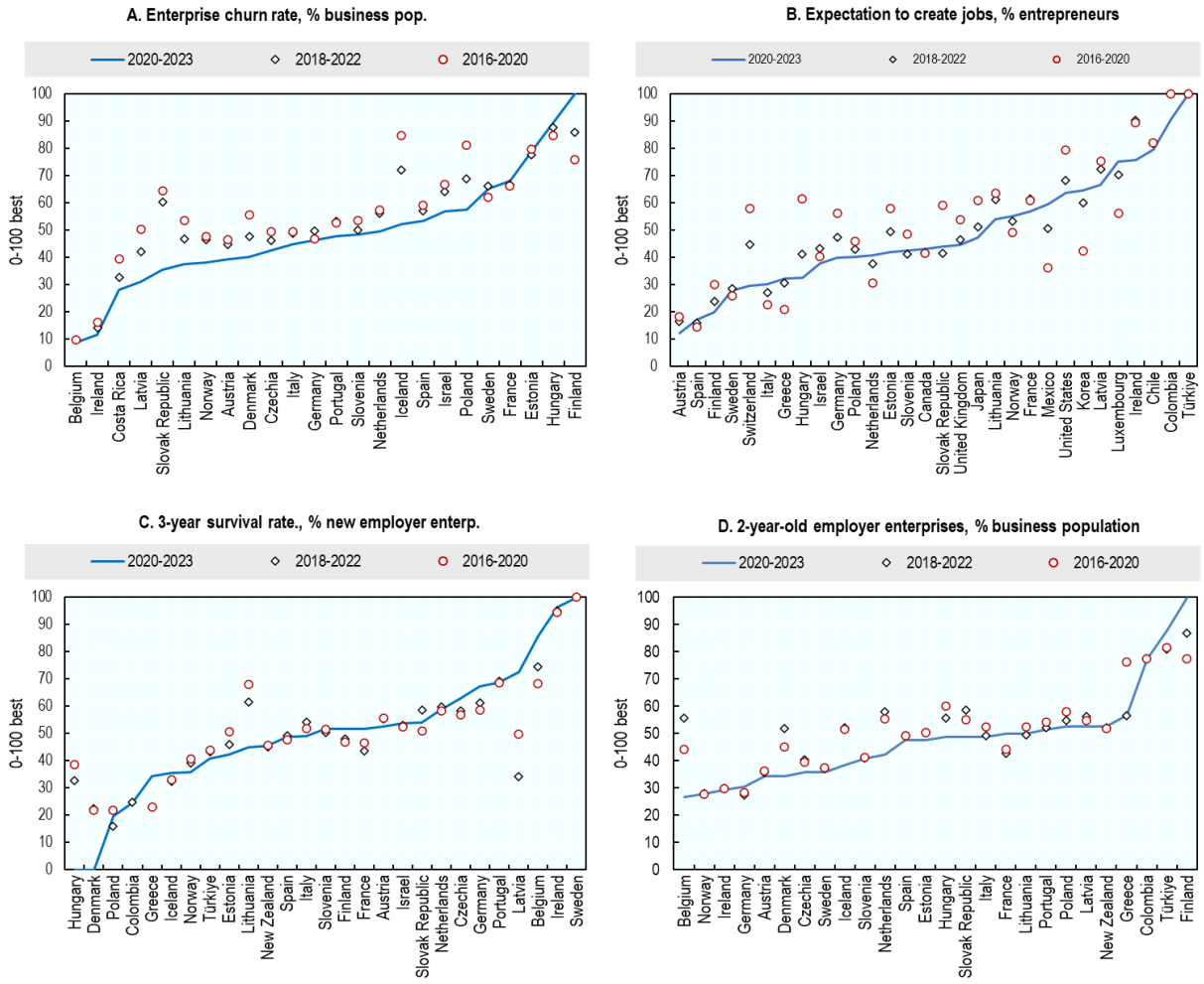
Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

Survival and dynamism

Figure 3.23 gives a second set of entrepreneurship output metrics more focused on enterprise survival and evolution. These measures are: the churn rate of employer enterprises (Panel A), the entrepreneurs expectations to create jobs (Panel B), the survival rate after 3 years from incorporation of employer enterprises (Panel C), and the share of employers enterprises that are at least 2-years old (Panel D).

All these metrics focus on more general types of entrepreneurial ventures, not only the most innovative ones, and aim at capturing the capacity of these firms to remain on the market, expand and employ workers.

Figure 3.23. Survival and dynamism outputs – scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

Churn rates (Panel A), combining entries and exits, show one specific aspect of an ecosystem vitality. Here, the most business dynamic country is Finland, followed by Hungary and Estonia, and one step forward down, also by France and Sweden. Over time churn rates have tended to decline in countries where time series were available. While, this can still partially reflect the effect of the pandemic, it is another indication of a reduced business dynamism in the post-pandemic period.

In terms of expectations to create jobs (Panel B) the top countries include Colombia, Türkiye, Chile, Luxembourg, and Ireland. They are followed by Mexico, the United States, Korea, and Latvia. These results suggest that employment growth can be driven by different types of entrepreneurial ventures, but in all cases job creation is an important sign of entrepreneurial dynamism. On this aspect, variations over time are somewhat more volatile and do not affect all countries in the same way. Among the countries where expectation have improved the most in the period considered, Mexico, Korea, Luxembourg stand out, while Germany, Switzerland, and Hungary are the countries where scores have declined the most.

In terms of start-up survival rates (Panel C), the highest share by far is found in Sweden, closely followed by Ireland and Belgium. All these countries' scores are between 76 and 89/100. Latvia, Portugal, and Germany are next with scores between 64 and 67/100. Most OECD countries' performances have remained stable over time, but there are some notable exceptions. Hungary, Lithuania and Denmark have registered the most noticeable declines, while Greece, Belgium, and Latvia are those who have increased their scores the most in the period considered.

2-years old employer firms (Panel D) are also partially related to survival but focus the attention of the incidence of young firm on the total population of firms. On this element Finland reaches the highest score among OECD countries. It is followed by Türkiye and Colombia. The shares are significantly lower after the top 3, indicating a particularly high incidence of young firms on these economies, which however, does not distinguish between highly innovative and more traditional young firms. These scores have remained mostly stable in OECD countries, with Finland being the only country registering an outstanding upward swing, while Denmark, Hungary, Netherlands, Iceland, Belgium, and Greece are the countries where scores reduced the most in the period considered.

Ecosystem variation

In addition to the national average rates of entrepreneurship presented above, it is important to keep track of the variation within national entrepreneurial ecosystems in terms of geographical concentration and social inclusion in entrepreneurship activity. This section provides this information. The data are useful as an indication of the extent to which the national average entrepreneurship ecosystem conditions reported above are likely to be representative of conditions in the ecosystem sub-systems affecting specific regions and social groups in a country. Strong regional and social heterogeneity is suggestive of a greater need for disaggregated analysis and more differentiated entrepreneurship support policies.

The social variation of the ecosystems is measured in terms of two indicators: the share of women entrepreneurs, founders and CEOs, among the total number of these categories, and the share of "missing entrepreneurs" in each country following the methodology of the OECD/European Union Missing Entrepreneurs work. The variation in terms of regional distribution is measured in terms of the Herfindal index of start-ups by cities as reported by Crunchbase. As per the entrepreneurship output data, the indicators are presented as normalised scores of moving averaged data.

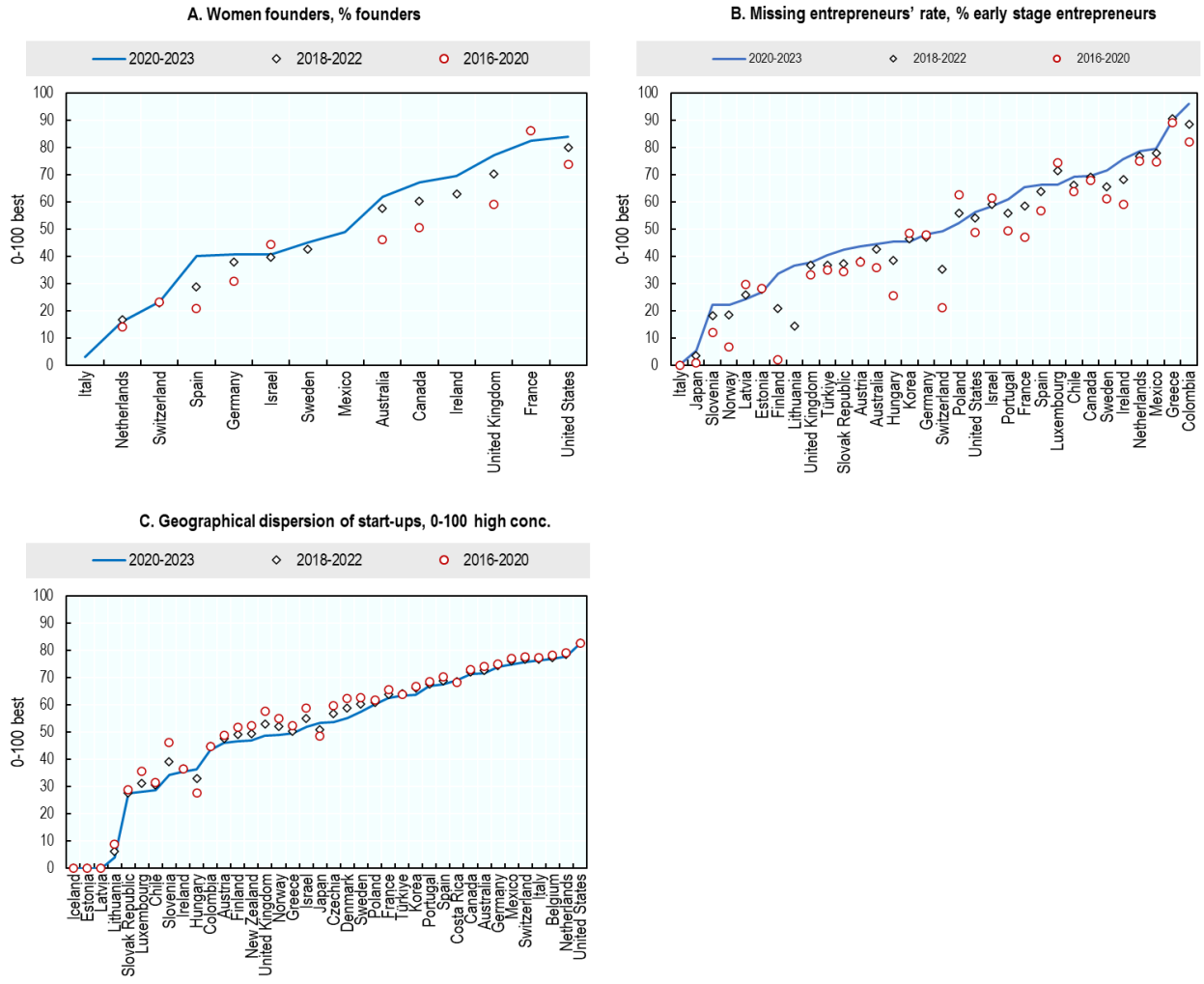
Social variation indicators are picked up in the upper part of Figure 3.24. Panel A reports the 'Missing entrepreneurs' rate. Panel B reports the share of women founders.

The highest level of women founders is in the United States, where almost 27% of start-up founders are women. Other countries with relatively high shares of women founders include France and the United Kingdom, where women represent about 25% of start-up founders. The median level among the few OECD countries for which recent data are available is 18.8%, which shows that women's participation in productive entrepreneurship is still well below that of men. This is also partially reflected in the statistics on the missing entrepreneurs, which capture the extent to which women, youth, seniors, and immigrants are less represented in entrepreneurship activities relative to men of 30-49 years old (the group with the highest entrepreneurship participation rate). To a significant extent differences in women's entrepreneurship rates are also reflected in the missing entrepreneurs rates in countries, given that women generally make up a high share of the missing entrepreneurs. This is the case of Italy, where gender imbalances drive a high rate of missing entrepreneurs. In contrast, countries with relatively homogenous entrepreneurship rates across different social groups are Colombia, Greece, Ireland, Mexico, and Sweden.

There have also been some strong changes in country performance on these variables over time. Spain is the country where women entrepreneurship scores have increased the most, while France and Israel have recoded small but important declines. In terms of the broader set of social groups composing the

missing entrepreneurs, Finland and Switzerland have improved their scores the most, while Poland has moved backwards.

Figure 3.24. Entrepreneurship regional and social variation – scores by country and year



Note: These scores are computed in two steps. In the first step a moving average of the data within each period is calculated. 2020-2023 values are moving averages of 2020-2023 data, 2018-2022 values are moving average of 2018-2022 data, and 2016-2020 values are moving averages of 2016-2020 data. All averages are computed using the datapoints available for a specific country and indicator in, each period. In the second step scores are computed using a min-max transformations where the max/min are equal to the 2020-2023 period sample mean +/- 2*sample standard deviations. 2018-2022 and 2016-2020 scores are anchored to the 2020-2023 data and must be interpreted as relative performance to the 2020-2023 period.

The regional distribution of entrepreneurship is picked up in the bottom part of Figure 3.24 (Panel C), which reports statistics on concentrations of start-ups across cities within countries.[1]

The United States has relatively homogenous levels of entrepreneurship activity across multiple locations. The Netherlands, Belgium, Italy and Switzerland also have fairly well distributed start-up activities across regions. In contrast, in Iceland, Estonia, and Lithuania particularly, start-ups tend to cluster around the main country hub, often corresponding to the capital city.

The rates of regional dispersion or homogeneity have been fairly persistent over time. In the period considered, only Hungary and Japan became significantly more even in terms of regional entrepreneurship rates, while regional entrepreneurship activity in the United Kingdom and Slovenia became less homogenous.

Note

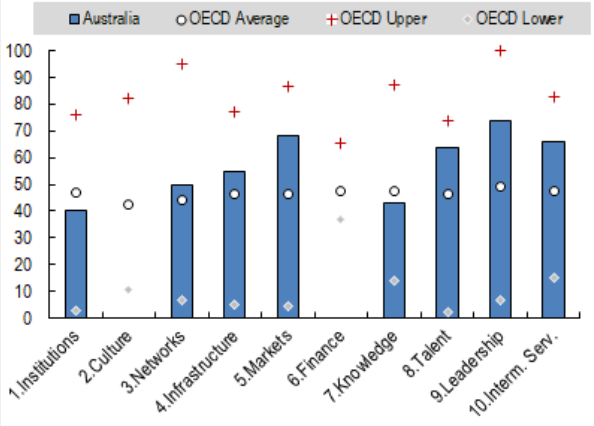
[1] The indicator “Regional dispersion of employer enterprises birth, standard deviations” has been collected and included in the framework, however, scores are not computed for any country as the data have not been updated after 2016.

4 Country profiles

This chapter presents the entrepreneurial ecosystem diagnostics data for OECD countries. Each country profile includes an overview of scores across the ten ecosystem elements for the period 2020–2023, benchmarked against the OECD average and the lowest and highest country scores. The profiles also provide a summary of the underlying data used to compute the element scores, detailing the original raw values for 2020-2023 and the scores for the periods 2016-2020, 2018-2022, and 2020-2023. The final section of each country profile presents the values and scores for the entrepreneurial ecosystem output and variation indicators included in the tool.

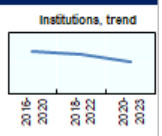
Australia

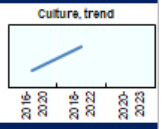
Entrepreneurial ecosystem diagnostics

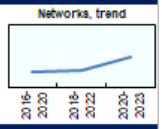


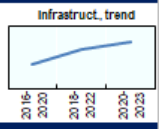
Australia's entrepreneurial ecosystem shows both strengths and areas for improvement. Among the entrepreneurial ecosystem elements, Leadership (73.6), Markets (68), Talent (64.0) perform the best. These strengths indicate that Australia provides a solid foundation for fostering business growth, with capable leaders and a talent pool that can drive innovation. However, Australia faces challenges in other areas, with Knowledge (43.2) and Institutions (40.3) the lowest-performing elements.

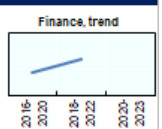
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	40.3	42.7	43.9
Rule of law, 0-100 best	92.5	69.4	70.9	71.9
Control of corruption index, 0-100 low incidence	97.2	65.6	64.8	63.3
Product Market Regulation, Index 0-6 stringent	1.4	49.2	48.7	48.4
Effective tax rate, % taxable income	28.2	11.8	14.9	17.0
2. Culture element, 0-100 best	.	.	53.3	51.3
Entrepreneurship as a good career choice, % 18-64 pop	.	.	39.1	37.2
High status to successful entrepreneurs, % 18-64 pop.	.	.	52.7	49.4
Trust in others, % respondents	53.7	73.3	73.3	73.3
3. Networks element, 0-100 best	.	49.9	45.3	45.2
SMEs collaborating on innovation, % total SMEs	19.9	46.3	46.8	48.7
University-business collaboration, 1-7 best	4.5	53.8	43.9	41.9
4. Infrastructure element, 0-100 best	.	55.0	52.6	47.8
Fix broadband, subs. per 100 pop.	35.4	52.2	50.7	45.8
Mobile data use, Gb per subscrip./month	11.0	43.8	40.4	36.0
Transport infrastructure quality, 1-5 high	4.1	72.9	71.1	66.1
5. Markets element, 0-100 best	.	68.0	64.5	58.8
Gross domestic product, PPP$ million	1,723.0	65.3	63.3	60.8
Trade facilitation index, 0-2 best	1.8	70.9	65.7	56.8
6. Finance element, 0-100 best	.	.	47.1	46.9
Early-stage VC investment, USD per capita	.	41.4	39.7	39.6
Later-stage VC investment, USD per capita	.	42.0	43.0	42.2
Outstanding SME loans, thousands USD per capita	10.1	58.2	58.5	58.6
Factoring, thousands USD per capita	.	49.4	49.4	49.3











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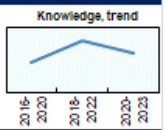
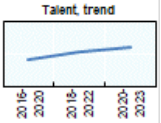
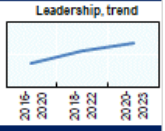
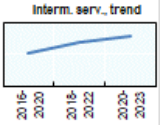
Australia

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	43.2	43.6	42.9
Patents, per million pop.	16.1	40.1	40.2	39.9
R&D expenditure, % GDP	1.7	41.2	42.2	43.1
GitHub software uploads, per thousand people	216.2	48.9	48.9	46.0
8. Talent element, 0-100 best	.	64.0	61.4	56.6
Mean years of schooling, years	12.8	58.9	57.2	54.6
Pisa, score	497.8	65.2	65.5	66.5
Internet users, % pop.	94.9	68.2	63.6	50.8
Perceived entrepreneurial capabilities, % 18-64 pop.	.	.	59.5	55.5
9. Leadership element, 0-100 best	.	73.6	71.5	67.2
Serial entrepreneurs, unit count	77.3	73.6	71.5	67.2
10. Interm. services element, 0-100 best	.	65.9	63.9	60.6
Coaches, unit count	304.3	81.0	77.8	72.7
Incubators, per million pop.	4.2	50.0	48.6	45.5
Technical employment, % total employment	6.9	70.7	69.0	67.3



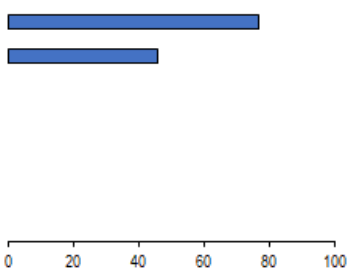




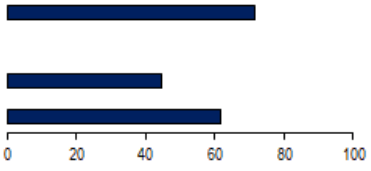


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.53	77.1
Unicorns, per million pop.	0.1	45.9
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	.	.



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	10.4	71.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	41.5	44.6
Women founders, % founders	22.0	61.8



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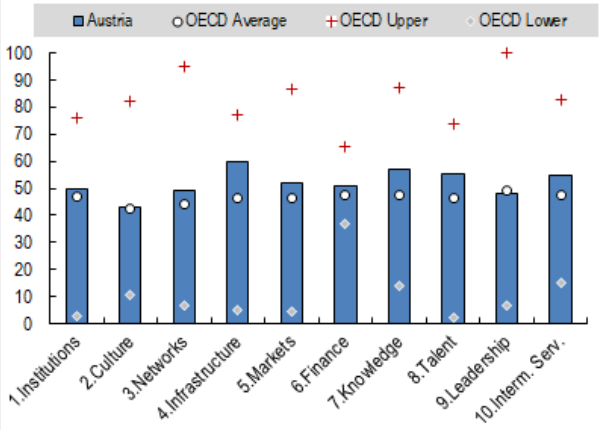
Austria

Entrepreneurial ecosystem diagnostics



Austria's entrepreneurial ecosystem has a mixed profile. Among the entrepreneurial ecosystem elements, Austria attains a performance close to the OECD average on most dimensions. Infrastructure (59.8) and Knowledge (57) are the relatively strong areas, reflecting a good knowledge base and digital and transport services that support entrepreneurial activities. On the other hand, the Networks (49.3) and Culture (43) elements perform relatively weakly.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	49.6	49.8	50.4	
Rule of law, 0-100 best	97.0	76.8	76.8	76.8	Institutions, trend
Control of corruption index, 0-100 low incidence	88.7	53.2	57.0	61.1	
Product Market Regulation, Index 0-6 stringent	1.5	43.9	41.3	39.7	
Effective tax rate, % taxable income	24.2	33.8	33.9	34.6	
2. Culture element, 0-100 best	.	43.0	43.1	43.1	
Entrepreneurship as a good career choice, % 18-64 pop	46.8	19.9	21.5	22.6	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	79.0	69.0	66.4	63.1	
Trust in others, % respondents	42.4	57.7	56.1	56.1	
3. Networks element, 0-100 best	.	49.3	51.9	53.8	
SMEs collaborating on innovation, % total SMEs	16.3	41.0	43.5	45.0	Networks, trend
University-business collaboration, 1-7 best	4.7	59.2	62.0	64.3	
4. Infrastructure element, 0-100 best	.	59.8	57.8	55.9	
Fix broadband, subs. per 100 pop.	29.0	32.9	32.2	31.9	Infrastruct., trend
Mobile data use, Gb per subscrip./month	28.6	96.2	84.0	72.8	
Transport infrastructure quality, 1-5 high	4.0	67.5	71.4	75.1	
5. Markets element, 0-100 best	.	51.9	49.1	44.5	
Gross domestic product, PPP$ million	600.5	47.3	46.0	44.1	Markets, trend
Trade facilitation index, 0-2 best	1.8	57.0	52.4	44.8	
6. Finance element, 0-100 best	.	50.8	49.7	47.7	
Early-stage VC investment, USD per capita	8.23	40.2	39.8	39.3	Finance, trend
Later-stage VC investment, USD per capita	33.80	47.6	45.2	41.6	
Outstanding SME loans, thousands USD per capita	8.0	53.0	53.0	53.0	
Factoring, thousands USD per capita	3.0	65.3	64.1	59.7	

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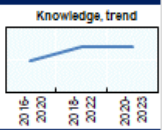
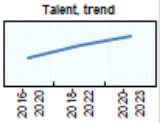
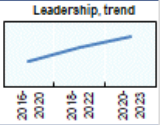
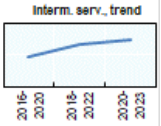
Austria

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	57.0	57.0	54.9
Patents, per million pop.	39.1	55.9	56.8	58.8
R&D expenditure, % GDP	3.2	72.1	71.2	70.0
GitHub software uploads, per thousand people	202.5	45.9	45.9	40.3
8. Talent element, 0-100 best	.	55.4	52.5	48.8
Mean years of schooling, years	.	50.1	50.3	50.0
Pisa, score	487.5	56.5	57.5	59.1
Internet users, % pop.	92.3	58.3	48.9	38.3
Perceived entrepreneurial capabilities, % 18-64 pop.	53.2	57.0	53.7	50.2
9. Leadership element, 0-100 best	.	47.9	46.1	44.1
Serial entrepreneurs, unit count	18.0	47.9	46.1	44.1
10. Interm. services element, 0-100 best	.	54.8	53.1	49.6
Coaches, unit count	28.0	42.2	39.3	35.0
Incubators, per million pop.	7.0	69.4	68.9	66.8
Technical employment, % total employment	6.0	56.2	55.4	52.2



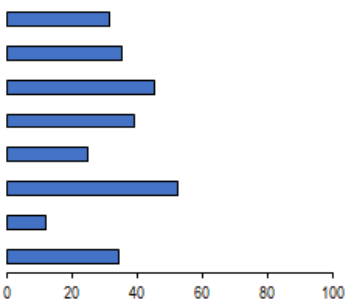




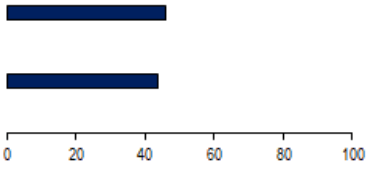


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.0	31.5
Equity-based young firms, per million pop.	0.14	35.5
Unicorns, per million pop.	0.1	45.4
Enterprise churn rate, % business pop.	13.6	39.1
Medium and high-growth enterprises, %	7.3	24.8
3-year survival rate., % new employer enterp.	55.3	52.6
Expectation to create jobs, % entrepreneurs	8.1	12.1
2-year-old employer enterprises, % business population	1.7	34.4



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	31.4	46.1
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	42.1	43.6
Women founders, % founders	.	.



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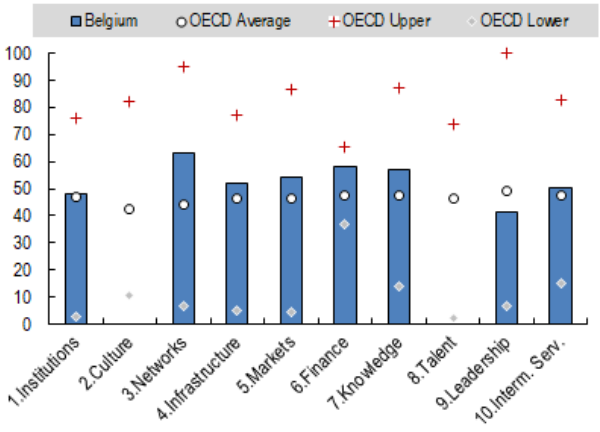
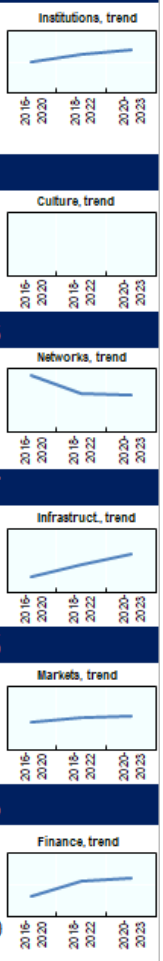
Belgium

Entrepreneurial ecosystem diagnostics



Belgium's top three best-performing entrepreneurial ecosystem elements are Networks (64.2), Finance (58.2) and Knowledge (57.2). On finance, Belgium is stronger on more traditional factors such as banking loans and factoring services, but below average with respect to venture capital investments. The lowest scores are seen in the Leadership (41.3) and Institutions (48.1) elements.

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	48.1	45.2	40.4
Rule of law, 0-100 best	84.0	55.5	55.5	55.5
Control of corruption index, 0-100 low incidence	97.6	66.2	66.2	65.5
Product Market Regulation, Index 0-6 stringent	1.5	40.5	36.8	34.4
Effective tax rate, % taxable income	23.8	36.0	30.8	21.3
2. Culture element, 0-100 best	.	.	.	.
Entrepreneurship as a good career choice, % 18-64 pop	.	57.5	57.8	58.1
High status to successful entrepreneurs, % 18-64 pop.	.	52.9	53.3	53.7
Trust in others, % respondents	.	46.7	46.7	46.7
3. Networks element, 0-100 best	.	63.2	63.2	63.8
SMEs collaborating on innovation, % total SMEs	25.1	53.7	52.9	52.5
University-business collaboration, 1-7 best	5.1	74.3	75.6	77.5
4. Infrastructure element, 0-100 best	.	52.1	48.5	44.7
Fix broadband, subs. per 100 pop.	42.6	73.5	70.0	63.9
Mobile data use, Gb per subscrip./month	5.2	26.4	22.8	19.9
Transport infrastructure quality, 1-5 high	4.1	73.1	71.4	70.3
5. Markets element, 0-100 best	.	54.2	49.9	43.5
Gross domestic product, PPP$ million	756.3	51.3	49.6	47.4
Trade facilitation index, 0-2 best	1.8	57.3	50.2	39.9
6. Finance element, 0-100 best	.	58.4	58.3	57.3
Early-stage VC investment, USD per capita	24.63	44.0	44.2	42.9
Later-stage VC investment, USD per capita	14.28	43.4	43.1	42.7
Outstanding SME loans, thousands USD per capita	11.2	60.9	60.5	58.8
Factoring, thousands USD per capita	7.7	100.0	100.0	100.0



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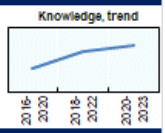
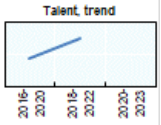
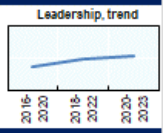
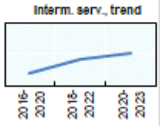
Belgium

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	57.2	56.4	53.6
Patents, per million pop.	34.8	53.0	52.9	53.6
R&D expenditure, % GDP	3.4	75.6	72.5	65.9
GitHub software uploads, per thousand people	206.8	46.8	46.8	43.5
8. Talent element, 0-100 best	.	.	49.0	47.8
Mean years of schooling, years	.	51.8	52.1	51.5
Pisa, score	489.7	58.4	61.2	65.7
Internet users, % pop.	93.2	62.1	55.3	45.7
Perceived entrepreneurial capabilities, % 18-64 pop.	.	31.6	32.6	33.6
9. Leadership element, 0-100 best	.	41.3	39.5	34.7
Serial entrepreneurs, unit count	12.3	41.3	39.5	34.7
10. Interm. services element, 0-100 best	.	50.3	48.4	44.4
Coaches, unit count	46.0	50.1	47.1	42.8
Incubators, per million pop.	3.7	45.9	45.2	43.3
Technical employment, % total employment	5.9	55.3	53.2	47.1



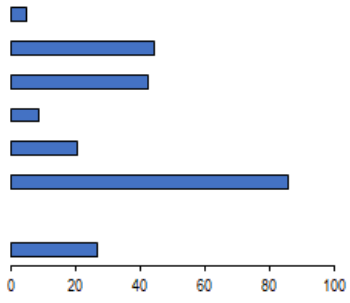




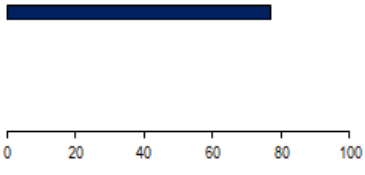


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	3.5	4.8
Equity-based young firms, per million pop.	0.22	44.4
Unicorns, per million pop.	0.1	42.5
Enterprise churn rate, % business pop.	4.3	8.7
Medium and high-growth enterprises, %	6.9	20.9
3-year survival rate., % new employer enterp.	75.6	85.9
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	1.1	26.6



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	6.0	77.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	.	.
Women founders, % founders	.	.



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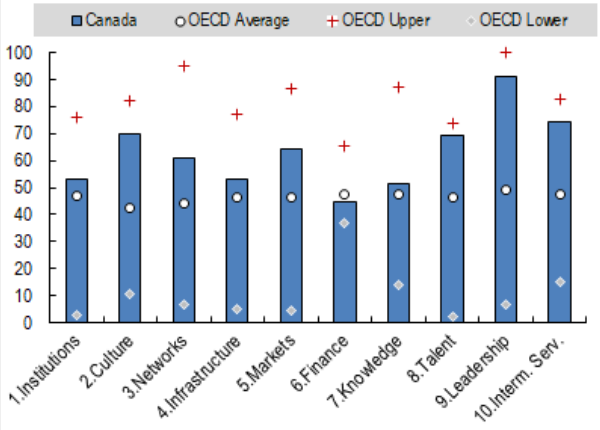
Canada

Entrepreneurial ecosystem diagnostics



Canada has an above average birth rate of employer enterprises. With respect to the entrepreneurial ecosystem elements, Canada's top three elements are Leadership (90.9), Intermediate Services (74.2), and Culture (70). These scores suggest that Canada benefits from strong leadership and robust support systems which facilitate the creation of new ventures. Canada's lowest element scores are seen in Finance (44.9) and Knowledge (51.6), although Canada does outperform many OECD countries in terms of early-stage venture capital investments specifically.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	53.4	53.7	53.8	
Rule of law, 0-100 best	93.3	70.6	71.9	71.9	Institutions, trend
Control of corruption index, 0-100 low incidence	96.7	64.8	64.6	64.1	
Product Market Regulation, Index 0-6 stringent	1.4	45.9	44.7	43.9	
Effective tax rate, % taxable income	23.3	38.6	40.0	41.6	
2. Culture element, 0-100 best	.	70.0	68.0	64.7	
Entrepreneurship as a good career choice, % 18-64 pop	70.3	70.3	67.2	63.8	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	80.3	72.4	69.4	62.7	
Trust in others, % respondents	49.5	67.5	67.5	67.5	
3. Networks element, 0-100 best	.	61.2	59.0	55.8	
SMEs collaborating on innovation, % total SMEs	22.0	49.3	49.3	49.3	Networks, trend
University-business collaboration, 1-7 best	5.2	75.9	70.6	63.1	
4. Infrastructure element, 0-100 best	.	52.9	48.5	44.1	
Fix broadband, subs. per 100 pop.	41.7	70.8	68.4	63.0	Infrastruct., trend
Mobile data use, Gb per subscrip./month	5.3	26.7	23.7	20.5	
Transport infrastructure quality, 1-5 high	4.2	78.2	70.6	66.4	
5. Markets element, 0-100 best	.	64.5	61.3	56.0	
Gross domestic product, PPP$ million	2,217.2	69.6	68.1	66.1	Markets, trend
Trade facilitation index, 0-2 best	1.8	59.8	55.3	47.5	
6. Finance element, 0-100 best	.	44.9	43.3	40.7	
Early-stage VC investment, USD per capita	96.63	61.0	56.6	49.0	Finance, trend
Later-stage VC investment, USD per capita	75.31	56.6	53.1	47.3	
Outstanding SME loans, thousands USD per capita	2.0	38.5	38.4	38.2	
Factoring, thousands USD per capita	0.1	30.5	30.6	31.0	

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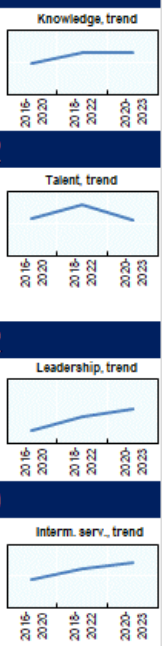
Canada

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	51.6	51.6	49.9
Patents, per million pop.	18.4	41.7	41.7	41.5
R&D expenditure, % GDP	1.8	43.3	43.3	42.7
GitHub software uploads, per thousand people	336.6	76.0	76.0	70.1
8. Talent element, 0-100 best	.	69.1	69.6	69.2
Mean years of schooling, years	13.9	76.5	76.5	76.5
Pisa, score	508.9	74.6	76.8	81.0
Internet users, % pop.	93.2	61.9	62.1	59.4
Perceived entrepreneurial capabilities, % 18-64 pop.	56.6	64.6	64.3	62.2
9. Leadership element, 0-100 best	.	90.9	88.5	84.2
Serial entrepreneurs, unit count	202.3	90.9	88.5	84.2
10. Interm. services element, 0-100 best	.	74.2	72.4	69.0
Coaches, unit count	596.5	92.1	89.4	84.8
Incubators, per million pop.	5.6	59.7	58.6	56.1
Technical employment, % total employment	.	.	.	.



Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.45	68.6
Unicorns, per million pop.	0.2	62.2
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	19.6	43.2
2-year-old employer enterprises, % business population	.	.

Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	10.5	71.4
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	26.8	69.5
Women founders, % founders	23.1	67.3

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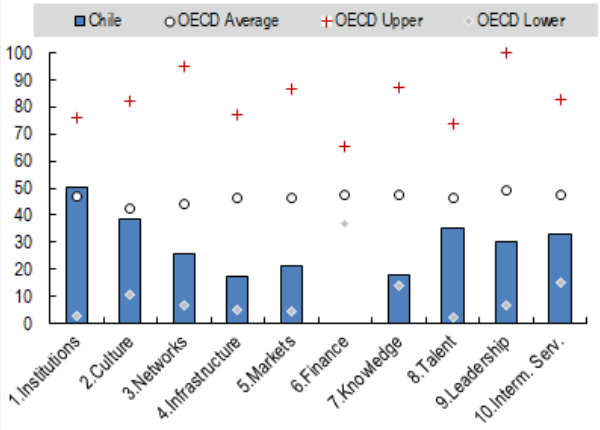
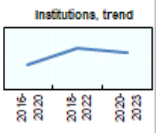
Chile

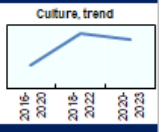
Entrepreneurial ecosystem diagnostics

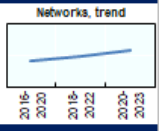


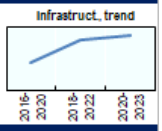
Chile has a moderate performance in terms of productive entrepreneurship outputs. In terms of the entrepreneurial ecosystem elements, the best-performing element is Institutions (50.4), suggesting that Chile has a reasonably good regulatory base to generate entrepreneurial activity. However, Chile performs below the OECD average in most other entrepreneurial ecosystem elements, with the lowest scores registered in the Infrastructure (17.3) and Knowledge (18.1) elements.

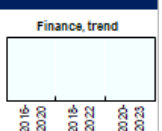
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	50.4	50.7	49.6
Rule of law, 0-100 best	76.5	43.2	48.6	50.6
Control of corruption index, 0-100 low incidence	93.2	59.8	60.7	57.1
Product Market Regulation, Index 0-6 stringent	1.4	48.6	41.3	36.5
Effective tax rate, % taxable income	21.0	51.5	54.3	57.3
2. Culture element, 0-100 best	.	38.8	39.4	36.8
Entrepreneurship as a good career choice, % 18-64 pop	76.6	84.0	85.2	76.8
High status to successful entrepreneurs, % 18-64 pop.	67.8	39.7	40.8	37.0
Trust in others, % respondents	13.1	17.6	17.6	17.6
3. Networks element, 0-100 best	.	25.9	24.9	24.3
SMEs collaborating on innovation, % total SMEs	16.2	40.9	37.2	34.6
University-business collaboration, 1-7 best	3.5	16.3	16.7	17.1
4. Infrastructure element, 0-100 best	.	17.3	15.9	8.7
Fix broadband, subs. per 100 pop.	21.2	9.5	5.2	0.0
Mobile data use, Gb per subscrip./month	17.5	63.1	53.3	44.6
Transport infrastructure quality, 1-5 high	2.9	8.7	14.3	15.0
5. Markets element, 0-100 best	.	21.0	8.7	6.6
Gross domestic product, PPP$ million	582.5	46.8	45.2	43.1
Trade facilitation index, 0-2 best	1.6	9.4	1.7	0.0
6. Finance element, 0-100 best	.	.	.	.
Early-stage VC investment, USD per capita	.	38.8	38.7	38.6
Later-stage VC investment, USD per capita	.	40.5	40.5	40.4
Outstanding SME loans, thousands USD per capita	0.0	33.7	33.7	33.7
Factoring, thousands USD per capita	0.0	29.8	29.8	29.8











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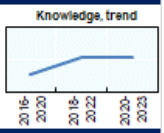
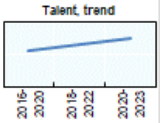
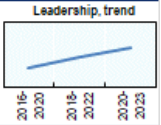
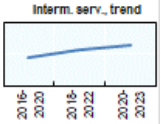
Chile

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	18.1	18.1	17.1
Patents, per million pop.	0.6	29.5	29.5	29.5
R&D expenditure, % GDP	0.3	13.9	14.0	14.1
GitHub software uploads, per thousand people	62.8	14.5	14.5	12.0
8. Talent element, 0-100 best	.	35.0	33.0	30.9
Mean years of schooling, years	.	24.1	24.1	24.1
Pisa, score	435.2	12.4	13.1	14.9
Internet users, % pop.	90.3	50.8	39.7	29.4
Perceived entrepreneurial capabilities, % 18-64 pop.	72.0	98.9	94.6	86.7
9. Leadership element, 0-100 best	.	30.4	23.6	15.5
Serial entrepreneurs, unit count	6.3	30.4	23.6	15.5
10. Interm. services element, 0-100 best	.	32.8	31.3	28.8
Coaches, unit count	22.3	38.5	35.7	30.8
Incubators, per million pop.	1.1	27.9	27.5	26.9
Technical employment, % total employment	.	.	.	.



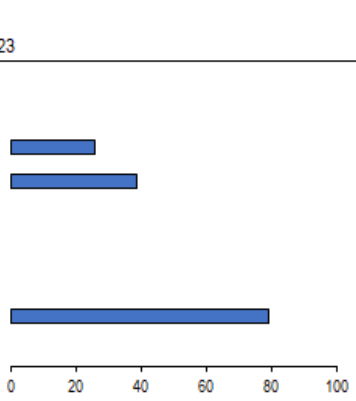




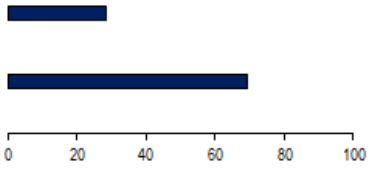


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.05	26.0
Unicorns, per million pop.	0.0	38.5
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	32.9	79.4
2-year-old employer enterprises, % business population	.	.



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	45.8	28.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	26.9	69.3
Women founders, % founders	.	.



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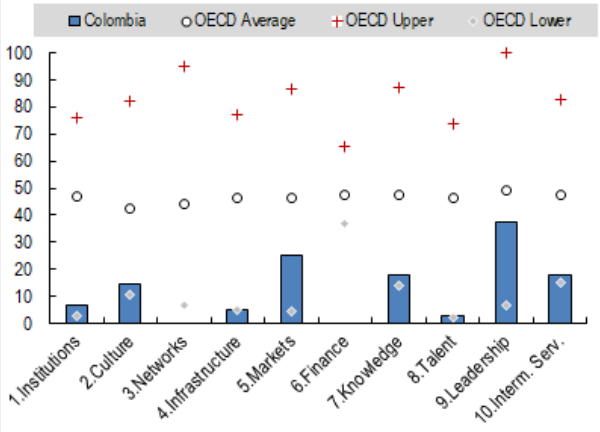
Colombia

Entrepreneurial ecosystem diagnostics



Colombia has a high birth rate of employer enterprises as well as a high share of entrepreneurs with expectations of creating jobs. However, despite a strong performance in certain productive entrepreneurship outputs, Colombia does score below the OECD average in many of the entrepreneurial ecosystem elements. In particular, Infrastructure (5.3) and Talent (3.0) are areas to be developed further in Colombia in order to strengthen the country's entrepreneurial ecosystem.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	6.6	4.3	2.5	
Rule of law, 0-100 best	44.0	0.0	0.0	0.0	Institutions, trend
Control of corruption index, 0-100 low incidence	58.1	8.7	2.2	0.0	
Product Market Regulation, Index 0-6 stringent	1.9	16.4	13.4	11.4	
Effective tax rate, % taxable income	27.9	13.4	11.1	3.5	
2. Culture element, 0-100 best	.	14.7	20.8	25.1	
Entrepreneurship as a good career choice, % 18-64 pop	54.4	36.1	45.8	57.5	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	58.7	16.1	35.9	50.5	
Trust in others, % respondents	4.3	5.4	5.4	5.4	
3. Networks element, 0-100 best	.	.	.	.	
SMEs collaborating on innovation, % total SMEs	.	88.6	86.0	84.4	Networks, trend
University-business collaboration, 1-7 best	3.8	29.0	23.9	21.0	
4. Infrastructure element, 0-100 best	.	5.3	3.7	2.6	
Fix broadband, subs. per 100 pop.	16.8	0.0	0.0	0.0	Infrastruct., trend
Mobile data use, Gb per subscrip./month	5.6	27.7	23.0	18.2	
Transport infrastructure quality, 1-5 high	2.8	5.4	2.2	0.0	
5. Markets element, 0-100 best	.	25.1	4.3	7.1	
Gross domestic product, PPP$ million	976.6	55.6	53.6	50.9	Markets, trend
Trade facilitation index, 0-2 best	1.6	11.3	0.3	0.0	
6. Finance element, 0-100 best	.	.	.	.	
Early-stage VC investment, USD per capita	.	38.4	38.4	38.3	Finance, trend
Later-stage VC investment, USD per capita	.	40.4	40.3	40.3	
Outstanding SME loans, thousands USD per capita	0.2	34.2	34.3	34.3	
Factoring, thousands USD per capita	0.1	30.7	30.9	31.1	

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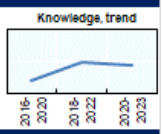
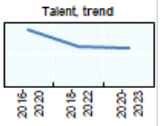
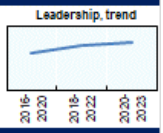
Colombia

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	17.8	18.0	16.8
Patents, per million pop.	0.1	29.2	29.2	29.1
R&D expenditure, % GDP	0.3	12.7	13.1	12.8
GitHub software uploads, per thousand people	65.8	15.1	15.1	12.7
8. Talent element, 0-100 best	.	3.0	3.0	3.1
Mean years of schooling, years	8.9	0.0	0.0	0.0
Pisa, score	402.0	0.0	0.0	0.0
Internet users, % pop.	71.9	0.0	0.0	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	65.0	83.1	83.8	89.9
9. Leadership element, 0-100 best	.	37.5	35.5	29.7
Serial entrepreneurs, unit count	9.8	37.5	35.5	29.7
10. Interm. services element, 0-100 best	.	17.7	14.5	8.9
Coaches, unit count	31.0	43.8	40.4	32.5
Incubators, per million pop.	0.2	21.7	21.6	21.6
Technical employment, % total employment	2.9	5.8	3.5	0.0

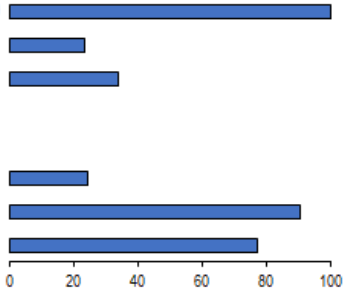




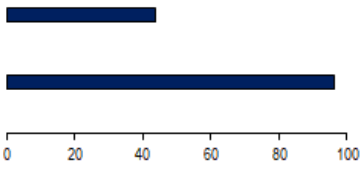


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	17.6	100.0
Equity-based young firms, per million pop.	0.03	23.3
Unicorns, per million pop.	0.0	33.9
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	2.9	0.0
3-year survival rate., % new employer enterp.	38.3	24.7
Expectation to create jobs, % entrepreneurs	37.0	90.7
2-year-old employer enterprises, % business population	5.0	77.4



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	33.5	43.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	11.1	96.1
Women founders, % founders	.	.



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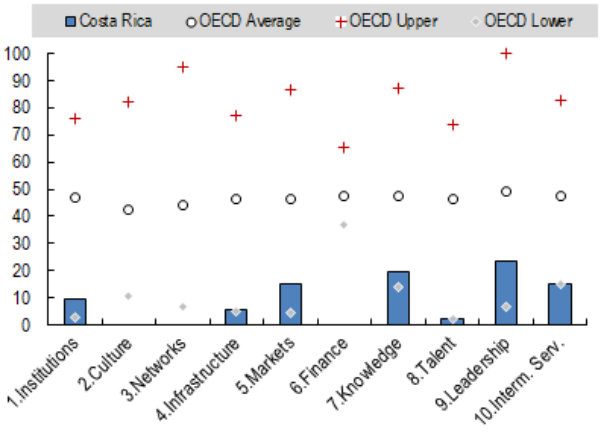
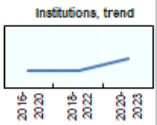
Costa Rica

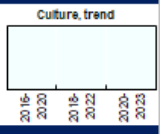
Entrepreneurial ecosystem diagnostics

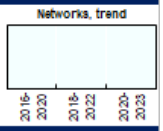


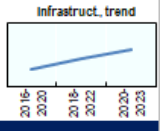
Costa Rica's entrepreneurial ecosystem performs well in some areas and more weakly in others. Survival rates and the incidence of high-growth firms are both very high while the enterprise churn rate and birth rates are both relatively low. In terms of the entrepreneurial ecosystem elements, Costa Rica performs below the OECD average on most aspects, in particular the Infrastructure (5.7) and Talent (2.2) elements.

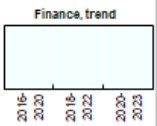
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	9.6	5.7	5.8
Rule of law, 0-100 best	62.8	20.7	24.0	26.0
Control of corruption index, 0-100 low incidence	81.2	42.3	42.9	43.9
Product Market Regulation, Index 0-6 stringent	2.2	0.0	0.0	0.0
Effective tax rate, % taxable income	28.5	9.8	0.0	0.0
2. Culture element, 0-100 best	.	.	.	.
Entrepreneurship as a good career choice, % 18-64 pop	.	47.3	47.3	49.1
High status to successful entrepreneurs, % 18-64 pop.	.	41.3	41.2	43.3
Trust in others, % respondents	.	52.6	52.6	52.6
3. Networks element, 0-100 best	.	.	.	.
SMEs collaborating on innovation, % total SMEs	.	85.4	84.7	83.8
University-business collaboration, 1-7 best	3.7	22.8	21.6	19.8
4. Infrastructure element, 0-100 best	.	5.7	4.3	2.8
Fix broadband, subs. per 100 pop.	20.4	7.1	3.4	0.0
Mobile data use, Gb per subscrip./month	5.4	26.9	23.8	21.1
Transport infrastructure quality, 1-5 high	2.6	0.0	0.0	0.0
5. Markets element, 0-100 best	.	15.0	2.9	4.2
Gross domestic product, PPP$ million	128.7	21.1	19.7	17.8
Trade facilitation index, 0-2 best	1.6	10.7	0.4	0.0
6. Finance element, 0-100 best	.	.	.	.
Early-stage VC investment, USD per capita	.	38.7	38.7	38.6
Later-stage VC investment, USD per capita	.	40.5	40.5	40.4
Outstanding SME loans, thousands USD per capita	.	40.4	40.8	41.2
Factoring, thousands USD per capita	.	50.7	50.7	50.7











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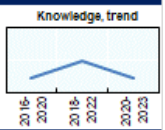
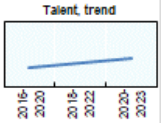
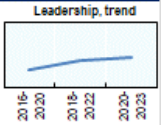
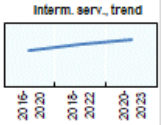
Costa Rica

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	19.7	20.0	19.7
Patents, per million pop.	0.9	29.7	29.6	29.4
R&D expenditure, % GDP	0.3	13.0	13.6	14.7
GitHub software uploads, per thousand people	86.9	19.9	19.9	17.8
8. Talent element, 0-100 best	.	2.2	1.9	1.5
Mean years of schooling, years	8.8	0.0	0.0	0.0
Pisa, score	406.4	0.0	0.0	0.0
Internet users, % pop.	82.8	22.1	12.1	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	.	0.0	0.0	4.7
9. Leadership element, 0-100 best	.	23.6	20.5	14.4
Serial entrepreneurs, unit count	4.0	23.6	20.5	14.4
10. Interm. services element, 0-100 best	.	14.9	13.5	11.3
Coaches, unit count	3.3	10.4	7.7	5.8
Incubators, per million pop.	0.8	25.7	25.8	25.9
Technical employment, % total employment	3.3	12.4	12.4	9.6



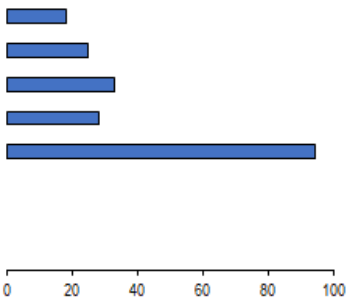






Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	5.2	18.0
Equity-based young firms, per million pop.	0.04	24.8
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	10.2	28.1
Medium and high-growth enterprises, %	14.4	94.3
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	.	.

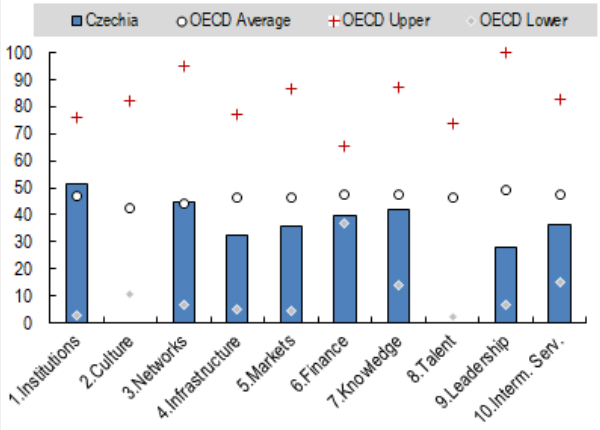


Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	12.6	69.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	.	.
Women founders, % founders	.	.

Note: value refer to the arithmetic mean of available data in the referenced period. The number of data points within each reference period can vary by country and indicator. Elements' scores are geometric means of the underlying indicators' scores. Indicators' scores are min/max transformations of the value anchored to the 2020-2023 period. The min (max) is the country sample mean of each indicator minus (plus) 2 sample standard deviations, with respect to the distribution of data in the 2020-2023 period. A dot (.) in both score and value columns indicate that the datapoint is not available or it was not possible to impute. If a dot (.) is reported in the value column but a number is reported in the score column, the data point was imputed, using a linear regression technique. Element scores are not computed for countries in periods where there is more than 1 missing or imputed value.

Czechia

Entrepreneurial ecosystem diagnostics



Czechia's top performing entrepreneurial ecosystem elements are Institutions (51.7) and Networks (44.9). These scores suggest that Czechia performs relatively well in providing access to the basic conditions for generating entrepreneurial activity. However, lower performances are recorded on Leadership (27.7), and Infrastructure (32.3). Improving on these aspects is essential for fostering a vibrant entrepreneurial ecosystem.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	51.7	50.2	49.6	
Rule of law, 0-100 best	75.8	42.0	40.7	42.7	Institutions, trend
Control of corruption index, 0-100 low incidence	82.1	43.6	38.2	33.4	
Product Market Regulation, Index 0-6 stringent	1.2	64.3	61.9	60.4	
Effective tax rate, % taxable income	19.4	60.5	66.2	70.4	
2. Culture element, 0-100 best	.	.	.	.	
Entrepreneurship as a good career choice, % 18-64 pop	.	60.9	60.9	60.7	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	.	56.9	56.9	56.7	
Trust in others, % respondents	27.0	36.6	36.9	35.1	
3. Networks element, 0-100 best	.	44.9	40.8	34.5	
SMEs collaborating on innovation, % total SMEs	13.3	36.8	36.1	35.1	Networks, trend
University-business collaboration, 1-7 best	4.6	54.7	46.1	33.9	
4. Infrastructure element, 0-100 best	.	32.3	31.8	29.6	
Fix broadband, subs. per 100 pop.	36.8	56.1	51.1	41.6	Infrastruct., trend
Mobile data use, Gb per subscrip./month	6.3	29.5	23.5	18.3	
Transport infrastructure quality, 1-5 high	3.1	20.4	26.7	33.9	
5. Markets element, 0-100 best	.	36.0	27.8	9.2	
Gross domestic product, PPP$ million	546.3	45.7	44.3	42.1	Markets, trend
Trade facilitation index, 0-2 best	1.7	28.4	17.5	2.0	
6. Finance element, 0-100 best	.	39.7	39.5	38.9	
Early-stage VC investment, USD per capita	5.07	39.5	39.1	38.5	Finance, trend
Later-stage VC investment, USD per capita	2.11	40.8	40.7	40.5	
Outstanding SME loans, thousands USD per capita	2.7	40.2	40.3	40.1	
Factoring, thousands USD per capita	0.7	38.5	38.1	36.7	

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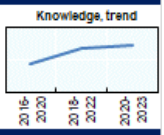
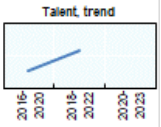
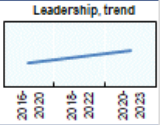
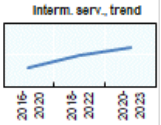
Czechia

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	42.2	41.8	39.5
Patents, per million pop.	6.6	33.6	33.1	32.6
R&D expenditure, % GDP	2.0	47.0	46.4	44.3
GitHub software uploads, per thousand people	209.9	47.5	47.5	42.7
8. Talent element, 0-100 best	.	.	41.8	35.5
Mean years of schooling, years	.	60.0	60.2	59.9
Pisa, score	492.2	60.5	61.4	61.9
Internet users, % pop.	83.6	25.5	19.4	10.2
Perceived entrepreneurial capabilities, % 18-64 pop.	.	42.6	42.6	42.0
9. Leadership element, 0-100 best	.	27.7	23.6	18.7
Serial entrepreneurs, unit count	5.3	27.7	23.6	18.7
10. Interm. services element, 0-100 best	.	36.2	35.0	33.0
Coaches, unit count	23.0	39.0	36.0	31.7
Incubators, per million pop.	1.7	32.1	31.6	30.3
Technical employment, % total employment	4.9	37.8	37.6	37.6



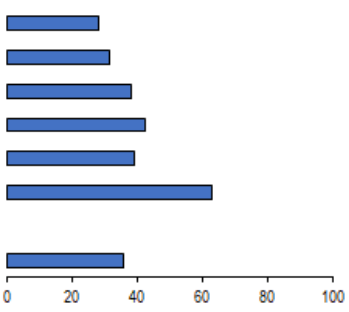




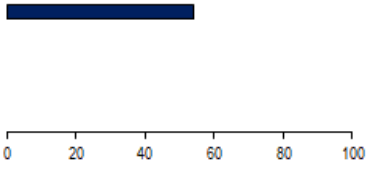


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	6.6	28.5
Equity-based young firms, per million pop.	0.11	31.8
Unicorns, per million pop.	0.0	38.2
Enterprise churn rate, % business pop.	14.6	42.4
Medium and high-growth enterprises, %	8.8	39.4
3-year survival rate., % new employer enterp.	61.6	62.9
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	1.8	35.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	25.0	53.9
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	.	.
Women founders, % founders	.	.



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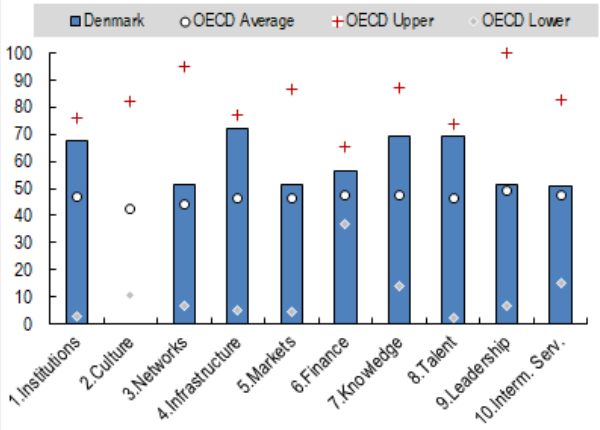
Denmark

Entrepreneurial ecosystem diagnostics



Denmark's entrepreneurial ecosystem features a strong birth rate of employer enterprises but a relatively low survival rate of these ventures. In terms of the entrepreneurial ecosystem elements, Denmark's main strengths are in infrastructure (71.9), Knowledge (69.2), Talent (69.4) and Institutions (67.9). These scores suggest that Denmark excels in providing a stable institutional framework and a business environment that is conducive to entrepreneurial activity. However, Denmark's performance is relatively lower for the Networks (51.5), Markets (51.3) and Leadership (51.5) elements.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	67.9	67.9	67.6	
Rule of law, 0-100 best	96.3	75.5	73.8	71.9	Institutions, trend
Control of corruption index, 0-100 low incidence	99.8	69.3	68.6	67.7	
Product Market Regulation, Index 0-6 stringent	1.1	71.9	70.0	68.8	
Effective tax rate, % taxable income	20.1	56.6	59.8	62.4	
2. Culture element, 0-100 best	.	.	.	.	
Entrepreneurship as a good career choice, % 18-64 pop	.	71.3	71.1	70.8	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	.	68.8	68.6	68.3	
Trust in others, % respondents	76.2	100.0	100.0	100.0	
3. Networks element, 0-100 best	.	51.5	50.9	49.6	
SMEs collaborating on innovation, % total SMEs	14.2	38.0	37.2	36.6	Networks, trend
University-business collaboration, 1-7 best	5.0	69.9	69.5	67.2	
4. Infrastructure element, 0-100 best	.	71.9	66.9	60.4	
Fix broadband, subs. per 100 pop.	44.6	79.5	78.4	76.7	Infrastruct., trend
Mobile data use, Gb per subscrip./month	17.9	64.4	53.9	44.6	
Transport infrastructure quality, 1-5 high	4.1	72.8	70.8	64.6	
5. Markets element, 0-100 best	.	51.3	48.0	43.6	
Gross domestic product, PPP$ million	424.8	41.4	39.7	37.3	Markets, trend
Trade facilitation index, 0-2 best	1.8	63.4	58.0	50.9	
6. Finance element, 0-100 best	.	56.6	55.8	52.5	
Early-stage VC investment, USD per capita	52.37	50.6	48.8	43.3	Finance, trend
Later-stage VC investment, USD per capita	41.53	49.3	48.1	44.8	
Outstanding SME loans, thousands USD per capita	.	59.2	60.2	61.5	
Factoring, thousands USD per capita	3.3	69.5	68.7	63.5	

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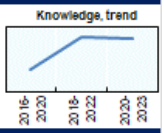
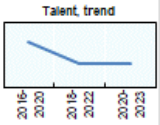
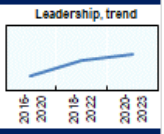
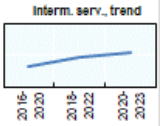
Denmark

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	69.2	69.3	66.7
Patents, per million pop.	53.3	65.7	65.6	65.6
R&D expenditure, % GDP	2.9	65.0	65.5	67.0
GitHub software uploads, per thousand people	342.9	77.4	77.4	67.6
8. Talent element, 0-100 best	.	69.4	69.4	69.7
Mean years of schooling, years	13.0	62.0	61.2	61.2
Pisa, score	493.2	61.3	63.5	67.2
Internet users, % pop.	98.0	80.3	79.2	77.2
Perceived entrepreneurial capabilities, % 18-64 pop.	.	75.9	75.2	74.4
9. Leadership element, 0-100 best	.	51.5	49.5	44.8
Serial entrepreneurs, unit count	22.3	51.5	49.5	44.8
10. Interm. services element, 0-100 best	.	50.7	49.6	46.3
Coaches, unit count	40.3	48.0	44.9	40.0
Incubators, per million pop.	5.1	55.7	54.5	51.2
Technical employment, % total employment	5.5	48.9	49.7	48.6



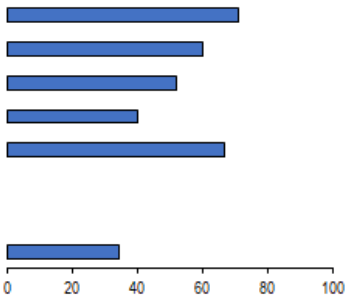




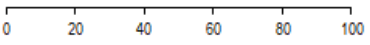


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	12.2	71.3
Equity-based young firms, per million pop.	0.37	60.3
Unicorns, per million pop.	0.1	52.1
Enterprise churn rate, % business pop.	13.9	40.1
Medium and high-growth enterprises, %	11.6	66.7
3-year survival rate., % new employer enterp.	22.9	0.0
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	1.7	34.4



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	23.8	55.4
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	.	.
Women founders, % founders	.	.



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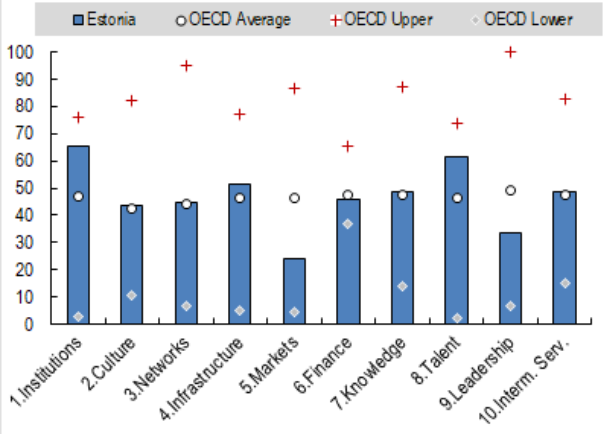
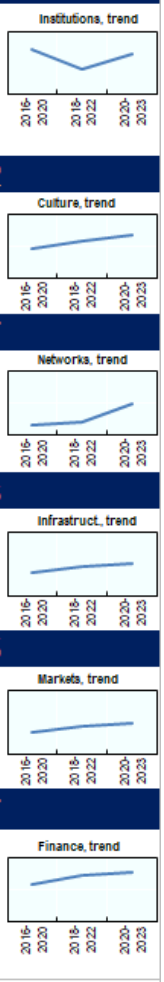
Estonia

Entrepreneurial ecosystem diagnostics



Estonia's entrepreneurial ecosystem features several strong outputs, with the employer enterprise birth rate and churn rate significantly above the OECD average and a high concentration of equity-based young companies. The key strengths of Estonia's entrepreneurial ecosystem are the Institutions (65.3) and Talent (61.3) elements. In addition, Estonia excels on specific start-up support dimensions such as the indicator on the number of incubators per capita. The weaker performing elements for Estonia are the Market (23.1) and Culture (43.7) elements.

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	65.3	65.2	65.4
Rule of law, 0-100 best	81.0	50.6	48.6	48.6
Control of corruption index, 0-100 low incidence	95.7	63.5	63.4	62.7
Product Market Regulation, Index 0-6 stringent	1.0	72.9	68.9	66.2
Effective tax rate, % taxable income	16.2	77.9	85.2	90.4
2. Culture element, 0-100 best	.	43.7	41.8	39.2
Entrepreneurship as a good career choice, % 18-64 pop	55.3	38.2	37.4	36.0
High status to successful entrepreneurs, % 18-64 pop.	69.7	44.8	40.5	34.7
Trust in others, % respondents	36.0	48.9	48.2	48.2
3. Networks element, 0-100 best	.	44.8	42.1	41.7
SMEs collaborating on innovation, % total SMEs	25.2	53.8	54.7	54.8
University-business collaboration, 1-7 best	4.1	37.3	32.5	31.7
4. Infrastructure element, 0-100 best	.	51.4	44.7	36.8
Fix broadband, subs. per 100 pop.	35.2	51.3	47.8	41.0
Mobile data use, Gb per subscrip./month	21.0	73.5	60.9	50.2
Transport infrastructure quality, 1-5 high	3.4	36.1	30.6	24.1
5. Markets element, 0-100 best	.	24.1	21.3	16.5
Gross domestic product, PPP$ million	61.8	8.8	7.3	4.8
Trade facilitation index, 0-2 best	1.8	66.2	62.5	56.1
6. Finance element, 0-100 best	.	45.6	44.6	41.7
Early-stage VC investment, USD per capita	57.03	51.7	47.1	40.1
Later-stage VC investment, USD per capita	34.53	47.8	46.2	42.2
Outstanding SME loans, thousands USD per capita	0.9	35.8	35.9	36.2
Factoring, thousands USD per capita	1.6	49.1	50.6	49.3



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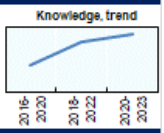
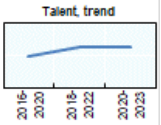
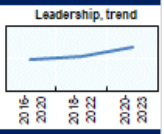
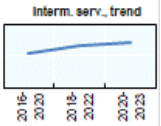
Estonia

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	48.9	47.8	44.1
Patents, per million pop.	8.6	34.9	34.3	32.9
R&D expenditure, % GDP	1.8	42.6	40.6	36.4
GitHub software uploads, per thousand people	347.7	78.5	78.5	71.5
8. Talent element, 0-100 best	.	61.3	61.4	59.8
Mean years of schooling, years	13.5	71.4	72.3	72.1
Pisa, score	518.1	82.3	84.4	87.1
Internet users, % pop.	91.2	54.3	50.6	45.2
Perceived entrepreneurial capabilities, % 18-64 pop.	47.5	44.3	45.9	45.1
9. Leadership element, 0-100 best	.	33.8	30.8	29.7
Serial entrepreneurs, unit count	7.8	33.8	30.8	29.7
10. Interm. services element, 0-100 best	.	48.6	46.8	42.1
Coaches, unit count	22.0	38.3	36.0	32.1
Incubators, per million pop.	9.2	84.8	82.2	76.3
Technical employment, % total employment	4.7	35.3	34.6	30.3



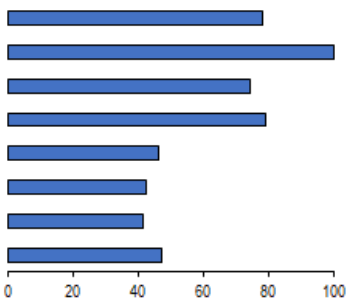




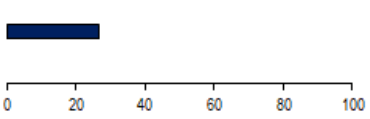


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	13.1	78.1
Equity-based young firms, per million pop.	1.06	100.0
Unicorns, per million pop.	0.2	74.6
Enterprise churn rate, % business pop.	25.8	79.0
Medium and high-growth enterprises, %	9.5	46.2
3-year survival rate., % new employer enterp.	49.1	42.4
Expectation to create jobs, % entrepreneurs	19.1	41.8
2-year-old employer enterprises, % business population	2.7	47.4



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	82.7	0.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	52.0	26.9
Women founders, % founders	.	.



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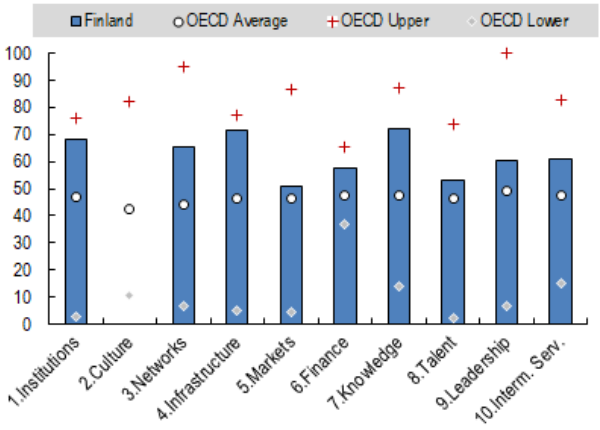
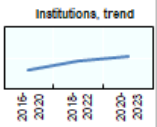
Finland

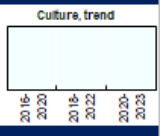
Entrepreneurial ecosystem diagnostics

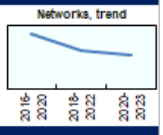


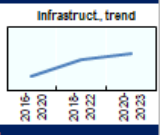
Finland has an above OECD average birth rate of employer enterprises and a high enterprise churn rate. These outcomes are supported by Finland's strong performance in several entrepreneurial ecosystem elements, including Institutions (68.1), Knowledge (71.5), and Infrastructure (71.5). This is indicative of a strong institutional framework, a well-developed knowledge base, and strong digital and transport services. Two elements that perform relatively less strongly are Markets (51.0) and Talent (52.9).

