

OECD Studies on SMEs and Entrepreneurship

# Entrepreneurial Ecosystem Diagnostics of Spain



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**Please cite this publication as:**

OECD (2026), *Entrepreneurial Ecosystem Diagnostics of Spain*, OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris, <https://doi.org/10.1787/05f463ae-en>.

ISBN 978-92-64-40025-2 (print)  
ISBN 978-92-64-89988-9 (PDF)  
ISBN 978-92-64-53328-8 (HTML)

OECD Studies on SMEs and Entrepreneurship  
ISSN 2078-0982 (print)  
ISSN 2078-0990 (online)

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# Foreword

Spain is a leader among OECD countries in recognising the importance of innovative startups and scaleups to economic competitiveness and growth and introducing policy reforms to encourage them. Spain's comprehensive Startup Law of 2022 was a major milestone, introducing a package of measures for building a high-performing entrepreneurial ecosystem, including actions in the areas of business regulation, entrepreneurial finance, attracting and developing talent, and promoting university-business knowledge exchange. The government is complementing these measures with reforms in other areas and engaging in monitoring, analysis and consultation to steer the implementation and further development of these policies.

To contribute to the effort, this report presents an OECD diagnostic assessment of the strengths and weaknesses of Spain's entrepreneurial ecosystem today and makes recommendations on potential policy actions that could further increase innovative startups and scaleups in Spain. It is one of the outputs of a project on promoting innovative entrepreneurship in Spain delivered by the OECD at the request of Spain's Ministry for Digital Transformation and Civil Service and financed by the European Commission through the SG REFORM Technical Support Instrument.

The assessment is based on the [OECD's Entrepreneurial Ecosystem Diagnostics framework](#), which benchmarks countries on their entrepreneurship performance and enabling conditions in the areas of institutions, culture, networks, infrastructure, markets, finance, knowledge, talent, leadership, and intermediate services. It includes new benchmarking indicators and country comparisons for Spain and develops further insights from interviews with ecosystem stakeholders and questionnaires completed by Spanish government authorities. The report offers a number of policy recommendations for Spain complemented by international inspiring practice policy examples.

This report contributes to the Programme of Work and Budget of the OECD Committee on SMEs and Entrepreneurship (CSMEE). It was submitted to the OECD Committee on SMEs and Entrepreneurship (CSMEE) [CFE/SME(2025)18] for discussion at the 9<sup>th</sup> Committee on SMEs and Entrepreneurship on 5-6 November 2025 and written comments by 28 November 2025.

# Acknowledgements

This report was prepared by the Centre for Entrepreneurship, SMEs, Regions and Cities (CFE) of the Organisation for Economic Co-operation and Development (OECD), led by Lamia Kamal-Chaoui, Director, at the request of Spain's Ministry for Digital Transformation and Civil Service which is supporting the co-ordination of entrepreneurship policy efforts in Spain in collaboration with other government ministries and agencies. The project was funded by the European Union via the Technical Support Instrument (Project 24ES04), and implemented by the OECD, in co-operation with the European Commission.

The project was led by Jonathan Potter, Head of the Entrepreneurship Policy and Analysis Unit, CFE, OECD. The report was drafted by a team involving Roberto Crotti (OECD/CFE), Pablo Shah (OECD/CFE), Jonathan Potter (OECD/CFE), and Alasdair Reid (European Future Innovation System Centre).

The report takes into account comments received from delegates to the OECD Committee on SMEs and Entrepreneurship at its regular meeting in November 2025 from the Spanish government and entrepreneurial ecosystem stakeholders. It is published on the authority of the Secretary-General of the OECD.

The authors are also grateful to Heather Mortimer-Charoy (Assistant, CFE) and Juan Mendez (Assistant, CFE) for technical support, and to Alix Philouze and Jack Waters (Product and Project Co-ordinators, CFE) for preparation of the publication.

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# Executive summary

## A vibrant and evolving ecosystem with potential for further growth

This report assesses the Spanish entrepreneurial ecosystem for startups and scaleups both quantitatively and qualitatively using the [OECD entrepreneurial ecosystem diagnostics framework](#) and making recommendations for policy development.

Analysis of entrepreneurship levels and ecosystem enablers such as finance, talent and networks point to a vibrant but not yet mature innovative entrepreneurial ecosystem. Numbers of startups, business angels, venture capital funds, accelerators, and other ecosystem actors have increased considerably over the past two decades, supported by targeted government measures and the landmark Startup Law of 2022. Spain's entrepreneurial ecosystem, however, is still young and has potential to grow further.

## Strong entrepreneurship performance

Spain has a high level of startups and scaleups. At 17.9% in 2020-2023, its business churn rate (business creations plus exits as a share of the business population) was above the European OECD country average, indicating a healthy level of Schumpeterian creative destruction. At 8.5% in 2020-2023, its employer firm birth rate is in line with the European OECD average. Its rate of equity-backed startups per capita (0.18 startups per thousand people) is similar to other large European OECD countries. Its unicorn rate has increased from less than 0.01 unicorns per million people in 2016-2020 to almost 0.03 in 2020-2023. Spain also has a relatively well-balanced entrepreneurship performance with good performance across different regions and social groups. The share of women entrepreneurs to total entrepreneurs has increased significantly over the past decade, reaching an average of about 17% in the period 2020-2023.

However, there is scope for further growth, particularly in more innovative startups, rates of scaleup and numbers of women entrepreneurs.

## Solid infrastructure, markets, leadership, intermediate services, and institutions

Spain's startup and scaleup performance is underpinned by many highly supportive entrepreneurial ecosystem conditions.

The strongest elements in Spain's entrepreneurial ecosystem are:

- Infrastructure, including transport and ICT connectivity for business and energy availability.
- Markets, including one of the largest domestic markets in Europe and high integration with global trade.
- Leadership, as evidenced by a high and increasing prevalence of serial entrepreneurs who act as connectors and role models and well-directed public policy support initiatives.

- Intermediate Services, reflecting the rapid expansion of incubation, acceleration and other business support services.
- Institutions, which have been strengthened by important regulatory reforms for entrepreneurship through the Startup Law and Create and Grow Law, including in business registration, talent recruitment, and fiscal incentives for investors and innovative startups.

Certain aspects of these elements could nonetheless be strengthened, namely by:

- Boosting digital startups and scaleups by strengthening the diffusion of digital technologies and increasing access to public data.
- Increasing scale up by better leveraging global markets via soft-landing programmes for startups abroad and encouraging “born global” strategies among founders.
- Developing an underpinning vision and strategy for the development of Spain’s entrepreneurial ecosystem and strengthening linkages among its key actors.
- Improving the quality and range of incubation services in rural areas.
- Reducing regulatory differences between regions by strengthening the co-ordination mandate of the Sectoral Conference and advancing the implementation of the “Régimen 20” framework.
- Adapting the startup definition, certification and related incentives of the Startup Law to the needs of deeptech firms (hard-science based firms) and scaleups.
- Further advancing reforms of the insolvency framework.

## Priority areas for development

Entrepreneurial ecosystem conditions in the following areas are less strong overall compared to the elements identified above.

**Finance** – Spanish startups can count on multiple sources of funding, including access to bank loans and early-stage venture capital, and many public venture capital funds and funds-of-funds have been launched. However, there is a gap in growth-stage venture capital, with relatively few domestic large funds that can engage in series-C rounds or scaleup deals. In the past seven years, 91% of domestic funding rounds were below EUR 5 million EUR.

**Talent** – Spain is increasing its education participation rates, numbers of STEM students, and the supply of digital and entrepreneurial skills. However, startups and scaleups face talent shortages in technical roles across skills-intensive sectors.

**Knowledge** – Spain has many strong universities generating knowledge with potential for exploitation by startups and scaleups. But, despite an increase of over 28% in R&D expenditure since 2018, R&D investments are only 1.4% of GDP and certain legal, cultural and incentive obstacles limit the conversion of academic research into commercial applications and spinouts.

**Networks** – There are many important startup events like conferences and entrepreneur meet-ups in Spain. However, only 7% of Spanish SMEs have innovation co-operations with other firms and few engage in collaborations with universities or corporates. In addition, connections among ecosystem support actors in different regions are often not strong.

**Culture** – Spain’s entrepreneurial culture is improving but risk aversion and limited appetite for entrepreneurial careers is still common. For instance, less than 50% of Spanish adults (18-64 years old) consider entrepreneurship as a good career option, and less than 58% think that successful entrepreneurs have a high social status. Recent development of the Spanish entrepreneurial ecosystem has started to change these prevalent attitudes, but cultural change is a slow process.

The following main policy actions are recommended for these ecosystem elements:

- **Knowledge**
  - Launch a matchmaking programme between startups and corporates and startups and universities through support for joint projects to develop commercial applications of university and corporate knowledge through startup and scaleup firms.
  - Mandate selected sector-specialised incubators, business innovation centres or cluster management organisations to strengthen ecosystem networks within targeted sectors.
  - Incentivise researchers to find commercial applications for their inventions through better defined conditions for spin-off participation, guidelines on how to apply intellectual property provisions, proof-of-concept grants and funds to translate R&D research into spinouts.
- **Finance**
  - Encourage Spanish institutional investors to participate more in venture capital and private equity funds through fiscal incentives, regulatory reforms, and strategic use of the venture capital instruments of public development banks, while supporting Europe-wide capital market integration.
  - Continue to leverage public development banks and other public-funded entities (e.g. CDTI or SETT) to crowd-in private investors in venture capital markets, and possibly institutional investors.
- **Talent**
  - Increase the domestic supply of technical professionals and encouraging students to pursue technical programmes in tertiary and vocational education, while also making entrepreneurial education modules universal and compulsory at the secondary level.
  - Incentivising startups and scaleups to hire talent through offering competitive stock option benefits and cuts to tax wedges for employees.
- **Culture**
  - Continue to build the image of Spain as an entrepreneurial country through reinforcing the already distinctive Spain Up Nation brand, including through a communication campaign promoting the brand beyond entrepreneurship inner circles.
  - Up-skill and re-skill trainers' and teachers' entrepreneurship skills and encourage secondary schools and universities to include entrepreneurship education modules.

# 1 Introduction

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This chapter outlines the context and background for the analysis of Spain's innovative entrepreneurial ecosystem. It details the framework used and the methodology applied to conduct the entrepreneurial ecosystem diagnosis.

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Enabling business startups and scaleups, particularly those involved with innovation, is increasingly recognised as a vital pillar of economic policy in modern economies helping to drive innovation, productivity growth, job creation, and competitiveness. However, across countries, startups and scaleups often face significant challenges such as limited access to finance, regulatory burdens, or skills shortages.

The successful creation and development of productive entrepreneurial ventures is stimulated by multiple, interconnected supporting conditions and actors in entrepreneurial ecosystems. An entrepreneurial ecosystem can be defined as: *the set of interdependent actors and factors co-ordinated in such a way as that they enable productive entrepreneurship* (OECD, 2025<sup>[1]</sup>). They encompass a range of institutional conditions and access to resources conditions that together support or hinder business startups and scaleups. Particular emphasis is placed on conditions that foster productive entrepreneurship, with a focus on firms that innovate or contribute to growth and/or employment (Baumol, Litan and Schramm, 2009<sup>[2]</sup>; Baum and Silverman, 2004<sup>[3]</sup>; Shane, 2009<sup>[4]</sup>; Kolev et al., 2023<sup>[5]</sup>).

In recent years, entrepreneurship policy has increasingly shifted its focus from a siloed approach focused on working separately on improving different supports for startups and scaleups, such as entrepreneurship training or entrepreneurial finance, toward identifying the functioning of the ecosystem as a whole in support of entrepreneurship and addressing systemic barriers and closing critical gaps. This requires a diagnosis of ecosystem strengths and weaknesses, which will vary across different ecosystems.

Spain has made remarkable strides over the past decades in building a healthy entrepreneurial ecosystem. Through policy reforms, the creation of innovation hubs, and increased public and private investment, Spain's entrepreneurial ecosystem has become much stronger and deeper than only a couple of decades ago. Notably, the introduction of the Startup Law in 2022 represented an important milestone in pushing the startup and scaleup agenda to the forefront and in aligning the efforts of public institutions and private stakeholders to catch up with the top startup hubs in Europe. The progress made by Spain in this domain aligns with European strategies such as "Startup Europe", an initiative of the European Commission to connect high tech start-ups, scale-ups, investors, accelerators, corporate networks, universities and the media and the European Union Startup and Scaleup Strategy.

Spain is one of the leading countries in the OECD and European Union in developing actions in support of this agenda and in taking a comprehensive and holistic approach to startup and scaleup policy. The national authorities have worked with stakeholders to identify the priority actions in the Startup Law and to put them into practice. This report helps to take this work a step forward, by looking at the remaining challenges for strengthening the entrepreneurial ecosystem and identifying the policy actions that will help.

The report applies the OECD entrepreneurial ecosystem diagnostics framework to identify the areas for development (OECD, 2025<sup>[1]</sup>). The methodology combines a quantitative and qualitative approach. Using international indicators, the quantitative assessment provides a quantitative benchmarking of entrepreneurship levels and ecosystem drivers between Spain and comparator countries, with a focus on leading entrepreneurial ecosystems in the form of the European OECD countries. This is complemented by rich qualitative inputs from stakeholder interviews and workshops to support the development of the policy conclusions.

Using this approach, the report identifies areas of relative strength and weakness within Spain's entrepreneurial ecosystem, pointing to areas where there are opportunities to stimulate further ecosystem growth through targeted policy actions. It also identifies international best policy practices to provide inspiration for policy development.

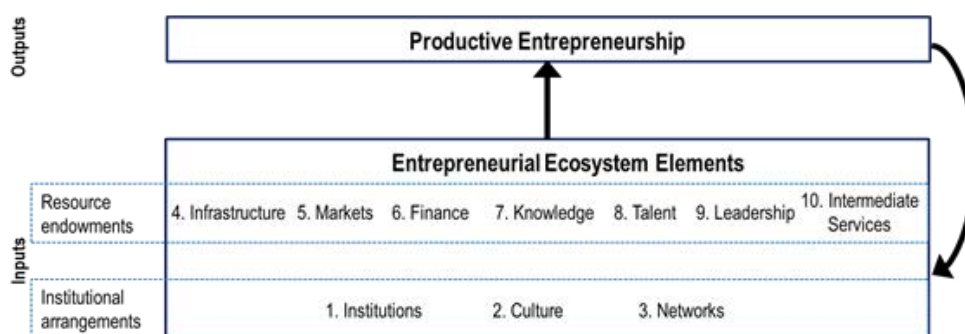
The report proceeds as follows. The rest of this chapter sets out the methodology used for the ecosystem assessment. Chapter 2 provides indicators on entrepreneurship levels comparing Spain with other countries in terms of startup activity, dynamism and balance. Chapters 3-12 then assess Spain's strengths and weaknesses on the ten elements in the OECD entrepreneurial ecosystem diagnostics framework (described in the next section). Each of these chapters provides, for a given element: i. An initial

assessment based on available quantitative indicators; ii. A qualitative assessment based on the information provided by Spanish stakeholders; iii. A mapping of the major supporting policy initiatives; iv. Recommendations. Chapter 13 delves into five cross-cutting issues affecting Spain's entrepreneurial ecosystem – women entrepreneurship; the regional distribution of entrepreneurship; startup internationalization through startup activity abroad and attracting entrepreneurial talent to Spain; policy co-ordination across Spanish stakeholders; and policy granularity in terms of public support instruments available to entrepreneurs in different development stages and sectors. Chapter 14 concludes and provides detailed recommendations.

## The OECD entrepreneurial ecosystem diagnostics framework

The OECD has developed a framework to assess entrepreneurial ecosystems. It builds on existing literature (OECD, 2025<sup>[11]</sup>), (Wurth, Stam and Spigel, 2023<sup>[6]</sup>) and (OECD, 2022<sup>[7]</sup>), and identifies ten entrepreneurial ecosystem elements that interact to drive the creation of productive startups and scaleups.

Figure 1.1. The productive entrepreneurial ecosystem model



Source: (OECD, 2025<sup>[11]</sup>)

The elements composing the framework are founded in the findings of the entrepreneurship research literature on the factors influencing entrepreneurship performance in a place. Based on this literature the ten elements are:

- **Institutions.** Institutions impact entrepreneurship by setting laws, regulations, and mechanisms that reduce uncertainty for firms in interacting with other businesses (e.g. contract enforcement) and in making investments (e.g. property rights). The 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.
- **Entrepreneurial Culture.** Culture reflects how entrepreneurship is perceived in society. The extent to which a country's social norms, values and customs reward entrepreneurial efforts impact entrepreneurship outcomes directly.
- **Networks.** Exchange of information and collaboration on resources and technology development can help startups to advance their capabilities and grow. The Networks element captures the extent to which start-ups and scale-ups establish collaborations with other firms and ecosystem actors to maximise synergies and available resources.
- **Infrastructure.** Digital and physical (transport) connectivity enables entrepreneurs to access markets, exchange information and trade.

- **Markets.** Startups and scaleups benefit from accessing a large (domestic and international) customer base.
- **Finance.** Financial resources enable the investments necessary for the creation and growth of start-ups and scale-ups. While startups often rely on venture capital, the availability of other types of financial resources (e.g. bank credit) is also relevant.
- **Knowledge.** The availability of a knowledge base is essential for enabling entrepreneurs to transform new technologies into commercial business.
- **Talent.** The availability of skilled workers and entrepreneurs is another essential factor for the creation and development of startups and scaleups.
- **Leadership.** The presence of public and private actors who can guide aspiring entrepreneurs to achieve their potential plays an important role in weaving the ecosystem together. Founders of startups and scaleups can benefit significantly from exchanges with former entrepreneurs or serial entrepreneurs who can advise them on how to become successful. In some countries, the startup ecosystem is not only shaped by serial entrepreneurs, but the public sector takes on an important leadership of role, inspiring, encouraging and guiding emerging entrepreneurs to build successful ventures.
- **Intermediate Services.** The presence of entrepreneurship-targeted business services – such as legal support, accountancy, and consultancy and advice – lower entry barriers for entrepreneurs and can help them to grow their business.

## Assessment method

Using the OECD entrepreneurial ecosystems diagnostics framework, the assessment of the Spanish ecosystem combined statistical indicators and qualitative assessment.

### *Quantitative benchmarking*

The statistical benchmarking followed the approach described by (Crotti et al., 2025<sup>[8]</sup>) using the set of indicators described in Box 1.1.

### Box 1.1. Data used as part of the ecosystem assessment

The quantitative assessment in this report builds on the indicators and comparisons in the OECD Entrepreneurial Ecosystem Diagnostics framework and indicators, with extensions and adaptations to support the benchmarking of Spain.

#### Indicators selection

Indicators are selected from available high-quality statistical sources that measure concepts grounded in the research literature. The following indicators are used to benchmark Spain's entrepreneurial ecosystem elements, outputs and internal geographical variation.

Element	Indicator	Source	Element	Indicator	Source
1.Institutions	Control of corruption index, 0-100 low incidence	Varieties of Democracy Project (Videm) accessed via World Bank - Worldwide Governance Indicators	6.Finance	Early-stage VC investment, USD per capita	OECD Entrepreneurship Financing Database
	Effective tax rate, % taxable income*	OECD - Corporate Tax Statistics Database		Later-stage VC investment, USD per capita	OECD Entrepreneurship Financing Database
	Civil Justice, 0-100 best	WJP rule of law index		Outstanding SME loans, thousands USD per capita	OECD - Financing SMEs and Entrepreneurs: An OECD Scoreboard
	Administrative requirements for new firms, Index 0-6 stringent	OECD, PMR Index	7.Knowledge	Patents, per million population	OECD - Main Science and Technology Indicators
	Insolvency costs to failed entrepreneurs, 0-1 most stringent**	OECD - Insolvency framework index		R&D expenditure, % GDP	OECD - Main Science and Technology Indicators
	Service trade restrictiveness, 0-100 worst	OECD - Service Trade Restrictiveness Index		GitHub software uploads, per thousand people	GitHub
2.Culture	Entrepreneurship as a good career choice, % 18-64 pop.	Global Entrepreneurship Monitor (GEM)	8.Talent	Perceived entrepreneurial capabilities, % 18-64 pop.	Global Entrepreneurship Monitor (GEM)
	High status to successful entrepreneurs, % 18-64 pop.	Global Entrepreneurship Monitor (GEM)		Mean years of schooling, years	UNESCO
	Value of innovative and creative thinking, 1-6 best	European social survey		Pisa, score	OECD – PISA
	Trust in others, % respondents	World Value Survey (WVS)		Internet users, % pop.	World Bank, World Development Indicators
3.Networks	SMEs collaborating on innovation, % total SMEs	European Commission - European innovation scoreboard	Share of graduates in STEM, % graduates	OECD - Education at a glance	
	University-business collaboration, 1-7 best	World Economic Forum, Executive Opinion Survey	9.Leadership	Serial entrepreneurs, unit count.	Crunchbase
	Domestic co-patents, % co-inventions	OECD - STI Micro-data Lab: Intellectual Property		10.Intermediate services	Number of coaches, per million

		Database			
4. Infrastructure	Fix broadband, subs. per 100 population	OECD - Telecommunications database		population.	Crunchbase and OECD
	Transport infrastructure quality, 1-5 high	World Bank - Logistic Performance Index (LPI)		Incubators, per million population.	OECD
	Mobile data use, Gb per subscription/month	OECD - Broadband and telecom databases	Variation	Technical employment, % total employment.	Crunchbase
	Electricity cost, USD/MWh	International Energy Agency's (IEA) "Energy Prices" dataset	Outputs	Geographical dispersion of start-ups, 0-100 high concentration.	OECD
				Birth rate of employer enterprises, % employer entrepreneurship.	CB Insights
5. Markets	Trade facilitation index, 0-2 best	OECD - Trade Facilitation Indicators		Unicorns, per million population.	OECD
	De jure trade globalisation index, 0-100 best	ETH Zurich - KOF Index of Globalization		Enterprise churn rate, % business pop.	Crunchbase, OECD
	Gross domestic product, PPP\$ million	OECD - Annual GDP and components		Equity-based young firms, per thousand people.	OECD
				3-year survival rate., % new employer enterprises.	

### Normalisation

Each variable is normalised to ensure consistency in units across all indicators. This is done in two steps. First, moving averages for the periods 2016-2020 and 2020-2023 are computed from the time series of the raw values. This reduces the importance of any missing values and smooths data fluctuations across years. Second, each moving average value is transformed into a 0-100 score. All indicators are normalised using a clipped min-max normalisation method. For each indicator, the minimum value is equal to the cross-country mean minus two times the standard deviation, and the maximum value is equal to the cross-section mean plus two times the standard deviation. The normalised score is then computed as  $100 \times (\text{value} - \text{minimum}) / (\text{maximum} - \text{minimum})$ . Whenever an indicator is such that a high value corresponds to a negative outcome (e.g. taxation, debt), the normalisation is computed as  $100 \times (\text{value} - \text{maximum}) / (\text{minimum} - \text{maximum})$ .

European OECD countries – rather than all OECD countries – were selected as the benchmark group for assessing the Spanish ecosystem. This includes both European Union (EU) countries and non-EU European countries (e.g. Switzerland and Great Britain). It excludes European Union non-OECD countries (such as Bulgaria and Romania) and non-European OECD countries (e.g. Japan, Mexico, Colombia among others).

Since only European OECD countries data are considered, which have high performance relative to the OECD average as a group, this report benchmarks Spain with a group of the most advanced entrepreneurial ecosystems. At the same time, by focusing on European comparisons, the benchmarking focuses on entrepreneurial ecosystems that share similar institutional and economic conditions. This takes into account the fact that European countries are interlinked and share similar structural characteristics. For example, the government tends to play a bigger role in the economy in European OECD countries than non-European OECD countries. According to the IMF World Economic Outlook statistics, the average government expenditure to GDP in the EU was approximately 49% in 2023, compared with about 36% in the United States, 33% in Colombia, 37% in Australia and 28% in Mexico. European OECD economies

also tend to be more regulated and have lower labour market turnover than non-European OECD countries. Further, there are several European OECD countries which are also members of the European Union. They thus share European institutions (e.g. European Central Bank), regulations (e.g. European directives) and the European single market for goods, services, capital and labour. There is also a stronger degree of competition among ecosystems within a single market in trying to attract and develop entrepreneurs and investors, which makes benchmarking across these economies particularly interesting.

The combination of several indicators and data sources provides a good high-level overview of the Spanish entrepreneurial ecosystem in comparison with other European OECD countries. While the available indicators may not precisely track all relevant ecosystem factors for all countries, they offer a consistent basis for identifying main strengths and bottlenecks in the Spanish ecosystem using comparisons with the strengths and weaknesses of its European OECD peers.

### ***Stakeholder discussions***

The stakeholder interviews and workshops provide rich complementary information on the nature, causes and potential policy responses to ecosystem strength and weaknesses. The OECD and Spanish government authorities identified individuals representing a range of actors in the Spanish entrepreneurial ecosystem, including policy authorities, the private sector and regional authorities. Interviews and workshops were held with these actors through in-person meetings during the last week of January 2025, and virtual meetings and calls in February and March 2025. In these interviews, OECD staff invited stakeholders to share their perspectives on the state of the Spanish ecosystem based on their own experiences. Targeted questions were also posed on specific elements where stakeholders had expertise or direct involvement. For example, representatives of venture capital organisations were asked about financing conditions, while university representatives were asked about knowledge and talent.

Representatives of the following institutions and organisations were interviewed:

- Adigital
- AEBAN
- AGNOSPCB
- Ances
- Asociación Española de Startups
- Aurea Avionics
- Axis Participaciones Empresariales
- Bolsas y Mercados Españoles (BME)
- Centro para el Desarrollo Tecnológico y la Innovación
- Compluemprende
- Endevor
- Enercraft
- Enisa
- Escuela de Organización Industrial
- Fundación Innovación Bankinter
- Gobe Ventures
- Ices
- IE University
- Ministerio de Ciencia, Innovación y Universidades
- Ministerio de Economía, Comercio y Empresa

- Ministerio de Hacienda
- Ministerio de Inclusión, Seguridad Social y Migraciones
- Ministerio de Industria y Turismo
- Ministerio para la Transformación Digital y de la Función Pública
- Oficina Española de Patentes y Marcas (OEPM)
- RED.es
- South Summit
- Spaincap
- Tucuvi Care
- Universidad Carlos III de Madrid.

In addition, a questionnaire prepared and administered by the OECD over the period December 2024 - February 2025 was distributed to about 40 organisations and entities. The answers to these questionnaires were received and processed by the OECD secretariat.

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# 2 Entrepreneurship levels

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This chapter presents a snapshot of Spain's entrepreneurial activity and dynamism, describing entrepreneurship levels vis-à-vis other European OECD countries using statistical information.

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This chapter benchmarks Spain's entrepreneurial activity and dynamism to those of European OECD countries. The benchmarking uses statistical indicators that serve as a preliminary reference for evaluating the state of entrepreneurial activity in Spain, prior to analysing the underlying characteristics of the entrepreneurial ecosystem that may account for the observed results.

Startup activity is measured in terms of new firm generation (birth rate of employer firms; total startups created per capita; and unicorns per capita) as well as in terms of broader business dynamism, measured by indicators of startup survival and business churn rates (business entries plus exits). These dimensions have been selected as particularly informative metrics of the ecosystem's capacity to generate new ventures and renew itself.

In addition to the average or total national startup performance, ecosystems should also be evaluated in terms of the distribution of entrepreneurial activity across regions. Hence, Spain is benchmarked against other European OECD countries on an indicator that measures the regional distribution of entrepreneurship (concentration of startup activity across cities).

## Entrepreneurial activity and dynamism

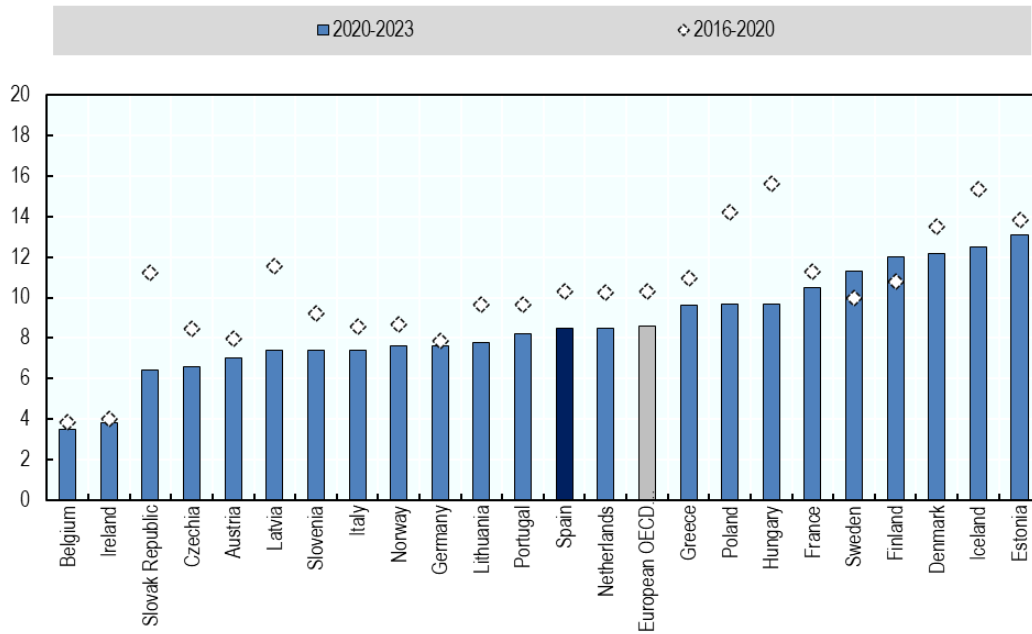
### ***Spain's entrepreneurship rate is in line with other European OECD economies***

Spain's new employer firm birth rate (births of firms with at least one employee as a share of all employer firms) is at the same level as the European OECD average (Figure 2.1). Over the period 2020-2023 about 8.5% of all employer firms were new firms entering the market. For context, the average European OECD birth rate is about 8.6% and the highest birth rate level registered in the same period was about 13%. Over the past six years, the birth rate of new firms tended to decline in almost all European countries, including Spain, which registered a decline in line with the average of other European OECD countries.

The survival rate of startups (3 years after incorporation) is slightly below the average European OECD score (Figure 2.2). About half of newly created firms are still active after three years in Spain, similar to Italy and France.

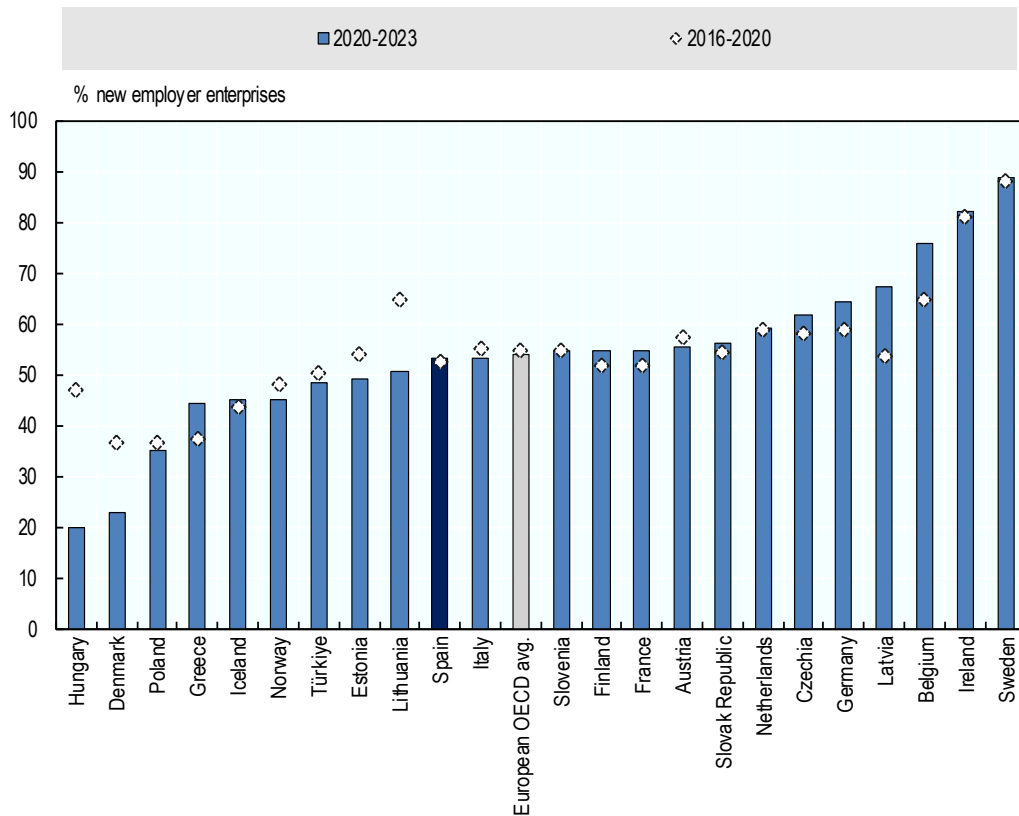
Spain has a relatively high business churn rate. While this can indicate a volatile environment for entrepreneurship at high levels (OECD, 2025<sup>[1]</sup>), it is generally considered here as a positive sign of Schumpeterian "creative destruction". In Spain, it stands at 18% of the business population, slightly above the European OECD average and not too distant from the leading countries on this measure, Sweden and France (Figure 2.3). This indicates a lively business dynamism in the country, with many companies both entering and exiting the market, and a sign of a healthy business dynamism. Successful entrepreneurship necessarily involves trial and error, and positive churn rates signal an evolving environment.

**Figure 2.1. Birth rate of employer firms**



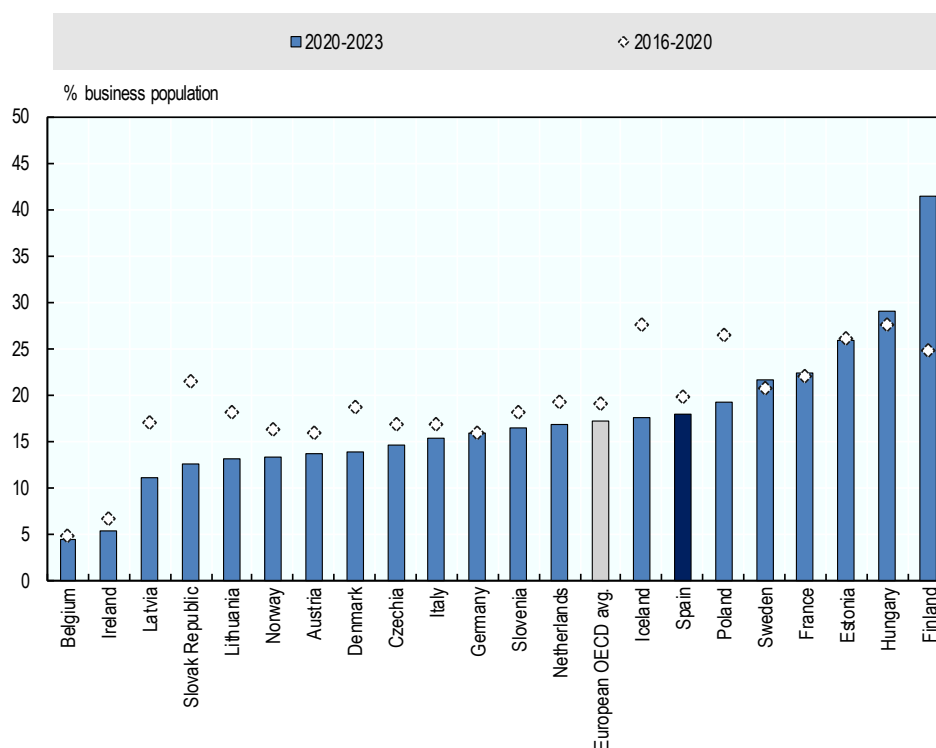
Note: Birth of new employer firms (with at least one employee), as a proportion of all active business population.  
 Source: Based on OECD - SDBS business demography

**Figure 2.2. Survival rate**



Note: 3-year survival rate of employer enterprises, as a proportion of new employer enterprises.  
 Source: Based on OECD - SDBS business demography

Figure 2.3. Churn rate



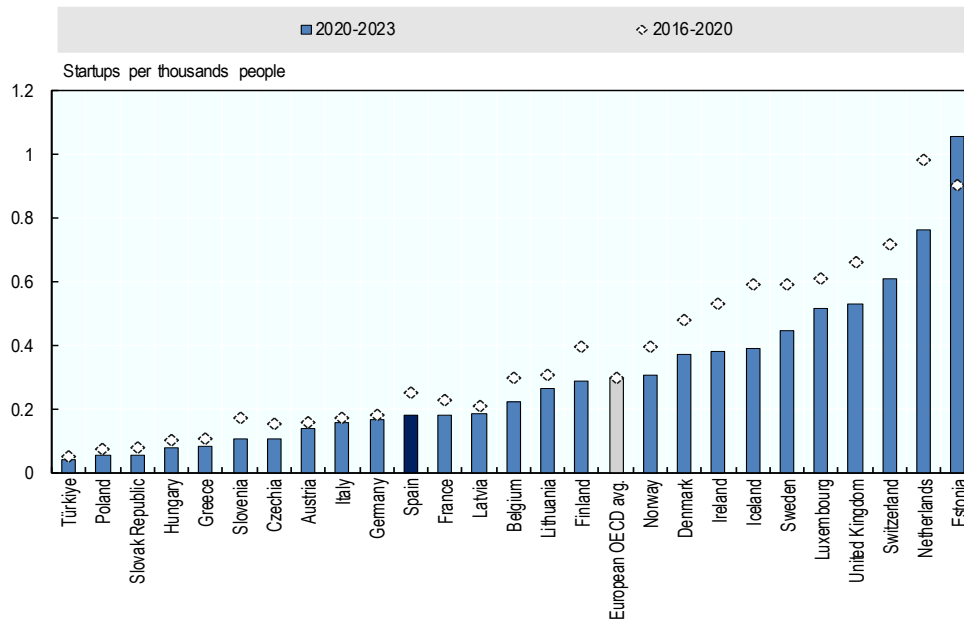
Note: Sum of births and deaths of employer enterprises (firms with at least 1 employee) as a proportion of active business population.

Source: Based on OECD - SDBS business demography

### ***The equity-backed startup creation rate is catching up***

When it comes to the type of entrepreneurship driven by young, equity-backed firms, Spain is still catching up. The number of Spanish equity-backed startups per capita (which includes all types of venture capital-backed ventures, from deeptech to other types of innovative firms) is at the level of France and slightly above Germany, yet, below the European OECD average (Figure 2.4). Over the period 2020-2023 there were about 0.18 young firms (0–5-years old) per thousand people in both Spain and France, as captured by the Crunchbase data. In the same period, in Germany, there were about 0.16 young firms per thousand people. Among the top European OECD performers, these rates were between 0.5 and 1 young firms per thousand people. While these results are partially driven by the relatively smaller population size of top-performing countries, they still point to the opportunity for Spain to grow its equity-backed startup rate. Over the past six years, the total number of equity-backed startups tended to decrease in most OECD countries, denoting a lower level of these startups entering the market after the pandemic. It is important to counter this trend to restore dynamism and competitiveness.

Figure 2.4. Equity-backed young firms per thousand people



Note: Number of companies aged 0-5 years old registered in Crunchbase, divided by the population. A three-year moving average is applied to the original statistics

Source: Based on Crunchbase

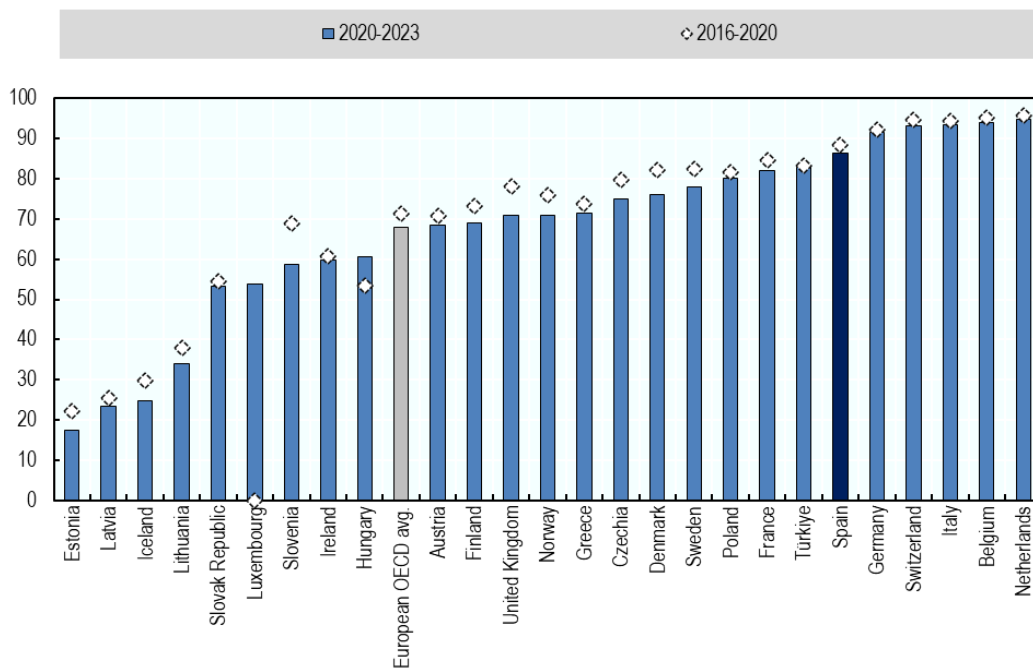
### ***Spain is producing unicorns***

Globally, startups that become unicorns are rare. Only a small fraction of startups worldwide reaches a valuation over USD 1 billion. In Spain, these firms are somewhat fewer than in European OECD benchmark countries but growing. Over the period 2020-2023 there were less than 0.05 unicorns per million population in Spain, compared with about 0.1 unicorns per million in Germany and France. Spain recorded 3 new unicorns in 2022, but there are years where no firm reaches the unicorn status (CB Insights, 2025<sup>[2]</sup>).

### ***There is a relatively even regional balance of equity-backed startups within Spain***

Spain features a more even regional spread of equity-backed startup activity than other European OECD countries, a positive indicator of regional balance. Notably the reverse concentration index of equity-backed startups in Spain (where 0 indicates full concentration of all startups in one city and 100 reflects an even distribution of startups across all cities) is about 86%, slightly less concentrated than France, and almost 20% less concentrated than the European OECD average of around 68% (Figure 2.5). Although startups are more dispersed in Spain than in these other countries, there are nevertheless quite strong concentrations of startups in the major cities.