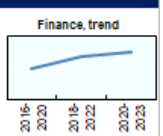
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	68.1	67.8	67.3
Rule of law, 0-100 best	97.0	76.8	76.8	76.8
Control of corruption index, 0-100 low incidence	98.5	67.5	65.9	64.3
Product Market Regulation, Index 0-6 stringent	1.1	71.6	68.9	67.1
Effective tax rate, % taxable income	19.8	58.1	60.7	61.9
2. Culture element, 0-100 best	.	.	.	34.7
Entrepreneurship as a good career choice, % 18-64 pop	.	6.7	6.2	5.8
High status to successful entrepreneurs, % 18-64 pop.	.	80.6	80.0	79.6
Trust in others, % respondents	66.7	91.0	90.2	90.2
3. Networks element, 0-100 best	.	65.4	66.2	68.9
SMEs collaborating on innovation, % total SMEs	27.3	56.9	54.6	52.8
University-business collaboration, 1-7 best	5.1	75.2	80.3	89.7
4. Infrastructure element, 0-100 best	.	71.5	69.6	64.5
Fix broadband, subs. per 100 pop.	33.8	47.3	45.1	41.6
Mobile data use, Gb per subscrip./month	37.8	100.0	100.0	90.9
Transport infrastructure quality, 1-5 high	4.2	77.5	74.7	71.0
5. Markets element, 0-100 best	.	51.0	48.7	44.7
Gross domestic product, PPP$ million	329.0	37.1	35.7	33.8
Trade facilitation index, 0-2 best	1.8	70.1	66.3	59.0
6. Finance element, 0-100 best	.	57.6	56.7	55.0
Early-stage VC investment, USD per capita	37.65	47.1	45.9	43.9
Later-stage VC investment, USD per capita	40.19	49.0	47.7	45.8
Outstanding SME loans, thousands USD per capita	9.1	55.8	55.8	55.7
Factoring, thousands USD per capita	4.7	85.2	84.8	81.5











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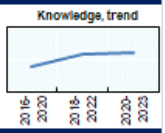
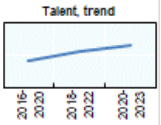
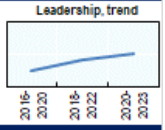
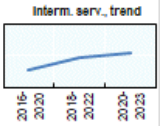
Finland

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	72.1	71.5	67.8
Patents, per million pop.	58.2	69.1	68.9	67.6
R&D expenditure, % GDP	3.0	66.7	65.2	63.2
GitHub software uploads, per thousand people	359.8	81.2	81.2	72.9
8. Talent element, 0-100 best	.	52.9	51.1	48.1
Mean years of schooling, years	.	59.8	60.1	59.5
Pisa, score	500.4	67.4	71.9	79.3
Internet users, % pop.	92.9	60.7	54.7	46.6
Perceived entrepreneurial capabilities, % 18-64 pop.	42.1	32.0	28.9	24.3
9. Leadership element, 0-100 best	.	60.2	58.6	54.9
Serial entrepreneurs, unit count	36.5	60.2	58.6	54.9
10. Interm. services element, 0-100 best	.	61.1	59.6	55.7
Coaches, unit count	55.3	53.1	50.8	45.4
Incubators, per million pop.	5.2	56.9	56.4	53.8
Technical employment, % total employment	7.2	75.5	74.0	70.8



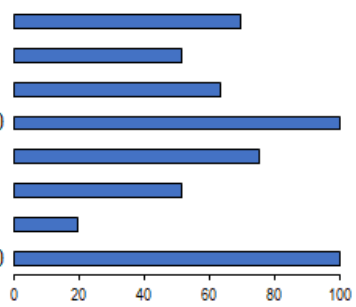




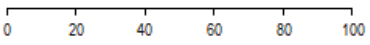


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	12.0	69.7
Equity-based young firms, per million pop.	0.29	51.5
Unicorns, per million pop.	0.2	63.3
Enterprise churn rate, % business pop.	41.5	100.0
Medium and high-growth enterprises, %	12.5	75.4
3-year survival rate., % new employer enterp.	54.7	51.6
Expectation to create jobs, % entrepreneurs	10.9	19.8
2-year-old employer enterprises, % business population	10.7	100.0



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	31.0	46.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	48.0	33.6
Women founders, % founders	.	.



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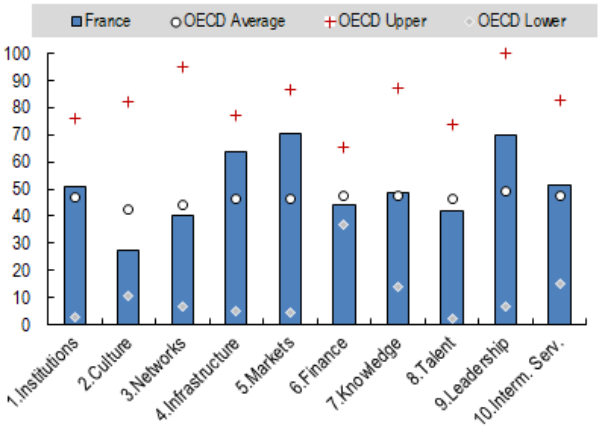
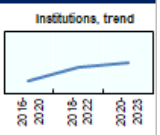
France

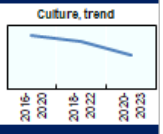
Entrepreneurial ecosystem diagnostics

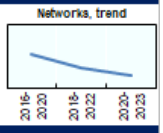


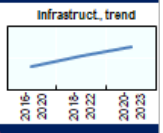
France has a relatively high enterprise churn rate, signalling a dynamic entrepreneurial ecosystem. Among the entrepreneurial ecosystem elements, France has high scores in the Markets (70.3) and Leadership (70.0) elements, reflecting important strengths of France's ecosystem. However, France's entrepreneurial ecosystem performs less well on the Culture (27.1) and Networks (40.4) elements.

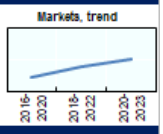
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	51.0	43.1	21.5
Rule of law, 0-100 best	88.0	62.0	62.0	62.0
Control of corruption index, 0-100 low incidence	94.9	62.3	59.1	57.7
Product Market Regulation, Index 0-6 stringent	1.1	66.5	62.7	60.2
Effective tax rate, % taxable income	25.5	26.3	15.1	0.0
2. Culture element, 0-100 best	.	27.1	37.3	42.1
Entrepreneurship as a good career choice, % 18-64 pop	66.7	62.6	57.4	48.7
High status to successful entrepreneurs, % 18-64 pop.	55.8	8.6	24.3	41.2
Trust in others, % respondents	27.4	37.2	37.1	37.1
3. Networks element, 0-100 best	.	40.4	40.6	41.1
SMEs collaborating on innovation, % total SMEs	14.6	38.6	37.7	36.8
University-business collaboration, 1-7 best	4.2	42.3	43.8	45.9
4. Infrastructure element, 0-100 best	.	63.5	60.7	57.5
Fix broadband, subs. per 100 pop.	45.9	83.6	80.9	75.6
Mobile data use, Gb per subscrip./month	13.2	50.3	43.5	37.1
Transport infrastructure quality, 1-5 high	3.8	60.9	63.7	67.7
5. Markets element, 0-100 best	.	70.3	67.9	64.5
Gross domestic product, PPP$ million	3,784.7	78.7	77.4	75.6
Trade facilitation index, 0-2 best	1.8	62.8	59.6	55.0
6. Finance element, 0-100 best	.	44.1	43.5	42.4
Early-stage VC investment, USD per capita	17.38	42.3	41.7	40.5
Later-stage VC investment, USD per capita	21.92	45.1	44.2	42.4
Outstanding SME loans, thousands USD per capita	8.6	54.4	53.3	51.8
Factoring, thousands USD per capita	0.5	36.3	36.5	36.3

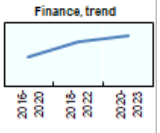












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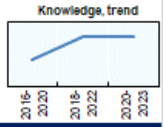
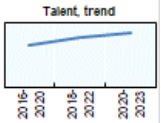
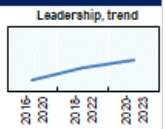
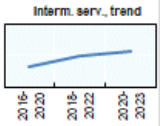
France

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	48.9	48.9	47.1
Patents, per million pop.	29.3	49.2	49.4	49.9
R&D expenditure, % GDP	2.2	51.9	51.6	51.7
GitHub software uploads, per thousand people	202.3	45.8	45.8	40.4
8. Talent element, 0-100 best	.	42.0	38.9	32.7
Mean years of schooling, years	.	39.2	39.6	38.8
Pisa, score	482.2	52.0	55.2	60.1
Internet users, % pop.	85.7	33.5	28.1	19.2
Perceived entrepreneurial capabilities, % 18-64 pop.	48.2	45.7	37.2	25.7
9. Leadership element, 0-100 best	.	70.0	67.6	63.6
Serial entrepreneurs, unit count	63.3	70.0	67.6	63.6
10. Interm. services element, 0-100 best	.	51.5	49.8	46.8
Coaches, unit count	115.0	65.1	61.8	56.9
Incubators, per million pop.	2.4	36.9	36.4	35.1
Technical employment, % total employment	6.0	57.0	54.9	51.3



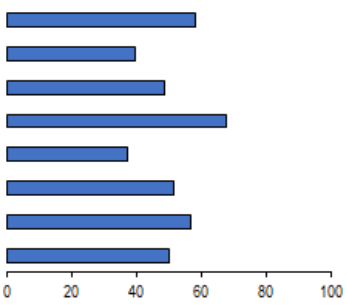




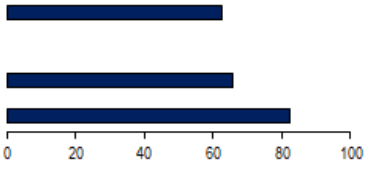


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	10.5	58.3
Equity-based young firms, per million pop.	0.18	39.9
Unicorns, per million pop.	0.1	48.6
Enterprise churn rate, % business pop.	22.4	67.9
Medium and high-growth enterprises, %	8.6	37.4
3-year survival rate., % new employer enterp.	54.8	51.8
Expectation to create jobs, % entrepreneurs	24.6	56.9
2-year-old employer enterprises, % business population	2.9	50.1



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	17.9	62.5
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	29.2	65.5
Women founders, % founders	26.4	82.4



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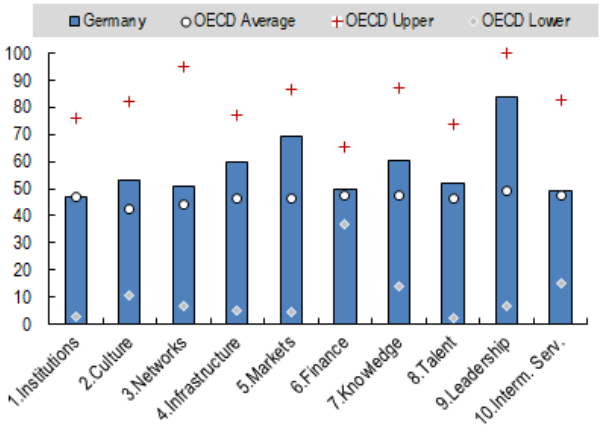
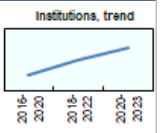
Germany

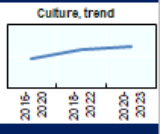
Entrepreneurial ecosystem diagnostics

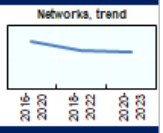


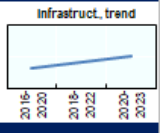
Germany's entrepreneurial ecosystem has many of the characteristics needed to foster productive entrepreneurship. The ecosystem elements that perform particularly well are the Market element (69.2) and the Leadership element (84), the latter's score being driven by a high concentration of serial entrepreneurs. Relative to other OECD countries, Germany performs less well in the Institutions (46.9) and Intermediate Services (49.3) elements.

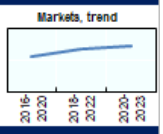
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	46.9	45.1	42.6
Rule of law, 0-100 best	91.8	68.2	66.9	65.0
Control of corruption index, 0-100 low incidence	98.3	67.2	66.4	65.7
Product Market Regulation, Index 0-6 stringent	1.3	58.7	54.3	51.3
Effective tax rate, % taxable income	27.0	18.0	17.1	15.1
2. Culture element, 0-100 best	.	53.1	52.0	49.4
Entrepreneurship as a good career choice, % 18-64 pop	54.4	36.3	35.3	31.6
High status to successful entrepreneurs, % 18-64 pop.	80.4	72.9	71.6	68.7
Trust in others, % respondents	41.7	56.7	55.5	55.5
3. Networks element, 0-100 best	.	50.8	51.2	52.6
SMEs collaborating on innovation, % total SMEs	13.8	37.4	35.6	34.4
University-business collaboration, 1-7 best	5.0	69.0	73.5	80.6
4. Infrastructure element, 0-100 best	.	59.9	56.1	52.1
Fix broadband, subs. per 100 pop.	44.2	78.4	75.5	69.4
Mobile data use, Gb per subscrip./month	7.0	31.6	26.7	22.7
Transport infrastructure quality, 1-5 high	4.3	86.7	87.7	90.2
5. Markets element, 0-100 best	.	69.2	67.0	62.6
Gross domestic product, PPP$ million	5,440.0	84.9	83.7	82.2
Trade facilitation index, 0-2 best	1.8	56.4	53.6	47.7
6. Finance element, 0-100 best	.	49.5	48.8	47.2
Early-stage VC investment, USD per capita	21.87	43.4	42.8	41.5
Later-stage VC investment, USD per capita	20.18	44.7	43.8	42.1
Outstanding SME loans, thousands USD per capita	4.5	44.5	44.3	44.1
Factoring, thousands USD per capita	3.4	69.8	68.2	64.2

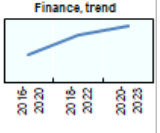












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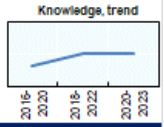
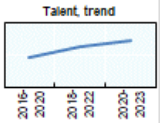
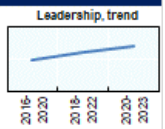
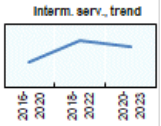
Germany

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	60.2	60.2	58.1
Patents, per million pop.	52.7	65.2	65.1	66.8
R&D expenditure, % GDP	3.1	70.2	70.3	69.2
GitHub software uploads, per thousand people	210.2	47.6	47.6	42.5
8. Talent element, 0-100 best	.	52.1	51.4	49.7
Mean years of schooling, years	14.3	82.7	81.3	81.3
Pisa, score	486.9	56.0	59.8	66.4
Internet users, % pop.	91.3	54.8	48.3	37.2
Perceived entrepreneurial capabilities, % 18-64 pop.	40.8	29.1	29.7	30.3
9. Leadership element, 0-100 best	.	84.0	82.5	79.7
Serial entrepreneurs, unit count	137.8	84.0	82.5	79.7
10. Interm. services element, 0-100 best	.	49.3	49.5	48.8
Coaches, unit count	332.3	82.5	80.0	75.9
Incubators, per million pop.	2.3	36.1	35.5	33.8
Technical employment, % total employment	5.0	40.3	42.7	45.4



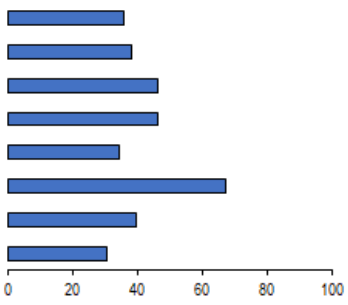




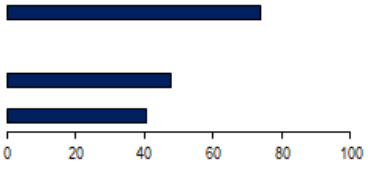


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.6	36.1
Equity-based young firms, per million pop.	0.16	38.1
Unicorns, per million pop.	0.1	46.3
Enterprise churn rate, % business pop.	15.8	46.3
Medium and high-growth enterprises, %	8.3	34.5
3-year survival rate., % new employer enterp.	64.2	67.2
Expectation to create jobs, % entrepreneurs	18.3	39.8
2-year-old employer enterprises, % business population	1.4	30.5



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	8.4	74.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	39.5	48.0
Women founders, % founders	17.4	40.7



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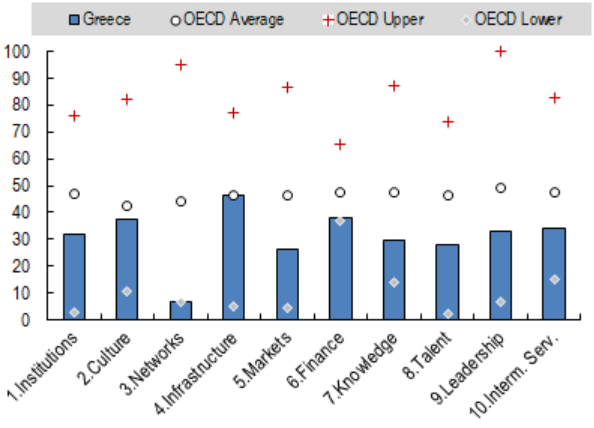
Greece

Entrepreneurial ecosystem diagnostics



In many areas, Greece's productive entrepreneurship outputs are close to the OECD average, for example in terms of the birth rate of employer enterprises and the share of 2-year-old employer enterprises. With respect to the entrepreneurial ecosystem elements, Infrastructure (46.4) and Finance (38.2) are the areas where Greece performs the best. Areas for improvement include the Networks (6.7) and Markets (26.3) elements.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	31.8	28.0	25.1	
Rule of law, 0-100 best	59.0	14.5	14.5	14.5	Institutions, trend
Control of corruption index, 0-100 low incidence	73.6	31.3	26.7	25.1	
Product Market Regulation, Index 0-6 stringent	1.5	40.1	29.3	22.2	
Effective tax rate, % taxable income	20.2	55.9	53.9	49.3	
2. Culture element, 0-100 best	.	37.3	32.7	31.2	
Entrepreneurship as a good career choice, % 18-64 pop	69.8	69.3	57.2	52.9	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	69.0	43.1	31.8	29.8	
Trust in others, % respondents	13.0	17.4	19.2	19.2	
3. Networks element, 0-100 best	.	6.7	6.9	7.0	
SMEs collaborating on innovation, % total SMEs	19.0	45.0	47.6	48.8	Networks, trend
University-business collaboration, 1-7 best	3.0	0.0	0.0	0.0	
4. Infrastructure element, 0-100 best	.	46.4	39.7	32.3	
Fix broadband, subs. per 100 pop.	41.3	69.8	65.3	56.2	Infrastruct., trend
Mobile data use, Gb per subscrip./month	7.0	31.6	25.1	19.9	
Transport infrastructure quality, 1-5 high	3.6	45.3	38.0	30.2	
5. Markets element, 0-100 best	.	26.3	14.0	6.0	
Gross domestic product, PPP$ million	378.8	39.5	38.0	36.4	Markets, trend
Trade facilitation index, 0-2 best	1.6	17.5	5.2	0.0	
6. Finance element, 0-100 best	.	38.2	38.4	38.5	
Early-stage VC investment, USD per capita	3.54	39.1	38.9	38.6	Finance, trend
Later-stage VC investment, USD per capita	1.79	40.7	40.7	40.5	
Outstanding SME loans, thousands USD per capita	3.0	41.1	42.2	43.8	
Factoring, thousands USD per capita	0.2	32.7	32.5	32.1	

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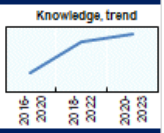
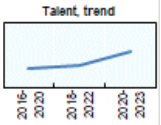
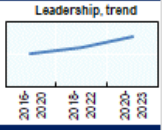
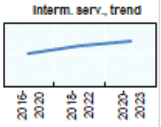
Greece

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	29.4	28.9	26.5
Patents, per million pop.	2.0	30.4	30.3	30.3
R&D expenditure, % GDP	1.5	37.0	35.0	31.8
GitHub software uploads, per thousand people	99.4	22.7	22.7	19.4
8. Talent element, 0-100 best	.	27.7	17.5	14.4
Mean years of schooling, years	11.4	37.2	37.2	37.2
Pisa, score	440.7	17.0	20.6	26.5
Internet users, % pop.	81.2	16.2	2.3	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	53.5	57.5	53.4	43.6
9. Leadership element, 0-100 best	.	32.7	31.2	30.3
Serial entrepreneurs, unit count	7.3	32.7	31.2	30.3
10. Interm. services element, 0-100 best	.	34.4	32.7	30.3
Coaches, unit count	19.0	36.0	34.3	31.9
Incubators, per million pop.	0.8	25.6	25.6	25.5
Technical employment, % total employment	5.2	44.0	39.7	34.3



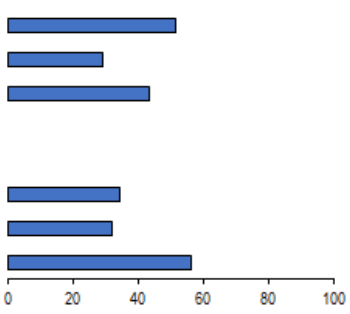




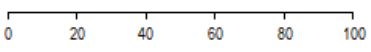


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	9.6	51.4
Equity-based young firms, per million pop.	0.08	29.0
Unicorns, per million pop.	0.1	43.6
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	44.2	34.4
Expectation to create jobs, % entrepreneurs	15.5	32.3
2-year-old employer enterprises, % business population	3.4	56.6



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	28.6	49.5
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	14.6	90.2
Women founders, % founders	.	.



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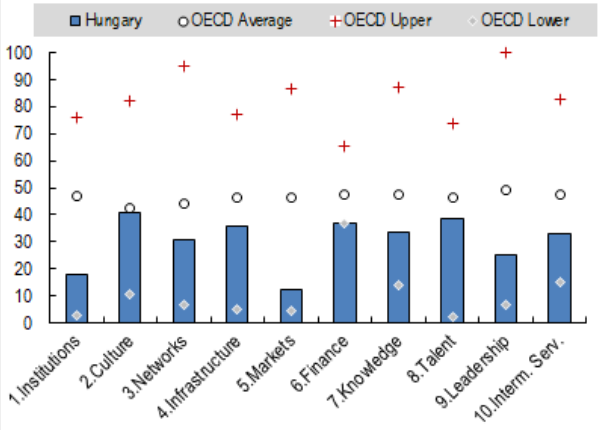
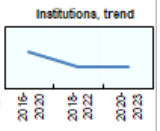
Hungary

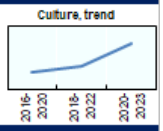
Entrepreneurial ecosystem diagnostics

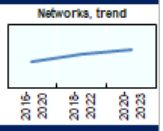


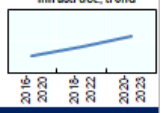
Hungary has a high enterprise churn rate, which is indicative of a dynamic entrepreneurial ecosystem, although job creation expectations among entrepreneurs is below the OECD average. In terms of the entrepreneurial ecosystem elements, Hungary performs best in Culture (40.7) and Talent (38.5) elements. However, Hungary faces challenges in Institutions (18.1). Markets (12.4) and Leadership (25.4).

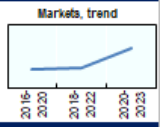
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	18.1	18.3	30.1
Rule of law, 0-100 best	69.0	30.9	32.9	36.8
Control of corruption index, 0-100 low incidence	49.0	0.0	0.0	6.6
Product Market Regulation, Index 0-6 stringent	1.6	34.9	34.3	33.8
Effective tax rate, % taxable income	10.7	100.0	100.0	100.0
2. Culture element, 0-100 best	.	40.7	40.4	40.3
Entrepreneurship as a good career choice, % 18-64 pop	63.5	55.8	51.3	42.6
High status to successful entrepreneurs, % 18-64 pop.	64.7	31.8	34.5	41.4
Trust in others, % respondents	28.0	38.0	37.1	37.1
3. Networks element, 0-100 best	.	30.9	27.4	21.4
SMEs collaborating on innovation, % total SMEs	9.7	31.5	29.9	28.6
University-business collaboration, 1-7 best	3.9	30.2	25.1	16.0
4. Infrastructure element, 0-100 best	.	35.7	34.0	32.6
Fix broadband, subs. per 100 pop.	34.7	50.0	46.8	39.8
Mobile data use, Gb per subscrip./month	10.3	41.6	34.6	28.0
Transport infrastructure quality, 1-5 high	3.1	21.9	24.2	31.1
5. Markets element, 0-100 best	.	12.4	6.2	6.0
Gross domestic product, PPP$ million	396.1	40.2	38.6	36.3
Trade facilitation index, 0-2 best	1.6	3.8	0.0	0.0
6. Finance element, 0-100 best	.	36.7	36.7	36.6
Early-stage VC investment, USD per capita	9.22	40.4	40.5	40.3
Later-stage VC investment, USD per capita	4.36	41.3	41.1	40.7
Outstanding SME loans, thousands USD per capita	1.2	36.5	36.6	36.7
Factoring, thousands USD per capita	0.0	29.9	29.9	30.0

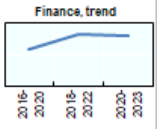












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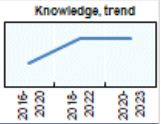
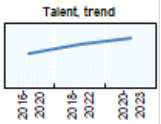
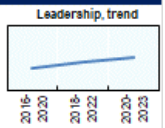
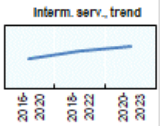
Hungary

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	33.7	33.7	31.9
Patents, per million pop.	4.2	32.0	32.3	32.2
R&D expenditure, % GDP	1.5	38.1	37.7	35.5
GitHub software uploads, per thousand people	138.7	31.5	31.5	28.4
8. Talent element, 0-100 best	.	38.5	33.8	26.7
Mean years of schooling, years	12.2	50.6	50.6	50.6
Pisa, score	477.7	48.3	48.7	48.5
Internet users, % pop.	88.5	44.0	26.1	9.6
Perceived entrepreneurial capabilities, % 18-64 pop.	36.9	20.5	20.1	21.7
9. Leadership element, 0-100 best	.	25.4	22.1	17.7
Serial entrepreneurs, unit count	4.5	25.4	22.1	17.7
10. Interm. services element, 0-100 best	.	33.2	29.2	23.3
Coaches, unit count	14.0	31.3	27.6	22.1
Incubators, per million pop.	2.5	37.8	37.3	35.6
Technical employment, % total employment	4.5	31.0	24.3	16.1



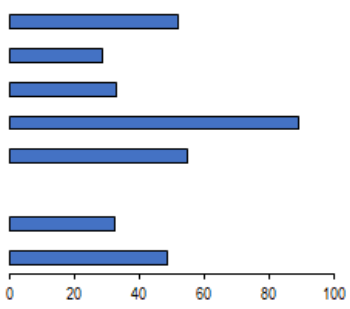




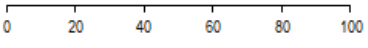


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	9.7	52.2
Equity-based young firms, per million pop.	0.08	28.8
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	29.0	89.5
Medium and high-growth enterprises, %	10.4	55.0
3-year survival rate., % new employer enterp.	19.7	0.0
Expectation to create jobs, % entrepreneurs	15.6	32.6
2-year-old employer enterprises, % business population	2.8	48.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	39.4	36.4
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	41.1	45.3
Women founders, % founders	.	.



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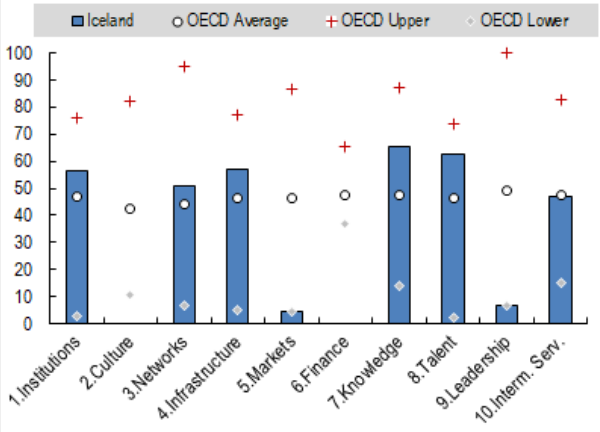
Iceland

Entrepreneurial ecosystem diagnostics



Iceland's entrepreneurial ecosystem boasts a high birth rate of employer enterprises and the presence of many equity-based young firms. Iceland's top performing entrepreneurial ecosystem elements are Knowledge (65.2) and Talent (62.6). Weaker scores are registered in the Markets (4.4) and Leadership (7.0) elements, both of which are affected strongly by the size of the domestic economy and population.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	56.3	56.4	56.0	
Rule of law, 0-100 best	91.8	68.2	69.9	68.9	Institutions, trend
Control of corruption index, 0-100 low incidence	97.7	66.3	66.2	66.0	
Product Market Regulation, Index 0-6 stringent	1.6	38.4	35.2	33.0	
Effective tax rate, % taxable income	19.8	58.0	62.1	65.3	
2. Culture element, 0-100 best	.	.	.	.	
Entrepreneurship as a good career choice, % 18-64 pop	.	72.4	72.4	72.2	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	.	70.1	70.1	69.9	
Trust in others, % respondents	58.1	79.3	78.0	78.0	
3. Networks element, 0-100 best	.	50.8	51.1	53.6	
SMEs collaborating on innovation, % total SMEs	22.0	49.3	49.9	49.9	Networks, trend
University-business collaboration, 1-7 best	4.5	52.3	52.4	57.5	
4. Infrastructure element, 0-100 best	.	57.2	51.9	43.4	
Fix broadband, subs. per 100 pop.	37.7	59.0	60.4	61.8	Infrastruct., trend
Mobile data use, Gb per subscrip./month	22.0	76.5	64.5	52.6	
Transport infrastructure quality, 1-5 high	3.5	41.5	35.8	25.1	
5. Markets element, 0-100 best	.	4.4	3.8	2.4	
Gross domestic product, PPP$ million	25.6	0.0	0.0	0.0	Markets, trend
Trade facilitation index, 0-2 best	1.6	19.0	14.6	5.7	
6. Finance element, 0-100 best	.	.	.	.	
Early-stage VC investment, USD per capita	.	100.0	100.0	88.6	Finance, trend
Later-stage VC investment, USD per capita	.	91.2	79.2	69.3	
Outstanding SME loans, thousands USD per capita	.	48.4	48.2	47.2	
Factoring, thousands USD per capita	.	50.1	50.1	50.2	

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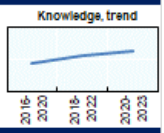
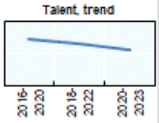
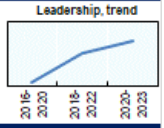
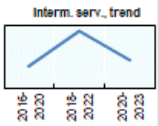
Iceland

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	65.2	62.5	57.7
Patents, per million pop.	35.2	53.2	50.0	43.8
R&D expenditure, % GDP	2.6	59.9	56.3	51.5
GitHub software uploads, per thousand people	385.1	86.9	86.9	85.1
8. Talent element, 0-100 best	.	62.6	65.8	69.3
Mean years of schooling, years	13.8	74.9	74.6	74.6
Pisa, score	455.8	29.7	36.9	46.9
Internet users, % pop.	99.7	86.7	86.0	83.7
Perceived entrepreneurial capabilities, % 18-64 pop.	.	79.5	79.3	78.9
9. Leadership element, 0-100 best	.	7.0	5.1	0.5
Serial entrepreneurs, unit count	1.0	7.0	5.1	0.5
10. Interm. services element, 0-100 best	.	46.9	47.8	46.7
Coaches, unit count	5.8	18.1	17.2	15.0
Incubators, per million pop.	16.1	100.0	100.0	100.0
Technical employment, % total employment	6.0	57.0	63.5	67.9



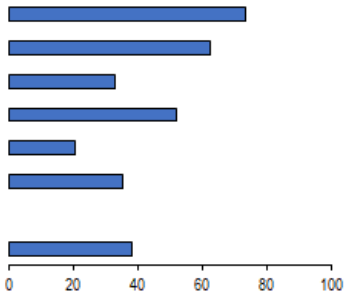






Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	12.5	73.6
Equity-based young firms, per million pop.	0.39	62.4
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	17.6	52.2
Medium and high-growth enterprises, %	6.9	20.9
3-year survival rate., % new employer enterp.	44.9	35.5
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	2.0	38.3



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	75.3	0.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	.	.
Women founders, % founders	.	.

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Ireland

Entrepreneurial ecosystem diagnostics

Ireland's entrepreneurial ecosystem has produced a high number of unicorns relative to the country's size, demonstrating success in the generation of high potential start-ups. In terms of the entrepreneurial ecosystem elements, Ireland performs well in multiple areas, with particularly strong scores in the Institutions (76.2) and Intermediate services (64.4) elements. This performance is facilitated by Ireland's high concentration of incubators and technical skills. The less strong elements can be found in Culture (46.0) and Infrastructure (45.2).

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	76.2	75.7	75.2	
Rule of law, 0-100 best	88.8	63.3	62.0	62.0	Institutions, trend
Control of corruption index, 0-100 low incidence	96.1	64.0	63.3	62.0	
Product Market Regulation, Index 0-6 stringent	0.9	83.8	83.5	83.3	
Effective tax rate, % taxable income	12.4	99.1	100.0	100.0	
2. Culture element, 0-100 best	.	46.0	32.6	36.3	
Entrepreneurship as a good career choice, % 18-64 pop	60.2	48.8	35.3	30.3	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	67.4	38.9	19.1	30.6	
Trust in others, % respondents	.	51.4	51.4	51.4	
3. Networks element, 0-100 best	.	54.2	54.4	54.7	
SMEs collaborating on innovation, % total SMEs	18.1	43.7	41.4	41.4	Networks, trend
University-business collaboration, 1-7 best	4.9	67.3	71.6	72.3	
4. Infrastructure element, 0-100 best	.	45.2	40.9	38.1	
Fix broadband, subs. per 100 pop.	31.1	39.2	37.3	34.3	Infrastruct., trend
Mobile data use, Gb per subscrip./month	16.7	60.8	51.0	40.7	
Transport infrastructure quality, 1-5 high	3.4	38.7	35.8	39.8	
5. Markets element, 0-100 best	.	53.7	51.1	46.7	
Gross domestic product, PPP$ million	618.0	47.8	45.4	41.3	Markets, trend
Trade facilitation index, 0-2 best	1.8	60.4	57.6	52.8	
6. Finance element, 0-100 best	.	54.1	54.2	53.5	
Early-stage VC investment, USD per capita	41.11	47.9	47.5	46.6	Finance, trend
Later-stage VC investment, USD per capita	22.28	45.1	45.3	43.7	
Outstanding SME loans, thousands USD per capita	2.5	39.7	40.3	41.4	
Factoring, thousands USD per capita	5.9	100.0	99.7	97.5	

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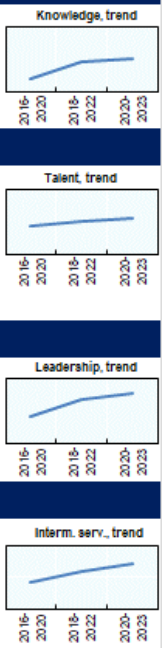
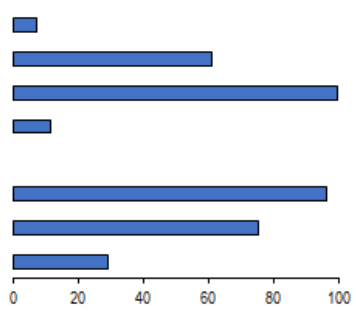
Ireland

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	47.5	47.3	46.1
Patents, per million pop.	32.2	51.2	49.6	47.3
R&D expenditure, % GDP	1.1	28.6	29.1	30.5
GitHub software uploads, per thousand people	324.8	73.4	73.4	67.7
8. Talent element, 0-100 best	.	56.3	51.0	44.3
Mean years of schooling, years	.	37.6	37.6	37.6
Pisa, score	504.0	70.5	70.6	71.6
Internet users, % pop.	94.0	65.0	54.4	37.3
Perceived entrepreneurial capabilities, % 18-64 pop.	53.8	58.3	47.1	38.4
9. Leadership element, 0-100 best	.	47.9	46.9	44.3
Serial entrepreneurs, unit count	18.0	47.9	46.9	44.3
10. Interm. services element, 0-100 best	.	64.4	61.9	58.5
Coaches, unit count	71.0	57.2	55.5	52.2
Incubators, per million pop.	7.2	70.8	69.8	65.1
Technical employment, % total employment	6.6	65.9	61.3	59.0

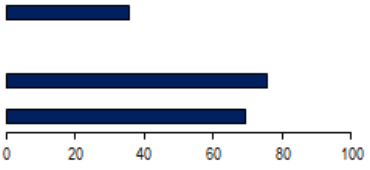


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	3.8	7.1
Equity-based young firms, per million pop.	0.38	61.2
Unicorns, per million pop.	0.4	99.9
Enterprise churn rate, % business pop.	5.2	11.6
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	81.9	96.2
Expectation to create jobs, % entrepreneurs	31.5	75.7
2-year-old employer enterprises, % business population	1.3	29.2



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	40.2	35.5
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	23.2	75.7
Women founders, % founders	23.6	69.4



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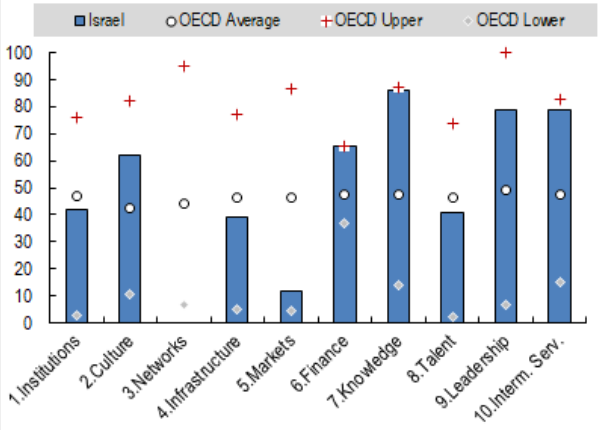
Israel

Entrepreneurial ecosystem diagnostics



Israel has a highly performant entrepreneurial ecosystem in terms of the number of start-ups and unicorns created. The main strengths are in the Knowledge (86.1), Leadership (79.1) and Intermediate Services (78.7) elements. In addition, Israel is one of the top OECD countries in terms of venture capital investments. These results reflect Israel's strengths in mentorship, knowledge generation, and innovation. However, Israel's ecosystem element scores are below the OECD average for the Markets (12.0), Infrastructure (39.4) and Talent (40.7) elements.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	42.0	40.0	37.4	
Rule of law, 0-100 best	72.8	37.0	39.7	38.8	Institutions, trend
Control of corruption index, 0-100 low incidence	86.9	50.6	49.0	47.6	
Product Market Regulation, Index 0-6 stringent	1.7	29.3	22.3	17.7	
Effective tax rate, % taxable income	20.1	56.4	59.0	60.0	
2. Culture element, 0-100 best	.	61.9	62.2	63.3	
Entrepreneurship as a good career choice, % 18-64 pop	63.4	55.5	56.6	56.9	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	83.6	81.2	80.5	84.5	
Trust in others, % respondents	.	52.6	52.6	52.6	
3. Networks element, 0-100 best	.	.	.	.	
SMEs collaborating on innovation, % total SMEs	.	100.0	100.0	100.0	Networks, trend
University-business collaboration, 1-7 best	5.7	94.4	95.2	95.2	
4. Infrastructure element, 0-100 best	.	39.4	36.3	33.3	
Fix broadband, subs. per 100 pop.	28.0	30.0	29.3	28.1	Infrastruct., trend
Mobile data use, Gb per subscrip./month	10.7	42.8	38.5	34.7	
Transport infrastructure quality, 1-5 high	3.6	47.5	42.4	38.0	
5. Markets element, 0-100 best	.	12.0	6.4	6.2	
Gross domestic product, PPP$ million	460.4	42.8	40.8	38.4	Markets, trend
Trade facilitation index, 0-2 best	1.6	3.3	0.0	0.0	
6. Finance element, 0-100 best	.	65.3	64.9	63.1	
Early-stage VC investment, USD per capita	536.12	100.0	100.0	92.4	Finance, trend
Later-stage VC investment, USD per capita	626.88	100.0	100.0	100.0	
Outstanding SME loans, thousands USD per capita	7.9	52.9	52.2	50.9	
Factoring, thousands USD per capita	0.4	34.3	33.9	33.7	

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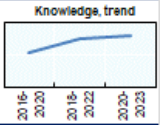
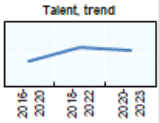
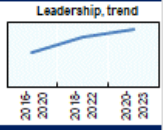
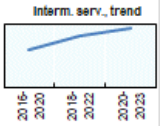
Israel

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	86.1	85.2	80.5
Patents, per million pop.	81.4	85.0	82.5	78.3
R&D expenditure, % GDP	5.9	100.0	100.0	100.0
GitHub software uploads, per thousand people	332.1	75.0	75.0	66.6
8. Talent element, 0-100 best	.	40.7	41.1	38.9
Mean years of schooling, years	.	67.1	67.1	67.1
Pisa, score	465.4	37.9	37.8	38.8
Internet users, % pop.	90.8	52.6	44.3	28.3
Perceived entrepreneurial capabilities, % 18-64 pop.	36.9	20.5	25.4	30.9
9. Leadership element, 0-100 best	.	79.1	77.9	75.5
Serial entrepreneurs, unit count	105.0	79.1	77.9	75.5
10. Interm. services element, 0-100 best	.	78.7	76.4	72.0
Coaches, unit count	150.8	69.5	68.0	64.6
Incubators, per million pop.	9.5	86.7	84.6	80.4
Technical employment, % total employment	7.5	80.8	77.5	71.9



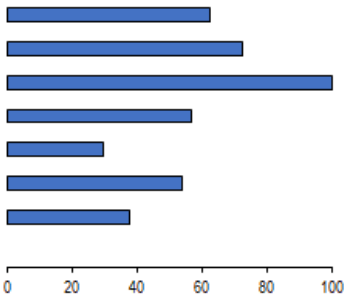




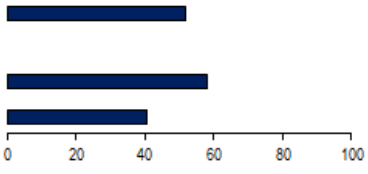


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	11.1	62.6
Equity-based young firms, per million pop.	0.49	72.8
Unicorns, per million pop.	0.7	100.0
Enterprise churn rate, % business pop.	19.0	56.8
Medium and high-growth enterprises, %	7.8	29.6
3-year survival rate., % new employer enterp.	56.0	53.8
Expectation to create jobs, % entrepreneurs	17.5	37.7
2-year-old employer enterprises, % business population	.	.



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	26.6	51.9
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	33.4	58.3
Women founders, % founders	17.5	40.8



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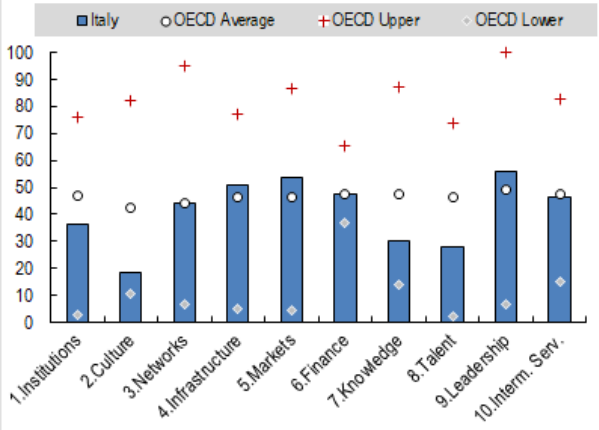
Italy

Entrepreneurial ecosystem diagnostics



Italy's top performing entrepreneurial ecosystem elements are Markets (53.8) and Leadership (56.0). These scores reflect a large domestic market and the presence of many entrepreneurs with strong management capabilities. However, areas for improvement can be found in the Culture (18.3), Talent (27.9), and Knowledge (30.2) elements.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	36.6	36.2	33.8	
Rule of law, 0-100 best	56.0	9.6	9.6	9.6	Institutions, trend
Control of corruption index, 0-100 low incidence	84.5	47.1	43.8	37.9	
Product Market Regulation, Index 0-6 stringent	1.2	61.6	60.3	59.5	
Effective tax rate, % taxable income	18.7	64.1	67.7	60.3	
2. Culture element, 0-100 best	.	18.3	10.0	11.1	
Entrepreneurship as a good career choice, % 18-64 pop	58.2	44.3	26.0	26.9	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	53.9	3.5	0.0	1.3	
Trust in others, % respondents	28.6	38.8	38.9	38.9	
3. Networks element, 0-100 best	.	44.3	38.7	32.7	
SMEs collaborating on innovation, % total SMEs	13.8	37.5	34.0	32.1	Networks, trend
University-business collaboration, 1-7 best	4.5	52.3	44.1	33.3	
4. Infrastructure element, 0-100 best	.	51.1	46.5	40.4	
Fix broadband, subs. per 100 pop.	31.6	40.6	37.7	31.3	Infrastruct., trend
Mobile data use, Gb per subscrip./month	15.1	55.8	44.8	35.3	
Transport infrastructure quality, 1-5 high	3.8	58.9	59.5	59.5	
5. Markets element, 0-100 best	.	53.8	49.1	41.4	
Gross domestic product, PPP$ million	3,125.3	75.4	74.0	72.3	Markets, trend
Trade facilitation index, 0-2 best	1.7	38.3	32.5	23.7	
6. Finance element, 0-100 best	.	47.7	47.7	46.9	
Early-stage VC investment, USD per capita	5.43	39.5	39.2	38.7	Finance, trend
Later-stage VC investment, USD per capita	3.86	41.2	41.0	40.6	
Outstanding SME loans, thousands USD per capita	2.6	40.1	40.2	40.4	
Factoring, thousands USD per capita	4.2	79.7	80.1	76.5	

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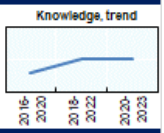
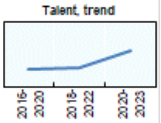
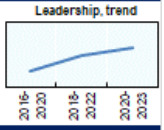
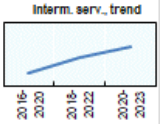
Italy

	Value 2020-2023	Score 2020-2023	Score 2018-2022	Score 2016-2020
7. Knowledge element, 0-100 best	.	30.2	30.2	28.0
Patents, per million pop.	15.5	39.7	39.4	39.4
R&D expenditure, % GDP	1.4	35.6	35.8	35.7
GitHub software uploads, per thousand people	85.3	19.5	19.5	15.7
8. Talent element, 0-100 best	.	27.9	15.1	13.7
Mean years of schooling, years	10.7	26.5	26.5	26.5
Pisa, score	476.8	47.5	47.5	48.9
Internet users, % pop.	79.4	9.2	0.0	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	51.0	52.0	41.3	27.5
9. Leadership element, 0-100 best	.	56.0	55.0	52.6
Serial entrepreneurs, unit count	28.8	56.0	55.0	52.6
10. Interm. services element, 0-100 best	.	46.2	44.5	42.1
Coaches, unit count	68.8	56.7	52.5	46.4
Incubators, per million pop.	1.5	31.0	30.4	29.4
Technical employment, % total employment	6.0	56.3	55.3	54.8



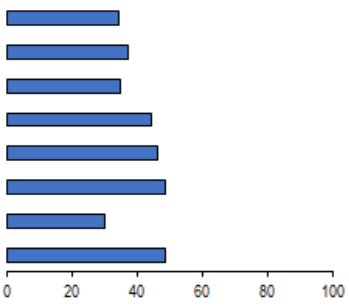




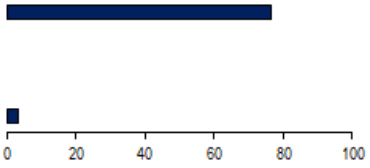


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.4	34.6
Equity-based young firms, per million pop.	0.16	37.5
Unicorns, per million pop.	0.0	34.7
Enterprise churn rate, % business pop.	15.3	44.7
Medium and high-growth enterprises, %	9.5	46.2
3-year survival rate., % new employer enterp.	53.1	49.0
Expectation to create jobs, % entrepreneurs	14.8	30.2
2-year-old employer enterprises, % business population	2.8	48.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	6.5	76.3
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	81.9	0.0
Women founders, % founders	9.4	3.1



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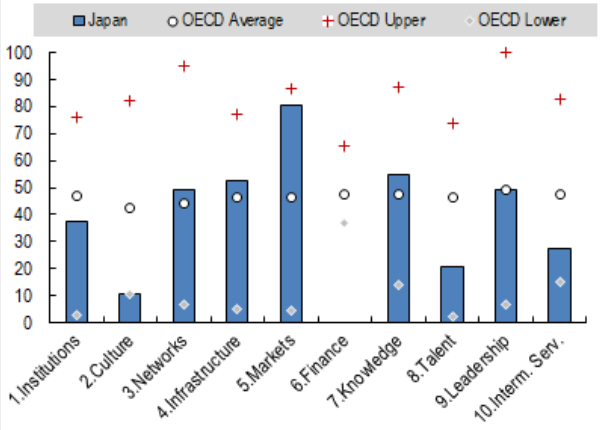
Japan

Entrepreneurial ecosystem diagnostics



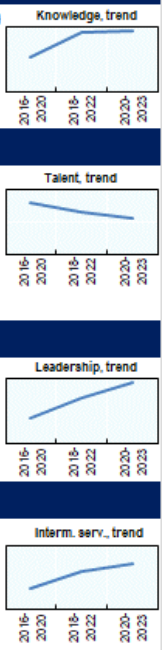
Japan's entrepreneurial ecosystem has several strengths. The entrepreneurial ecosystem elements where Japan performs particularly well are Markets (80.6), Infrastructure (52.5) and Knowledge (54.8). There is scope for improvement in the Culture (10.4), Intermediate services (27.2) and Talent (20.7) elements, which would help to develop more innovative firms with high growth potential.

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	37.2	35.9	33.7
Rule of law, 0-100 best	87.0	60.4	58.1	53.5
Control of corruption index, 0-100 low incidence	92.9	59.3	59.0	56.3
Product Market Regulation, Index 0-6 stringent	1.6	33.5	29.6	27.0
Effective tax rate, % taxable income	27.4	16.0	16.4	15.8
2. Culture element, 0-100 best	.	10.4	9.7	7.8
Entrepreneurship as a good career choice, % 18-64 pop	24.0	0.0	0.0	0.0
High status to successful entrepreneurs, % 18-64 pop.	61.8	24.0	19.1	9.9
Trust in others, % respondents	34.8	47.3	47.3	47.3
3. Networks element, 0-100 best	.	49.0	61.5	70.9
SMEs collaborating on innovation, % total SMEs	18.7	44.6	65.9	82.2
University-business collaboration, 1-7 best	4.5	54.0	57.5	61.2
4. Infrastructure element, 0-100 best	.	52.5	49.5	45.2
Fix broadband, subs. per 100 pop.	35.3	51.8	48.0	41.9
Mobile data use, Gb per subscrip./month	8.0	34.6	31.0	27.6
Transport infrastructure quality, 1-5 high	4.2	80.9	81.6	80.0
5. Markets element, 0-100 best	.	80.6	77.0	70.5
Gross domestic product, PPP$ million	5,773.0	85.9	85.2	84.5
Trade facilitation index, 0-2 best	1.8	75.5	69.5	58.8
6. Finance element, 0-100 best	.	.	.	.
Early-stage VC investment, USD per capita	.	38.6	38.5	38.5
Later-stage VC investment, USD per capita	.	40.4	40.4	40.4
Outstanding SME loans, thousands USD per capita	22.6	88.6	87.1	84.7
Factoring, thousands USD per capita	0.5	35.8	35.6	34.9

Note: value refer to the arithmetic mean of available data in the referenced period. The number of data points within each reference period can vary by country and indicator. Elements' scores are geometric means of the underlying indicators' scores. Indicators' scores are min/max transformations of the value anchored to the 2020-2023 period. The min (max) is the country sample mean of each indicator minus (plus) 2 sample standard deviations, with respect to the distribution of data in the 2020-2023 period. A dot (.) in both score and value columns indicate that the datapoint is not available or it was not possible to impute. If a dot (.) is reported in the value column but a number is reported in the score column, the data point was imputed, using a linear regression technique. Element scores are not computed for countries in periods where there is more than 1 missing or imputed value.

Japan

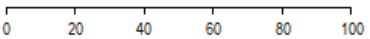
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	54.8	54.6	52.7
Patents, per million pop.	129.1	100.0	100.0	100.0
R&D expenditure, % GDP	3.3	74.0	73.2	71.5
GitHub software uploads, per thousand people	97.3	22.2	22.2	20.5
8. Talent element, 0-100 best	.	20.7	21.5	22.9
Mean years of schooling, years	12.7	57.3	57.3	57.3
Pisa, score	529.5	92.0	89.3	87.0
Internet users, % pop.	86.0	34.6	41.8	54.8
Perceived entrepreneurial capabilities, % 18-64 pop.	13.4	0.0	0.0	0.0
9. Leadership element, 0-100 best	.	49.5	47.1	44.1
Serial entrepreneurs, unit count	19.8	49.5	47.1	44.1
10. Interm. services element, 0-100 best	.	27.2	25.9	23.3
Coaches, unit count	33.5	45.0	41.6	35.9
Incubators, per million pop.	0.7	25.0	24.7	24.1
Technical employment, % total employment	3.7	17.9	16.9	14.7



Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.07	27.5
Unicorns, per million pop.	0.0	34.6
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	21.1	47.3
2-year-old employer enterprises, % business population	.	.

Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	25.4	53.4
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	64.7	5.3
Women founders, % founders	.	.



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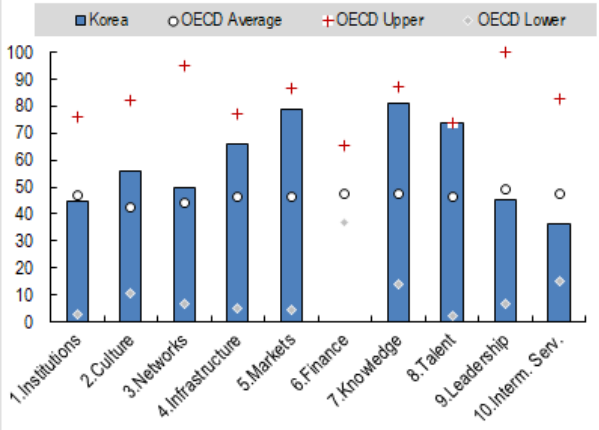
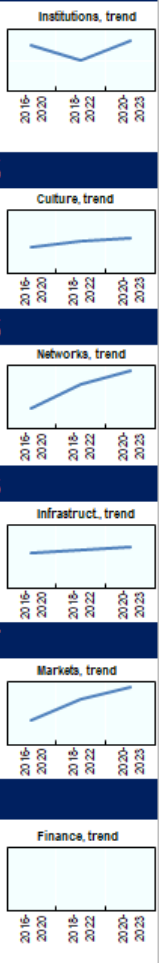
Korea

Entrepreneurial ecosystem diagnostics



Korea has a high birth rate of employer enterprises, supported by an entrepreneurial ecosystem with strong scores relative to the OECD average across a broad range of elements. These include the Knowledge (81.2), Market (79.1), Talent (73.6) and Infrastructure (66.6) elements. Korea performs less well in the Intermediate Services and Leadership elements. These are areas that could be addressed in the future to further strengthen the entrepreneurial ecosystem.

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	44.6	44.0	44.5
Rule of law, 0-100 best	82.5	53.0	50.6	49.6
Control of corruption index, 0-100 low incidence	85.6	48.7	51.3	49.1
Product Market Regulation, Index 0-6 stringent	1.4	49.0	45.9	43.8
Effective tax rate, % taxable income	24.6	31.4	31.5	36.7
2. Culture element, 0-100 best	.	55.9	52.0	41.5
Entrepreneurship as a good career choice, % 18-64 pop	57.4	42.7	39.6	29.5
High status to successful entrepreneurs, % 18-64 pop.	89.4	96.3	83.9	57.3
Trust in others, % respondents	31.2	42.4	42.4	42.4
3. Networks element, 0-100 best	.	49.6	48.6	46.6
SMEs collaborating on innovation, % total SMEs	15.3	39.6	40.8	42.1
University-business collaboration, 1-7 best	4.8	62.1	57.9	51.7
4. Infrastructure element, 0-100 best	.	66.0	61.0	54.8
Fix broadband, subs. per 100 pop.	44.3	78.8	75.7	70.2
Mobile data use, Gb per subscrip./month	13.9	52.4	46.4	40.2
Transport infrastructure quality, 1-5 high	4.0	69.6	64.5	58.4
5. Markets element, 0-100 best	.	79.1	77.3	73.7
Gross domestic product, PPP$ million	2,758.8	73.3	72.0	70.3
Trade facilitation index, 0-2 best	1.9	85.3	82.9	77.3
6. Finance element, 0-100 best	.	.	.	.
Early-stage VC investment, USD per capita	.	39.5	39.1	38.9
Later-stage VC investment, USD per capita	.	40.9	40.7	40.6
Outstanding SME loans, thousands USD per capita	11.6	61.7	60.2	57.3
Factoring, thousands USD per capita	0.5	35.2	35.3	34.3



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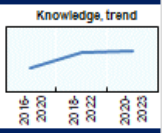
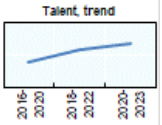
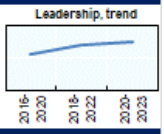
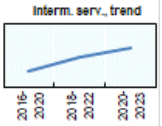
Korea

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	81.2	80.4	67.9
Patents, per million pop.	70.6	77.5	75.2	70.6
R&D expenditure, % GDP	5.0	100.0	100.0	96.8
GitHub software uploads, per thousand people	305.5	69.0	69.0	45.8
8. Talent element, 0-100 best	.	73.6	71.8	67.6
Mean years of schooling, years	.	74.5	74.5	74.5
Pisa, score	522.6	86.1	85.3	84.1
Internet users, % pop.	97.2	77.0	75.2	70.0
Perceived entrepreneurial capabilities, % 18-64 pop.	54.3	59.3	55.6	47.6
9. Leadership element, 0-100 best	.	45.0	44.3	41.3
Serial entrepreneurs, unit count	15.3	45.0	44.3	41.3
10. Interm. services element, 0-100 best	.	36.1	34.8	32.6
Coaches, unit count	26.0	41.0	40.2	38.3
Incubators, per million pop.	2.4	37.0	36.0	34.0
Technical employment, % total employment	4.5	31.1	29.2	26.5



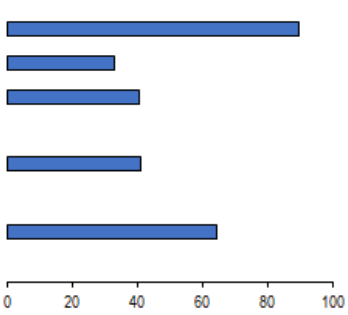




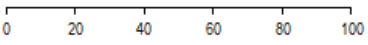


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	14.6	89.6
Equity-based young firms, per million pop.	0.12	33.0
Unicorns, per million pop.	0.0	40.4
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	9.0	41.3
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	27.4	64.5
2-year-old employer enterprises, % business population	.	.



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	17.0	63.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	41.0	45.4
Women founders, % founders	.	.



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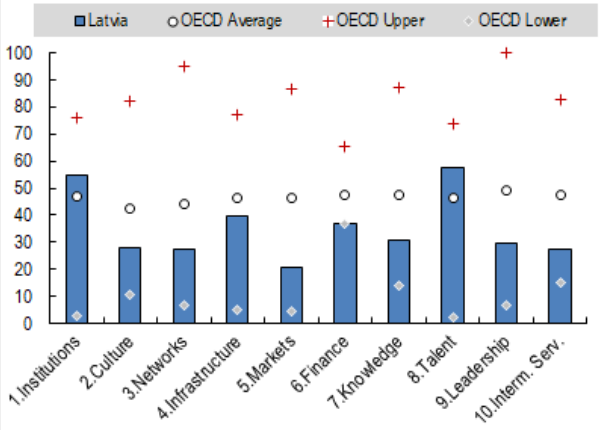
Latvia

Entrepreneurial ecosystem diagnostics



Latvia has a high share of entrepreneurs that expect to create jobs, although the overall business creation rate is below the OECD average. Latvia's top-performing entrepreneurial ecosystem elements are Institutions (54.8) and Talent (57.6), which is indicative of a strong talent base and institutional supports for entrepreneurial activity. The lowest element scores for Latvia's ecosystem are Culture (28.0), Networks (27.5), Intermediate services (27.2) and Markets (20.7). Improving on these aspects could allow Latvia to better leverage its strong talent base and institutional framework conditions.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	54.8	53.1	52.6	
Rule of law, 0-100 best	75.8	42.0	40.7	41.7	Institutions, trend
Control of corruption index, 0-100 low incidence	88.9	53.6	49.2	46.0	
Product Market Regulation, Index 0-6 stringent	1.2	59.4	52.8	48.4	
Effective tax rate, % taxable income	18.1	67.7	75.4	82.7	
2. Culture element, 0-100 best	.	28.0	28.4	28.8	
Entrepreneurship as a good career choice, % 18-64 pop	54.2	35.7	38.1	41.1	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	60.1	19.8	19.0	18.3	
Trust in others, % respondents	23.1	31.2	31.5	31.7	
3. Networks element, 0-100 best	.	27.5	26.3	22.0	
SMEs collaborating on innovation, % total SMEs	6.3	26.6	26.3	26.1	Networks, trend
University-business collaboration, 1-7 best	3.8	28.4	26.3	18.6	
4. Infrastructure element, 0-100 best	.	39.5	37.8	34.5	
Fix broadband, subs. per 100 pop.	25.9	23.6	24.9	25.9	Infrastruct., trend
Mobile data use, Gb per subscrip./month	38.0	100.0	100.0	80.4	
Transport infrastructure quality, 1-5 high	3.2	26.2	21.8	19.8	
5. Markets element, 0-100 best	.	20.7	17.6	12.9	
Gross domestic product, PPP$ million	69.9	10.8	9.4	7.4	Markets, trend
Trade facilitation index, 0-2 best	1.7	39.5	33.1	22.4	
6. Finance element, 0-100 best	.	36.6	36.7	36.8	
Early-stage VC investment, USD per capita	3.99	39.2	39.1	38.8	Finance, trend
Later-stage VC investment, USD per capita	0.60	40.4	40.4	40.4	
Outstanding SME loans, thousands USD per capita	1.5	37.3	37.6	38.3	
Factoring, thousands USD per capita	0.1	30.5	30.5	30.5	

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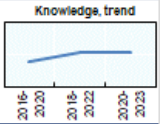
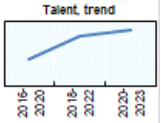
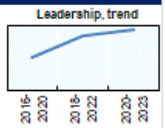
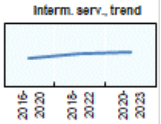
Latvia

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	30.9	30.6	27.7
Patents, per million pop.	1.8	30.3	30.6	30.6
R&D expenditure, % GDP	0.7	22.0	21.1	18.9
GitHub software uploads, per thousand people	196.0	44.4	44.4	36.8
8. Talent element, 0-100 best	.	57.6	55.2	48.1
Mean years of schooling, years	.	66.1	66.1	66.1
Pisa, score	484.7	54.2	54.9	55.8
Internet users, % pop.	90.8	52.9	42.8	25.8
Perceived entrepreneurial capabilities, % 18-64 pop.	53.7	58.1	59.8	56.1
9. Leadership element, 0-100 best	.	29.7	29.2	27.5
Serial entrepreneurs, unit count	6.0	29.7	29.2	27.5
10. Interm. services element, 0-100 best	.	27.2	25.4	22.6
Coaches, unit count	6.8	20.4	17.2	12.5
Incubators, per million pop.	3.2	42.5	42.4	38.5
Technical employment, % total employment	4.0	23.3	22.6	24.2



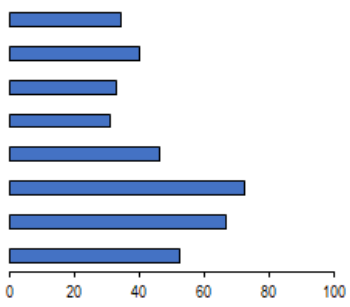




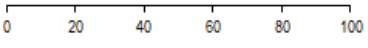


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.4	34.6
Equity-based young firms, per million pop.	0.18	40.2
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	11.1	30.9
Medium and high-growth enterprises, %	9.5	46.2
3-year survival rate., % new employer enterp.	67.4	72.4
Expectation to create jobs, % entrepreneurs	28.2	66.7
2-year-old employer enterprises, % business population	3.1	52.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	76.7	0.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	53.6	24.2
Women founders, % founders	.	.



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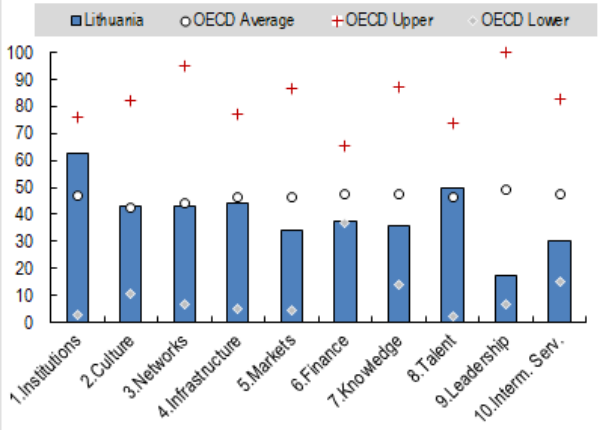
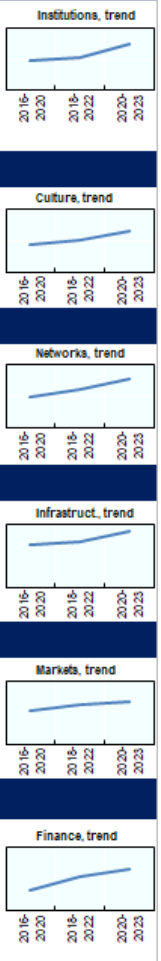
Lithuania

Entrepreneurial ecosystem diagnostics



Lithuania's productive entrepreneurship outputs are mostly in line with OECD averages. In terms of the entrepreneurial ecosystem elements, Lithuania's strongest scores can be found in the Talent (50.0) and Institutions (62.5) elements, reflecting solid performance in talent development and institutional support. Areas for improvement for Lithuania's entrepreneurial ecosystem are the Leadership (17.2), Intermediate Services (30.1), and Markets (33.9) elements.

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	62.5	60.3	59.9
Rule of law, 0-100 best	75.0	40.7	36.8	37.8
Control of corruption index, 0-100 low incidence	88.6	53.1	50.8	47.6
Product Market Regulation, Index 0-6 stringent	0.9	84.4	78.8	75.1
Effective tax rate, % taxable income	15.2	83.3	89.8	95.2
2. Culture element, 0-100 best	.	43.3	40.4	38.6
Entrepreneurship as a good career choice, % 18-64 pop	71.8	73.6	68.5	68.1
High status to successful entrepreneurs, % 18-64 pop.	62.9	26.9	23.8	20.9
Trust in others, % respondents	30.2	40.9	40.4	40.4
3. Networks element, 0-100 best	.	42.9	41.2	39.9
SMEs collaborating on innovation, % total SMEs	13.7	37.3	38.8	39.4
University-business collaboration, 1-7 best	4.4	49.2	43.8	40.5
4. Infrastructure element, 0-100 best	.	44.4	36.2	33.6
Fix broadband, subs. per 100 pop.	28.6	31.5	31.1	31.7
Mobile data use, Gb per subscrip./month	26.4	89.6	75.0	61.3
Transport infrastructure quality, 1-5 high	3.3	31.0	20.4	19.4
5. Markets element, 0-100 best	.	33.9	31.0	26.7
Gross domestic product, PPP$ million	135.9	22.1	20.2	17.4
Trade facilitation index, 0-2 best	1.8	52.0	47.6	40.8
6. Finance element, 0-100 best	.	37.3	37.1	36.7
Early-stage VC investment, USD per capita	8.23	40.2	39.6	38.7
Later-stage VC investment, USD per capita	8.77	42.2	41.5	40.5
Outstanding SME loans, thousands USD per capita	1.4	37.1	36.9	36.7
Factoring, thousands USD per capita	0.1	30.9	31.2	31.4



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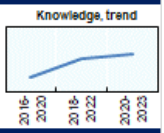
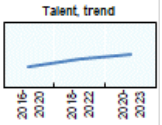
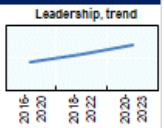
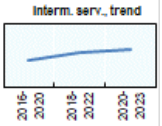
Lithuania

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	35.8	35.1	32.1
Patents, per million pop.	5.2	32.6	32.0	31.2
R&D expenditure, % GDP	1.1	28.9	27.9	26.3
GitHub software uploads, per thousand people	214.3	48.5	48.5	40.4
8. Talent element, 0-100 best	.	50.0	43.4	30.9
Mean years of schooling, years	13.5	70.6	68.9	68.1
Pisa, score	477.8	48.3	48.8	48.9
Internet users, % pop.	86.6	36.6	26.2	8.9
Perceived entrepreneurial capabilities, % 18-64 pop.	50.1	49.9	40.1	31.0
9. Leadership element, 0-100 best	.	17.2	15.5	14.4
Serial entrepreneurs, unit count	2.5	17.2	15.5	14.4
10. Interm. services element, 0-100 best	.	30.1	27.8	21.1
Coaches, unit count	4.5	14.7	13.1	7.7
Incubators, per million pop.	4.5	51.8	48.7	41.2
Technical employment, % total employment	4.7	35.7	33.5	29.5



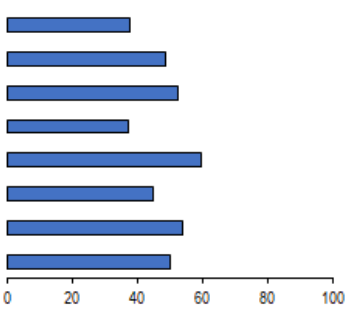






Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.8	37.6
Equity-based young firms, per million pop.	0.26	48.8
Unicorns, per million pop.	0.1	52.7
Enterprise churn rate, % business pop.	13.1	37.5
Medium and high-growth enterprises, %	10.9	59.8
3-year survival rate., % new employer enterp.	50.7	45.0
Expectation to create jobs, % entrepreneurs	23.5	53.8
2-year-old employer enterprises, % business population	2.9	50.1



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	66.1	4.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	46.3	36.5
Women founders, % founders	.	.

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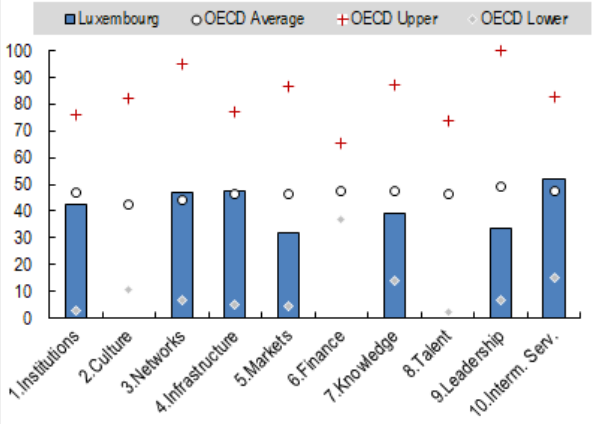
Luxembourg

Entrepreneurial ecosystem diagnostics



Luxembourg has a relatively high number of equity-based young firms relative to its population. The entrepreneurial ecosystem scores reasonably well in the Intermediate services (52.0), Networks (46.9), and Infrastructure (47.3) elements, with weaker performance in the Markets (32.1) and Leadership (33.8) elements.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	42.7	40.8	32.6	
Rule of law, 0-100 best	93.3	70.6	68.9	65.0	Institutions, trend
Control of corruption index, 0-100 low incidence	97.3	65.7	65.6	.	
Product Market Regulation, Index 0-6 stringent	1.8	19.5	16.3	14.2	
Effective tax rate, % taxable income	23.6	36.8	37.7	37.5	
2. Culture element, 0-100 best	.	.	45.2	37.0	
Entrepreneurship as a good career choice, % 18-64 pop	.	29.1	35.1	22.9	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	.	60.9	66.0	55.5	
Trust in others, % respondents	.	40.0	40.0	40.0	
3. Networks element, 0-100 best	.	46.9	47.7	47.5	
SMEs collaborating on innovation, % total SMEs	10.9	33.3	33.1	33.1	Networks, trend
University-business collaboration, 1-7 best	4.9	65.9	68.8	68.0	
4. Infrastructure element, 0-100 best	.	47.6	45.5	45.1	
Fix broadband, subs. per 100 pop.	37.8	59.2	58.2	54.9	Infrastruct., trend
Mobile data use, Gb per subscrip./month	9.2	38.4	33.8	28.6	
Transport infrastructure quality, 1-5 high	3.6	47.5	48.0	58.5	
5. Markets element, 0-100 best	.	32.1	29.7	25.8	
Gross domestic product, PPP$ million	89.2	14.9	13.4	11.2	Markets, trend
Trade facilitation index, 0-2 best	1.8	69.0	65.7	59.5	
6. Finance element, 0-100 best	.	.	.	.	
Early-stage VC investment, USD per capita	109.75	64.0	55.4	43.4	Finance, trend
Later-stage VC investment, USD per capita	5.25	41.5	41.5	40.9	
Outstanding SME loans, thousands USD per capita	.	49.7	50.3	50.0	
Factoring, thousands USD per capita	.	49.9	49.9	49.9	

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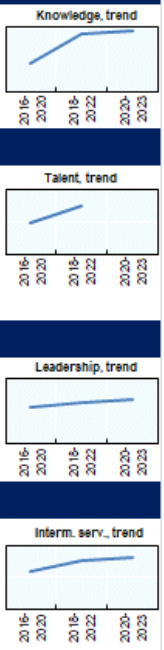
Luxembourg

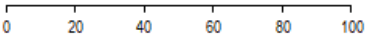
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	39.0	38.9	38.7
Patents, per million pop.	35.2	53.2	51.0	51.9
R&D expenditure, % GDP	1.0	27.9	29.0	31.0
GitHub software uploads, per thousand people	176.0	39.9	39.9	36.1
8. Talent element, 0-100 best	.	.	52.5	49.9
Mean years of schooling, years	.	44.0	44.0	43.9
Pisa, score	.	.	47.4	49.3
Internet users, % pop.	98.7	82.8	79.9	78.8
Perceived entrepreneurial capabilities, % 18-64 pop.	49.7	49.1	45.7	36.3
9. Leadership element, 0-100 best	.	33.8	31.7	28.1
Serial entrepreneurs, unit count	7.8	33.8	31.7	28.1
10. Interm. services element, 0-100 best	.	52.0	50.1	43.4
Coaches, unit count	11.0	27.6	25.9	22.1
Incubators, per million pop.	12.9	100.0	100.0	88.4
Technical employment, % total employment	5.7	51.0	48.6	41.9



Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.52	76.0
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	31.3	75.1
2-year-old employer enterprises, % business population	.	.

Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	46.2	28.1
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	28.7	66.4
Women founders, % founders	.	.