Figure 2.5. Equity-backed startup concentration by city



Note: Reverse Herfindahl–Hirschman index of startup presence across cities in each country.  
 Source: Based on Crunchbase

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# 3 Institutions

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This chapter examines the institutional and regulatory context in which startups and scaleups operate in Spain. It constitutes the first of the ten elements of the entrepreneurial ecosystem framework used to diagnose Spain's ecosystem. This chapter identifies strengths and areas for improvement, presents an international example, reviews recent policy developments, and offers recommendations for further progress.

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## What's the issue?

Formal institutions refer to the laws, regulations and administrative processes that govern what individuals and businesses can and cannot do (Leftwich, 2006<sup>[11]</sup>). These encompass, among other things, property rights protection, intellectual property regimes, competition rules, corporate tax rates, labour laws, and the justice system, all of which are highly relevant to start-up development. Along with culture, institutions define the “underlying rules of the game” for businesses (Abell et al., 1992<sup>[2]</sup>). The quality of institutions is one of the most robust drivers of entrepreneurship rates within a country (Boudreaux and Nikolaev, 2019<sup>[3]</sup>; Nikolaev, Boudreaux and Palich, 2018<sup>[4]</sup>). The presence of institutions that accommodate and encourage private enterprise and innovation and facilitate the efficient functioning of markets is a key incentive for business creation. There is strong empirical evidence that more business-friendly institutions are associated with higher self-employment rates in a country (Gohmann, 2012<sup>[5]</sup>) and more business births (Herrera-Echeverri, Haar and Estévez-Bretón, 2014<sup>[6]</sup>), entrepreneurial activity (Bjørnskov and Foss, 2016<sup>[7]</sup>), and innovation (Boudreaux, 2017<sup>[8]</sup>). This chapter reviews the formal institutions in Spain that are important to the development of startups and scaleups and examines the extent to which they are conducive to entrepreneurial activity.

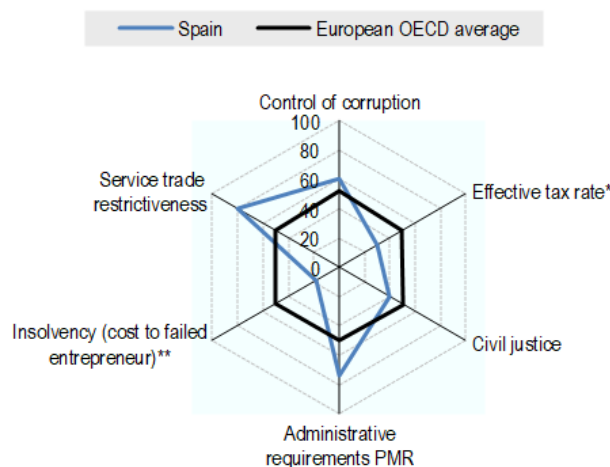
## Assessment

### ***Spain's institutional fundamentals are broadly in line with most European OECD countries***

Spain Institution are broadly in line with those of other European OECD countries and do not represent, in general terms, a major drag on the development of its entrepreneurial ecosystem. At the same time, some regulatory issues require improvement in most European OECD countries, and Spain should align with European strategies to boost the continent's competitiveness.

An assessment of benchmarking data with other European OECD countries, Institutions is an area where Spain performs relatively well overall, with varying performances across the different aspects that compose the element.

**Figure 3.1. Spain performance across the indicators composing the institutions element**



Note: Data are presented as normalised scores obtained by applying min-max transformations to the raw values, where the max/min are equal to the sample mean  $\pm 2$  sample standards deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period. \*The indicator Effective tax rate does not reflect specific tax benefits allowed to startups. \*\*The indicator Insolvency refers to year 2022, before the introduction of reforms in insolvency regulation.

Spain performs well on control of corruption and administrative requirements for setting up a new firm, but somewhat less well in terms of corporate taxation levels, insolvency cost for entrepreneurs and functioning of civil justice (Figure 3.1).

In terms of control of corruption, Spain attains an above-European OECD average performance, which demonstrates that the country has achieved good fundamentals in public governance and has built institutional mechanisms that limit the influence of improper interests on the use of public resources. This is an essential pre-condition for entrepreneurship as potential entrepreneurs can be discouraged by unfair competition from well-connected individuals.

Spain also achieves a strong performance on its service trade restrictiveness index, which indicates that there are less barriers to entry in the Spanish service markets than in other European OECD markets. Moreover, Spain's performance on administrative requirements for setting up a new company is also above the European OECD level. This means that administrative aspects such as the number of private and public bodies to be contacted, the number of procedures required, and the costs of complying with these procedures to set up a limited liability company or a personally owned enterprise are somewhat less complex in Spain than in the average European OECD country.

When it comes to insolvency regulations, Spain has historically lagged behind other European OECD countries. Based on 2022 data, Spain performance on this aspect was still below the European OECD average. Insolvency frameworks that penalise business failure not only limit the possibility of business renewal but also curb entrepreneurship upfront by discouraging aspiring entrepreneurs to start a business out of fear of the costs associated with failure. The OECD has measured different aspects of insolvency frameworks, and one that is particularly important is the legal treatment of failed entrepreneurs, which can be measured by the number of years it takes for a failed entrepreneur to be freed from their bankruptcy debt (discharge) and the amplitude of asset exemptions from bankruptcy procedures (e.g. which personal assets of the entrepreneurs or the house can be shielded from creditors' claims) (André and Demmou, 2022<sup>[9]</sup>). Nonetheless, in Spain, Law 16/2022 has strengthened pre-insolvency proceedings from the moment insolvency is just probable, reducing the involvement of courts. These developments are not reflected in the data and are likely to be reflected in improved insolvency scores when these reforms are fully implemented.

A further factor that contributes to a country's perceived burdensome bureaucracy is the functioning of the court system. Entrepreneurs benefit from courts that are speedy, transparent and efficient as they mean lower costs and faster resolution of disputes. Spain underperforms on its court system's efficiency, lagging behind the average of European OECD countries.

Institutions are also assessed against the corporate effective tax rate, which measures the amount of tax paid by companies relative to their profits. This indicator proxies the tax burden on entrepreneurs as it applies to companies of all sizes, not only startups. Startups may be less sensitive to corporate taxes as they often do not generate profits in their first years. Nonetheless, although young companies can often benefit from preferential tax rates, they are again subject to standard tax rates as soon as they pass a certain age, or when they lose their startup certification (e.g. when their revenue exceed a certain amount or do not respect certain other criteria). In Spain the average effective tax rate over the period 2020-2023 was about 23%, on the higher side of tax rates imposed within the European OECD context. Although in Germany and France firms pay a higher share of their profits in taxes (27% and 25% respectively), in many other European OECD countries firms pay less than 20%, and firms in Hungary, Ireland, Poland or Lithuania pay between 11 and 15%. With the passage of the Startup Law (28/2022), Spain has already started to reduce corporate tax rates for startups that are certified as "emerging companies" by ENISA (as defined by Article 3 of Law 28/2022), complementing previous regulation that imposed a reduced taxation of 15% to newly created companies for two years.

## ***Reforms are addressing administrative, fiscal, and insolvency issues, but their impacts on entrepreneurship have not yet fully materialised***

The views of Spanish stakeholders tend to align with evidence from the data. Interviewed ecosystem actors often mention regulations, taxation (encompassing corporate tax rates, social security contributions, and investors' taxation) and insolvency as sensitive areas for their development that could be further improved in Spain.

Ecosystem stakeholders often point to specific bureaucratic and legal hurdles (such as obtaining a business license or registering with social security and tax authorities) as obstacles for startups. Excessively long "positive administrative silence" for treating administrative requests and lack of digitalisation in administrative processes are also reported as issues.

Similarly, some administrative investment-related processes remain complex in the view of stakeholders. Multiple stakeholders in the Spanish ecosystem have pointed to specific legal and administrative issues that delay investments in startups and scaleups. For example, all equity deals need to be registered by a notary, which can be a time-consuming and costly process. Another factor impacting investment in Spanish startups is the 2020 amendment to the 2003 Law on Foreign Investment Regulation, which introduces a requirement for prior approval of investments in strategic sectors, which can create delays and uncertainty.

Improving these and other regulatory conditions could greatly benefit startup creation. An example of the impact of regulatory conditions on startups registration location comes from the relocation of foreign startups to the United States. It is well-known that several startups worldwide relocate to the United States to access the American market and venture capital ecosystem (Weik, Achleitner and Braun, 2024<sup>[10]</sup>). One of the popular locations for headquarters relocations to the US is Delaware due in particular to flexible legal and regulatory frameworks and a rich collection of case law and precedent, enabling Delaware-registered companies to make more informed decisions that are less likely to result in litigation or disputes. The common knowledge of Delaware Law also speeds up the process of executing financing deals for startups and lowers legal costs (Abdelaziz, 2024<sup>[11]</sup>).

While stakeholders' views on the current regulatory and administrative environment is partially critical, recent reforms have started to address these issues. The Create and Grow Law (18/2022) has introduced simplified and harmonised procedures to start a business, expanding the range of economic activities that do not require prior licensing, and reducing the minimum capital required for the formation of limited liability companies from EUR 3 000 to EUR 1. The Law also created an electronic system that allows companies to register their stock at a later point. Meanwhile, the Spanish Startup Law (passed in December 2022) provides for the creation of the National Office of Entrepreneurship (ONE), which serves as the main access point for information related to entrepreneurship and provides resources to aid the business creation process. These improvements are reflected in the share of companies created within one day. Before the passage of the Create and Grow Law, only 6% of newly created companies were registered in one day, while after the Law this share increased to 35%.

Taxation is another area of focus for some stakeholders. In this respect, many welcome recent reforms that are reducing tax burdens for small companies and startups as ways to make the Spanish ecosystem more attractive to start a business. In terms of company size, Law 7/2024 has increased the progressivity of corporate taxation. Notably, starting in 2025, firms with a turnover below 1 million EUR will be taxed at 21% of the first 50 000 EUR of taxable income, and 22% on the taxable income exceeding 50 000 EUR. These tax rates will be progressively reduced every year, to reach 17% on the first 50 000 EUR of taxable income and 20% for the part exceeding 50 000 EUR, in 2027. In parallel, entities with annual revenues below 10 million EUR will also benefit from gradual tax reductions over the same period.

In terms of startups, before 2022, newly created companies were already taxed at a lower tax rate of 15% for two periods (the first tax period in which the tax base is positive and the following tax period). The 2022 Startup Law introduces the category of "emerging company". These companies must be certified by ENISA

according to specific criteria. These companies are taxed at a 15% rate for a period of up to four years (the first tax period in which the tax base is positive and the following three tax periods). While an important signal and first step, the fiscal incentive for creating a company brought about through this measure is relatively modest, particularly considering that newly formed companies in Spain already benefited from a reduced corporate tax rate for their first two years of activity before the passage of the Startup Law. Moreover, the conditions to become a certified startup limit the benefit to a small proportion of new companies in Spain that are less than 5 years old, or 7 years old in strategic sectors such as biotech, not listed, not exceeding an annual turnover of 10 million euros, and that develop an innovative entrepreneurial project with a scalable business model, as assessed by ENISA.

As of February 2026, there were over 2 000 start-ups certified under the Startup Law. Notably, among excluded companies there are deeptech firms that are older than five years but are still relatively young and innovative. Since the products developed by these firms are based on scientific breakthrough, these firms are capital intensive and often require a longer development period to bring products to market. Similarly, companies cannot be certified (and thus are not eligible to the reduced tax rate) if they are fully owned by a parent company. This excludes entrepreneurs who set up holding companies to manage the personal risks of commencing an entrepreneurial project. Even among those startups that do qualify for certification, many will be at a pre-revenue or low-profit phase in which product development, customer acquisition and investment are the primary areas of focus.

The social security regime for corporate self-employed individuals is another area that recent reforms have tried to improve. The Royal Decree Law 13 of 2022 has changed the system of social security contributions for the self-employed. As of 1 January 2023, contributions for self-employed workers are computed on the net income obtained through self-employment and employment income. However, even following these positive reforms, individuals classed as corporate self-employed (those who either hold at least 33% of the capital stock of their company or hold at least 25% of the capital stock and have a management role within the company) are still required to have a minimum social security contribution base of EUR 1 000. This can represent an important obstacle for very early-stage entrepreneurs at the pre-revenue stage and may discourage the creation of businesses. It is more typical for social security contributions to be tied to income, without a flat minimum contribution as is the case in Spain.

Another important factor mentioned by Spanish stakeholders, is the pace at which companies can be closed down. Streamlined insolvency frameworks can stimulate more business dynamism, through which resources flow from less productive companies to new entrants or more productive incumbents. Efficient insolvency processes are also important in enabling potential serial entrepreneurs to progress to a new business venture after having had an unsuccessful one. They can also encourage more first-time entrepreneurs.

In line with the EU Restructuring Directive of 2019, in 2022 Spain introduced significant reforms to its Insolvency Act (Law 16/2022). This has brought about a raft of improvements by implementing a US-inspired Chapter 11-type system that makes insolvency faster, more efficient, and more likely to preserve value. More specifically, the reform reduces involvement of the courts and allows the debtor companies to retain greater control of their operations in order to turn their business around and restructure financially. The reforms also introduced a new pre-insolvency regime which defines restructuring plans that are available to companies where there is a likelihood of insolvency. These restructuring plans replace the refinancing agreements that were only available in situations of imminent insolvency. Moreover, restructuring plans allow the grouping of liabilities by class according to the “common interest” concept, which means that plan must be accepted by at least two-thirds of the relevant creditors class. This allows an acceleration of the liquidation process even if one single creditor objects.<sup>1</sup>

These changes make pre-insolvency proceedings available at an earlier stage of financial difficulties, which facilitates preventative restructuring. Another way in which the insolvency regime could be made more manageable, particularly for innovative startups in Spain, would be to reduce the procedural requirements

for winding down companies whose sole creditors are public institutions. Currently, public institutions – for example, ENISA – require entrepreneurs to go through the full bankruptcy process, even when they themselves are the sole creditor.

### ***Efforts to reduce cross-regional regulatory heterogeneity should be continued and scaled***

One of the regulatory challenges that can be faced by Spanish startups and scaleups is differences in regulatory regimes across the country's regions. In order for innovative start-ups to scale, they need to be able to grow their customer base. This often necessitates expansion into markets in different regions to their founding base. Spanish start-ups should, in principle, be advantaged by the relatively large internal Spanish market of 48 million people and direct access to European markets. However, Spain is a highly decentralised country, with considerable regulatory differences between its 17 autonomous communities and two autonomous cities. This results in regulatory borders within Spain's territory inhibiting the ability of start-ups to expand rapidly to markets in other parts of the country. It is harder for an Andalusia-born startup to expand its operations to Catalonia than it would be for a Berlin-born startup to enter Munich or Frankfurt or for a Parisian startup to penetrate the wider French market, for example.

Important steps are being taken to address this issue, including through measures in the Law on Business Creation and Growth (the "Create and Grow Law"), which was passed in September 2022 and came into effect in November 2022 as part of Spain's Recovery and Resilience Plan (European Commission, 2024<sub>[12]</sub>). An important measure in the Law is the establishment of the Sectoral Conference for Regulatory Improvement and the Business Climate, strengthening and replacing the Market Unity Council that was in place previously. The Conference is a forum for the Ministry of Economy and the economic departments of the autonomous communities and cities to meet to identify barriers in specific sectors where there is potential for greater harmonisation of regulations. The Conference works to remove unnecessary red tape, simplify business regulations, and improve co-ordination between regions. Stakeholders have reported that the Create and Grow Law has been an important step forward to improve internal procedures. In particular, the Conference is regarded as a mechanism for enhancing regulatory implementation and for addressing sector-specific barriers across regional jurisdictions. In addition, the Territory and Innovative Entrepreneurship Ecosystems Working Group of the recently created National Startup Forum has started to work on improving the territorial distribution of technological hubs across regions, fostering cross-regional synergies, and expanding local access to networks of mentors and investors.

During the seventh meeting of the Sectoral Conference for Regulatory Improvement and the Business Climate – which convened all the Spanish Autonomous Communities, the Spanish Federation of Municipalities and Provinces (FEMP), the presidents of the Productivity Council and the Chamber of Commerce, and the Ministry of Economy, Commerce and Business – the creation of a common framework ("Régimen 20") was proposed. The goal of "Régimen 20" is to both simplify and harmonise business regulations in Spain – eliminating the disparity of administrative requirements between autonomous communities and local entities while also reducing red tape. This aligns with the recommendations put forward at the European level by Professor Enrico Letta in his high-level report to the European Council, which advocates for greater regulatory coherence and simplification as key drivers for strengthening the Single Market. Instead of relying on a transversal approach, Régimen 20 consists of a menu of targeted interventions, which aim to remove specific barriers in specific sectors. As a first step, a diagnostic assessment by economic sector was conducted to identify co-ordination failures between administrations or a lack of proportionality in different regulations. This involved an analysis of firms' reclamations to the Spanish Secretariat of Market Unity, which found that more than 80% of reclamations could be attributed to five sectors: 1). regulated professions, 2). infrastructure and construction, 3). education, 4). transportation, and 5). retail, commerce and hospitality. Following the analysis, the Ministry conducted considerable outreach with private companies and other public institutions to identify priorities for action.

Between September and December 2024, more than 70 bilateral meetings were held, as well as four workshops involving the Chamber of Commerce. Based on this process, an action plan has been developed covering five priority areas, with a range of concrete actions to be implemented from 2025, for example: Adopting a standard ordinance for the exercise of retail commercial activities and the provision of certain services; Developing a digital platform that will compile all local regulations and help to promote their standardisation; Implementing digital labelling; Reducing barriers for the installation of electric vehicle charging points; Developing a tool to simplify companies' interaction with the public administration and reduce the bureaucratic burden.

As these actions are implemented, new measures will be introduced to tackle other identified barriers on a continuous basis. These will be set during periodic meetings of the Sectoral Conference. These periodic meetings will also facilitate monitoring progress and the co-ordination of agreed actions.

In addition to regional regulatory inconsistencies within the Spanish domestic market, Spanish startups and scaleups also face regulatory frictions in accessing EU markets, and efforts to increase harmonisation of regulatory regimes across EU countries should also be continued at the EU level.

### ***New regulatory sandboxes will play an important role in boosting deep tech sectors***

The Spanish Startup Law promotes the creation of new regulatory sandboxes – a move welcomed by stakeholders in the entrepreneurial ecosystem. While Spain has a strong crop of startups in digital services, there is scope to increase the numbers of startups in deep tech sectors. Given the tightly regulated nature of many of these sectors, establishing sandboxes is important for enabling startups to develop and test their products and ideas. There are already some sandbox initiatives in Spain, including the fintech sandbox led by the Bank of Spain and the Ministry of Economy, which is currently in its second edition, and the artificial intelligence (AI) sandbox led by the Spanish government to help companies in developing and testing their products and technologies in compliance with the EU's AI Act, with a focus on high-risk AI systems. 35 applications were received for the AI sandbox, with a requirement for each submission to involve at least one startup or SME either as customer, supplier or technology developer.

### ***The new Startup Forum can become the main central public entity co-ordinating startup and scaleup promotion***

In 2021, the Government launched a broad and ambitious strategy, Spain: An Entrepreneurial Nation, ("*España Nación Emprendedora*") to boost innovative entrepreneurship in Spain (Government of Spain and the Council of Ministers, 2021<sup>[13]</sup>). Its implementation requires the involvement of many Ministries and entities. However, before the creation of the Startup Forum, as mandated by the 2022 Startup Law, there was no single entity with an overview of this policy area. The Ministry of Science, Innovation and Universities is responsible for measures to support university spin-off generation and funds innovative projects, the latter through its subsidiary agency CDTI. Meanwhile, the Ministry of Industry and Tourism is broadly responsible for SME support policies and for the certification and funding of innovative startups through its subsidiary ENISA. The Ministry for the Digital Transformation and Civil Service on the other hand has responsibility for supporting digital startups. Furthermore, ICEX Spain Trade and Investment delivers a range of internationalisation-oriented support programmes for Spanish startups. In addition to these national entities, regional government actors also play a very important role in delivering support to entrepreneurs, startups and scaleups due to the decentralised nature of Spain's governance structure.

The result is a complex institutional framework for startup and scaleup promotion that can be difficult to navigate for entrepreneurs and may result in inefficiencies, for example in the duplication of supports or assessment efforts. To maximise co-ordination and policy coherence, it is important to have an overarching entity with responsibility for startup promotion. Box 3.1 gives the example of how this is achieved in Canada. Along these lines, the Spanish Startup Law has provided for the creation of a National Startup

Forum to convene national ministries and agencies as well as major private sector actors to co-ordinate policies in this area. The Forum began its activities in 2025. Such structures are important in achieving greater co-ordination in the design and delivery of public supports for startups and scaleups. However, consideration might also be given to the establishment of an overarching entity with responsibility for startup and scaleup promotion and the development of the entrepreneurial ecosystem, following the path of other European countries such as Portugal (through Startup Portugal), Estonia (through Startup Estonia) and France (through French Tech).

### **Box 3.1. Canada's Regulatory Reconciliation and Co-operation Table**

#### **Description**

Like Spain, Canada is a highly federalised country, meaning that it shares the challenge associated with regulatory divergence and internal trade barriers between regions. The passage of the Canadian Free Trade Agreement (CFTA) in 2017 marked an important development in this respect. It committed regional governments to adhere to a set of rules to reduce internal trade barriers within Canada. The CFTA involved the establishment of the Regulatory Reconciliation and Co-operation Table (RCT), responsible for addressing internal trade barriers through regulatory reconciliation. The RCT works by establishing regulatory harmonisation processes that address frictions that Canadian businesses may face when operating across regional borders. Federal or regional government entities can submit regulatory obstacles to the RCT for reconciliation. The federal and regional governments participating in the CFTA as well as the relevant regulators then commence negotiations for a reconciliation agreement, which should detail how the barrier will be addressed, which governments will participate, and the implementation timeline.