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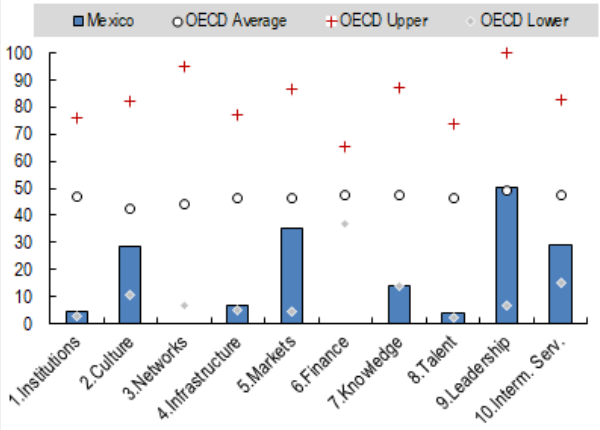
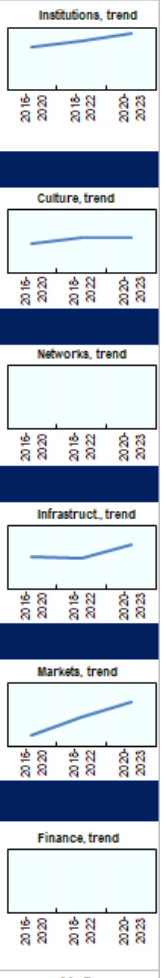
Mexico

Entrepreneurial ecosystem diagnostics



Mexico has a high proportion of entrepreneurs with the expectation of creating jobs, although the density of equity-based young firms or unicorns is lower than in other OECD countries. Mexico's entrepreneurial ecosystem has a relatively high score in the Leadership element, with a high number of serial entrepreneurs in the country. Relatively low scores in the Talent (3.7), Institutions (4.6) and Infrastructure (6.9) elements point to areas for improvement for the entrepreneurial ecosystem.

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	4.6	4.0	3.4
Rule of law, 0-100 best	44.8	0.0	0.0	0.0
Control of corruption index, 0-100 low incidence	46.1	0.0	0.0	0.0
Product Market Regulation, Index 0-6 stringent	1.8	19.6	17.3	15.7
Effective tax rate, % taxable income	26.2	22.4	14.3	8.7
2. Culture element, 0-100 best	.	28.3	28.4	23.1
Entrepreneurship as a good career choice, % 18-64 pop	63.3	55.4	54.9	45.4
High status to successful entrepreneurs, % 18-64 pop.	62.9	27.1	27.6	18.0
Trust in others, % respondents	11.3	15.1	15.1	15.1
3. Networks element, 0-100 best	.	.	.	.
SMEs collaborating on innovation, % total SMEs	.	82.2	81.9	83.3
University-business collaboration, 1-7 best	3.5	16.7	16.2	18.8
4. Infrastructure element, 0-100 best	.	6.9	4.8	5.2
Fix broadband, subs. per 100 pop.	19.2	3.4	0.0	0.0
Mobile data use, Gb per subscrip./month	5.0	25.7	25.0	23.1
Transport infrastructure quality, 1-5 high	2.8	3.7	4.4	6.0
5. Markets element, 0-100 best	.	35.3	23.0	8.5
Gross domestic product, PPP$ million	2,871.3	74.0	72.9	71.9
Trade facilitation index, 0-2 best	1.6	16.8	7.3	0.0
6. Finance element, 0-100 best	.	.	.	.
Early-stage VC investment, USD per capita	.	38.3	38.3	38.3
Later-stage VC investment, USD per capita	.	40.3	40.3	40.3
Outstanding SME loans, thousands USD per capita	0.1	33.9	33.9	34.0
Factoring, thousands USD per capita	0.1	31.0	31.1	31.3



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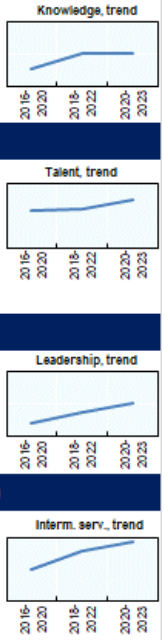
Mexico

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	14.1	14.1	13.1
Patents, per million pop.	0.2	29.2	29.2	29.2
R&D expenditure, % GDP	.	.	.	13.9
GitHub software uploads, per thousand people	28.7	6.8	6.8	5.5
8. Talent element, 0-100 best	.	3.7	3.1	2.9
Mean years of schooling, years	9.2	2.2	0.0	0.0
Pisa, score	409.1	0.0	0.0	0.0
Internet users, % pop.	76.7	0.0	0.0	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	68.5	91.1	88.1	71.4
9. Leadership element, 0-100 best	.	50.1	47.3	44.1
Serial entrepreneurs, unit count	20.5	50.1	47.3	44.1
10. Interm. services element, 0-100 best	.	29.3	27.9	24.9
Coaches, unit count	48.8	51.1	48.0	43.4
Incubators, per million pop.	0.3	22.1	22.1	22.1
Technical employment, % total employment	3.9	22.2	20.4	16.2



Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.04	24.2
Unicorns, per million pop.	0.0	36.3
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	25.6	59.5
2-year-old employer enterprises, % business population	.	.

Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	7.6	75.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	21.0	79.4
Women founders, % founders	19.2	49.0

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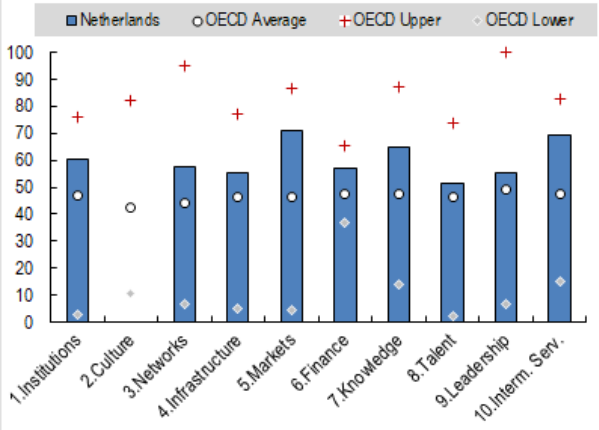
Netherlands

Entrepreneurial ecosystem diagnostics



The Netherlands has a very productive entrepreneurial ecosystem, with high numbers of equity-based young firms and high-growth enterprises. It also features a well-balanced distribution of entrepreneurial activity across the country. These outcomes are supported by strong performance across all entrepreneurial ecosystem elements, in particular the Markets (70.9) and Intermediate services (69.1) elements. Two elements where the Netherlands performs relatively less well are Talent and Leadership, with scores of 51.5 and 55.2, respectively.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	60.1	60.3	60.6	
Rule of law, 0-100 best	91.0	66.9	66.9	66.9	Institutions, trend
Control of corruption index, 0-100 low incidence	97.9	66.6	66.4	66.2	
Product Market Regulation, Index 0-6 stringent	1.0	78.3	76.9	76.0	
Effective tax rate, % taxable income	23.5	37.5	38.7	40.0	
2. Culture element, 0-100 best	.	.	72.0	66.9	
Entrepreneurship as a good career choice, % 18-64 pop	.	96.6	99.4	94.8	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	.	40.5	44.9	37.2	
Trust in others, % respondents	61.4	83.8	83.8	85.0	
3. Networks element, 0-100 best	.	57.8	57.3	57.6	
SMEs collaborating on innovation, % total SMEs	16.5	41.3	39.6	38.0	Networks, trend
University-business collaboration, 1-7 best	5.3	80.9	82.9	87.4	
4. Infrastructure element, 0-100 best	.	55.3	52.8	50.5	
Fix broadband, subs. per 100 pop.	43.5	76.3	75.7	74.2	Infrastruct., trend
Mobile data use, Gb per subscrip./month	5.6	27.6	24.1	21.1	
Transport infrastructure quality, 1-5 high	4.2	80.4	80.5	82.0	
5. Markets element, 0-100 best	.	70.9	69.3	67.1	
Gross domestic product, PPP$ million	1,279.8	60.2	58.5	56.2	Markets, trend
Trade facilitation index, 0-2 best	1.9	83.5	82.2	80.2	
6. Finance element, 0-100 best	.	57.3	56.6	55.1	
Early-stage VC investment, USD per capita	38.73	47.4	45.9	43.1	Finance, trend
Later-stage VC investment, USD per capita	26.64	46.1	44.4	42.2	
Outstanding SME loans, thousands USD per capita	6.4	49.3	50.2	51.4	
Factoring, thousands USD per capita	7.1	100.0	100.0	98.8	

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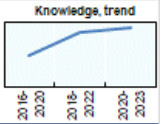
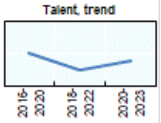
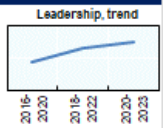
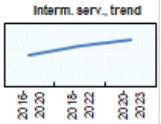
Netherlands

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	64.6	64.2	62.4
Patents, per million pop.	50.6	63.8	64.0	65.1
R&D expenditure, % GDP	2.3	53.3	52.2	51.3
GitHub software uploads, per thousand people	351.3	79.3	79.3	72.9
8. Talent element, 0-100 best	.	51.5	50.9	52.0
Mean years of schooling, years	12.6	55.9	53.9	53.9
Pisa, score	485.7	55.0	59.7	67.2
Internet users, % pop.	93.2	62.1	58.2	57.5
Perceived entrepreneurial capabilities, % 18-64 pop.	44.3	37.0	36.0	35.2
9. Leadership element, 0-100 best	.	55.2	53.0	49.0
Serial entrepreneurs, unit count	27.5	55.2	53.0	49.0
10. Interm. services element, 0-100 best	.	69.1	65.8	59.7
Coaches, unit count	132.0	67.3	64.6	59.5
Incubators, per million pop.	5.1	56.3	55.1	52.9
Technical employment, % total employment	7.9	87.2	80.0	67.6



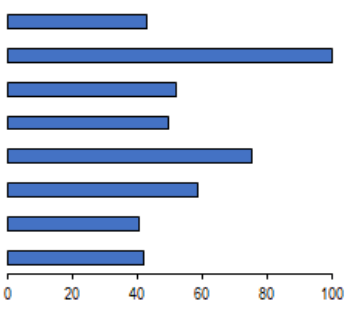




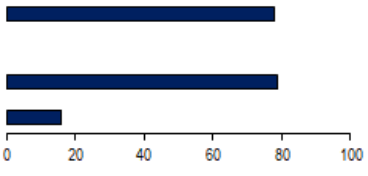


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	8.5	43.0
Equity-based young firms, per million pop.	0.76	100.0
Unicorns, per million pop.	0.1	52.1
Enterprise churn rate, % business pop.	16.8	49.6
Medium and high-growth enterprises, %	12.5	75.4
3-year survival rate., % new employer enterp.	59.1	58.8
Expectation to create jobs, % entrepreneurs	18.6	40.6
2-year-old employer enterprises, % business population	2.3	42.2



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	5.3	77.8
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	21.5	78.5
Women founders, % founders	12.1	15.9



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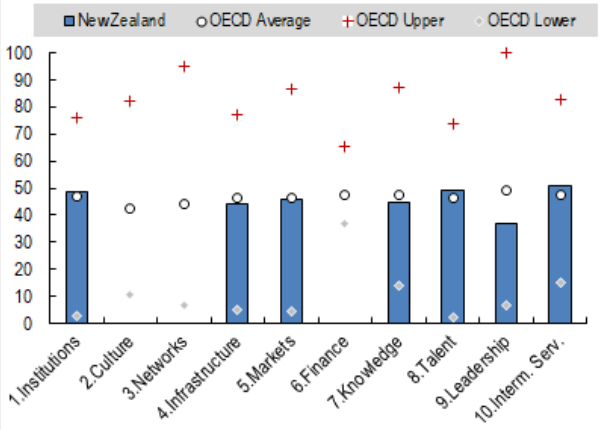
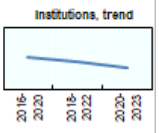
New Zealand

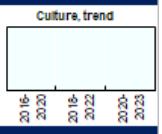
Entrepreneurial ecosystem diagnostics

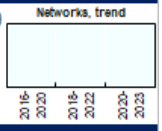


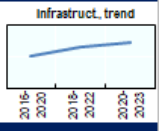
New Zealand has a high birth rate of employer enterprises, with scores in most of the entrepreneurial ecosystem elements broadly in line with the OECD average. Intermediate Services (50,6) and Institutions (48.6) emerge as the main strengths of New Zealand's ecosystem. Areas that could be developed further are Leadership (37.1), Infrastructure (33.3) and Knowledge (44.7).

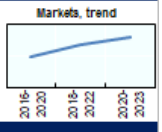
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	48.6	49.6	50.4
Rule of law, 0-100 best	97.0	76.8	76.8	76.8
Control of corruption index, 0-100 low incidence	99.3	68.6	67.7	66.7
Product Market Regulation, Index 0-6 stringent	1.4	51.5	48.9	47.2
Effective tax rate, % taxable income	26.6	20.6	23.8	26.6
2. Culture element, 0-100 best	.	.	.	.
Entrepreneurship as a good career choice, % 18-64 pop	.	54.0	54.7	55.2
High status to successful entrepreneurs, % 18-64 pop.	.	49.0	49.7	50.3
Trust in others, % respondents	55.9	76.3	76.3	76.3
3. Networks element, 0-100 best	.	.	.	.
SMEs collaborating on innovation, % total SMEs	.	100.0	100.0	100.0
University-business collaboration, 1-7 best	4.5	51.2	51.6	59.4
4. Infrastructure element, 0-100 best	.	44.4	43.0	39.9
Fix broadband, subs. per 100 pop.	35.9	53.4	51.2	47.3
Mobile data use, Gb per subscrip./month	5.4	27.0	24.4	22.5
Transport infrastructure quality, 1-5 high	3.8	60.8	63.4	59.8
5. Markets element, 0-100 best	.	45.9	43.5	39.8
Gross domestic product, PPP$ million	256.3	32.8	31.4	29.5
Trade facilitation index, 0-2 best	1.8	64.2	60.3	53.7
6. Finance element, 0-100 best	.	.	.	.
Early-stage VC investment, USD per capita	.	41.9	41.6	41.1
Later-stage VC investment, USD per capita	.	42.2	42.0	41.7
Outstanding SME loans, thousands USD per capita	7.1	50.9	51.4	51.8
Factoring, thousands USD per capita	.	49.2	49.1	49.1

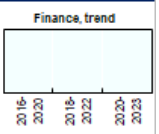












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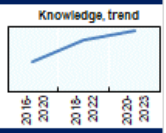
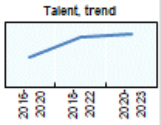
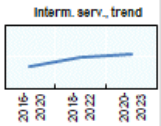
New Zealand

	Value 2020-2023	Score 2020-2023	Score 2018-2022	Score 2016-2020
7. Knowledge element, 0-100 best	.	44.7	44.0	42.3
Patents, per million pop.	16.3	40.3	39.0	38.1
R&D expenditure, % GDP	1.5	36.2	35.7	34.6
GitHub software uploads, per thousand people	271.5	61.4	61.4	57.6
8. Talent element, 0-100 best	.	49.0	48.8	47.3
Mean years of schooling, years	12.9	61.7	61.7	61.7
Pisa, score	496.7	64.3	66.0	69.0
Internet users, % pop.	95.6	71.0	61.6	48.5
Perceived entrepreneurial capabilities, % 18-64 pop.	.	20.5	22.6	24.2
9. Leadership element, 0-100 best	.	37.1	36.6	34.3
Serial entrepreneurs, unit count	9.5	37.1	36.6	34.3
10. Interm. services element, 0-100 best	.	50.7	49.9	47.2
Coaches, unit count	30.3	43.4	40.6	36.5
Incubators, per million pop.	3.3	43.1	42.8	41.7
Technical employment, % total employment	6.8	69.8	71.5	69.0

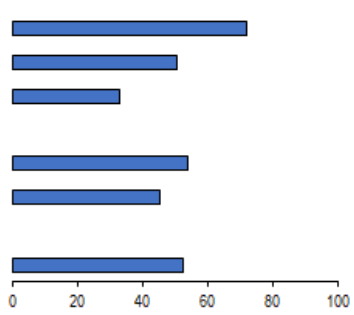




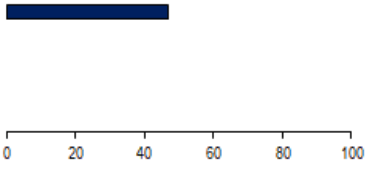


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	12.3	72.0
Equity-based young firms, per million pop.	0.28	50.7
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	10.3	54.0
3-year survival rate., % new employer enterp.	51.0	45.5
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	3.1	52.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	30.7	47.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	.	.
Women founders, % founders	.	.



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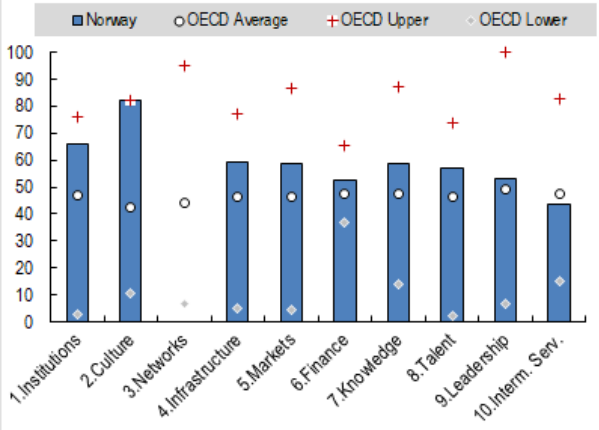
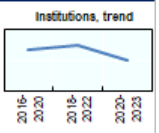
Norway

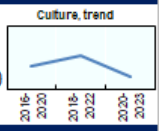
Entrepreneurial ecosystem diagnostics

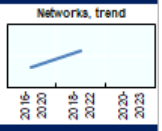


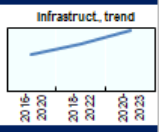
Norway's entrepreneurial ecosystem performs very well in some aspects, with a relatively high number of unicorns per capita, for example. In terms of the entrepreneurial ecosystem elements, the main strength of Norway's ecosystem is Culture (82.0), which is complemented by above-average scores in the Institutions (66.0), Infrastructure (59.3), Markets (59.0), Knowledge (58.5), and Talent (57.1) elements. The weakest score is registered in the Intermediate Services (43.9) element.

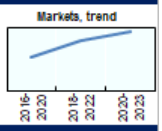
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	66.0	66.5	66.3
Rule of law, 0-100 best	97.0	76.8	76.8	76.8
Control of corruption index, 0-100 low incidence	99.1	68.3	68.2	67.8
Product Market Regulation, Index 0-6 stringent	1.0	73.5	71.7	70.6
Effective tax rate, % taxable income	21.4	49.3	52.1	52.7
2. Culture element, 0-100 best	.	82.0	85.5	83.5
Entrepreneurship as a good career choice, % 18-64 pop	64.6	58.2	62.4	58.4
High status to successful entrepreneurs, % 18-64 pop.	88.8	94.8	100.0	99.9
Trust in others, % respondents	74.1	100.0	100.0	100.0
3. Networks element, 0-100 best	.	.	58.3	57.3
SMEs collaborating on innovation, % total SMEs	30.4	61.4	56.9	53.4
University-business collaboration, 1-7 best	.	51.4	59.9	61.4
4. Infrastructure element, 0-100 best	.	59.3	55.1	51.5
Fix broadband, subs. per 100 pop.	45.0	80.8	78.8	74.9
Mobile data use, Gb per subscrip./month	10.6	42.4	36.7	31.3
Transport infrastructure quality, 1-5 high	3.8	60.8	57.9	58.2
5. Markets element, 0-100 best	.	59.0	56.0	50.8
Gross domestic product, PPP$ million	524.5	45.0	42.6	38.3
Trade facilitation index, 0-2 best	1.8	77.3	73.6	67.5
6. Finance element, 0-100 best	.	52.6	52.9	52.9
Early-stage VC investment, USD per capita	23.07	43.7	42.6	41.2
Later-stage VC investment, USD per capita	8.68	42.2	42.5	42.3
Outstanding SME loans, thousands USD per capita	9.1	55.8	56.4	57.4
Factoring, thousands USD per capita	3.7	74.4	76.7	78.1

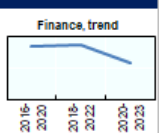












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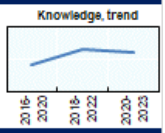
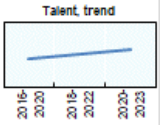
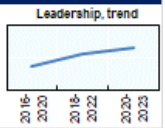
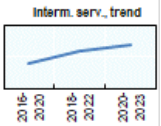
Norway

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	58.5	58.7	57.7
Patents, per million pop.	26.1	47.0	45.9	45.7
R&D expenditure, % GDP	1.9	45.3	46.8	49.5
GitHub software uploads, per thousand people	416.5	94.0	94.0	84.8
8. Talent element, 0-100 best	.	57.1	51.1	43.7
Mean years of schooling, years	.	62.3	62.5	62.2
Pisa, score	480.0	50.2	55.0	62.9
Internet users, % pop.	97.9	79.9	78.0	74.7
Perceived entrepreneurial capabilities, % 18-64 pop.	46.8	42.7	25.5	12.5
9. Leadership element, 0-100 best	.	53.4	51.3	47.5
Serial entrepreneurs, unit count	24.8	53.4	51.3	47.5
10. Interm. services element, 0-100 best	.	43.9	41.8	38.2
Coaches, unit count	18.0	35.2	31.7	25.5
Incubators, per million pop.	3.3	43.5	43.2	41.9
Technical employment, % total employment	5.9	55.1	53.4	52.3



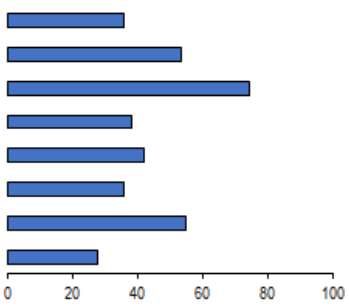




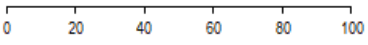


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.6	36.1
Equity-based young firms, per million pop.	0.31	53.3
Unicorns, per million pop.	0.2	74.4
Enterprise churn rate, % business pop.	13.3	38.1
Medium and high-growth enterprises, %	9.1	42.3
3-year survival rate., % new employer enterp.	45.0	35.7
Expectation to create jobs, % entrepreneurs	23.9	55.1
2-year-old employer enterprises, % business population	1.2	27.9



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	29.0	49.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	54.7	22.3
Women founders, % founders	.	.



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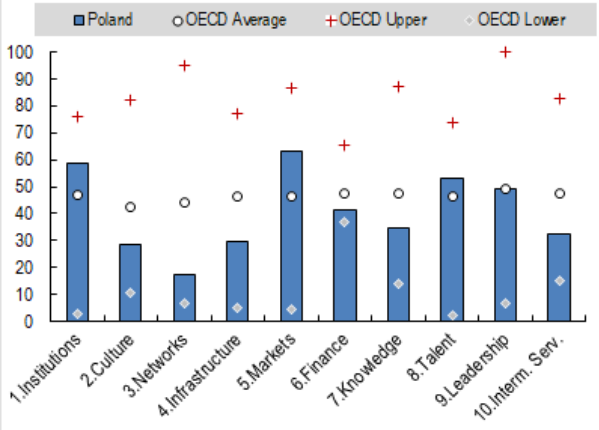
Poland

Entrepreneurial ecosystem diagnostics



Poland has an above average birth rate and churn rate of employer enterprises, although the concentration of equity-based young firms and unicorns is lower than in other OECD countries. Poland's entrepreneurial ecosystem benefits from a strong performance in the Markets (63.3), Talent (53.3) and Institutions (58.6) elements, reflecting good access to talent and solid institutional support for entrepreneurship. The weakest performing elements are Networks (17.4), Culture (29.7) and Infrastructure (29.4).

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	58.6	56.5	54.1	
Rule of law, 0-100 best	75.0	40.7	36.8	32.9	Institutions, trend
Control of corruption index, 0-100 low incidence	87.0	50.8	51.9	49.5	
Product Market Regulation, Index 0-6 stringent	1.1	67.8	63.9	61.3	
Effective tax rate, % taxable income	15.1	83.9	83.5	86.1	
2. Culture element, 0-100 best	.	28.7	42.6	45.8	
Entrepreneurship as a good career choice, % 18-64 pop	49.9	26.4	56.8	76.0	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	63.4	28.2	42.2	39.0	
Trust in others, % respondents	23.5	31.8	32.3	32.3	
3. Networks element, 0-100 best	.	17.4	13.5	13.5	
SMEs collaborating on innovation, % total SMEs	5.7	25.7	24.7	23.6	Networks, trend
University-business collaboration, 1-7 best	3.3	11.8	7.4	7.7	
4. Infrastructure element, 0-100 best	.	29.4	25.2	17.6	
Fix broadband, subs. per 100 pop.	22.9	14.7	11.5	5.3	Infrastruct., trend
Mobile data use, Gb per subscrip./month	11.8	46.2	41.5	37.7	
Transport infrastructure quality, 1-5 high	3.4	37.6	33.6	27.3	
5. Markets element, 0-100 best	.	63.3	59.7	52.0	
Gross domestic product, PPP$ million	1,620.3	64.2	62.4	59.7	Markets, trend
Trade facilitation index, 0-2 best	1.8	62.3	57.1	45.3	
6. Finance element, 0-100 best	.	41.3	41.2	40.5	
Early-stage VC investment, USD per capita	2.91	38.9	38.8	38.5	Finance, trend
Later-stage VC investment, USD per capita	1.85	40.7	40.6	40.6	
Outstanding SME loans, thousands USD per capita	0.9	35.9	36.2	36.4	
Factoring, thousands USD per capita	1.8	51.3	50.6	47.1	

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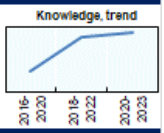
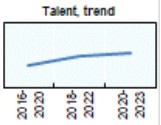
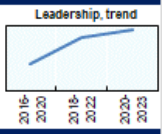
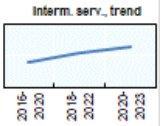
Poland

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	34.6	34.2	31.6
Patents, per million pop.	1.7	30.2	30.2	30.3
R&D expenditure, % GDP	1.4	35.7	34.4	30.8
GitHub software uploads, per thousand people	169.8	38.5	38.5	33.9
8. Talent element, 0-100 best	.	53.3	48.6	33.3
Mean years of schooling, years	13.2	65.3	65.3	65.3
Pisa, score	497.4	64.9	69.2	73.8
Internet users, % pop.	85.5	32.5	21.9	4.4
Perceived entrepreneurial capabilities, % 18-64 pop.	54.0	58.6	56.4	58.5
9. Leadership element, 0-100 best	.	49.5	48.3	44.3
Serial entrepreneurs, unit count	19.8	49.5	48.3	44.3
10. Interm. services element, 0-100 best	.	32.6	30.9	28.0
Coaches, unit count	51.3	51.9	48.7	42.5
Incubators, per million pop.	0.9	26.8	26.8	26.3
Technical employment, % total employment	4.1	24.9	22.6	19.7



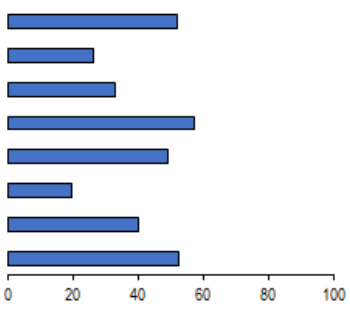




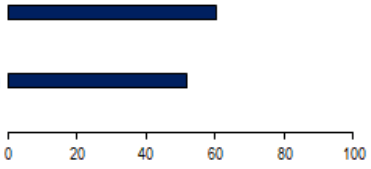


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	9.7	52.2
Equity-based young firms, per million pop.	0.06	26.5
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	19.2	57.4
Medium and high-growth enterprises, %	9.8	49.1
3-year survival rate., % new employer enterp.	35.2	19.6
Expectation to create jobs, % entrepreneurs	18.4	40.1
2-year-old employer enterprises, % business population	3.1	52.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	19.9	60.1
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	37.1	52.0
Women founders, % founders	.	.



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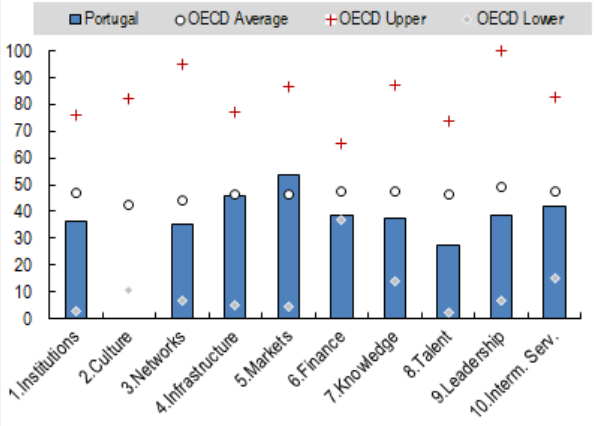
Portugal

Entrepreneurial ecosystem diagnostics



Portugal's entrepreneurial ecosystem performs reasonably well in the Markets (53.5), Infrastructure (45.9) and Intermediate services (41.9) elements. Relatively weaker scores in the Talent (27.2) and, to a lesser extent, Networks (35.3) elements point to areas for improvement for Portugal's entrepreneurial ecosystem.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	36.4	38.8	40.9	
Rule of law, 0-100 best	84.0	55.5	55.5	55.5	Institutions, trend
Control of corruption index, 0-100 low incidence	84.6	47.3	48.8	49.6	
Product Market Regulation, Index 0-6 stringent	1.6	34.1	30.9	28.8	
Effective tax rate, % taxable income	26.8	19.6	27.2	35.5	
2. Culture element, 0-100 best	.	.	42.6	39.8	
Entrepreneurship as a good career choice, % 18-64 pop	.	73.1	74.2	71.4	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	.	43.0	46.3	39.1	
Trust in others, % respondents	16.7	22.5	22.5	22.5	
3. Networks element, 0-100 best	.	35.3	36.0	35.4	
SMEs collaborating on innovation, % total SMEs	7.0	27.7	28.7	29.7	Networks, trend
University-business collaboration, 1-7 best	4.3	45.0	45.1	42.1	
4. Infrastructure element, 0-100 best	.	45.9	40.8	33.3	
Fix broadband, subs. per 100 pop.	41.9	71.5	66.5	55.7	Infrastruct., trend
Mobile data use, Gb per subscrip./month	7.1	31.9	27.3	23.6	
Transport infrastructure quality, 1-5 high	3.5	42.3	37.5	28.0	
5. Markets element, 0-100 best	.	53.5	49.7	43.4	
Gross domestic product, PPP$ million	439.0	42.0	40.3	38.5	Markets, trend
Trade facilitation index, 0-2 best	1.8	68.3	61.4	49.1	
6. Finance element, 0-100 best	.	38.7	38.7	38.8	
Early-stage VC investment, USD per capita	4.89	39.4	39.3	39.0	Finance, trend
Later-stage VC investment, USD per capita	0.53	40.4	40.4	40.4	
Outstanding SME loans, thousands USD per capita	5.4	46.7	46.5	47.0	
Factoring, thousands USD per capita	0.0	30.1	30.4	30.5	

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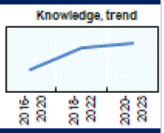
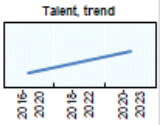
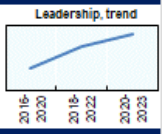
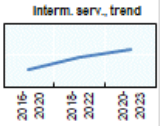
Portugal

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	37.5	36.7	33.4
Patents, per million pop.	4.0	31.8	31.7	31.8
R&D expenditure, % GDP	1.7	40.5	38.2	35.0
GitHub software uploads, per thousand people	180.7	41.0	41.0	33.4
8. Talent element, 0-100 best	.	27.2	18.7	10.4
Mean years of schooling, years	9.6	7.8	4.2	3.7
Pisa, score	481.2	51.2	54.2	59.3
Internet users, % pop.	82.7	22.0	7.9	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	.	61.9	68.2	54.0
9. Leadership element, 0-100 best	.	38.8	36.9	33.5
Serial entrepreneurs, unit count	10.5	38.8	36.9	33.5
10. Interm. services element, 0-100 best	.	41.9	39.6	35.8
Coaches, unit count	25.8	40.8	38.5	35.5
Incubators, per million pop.	3.9	47.4	47.0	43.2
Technical employment, % total employment	4.9	38.0	34.3	29.9



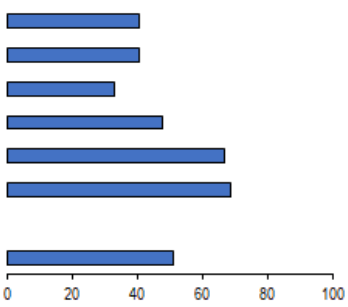




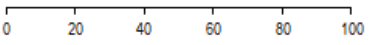


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	8.2	40.7
Equity-based young firms, per million pop.	0.19	40.8
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	16.2	47.6
Medium and high-growth enterprises, %	11.6	66.7
3-year survival rate., % new employer enterp.	65.1	68.7
Expectation to create jobs, % entrepreneurs	.	.
2-year-old employer enterprises, % business population	3.0	51.4



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	14.2	67.0
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	31.9	60.9
Women founders, % founders	.	.



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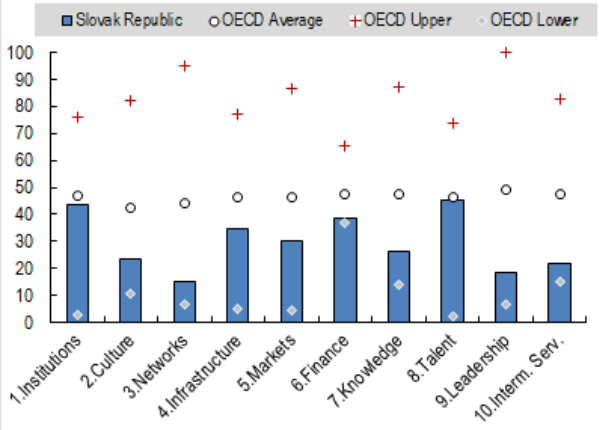
Slovak Republic

Entrepreneurial ecosystem diagnostics



The Slovak Republic's entrepreneurial ecosystem shows promise in some areas, with reasonable performance with respect to the Talent (45.2), Institutions (43.7) and Finance (38.7) elements. Areas to be developed further in order to strengthen the Slovak Republic's entrepreneurial ecosystem include Networks (15.2), Leadership (18.4) and Intermediate Services (21.6).

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	43.7	42.5	40.5	
Rule of law, 0-100 best	72.0	35.8	33.9	31.9	Institutions, trend
Control of corruption index, 0-100 low incidence	77.9	37.5	33.6	28.3	
Product Market Regulation, Index 0-6 stringent	1.4	48.3	45.8	44.2	
Effective tax rate, % taxable income	20.1	56.4	62.5	67.5	
2. Culture element, 0-100 best	.	23.6	22.3	21.4	
Entrepreneurship as a good career choice, % 18-64 pop	49.0	24.5	23.1	21.0	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	60.6	21.0	20.0	20.0	
Trust in others, % respondents	18.9	25.4	24.2	23.5	
3. Networks element, 0-100 best	.	15.2	15.1	16.4	
SMEs collaborating on innovation, % total SMEs	8.0	29.1	29.1	29.4	Networks, trend
University-business collaboration, 1-7 best	3.2	8.0	7.8	9.1	
4. Infrastructure element, 0-100 best	.	34.5	29.7	25.0	
Fix broadband, subs. per 100 pop.	32.6	43.5	38.8	29.1	Infrastruct., trend
Mobile data use, Gb per subscrip./month	8.3	35.6	30.3	26.1	
Transport infrastructure quality, 1-5 high	3.2	26.4	22.3	20.5	
5. Markets element, 0-100 best	.	30.1	26.7	21.0	
Gross domestic product, PPP$ million	217.1	30.0	28.3	26.4	Markets, trend
Trade facilitation index, 0-2 best	1.7	30.3	25.3	16.7	
6. Finance element, 0-100 best	.	38.7	38.7	38.5	
Early-stage VC investment, USD per capita	3.06	39.0	39.0	39.1	Finance, trend
Later-stage VC investment, USD per capita	1.01	40.5	40.5	40.4	
Outstanding SME loans, thousands USD per capita	3.1	41.2	41.1	40.7	
Factoring, thousands USD per capita	0.4	34.4	34.7	34.1	

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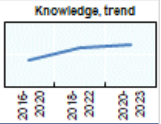
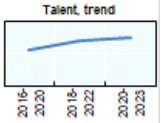
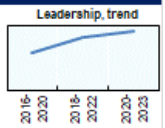
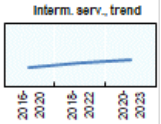
Slovak Republic

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	26.6	26.2	24.3
Patents, per million pop.	3.4	31.4	31.1	30.7
R&D expenditure, % GDP	0.9	25.7	24.9	24.0
GitHub software uploads, per thousand people	101.7	23.2	23.2	19.4
8. Talent element, 0-100 best	.	45.2	44.1	41.0
Mean years of schooling, years	.	60.5	60.8	60.2
Pisa, score	460.6	33.8	36.3	38.6
Internet users, % pop.	88.8	45.1	35.4	23.3
Perceived entrepreneurial capabilities, % 18-64 pop.	47.9	45.1	48.6	52.1
9. Leadership element, 0-100 best	.	18.4	16.6	11.8
Serial entrepreneurs, unit count	2.8	18.4	16.6	11.8
10. Interm. services element, 0-100 best	.	21.6	18.9	15.1
Coaches, unit count	5.3	16.8	13.1	7.7
Incubators, per million pop.	1.5	30.6	30.0	29.0
Technical employment, % total employment	3.8	19.6	17.0	15.4



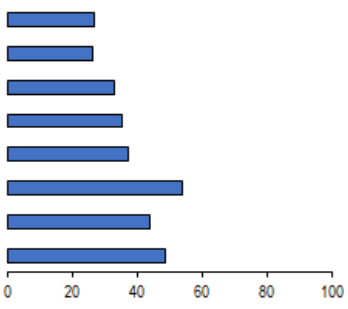




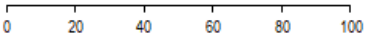


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	6.4	26.9
Equity-based young firms, per million pop.	0.06	26.5
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	12.5	35.5
Medium and high-growth enterprises, %	8.6	37.4
3-year survival rate., % new employer enterp.	56.2	54.1
Expectation to create jobs, % entrepreneurs	19.9	44.0
2-year-old employer enterprises, % business population	2.8	48.7



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	46.7	27.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	42.8	42.3
Women founders, % founders	.	.