Since 2017, 12 Reconciliation Agreements have been made, covering a broad range of topics ranging from health and safety rules and construction codes to energy efficiency requirements for household appliances. Of particular relevance to Canadian startups is the “Extra-Provincial/Territorial Corporate Registration and Reporting Reconciliation Agreement”, which was passed in 2019. Through this agreement, regional governments in Canada committed to harmonising corporate registration and reporting requirements in order to reduce the administrative burden on businesses looking to expand across the country. This included the establishment of the Multi-jurisdictional Registry Access Service (MRAS), which is a digital solution designed to streamline the process of registering and reporting across regions by allowing information submitted by businesses to be shared across jurisdictions, reducing the need for companies to submit duplicate information to multiple regions. The MRAS also includes a search function through which businesses can be looked up and verified by potential suppliers, customers or partners. As of 2020, the provinces and territories of Québec, Manitoba, British Columbia, Saskatchewan and Alberta had implemented the MRAS. The search function now has information on more than 90% of Canadian companies operating in Canada.

#### **Success factors**

Canada's RCT adopts a focused and bottom-up approach through which federal or regional government actors identify and put forward areas for regulatory harmonisation based on observed challenges being faced by businesses. This approach gives all regions the opportunity to propose areas for regulatory alignment and ensures that the greatest pain points for businesses in different parts of the country are addressed. Reforming the full regulatory regime is a very major undertaking so the RCT's approach of prioritising specific issues raised by regional governments and developing work plans and Reconciliation Agreements around these represents a realistic and effective approach to reducing regulatory frictions. Another positive aspect of the RCT's approach is that individual regions have the option to opt out of a particular agreement, which reduces the risk of blockages in the reform process

and ultimately enables more alignment to be achieved.

### Lessons for Spain

As Spain develops measures such as “Régimen 20” for increasing regulatory alignment between regions, Canada’s RCT provides lessons on how to prioritise areas for action in a way that addresses major bottlenecks and is responsive to the needs of all stakeholders. Spain would also benefit from a similar system to Canada’s MRAS, which could potentially become a feature of the ONE digital platform established under the Startup Law.

Source : <https://www.Canada.ca/en/intergovernmental-affairs/services/internal-trade/timeline-federal-leadership-advancing-internal-trade-2017-2024.html>

## Policy mapping

**Table 3.1. Institutional and regulatory policies**

Institution(s)	Policy name	Description	Objectives	Target group
Ministry of Economy, Trade, and Enterprise, and the economic departments of the autonomous communities and cities.	Sectoral Conference for Regulatory Improvement and the Business Climate	The conference is a forum for the Ministry of Economy and the economic departments of the autonomous communities and cities to meet to identify barriers in specific sectors where there is potential for greater harmonisation or unification of regulations. The conference works to remove unnecessary red tape and simplify business regulations.	To facilitate the correct application of principles of good regulation by all public administrations and to ensure an optimal co-ordination of the various administrations.	All economic actors.
Ministry of Economy, Trade, and Enterprise	Reduced costs for creating a business	As part of the Create and Grow Law of 2022, the legal minimum share capital required for the creation of a limited liability company (SL, “sociedad limitada”) was reduced from EUR 3000 to EUR 1.	To facilitate the process of starting a business.	Newly registered companies.
Ministry of Economy, Trade, and Enterprise	Act 16 of 2022 on the reform of the Insolvency Law	The reforms to the Insolvency Law involved the implementation of a US-inspired Chapter 11-type system that reduces involvement of the courts and allows the debtor companies to retain greater control of their operations in order to turn their business around and restructure financially. The reforms also introduced a new pre-insolvency regime. The changes make available pre-	To enhance the insolvency framework in Spain, facilitating a smoother and more streamlined process for dealing with insolvency cases while fostering a greater focus on restructuring and preserving viable businesses.	Companies undergoing insolvency.

		insolvency proceedings at an earlier stage of financial difficulties, which facilitates preventative restructuring and supports second chance entrepreneurship.		
Ministry of Finance	Taxation of emerging companies (Startup Law)	Companies certified by ENISA under the Startup Law receive a reduction in the corporate tax rate from 25% to 15% for up to four years for as long as the company remains certified.	To promote the creation, growth and relocation of emerging companies.	Companies certified under the Startup Law.
Ministry of Finance	Corporate tax deferral for startups (Startup Law)	A 12-month deferral can be applied to the payment of corporate tax for ENISA-certified startups for the first year in which they have a positive tax liability. A 6-month deferral can also be applied for the second tax year.	To promote the creation, growth and relocation of emerging companies.	Companies certified under the Startup Law.
Ministry of Finance	Identification of foreign investors (Startup Law)	Foreign individuals who invest in Spain but reside abroad are no longer obliged to obtain a foreigner's identity number (NIE). Instead, they only need to obtain a tax identification number (TIN), which can be acquired without being physically in Spain. An electronic procedure to issue TINs within 10 business days of receipt of the application and supporting documentation is being developed.	To simplify the identification process for foreign investors.	Foreign investors.
Ministry of Finance	Tax regime applicable to workers, professionals and entrepreneurs moving to Spanish territory (Startup Law in-patriate regime)	The Startup Law modifies the taxation of non-resident workers, professionals, and entrepreneurs who relocate to Spain. These individuals, although tax residents, are taxed under a special non-resident tax regime during the five years following their relocation. These individuals pay a flat tax of 24% on their income from Spanish sources up to EUR 600,000. This runs in parallel with the 19% rate applied to non-residents from EU/EEA countries operating in Spain.	To attract foreign talent to Spain.	Foreign workers, professionals, entrepreneurs

Ministry of Science, Innovation and Universities	Binding Reasoned Reports and the Innovative SME seal	Two instruments have been introduced to reduce fiscal burden to innovative SMEs. 1. Binding Reasoned Reports will provide legal certainty to deductions and allowances for Research, Development and/or Technological Innovation (R&D&I).		
Ministry of Inclusion, Social Security and Migration.	2. Innovative SME seal will create a register of SMEs who received a seal of excellence certificate to highlight the value of these SMEs and increase their visibility. SMEs who received the seal will pay lower social security contributions for research staff dedicated exclusively to the projects.	As stated in main 2024-2027 State Plan for Scientific, Technical and Innovation Research, these instruments will be used to boost investment in innovation and technology	Innovative SMEs	

## Conclusions and recommendations

Spain has been extremely active in refining its formal institutions to make them more conducive to the creation and growth of innovative startups and scaleups. This has taken place through a series of major legislative moves, most notably the passage of the Startup Law and the Create and Grow Law and the reforms to the insolvency regime. Among other things, these measures have made it easier and cheaper to register a new business, strengthened incentives for investors to fund Spanish startups, made it easier for startups to recruit talent, lowered the tax burden on a subset of new companies, streamlined the business insolvency process, and reduced regulatory misalignment between Spanish regions.

Spain's recent institutional reforms relating to the entrepreneurial ecosystem aim to position the country as a leader internationally in this area and there is an impressive breadth of reform activity. Further efforts should seek to address Spain's most binding remaining institutional bottlenecks. These include significant regulatory differences between regions and administrative, legal frictions discouraging investment in startups, and high social security contributions for entrepreneurs. Moreover, the coverage of the Startup Law is relatively narrow in terms of the startups and scaleups and investors who can benefit. Even for the relatively few startups certified under the Law, the benefits in areas such as tax and employee stock options are less generous than can be found in other countries.

To improve Spain's formal institutions, it is recommended that the Spanish authorities:

- Simplify eligibility criteria for certification under the Startup Law to enable more young companies to benefit. Notably, extend fiscal and other benefits for a longer period, up to eight years, for deep tech startups, taking into account their technical characteristics and development needs.
- Further streamline insolvency procedures, especially for companies whose sole creditors are public entities.
- Continue progress on the harmonisation of administrative procedures across regions by: i. Enhancing the role of the Sectoral Conference for Regulatory Improvement and the Business Climate; ii. Introducing opt-out regulatory options for regions to accelerate reform convergence; iii. Continuing the implementation of "Régimen 20".

- Remove the minimum social security contribution for self-employment individuals whose main activity is their startup company and who own stock in their company (corporate self-employed).

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## Note

<sup>1</sup> Source: <https://www.dlapiper.com/en/insights/publications/2022/09/spanish-insolvency-reform>

# 4 Culture

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This chapter analyses Spain's entrepreneurial culture. It constitutes the second of the ten elements of the entrepreneurial ecosystem framework used to assess Spain's ecosystem. This chapter identifies strengths and areas for improvement, presents an international example for inspiration, maps recent policy developments, and offers recommendations for further improving Spain's entrepreneurial culture.

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## What's the issue?

Entrepreneurial activity rates in a given context are influenced by the cultural characteristics and attitudes of the surrounding society (Hayton and Cacciotti, 2013<sup>[1]</sup>; Fritsch and Wyrwich, 2014<sup>[2]</sup>). There are wide cross-country variations in how society views successful entrepreneurs and in the extent to which business creation is seen as a desirable career choice (Global Entrepreneurship Monitor, 2023<sup>[3]</sup>). Countries where entrepreneurs are celebrated can be expected to have higher rates of business startup than those where entrepreneurs receive a lower status (Obschonka, 2017<sup>[4]</sup>). Research also indicates that certain personality types increase the likelihood of an individual engaging in entrepreneurial activity, with those with more extraversion, conscientiousness and openness, and less agreeableness and neuroticism more likely to start new ventures (Obschonka, 2017<sup>[4]</sup>). The prevalence of such traits also varies widely between countries, impacting upon startup rates (Schmitt-Rodermund, 2004<sup>[5]</sup>; Obschonka and Stuetzer, 2017<sup>[6]</sup>; Obschonka, 2017<sup>[4]</sup>). This chapter reviews the extent to which the informal institution of culture facilitates or inhibits productive entrepreneurship in Spain. Based on the OECD ecosystem diagnostics data, Culture is one of the main areas for strengthening in Spain entrepreneurial ecosystem.

## Assessment

### *Spain's entrepreneurial culture is improving*

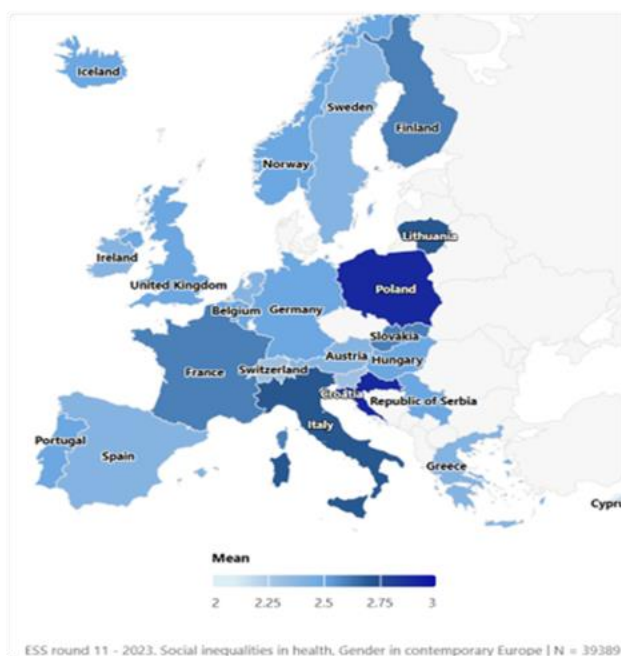
Measuring entrepreneurship culture is difficult and is generally examined through perception surveys asking people questions on their values and views on entrepreneurship. These metrics indicate that Spanish entrepreneurial culture is growing but still less developed than other leading ecosystems.

There are some aspects where Spain performs relatively well, such as societal trust. In addition, Spain performs close to the OECD European average in the share of young people expressing an intention to become an entrepreneur one day.

On the other hand, according to the Global Entrepreneurship Monitor (GEM)'s Adult Population Survey, less than 50% of Spanish adults (18-64 years old) consider entrepreneurship as a good career option. There is nevertheless a growing interest in entrepreneurial careers over time in Spain, particularly among younger generations. Furthermore, less than 58% of Spanish adults think that successful entrepreneurs have a high social status. Another barrier to entrepreneurship in Spain is a relatively high fear of failure, which some stakeholders contrasted with attitudes in the United States, where, trying and failing is perceived more as something positive.

On another indicator from the European Social Survey, perceptions of the importance of thinking creatively and being creative are relatively low on average, as show in Figure 4.1. Creative thinking is often associated with willingness to innovate, take risk and embrace change, which are important in an entrepreneurial society.

**Figure 4.1. Average perception of the importance of thinking creatively in Europe**



Note: Average of answers to the importance of think new ideas and being creative

Source: European social survey

These cultural characteristics are likely to have an adverse impact on the number of entrepreneurs starting businesses, with many individuals with the skills or ideas needed to succeed in entrepreneurship instead opting for other career paths that are seen as being safer, more stable or more respected in society.

There are also ripple effects of this mentality in other areas. One of them is the commercialisation of research in academia. Stakeholders often refer to a cultural divide between the academic and private sectors and a stigma towards engaging in business activities that stifles research commercialisation, knowledge transfer and spin-off generation. Stakeholders also widely report that large corporations do not engage in enough collaboration and open innovation with startup companies, in part due to the risks associated with these activities. Furthermore, investors – from individual angel investors to venture capital firms and institutional investors – also often provide limited resources to early-stage startups, including those with innovative or disruptive technologies and a less certain development horizon, due to the perceived risks of investing in these companies. Public entities also display risk aversion in their approach to public procurement and there are limited special provisions for SMEs and startups, which limits the extent to which they can support new and emerging companies with innovative products and services.

One explanation for Spanish society's relative ambivalence towards entrepreneurship is the young nature of Spain's entrepreneurial ecosystem, which has largely developed over the last 10 to 15 years. With Spain now home to a growing number of start-ups that have gone on to achieve considerable scale, from Cabify to Factorial HR, there is a view that societal attitudes towards entrepreneurship are shifting as the profile of these entrepreneurs and companies grows and their wider societal impact becomes more widely recognised and felt. The passage of the Startup Law has also given an increased visibility to Spain's entrepreneurial ecosystem, although more can be done to communicate the Law beyond the standard entrepreneurial ecosystem actors and to wider society. Several stakeholders also noted that the global financial crisis in 2008-09 and the subsequent economic difficulties and period of high unemployment triggered a change in outlook through which entrepreneurship became seen by more people as a viable and promising option for creating employment.

The shift towards a culture more conducive to entrepreneurship is being supported by a raft of major startup events, competitions and promotional activities involving both the public and private sectors. For example, the recently launched “Spain Up Nation” brand has been created with the aim of fostering a culture that encourages and celebrates innovative entrepreneurship across Spain. The brand, which is promoted by ENISA, held the first editions of its Top 101 Awards in Córdoba 2024, which brought together 101 of the country’s most innovative startups. These companies were from all of Spain’s autonomous communities and cities and had an opportunity to deliver pitches to a jury of experts from ENISA and the regional development agencies. 19 companies (one from each autonomous community and city) were presented with awards and designated as ambassador companies based on their high social and environmental impact. This type of initiative can significantly boost the profile of innovative young companies and provides recognition of their wider impact to society. In a similar vein, the Spanish Startup Association, with funding from the EU, the Ministry of Industry and Tourism and the EOI Business School, runs the Women Startups and Rural Startups awards to shine a light on successful women entrepreneurs and entrepreneurs from rural areas.

Among the most prominent private initiatives helping to build an entrepreneurial culture in Spain is South Summit, which was conceived in 2012 in the aftermath of the global financial crises. South Summit is an annual 3-day event in Madrid. The last edition attracted more than 18 000 people, including approximately 2 000 investors. South Summit’s annual startup competition involves approximately 4 500 startups from 130 countries, out of which 100 finalists are selected to come to an event in Madrid to make pitches to and meet with to the many investors and corporations in attendance. Nine of the startups that were finalists in South Summit’s startup competition have gone on to become unicorns, seven of which are Spanish companies.

Another approach to boosting awareness of the contribution of Spanish startups and scaleups is through the publication of reports with data on the performance of the Spanish ecosystem. In collaboration with Kfund, Wayra, SpainCap, Endeavor, GoHub Ventures, BBVA Spark, ENISA publishes a “Spain Ecosystem Report” that showcases the growth of Spain’s entrepreneurial ecosystem and benchmarks it against other European countries, leveraging data from Dealroom.

### ***Entrepreneurship classes can be expanded across all education levels***

The cultural dynamics of a country are deeply rooted and persistent, meaning that public actions to create a shift in direction can only be expected to have a major impact in the medium and long terms. One of the most important policy levers for instilling a shift towards a more entrepreneurship-friendly culture is the introduction of programmes and initiatives within the public education system that develop entrepreneurial skills and stoke interest in business creation.

The view among most of the stakeholders interviewed is that Spain has been playing catch up to other European countries in this respect. Some public universities have been very active in promoting a culture of entrepreneurship. For example, the Technical University of Madrid has a longstanding startup competition that culminates in an awards ceremony that attracts a range of different actors from across the entrepreneurial ecosystem, including venture capital investors, large companies and other potential customers. Several prominent Spanish startups and scaleups have emerged from this competition, and there is scope for this approach to be replicated in other Spanish universities. This type of approach can be expanded to more universities.

More can also be done to encourage an entrepreneurial mindset among school pupils and to increase the emphasis on creativity and innovation. In general, although entrepreneurship education has been better incorporated in public school and university programmes since the global financial crisis, it is not yet widespread or a mainstream component of the curriculum. In addition, approaches vary between educational institutions, with private universities appearing, on average, more advanced in the promotion of entrepreneurship in their coursework than public schools and universities. As Spain is expanding its

entrepreneurship education offer, it can look at the experience of other countries. For instance, Box 4.1 shows how could Spain improve entrepreneurship education drawing from Estonia's training for teachers mechanism.

Entrepreneurship education is somewhat better integrated in the vocational education system, which has undergone several reforms in recent years. In 2022, the Law on the Organisation and Integration of Vocational Training came into effect, the purpose of which was to establish a single and integrated system of vocational training in Spain. A key aspect of the Law is to establish a dual system of vocational training through which students receive training both at a vocational education college and at a company, with the latter “on-the-job” training components accounting for at least 35% of the total training time. This dual system will be fully implemented by the 2025-26 school year (European Commission, 2024<sup>[7]</sup>).

### Box 4.1. Entrepreneurship education in Estonia

#### Description

Entrepreneurship education has been deeply embedded in Estonia's school system since 1996, when it was added as a core theme in the national curriculum. This was further strengthened in 2011 with the addition of entrepreneurial competence as a key competence promoted by the national curriculum. In 2016, the Estonia Ministry of Education and Research launched the “Entrepreneurship and Career Education” programme, which aimed to give all school students the opportunity to experience entrepreneurship and to build entrepreneurial competencies. The ultimate goal is to develop entrepreneurial knowledge, skills, attitudes and values that can be applied not just in creating a business but in all aspects of life. The key focus areas for the programme include:

- Developing an entrepreneurial competence model and accompanying teaching materials.
- Designing and implementing entrepreneurship courses for school students.
- Supporting the launch of new startups.
- Raising awareness of success stories and rewarding best practices.
- Providing training to teachers and mentors.

The “Entrepreneurship and Career Education” programme has supported 46 projects in which schools worked with businesses in the delivery of entrepreneurship education, with an emphasis on practical applications. There is also a compulsory module on entrepreneurship within the initial vocational education programme for teachers. In addition, training courses of up to 11 days over a 6-month period are available to schoolteachers who wish to teach entrepreneurship. The trainings cover entrepreneurial competences, teamwork, project-based learning, and self-evaluation. Another important action of the Entrepreneurship and Career Education programme is the creation of an “Entrepreneurial Schools” label that recognises kindergartens and schools that support students in building entrepreneurial competencies. A book has also been published which shines a light on the enterprises created by Estonian students.

#### Success factors

As a result of the “Entrepreneurship and Career Education” programme and other related government initiatives, 71% of general education schools in Estonia were implementing entrepreneurship education as of 2021, while 25% had been awarded the “Entrepreneurial Schools” label. While entrepreneurial skills gaps remain a challenge for Estonia, it is noteworthy that the gap in perceived entrepreneurial skills between young people and older adults is significantly smaller in Estonia than in other European countries, suggesting that recent initiatives within the school system may be having an effect.

Key to Estonia's success in integrating entrepreneurship education within schools has been the combination of giving schools a mandate and responsibility to develop entrepreneurial competencies while also launching a range of actions to support schools and teachers in fulfilling this role. These actions, which include the provision of training and quality labels and the facilitation of partnerships with businesses, were contained within the umbrella of the "Entrepreneurship and Career Education" programme.

### Lessons for Spain

Spain can learn from Estonia's approach of embedding entrepreneurship within the national curriculum. One of the keys to emulating Estonia's success is to ensure that schools and teachers are provided with the tools and assistance needed to deliver impactful entrepreneurship. Training for teachers in the delivery of entrepreneurship education is of particular importance given that this is a fairly recent concept in the Spanish context.

Source: <https://www.educationestonia.org/innovation/entrepreneurship-education/> Best practice on boxes: see page 20 of the [OECD Style Guide](#).

Another important development is the establishment of a national network of vocational training centres of excellence in 2022. As of 2024, the network comprised 66 schools, which receive funding through Component 20 of the Recovery and Resilience Plan (RRP). These schools deliver teacher training and implement innovation and applied research projects, in close collaboration with local businesses, business associations and unions, as well as other schools and non-governmental organisations. The network thus serves to create environments for innovation and entrepreneurship across the country.

The Ministry of Education, Vocational Education and Sports' "Vocational Education Modernization Plan" was launched in 2023 with a budget of EUR 273 million, within component 20 of Spain's Recovery and Resilience Plan. One of the plan's three pillars is the "incorporation of digitization, innovation and entrepreneurship into the Vocational Education system". To implement the plan, the ministry has defined the following action areas: i. Evaluation and certification of the skills acquired through work experience and non-formal training routes; ii. Conversion of classrooms into applied technology spaces; iii. Entrepreneurship classrooms in Vocational Education; iv. Creation of bilingual training cycles for intermediate and advanced levels and specialisation courses.

The aim is to create 1 850 classrooms for entrepreneurship inside the vocational education system in Spain, which will provide physical spaces for prototyping and networking with partners and collaborators. Entrepreneurship promotion is therefore a key focus of the ongoing reforms to Spain's vocational education system. This will help to strengthen the pipeline of entrepreneurs and innovative startups and scaleups while also creating a wider cultural shift towards entrepreneurship in the longer term.

As a result of the reforms, vocational education providers are required to develop programmes on entrepreneurship and to establish linkages with the private sector. This means that vocational education and training is well integrated with Spain's entrepreneurial ecosystem in a way that is not always mirrored in the university sector, where some gaps with the business community persist.

## Policy mapping

**Table 4.1. Culture policies**

Institution(s)	Policy name	Description	Objectives	Target group(s)
ENISA	Spain Up Nation	Spain Up Nation is a brand for Spain's entrepreneurial ecosystem. It also refers to the collective actions of public entities involved in the promotion of the entrepreneurial ecosystem. Spain Up Nation held the first edition of its Top 101 Awards in Córdoba 2024.	To create a national brand for entrepreneurship in Spain. To promote Spain's entrepreneurial ecosystem globally. To highlight the role of the public administration as a source of support for entrepreneurs.	Entrepreneurial ecosystem actors. General public.
Spanish Startup Association (with funding from the EU, the Ministry of Industry and Tourism and the EOI Business School)	Women Startups Awards	Issues awards to women entrepreneurs across four categories (early stage, scale up, divulgation, ideation). The awards are presented at a high-profile event that receives high media attention and social media engagement.	To promote and highlight women entrepreneurs.	Women entrepreneurs. General public.
Spanish Startup Association (with funding from the EU, the Ministry of Industry and Tourism and the EOI Business School)	Rural Startups Awards	Issues awards to startups that promote the transformation of rural areas. Awards are in three categories (agrotech, rural tourism, and sustainability) and provide publicity and visibility to participating companies through an event that receives media coverage.	To highlight rural leaders and connect with all representatives of the entrepreneurial ecosystem	Entrepreneurs from rural areas. General public.
ENISA (in partnership with Kfund, Wayra, SpainCap, Endeavor, GoHub Ventures, BBVA Spark)	Publication of "Spain Ecosystem Report"	The annual reports use Dealroom data to track the performance of Spain's entrepreneurial ecosystem and benchmark it against other countries.	To boost awareness of the performance and contribution of Spanish startups and scaleups.	Entrepreneurial ecosystem actors. General public.
Ministry of Education, Vocational Education and Sports	Vocational Education Modernization Plan	The plan has three pillars: i). Recognition and accreditation of professional skills, ii). Improvement of accessibility to vocational education and professional guidance services, and iii). Incorporation of digitization, innovation and entrepreneurship into the vocational education system. One of the plan's aims is to create 1 850 classrooms for entrepreneurship inside the vocational education system in Spain. These	To create an ecosystem of economic relaunch from a commitment to human capital and talent. To guarantee professional training and qualification for the entire population, from students of the vocational education system to the labour force.	Vocational education students

			will provide physical spaces for prototyping and for networking.		
EOI	Escuela de Organización Industrial	Programme to Boost the Innovative Entrepreneurial Ecosystem	Annual call for grants for events that promote an entrepreneurial culture. This programme includes activities in all regions and focuses on industrial entrepreneurship and rural entrepreneurship.	Strengthen the entrepreneurial ecosystem's culture and connections	Education institutions, accelerators, local agencies and other organisations who can organise entrepreneurship events

## Conclusions and recommendations

Culture has historically represented a bottleneck for Spain's entrepreneurial ecosystem. Data and stakeholder observations both point to risk aversion and limited celebration of successful entrepreneurs within parts of society. This weighs on the number of talented and skilled individuals taking the decision to create a business. It also hampers the development of promising startups further down the pipeline, due, for example, to a limited appetite for corporates and public entities to act as first customers for innovative products or technologies from startups.

Spanish culture is however undergoing a progressive shift towards embracing entrepreneurs and entrepreneurship more positively. This is driven in part by major policy initiatives such as the Startup Law as well as a large number of high-profile events and awards that raise the profile of Spanish entrepreneurs and their contribution to society. As the Spanish and European policy agenda increases its focus on generating and retaining home-grown and high-impact scaleup companies in high technology sectors, there is strong potential for Spanish attitudes towards entrepreneurship to continue to evolve positively in the medium term.

Entrepreneurship education in schools and universities needs to be ramped up in order to continue this momentum. While progress has been made in the last 10-15 years, the amount and quality of initiatives to stoke interest in entrepreneurship and develop entrepreneurship skills lag behind that of other countries. Achieving consistent quality standards and similar educational curricula across regions is not obvious, since it requires aligning programmes across schools and universities which retain relative autonomy in different parts of the country. Valuable insights could be drawn from the recent reforms to the vocational education system being led by the Ministry of Education, Vocational Education and Sports, as well as from policy approaches in other countries.

Culture is perhaps the element of an entrepreneurial ecosystems where public actors have the least scope to affect change in the short term. This is because the policy levers for influencing culture are generally indirect and have a considerable time lag between intervention and outcomes. There are however policy actions that can encourage the development of a culture that is more conducive to entrepreneurship in the medium to long term. In this respect it is recommended that the Spanish government:

- Introduce campaigns to promote entrepreneurship to the Spanish population under the "Spain Up Nation" brand and tailor communication to a more mainstream audience that extends beyond the narrow ecosystem boundaries.
- Create an "entrepreneurial schools" label for schools and universities that meet certain standards with respect to entrepreneurship promotion, in partnership with the "Spain Up Nation" brand. Issue "Spain Up Nation" awards for standout schools and universities that demonstrate excellence in entrepreneurship promotion.
- Provide training for teachers in teaching entrepreneurship in schools, vocational training institutions and universities.

- Embed a module on entrepreneurship education in tertiary, vocational and secondary education and make pedagogy more practical.

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# 5 Networks

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This chapter analyses the network system supporting the development of entrepreneurial ventures in Spain. It constitutes the third of the ten elements of the entrepreneurial ecosystem framework used to assess the country's ecosystem. The chapter identifies strengths and areas for improvement, presents an international example, reviews recent policy developments, and offers recommendations for further progress.

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## What's the issue?

The growth of startups depends on access to key factors such as capital, clients, suppliers, product development and other services. Entrepreneurs must rely on their personal and professional networks and contacts to access resources and information that they find difficult to produce internally (Durda and Ključnikov, 2019<sup>[1]</sup>; Aldrich and Zimmer, 1986<sup>[2]</sup>; Kotha and George, 2012<sup>[3]</sup>). For example, to obtain capital, entrepreneurs need links with investors (Hoang and Yi, 2015<sup>[4]</sup>), to develop their innovative products and technologies, they may collaborate with research institutions (Pettersen and Tobiassen, 2012<sup>[5]</sup>), and they need to develop a network of potential customers and suppliers both in domestic and overseas markets. Indeed, networks are crucial for the early internationalisation of born-global firms (Andersson, 2003<sup>[6]</sup>).

The size and quality of a startup's network often depends on the depth of personal relationships of the entrepreneur behind the venture (Lechner and Dowling, 2003<sup>[7]</sup>). However, establishing contacts and collaborations can be easier in some ecosystems than in others. These differences are driven by a large number of factors including the prevalence of co-ordinating entities such as cluster organisations and incubators that act as entrepreneurial ecosystem connectors, the existence of networking events that convene ecosystem actors, and the overall openness to collaboration among ecosystem actors (Galkina and Kock, 2011<sup>[8]</sup>). This section provides an assessment of the conditions and policies for networking within Spain's entrepreneurial ecosystem and proposes a series of recommendations for policy action to address identified gaps and bottlenecks.

## Assessment

### ***Entrepreneurial networks are growing***

Successful entrepreneurial networks are characterised by interdependencies and linkages that weave an entrepreneurial ecosystem together, developing synergies and complementarities that mutually reinforce participating actors. One of the relevant measures is the extent to which firms collaborate with other firms, universities and other stakeholders to innovate, conduct research, and develop value chains.

About 7% of Spanish SMEs report having ongoing co-operation agreements on innovation activities with other firms, according to the European Commission's European Innovation Scoreboard, below some other leading entrepreneurial ecosystems. The same source data show that collaboration between firms and universities on R&D is relatively low.

Another measure of collaboration is co-patenting. On this aspect Spain performs slightly above the European OECD average. Over 60% of patents in Spain are produced by at least two inventors from the same country, although the co-inventors may work in the same institution. In addition, according to CDTI, many Spanish firms act in a collaborative way in the context of the EU-funded Framework Programme for R&D projects.

The government has introduced policies to improve collaborations over the past 5 years, including a new initiative that has created over 280 open data initiatives across national and regional governments, and there are signs that firm innovation collaborations are developing, at least among the top end of the business population.

### ***Spain is a hub for entrepreneurship events and communities***

There is a substantial number of private and public entrepreneurship networking events and communities that aim at connecting stakeholders. Some of the main high-profile events convening Spain's entrepreneurial ecosystem each year include:

- South Summit:** This is a 3-day conference held annually in Madrid. In the 2024 iteration, the event attracted approximately 18 000 people, including more than 2 000 investors. The event is centred around a startup competition that brings in 100 finalists selected from approximately 4 500 applicants from around the world. The core objective of South Summit is to foster networking and connections between businesses. This means remaining at a size that is optimal for creating meaningful and value-adding connections between participants. South Summit's team of 34 staff is highly proactive in curating meetings and interactions between participants at the event, identifying their unique needs and making relevant connections to possible partners. A major part of South Summit's work is matchmaking between startups and large corporations. It does this by preparing curated lists of relevant startups that their partner corporations might be interested in meeting with. South Summit then schedules meetings between the corporates and the startups with a defined agenda. South Summit currently has approximately 200 corporate partnerships, with a mix of Spanish companies and companies from other countries. South Summit is delivered in partnership with public actors, including the central government, the Madrid community government and Madrid City Hall. These public entities provide in-kind contributions, most importantly access to venues for the events. Relevant government entities also participate actively in the events at South Summit. However, South Summit does not receive any direct funding from the government, in contrast to similar events in other countries such as Web Summit in Lisbon and Viva Tech in France.
- BankInter Innovation Foundation's Scaleup Spain Network:** The Scaleup Spain Network is operated by BankInter in partnership with Wayra and Endeavour. The initiative selects 15 chief executive officers (CEOs) of startups every year and connects them with experts, investors, and experienced entrepreneurs who have already had success in scaling. The admitted startups participate in an approximately 6-month support programme incorporating training and networking initiatives, after which they remain part of the Scaleup Spain Network. The aim is to help the participating companies to scale and mature and to create a collaborative network among founders to facilitate peer learning and exchange. The initiative targets companies at a more advanced stage of development. Indeed, the requirements for participation are having had either revenue above USD 1 million in the previous year or having raised more than USD 1 million in the last funding round. Participants are also required to have had a minimum annual growth rate of 60%.
- Endeavour Spain:** Endeavour Spain seeks to mobilise the country's entrepreneurial ecosystem through several channels. It firstly works to stimulate networking among entrepreneurs through the organisation of retreats and other events to build a community where there are opportunities for beneficial exchanges and learning. This is particularly important given that Spain is a multi-polar ecosystem relative to other countries, meaning that deliberate efforts are needed to connect actors in the different regional ecosystems. Endeavour also connects entrepreneurs with mentors, who can be more experienced entrepreneurs as well as other industry or business experts. In addition, Endeavour has an investor network comprising national and international investors that relate to Spanish entrepreneurs through roadshow events and other initiatives. An example is an event held in October 2024 that brought 100 investors from outside of Spain to meet with Spanish entrepreneurs.
- Mobile World Congress in Barcelona:** This is a longstanding annual event with tens of thousands of participants from startups, corporates, investors, and governments from across the world. Startups have opportunities to demonstrate their products and innovations to potential investors during the 4-day event. There are also numerous roundtables, talks and networking opportunities that startups can benefit from throughout the event. The Mobile World Congress is supported by a large number of private sponsors as well as the Government of Catalonia.
- Valencia Digital Summit:** Since 2018, this annual event has brought together startups, international companies and investors in order to facilitate connections between these different actors. The 2025 edition is expected to convene more than 3 000 startups and 800 investors, with

a total of 12 000 participants from more than 120 countries. The event is run by Startup Valencia with financial support from the European Union and Spanish government.

- **Digital Enterprise Show in Malaga:** This 3-day event includes conferences, an exhibition space for innovative technologies, and networking opportunities for entrepreneurs, corporates and a range of other actors from the private and public sectors. The event has been running since 2016 and focuses on the digital economy and transformation. It is supported by a range of public entities at the local, national and European level.
- **Adigital / Estech Scalability Day:** This annual event convenes entrepreneurs, investors and representatives from public entities to discuss and promote tech scaleups in Spain. The 2024 edition had sessions on the impact of scaleups in Spain, the role of technology in economic development and competitiveness, and strategies for supporting scaleups.

Despite this impressive array of networking events for Spanish startups and scaleups, several stakeholders consider that there is still a step to take to convert networking at events into systematic collaborations among firms. Most events, except perhaps South Summit, tend to be focused on inspiring people and enabling people exchanges while business matchmaking is limited. There is an opportunity for the organisers to take a more proactive role in setting up match-making activities aimed at creating real, long-standing collaborations.

This requires the important and resource-intensive task of curating matchmaking activities to partner startups and scaleups with potential investors, corporates, suppliers or customers that are relevant to their needs and circumstances. Although private entities such as Adigital, Spaincap, South Summit and Endeavour are doing a good job in this activity, their reach is currently limited compared with the total number of startups in Spain.

A further challenge for developing meaningful collaborations between startups and scaleups and other stakeholders is the lack of connectedness among Spain's regional entrepreneurial ecosystems. Entrepreneurial activity in Spain is very multi-polar, with activity spread across the hubs of Madrid and Barcelona and other smaller regional ecosystems. While this diversity is positive, it does create a co-ordination challenge owing to the lack of a singular focal point, which can result in silos forming at the regional level. With respect to university-business collaboration, this is reported to be improving, though the high degree of autonomy that universities in different parts of the country have means that it can be challenging to implement nationwide initiatives to promote knowledge transfer and commercialisation activities.

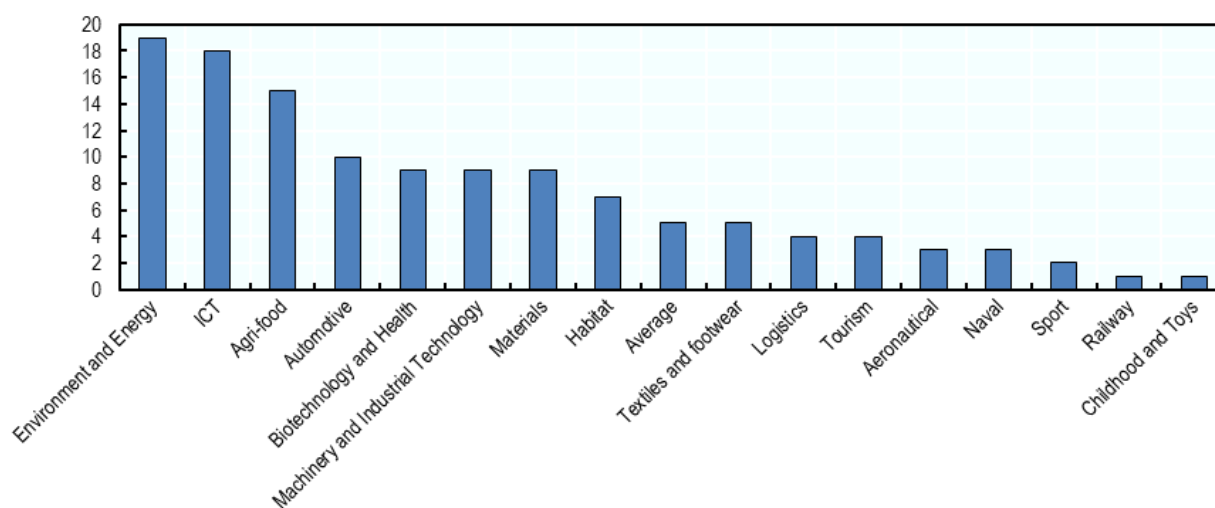
A promising approach to building cross-regional networks would be to establish facilitators in each region to connect entrepreneurs from the region to opportunities in other regions and, when a good match is found, foster deeper engagement. Incubators and innovation centres could be well placed to serve this function, and there is a wide-reaching network in Spain that can expand their efforts in this area. For instance, there are 25 Business Innovation Centres (BICs) within ANCES (the national association of BICs), with at least one BIC in every region. They, to some extent, plug entrepreneurs from their region into Spain's national entrepreneurial ecosystem, for example by bringing their client startups to major events like South Summit. Incubators also try to link startups to corporates as service suppliers and to create structures to connect startups to investors. However, these initiatives are ad-hoc and non-systematic and often rely on the proactiveness, knowledge and connectedness of individual incubator managers, who have the potential to play a pivotal role in facilitating networking within the entrepreneurial ecosystem. Moreover, incubators could do more to ensure that networking events provide a chance to establish meaningful and mutually beneficial commercial partnerships as opposed to more fleeting connections.

## Policy can help build business collaborations across stakeholders

In addition to initiatives by private entities, several public agencies in Spain serve an important networking function within Spain's entrepreneurial ecosystem. For example, ICEX Spain Trade and Investment operates an investors network and is actively engaged in connecting investors or foreign corporates with startups that can meet their needs. Meanwhile, ENISA works to connect resource providers and ecosystem actors from more well-established regional ecosystems such as Madrid and Barcelona with parts of the country where the entrepreneurial ecosystem is less advanced or complete. Further, the Support for Innovative Business Groups (AEI) programme aims to strengthen collaboration within entrepreneurial ecosystems, encouraging knowledge-sharing and innovation among businesses.

Spain also has a well-established system of cluster organisations which play an important role in co-ordinating entrepreneurial ecosystems and facilitating networking at the sectoral level. This has been facilitated by the longstanding cluster policy which is operated by the Ministry for Industry and Tourism and has been in place since 2006. Through this policy, the Ministry provides grants to entities in its registry of "Innovative Business Groups". These cluster organisations provide a range of networking supports to their members, including by facilitating co-operative research and development projects, establishing linkages with clusters in other sectors and countries, and organising networking events to foster mutually beneficial connections and exchanges. Although Catalonia (with 24 clusters) and Madrid (13 clusters) account for 30% of Spain's Innovative Business Clusters, there is a relatively good spread of clusters across the country. The environment and energy sector features the highest number of clusters (19), followed by ICT (18) and agri-food (15), as shown in Figure 5.1 below.

**Figure 5.1. Innovative business clusters, by sector**



Note: The vertical axis represents the number of business clusters of companies appearing in Spain registry of "Innovative Business Groups".  
 Source: Ministerio de industria y turismo - Agrupación Empresarial Innovadora (<https://clusters.ipyme.org/es-es/Identificar/Paginas/Estadisticas.aspx>)

In recent years, the national cluster programme has focused increasingly on supporting innovation projects, fostering co-operation between companies, and enabling their participation in innovation and internationalisation programmes of other entities at the national and European level. This has been achieved by introducing new requirements for being part of the Registry of Innovative Business Groups to channel funding towards clusters with proven innovation potential and a sufficient size to deliver impact. Specifically, clusters are required to submit applications with documentation proving they meet requirements surrounding their representativeness, the number of companies they reach, their connections

with research and training organisations, the adequacy of their organisational and co-ordination structures, their financial viability, their innovative potential, and their capacity for international outreach. As of 2021, 13 757 companies were part of one of the 124 registered Innovative Business Groups, of which 11 063 were SMEs. EUR 110.6 million in funding was provided to entities in the registry through the programme between 2007 and 2021, with the largest category of funding being “innovation activities in co-operation”, highlighting again the programme’s emphasis on networking and collaboration.

Another initiative that aimed to mobilise Spanish firms’ resources and access to European funding is the IDI Network. Under the responsibility of the Ministry of Science, Innovation and Universities, the Network plays an important role in multi-level strategic co-ordination between the Autonomous Communities and the General State Administration in research and innovation. The Network is a strategic governance tool for co-ordinating the actors in the Spanish Science, Technology and Innovation System, avoiding duplication and improving access to European funding, strengthening the link between scientific policy and the innovative business fabric. Spain’s CDTI is also contributing to the initiative by co-financing the activities of the IDI Network and by designing public policies that support research, development and innovation.