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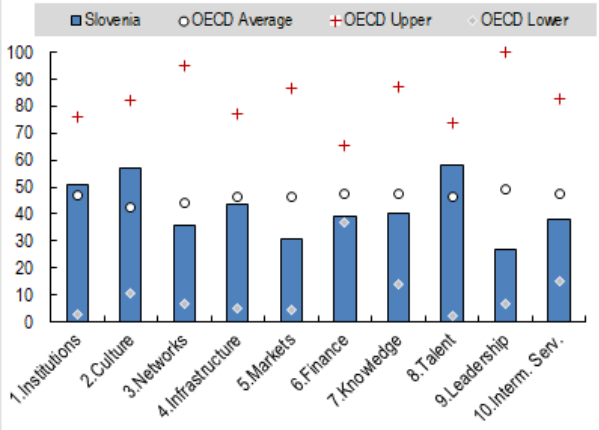
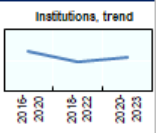
Slovenia

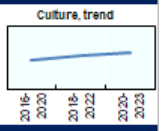
Entrepreneurial ecosystem diagnostics

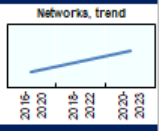


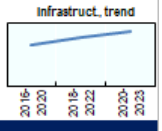
Slovenia's enterprise birth rate and the share of medium and high-growth businesses are above the OECD average, signalling strength in the entrepreneurial ecosystem. In terms of the entrepreneurial ecosystem elements, the best performing elements are Talent (58.0), Institutions (51.1), and Culture (57.2), with weaker scores in Leadership (26.9) and Markets (30.6).

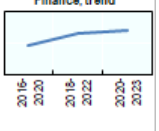
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	51.1	49.4	53.1
Rule of law, 0-100 best	81.0	50.6	50.6	50.6
Control of corruption index, 0-100 low incidence	71.8	28.6	24.2	31.1
Product Market Regulation, Index 0-6 stringent	1.2	65.4	64.4	63.7
Effective tax rate, % taxable income	17.2	72.3	75.9	79.6
2. Culture element, 0-100 best	.	57.2	54.0	46.4
Entrepreneurship as a good career choice, % 18-64 pop	69.1	67.8	61.8	49.3
High status to successful entrepreneurs, % 18-64 pop.	86.4	88.6	81.9	65.1
Trust in others, % respondents	23.1	31.2	31.2	31.2
3. Networks element, 0-100 best	.	35.8	34.3	32.5
SMEs collaborating on innovation, % total SMEs	12.9	36.2	35.8	35.5
University-business collaboration, 1-7 best	4.0	35.4	32.9	29.7
4. Infrastructure element, 0-100 best	.	43.5	38.6	32.6
Fix broadband, subs. per 100 pop.	31.4	39.9	37.8	34.2
Mobile data use, Gb per subscrip./month	12.7	48.7	40.2	33.9
Transport infrastructure quality, 1-5 high	3.5	42.4	37.8	30.0
5. Markets element, 0-100 best	.	30.6	27.7	23.1
Gross domestic product, PPP$ million	102.9	17.4	15.5	13.1
Trade facilitation index, 0-2 best	1.8	54.1	49.4	40.6
6. Finance element, 0-100 best	.	39.4	39.3	38.9
Early-stage VC investment, USD per capita	1.51	38.6	38.5	38.4
Later-stage VC investment, USD per capita	0.49	40.4	40.4	40.4
Outstanding SME loans, thousands USD per capita	2.1	38.8	38.9	38.9
Factoring, thousands USD per capita	0.8	39.8	39.5	37.9











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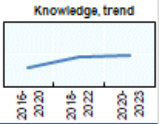
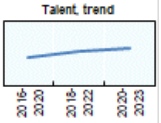
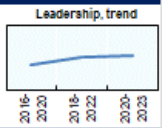
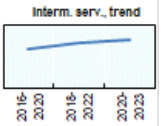
Slovenia

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	40.0	39.7	37.9
Patents, per million pop.	6.6	33.6	33.5	33.3
R&D expenditure, % GDP	2.1	49.9	48.8	47.3
GitHub software uploads, per thousand people	168.4	38.2	38.2	34.5
8. Talent element, 0-100 best	.	58.0	53.2	43.3
Mean years of schooling, years	.	58.9	59.1	58.7
Pisa, score	489.2	57.9	62.0	68.7
Internet users, % pop.	88.7	44.9	32.5	14.6
Perceived entrepreneurial capabilities, % 18-64 pop.	60.9	74.1	67.2	60.0
9. Leadership element, 0-100 best	.	26.9	25.7	19.6
Serial entrepreneurs, unit count	5.0	26.9	25.7	19.6
10. Interm. services element, 0-100 best	.	37.9	35.3	30.7
Coaches, unit count	8.5	23.7	23.2	21.7
Incubators, per million pop.	3.0	41.3	41.0	39.1
Technical employment, % total employment	6.0	55.6	46.1	34.1



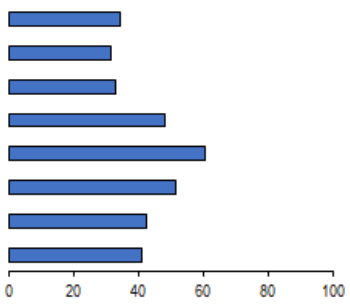




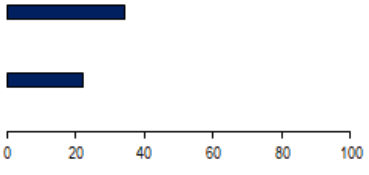


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	7.4	34.6
Equity-based young firms, per million pop.	0.10	31.6
Unicorns, per million pop.	0.0	32.8
Enterprise churn rate, % business pop.	16.4	48.3
Medium and high-growth enterprises, %	11.0	60.8
3-year survival rate., % new employer enterp.	54.7	51.6
Expectation to create jobs, % entrepreneurs	19.3	42.4
2-year-old employer enterprises, % business population	2.2	40.9



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	41.2	34.2
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	54.7	22.3
Women founders, % founders	.	.



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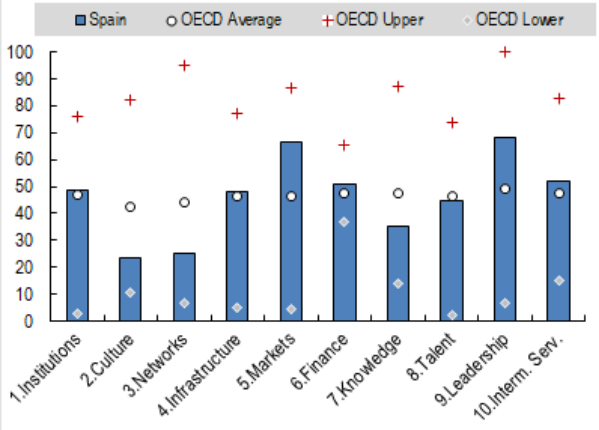
Spain

Entrepreneurial ecosystem diagnostics



Spain's entrepreneurial ecosystem performs well with respect to the share of medium and high-growth enterprises and the churn rate of employer enterprises. The main strengths of Spain's ecosystem are the Markets (66.4) and Leadership (68.4) elements. The weaker performing entrepreneurial ecosystem elements are Culture (23.6), Networks (25.1) and Knowledge (35.0).

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	48.6	50.3	52.3	
Rule of law, 0-100 best	72.0	35.8	37.8	41.7	Institutions, trend
Control of corruption index, 0-100 low incidence	94.8	62.1	63.2	62.4	
Product Market Regulation, Index 0-6 stringent	1.2	62.1	60.5	59.4	
Effective tax rate, % taxable income	23.0	40.4	44.3	48.5	
2. Culture element, 0-100 best	.	23.6	24.7	15.2	
Entrepreneurship as a good career choice, % 18-64 pop	49.5	25.6	32.8	37.3	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	57.6	13.1	11.5	2.3	
Trust in others, % respondents	29.0	39.3	39.9	39.9	
3. Networks element, 0-100 best	.	25.1	23.0	21.6	
SMEs collaborating on innovation, % total SMEs	7.4	28.2	27.5	27.2	Networks, trend
University-business collaboration, 1-7 best	3.6	22.2	19.3	17.1	
4. Infrastructure element, 0-100 best	.	47.8	44.0	38.7	
Fix broadband, subs. per 100 pop.	34.6	49.5	46.8	41.7	Infrastruct., trend
Mobile data use, Gb per subscrip./month	9.0	37.6	30.8	24.0	
Transport infrastructure quality, 1-5 high	3.8	58.7	59.3	58.0	
5. Markets element, 0-100 best	.	66.4	63.3	58.2	
Gross domestic product, PPP$ million	2,235.8	69.7	68.4	66.9	Markets, trend
Trade facilitation index, 0-2 best	1.8	63.3	58.6	50.6	
6. Finance element, 0-100 best	.	50.9	50.3	49.0	
Early-stage VC investment, USD per capita	10.88	40.8	40.6	40.1	Finance, trend
Later-stage VC investment, USD per capita	13.54	43.2	42.5	41.6	
Outstanding SME loans, thousands USD per capita	5.0	45.8	45.9	46.8	
Factoring, thousands USD per capita	4.5	83.0	80.9	73.8	

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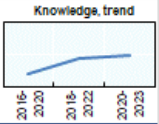
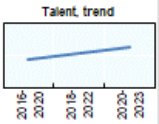
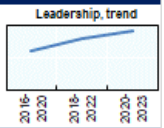
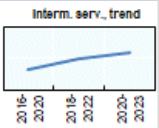
Spain

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	35.0	34.4	31.9
Patents, per million pop.	7.5	34.2	34.0	33.8
R&D expenditure, % GDP	1.4	35.6	34.2	32.4
GitHub software uploads, per thousand people	154.8	35.2	35.2	29.7
8. Talent element, 0-100 best	.	44.6	41.0	37.4
Mean years of schooling, years	10.6	24.3	20.6	20.6
Pisa, score	478.6	49.0	50.0	53.0
Internet users, % pop.	94.3	66.0	56.2	38.5
Perceived entrepreneurial capabilities, % 18-64 pop.	50.3	50.5	48.6	46.5
9. Leadership element, 0-100 best	.	68.4	66.2	62.3
Serial entrepreneurs, unit count	57.8	68.4	66.2	62.3
10. Interm. services element, 0-100 best	.	51.8	49.7	46.8
Coaches, unit count	139.5	68.2	65.3	61.3
Incubators, per million pop.	3.4	43.7	42.8	41.0
Technical employment, % total employment	5.4	46.6	43.9	40.7



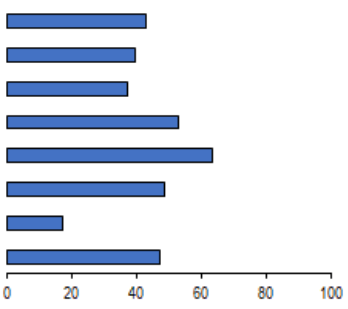




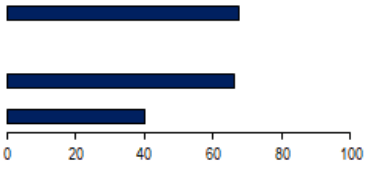


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	8.5	43.0
Equity-based young firms, per million pop.	0.18	39.6
Unicorns, per million pop.	0.0	37.5
Enterprise churn rate, % business pop.	17.9	53.2
Medium and high-growth enterprises, %	11.3	63.7
3-year survival rate., % new employer enterp.	53.0	48.8
Expectation to create jobs, % entrepreneurs	10.0	17.3
2-year-old employer enterprises, % business population	2.7	47.4



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	13.7	67.6
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	28.8	66.2
Women founders, % founders	17.3	40.0



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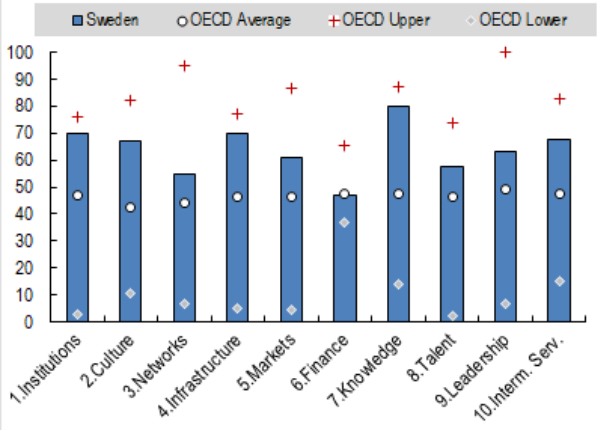
Sweden

Entrepreneurial ecosystem diagnostics



Sweden has strong productive entrepreneurship outputs, reflected in a high concentration of equity-based start-ups and high-growth enterprises and an above average enterprise birth rate and churn rate. Sweden's performance in almost all the entrepreneurial ecosystem elements is above the OECD average, with particularly high scores in the Knowledge (79.7), Institutions (70.1) and Intermediate services (67.9) elements. These scores reflect a highly knowledgeable workforce alongside strong institutional support.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	70.1	70.7	71.1	
Rule of law, 0-100 best	96.3	75.5	76.8	78.7	Institutions, trend
Control of corruption index, 0-100 low incidence	99.2	68.5	68.1	67.6	
Product Market Regulation, Index 0-6 stringent	0.9	85.7	84.8	84.2	
Effective tax rate, % taxable income	20.4	54.5	56.4	57.1	
2. Culture element, 0-100 best	.	67.1	64.2	58.2	
Entrepreneurship as a good career choice, % 18-64 pop	61.8	52.1	47.2	40.1	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	77.8	65.9	63.8	55.9	
Trust in others, % respondents	64.5	88.0	87.9	87.9	
3. Networks element, 0-100 best	.	54.6	53.4	53.8	
SMEs collaborating on innovation, % total SMEs	16.7	41.7	38.1	37.4	Networks, trend
University-business collaboration, 1-7 best	5.0	71.6	75.0	77.4	
4. Infrastructure element, 0-100 best	.	69.7	65.3	60.1	
Fix broadband, subs. per 100 pop.	40.6	67.6	65.9	62.4	Infrastruct., trend
Mobile data use, Gb per subscrip./month	17.1	62.0	51.9	42.1	
Transport infrastructure quality, 1-5 high	4.2	80.8	81.3	82.6	
5. Markets element, 0-100 best	.	60.9	58.8	54.9	
Gross domestic product, PPP$ million	670.9	49.2	47.8	45.8	Markets, trend
Trade facilitation index, 0-2 best	1.8	75.5	72.4	65.8	
6. Finance element, 0-100 best	.	46.7	46.0	44.5	
Early-stage VC investment, USD per capita	42.10	48.1	46.8	44.0	Finance, trend
Later-stage VC investment, USD per capita	46.55	50.4	47.5	43.3	
Outstanding SME loans, thousands USD per capita	11.5	61.6	62.9	64.0	
Factoring, thousands USD per capita	0.2	31.9	31.9	32.0	

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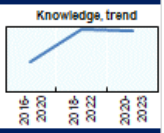
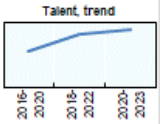
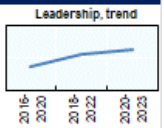
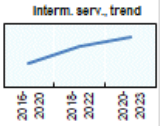
Sweden

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	79.7	79.8	77.4
Patents, per million pop.	74.1	80.0	80.9	82.3
R&D expenditure, % GDP	3.4	76.3	75.7	74.9
GitHub software uploads, per thousand people	367.7	83.0	83.0	75.1
8. Talent element, 0-100 best	.	57.8	56.4	51.3
Mean years of schooling, years	.	55.6	55.9	55.4
Pisa, score	491.2	59.6	62.8	66.1
Internet users, % pop.	95.0	68.7	63.4	58.1
Perceived entrepreneurial capabilities, % 18-64 pop.	49.7	49.0	45.5	32.4
9. Leadership element, 0-100 best	.	62.9	61.3	57.7
Serial entrepreneurs, unit count	42.5	62.9	61.3	57.7
10. Interm. services element, 0-100 best	.	67.9	66.4	63.7
Coaches, unit count	79.0	58.9	55.9	51.5
Incubators, per million pop.	4.7	53.2	52.5	50.1
Technical employment, % total employment	9.6	100.0	100.0	100.0









Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	11.3	64.4
Equity-based young firms, per million pop.	0.45	68.4
Unicorns, per million pop.	0.1	54.5
Enterprise churn rate, % business pop.	21.5	65.0
Medium and high-growth enterprises, %	15.7	100.0
3-year survival rate., % new employer enterp.	88.7	100.0
Expectation to create jobs, % entrepreneurs	13.9	27.8
2-year-old employer enterprises, % business population	1.8	35.7

Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	21.9	57.7
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	25.5	71.7
Women founders, % founders	18.4	45.1

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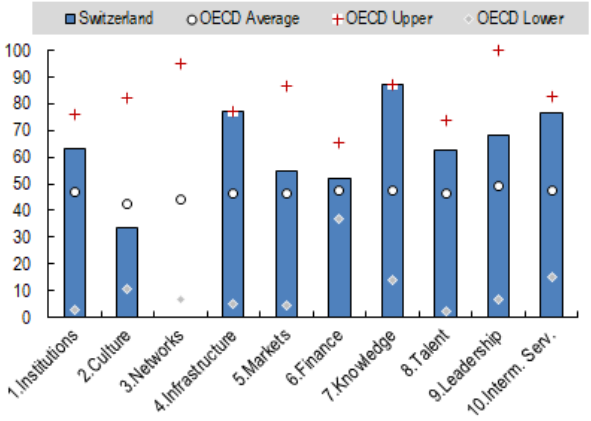
Switzerland

Entrepreneurial ecosystem diagnostics



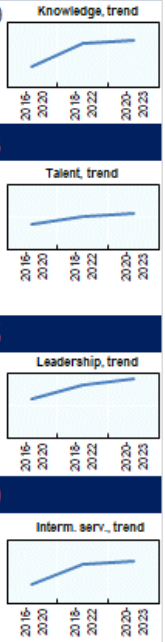
Switzerland has a relatively high concentration of equity-based young firms and unicorns, although more broadly the share of entrepreneurs that expect to create jobs is below average. Switzerland's entrepreneurial ecosystem is bolstered by very strong scores in the Knowledge (87.3), Infrastructure (77.0), Intermediate services (76.6), Leadership (68.4) and Institutions (63.0) elements. Culture is an element where Switzerland performs less well, with a score of 33.7.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	63.0	61.9	60.8	
Rule of law, 0-100 best	94.0	71.9	71.9	71.9	Institutions, trend
Control of corruption index, 0-100 low incidence	97.8	66.4	66.5	66.3	
Product Market Regulation, Index 0-6 stringent	1.4	49.4	47.0	45.4	
Effective tax rate, % taxable income	18.2	66.9	65.2	63.4	
2. Culture element, 0-100 best	.	33.7	36.6	40.4	
Entrepreneurship as a good career choice, % 18-64 pop	41.6	8.6	11.5	17.2	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	74.2	56.5	54.8	49.3	
Trust in others, % respondents	57.5	78.4	77.4	77.4	
3. Networks element, 0-100 best	.	.	54.3	54.9	
SMEs collaborating on innovation, % total SMEs	.	31.1	31.5	31.5	Networks, trend
University-business collaboration, 1-7 best	5.7	93.7	93.6	95.5	
4. Infrastructure element, 0-100 best	.	77.0	71.7	65.8	
Fix broadband, subs. per 100 pop.	47.8	89.3	88.2	86.1	Infrastruct., trend
Mobile data use, Gb per subscrip./month	16.3	59.3	51.7	43.3	
Transport infrastructure quality, 1-5 high	4.3	86.0	80.8	76.2	
5. Markets element, 0-100 best	.	55.0	49.9	39.5	
Gross domestic product, PPP$ million	745.1	51.0	49.4	47.3	Markets, trend
Trade facilitation index, 0-2 best	1.8	59.4	50.5	33.0	
6. Finance element, 0-100 best	.	52.2	51.5	51.0	
Early-stage VC investment, USD per capita	54.48	51.1	50.3	47.0	Finance, trend
Later-stage VC investment, USD per capita	31.92	47.2	45.5	43.9	
Outstanding SME loans, thousands USD per capita	62.0	100.0	100.0	100.0	
Factoring, thousands USD per capita	0.1	30.7	30.7	32.8	

Note: value refer to the arithmetic mean of available data in the referenced period. The number of data points within each reference period can vary by country and indicator. Elements' scores are geometric means of the underlying indicators' scores. Indicators' scores are min/max transformations of the value anchored to the 2020-2023 period. The min (max) is the country sample mean of each indicator minus (plus) 2 sample standard deviations, with respect to the distribution of data in the 2020-2023 period. A dot (.) in both score and value columns indicate that the datapoint is not available or it was not possible to impute. If a dot (.) is reported in the value column but a number is reported in the score column, the data point was imputed, using a linear regression technique. Element scores are not computed for countries in periods where there is more than 1 missing or imputed value.

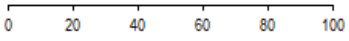
Switzerland

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	87.3	86.9	83.3
Patents, per million pop.	164.5	100.0	100.0	100.0
R&D expenditure, % GDP	3.3	73.2	72.1	70.6
GitHub software uploads, per thousand people	403.2	91.0	91.0	81.9
8. Talent element, 0-100 best	.	62.5	60.0	55.8
Mean years of schooling, years	.	75.9	75.9	75.9
Pisa, score	498.0	65.4	65.4	66.9
Internet users, % pop.	96.0	72.7	66.3	55.9
Perceived entrepreneurial capabilities, % 18-64 pop.	46.6	42.2	39.5	34.2
9. Leadership element, 0-100 best	.	68.4	66.6	62.5
Serial entrepreneurs, unit count	57.8	68.4	66.6	62.5
10. Interm. services element, 0-100 best	.	76.6	76.2	72.9
Coaches, unit count	88.0	60.7	57.6	52.7
Incubators, per million pop.	10.0	90.2	87.4	79.5
Technical employment, % total employment	7.6	82.1	87.9	92.5



Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.61	86.0
Unicorns, per million pop.	0.2	58.6
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	14.5	29.5
2-year-old employer enterprises, % business population	.	.



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	6.9	75.9
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	38.7	49.4
Women founders, % founders	13.7	23.3

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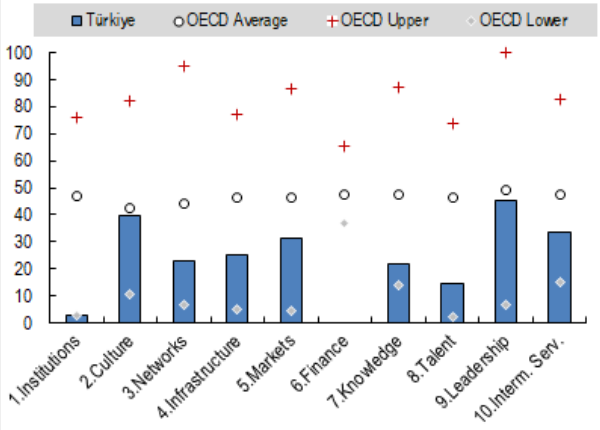
Türkiye

Entrepreneurial ecosystem diagnostics



Türkiye has a high enterprise birth rate and churn rate, although the concentration of equity-based start-ups and unicorns is somewhat below the OECD average. Leadership and Culture are two elements where Türkiye's entrepreneurial ecosystem performs reasonably well, with scores of 45.3 and 39.8, respectively. Areas to be developed further are the Institutions (3.0) and Talent (14.8) elements.

	Value	Score			
	2020-2023	2020-2023	2018-2022	2016-2020	
1. Institutions element, 0-100 best	.	3.0	2.9	3.0	
Rule of law, 0-100 best	47.0	0.0	0.0	0.0	Institutions, trend
Control of corruption index, 0-100 low incidence	21.1	0.0	0.0	0.0	
Product Market Regulation, Index 0-6 stringent	2.6	0.0	0.0	0.0	
Effective tax rate, % taxable income	16.5	76.6	75.6	84.0	
2. Culture element, 0-100 best	.	39.8	39.4	40.2	
Entrepreneurship as a good career choice, % 18-64 pop	69.1	67.9	77.9	87.0	Culture, trend
High status to successful entrepreneurs, % 18-64 pop.	73.6	54.9	47.1	44.8	
Trust in others, % respondents	12.7	17.0	16.7	16.7	
3. Networks element, 0-100 best	.	23.1	21.7	20.4	
SMEs collaborating on innovation, % total SMEs	6.5	27.0	28.2	29.3	Networks, trend
University-business collaboration, 1-7 best	3.6	19.8	16.6	14.2	
4. Infrastructure element, 0-100 best	.	25.2	17.8	10.2	
Fix broadband, subs. per 100 pop.	21.3	9.9	4.5	0.0	Infrastruct., trend
Mobile data use, Gb per subscrip./month	12.6	48.3	40.5	33.2	
Transport infrastructure quality, 1-5 high	3.4	33.5	30.9	31.9	
5. Markets element, 0-100 best	.	31.4	18.9	8.4	
Gross domestic product, PPP$ million	3,029.7	74.9	72.3	70.1	Markets, trend
Trade facilitation index, 0-2 best	1.6	13.1	4.9	0.0	
6. Finance element, 0-100 best	.	.	.	.	
Early-stage VC investment, USD per capita	.	38.5	38.4	38.3	Finance, trend
Later-stage VC investment, USD per capita	.	40.4	40.4	40.3	
Outstanding SME loans, thousands USD per capita	0.3	34.5	34.7	35.2	
Factoring, thousands USD per capita	0.0	30.0	30.1	30.3	

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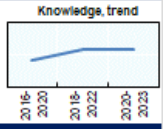
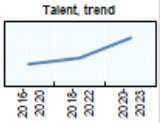
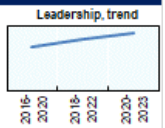
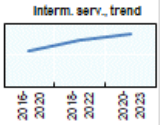
Türkiye

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	21.7	21.6	18.2
Patents, per million pop.	0.8	29.6	29.6	29.6
R&D expenditure, % GDP	1.4	34.5	33.9	32.2
GitHub software uploads, per thousand people	43.1	10.0	10.0	6.3
8. Talent element, 0-100 best	.	14.8	8.5	6.6
Mean years of schooling, years	.	0.0	0.0	0.0
Pisa, score	461.9	34.9	35.0	28.9
Internet users, % pop.	82.1	19.7	2.2	0.0
Perceived entrepreneurial capabilities, % 18-64 pop.	58.9	69.5	67.7	64.3
9. Leadership element, 0-100 best	.	45.3	40.7	34.3
Serial entrepreneurs, unit count	15.5	45.3	40.7	34.3
10. Interm. services element, 0-100 best	.	33.4	32.3	30.6
Coaches, unit count	39.3	47.6	44.7	40.7
Incubators, per million pop.	0.5	23.5	23.4	23.0
Technical employment, % total employment	.	.	.	.



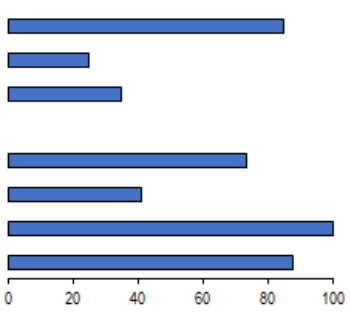




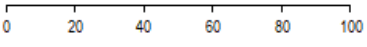


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	14.0	85.0
Equity-based young firms, per million pop.	0.04	24.7
Unicorns, per million pop.	0.0	34.8
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	12.3	73.5
3-year survival rate., % new employer enterp.	48.2	40.9
Expectation to create jobs, % entrepreneurs	53.8	100.0
2-year-old employer enterprises, % business population	5.8	87.8



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	17.2	63.4
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	43.9	40.5
Women founders, % founders	.	.



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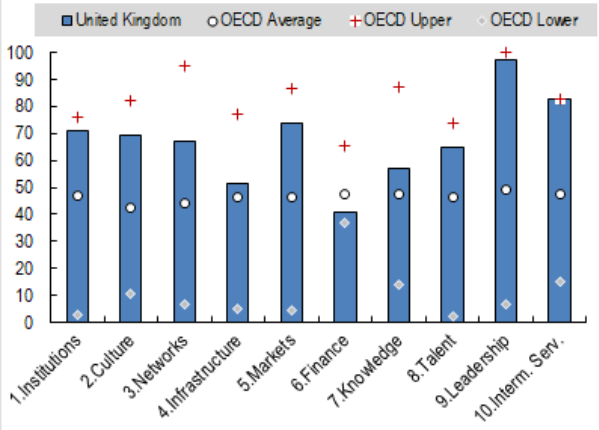
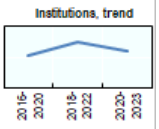
United Kingdom

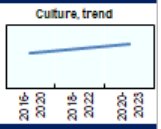
Entrepreneurial ecosystem diagnostics

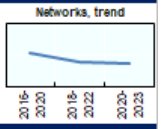


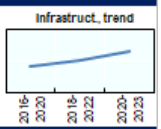
The United Kingdom's entrepreneurial ecosystem does well in generating a relatively high number of equity-based young firms and unicorns. In terms of the entrepreneurial ecosystem elements, the UK performs very strongly in the Leadership (97.5), Intermediate services (83.0), and Markets (73.6) elements. This points to strong mentoring opportunities, well-functioning markets, and a high availability of intermediate services to support start-ups and scale-ups.

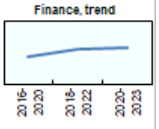
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	70.9	72.5	70.3
Rule of law, 0-100 best	91.0	66.9	68.9	68.9
Control of corruption index, 0-100 low incidence	94.5	61.7	61.6	61.3
Product Market Regulation, Index 0-6 stringent	1.0	79.5	76.6	74.6
Effective tax rate, % taxable income	16.4	77.1	85.1	77.5
2. Culture element, 0-100 best	.	69.2	63.5	56.9
Entrepreneurship as a good career choice, % 18-64 pop	69.7	69.2	58.6	46.7
High status to successful entrepreneurs, % 18-64 pop.	81.8	76.6	69.7	62.9
Trust in others, % respondents	46.0	62.6	62.6	62.6
3. Networks element, 0-100 best	.	67.3	67.9	70.7
SMEs collaborating on innovation, % total SMEs	34.4	67.2	65.3	63.5
University-business collaboration, 1-7 best	4.9	67.4	70.6	78.7
4. Infrastructure element, 0-100 best	.	51.5	50.1	49.1
Fix broadband, subs. per 100 pop.	41.3	69.6	68.3	65.5
Mobile data use, Gb per subscrip./month	7.9	34.4	29.8	25.5
Transport infrastructure quality, 1-5 high	3.8	57.2	61.7	71.0
5. Markets element, 0-100 best	.	73.6	71.3	66.5
Gross domestic product, PPP$ million	3,679.4	78.2	77.0	75.4
Trade facilitation index, 0-2 best	1.8	69.3	66.0	58.7
6. Finance element, 0-100 best	.	41.0	40.5	39.5
Early-stage VC investment, USD per capita	34.39	46.3	45.5	43.2
Later-stage VC investment, USD per capita	32.92	47.4	46.3	43.9
Outstanding SME loans, thousands USD per capita	3.0	40.9	40.6	40.5
Factoring, thousands USD per capita	0.1	31.3	31.6	31.9











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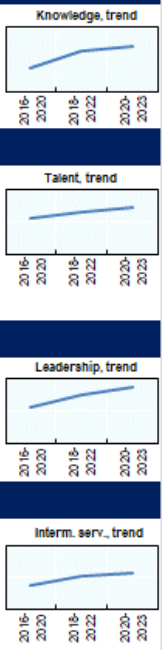
United Kingdom

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	57.1	56.4	53.7
Patents, per million pop.	27.7	48.1	47.8	47.2
R&D expenditure, % GDP	2.9	65.9	63.6	59.4
GitHub software uploads, per thousand people	260.2	58.8	58.8	55.4
8. Talent element, 0-100 best	.	64.7	63.1	61.1
Mean years of schooling, years	13.4	69.8	68.5	67.2
Pisa, score	496.6	64.2	66.1	68.2
Internet users, % pop.	95.1	69.3	63.9	59.8
Perceived entrepreneurial capabilities, % 18-64 pop.	53.0	56.4	54.6	50.8
9. Leadership element, 0-100 best	.	97.5	95.3	91.4
Serial entrepreneurs, unit count	291.0	97.5	95.3	91.4
10. Interm. services element, 0-100 best	.	83.0	80.4	75.5
Coaches, unit count	1,020.0	100.0	98.1	93.3
Incubators, per million pop.	5.8	61.0	59.6	56.3
Technical employment, % total employment	8.3	93.6	89.0	81.8



Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.53	77.2
Unicorns, per million pop.	0.2	60.5
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	20.0	44.4
2-year-old employer enterprises, % business population	.	.

Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	29.2	48.8
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	45.5	37.8
Women founders, % founders	25.3	77.2

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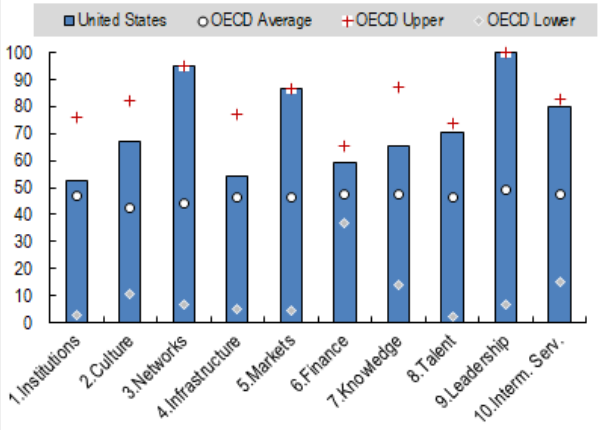
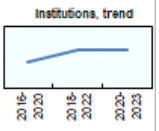
United States

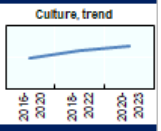
Entrepreneurial ecosystem diagnostics

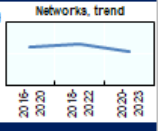


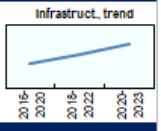
The United States hosts one of the most advanced entrepreneurial ecosystems among OECD countries, as demonstrated by the high concentration of equity-based young firms and unicorns. These scores point to a dynamic start-up environment with a significant number of high-growth, innovative companies. The United States' ecosystem features high scores in the Leadership (100), Networks (95.3), Markets (86.8) and Finance (59.3) elements. The United States performs relatively less well in the Institutions (52.6) and Infrastructure (54) elements, although these element scores are still above the OECD average.

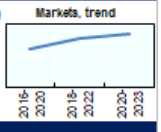
	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
1. Institutions element, 0-100 best	.	52.6	52.3	48.3
Rule of law, 0-100 best	92.5	69.4	66.0	66.0
Control of corruption index, 0-100 low incidence	92.2	58.3	55.6	54.2
Product Market Regulation, Index 0-6 stringent	1.6	36.0	35.9	35.8
Effective tax rate, % taxable income	20.8	52.7	56.9	42.7
2. Culture element, 0-100 best	.	67.0	64.0	58.9
Entrepreneurship as a good career choice, % 18-64 pop	75.4	81.4	71.0	60.1
High status to successful entrepreneurs, % 18-64 pop.	79.4	70.1	70.1	64.7
Trust in others, % respondents	38.7	52.7	52.7	52.7
3. Networks element, 0-100 best	.	95.3	96.7	96.2
SMEs collaborating on innovation, % total SMEs	73.0	100.0	100.0	100.0
University-business collaboration, 1-7 best	5.6	90.8	93.4	92.5
4. Infrastructure element, 0-100 best	.	54.0	50.8	47.7
Fix broadband, subs. per 100 pop.	37.5	58.4	54.3	48.0
Mobile data use, Gb per subscrip./month	10.1	41.1	35.5	31.2
Transport infrastructure quality, 1-5 high	3.9	65.7	67.8	72.4
5. Markets element, 0-100 best	.	86.8	85.2	82.2
Gross domestic product, PPP$ million	24,525.4	100.0	100.0	100.0
Trade facilitation index, 0-2 best	1.8	75.3	72.7	67.5
6. Finance element, 0-100 best	.	59.3	57.5	50.6
Early-stage VC investment, USD per capita	257.28	98.7	89.6	71.4
Later-stage VC investment, USD per capita	319.63	100.0	98.5	74.6
Outstanding SME loans, thousands USD per capita	2.0	38.6	38.1	37.8
Factoring, thousands USD per capita	0.2	32.4	32.5	32.6

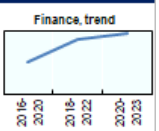








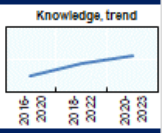


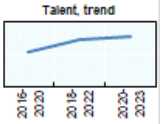


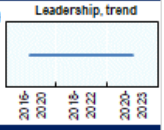
Note: value refer to the arithmetic mean of available data in the referenced period. The number of data points within each reference period can vary by country and indicator. Elements' scores are geometric means of the underlying indicators' scores. Indicators' scores are min/max transformations of the value anchored to the 2020-2023 period. The min (max) is the country sample mean of each indicator minus (plus) 2 sample standard deviations, with respect to the distribution of data in the 2020-2023 period. A dot (.) in both score and value columns indicate that the datapoint is not available or it was not possible to impute. If a dot (.) is reported in the value column but a number is reported in the score column, the data point was imputed, using a linear regression technique. Element scores are not computed for countries in periods where there is more than 1 missing or imputed value.

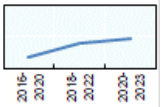
United States

	Value	Score		
	2020-2023	2020-2023	2018-2022	2016-2020
7. Knowledge element, 0-100 best	.	65.5	64.5	62.5
Patents, per million pop.	43.5	59.0	58.9	58.3
R&D expenditure, % GDP	3.5	77.6	74.2	68.7
GitHub software uploads, per thousand people	271.3	61.3	61.3	60.9
8. Talent element, 0-100 best	.	70.6	68.8	61.7
Mean years of schooling, years	13.7	74.2	73.1	71.4
Pisa, score	490.9	59.4	60.6	61.1
Internet users, % pop.	96.8	75.8	63.8	47.7
Perceived entrepreneurial capabilities, % 18-64 pop.	61.1	74.5	79.4	69.6
9. Leadership element, 0-100 best	.	100.0	100.0	100.0
Serial entrepreneurs, unit count	1,979.5	100.0	100.0	100.0
10. Interm. services element, 0-100 best	.	79.8	79.0	76.8
Coaches, unit count	6,611.8	100.0	100.0	100.0
Incubators, per million pop.	6.2	63.7	62.4	59.0
Technical employment, % total employment	.	.	.	.



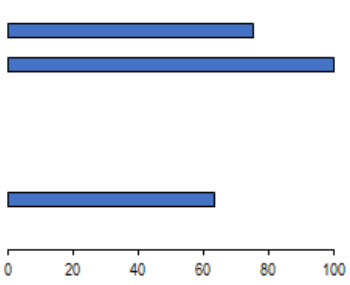




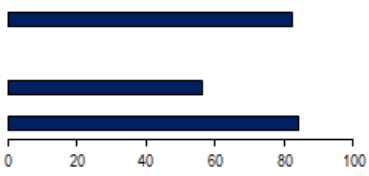


Output indicators

Entrepreneurship outcomes measures	value 2020-2023	score 2020-2023
Birth rate of employer enterprises, % business pop.	.	.
Equity-based young firms, per million pop.	0.51	75.4
Unicorns, per million pop.	0.5	100.0
Enterprise churn rate, % business pop.	.	.
Medium and high-growth enterprises, %	.	.
3-year survival rate., % new employer enterp.	.	.
Expectation to create jobs, % entrepreneurs	27.1	63.6
2-year-old employer enterprises, % business population	.	.



Variation measures	Value 2020-2023	Score 2020-2023
Geographical dispersion of start-ups, 0-100 high conc.	1.4	82.5
Regional dispersion of enterp. birth, st dev.	.	.
Missing entrepreneurs' rate, % early stage entrepreneurs	34.5	56.4
Women founders, % founders	26.7	84.0



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5 Entrepreneurial ecosystem policies

This chapter describes three entrepreneurial ecosystem policies developed by national governments: French Tech (France), TechLeap (Netherlands) and the Startup Act (Italy). These policies contain holistic packages of measures to develop conducive ecosystem conditions across areas including knowledge transfer, entrepreneur networks, talent attraction, tax benefits, equity financing, advice and mentoring, incubation, and internationalisation for startups and scaleups. The chapter details success factors and key take aways for each policy.

Governments use a wide variety of policy instruments across a diversity of policy areas to strengthen their entrepreneurial ecosystems. Some of these instruments provide direct support to companies, for example training or access to finance, while others aim to improve the framework conditions for business creation and growth, for example through tax incentives or regulatory measures. These different measures are often targeted at specific elements of an entrepreneurial ecosystem.

Table 5.1 maps the main types of policies for supporting start-ups and scale-ups onto the entrepreneurial ecosystem element that they primarily target or have an impact upon. Clearly, where the diagnostic indicators indicate possible bottlenecks in an entrepreneurial ecosystem governments can draw on the types of policy measures indicated in the Table.

Table 5.1. Mapping of policy types for start-ups and scale-ups

Entrepreneurial ecosystem element	Policies for start-ups and scale-ups
Institutions	• Tax incentives for investors • Tax incentives to reduce costs for new firms • Tax incentives to support business growth • R&D tax credits • Improving access to information on regulations • Reducing compliance costs of regulations
Culture	• Entrepreneurship awareness raising campaigns and events • Entrepreneurship competitions, prizes and awards • Entrepreneurship education in schools and universities
Networks	• Cluster policies • Networks of entrepreneurs
Infrastructure	• Investments in broadband infrastructure • Digital innovation hubs
Markets	• Export awareness campaigns • Information and advisory services on how to export • International trade missions • Logistical support through trade desks • Export credit guarantees • Trade insurance • Measures to improve SMEs and start-ups' access to public procurement • Simplification of public procurement processes • Certifications, labels and standards
Finance	• Grants for start-ups • Loans for start-ups • Public sector venture capital funds • Co-investment funds • Mezzanine financing schemes • Business angel networks • Loan guarantees • Investment-readiness training • Financial literacy training • Facilitation of fintech for start-up support
Knowledge	• Innovation vouchers • Science parks • Technology transfer support programmes • Incentives for researchers for "third-mission" activities • Intellectual property facilitation • Public procurement for innovation
Talent	• Entrepreneurship training programmes targeting aspiring entrepreneurs • Start-up visas
Leadership	• Private sector consultation in entrepreneurship policymaking

	• Alumni networks for entrepreneurship programmes (including incubators and accelerators)
Intermediate services	• Business advisory services • Mentoring programmes • Coaching • Incubators • Accelerators

However, it is also important to develop more comprehensive, holistic policies for entrepreneurial ecosystems that recognise how entrepreneurship is favoured and hindered by factors acting together in a system. As pointed out by (Leendertse, Schrijvers and Stam, 2022[1]), a core characteristic of entrepreneurial ecosystems is the interrelationships between the different elements. For example, the capacity of an ecosystem to generate knowledge for exploitation by innovative start-ups and scale-ups is shaped by the availability of talent. In turn, the availability of talent – as well as other ecosystem elements such as market size and formal and informal institutions – are important factors in attracting private investors, who in addition to supplying finance may also act as leaders and providers of intermediate services to start-ups and scale-ups.

The interconnections between the different policy areas, as well as the large number of actors involved, mean that it is important to achieve coherence and synergy through a holistic entrepreneurial ecosystem policy. This rest of this section presents three examples of holistic ecosystem-level policy initiatives each containing a diverse set of measures that together seek to strengthen the entrepreneurial ecosystem, namely: i) France's French Tech programme, ii) the Italian Startup Act, and iii) the TechLeap programme in the Netherlands. Key features of each of these policies are that they are holistic, involve the public sector working with a range of partners in the ecosystem, and give entrepreneurs a key role in developing policy action. They also often encourage and coordinate regional entrepreneurial ecosystem actions.

The policies are presented in order to offer inspiration on potential policy actions that governments could take to take steps to address entrepreneurial ecosystem bottlenecks identified in the diagnostics above. Clearly, further diagnostic and policy appraisal work would be required in any specific country to develop appropriate policies for that context, but this section aims to show that relevant policy actions are available as potential models.

French Tech, France

Objectives and rationale

French Tech was created in 2013 by the French government to bring together all stakeholders in France's entrepreneurial ecosystem under a single name and logo. The aims are:

- To improve the visibility and international influence of the French start-up ecosystem and thus increase its ability to attract investment and talent to France.
- To develop a local dynamic around start-ups by drawing on the initiatives of the players on the French entrepreneurial scene themselves to highlight what already exists and create a snowball effect.
- To encourage the emergence of world technology leaders in France by supporting them through various programmes.
- To strengthen the coherence of public actions in support of start-ups.
- The overarching goal is to give French start-ups and ecosystem stakeholders a strong common identity and to encourage exchanges within it.

Description of measures

The French Tech programme is run by a small team of 30 people (the “French Tech Mission”), which is attached to the Ministry of Economy and Finance. The team has an operating budget of EUR 25 million. The French Tech Mission has two main activities in the entrepreneurial ecosystem:

1. The labelling and co-ordination of the 116 French Tech Capitals and Communities. These are typically private associations of players who are active in the local entrepreneurial ecosystem in their area and work to promote entrepreneurship and innovation. In addition to benefitting from the French Tech label, the Capitals and Communities can also apply for project funding from the French Tech Mission. Other sources of funding are membership fees, private sponsorship, and local authorities.
2. The creation and implementation of support programmes dedicated to the growth of innovative start-ups. Table 5.2 outlines the key activities of the French Tech programme, mapped to the most relevant entrepreneurial ecosystem element.

The activities conducted by French Tech align with the strengths and weaknesses identified by the entrepreneurial ecosystem benchmarking tool. The construction of co-ordination mechanisms contributes to improving Networks, one of the elements where France has historically performed relatively less well. The programme also builds upon France’s strong Leadership performance by leveraging the existing communities of entrepreneurs to act as mentors for other entrepreneurs.

Table 5.2. Activities of the French Tech programme

Most relevant entrepreneurial ecosystem element	Support measures
Institutions	The French Tech Central programme facilitates start-ups’ access to public services in their area. Through the programme, start-ups can meet with representatives from government departments and public entities, who are based in the flagship locations of the 17 French Tech Capitals. The programme currently has more than 60 public administrations as partners in the programme and around 250 correspondents.
Networks	One of the main activities of the French Tech Mission is the labelling and co-ordination of the French Tech Capitals and Communities. For a city or community to obtain the French Tech Label, the promoters must mobilise a large number of local stakeholders and demonstrate that these actors are working collaboratively to foster the entrepreneurial ecosystem. In this way, the French Tech labelling process has helped to strengthen linkages and networks within entrepreneurial ecosystems across France.
Market	Among the French Tech Communities are 67 international communities across 52 countries. These are groups of French or Francophile entrepreneurs who support the actions of the French Tech Mission abroad and help to support the development of French start-ups in their geographical area. These Communities are supported by diplomatic posts and the economic departments of French embassies and consulates, by Business France, by French Chambers of Commerce and Industry abroad and by French Foreign Trade Advisors (who are volunteers, often belonging to large companies). With respect to the domestic market, the “I choose French Tech” initiative, created in June 2023, aims to increase the use of products and services from French Tech start-ups by public administrations and large companies. More than 300 companies and 80 institutional players have signed up to this programme.
Finance	The French Tech Rise programme aims to reduce inequalities in access to start-up financing across France. It gives visibility to start-ups from all parts of the country in front of well-known venture capital funds. Initially, the Capitals and Communities of the French Tech network organise "French Tech Rise" meetings between investment funds and start-ups in the fundraising phase. Then, 20 regional "champion" start-ups are invited to a national event, where they can meet and have one-to-one exchanges with investors and major investment funds.
Leadership	The 116 French Tech Capitals and Communities across France bring together approximately 1 400 volunteers (around 70% of whom are entrepreneurs) and 6 000 start-ups. Members of the French Tech Capital and Communities often act as mentors for entrepreneurs in their area, helping them to develop their skills, recruit workers, and identify funding opportunities, as well as directing them to local incubators and accelerators.
Intermediate services	The French Tech Mission runs several incubation and acceleration programmes for entrepreneurs: • The French Tech Tremplin programme, which targets entrepreneurs from under-represented backgrounds.

	• The French Tech Next 40/120 programme, which selects and supports 120 successful young companies with the potential to become world-class leaders. The French Tech 2030 programme, supports emerging companies that respond to major societal challenges, based on the strategic priorities of the France 2030 Plan.

Success factors

The French Tech Capitals and Communities displayed strong dynamism. Over the last 10 years, networks of entrepreneurs, investors, incubators, accelerators, associations, and public and private actors have developed and coalesced under the French Tech banner, bringing together numerous entities that were previously unaware of one another. Programmes like French Tech both contributed to and benefitted from the rapid evolution of the ecosystem in the past decade. As shown by entrepreneurship statistics, since 2013, the number of incubators and serial entrepreneurs doubled while the among of venture capital invested tripled. In this context, the programme was well set to achieve impact, contributing, together with other activities and trends, to develop a startup movement in France.

A key to the success of the French Tech programme is the mobilisation of local actors within local entrepreneurial ecosystems and its emphasis on building on their existing initiatives and resources. This collective mobilisation began with the labelling process for the French Tech Capitals and Communities, which required the applicants to map their local entrepreneurial ecosystems and take stock of existing initiatives and stakeholders. French Tech's success is due in large part to the voluntary involvement of local anchors. By involving the individuals and organisations running the French Tech Capitals and Communities in the design of new initiatives for their local ecosystems, the French Tech Mission was able to secure the active engagement and commitment of these stakeholders.

Another strength of the French Tech programme is its agility. The initiative has evolved over time in line with the demands of the stakeholders involved or in response to emerging problems, creating. highly targeted programmes in response to these changes or demands. The ability to do so is partly attributable to the nature of French Tech's management team. The French Tech Mission is a small, young team of 30 people that enjoy a high degree of autonomy and can take decisions quickly. It also enjoys the longstanding support of the public authorities at the highest level.

Conclusions and takeaways

Many OECD countries face the challenge of start-up activity being concentrated in certain cities and regions, with other areas lagging behind. French Tech is an innovative policy initiative that has been successful in creating more cohesive and dynamic entrepreneurial ecosystems at a local level across the country through the mobilisation of local stakeholders. Rather than implementing large, top-down entrepreneurship promotion schemes at the national level, French Tech has sought instead to stimulate the development of local initiatives that build on existing resources and are, in part or in whole, financed and operated by local ecosystem actors from both the private and public sectors.

A key lesson from this approach is that, by empowering local entrepreneurs and entrepreneurial ecosystem stakeholders to become the creators and drivers – as opposed to merely the beneficiaries – of new initiatives, policy makers can secure the active engagement of these different players. This in turn can increase the overall pool of resources available within local entrepreneurial ecosystems. For example, 1 400 volunteers are involved in driving the French Tech Communities and Capitals, often acting as mentors to start-ups and entrepreneurs in their area. Another major achievement of the French Tech programme are the strong networks and linkages that have been built up within and between local entrepreneurial ecosystems across France. By compelling and encouraging ecosystem actors to act in collaboration and co-ordination with one another, for example through the requirements of the labelling process for the French Tech Capitals and Communities, the French Tech Programme has helped to ensure that the activities of these different actors are well aligned.

The Italian Startup Act, Italy

Background, objectives and rationale

The Italian Startup Act (ISA), which was introduced in 2012, is a comprehensive legal framework to strengthen the country's entrepreneurial ecosystem. It draws from recommendations made in the "Restart, Italia!" report developed by a taskforce of 12 experts appointed by the Minister of Economic Development. The objectives are to:

- Spur sustainable growth and enhance productivity.
- Foster an innovative entrepreneurial culture.
- Create new employment opportunities, in particular for youth.
- Attract and retain talent and financial capital from across the world.

Description of measures

The ISA introduced a formal definition for an "innovative start-up" (limited and unlisted companies that are headquartered in Italy, are less than 5 years old, have an annual turnover below EUR 5 million, do not distribute their profits, are not created from a company merger, split-up or branch transfer, and meet at least one of the pre-defined innovation-related criteria[1]). Companies submit a self-certification to the local chamber of commerce in order to become a registered innovative start-up. The chambers of commerce carry out routine checks to confirm the companies meet the legal requirements to be classed as an innovative start-up. The companies are also required to confirm each year that they still fulfil the requirements articulated in the ISA.

The registered innovative start-ups qualify for a range of support measures, as outlined in Table 6.3 below. Innovative start-ups that maintain a clear innovation component can eventually be reclassified as "innovative SMEs", which are also granted some of the benefits afforded to innovative start-ups.

Some of the activities introduced by the Startup-Act such as incentives to employment and tax benefits acted on two of the long-standing structural bottleneck of the Italian ecosystem (talent and institutions) as identified by the ecosystem diagnostics.

Table 5.3. Support for innovative start-ups provided through the Italian Startup Act

Most relevant entrepreneurial ecosystem element	Support measures
Institutions	• Allowances for private limited companies to create categories of shares with specific rights, carry out transactions on their own shares, and offer capital shares to the public. • Extension of deadlines to cover capital losses that are defined in the Italian Civil Code, enabling innovative, high-risk companies to incur financial losses during their initial years of activity. • Exemption from tax penalties usually applied to systematically loss-making companies, or companies with exceptionally low revenues. • Exemption from the annual membership fees, secretarial fees and stamp duties that are ordinarily payable to the Chambers of Commerce. • Exemptions from standard bankruptcy procedures, composition with creditors, and compulsory administrative winding-up.
Market	• 30% discount on the costs charged by the Italian Trade Agency to provide internationalisation assistance on regulatory, corporate, fiscal, real estate, contractual and credit-related issues.
Finance	• Tax incentives (gross income tax deductions for individuals and corporate tax deductions for businesses) for equity investors in innovative start-ups. • Equity crowdfunding opportunities through the introduction of regulations for the equity crowdfunding market and a special register of authorised online portals.2

	• Privileged access to Italy's Guarantee Fund for SMEs, including the waiving of guarantee fees, priority processing of applications, and the removal of credit assessments on the part of the public guarantee fund, with due diligence instead to be carried out exclusively by the private financial institution disbursing the loan.
Talent	• The option to renew employees' fixed-term contracts an indefinite number of times. • Exemption from the cap on the number of fixed-term contracts that are permitted, which is usually tied to the number of active permanent contracts. • Allowances to reimburse employees through stock options and work-for-equity schemes.
Intermediate services	• Establishing a definition for "certified incubators of innovative start-ups", which are required to meet certain requirements relating to their facilities, staff, technical equipment and track record. The certified incubators benefit from some of the supports provided to innovative start-ups, including privileged access to the Guarantee Fund for SMEs, the option to issue equity-incentive plans, and exemptions from Chambers of Commerce fees.

Success factors

There are strong monitoring and evaluation arrangements in place for the ISA. Annual reports on the performance of innovative start-ups and evidence on the impacts of the ISA's support measures are published each year. In addition, independent impact evaluation studies have been commissioned. These have generally found that the ISA's measures are effective in assisting the development of innovative start-ups in Italy, with positive causal impacts found on firms' revenues, value-added and assets (Menon et al., 2018[2]).

One success factor is that the ISA is well integrated with other stakeholders and support instruments in the entrepreneurial ecosystem. Since the introduction of the ISA in 2012, numerous complementary support measures have been implemented that are well aligned with the ISA. These include the introduction of research and development tax credits for innovative start-ups and SMEs and the launch of the Smart&Start Italia programmes to finance innovative start-ups. Key to aligning these further initiatives with the ISA is the clear definitions for 'innovative start-ups' and 'innovative SMEs' that are established in the ISA, as well as the transparency with which these companies are registered through a special section of the business register. This enables other institutions and programmes to easily target these companies with dedicated support measures.

New companies, particularly those in innovative or technology-intensive sectors, often face long development timelines. As a result, it is important that support is provided to these start-ups throughout their development or pre-revenue stage. A key feature of the ISA is the extension of supports to older companies through the 'innovative SMEs" classification, which helps to avoid the premature withdrawal of public support for companies that are still in a development stage.

There is a also a high degree of transparency surrounding the companies designated as innovative start-ups or SMEs under the ISA, with a searchable list of these companies freely available on an online portal. This approach helps to raise the visibility of the supported start-ups and also builds awareness of their contribution to the Italian economy and society more broadly. Another purpose of the public list is to discourage companies that do not meet all of the criteria for an innovative start-up from registering as one. This approach reduces the administrative burden on both the start-ups and those processing the applications.

The introduction of the Startup Act took place at a moment when the startup movement was on the rise in most European countries. In Italy, venture capital invested increased by 5 folds over the past decade and incubators doubled. In this context, the law benefitted from and contributed to amplify the startup trend in Italy.

Conclusions and takeaways

The Italian Startup Act (ISA) marks an important development in Italy's entrepreneurial ecosystem. The ISA stands out in its comprehensiveness. It includes measures to help innovative start-ups to access finance, attract talent, expand into new markets, and navigate regulatory and administrative procedures.

In addition, the ISA provides a number of tax advantages for innovative start-ups and also seeks to strengthen the provision of relevant support programmes through the "certified incubators" stream. This broad range of measures addresses many of the key challenges that start-ups and scale-ups face in the early stages of their development, and collectively increase the attractiveness of and opportunities to establish and grow an innovative new company in Italy. The large amount of groundwork underlying the ISA, including the commissioning of the "Restart, Italia!" study to identify the stakeholders, bottlenecks and policy development opportunities in Italy's entrepreneurial ecosystem, enabled the development of this comprehensive package of policy supports for innovative start-ups. Through the "innovative SME' classification, the ISA is also an excellent example of a policy that provides continuity of support to start-ups with longer development timelines.

TechLeap, The Netherlands

Background, objectives and rationale

Since 2014, the Dutch government has placed a strong focus on pursuing policies specifically targeting start-ups and scale-ups, on the basis of their contributions to wealth creation and innovation as well as their role in addressing societal challenges. Startup Delta – an independent, public-private partnership that sought to create better ecosystem linkages and support start-ups access to key resources – was launched in 2014 as part of this agenda. Following three iterations of Startup Delta, Startup Delta was relaunched as TechLeap in 2019, with a larger budget, an extended programme period of four years initially, and an increased emphasis on scale-ups.

The overall aim of TechLeap is to strengthen Dutch entrepreneurial ecosystem and enable the emergence and growth of young, innovative and technology-driven companies with growth ambitions by:

- Improving understanding of the elements of the Netherlands' entrepreneurial ecosystem.
- Improving supports for start-ups.
- Increasing the exchange of knowledge and experience between ecosystems players, entrepreneurs, start-ups and scale-ups.

These and other initiatives have certainly contributed to build one of the stronger ecosystems globally. Based on the entrepreneurial ecosystem diagnostics data, Netherlands performs above the OECD average on 9 of the 10 elements that constitute the framework. Over the past decade, Netherlands has seen the among of invested venture capital invested increasing by more than 5 folds while incubators duplicated. TechLeap builds upon existing strengths and aims at further improving enabling conditions, aiming to become one of the top five entrepreneurial ecosystems in the world.

Description of measures

TechLeap is a non-profit organisation that is funded by the Ministry of Economic Affairs and Climate Policy. Since 2023, TechLeap has also sought private funding to support it in delivering its activities for the Dutch entrepreneurial ecosystem. TechLeap has numerous programmes and initiatives to support start-ups and scale-ups. TechLeap also has a recognised role as an advocate for Dutch start-ups, scale-ups and the entrepreneurial ecosystem. Table 5.4 summarises the TechLeap's main activities to fulfill its mandate of strengthening the Netherlands' entrepreneurial ecosystem.

Table 5.4. Supports for start-ups and scale-ups provided through TechLeap

Most relevant entrepreneurial ecosystem element	Support measures
Institutions	• Startup Delta has previously been successful in advocating for a reduction in the application process time for R&D tax deductions for start-ups from 3 months to 1 month.
Culture	• TechLeap conducts a range of activities to raise the profile and status of entrepreneurs and the Dutch entrepreneurial ecosystem as a whole. For example, TechLeap's "Leading Entrepreneur in Tech" award each year selects entrepreneurs in the Dutch ecosystem with innovative, technology-driven solutions and "large-scale" thinking. The winners are selected by a jury of founders and investors. • Through its Knowledge Hub, TechLeap also publishes blogs on Dutch start-ups and the Dutch tech ecosystem, as well as reports with data and insights on trends in the entrepreneurial ecosystem. In addition, TechLeap's Scalelab podcast invites entrepreneurs that have had success in scaling their ventures to share their stories.
Networks	• The TechLeap for Scaleups community has been created with the aim of fostering mutual learning, providing access to expertise, and raising the profile of the Netherlands' tech ecosystem. The community comprises founders of Dutch tech companies with the ambition and potential to deliver major economic and societal impacts. There are tight criteria for joining the community, including being the founder or equity-holding CEO of a company that has secured more than EUR 3 million in funding, more than 20 full time employees, has a clear path towards internationalisation, and has technology as a clear differentiator. The more than 500 members of the community benefit from access to TechLeap's network of industry experts, founders and investors, as well as a selection of support programmes. • TechLeap also operates the "Finder" platform, which is an online portal where entrepreneurial ecosystem stakeholders can explore the ecosystem and identify start-ups, scale-ups, investors, corporations, accelerators and other service providers.
Markets	• TechLeap is a partner of ScaleNL, which is a public-private organisation helping Dutch start-ups to scale to the United States (US). ScaleNL provides a soft-landing acceleration programme for cohorts of ten selected founders, which includes three-months of coaching and mentoring and a mission to the US to meet local stakeholders and potential partners. Dutch start-ups can also access ScaleNL's network of mentors and experts across the US, both virtually and in-person. ScaleNL also has an online platform providing information and guidance for Dutch start-ups about scaling to the US market. • Startup Delta previously operated the Startup Officers Network, which is now managed by the Dutch Enterprise Agency. The network comprises representatives from government departments who start-ups can contact to explore opportunities to sell their products or services to the government.
Finance	• Through its 'Connector for Ventures", TechLeap selects high tech and deeptech companies with a newly developed technology that are looking to raise more than EUR 2 million over the next 18 months and have the ambition of internationalising. These companies can then gain access to curated investors (selected through the "Connector for Investors") and participate in the connector's knowledge sessions and annual investor event.
Knowledge	• TechLeap's "Science to Impact" initiative aims to increase the wider impact of the scientific knowledge contained within the Netherlands' universities and knowledge institutions. Among the priorities of the initiative are to integrate research commercialisation within the culture of academic institutions, promote public-private co-creation through the sharing of resources, and ensuring financial resources are available to academic start-ups. Science to Impact seeks to address these priorities by creating a network of like-minded knowledge institutions, companies, investors, policy makers and interest groups.
Talent	• TechLeap offers to members of its community regular "Boost Sessions", which each focus on specific challenges facing founders on topics such as accessing talent and capital, internationalising, product development and leadership. In addition, the "Rise" programme provides weekly, in-person training sessions over 8 weeks for cohorts of 9 early-stage scale-ups per quarter. Meanwhile, the "Shine" programme targets more mature scale-ups, helping them to tackle complex scaling challenges.
Intermediate services	• TechLeap has compiled a database of 260 organisations that support deeptech companies in the Netherlands, in recognition of the support that these companies often require during their extended development horizon. These organisations include entrepreneurship education providers, knowledge transfer offices, university-linked incubators, co-working areas, entrepreneurship hubs, communities or events, and commercial accelerators and venture builders. • TechLeap also operates "Incubators United", which is a collaboration of public incubators connected to Dutch universities and knowledge institutions. Incubators United organises activities for start-ups across all parts of the Netherlands. It also promotes the sharing of regional networks of mentors and experts so that they can benefit start-ups across the country. In addition, Incubators United seeks to improve incubators' internal skills and capabilities through the sharing of best practices and collaboration.

Success factors

TechLeap is an independent entity operated at arm's length from the government. Beyond its core mission of strengthening the Netherlands' entrepreneurial ecosystem, it retains a high degree of flexibility in setting its agenda and activities. This allows it to be agile in responding to the evolving needs of start-ups and scale-ups and to adapt activities based on their effectiveness. The nimbleness of TechLeap was particularly important in supporting start-ups and scale-ups during the COVID-19 pandemic. It has also enabled it to adopt a more precise and targeted approach, reflected in its current focus on deeptech and scale-ups.

Many of TechLeap's activities are geared towards building communities and creating an overall more cohesive and collaborative entrepreneurial ecosystem. Stakeholders report that this serves an important function in the ecosystem that would not be performed in the absence of TechLeap (van den Toren et al., 2023[3]). TechLeap has also been successful in raising the visibility of the Netherlands' entrepreneurial ecosystem, through its extensive programme of events and networking activities as well as through the collection and publication of reports and data and regular media appearances by the Special Envoy. This contributes to strengthening the culture for entrepreneurship in the Netherlands.

Conclusions and takeaways

The entrepreneurial ecosystems concept is embedded in the DNA of the TechLeap initiative, with its core mandate being to strengthen the Dutch ecosystem. This is reflected in its approach to supporting start-ups and scale-ups, with an overall focus on fostering relationships and leveraging existing assets and resources that exist within the entrepreneurial ecosystem. For example, TechLeap's activities to address financing bottlenecks focus primarily on building curated networks of investors and companies, while the Incubators United scheme seeks to stimulate synergies within the incubation and acceleration system through the sharing of knowledge, resources and best practices.

TechLeap also offers relevant insights for policy makers in other countries from an operational perspective. As an independent, arms-length entity, it has been able to respond to the emerging needs and challenges of start-ups and scale-ups, and also to concentrate its efforts on what it sees as the priorities for the Netherlands' entrepreneurial ecosystem.

References

Leendertse, J., M. Schrijvers and E. Stam (2022), "Measure Twice, Cut Once: Entrepreneurial Ecosystem Metrics", *Research Policy*, Vol. 51/9, https://doi.org/10.1016/j.respol.2021.104336. [1]

Menon, C. et al. (2018), "The evaluation of the Italian "Start-up Act"", *OECD Science, Technology and Industry Policy Papers*, Vol. 54/September. [2]

van den Toren, J. et al. (2023), *Evaluation of StartupDelta and Techleap*. [3]

Notes

[1] The three innovation-related criteria are: i). research and development expenditure corresponding to at least 15% of the different between annual turnover and costs, ii). at least one-third of the workshop being PhDs, PhD students, or researchers, or at least two-thirds of the workforce holding a master's degree, and iii). the company being the owner or licensee of a registered patent or the owner of original registered software.

[2] These measures were initially launched only for innovative start-ups but were subsequently expanded to cover all Italian SMEs.

6 Conclusions

This chapter presents brief conclusions on entrepreneurial ecosystem diagnostics. It touches on how the entrepreneurial ecosystem diagnostics can be used in policymaking and highlights possible steps for future development of the tool.

This report presents a new OECD diagnostics tool for assessing national entrepreneurial ecosystems in OECD countries. Although there are some other international tools aimed at analysing entrepreneurship conditions, they typically address different geographies or different kinds of entrepreneurship and entrepreneurship drivers. This tool fills an important gap by presenting data for the whole OECD area. It also has the strength of taking a comprehensive and systemic approach based on a conceptual framework and indicators backed by academic research.

Policymakers can use the report as a starting point for assessing and monitoring their national entrepreneurial ecosystems, extending and validating or adjusting the insights through deeper analyses and stakeholder dialogues. Further analysis in specific countries can examine the nature and causes of issues highlighted by the benchmarking and investigating the potential policy reforms that could be introduced. Governments can potentially work hand-in-hand with the OECD in such country assessments. Stakeholder dialogues, in particular, should be encouraged, bringing together policy makers, entrepreneurs, and representatives of communities with strong influences on ecosystem conditions such as universities, corporates, and investors, in order to discuss strong and weak areas and how improvements can be made. The tool can be used as a factual high-level starting point for these conversations and analyses.

Going forward, the OECD is committed to continue providing data and insights that feed into the design of relevant and effective entrepreneurship policies. A key priority is for governments to work with the OECD to produce more specific, timely and relevant data on different aspects of entrepreneurial ecosystems drawing on a wider range of official and non-official data. This includes improved internationally-comparable data on business start-ups and scale-ups, including by the regions of a country, different aspects of the quality of entrepreneurship (survival rates, growth rates, knowledge intensity etc.), and the nature of the business founders (gender, education, previous occupation etc.). Richer data are also needed to better measure various elements of entrepreneurial ecosystems, for example additional measures of knowledge, finance (e.g. financial literacy, capital raised or startup valuations), ecosystem leadership, networking among different ecosystem actors, or talent (e.g. willingness of graduates to work in startups).

Further possible directions for the work are to undertake specific and complementary ecosystem diagnostic analyses at sector-specific level (e.g. deeptech entrepreneurship, green entrepreneurship etc.), at sub-national level (identifying regional ecosystem conditions within countries), or at the level of different population groups (e.g. entrepreneurial ecosystems for women entrepreneurs).

In addition, analytical work can be undertaken using the data assembled for this exercise to examine relationships between different ecosystem inputs and outputs, inter-relationships among elements within ecosystems and commonalities and differences in ecosystem conditions and drivers across different subsets of countries (e.g. clubs of peer countries).

To support this agenda, individual countries and consortiums of countries may collaborate with OECD on country-specific analyses and collaborative data sharing and benchmarking exercises. Through the publication of this first version of the tool, the OECD aims to open the way for improvements of the framework through ongoing dialogues and exchanges with policy makers and experts.

Annex A. Methods and data

The national entrepreneurial ecosystem diagnostics presented in this report quantify each of ten entrepreneurial ecosystem "input" elements through composite indexes, while entrepreneurial ecosystem outputs are measured through a set of metrics external to those used to compute the element scores. This Annex sets out the main features of the methodology used to compute these ten composite indexes tracking the entrepreneurial ecosystem elements.

A complementary working paper details the methods and approaches used to produce the ten elements, how the indicators were selected, normalised, and aggregated and approaches to addressing missing values (Crotti et al., 2025 (forthcoming)[1])

Indicator selection

The choice of indicators to be included in this benchmarking report has been guided by the principles of the Statistical Quality Framework. The principles are identified in bold below, accompanied by a description of how each principle has been integrated into the choice of indicators for this benchmarking exercise:

1. **Timeliness:** Only indicators updated regularly and for which time series exist are considered. This is to enable the measurement of progress over time and to offer a current view of the situation in each country.
2. **Coverage and accessibility:** Only indicators available for significant share of OECD member countries are considered. To operationalize the principle, only indicators that contain at least a datapoint over the past 10 years for 80% of OECD countries are considered. This limits the presence of missing-values, enhancing international comparability.
3. **Reliability and comparability**: Only data computed according to high quality standards produced by reputable sources are considered. To make sure that statistics are internationally comparable, data are collected from a single source that applies consistent definitions and methods to all countries.
4. **Relevance and accuracy**: Only data that capture the theoretical concept well are considered. This involves a qualitative assessment of which metric is a reasonable representation of the concept among those available that match the other criteria above. Both direct and indirect measures of the underlying concepts are used. Abstract concepts are more easily measured indirectly or using proxies. Countable concepts are better measured with direct metrics. Some composite elements are more complex than others and require multiple indicators that capture different (non-overlapping) parts of an entrepreneurial ecosystem element.
5. **Evidence base on "congruence":** When possible, indicators are selected based on credible studies that have shown a tendency of this measure to relate to productive entrepreneurship. The objective is of constructing the most robust composite measure possible using the lowest number of indicators (Leendertse, Schrijvers and Stam, 2022[2]).

A Principal Components Analysis (PCA) and a correlation analysis have been conducted to complement these conceptual and data-quality considerations with statistical considerations, testing the redundancy and fit of considered indicators. To respect the parsimony principle, limit potential collinearity, and avoid

implicitly giving more weight to a particular aspect of a concept, indicators that are not unique and are highly correlated with one another are excluded from the computation. Notably, the Institutions element is an area where indexes are available that often capture overlapping aspects of governance or institutional quality. We seek to exclude overlapping indicators from the framework.