Beyond its participation to the IDI Network, CDTI is also active in the State Programme for Catalysing Innovation and Business Leadership, part of the State Sub-programme for Public-Private Collaboration. CDTI offers grants for open collaboration projects between stakeholders at different territorial levels, with the aim of promoting technological development and innovation. With a budget of about EUR 3 million, the grants are dedicated to knowledge transfer through the Cervera Networks of Excellence.

A further public initiative with potential to strengthen networks in Spain’s entrepreneurial ecosystem is the National Entrepreneurship Office (ONE), which is a digital platform established through the Startup Law and launched in February 2024. It is managed by Red.es under the Ministry for Digital Transformation and Civil Service. The ONE platform aims to become a common meeting point for Spain’s whole entrepreneurial ecosystem, and therefore targets not only entrepreneurs but also investors, corporations and professionals both from Spain and overseas. As of early 2025 there were 8 000 registered users of the platform, capturing a sizeable share of the entrepreneurial ecosystem players. It currently serves primarily as an information portal with information on laws and procedures of relevance to startups and scaleups. However, further features and functionalities are planned for the ONE platform. One of the goals is to create a dynamic platform in which there is spontaneous interaction among users.

On top of these existing initiatives, there are some areas of untapped potential with respect to facilitating more and better networking for Spain’s startups and scaleups. For example, Red.es is considering adding a matchmaking tool to the ONE platform, as well as a function for users to exchange messages with one another. With these new functionalities, the ONE platform could become a connection point for entrepreneurial ecosystem actors. However, this might still not be enough. A more proactive role could be taken to facilitate relevant connections between parties when concrete commercial opportunities arise, by readily suggesting links among startups and scaleups, investors, corporates and researchers and by organising bilateral online business meetings.

Similarly, there is scope to build more of a network around the startups being certified by ENISA under the Startup Law, with a clear co-ordinating entity that organises networking initiatives. More broadly, while public entities such as ENISA and ICEX do facilitate networking and matchmaking in an effective manner, it would be beneficial to formalise these initiatives and recognise the networking mandate of these organisations to ensure that networking efforts are suitably resourced and prioritised.

The Startup Forum established by the Startup Law can play an important role in bringing stakeholders together, identifying evolving challenges and bottlenecks and connecting regional ecosystems with national policies. However, it currently does not carry a mandate to introduce initiatives to translate networking opportunities into structured, deep collaborations, or building stronger linkages between academia and industries.

### ***Large corporates can collaborate more and better integrate startups***

Some large corporations in Spain are active in open innovation and supporting Spanish startups and scaleups. An example is Telefonica, whose venture capital arm and open innovation platform “Wayra” is a very active player in Spain’s entrepreneurial ecosystem.

However, this approach remains the exception rather than the rule. In some cases, corporates can run mentoring programmes for startups, yet collaboration between startups and corporates as a whole remains underdeveloped in Spain. Large companies often have rigid procurement processes that are bureaucratically complex and a preference for working with traditional suppliers, which creates barriers for startups.

Spain’s entrepreneurial ecosystem would benefit greatly from more open innovation initiatives by large corporates, in particular by acting as first customers and providing opportunities to pilot and eventually commercialise their innovative products or services. More could be done to raise awareness of collaboration opportunities between corporates and startups. There is also a need to be proactive in establishing partnerships between corporates with innovation needs and specific startups with the potential to address these needs. The case of Ignite in Sweden provides a potential learning model for Spain (Box 5.1).

### ***Data spaces are a promising area for developing networks***

Spain is making progress in the area of open data, which refers to the availability of information collected, produced or paid for by public entities. Spain ranked sixth in the European Union for open data maturity in 2024, which represents a strength for the country’s ecosystem. The government is also taking significant steps to increase the availability and usage of data from private sources through its major efforts in the area of data spaces (Noardo et al., 2024<sup>[9]</sup>). These are enabling data infrastructures that can increase productivity and competitiveness in the economy by allowing companies to voluntarily and securely share data with other participants.

The General Directorate for Data has recently been established within the Spanish Ministry for Digital Transformation and Civil Service and is currently rolling out an EU-funded, EUR 500 million plan to promote sectoral data spaces across Spain. The aim is to develop 150 additional data spaces through the initiative. The sectors targeted are health, agri-food, sustainable mobility, trade, industry, social economy, and care.

The possibility of accessing, contributing to and sharing business-relevant data can help forge stronger business collaborations and develop value chains around data. As this policy area evolves, Spain’s role as a frontrunner is likely to spur the growth of deeper, data-enabled networks.

#### **Box 5.1. Ignite Sweden**

##### **Description**

Ignite Sweden was established in 2017 as a non-profit organisation aiming to connect startups to large companies and public entities. It is part-funded by Vinnova, the national innovation agency. This role is performed by undertaking tailored matchmaking to identify mutually-beneficial connections and facilitating first meetings between the relevant parties. The matchmaking process begins with an “activation” stage, where Ignite works with a corporate entity to establish whether they have a mandate and budget to collaborate with startups, to identify pain points that a collaboration could help to address, and to identify which individuals from the organisation would be best placed to meet with the startups. An inventory of business pain points is then developed, which is used by Ignite to develop a shortlist of startups that could potentially provide a solution. The corporates then attend a half-day matchmaking

session where they hold seven, 20-minute meetings with selected startups. The goal of the meetings is to determine the compatibility of the two parties and whether a second, more technical meeting would be of benefit. Ignite Sweden also provides support to startups before and after this first meeting to maximise the possibilities of the exchange yielding benefits for both parties. This includes the provision of training, coaching and resources to help startups to prepare for the meeting as well as legal advice on issues such as patents and proof of concept agreements.

Where the first meetings are successful, a pilot project can be launched where the startup's technology is tested in a production or real customer environment. A requirement for the pilots is that startups receive payment for their time and technology, with budgets typically ranging from EUR 15 000 to EUR 25 000. After the pilot, there is an evaluation phase where the success of the pilot is assessed and a decision is made on whether to change, scale up or end the collaboration. Since 2017, 7 968 meetings have been organised in this way, involving 1 793 startups, 372 corporates, and 48 public organisations. These meetings have resulted in 715 commercial collaborations.

### Success factors

Key to the success of the Ignite Sweden initiative is the creation of a compelling value proposition for both the startups and their potential customers, be they large corporates or public entities. This is achieved by Ignite's efforts to organise meetings only where there is a real and tangible opportunity for a business collaboration, based on the proactive identification of businesses' pain points and startups with potential solutions. The preparatory training and post-meeting support that Ignite offers the startups also increases the chances that the meeting will be useful and productive from the point of view of the corporate partner. Meanwhile, Ignite's approach of vetting corporate partners to ensure they have a mandate and budget for a commercial collaboration helps to attract more startups to the programme.

### Lessons for Spain

Getting Spanish corporates to engage with Spanish startups is a longstanding challenge in Spain, with corporates' risk aversion often cited as a barrier to collaborations. While there are opportunities for startups and corporates to network in Spain through the various high-profile events convened by entrepreneurial ecosystem actors, a proactive and deliberate approach is needed to connect specific startups and corporates for which there is a genuine opportunity for commercial collaboration. Private organisations such as South Summit already play an important role in establishing these types of opportunities, but the ecosystem would benefit from public support to scale up such activities.

Source: <https://www.ignitesweden.org/>.

## Policy mapping

Table 5.1. Networks policies

Institution(s)	Policy name	Description	Objectives	Target group(s)
Ministry for Industry and Tourism	Support Programme for Innovative Business Groups	Grants are provided to entities on the Ministry for Industry and Tourism's Registry of Innovative Business Groups. To be admitted to the registry, entities must demonstrate their representativeness, the number of companies they reach, their	To promote excellence among innovative business groups by concentrating funding on innovation projects, fostering co-operation between companies, and facilitating their participation in innovation and internationalisation	Innovative Business Groups.

		connections with research and training organisations, the adequacy of their organisational and co-ordination structures, their financial viability, their innovative potential, and their capacity for international outreach.	programmes of other national and European organisations.	
Ministry for Digital Transformation and Civil Service	Plan for the Promotion of Sectorial Data Spaces	The plan will allocate EUR 287 million in grants for the creation and maintenance of data spaces, the development of use cases, and the reduction of costs for participating companies. EUR 44 million in grants will be provided to the technology industry to adapt their digital products and services to the needs of data spaces, and a budget of EUR 169 million is available to fund enabling projects that accelerate the deployment of data spaces and stimulate companies to actively share their data. These projects will include the formation of a network of common infrastructures and data space demonstrators and a National Reference Center for data spaces.	To foster innovation and improve competitiveness and added value in all economic sectors, promoting the deployment of data spaces where data can be securely shared.	Companies establishing or participating in data spaces.
ICEX Spain Trade and Investment	Investors Network	The Investors Network is a free service that facilitates contact between Spanish companies seeking capital and foreign investors. This is underpinned by ICEX's network of more than 100 offices abroad, which enable the identification of potential investors and serve as a point of contact for foreign investors in search of investment opportunities in Spain or a Spanish co-investment partner.	To connect international investors with the Spanish business ecosystem.	Start-ups looking for investors. Spanish companies in the process of capital expansion or that are modifying their shareholders. Spanish investors in search of foreign co-investors
Ministry for Industry and Tourism	ACTIVA Startup	Supports collaboration between emerging companies/startups and consolidated companies in 12 selected networks through establishing connections, advisory actions, actions aimed at acquiring new knowledge and skills need to develop new products, processes,	Boost innovation and growth of new generation companies, through the development of collaborative environments and boosting their digitisation.	Startups with digital potential and innovative corporates

		or services, actions to boost demonstration, adaptation, and customisation of various technologies; testing and experimentation with digital technologies; knowledge and technology transfer; validation tests; proof of concept; prototype production.		
Ministry of Science, Innovation and Universities (and CDTI)	IDI Networks	Strategic co-ordination and governance tool to connect Autonomous Communities and the General State Administration in research and innovation and support Spanish stakeholders access European funding. CDTI co-finances the IDI Network and contributes to designing public research development and innovation policies.	Mobilise national resources, avoid duplications and support access to European funds for research development and innovation.	Stakeholders in the Spanish science, technology and innovation system
CDTI	State Programme for Catalysing Innovation and Business Leadership	Grants for open collaboration at different territorial levels, with the aim of promoting technological development and innovation. These grants are dedicated to knowledge transfer through the Cervera Networks of Excellence and contribute to the PERTE Aerospace project. The estimated budget is about EUR 3 million.	To promote technological development and innovation	Innovators at different territorial levels in specific industries
CDTI	Public aid for co-operative R&D business projects	Support to R&D at national and international level. At the national level, the initiative supports innovation collaboration agreements of consortia of two-to-six companies. At the international level, in the European context, the initiative supports the participation of Spanish companies in initiatives such as Important Projects of Common European Interest (IPCEI), the Innovative Health Initiative (IHI) and Horizon Europe partnerships as well as in the EUREKA programme. Moreover, beyond the European context, CDTI supports	Boost collaboration in innovation across companies in other countries	Innovative Spanish companies

		participation of Spanish companies in business and technology co-operation in Latin America (IBEROEKA) and the Mediterranean area (PRIMA). These activities can take place through, foreign agencies or projects certified by the CDTI.		
Red.es	National Entrepreneurship Office (ONE)	The creation of the National Entrepreneurship Office (ONE) is one of the measures in the Startup Law. The ONE platform is a website with a range of features for different actors in Spain's entrepreneurial ecosystem that promote collaboration and encourage entrepreneurship. The website serves as a meeting point for entrepreneurial ecosystem actors and had more than 8 000 registered users as of early 2025.	To become the virtual meeting point and collaboration hub for all stakeholders involved in entrepreneurship in Spain.	Entrepreneurial ecosystem actors.

## Conclusions and recommendations

Spain's federal structure and multi-polar entrepreneurial ecosystem can make it more challenging for entrepreneurs to grow their networks than might be the case in a context where there are fewer regional divides and a clearer focal point for the entrepreneurial ecosystem. Given this, the many high-profile events that take place in Spain each year to convene entrepreneurs, investors, corporates, public entities and other ecosystem actors, both at the national and international level, play a key role in facilitating connections and generating a more cohesive entrepreneurial ecosystem overall.

Spain also benefits from a good network of cluster organisations and business incubators that cover all parts of the country, boosted by the government's longstanding support programme for innovative business clusters as well as funding for business incubators and business innovation centres provided by national and regional public entities. These organisations are important facilitators of networking, providing an important source of matchmaking opportunities and connections for Spanish startups and scaleups. Public entities such as ENISA, Red.es, and ICEX Spain Trade and Investment also play an important role in supporting networks within Spain's entrepreneurial ecosystem, though more could be done to better resource and formalise these activities.

A key challenge for networking is to stimulate substantive and meaningful collaborations and relationships that deliver concrete benefits to all parties, as opposed to shallow or less tailored introductions that are unlikely to be followed up. South Summit provides a good illustration of this approach in action through its facilitation of highly curated matchmaking between startups and large corporates based on the identified needs of the corporates and the competencies of the startups. Such matchmaking activities require substantial resources and expertise and are currently carried out mainly by private entities at a relatively small scale.

The following policy actions are recommended to improve the networking element of Spain's entrepreneurial ecosystem:

- Launch a public matchmaking programme that provides tailored introductions between Spanish startups and large corporates operating in Spain, based on identified needs and competencies, with a clear process for progressing to a pilot project where there is a suitable fit.
- Publish information on Spanish startups and ecosystem actors (including large corporates, investors, researchers, startup support providers, mentors, and public entities) on the ONE platform and introduce online matchmaking functions.
- Organise events and establish a platform for companies certified under the Startup Law to share relevant resources, contacts or experiences, discuss shared challenges, and explore potential collaborations.
- Assign mandates and provide resources to chosen incubators, business innovation centres, or innovative business clusters to create and manage specialised ecosystem networks in selected sectors.

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# 6 Infrastructure

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This chapter examines Spain's transport, telecommunications, and energy infrastructure as a critical enabler of entrepreneurial activities. It constitutes the fourth of the ten elements of the entrepreneurial ecosystem framework used to assess the country's ecosystem. The chapter identifies strengths and areas for improvement, presents an international example for inspiration, reviews recent policy developments, and offers recommendations for further progress in the infrastructure domain.

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## What's the issue?

Infrastructure (both physical and digital) is a foundational enabler of productive entrepreneurship. Reliable transport systems (roads, railways, airports, ports) facilitate access to markets, suppliers, and customers, while digital infrastructure (broadband, mobile networks, cloud services) allows start-ups to engage in e-commerce, access global talent, and integrate into digital value chains (Revoltella et al., 2016<sup>[1]</sup>). As set out in (OECD, 2023<sup>[2]</sup>), such connectivity reduces transaction costs, accelerates time-to-market, and increases competitiveness. Similarly, (Isenberg, 2010<sup>[3]</sup>) and (UNDP, 2025<sup>[4]</sup>) emphasise that well-developed infrastructure enables knowledge exchange and collaboration across innovation ecosystems, promoting the growth of high-potential firms. In this context, energy, water, and waste infrastructure are also critical, as they directly affect operational costs and sustainability – factors that are particularly important for manufacturing and science-based start-ups (Delorme and Haigh, 2021<sup>[5]</sup>).

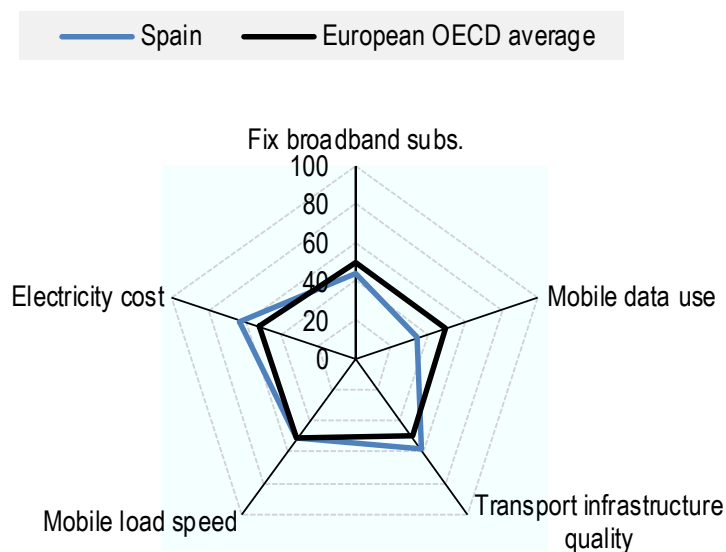
At the same time, infrastructure plays a crucial role in shaping the inclusiveness and resilience of entrepreneurial ecosystems (Audretsch, Heger and Veith, 2015<sup>[6]</sup>). Gaps in digital or transport access – especially in rural or peripheral regions – can create barriers to entry and reinforce territorial inequality (OECD, 2022<sup>[7]</sup>). Conversely, targeted infrastructure investments can support the diffusion of innovation and entrepreneurship beyond core urban centres (Marshallian, Chan and Bournisien de Valmont, 2023<sup>[8]</sup>). For startups seeking to scale, robust infrastructure enhances their capacity to enter new markets and withstand external shocks.

## Assessment

### *Spain has strong infrastructure*

Overall, Spain's infrastructure quality is very good overall, high performance relative to the other European OECD countries on the quality of transport infrastructure and the cost of electricity. Other aspects of this element are essentially in line with other European OECD countries (Figure 6.1).

**Figure 6.1. Components of the infrastructure element**



Note: Data are presented as normalised scores obtained by applying min-max transformations to the raw values, where the max/min are equal to the sample mean  $\pm$  2\*sample standards deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period.

### ***Spanish transport infrastructure capabilities are good***

Good transport and digital infrastructure are necessary for startups to exchange goods, services, and ideas. In addition, many startups are based on a digital business model or provide a digital service, and thus require strong ICT infrastructure. Overall, Spain's infrastructure quality is in line with other European OECD countries.

Spain features a high-quality transport infrastructure, even within the already well-developed European OECD context. Other indicators of infrastructure quality confirm Spain's strong performance on this aspect. For example, business perceptions data on the quality of roads from the World Economic Forum show that Spain's business managers rate the quality of the road network in their country more positively than business managers in other leading European countries such as Sweden or the United Kingdom. Stakeholders interviewed for this study confirm the positive picture drawn by data and do not consider transport infrastructure as a barrier to entrepreneurship. Recent reviews of Spain's economy also underline robust infrastructure (European Commission, 2024<sup>[9]</sup>) as a strong point of Spanish competitiveness.

According to Eurostat, Spain is the second largest European Union country by area (after France), with a relatively high population share living in an urban cluster (82.9%), but also some of the most sparsely populated areas in the EU in the interior of Spain. Hence, transportation, mobility and digital connectivity are critical for entrepreneurs seeking to develop and grow within the national market and then internationally.

Transportation networks in Spain are well developed with one of the most significant high-speed rail networks in the EU, a dense network of international and regional airports, including six of the top 30 airports in the EU by passenger numbers in 2023, and a well-developed motorway network.

Public transport in the main urban centres is also generally well-functioning with significant investment over recent decades in suburban rail, tram, metro and bus lines. Transport networks have historically been centred on Madrid with links to regional centres but other international hubs (e.g. Barcelona and Malaga for air transport) are developing and direct long-distance high speed train routes have begun to develop between major cities (e.g. Barcelona to Sevilla) without the need for stopovers in Madrid. Significant investments are being made through the Recovery and Resilience Plan (RRP), ERDF, and national and regional strategies. These include initiatives for green transport (such as the Sustainable Mobility Law and the railway infrastructure strategy), the roll-out of electric vehicle charging networks, and improvements to short-distance rail stations.

Despite this positive outlook, Spain needs to pay attention to emerging trends that might indirectly affect startup entrepreneurs. The EU strategy aims to double rail freight traffic by 2050 and increase transport by inland waterways and short sea shipping by 25% by 2030. Spain's rail freight accounts for approximately 4% of total freight transport, which is significantly below the EU's average and targets and might require further investments. In addition, more should be done to make personal transport (car use, air transport) more sustainable and less intensive to reduce traffic congestion and air quality issues in the major metropolitan areas which could harm entrepreneurship by increasing health and economic costs (European Commission, 2024<sup>[9]</sup>)

### ***Digital data and technology access should be reinforced***

Spain's digital infrastructure (fixed broadband) quality is in line with the European OECD average, while Spain is still finalising its catch-up process with more highly digital ecosystems on mobile data use (expressed in Gigabytes per subscription/month). In terms of the average speed of internet connection, which captures average hardware capacity at country level, Spain's average mobile page speed is exactly in the middle of the distribution of European countries for which this indicator is available. The average download speed for one page is between 7.5 and 9.5 seconds across all European OECD countries, and

8.14 seconds in Spain. However, as technology proceeds at a fast pace in this domain, it is important to constantly update both the hardware capacity and the use of the new software, equipment and network provider capabilities.

Overall, the interviewed stakeholders also consider digital infrastructure (e.g. broadband availability and mobile network coverage) as satisfactory, and broadband services sufficient, especially in urban hubs, and other evidence puts Spain as one of best EU performers on digital connectivity as measured by very high-capacity networks (European Commission, 2024<sup>[9]</sup>). Nearly 95% of households and businesses are covered by fibre-optic fixed broadband and gigabit-speed networks, while 5G coverage reaches approximately 96% of the population, including a rapidly growing share of rural areas (Ministry for Digital Transformation and Public Service, 2024<sup>[10]</sup>). Spain also performs well on digitalisation of public services.

The government is continuing to improve ICT infrastructure by investing in ultra-fast broadband, developing sectoral data spaces to enable data-driven innovation, and implementing digitalisation plans and a Cybersecurity Industry Support Plan to support tech-based startups. Although there are no specific measures addressing infrastructure under the Startup Law, the Law introduces incentives for digital nomads, which depend on robust digital infrastructure.

Spain also plays a significant role in the European High-Performance Computing Joint Undertaking (EuroHPC JU). The EuroHPC JU is a partnership between the EU and participating countries, aiming to develop and deploy advanced supercomputing and quantum computing infrastructure in Europe. Spain hosts MareNostrum 5, a world-class supercomputer and the EuroHPC quantum computer, MareNostrum-Ona, at the Barcelona Supercomputing Centre (BSC). Spain is also actively developing and promoting a quantum computing ecosystem. The EuroQCS-Spain project, led by BSC, aims to integrate analogue and digital quantum computers, as well as a quantum emulator, into a heterogeneous computing system. It is one of six sites selected in the EU. This type of research and technological infrastructure provides opportunities for startup entrepreneurs to develop advanced digital services and products.

Despite the availability of well-developed ICT hardware, usage of advanced digital solutions by businesses is below those of other OECD countries. Spain ranks sixth in Europe in the European Open Data Maturity Index. However, it performs relatively less well on the deployment quality component of the Index. Interviewed stakeholders are aware of the forward-looking data policy adopted by Spain, as demonstrated by the existence of a government department focused on broadening open data and access. Nonetheless, currently, they still point to digital governance, data infrastructure, and access to public data as areas for improvement. For instance, some startup founders report difficulties in accessing public and open data. While regulations do allow academic researchers to use government datasets relatively freely, startups do not enjoy the same level of data access. This limits the ability of startups to develop data-driven business models, particularly in sectors like health tech and mobility.

Another area for future development is data regulation (e.g. GDPR, data governance frameworks), which is often seen as a barrier for startups, particularly those operating in AI and digital health, who must navigate costly and restrictive compliance environments compared to non-EU markets like the US. Although most of these regulations are defined at EU level, Spanish authorities are perceived by stakeholders as adding layers of complexity to European regulation.

Limitations in data usage and governance are well-known to Spanish authorities, which are introducing programmes to develop data spaces and promote secure data sharing across companies and public entities. The Ministry for Digital Transformation's data spaces initiatives have started to build the institutional capabilities and the underlying infrastructure necessary to promote data usage but acknowledge that many startups still find this ecosystem fragmented or abstract. There is a need for clearer support structures to enable smaller firms to benefit from these initiatives

Moreover, digital divides between urban centres and less populated areas remain, leading to initiatives to support startups in "empty Spain" through startup villages (an EU DG JRC initiative). There is also room

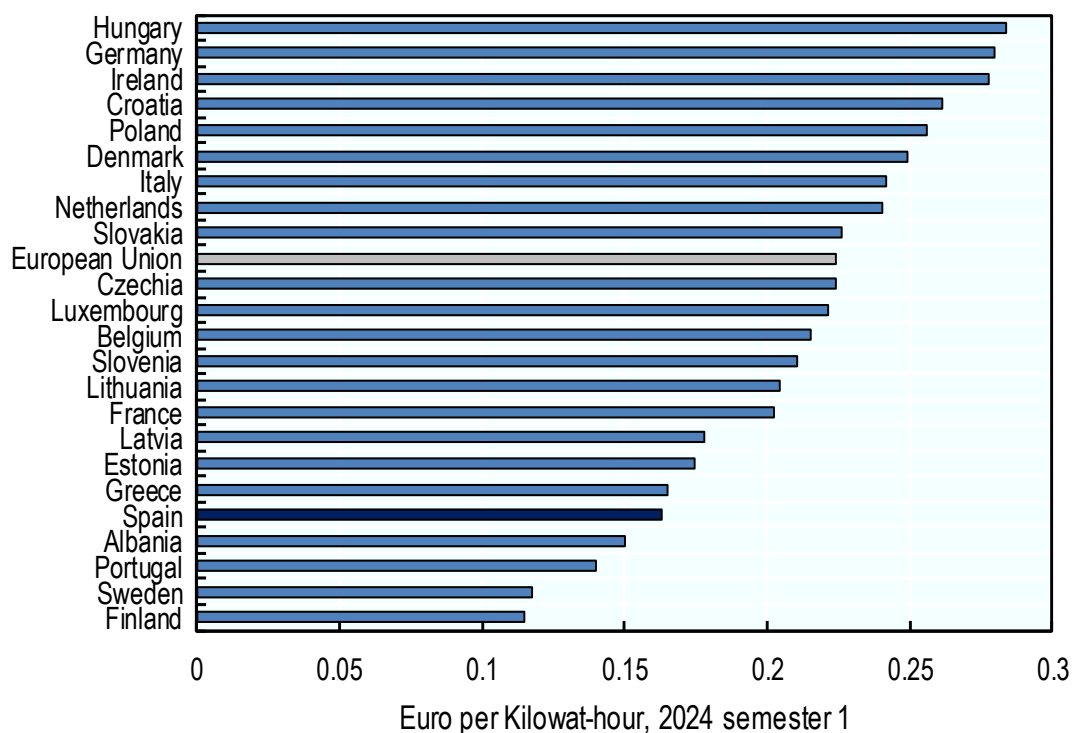
for enhanced co-ordination between national and regional authorities to ensure even access to digital services and support mechanism.

### **Electricity and water supply is good**

Energy and water supply and the quality of the power grid or water distribution are sound and well developed in Spain. Spain has significantly strengthened its energy system in recent years through sustained investment in renewable generation, reinforcing both supply security and long-term cost competitiveness.

While as in other European OECD countries, all areas of Spain have access to electricity, differences in electricity supply and distribution still unevenly affect electricity prices, which can represent an important factor for entrepreneurship, especially in sectors that are energy intensive. For example, training large language models can use about 433 000 kWh of electricity (Le Scao et al., 2022<sup>[11]</sup>). Spain has an advantage relative to several other European OECD countries in this area. Data from Eurostat show that in the first semester of 2024, non-household electricity prices (after taxes) in Spain were among the lowest in Europe (Figure 6.2). Only in Finland, Sweden and Portugal were the prices lower. In addition, during 2022-2023, Spain benefitted from the so-called Iberian mechanism extraordinary measures, which ended in December 2023. Through this mechanism, Spain and Portugal were temporarily allowed to cap electricity prices, in derogation to EU state-aid rules, justified by the Iberian Peninsula's limited interconnection with the rest of Europe (OECD, 2023<sup>[12]</sup>). Spanish prices remained low after the end of the "Iberian Exception" thanks to previous investments in renewable energy, which reduced exposure to fossil fuels prices, as well as to the introduction of new EU-compliant measures. These include cuts to the VAT on natural gas, which is allowed by the EU's VAT Directive (European Commission, 2025<sup>[13]</sup>).

**Figure 6.2. Electricity prices for non-household consumers**



Note: Data refer to the first semester 2024, first semester, including all taxes, for consumption from 500 MWh to 1 999 MWh - band IC  
Source: International Energy Agency's (IEA) "Energy Prices" dataset

Investments in renewable energy have made electricity in Spain cheaper than in many other European countries, which can be an important factor for energy intensive data-driven entrepreneurship. In 2024, Spain added 7.3 GW of new renewable capacity to the national generation mix (6 GW from solar photovoltaic and 1.3 GW from wind), marking the largest annual increase on record and the sixth consecutive year of renewable integration. Over the last decade, renewable capacity has increased by 37 GW (77%), mainly driven by solar and wind power. Renewables now account for 57% of national electricity generation and 59% on the peninsula, setting a new historical record (Red Eléctrica, 2024<sup>[14]</sup>). As energy from renewable sources accounts for a relatively high share of the energy mix, this also gives Spain an advantage in terms of decarbonising the (digital) economy. While industrial sectors still generate a relatively high level of pollution, Spain is making significant investments in green hydrogen to boost its renewable energy sector and decarbonise industry. The national hydrogen roadmap has a target of 12 GW of electrolyser capacity by 2030 and aims to meet 74% of industrial hydrogen demand with green hydrogen by 2030. Spain accounts for 20% of green hydrogen projects that have been announced in the EU, making it a hub for cleantech innovation (Torres Vila, Mettler and World Economic Forum, 2025<sup>[15]</sup>)

Spain's energy transition presents an opportunity for entrepreneurial innovation, particularly in addressing the structural challenges of integrating renewables, improving grid reliability, and decarbonising industry and households. REPowerEU measures and the national hydrogen roadmap are enhancing infrastructure for renewables. Startups can play a pivotal role in this transformation by developing smart grid technologies that use AI and IoT to balance demand, manage loads, and monitor infrastructure in real time crucial as the share of intermittent solar and wind increases. New ventures can also advance energy storage solutions, from second-life EV batteries to peer-to-peer trading systems that enhance flexibility at the local level. For SMEs and households, start-ups can offer retrofit management platforms, subscription-based electrification services, and intuitive energy-efficiency apps. Spain's growing hydrogen economy creates additional space for entrepreneurship in clean industrial applications and component development. Furthermore, startups can drive innovation in energy data systems by providing carbon accounting and emissions tracking tools tailored to SMEs and supply chains. These activities not only support national climate goals but also position Spain's startup ecosystem to lead in green technology markets. With targeted support and access to instruments like Fondo Next Tech and innovation-friendly procurement schemes, startups could become key enablers of a faster, more inclusive energy transition.

Similarly, innovation is being applied to water management, spurring new solutions in precision agriculture, smart irrigation, desalination, water reuse, and digital water management. Spain's position as a water-stressed country makes it an ideal testbed for scalable technologies with global relevance –particularly across the Mediterranean, Latin America, and parts of Africa. Startups innovating in water-related sectors can access pools of EU and national funding (e.g. Horizon Europe, PERTEs), benefit from new public procurement opportunities, and attract impact-oriented investors. However, despite extensive digital and energy transition efforts, there is no specific focus on energy cost mitigation for startups, which is particularly relevant for early-stage and industrial ventures.

Continued modernisation of electricity and water infrastructure remains important to support the integration of renewables, rising electrification, and increasing digital demand. Ongoing investments in grid reinforcement, storage capacity, and system flexibility will be key to maintaining reliability and supporting economic activity across sectors.

At the same time, water shortages are becoming an increasingly serious structural challenge in Spain, particularly affecting regions such as Andalusia, Murcia, and Castilla-La Mancha. For startups and scaleups, especially those in water-intensive sectors like agri-food, biotech, and tourism, this creates heightened operational risks, rising costs, and uncertainty around infrastructure reliability. As water becomes scarcer and more regulated, early-stage companies may also face compliance burdens, constrained site selection, and difficulty scaling in vulnerable regions.

In this context, water scarcity and resource constraints can act as a catalyst for mission-oriented entrepreneurship and the development of exportable deep-tech solutions. Planned improvements to water and wastewater systems offer further opportunities for startups innovating in sustainable resource management, efficiency technologies, and circular water use models.

While Spain is making progress in smart mobility and renewable energy, a more startup-oriented approach to infrastructure deployment, including support for water efficiency, decentralised energy, and digital inclusion, is needed to fully leverage entrepreneurial innovation as a driver of sustainable economic development. In this setting, Spain can draw from the experience of Sweden, in accelerating climate-tech ventures (Box 6.1).

### **Box 6.1. Swedish Energy Agency – Scaling Climate-Tech through Strategic Investment and Internationalisation**

#### **Description**

Sweden's Energy Agency (Energimyndigheten) operates a comprehensive support system for early-stage and scaling climate-tech companies, with a strong emphasis on investment readiness and internationalisation. One of its flagship initiatives is the Investment Accelerator, launched in collaboration with Cleantech Scandinavia. It helps Swedish cleantech startups connect with international investors, preparing them to attract capital and scale globally. Selected companies – such as 2D fab (graphene), 3E Flow (energy-efficient water systems), and T. Loop (circular data centre energy solutions) – benefit from hands-on coaching, visibility at international events, and curated investor matchmaking.

Complementing this is the Global Innovation Accelerator, a 12-18-month programme supporting scale-ready companies with tailored business development services. This includes support in market mapping, certification and standards, and access to global trade fairs. Together, these initiatives form a dual-track pathway that links technological readiness with commercial scaling and global market access.

It has been estimated that through this programme, over EUR 90 million have been invested in over 250 companies, reaching an aggregate company valuation of over 3 billion EUR. The programme has also crowded in private investment. Each euro of public support has yielded about 15 euros of private co-investment. 80% of supported firms attract follow-on investment and 25 firms have gone through public listing. In addition, about 1 billion tonnes of CO<sub>2</sub> emissions have been avoided from portfolio innovations.

#### **Success factors**

Key to the success of the programmes have been i. the strategic investment facilitation role of the Investment Accelerator, which offers coaching, pitch preparation, and investor access for growth-stage climate tech firms; ii. the partnership between public entities and Cleantech Scandinavia, which combined public policy and market-based expertise; iii. tracking of participants after the programme to measure investment performance and environmental impact; iv. Internationalisation through both regulatory preparedness and market entry in key global regions.

#### **Lessons for Spain**

Spain could replicate sector-specific accelerators in clean energy and water technologies, linked to national missions and net-zero goals, by creating new partnerships with independent accelerators or

investor networks to give more visibility and credibility in attracting investors. Spain's innovation agencies (e.g. CDTI, ENISA) could support curated investor engagement and international pitch-readiness services.

Source: Swedish Energy Agency: <https://www.energimyndigheten.se/en/news/2025/the-swedish-energy-agencys-accelerator-opens-doors-to-international-financing/> Swedish Cleantech Accelerators: <https://swedishcleantech.com/business-opportunities/swedish-energy-innovations-accelerators/> IEA Summary of Swedish Energy Agency: <https://www.iea.org/articles/swedish-energy-agency> 2D Fab Investment News: <https://2dfab.com/news/2d-fab-selected-for-the-swedish-energy-agencys-international-investment-accelerator/> T.Loop Investment Accelerator: <https://www.tloop.se/blog/tloop-one-of-seven-companietloop-selected-to-the-swedish-energy-agencys-investment-accelerator-2024>

## Policy mapping

**Table 6.1. Startup infrastructure policies**

Institution(s)	Policy name	Description	Objectives	Target group
INCYDE Foundation (Chambers of Commerce) - co-financed by ERDF and Spain's national and regional authorities.	National Network of High-Tech Incubators and Digital Coworking Centres - supported by the ERDF "Crecimiento Inteligente" (Smart Growth) programme	A network of over 26 High-Tech Incubators (IATs) and 35 digital coworking centres across Spain. These centres offer specialised infrastructures (e.g. labs, prototyping, digitalisation equipment), business advisory services, training, and co-working to support innovative and digital startups.	Promote entrepreneurship and SME competitiveness through accessible, high-quality infrastructure	INCYDE Foundation (Chambers of Commerce) - co-financed by with ERDF, Spain's national and regional authorities.

## Conclusions and recommendations

Spain's physical and digital infrastructure provides a solid foundation for entrepreneurship, with strong transport networks, competitive digital connectivity, and growing investments in renewable energy and high-performance computing. However, there is scope to increase the use of advanced digital tools by startups and to improve their access to strategic infrastructure outside urban hubs. Investments in freight sustainability, rural digital access, and utility reliability would also support entrepreneurship.

Strategic infrastructures like high-performance computing, AI factories, and hydrogen networks offer high-potential platforms for startup innovation in deep tech, cleantech, and data-driven services, and would be supported by efforts to communicate their availability to startups and scaleups by the development of SME-tailored interfaces.

Pressure on energy and water scarcity raise concerns about the resilience of the power and water supply systems. Water scarcity, in particular, could hit agri-food and tourism-linked start-ups. However, it may also create an opportunity for entrepreneurial innovation in smart water management and climate adaptation solutions.

The following policy actions are recommended to improve the infrastructure element of Spain's entrepreneurial ecosystem:

- Strengthen the access of startups and scaleups to strategic "technology infrastructures" housed in universities, supercomputing centres, and public research institutions (e.g. testbeds,

AI sandboxes, pilot manufacturing, water labs). Simplify rules and interfaces to make these assets usable for early-stage firms.

- Promote inclusive infrastructure development through better national-regional co-ordination and targeted incentives for digital and transport infrastructure in underserved regions (notably “Empty Spain”).
- Leverage Spain’s strengths in renewable energy and green hydrogen by supporting startups and scaleups working on smart grid, storage, and decarbonisation solutions through sector-focused accelerators, innovation-friendly procurement, and test environments.
- Advance open data and interoperability frameworks to reduce barriers for startups and scaleups in data-intensive sectors such as health, mobility, and energy, using sandboxes to balance data protection with innovation needs.
- Use public procurement strategically to crowd in startup and scaleup innovation addressing infrastructure challenges (e.g. smart mobility, digital inclusion, water efficiency), supported by new tools like GovTech missions and challenge-based calls.

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# 7 Markets

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This chapter examines how Spain's startups and scaleups access domestic and international markets. It represents the fifth element of the ten-part entrepreneurial ecosystem framework used to assess the country's ecosystem. The chapter highlights strengths and areas for improvement, showcases an international example for inspiration, reviews recent policy developments, and provides recommendations to support further progress.

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## What's the issue?

Access to large and dynamic markets – both domestic and international – is an important influence on productive entrepreneurship. According to the OECD entrepreneurial ecosystem framework (OECD, 2025<sup>[1]</sup>), the size of the market (often proxied by GDP), trade openness, and ease of doing business internationally are all seen as influencing the capacity of startups and scaleups to grow and attract investment. Market size provides a foundation for consumer and business demand, while trade openness and low transaction costs expand the potential reach of entrepreneurial ventures beyond national borders. Startups benefit from early customers – whether private sector, government, or international clients – that validate products, generate revenues, and attract follow-on investment. Conversely, limited or risk-averse domestic demand can constrain growth and lead to premature internationalisation, which may increase costs and failure risk (Gripsrud, Hunneman and Solberg, 2023<sup>[2]</sup>)

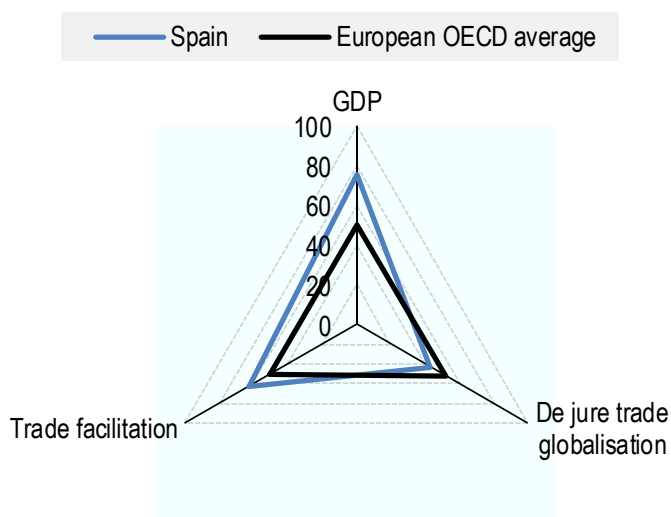
Furthermore, demand-side mechanisms such as public procurement, corporate supply chains, and global export channels play a vital role in shaping entrepreneurial outcomes. Research from (Uyarra et al., 2020<sup>[3]</sup>) and (Zabala-Iturriagagoitia, 2022<sup>[4]</sup>) highlights that innovation-driven firms are more likely to thrive in environments where public procurement systems are open to small firms and corporates actively engage in co-development or purchasing from startups. Effective market access thus requires not only openness in trade and regulation but also strategic demand-side policies that activate domestic buyers – public and private – as early adopters and partners in innovation (European Commission: Directorate-General for Internal Market, 2023<sup>[5]</sup>)

## Assessment

### ***Spain has a large market and is open to trade***

Spain's performance on the Markets element is above the European OECD average. These results are explained by the fact that not only Spain features one of the largest GDP among European countries, and is somewhat less globalised than other European countries, but it has in place much better border procedures than other countries (Figure 7.1).

**Figure 7.1. Components of the Markets element**

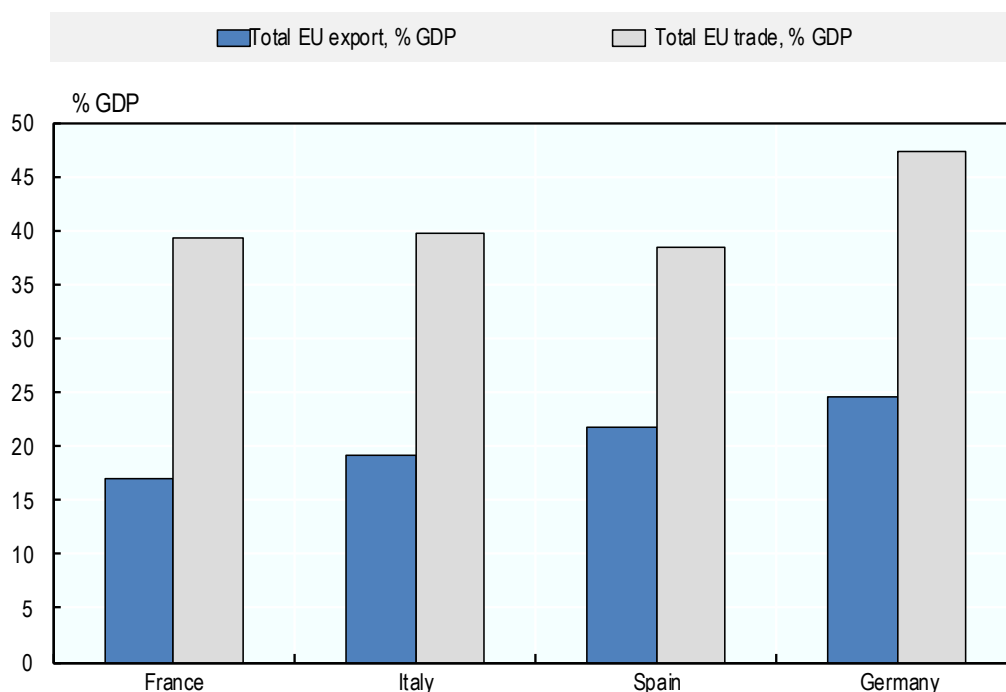


Note: Data are presented as normalised scores obtained by applying min-max transformations to the raw values, where the max/min are equal to the sample mean  $\pm$  2\*sample standards deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period.