Although informed by statistical analysis, the selection and combination of indicators remains an area where quantitative results intertwine with conceptual considerations, which is why building composite indexes is often referred as both 'an art and a science' (Nardo et al., 2005[3]). The resulting indicators selection reflects a synthesis of theoretical considerations, empirical considerations, literature review and results of the statistical analysis. In some cases, the paucity of indicators in some domains requires the use of proxy measures. Notably, there are very few available metrics measuring Networks, Leadership, and Intermediate services well. In these case proxies are used to measures these elements to the best extent as possible.

The overall, the selection of indicators for the assessment of the entrepreneurial ecosystem elements has been based on the OECD Statistical Quality Principles, outcomes of the statistical analysis, and a review of the entrepreneurship literature (e.g. (Leendertse, Schrijvers and Stam, 2022[2])).

Details of the final selection of indicators are provided in Table A A.1 and A A.2, while the list of indicators considered but discarded for not meeting the principles stated above is provided in Table A A.3.

Table A A.1. Indicators used to compute the entrepreneurial ecosystem elements

Element	Indicator (units)	Description	Pre-normalisaiton transformation	Source
1.Institutions	Rule of law, 0-100 best	Index scaled 0-100 built by combining eight questions. i. Extent to which violent crime pose a significant problem for government and/or business (0 no problem - 4 significant problem). ii. Extent to which organised crime likely to be a problem for government and/or business? (0 no problem - 4 significant problem). iii. Extent to which extent to there is a risk that the legal process/the courts can be interfered with or distorted to serve particular interests (0 verz low - 4 very high likelihood). iv. Extent to which there is a risk that contract rights will not be enforced (0 minimal risk - 4 high risk). v. Extent to which the judicial process is speedy and efficient (0 very speedy, 4 very slow). vi. Extent to which there is a risk of expropriation of foreign assets (0 no risk -4 high risk). vii. Intellecatual property protection (0 very good - 4 very low protection).viii. Private property rights (0 very high, 4 very low guarantee). Respondents are experts from a network of over 500 correspondents, reviewed for consistency by panels of regional experts.	Moving average	Economist Intelligence Unit (EIU) accessed via World Bank - Worldwide Governance Indicators
	Effective tax rate, % taxable income	Effective average tax rate, composite tax, computed under the country-specific interest and inflation rates scenario.	Moving average	OECD - Corporate Tax Statistics Database
	Product Market Regulation, Index 0-6 stringent	Product Market Regulation Index. It measures the degree to which policies promote or inhibit competition in areas of the product market where competition is viable. A higher value indicates a higher level of regulatory stringency. It is computed through multiple aggregation layers. The overall index is computed as the average of Distortions Induced by State Involvement sub-index and the	Moving average	OECD

		Barriers to Domestic and Foreign Entry sub-index. The Distortions Induced by State Involvement sub-index includes Quality and Scope of Public Ownership, Governance of SOEs, Retail Price Controls and Regulation, Involvement in Business Operation in Network Sectors, Involvement in Business Operations in Services Sectors, Public Procurement, Assessment of Impact on Competition, Interaction with Stakeholders. The Barriers to Domestic and Foreign Entry sub-index includes Administrative Requirements for LLCs and POES, Communication and Simplification of Administrative and Regulatory Burden, Barriers to entry in Service Sectors, Barriers to entry in Network Sectors, Barriers to FDI, Barriers to Trade Facilitation, Tariff Barriers. Each measure captures de jure regulation: they reflect the status of existing laws and regulations. They are based on a questionnaire compiled by national authorities and vetted by OECD experts. For more details refer to https://www.oecd.org/en/topics/product-market-regulation.html.		
	Control of corruption index, 0-100 low incidence	Index of corruption based on population survey questions about frequency and spread of corruption.	Moving average	Varieties of Democracy Project (Videm) accessed via World Bank - Worldwide Governance Indicators
	Entrepreneurship as a good career choice, % 18-64 pop.	Percentage of 18-64 population who agree with the statement that in their country, most people consider starting a business as a desirable career choice.	Moving average	Global Entrepreneurship Monitor (GEM)
	High status to successful entrepreneurs, % 18-64 pop.	Percentage of 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status.	Moving average	Global Entrepreneurship Monitor (GEM)
	Trust in others, % respondents	Share of respondents who believe that most people can be trusted.	Moving average	World Value Survey (WVS)
3.Networks	SMEs collaborating on innovation, % total SMEs	SMEs with innovation cooperation activities as a share of all SMEs. The small and medium-sized enterprises (SMEs) with innovation cooperation activities include all enterprises that had any cooperation agreements on innovation activities with other enterprises or institutions in the three years of the survey period. It corresponds to the indicator "3.2.1 Innovative SMEs collaborating with others" in the EU scoreboard.	Moving average	European Commission - European innovation scoreboard
	University-business collaboration, 1-7 best	Average score across respondents who answred the question: in your country, to what extent do business and universities collaborate on research and development (R&D)? [1 = Not at all; 7 = To a great extent].	Moving average	World Economic Forum
4. Infrastructure	Fix broadband, subs. per 100 pop.	Total fixed broadband subscriptions per 100 population. Fixed broadband technologies corresponds to DSL, cable modem, fiber-to-the-home and other fixed technologies (such as broadband over power-line and leased lines).	Moving average	OECD - Telecommunications database
	Transport infrastructure quality, 1-5 high	Logistics performance index: Quality of trade and transport-related infrastructure (1=low to 5=high).	Moving average	World Bank - Logistic Performance Index (LPI)
	Mobile data use, Gb per subscrip./month	Mobile data use, Gigabits per subscription per month.	Moving average	OECD - Broadband and telecom databases
5. Markets	Gross domestic product, PPP$ million	Gross domestic product, expenditure approach, expressed in Purchasing Power Parity (PPP - international dollar).	Logarithm of moving average	OECD - Annual GDP and components

	Trade facilitation index, 0-2 best	Average trade facilitation performance computed as the average of the following aspects of border procedures: A. Information availability, B. Involvement of the trade community, C. Advance ruling, D. Appeal procedures, E. Fees and charges, F. Documents, G. Automation, H. Procedures, I. Internal border agency cooperation, J. External border agency cooperation, K. Governance and impartiality.	Moving average	OECD - Trade Facilitation Indicators
6.Finance	Early-stage VC investment, USD per capita	Total venture capital investments is the sum of seed, start-up and other early stage venture capital investments, in current USD, divided by the total population (USD dollars per person).	Moving average	OECD Entrepreneurship Financing Database
	Later-stage VC investment, USD per capita	Later stage venture capital investments, in current USD, divided by the total population (USD dollars per person). Growth stage investments is defined as total investments minus seed, start-up and other early stage investments.	Moving average	OECD Entrepreneurship Financing Database
	Outstanding SME loans, thousands USD per capita	Outstanding loans to SMEs divided by population.	Moving average	OECD - Financing SMEs and Entrepreneurs: An OECD Scoreboard
	Factoring, thousands USD per capita	Total value of factoring contracts, divided by population.	Moving average	OECD - Financing SMEs and Entrepreneurs: An OECD Scoreboard
7.Knowledge	Patents, per million pop.	Number of patents filed at triadic patent families per capita.	Moving average	OECD - Main Science and Technology Indicators
	R&D expenditure, % GDP	Gross Domestic Expenditure on R&D, % GDP.	Moving average	OECD - Main Science and Technology Indicators
	GitHub software uploads, per thousand people	Number of times developers in a country uploaded code to GitHub per thousand people.	Moving average	GitHub
8.Talent	Mean years of schooling, years	Average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grade. In general, the indicator's value denotes the level of skills and competencies of a country's population, which could be seen as a proxy of both the quantitative and qualitative aspects of the stock of human capital. A relative high value indicates great shares of the adult population according to the highest level of education attained or completed, and reflects a performing educational system. Caution is required when using this indicator for cross-country comparison. Countries do not always classify degrees and qualifications at the same ISCED levels, even if they are received at roughly the same age or after a similar number of years of schooling. Also, certain educational programmes and study courses cannot be easily classified according to ISCED levels. It is also important to note that this indicator is based on education levels attained or completed, in terms of years of schooling, and do not necessarily reveal the quality of the education (e.g. learning achievement or other outcomes).	Moving average	UNESCO
	Pisa, score	Average of Math, Reading, and Science of Pisa test scores.	Moving average	OECD - PISA
	Internet users, % pop.	Individuals who have used the internet as a share of the total population. Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal	Moving average	World Bank, World Development Indicators

		digital assistant, games machine, digital TV etc.		
	Perceived entrepreneurial capabilities, % 18-64 pop.	Percentage of 18-64 population who believe they have the required skills and knowledge to start a business.	Moving average	Global Entrepreneurship Monitor (GEM)
9.Leadership	Serial entrepreneurs, unit count	Number of people described as serial entrepreneurs in the crunchbase's individuals database.	Logarithm of moving average	Crunchbase
10.Intermediate services	Incubators, per million pop.	Total count of active incubators, accelerators, co-working spaces, entrepreneurship programmes, and startup competition programmes, divided by the total population.	Moving average	Crunchbase and OECD
	Coaches, unit count	Number of people described as mentors or coaches in the crunchbase's individuals database.	Logarithm of moving average	Crunchbase
	Technical employment, % total employment	Proxy measure for availability of experts in technical domains. It is measures in terms of employment in professional, scientific and technical activities as a share of total employment. Professional, scientific and technical activities correspond to the section M of UN's international standard industrial classification of all economic activities (ISEC, rev.4) and includes: (Division 69) Legal and accounting activities, (Division 70) Activities of head offices; management consultancy activities, (Division 71) Architectural and engineering activities; technical testing and analysis, (Division 72) Scientific research and development, (Division 73) Advertising and market research, (Division 74) Other professional, scientific and technical activities (e.g. design, photographic activities, other).	Moving average	OECD

Table A A.2. Indicators used to benchmark entrepreneurship output and variation

Element	Indicator (units)	Description	Pre-normalisaiton transformation	Source
Output	Birth rate of employer enterprises, % business pop.	New firm creation among employer firms (i.e. with at least one employee), as a proportion of active business population.	Moving average	OECD - SDBS business demography
	Medium and high-growth enterprises, %	Rate of medium and high-growth enterprises (10%+ growth based on employment) as a proportion of active business population.	Moving average	OECD - SDBS business demography
	Equity-based young firms, per million pop.	Number of companies aged 0-5 years old, divided by the population. Since the Crunchbase dataset is skewed towards equity-based firms, the indicator better represents equity-based firms that are 0-5 years old.	Moving average	Crunchbase, OECD
	Unicorns, per million pop.	Number of private companies with a valuation over USD 1 billion, divided by the population.	Moving average	CB Insights
	Enterprise churn rate, % business pop.	Sum of births and deaths of employer enterprises (firms with at least 1 employee) as a proportion of active business population.	Moving average	OECD - SDBS business demography
	2-year-old employer enterprises, % business population	2-year-old employer enterprises as a proportion of active business population.	Moving average	OECD - SDBS business demography
	3-year survival rate., % new employer enterp.	3-year survival rate of employer enterprises, as a proportion of new employer enterprises.	Moving average	OECD - SDBS business demography
	Expectation to create jobs, % entrepreneurs	Percentage of those involved in early-stage entrepreneurial activity who expect to create 6 or	Moving average	Global Entrepreneurship Monitor (GEM)

		more jobs in 5 years.		
Variation	Geographical dispersion of start-ups, 0-100 high conc.	Herfindahl Hirschman Index, calculated using the share of equity-based start-ups (0-5 years old) located in different cities within a country. A higher value of this indicator implies a higher concentration of start-ups in the main cities.	Moving average	Crunchbase
	Women founders, % founders	Female founders as a share of total founders. Founders are defined as people whose job description refers to CEO, founder, co-founder, member of the board or partner. To avoid that extremely small samples drive results, the women founders share is computed only if the total number of entrepreneurs recorded in Crunchbase is at least 25.	Moving average	Crunchbase
	Missing entrepreneurs' rate, % early stage entrepreneurs	Size of estimated "missing entrepreneurs" group divided by the population all early-stage entrepreneurs (missing entrepreneurs calculated as the additional number of entrepreneurs there would be if women, youth, seniors and immigrants created businesses at the same rate as males 30-49 years old).	Moving average	OECD Missing Entrepreneurs publication series

Table A A.3. Indicators considered but discarded

Element	Indicator (units)	Description	Source	Rationale
1.Institutions	SME income tax rate, % taxable income	SME Combined targeted corporate income tax rate	OECD	Too few countries covered
	Civil justice index, 0-100 best	The civil justice composite index is computed as the simple average of the following 7 variables: i. People can access and afford civil justice, ii. Civil justice is free of discrimination, iii. Civil justice is free of corruption, iv. Civil justice is free of improper government influence, v. Civil justice is not subject to unreasonable delay, vi. Civil justice is effectively enforced, vii. Alternative dispute resolution mechanisms are accessible, impartial, and effective. Each of these variables in turn, is a combination of one or more survey questions.	World Justice Project (WJP)	Too few countries covered
	Regulatory enforcement index, 0-100 best	The regulatory enforcement composite index is computed as the simple average of the following 5 variables: i. Government regulations are effectively enforced, ii. Government regulations are applied and enforced without improper influence, iii. Administrative proceedings are conducted without unreasonable delay, iv. Due process is respected in administrative proceedings, v. The government does not expropriate without lawful process and adequate compensation.	World Justice Project (WJP)	Too few countries covered
	SME implied tax subsidy rates, index	Implied tax subsidy rates on R&D expenditures of SME under a profitable profit scenario. The tax subsidy rate is defined as 1 minus the B-index, a measure of the before-tax income needed by a "representative" firm to break even on one additional monetary unit of R&D outlay (Warda, 2001). As tax component of the user cost of R&D, the B-Index is is directly linked to measures of effective marginal tax rates.	OECD - R&D Tax Incentives database	Too few countries covered
	Absence of corruption index, 0-100 best	The absence of corruption composite index is computed as the simple average of the following 4 variables: i. Government officials in the executive branch do not use public office for private gain, ii. Government officials in the judicial branch do not use	World Justice Project (WJP)	Too few countries covered

		public office for private gain, iii. Government officials in the police and the military do not use public office for private gain, iv. Government officials in the legislative branch do not use public office for private gain.		
	Access to civil justice, 0-100 best	This indicator is a combination of survey questions that assess if the general population is aware of civil justice remedies, can afford legal representation, can access courts, how they assess procedural complexity to access civil justice . It corresponds to the sub-indicator "People can access and afford civil justice" of the Civil justice sub-index, from the WJP's Rule of law index.	World Justice Project (WJP)	Too few countries covered
	Government effectiveness, 0-100 best	Index scaled 0-100 built by combining two questions. i. How pervasive is red tape. ii. To what degree do vested interests/cronyism distort decision-making in the public and/or private sectors? Respondents are experts from a network of over 500 correspondents, reviewed for consistency by panels of regional experts.	Economist Intelligence Unit (EIU) accessed via World Bank - Worldwide Governance Indicators	Too few countries covered
2. Culture	Creative thinking PISA score, index	Average score obtained by students on the creative thinking PISA test, index	OECD	Too few countries covered
	Fear of failure, % 18-64 pop.	Percentage of the 18-64 population who agree that they see good opportunities but would not start a business for fear it might fail.	Global Entrepreneurship Monitor (GEM)	Volatile results
	Openness to technology, % respondents	Share of respondents who believe that in the future, more emphasis on technology is a good thing	World Value Survey (WVS)	Too few countries covered
	Propensity to imagination, % respondents	Share of respondents who believe that imagination is an important quality for a child	World Value Survey (WVS)	Conceptual miss-match
3.Networks	Participants to business events, per million pop.	Total number of all participants to business events that took place in a country in a given year as registered in Crunchbase. All types of participants are counted. It is divided by the total population.	Crunchbase	Conceptual miss-match
	Public-private co-patenting, % patents	Share of co-inventions (simple patent families) developed jointly by public-private partnerships across all technologies, as a share of total patents.	WIPO	Conceptual miss-match
	International co-patents, % co-inventions	Share of co-inventions (simple patent families) developed jointly by at least two inventors from different countries across all technologies. They are calculated based on inventor country - integer counts by country of residence of the inventors, and the first filing date worldwide, under the Paris Convention. The priority date is considered to be closest to the actual date of invention.	OECD - STI Micro-data Lab: Intellectual Property Database	Conceptual miss-match
	Domestic co-patents, % co-inventions	Share of co-inventions (simple patent families) developed jointly by at least two inventors from the same country, across all technologies. They are calculated based on inventor country - integer counts by country of residence of the inventors, and the first filing date worldwide, under the Paris Convention. The priority date is considered to be closest to the actual date of invention.	OECD - STI Micro-data Lab: Intellectual Property Database	Conceptual miss-match
4. Infrastructure	Density of rail network, Km per Sq. Mt.	Total Kilometers of rail roads divided by the country's surface area	OECD transport infrastructure indicators	Conceptual miss-match
	Density of road network, Km per Sq. Mt.	Total Kilometers of roads divided by the country's surface area	OECD transport infrastructure	Conceptual miss-match

			indicators	
	Air transport, passengers per capita	Air passengers carried include both domestic and international aircraft passengers of air carriers registered in the country. It is divided by the country's population.	World Bank - World Development Indicators	Conceptual miss-match
	Mobile broadband, subs. per 100 pop.	Total mobile broadband subscriptions per 100 population. Mobile broadband subscriptions are mobile subscriptions that advertise data speeds of 256 kbit/s or greater.	OECD - Telecommunications database	Better alternative available
	Firms with 100 Mb/s connection, % firms	Percentage of enterprises with at least 10 employees with a fixed broadband connection with download speed at least 100 Mbit/s	OECD ICT Access and Usage by Businesses database	Too few countries covered
5. Markets	Net disposable income, PPP, per capita	Net disposable income per capita, PPP-adjusted US dollars, chain linked volume.	Per person	Conceptual miss-match
	Population, million	Country population expressed in millions.	Thousands persons	Conceptual miss-match
	Public procurement expenditure, million $ per capita	Total public procurement expenditure (USD million) by all levels of public administration.	PPP million	Too few countries covered
6.Finance	Interest rate spread, % large	Interest rate spread between interests applied to SME loans and interests applied to large company loans, expressed as a share of the interest rates paid by large companies.	OECD Scoreboard	Too few countries covered
	Leasing, USD thousands per capita	Total value of factoring expressed in thousands USD per capita.	OECD Scoreboard	Too few countries covered
7.Knowledge	Citable documents, per million pop.	Number of citable documents (articles, reviews and conference papers) published per million people.	Per million people	Conceptual miss-match
8.Talent	Tertiary education attainment, % working age pop.	Share of adults 25-64 years old who have attained at least tertiary education degree.	% adult population	Conceptual miss-match
	ICT technicians, % total employees	Percentage of ICT professional and technicians in total employment. It is computed as the sum of Professionals (ISCO-08) and Technicians and associate professionals (ISCO-08) in the Information and communication sector (Economic activity J. (ISIC-Rev.4)), divided by all employees in all sectors.	International Labour Organisation (ILO) - ILOSTAT database	Too few countries covered
	Adults TVET attainment, %	Share of population (both genders) aged 25-64 years old who have attained upper secondary vocational training education.	OECD	Conceptual miss-match
	PIAAC scores	Measure of adults' proficiency in literacy, numeracy and problem solving.	OECD	Too few countries covered
	Number of developer accounts on GitHub, per million pop.	Number of developer accounts on GitHub in a given economy. This count excludes users that are bots or otherwise flagged as “spammy” within internal systems. A three-year moving average is applied to the original data.	GitHub	Conceptual miss-match
9.Leadership	-	-	-	-
10.Intermediate services	-	-	-	-

Indicators time series, missing values and imputation

The diagnostics tool is computed for three periods 2016-2020, 2018-2022, 2020-2023. For each period, each indicator is computed as the moving average of data available within that period.

This approach has several advantages. First, it makes sure that data that are older than five years do not enter the calculation of the indicators, which allows to compare countries performances on a similar time

horizon. Second, by averaging out yearly fluctuations, it reduces the effect of temporary swings. Third, by combining data from multiple years, moving averages reduce the incidence of missing values.

Missing values however remain an important empirical challenge for calculating composite indexes. This can be problematic because the presence of a missing values can bias the calculation of a country's composite index score by implicitly imputing the value of the missing indicator(s) with the average of the non-missing variables in an element. To limit the issue, only indicators available for a large share of OECD countries are used.

Even after applying moving averages, missing values remain in the dataset. To address this issue, missing values are imputed. Whenever an indicator with sufficient explanatory power is available, missing values are imputed via pooled time series linear regressions. This allows to estimate most of the missing values present in the dataset. There are however a handful of data points for which it was not possible to use linear regressions to estimate missing values. In these few cases, missing values are imputed as the geometric mean of the non-missing values in each element.

Imputed values, even if based on well-defined linear models, must be used with parsimony to avoid producing element scores that are entirely built on estimated values. For this reason, for elements constituted by two variables, the element score is computed only if at least one true variable is available. For elements constituted by three of four variables, the element score is computed only if at least two true variables are available.

An alternative imputation technique is a machine-learning algorithm that estimates datapoints using information from all other indicators in the dataset. The non-parametric, entropy-based "MissForest" method has been tested (Stekhoven and Bühlmann, 2012[4]) and its results reported in a parallel working paper (Crotti et al., 2025 (forthcoming)[1]). However, the quality of the imputed values has been considered uneven across indicators, and the conservative approach of imputing using selected linear regression models only when good explanatory variables are available has been prioritised.

Indicator normalisation

The above indicators are aggregated into a composite index score for each entrepreneurial ecosystem element.

To aggregate indicators with different ranges and units on a composite score, all variables must be placed on a comparable scale. While multiple alternatives have been considered, all indicators in the entrepreneurial ecosystem diagnostics tool are normalised using a clipped min-max normalisation technique. This method allows to address potential distortions in transforming data from raw values to normalised scores due to the presence of outliers while maintaining the distribution of normalised scores consistent with the original distribution of the data.

The clipped min-max transformation is applied as follows. For each indicator, the minimum value is defined as the indicator's cross-country mean minus two times the indicator's standard deviation, and the maximum value is defined as the indicators cross-section mean plus two times the indicator's standard deviation. Once these values are set, for each country *i* and indicator *k*, the normalised score is computed according to the formula:

$$score_{ik} = 100 * \frac{raw\_value_{ik} - min_k}{max_k - min_k}$$

where the raw value is the original raw data for a country, $min_k = mean_k - (2 * stdev_k)$ and $min_k = mean_k - (2 * stdev_k)$. Whenever a country's raw value is below the minimum value, a normalised score of 0 is assigned, and whenever a country's raw value is above the maximum value, a normalised score of 100 is assigned.

There are cases where the normalisation formula must be inverted. Whenever an indicator's distribution is such that a high value corresponds to a negative outcome (e.g. taxation, debt), the normalisation is computed as:

$$score_{ik} = 100 * \frac{raw\_value_{ik} - max_k}{min_k - max_k}$$

In these cases, whenever a country's raw value is below the minimum, a normalised score of 100 is assigned, and whenever a country's raw value is above the maximum, a normalised score of 0 is assigned.

The normalised scores are computed with respect to 2020-2023 period's minimum and maximum values for all time series instances. In other words, the minimum and maximum values for the 2020-2023 period are used also to compute normalised scores of variables in the 2016-2020 and 2018-2022 periods. This implies that the normalised scores of all indicators must be interpreted as performances relative to the data distribution of the 2020-2023 period.

This approach is motivated by the possibility of visualising progress over time. A potential drawback of this approach is that some indicators might evolve rapidly over time. In this case, 2020-2023 values can become outdated in future editions of the tool. For example, all countries tend to increase their mobile phones data over time, and 2020-2023 period's minimum and maximum levels could become inadequate to compute future normalised scores. As a result, these values will be reassessed in future editions of this report. Another limitation is that missing values in the 2020-2023 period can cause the minimum and maximum of all years to be determined by the data distribution of the sample of countries for which data are available in this period. This is however a limitation that impacts few indicators, and the possibility of comparing performances over time by anchoring scores to one point in time has been prioritised.

Aggregation

There are multiple methods to aggregate single indicators into a composite index score. The most common methods include the arithmetic mean, the geometric mean, and the weighted average. The aggregate scores of all ten elements of the entrepreneurial ecosystem diagnostics tool are computed using the geometric mean of the underlying indicators' normalised scores.

The main advantage of the geometric-mean method is that it does not compensate a low value on one indicator with a high value on another indicator. This is one of the main reasons why UNDP has produced the Human Development Index using geometric means (UNDP, 2015[5]). Limiting the possibility to compensate a low performance on one indicator with a higher performance on another is an attractive feature for an entrepreneurial ecosystems benchmarking where bottlenecks are expected to have adverse effects on the overall ecosystem. The fact that indicators are non perfect substitutes is a particularly binding condition for ecosystem analysis, which assumes that an incomplete ecosystem can hinder entrepreneurship even if other conditions are in place. For example, entrepreneurs may not respond to additional incubation services if there is limited venture capital availability in a country.

The use of geometric means shares common features with "penalty for bottlenecks (PFB) algorithms" (Acs, Rappai and Szerb, 2012[6]). PFB algorithms have been used in the literature to identify the weakest link in the ecosystem and reduce the index score by the presence of these weak links. Although less used today, the PFB idea that a low score in one area cannot be fully compensated by a high score in another area is valuable for constructing composite indices. The use of a geometric mean thus allows to penalise low scores, but to a lesser extent than PBF approaches. The arithmetic mean and weighted average aggregation have been considered but discarded. A full sensitivity analysis on the impact of the use of these different methods on countries' scores is shown in a working paper (Crotti et al., 2025 (forthcoming)[1]).

The ten elements are not further aggregated into a single overall country-level entrepreneurial ecosystem index score. Although computing a single index may provide a comprehensible snapshot of the overall conditions for entrepreneurship in a country, such a score carries the risk of conveying an overly simplified depiction of the complexity of entrepreneurial ecosystems and may divert the attention from the elements.

References

Acs, Z., G. Rappai and L. Szerb (2012), "Index-Building in a System of Interdependent Variables: The Penalty for Bottleneck", *SSRN Electronic Journal*, https://doi.org/10.2139/ssrn.1945346. [6]

Crotti, R. et al. (2025 (forthcoming)), "Data and methods for entrepreneurial ecosystem", OECD. [1]

Leendertse, J., M. Schrijvers and E. Stam (2022), "Measure Twice, Cut Once: Entrepreneurial Ecosystem Metrics", *Research Policy*, Vol. 51/9, https://doi.org/10.1016/j.respol.2021.104336. [2]

Nardo, M. et al. (2005), "Handbook on Constructing Composite Indicators: Methodology and User Guide, OECD Statistics Working Papers"*, Handbook on Constructing Composite Indicators: Methodology and User Guide*. [3]

Stekhoven, D. and P. Bühlmann (2012), "Missforest-Non-parametric missing value imputation for mixed-type data", *Bioinformatics*, Vol. 28/1, https://doi.org/10.1093/bioinformatics/btr597. [4]

UNDP (2015), *Training Material for Producing National Human Development Reports*. [5]

Annex B. Key data for selected entrepreneurship indicators

This appendix reports raw values of output and variation indicators. Each value corresponds to the most recent datapoint available for each country. These values differ from those used in the diagnostics tool and country profiles. The latter are based on moving averages of specific time windows for each edition instance and are normalised using the min-max transformation explained in Annex A. The data in this section are reported to allow the reader to find the most recent datapoint available for each indicator in one place. These data, however, are less suitable for country comparison because they might refer to different periods and they are not normalised.

Table A B.1. Early-stage entrepreneurship output indicators, raw values

Country	Birth rate of employer enterprises, % business pop.		Medium and high-growth enterprises, %		Equity-based young firms, per million pop.		Unicorns, per million pop.	
Australia	.		.		0.4	2	0.1	2
Austria	7	4	7.3	4	0.1	2	0	2
Belgium	3.5	4	6.9	4	0.2	2	0.1	2
Canada	7.9	6	.		0.4	2	0.1	2
Chile	.		.		0	2	0.1	2
Colombia	21.7	3	2.9	3	0	2	0	2
Costa Rica	5	2	16.2	2	0	2	0	2
Czechia	6.6	4	8.8	4	0.1	2	0	2
Denmark	12.2	4	11.6	4	0.3	2	0	2
Estonia	13.1	4	9.5	4	1	2	0.7	2
Finland	12	4	12.5	4	0.2	2	0.4	2
France	10.5	4	8.6	4	0.2	2	0.1	2
Germany	7.6	4	8.3	4	0.1	2	0.1	2
Greece	9.6	4	16.9	6	0.1	2	0.1	2
Hungary	9.7	4	10.4	4	0.1	2	0	2
Iceland	12.5	4	6.9	4	0.3	2	0	2
Ireland	3.8	4	15.8	6	0.3	2	0.6	2
Israel	11.6	2	7.8	4	0.4	2	0.5	2
Italy	7.4	4	9.5	4	0.1	2	0	2
Japan	5.4	7	.		0.1	2	0	2
Korea	14.6	4	9	4	0.1	2	0.1	2
Latvia	7.4	4	9.5	4	0.2	2	0	2
Lithuania	7.8	4	10.9	4	0.2	2	0.4	2
Luxembourg	9.2	5	12.5	5	0.5	2	0	2
Mexico	.		.		0	2	0	2
Netherlands	8.5	4	12.5	4	0.6	2	0.1	2

New Zealand	12.3	4	10.3	4	0.2	2	0	2
Norway	7.6	4	9.1	4	0.2	2	0.4	2
Poland	9.7	4	9.8	4	0	2	0	2
Portugal	8.2	4	11.6	4	0.2	2	0	2
Slovak Republic	6.4	4	8.6	4	0	2	0	2
Slovenia	7.4	4	11	4	0.1	2	0	2
Spain	8.5	4	11.3	4	0.1	2	0.1	2
Sweden	11.3	4	15.7	4	0.4	2	0	2
Switzerland	5.4	5	6.8	7	0.5	2	0.3	2
Türkiye	14	4	12.3	4	0	2	0	2
United Kingdom	13.9	6	12.3	6	0.5	2	0.2	2
United States	.		.		0.4	2	0.5	2

Note:1 corresponds to year 2023, 2 to year 2022, 3 to year 2021, 4 to year 2020, 5 to year 2019, 6 to year 2018, 7 to year 2017, 8 to year 2016, 9 to year 2015, 10 to year 2014, 11 to year 2013, to year 2010.

Table A B.2. Survival and dynamism output indicators, raw values

Country	Enterprise churn rate, % business pop.		Expectation to create jobs, % entrepreneurs		3-year survival rate., % new employer enterp.		2-year-old employer enterprises, % business population	
Australia	.		24.6	5	.		.	
Austria	13.6	4	15.8	2	55.3	4	1.7	4
Belgium	4.3	4	19.5	9	75.6	4	1.1	4
Canada	17.2	8	24.8	1	.		.	
Chile	.		32.9	1	.		.	
Colombia	30.5	6	21.6	1	38.3	3	5	4
Costa Rica	8.2	2	15.9	10	.		.	
Czechia	14.6	4	24.7	11	61.6	4	1.8	4
Denmark	13.9	4	19.1	10	22.9	4	1.7	4
Estonia	25.8	4	16.4	1	49.1	4	2.7	4
Finland	41.5	4	10.2	3	54.7	4	10.7	4
France	22.4	4	23.2	1	54.8	4	2.9	4
Germany	15.8	4	21.2	1	64.2	4	1.4	4
Greece	12.5	5	12.1	1	44.2	4	3.4	4
Hungary	29	4	16.5	1	19.7	4	2.8	4
Iceland	17.6	4	29.7	12	44.9	4	2	4
Ireland	5.2	4	28.4	3	81.9	4	1.3	4
Israel	19	4	17.1	1	57	2	.	
Italy	15.3	4	16.7	1	53.1	4	2.8	4
Japan	8.9	7	18	2	.		.	
Korea	25.1	5	15.6	1	45.9	5	3.8	5
Latvia	11.1	4	29.5	1	67.4	4	3.1	4
Lithuania	13.1	4	16.6	1	50.7	4	2.9	4
Luxembourg	16.2	6	24.9	1	65.3	5	1.9	5
Mexico	.		30.7	1	.		.	
Netherlands	16.8	4	15.1	1	59.1	4	2.3	4
New Zealand	23.2	5	.		51	4	3.1	4
Norway	13.3	4	23.2	1	45	4	1.2	4
Poland	19.2	4	14.5	1	35.2	4	3.1	4
Portugal	16.2	4	17.3	5	65.1	4	3	4
Slovak Republic	12.5	4	38.3	1	56.2	4	2.8	4
Slovenia	16.4	4	18.3	1	54.7	4	2.2	4
Spain	17.9	4	10.1	1	53	4	2.7	4
Sweden	21.5	4	16.4	1	88.7	4	1.8	4
Switzerland	9.9	6	14.4	1	64.3	5	0.8	5
Türkiye	25.8	6	55.4	3	48.2	4	5.8	4
United Kingdom	25.4	6	25.1	1	56.7	6	3.5	6
United States	.		28.8	1	.		.	

Note:1 corresponds to year 2023, 2 to year 2022, 3 to year 2021, 4 to year 2020, 5 to year 2019, 6 to year 2018, 7 to year 2017, 8 to year 2016, 9 to year 2015, 10 to year 2014, 11 to year 2013, to year 2010

Table A B.3. Social and regional variation indicators, raw values

Country	Women founders, % founders		Missing entrepreneurs' rate, % early stage entrepreneurs		Geographical dispersion of start-ups, 0-100 high conc.	
Australia	23.4	1	30.2	2	11.5	1
Austria	.		32.3	1	33.9	1
Belgium	.		57.6	5	6.5	1
Canada	25.2	1	26.6	1	11.2	1
Chile	.		23.3	1	48.5	1
Colombia	.		3.7	1	35.3	1
Costa Rica	.		.		12.1	1
Czechia	.		.		27.5	1
Denmark	.		.		27.4	1
Estonia	.		53.9	1	83.5	1
Finland	.		44.1	1	33.3	1
France	26.2	1	27.7	1	19.5	1
Germany	18.9	1	38.4	1	9	1
Greece	.		16.9	1	28.4	1
Hungary	.		42.7	1	37.2	1
Iceland	.		.		74.1	1
Ireland	25	1	17.8	1	42	1
Israel	18.5	1	36	2	29.7	1
Italy	9.4	1	70.8	1	6.9	1
Japan	.		65.7	2	23.7	1
Korea	.		41.7	2	20.4	1
Latvia	.		53.3	1	77.2	1
Lithuania	.		33.2	1	66.5	1
Luxembourg	.		35.2	1	49	1
Mexico	19.2	1	18.3	2	9.2	1
Netherlands	11.5	1	19.8	1	6.2	1
New Zealand	.		.		32.5	1
Norway	.		59.5	1	32	1
Poland	.		38.2	1	21	1
Portugal	.		29.1	1	14.6	1
Slovak Republic	.		36.7	1	48.4	1
Slovenia	.		53.4	1	43.5	1
Spain	20.5	1	31.5	1	14.8	1
Sweden	18.9	1	18.7	1	24.8	1
Switzerland	15.2	1	25.3	1	7.7	1
Türkiye	.		39.5	1	18.8	1
United Kingdom	28.3	1	39.5	2	33	1
United States	28.4	1	30.9	2	1.7	1

Note:1 corresponds to year 2023, 2 to year 2022, 3 to year 2021, 4 to year 2020, 5 to year 2019, 6 to year 2018, 7 to year 2017, 8 to year 2016, 9 to year 2015, 10 to year 2014, 11 to year 2013, to year 2010.

OECD Studies on SMEs and Entrepreneurship

Entrepreneurial Ecosystem Diagnostics

The OECD *Entrepreneurial Ecosystem Diagnostics* report introduces a novel framework and dataset to assess and compare entrepreneurial ecosystems across all 38 OECD countries. Rather than producing a single index to rank countries, the report adopts a multi dimensional approach based on three core components: inputs, outputs, and variation. Inputs cover ten essential elements—Institutions, Culture, Networks, Infrastructure, Markets, Finance, Knowledge, Talent, Leadership, and Intermediate Services—captured through composite indexes built from about 40 indicators drawn from OECD statistics and other sources. Outputs reflect entrepreneurial performance, with indicators such as startup rates and business survival. The variation dimension measures how entrepreneurship is distributed socially and regionally, with attention to inclusivity, particularly for women and distribution of startups across regions. Each dimension is tracked at three time points to monitor ecosystem evolution and progress. Designed as a policy support tool, the report provides robust, evidence based insights to identify systemic bottlenecks and guide national strategies. It aims at facilitating informed dialogue and targeted policy action to build dynamic and balanced national entrepreneurial ecosystems. Released as a pilot, this first edition lays the foundation for future iterations, with continued refinement of data and analytical depth to enhance its relevance and impact.

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