A large market allows startups to roll products and services out on large scale. Typically, US companies have an advantage over companies in smaller economies because they can market the same product to a very large, homogenous market and structure their operation accordingly. Access to a large market is therefore an important underpinning of an entrepreneurial ecosystem. However, serving the domestic market is not the only option. Entrepreneurs in smaller economies can leverage exports and access to foreign markets as a strategy to overcome the limitations of operating in a smaller domestic market. Spain performs well on the Markets element, and above the European OECD average, reflecting both its large domestic market and openness to international trade.

In terms of overall domestic market size, Spain is the tenth largest market in the OECD and the fifth largest among European countries measured by GDP. Spain's GDP is about 2.2 trillion USD, which is roughly 40% of Germany's, 60% of France's and 70% of Italy's. Spain is at least as well integrated in the European market as these larger European economies. Exports of goods and services to the European Union represent almost 22% of Spain's GDP, while the exports of France, Italy and Germany to the EU are 17%, 19%, and 25% of their GDP, respectively (Figure 7.2). The European market is therefore relatively more important for the Spanish economy than it is for Italy and France, and almost as important as it is for Germany. The EU share of total trade (the sum of imports and exports of goods and services) is about 39% for France, Italy and Spain, indicating that their value chains are roughly equally integrated within the European market. Depending on sector, Spanish entrepreneurs can in principle take advantage of both the Spanish domestic market and the EU market, and while there are some frictions within the EU single market, the access to international market opportunities through the EU market as well as the domestic market gives large market opportunities to Spanish startups and scaleups (Drumm, 2025<sup>[6]</sup>).

**Figure 7.2. Export and trade shares in the EU market, selected European countries**



Note: Data refer to 2023

Source: UNCTADstat

Spain also features an above average performance on the trade facilitation index, which assesses the efficiency of border procedures that affect trade flows. On this aspect, Spain attains a score of 62.7, well above the European OECD average (50.3). Notably, Spain outperforms other larger countries such as France, Italy, and Germany, indicating a relatively better access to international markets. The EU-Mercosur trade deal negotiations may represent a further opportunity for Spain, which can leverage the Spanish language – common to many South American countries – as a way to more easily access these markets compared to other European countries.

At the same time, Spain's score on the globalisation index (a de-jure measure of trade agreements, taxes, tariffs, regulations and non-tariff measures in each country) is below the European OECD average, indicating that there could be opportunities to further take advantage of international trade to expand global market access for startups and scaleups.

### ***Internationalisation support programmes play an important role***

While Spanish startups benefit from a large domestic market, many, particularly those in highly specialised B2B or regulated sectors, such as health and AI, report being compelled to internationalise early, often turning to the United States or northern European markets where procurement processes, regulation, and investment ecosystems are perceived as more agile and supportive. For example, some startup founders shared that their commercial strategies were geared toward external markets due to limited domestic demand or regulatory bottlenecks in Spain. In addition, startups often face entry barriers set up by established domestic firms and large multinationals.

Startups that wish to expand abroad can count on the support of the Spanish Institute for Foreign Trade (ICEX), which is playing an increasingly visible role in facilitating startup internationalisation. Through programmes such as DESAFÍA and Rising Up in Spain, Spanish startups are supported to participate in global events (e.g. Slush, Web Summit, 4YFN) and receive strategic guidance from ICEX's global network of over 100 offices. More than 500 startups are assisted annually through these efforts. The DESAFÍA programme - a joint initiative by ICEX and Red.es - offers Spanish tech companies immersive experiences in innovation hubs like San Francisco and New York. These programmes have helped over 250 startups scale internationally, collectively raising more than USD 230 million and creating over 3 000 jobs. Notably, the DESAFÍA San Francisco programme has been recognised by the World Trade Organization for its efforts in promoting gender equality in trade, particularly through its dedicated cohorts for women entrepreneurs.

The Rising Up in Spain programme targets foreign startups aiming to establish themselves in Spain. It provides a comprehensive soft-landing package, including legal assistance, mentorship, and networking opportunities. Participants benefit from customised acceleration plans, support in obtaining entrepreneur visas, and integration into Spain's innovation ecosystem. The programme also facilitates connections with local partners and investors, enhancing the startups' prospects for success in the Spanish market.

Despite the success of these programmes, several ecosystem actors (especially scaleup founders and investors) rate the existing instruments as not yet sufficiently tailored to the specific needs of high-growth firms and consider that services such as foreign market intelligence, access to procurement opportunities abroad, and engagement of foreign investors are currently not sufficiently developed. In addition, more support could be offered to startups to navigate foreign regulatory requirements or domestic administrative hurdles. For example, long procedures for foreign investors and entrepreneurs to obtain Spanish ID discourage international capital participation and partnerships with Spanish startups.

A working group has been established within the national Startup Forum to improve startup internationalisation policies, aiming to better align public programmes with the realities of globally oriented ventures. These efforts, if scaled and co-ordinated effectively, could help Spain strengthen its position as

an entrepreneurial hub with global reach. In this space, Spain could learn from the experience of France's "French Tech International" as a way to support startups to scale internationally (Box 7.1).

### ***Public procurement can become an instrument to boost startups and scaleups***

Stakeholders have often mentioned public procurement as a large, untapped opportunity. The public procurement market is large, accounting for around 11% of Spanish GDP, but startups cannot easily access it (OOIReScon, 2024<sup>[7]</sup>). About 42% of the value of public procurement is assigned to SMEs, yet most of them are medium size enterprises with 50-249 employees and revenues above 10 million EUR (Observatorio de contratacion publica, 2021<sup>[8]</sup>).

Startups reported that it is hard for early-stage firms to be successful in public procurement processes. The system is still heavily driven by lowest-price criteria, and while there are frameworks for innovation procurement, very few of the "innovative procurement" calls for 2023-2024 reached smaller firms. In some cases, startups are not successful in public procurement because they cannot provide a sufficiently long track record or because they cannot overcome the fact that incumbent firms have built long-lasting relations with client public entities.

Another challenge for startups to participate in public procurement contracts is that contracts can take over 24 months to materialise, leaving firms vulnerable during early growth stages. Startups also struggle with late payments from clients, both public and private. This affects their cash flow and increases the perceived risk of doing business in Spain, especially for capital-intensive or service-based models. As a result, startups often cannot use relevant public procurement opportunities to support their scaling up.

Some policy initiatives have been introduced to facilitate the access of startups to public procurement contracts, but they could go further. For instance, the Royal Decree 364/2024 created an Inter-Ministerial Commission to supervise the implementation of innovative public procurement criteria. It also has the mandate to produce guidelines and objectives for the inclusion of innovation considerations in public tenders. However, it does not include specific rules for the participation of startup firms. In addition, the Gobe Ventures' GovTech challenge model has launched 47 challenges over 18 months, receiving over 700 expressions of interest from companies, and piloting selected startup solutions with public bodies. A working group on innovation procurement has also been established under the Secretary General for Innovation to address the systemic bias toward incumbents and price over value.

Overall, while Spain is beginning to experiment with more start-up-friendly public procurement models, the dominant perception remains that public procurement is a slow, rigid, and opaque process. If reformed, it could become a significant market-based instrument to scale domestic innovation, especially in sectors like health, energy, and digital public services. This would require clearer rules, faster processes, and more visible pathways for startups to engage with public clients.

### ***Corporate procurement can be further stimulated for startups***

In addition to public procurement, large companies can represent another important market opportunity for the growth of startups. Becoming a supplier of a multinational or large corporate can allow startups to scale up and secure multi-year revenues that can be invested in business development. However, Spanish stakeholders report that large Spanish firms seldom purchase from domestic startups. It is argued that typically large corporates in Spain have a culture of lack of trust towards young firms and are reluctant to adopt innovations from startups. This limits B2B sales to large national firms, representing a missed opportunity for de-risking and validating the business models of startups. In response, many Spanish startups look abroad to expand their client portfolio and scaleup opportunities, weakening domestic value capture.

There are, however, some positive cases, which might open the way for more corporate engagement with startups. For example, the Global Smart Grids Innovation Hub (GSGIH), established by Iberdrola in Bilbao in 2021, serves as a central platform for advancing smart grid technologies essential to the energy transition (Iberdrola, 2025<sup>[9]</sup>). Spanning over 1 000 m<sup>2</sup>, the hub is equipped with laboratories, collaborative workspaces, and training facilities, fostering an ecosystem that brings together more than 100 partners, including suppliers, universities, technology centres, and startups. With over 200 professionals involved, the GSGIH focuses on developing and deploying innovative solutions in areas such as grid digitalisation, integration of renewable energy sources, electric mobility, and energy storage systems. Since its inception, the hub has identified over 120 projects worth EUR 130 million, aiming to double Iberdrola's smart grid innovation initiatives. The GSGIH represents a good example of a market-oriented, public-private collaborative approach to innovation, supported by funding from the Provincial Council of Bizkaia, which aligns with regional strategies like Biscay Startup Bay to scale energy sector startups.

In Asturias, a collaborative initiative is underway involving multinational companies operating R&D centres within the region<sup>1</sup>. These companies are engaging in open innovation challenges designed to encourage startups to co-develop solutions addressing specific industrial needs. This approach aims to foster a dynamic innovation ecosystem that leverages the expertise of established corporations and the agility of startups. The Asturias Business R&D&I Centres Network, promoted by the Government of Asturias, facilitates the creation of research and innovation centres linked to large companies. This network aims to enhance company competitiveness and act as a driving force for the regional economy. One example is TSK's Open Innovation Programme, which supports projects proposed by SMEs, startups, and technology centres in Asturias, as well as research groups from the University of Oviedo. The programme underscores TSK's commitment to retaining regional talent and serving as a catalyst for other companies embracing innovation as a growth strategy<sup>2</sup>. These initiatives are part of the Asturias Industrial Strategy 2030, which aims to transform its industrial landscape into a more sustainable, digital, and innovative model.

A national example of this kind of policy attempt to better connect startups with large firms is ICEX's international promotion programmes, which support open innovation connections between mid-caps and startups and seek to bridge collaboration gaps. There is a clear opportunity for Spain to create incentives for corporates to procure from or co-create with startups, especially in sectors aligned with national strategic priorities like green energy, mobility, and digital health. Targeted policy measures could include preferential procurement criteria, or structured corporate-startup matchmaking platforms.

### **Box 7.1. French Tech International – Scaling Startups Across Borders**

#### **Description**

Launched in 2019 by the French Tech Mission under the Ministry for the Economy and Finance, French Tech International is a comprehensive initiative designed to support French startups in their international expansion efforts. The programme offers a suite of tools, including financial instruments, market-entry bootcamps, and diplomatic support, to bolster the global presence of French startups, particularly in key markets such as North America, Asia, and Europe.

A cornerstone of this initiative is the French Tech Bridge, a EUR 100 million co-investment fund established to assist startups in securing international capital and bridging funding rounds during their scaling phase. Additionally, French Tech collaborates with Business France and French embassies abroad to provide structured 'soft landing' services and enhance visibility at global tech events like CES Las Vegas, Web Summit, and VivaTech.

Another component of French Tech International is the French Tech Next40/120 programme. Some 88% of the 2024 cohort of supported firms had a physical presence or significant commercial activity

abroad, generating 35.6% of their revenues outside France. In total they had net revenue of EUR 10 billion in 2023, and combined employment of 40 000 workers. Moreover, 31 companies reported revenues above 100 million EUR.

### Key Success Factors

One of the key ingredients of the success of this programme is public diplomacy. This leverages France's embassies, Business France, and trade attachés to facilitate foreign market access for startups. This support is combined with business development services and dedicated internationalisation finance for companies in the critical 'post-early stage' scale-up phase. In addition, internationalisation of startups is boosted by the strength of the 'La French Tech' label, which is supported by French Tech communities in over 100 cities worldwide. The initiative also strategically targets key sectors, in particular fintech, health-tech, and green-tech, aligning with the EU's broader industrial strategy.

### Lessons for Spain

Spain could increase its mobilisation of embassies and trade offices to offer startup-focused soft-landing services and facilitate connections with local entrepreneurial ecosystems abroad. This would require co-ordinating efforts between innovation agencies, diplomatic services, and trade promotion entities. In parallel, Spain could enhance national branding to improve international visibility for Spanish startups.

Moreover, Spain could further support internationalisation through dedicated internationalisation funds or co-investment instruments designed to bridge the scale-up financing gap for companies expanding into global markets.

Sources: French Tech Mission Press Release, 2024: <https://presse.economie.gouv.fr/award-winners-of-the-5th-edition-of-the-french-tech-next-40-120/> French Tech Next40/120 Programme Details: <https://lafrenchtech.gouv.fr/en/programme/french-tech-next40-120/>

## Policy mapping

**Table 7.1. Markets policies**

Institution(s)	Policy name	Description	Objectives	Target group
Instituto Español de Comercio Exterior (ICEX) (Spain Export and Investment) and RED.ES	DESAFIA - international acceleration programme.	DESAFIA supports Spanish tech startups in scaling globally. It offers immersive experience in leading innovation ecosystems such as Silicon Valley, providing mentoring, strategic training, and access to key investors and partners. The programme is designed to help startups refine their business models, validate their products in international markets, and build a global network.	The initiative aims to accelerate the international growth of Spanish startups by connecting them with top global innovation hubs.	DESAFIA is aimed at Spanish technology-based startups with a validated product or service, a scalable business model, and strong potential for international expansion.
ICEX Invest in Spain	Rising Up In Spain	Since 2018, with a budget of about EUR 100 000, this programme offers	Attract top foreign startups in Spain	Non-Spanish startups willing to relocate to Spain

		facilitated access to the Spanish market through a full immersion session and professional support for the establishment of foreign startups in Spain.		
ICEX Invest in Spain	LATAM Scaleup Spain	Since 2022 and with a budget of about EUR 50 000, this programme facilitated the establishment of promising Latin American startups in Spain through a full immersion session and professional support for the establishment of a legal entity in Spain.	Attract scaleup companies from Latin America to Spain	Latin American scaleups willing to move to Europe
ICEX Growth and Competitiveness Entrepreneurship Unit	Participation at international entrepreneurship events	Since 2015, and with a budget of about EUR 1 million per year, this programme supports the participation of Spanish startups in international events and organises networking events.	Boost international visibility and business opportunities for Spanish startups	All Spanish startups
ICEX Growth and Competitiveness Entrepreneurship Unit	ICEX NEXT	Since 2021, and with a budget of about EUR 900 000 per year, this programme provides strategic consulting and financial support to international activities of startups. Approximately 30 startups are supported every year.	Guide Spanish startups to internationalize	All Spanish startups
Red.es, Ministry for Digital Transformation and Civil service	Digital Missions and Pavilions in International Events	With an average annual budget of about EUR 300 000 this programme, established in 2010, supports the participation of Spanish firms in international events. It includes the organization and co-ordination of Spanish pavilions at international events and securing and providing stands for Spanish startups to showcase their products and services.	Maximize the global visibility of Spanish companies in the Digital Economy	All firms in the Spanish ecosystem

## Conclusions and recommendations

Startups and scaleups in Spain have access to a large domestic and international market. However, they do face some obstacles, including risk-averse clients and regulatory bottlenecks domestically and difficulties coping with foreign regulatory barriers and understanding foreign markets.

Internationalisation support programmes such as DESAFÍA and Rising Up by ICEX Spain are impactful, but gaps exist in tailored support for scaleups, including market intelligence, international procurement access, and investor facilitation.

Public and corporate procurement have strong potential to offer additional avenues for startup growth in Spain. The public procurement system is still price-driven, and startups participation is relatively limited, while domestic corporates are not routinely engaging startups as suppliers or partners. Pilot efforts exist both in the public procurement and corporate markets but remain isolated.

The following policy actions are recommended to strengthen the Markets element of the ecosystem:

- Enhance startup internationalisation through co-investment bridge funds, legal support, B2B matchmaking and soft-landing services delivered via embassies, ICEX, and local hubs.
- Modernise public procurement to become a strategic innovation lever by including clearer innovation criteria, faster decision-making, and dedicated calls for startups. Expand successful GovTech and innovation procurement pilots across national and regional governments.
- Incentivise corporate-startup collaboration by introducing match-making mechanisms between startups and corporate supply chain management to facilitate purchase of innovative goods and services solutions from emerging startups. Consider introduction of preferential procurement conditions for large firms to source solutions from startups, especially in strategic sectors.
- Continue working at European level to foster greater harmonisation in goods and services markets as well as access to public procurement.

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## Notes

<sup>1</sup> For more details refer to <https://www.investinasturias.es/en/asturias-business-rdi-centres-network/>

<sup>2</sup> For more details refer to <https://www.grupotsk.com/en/rdi/open-innovation-programme/>

# 8

## Finance

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This chapter examines the financing conditions, instruments and opportunities available to Spanish startup and scaleup entrepreneurs. It represents the sixth of the ten elements of the entrepreneurial ecosystem framework used to diagnose the country's ecosystem. The chapter highlights strengths and areas for improvement, presents an international example for inspiration, reviews recent policy developments, and provides recommendations for further progress in the finance domain.

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## What's the issue?

Entrepreneurs who start a new business need capital to set up their companies, develop their products or services, and run business development. This requires paying for equipment, facilities, salaries, and other expenses before any revenue is collected. Entrepreneurs must thus rely on external funds (Miglo, 2022<sup>[1]</sup>). While the inception of a new venture may start in a basement or in an incubator, access to finance is essential to grow a startup and turn it into a functioning company (King and Levine, 1993<sup>[2]</sup>). Typically, the entrepreneur must mix debt (bank loans, loans from friends, peer-to-peer online lending, etc.) and equity financing (venture capital, own funds, angel financing, equity-based crowdfunding, etc.) depending on the type of business. While SMEs are particularly sensitive to access to credit (Allen et al., 2015<sup>[3]</sup>), startups often need venture capital (Keuschnigg, 2004<sup>[4]</sup>). According to (Audretsch, Keilbach and Lehmann, 2007<sup>[5]</sup>), the entrepreneurial finance hypothesis stipulates that knowledge-based entrepreneurial firms tend to be financed from equity-based sources, such as venture capital, and less typically from traditional debt-based sources. These types of firms often lack collateral, and their business model is often too risky for banks' asset management operations. The availability of venture capital and the presence of private equity funds and other stakeholders such as business angels are therefore crucial to enable the development of these types of startups. Based on the OECD ecosystem diagnostics data, Spain attains a mixed performance on the Finance element, where stronger aspects coexist with weaker aspects.

Financial conditions for startups and scaleups in Spain must be analysed within the European context, recognising that there are structural features of European capital markets and global trends that affect financing in Spain and that can only be partially influenced by the Spanish government.

Financial systems are still predominately bank-based across all European countries. Due to economic structure, historical legacy, and cultural reasons, bank capital represents over half of all capital in the European financial system. In contrast, in the United States, bank capital is below one-third of the total. Many European entrepreneurs finance their startups with a combination of family or self-finance and bank loans. Bank loan finance, however, is often not well suited to financing high-tech and capital-intensive startups, because of the difficulty for many of these ventures to offer tangible collateral and regular income flows. Bank investments in these types of activities are not only often poorly matched to traditional bank operations but can also be discouraged in some aspects by regulatory and supervisory entities (Arnold, Claveres and Frie, 2024<sup>[6]</sup>).

European financial markets are also fragmented. Cross-country differences in regulatory and legal regimes limit Europe-wide business development and the formation of Europe-wide pools of capital necessary to support large venture capital (VC) funds. Exit options are also scarcer in Europe due to fragmented, smaller and less liquid equity markets and stock exchanges. As a result, there are fewer and significantly smaller VC funds in EU than in the United States. Some recent initiatives such as the European Investment Fund's European Tech Champion Initiative, a fund-of-fund of EUR 3.8 billion launched in 2023, are attempting to bridge this gap. Nonetheless, Europe is still catching up with other global players on venture capital markets.

Another important limitation in European venture capital markets is the relatively small size of funds compared to those in the United States. None of the top 15 global venture capital funds are European, with United States funds leading by a large margin. Over the period 2013-2023 there have been only 36 European funds of a size greater than USD 500 million, among which only 11 exceeded the 1 billion mark. Conversely, in the United States, there were over 400 funds of that size, with almost 140 funds over USD 1 billion (European Investment Bank, 2024<sup>[7]</sup>).

The low participation of institutional investors such as pension funds and insurance companies in European venture capital investments is the primary cause of these differences. Pension funds' investment in venture capital, as a percentage of their total assets were less than 0.02% in 2023 while in the US they were about 1.9% (Arnold, Claveres and Frie, 2024<sup>[6]</sup>). This is driven by multiple factors, including the fact that VC is

still often considered as too risky an asset class for pension fund investments. The limited involvement of institutional investors reduces the availability of large sources of long-term finance to startups and scaleups in Europe and plays an important role in explaining why there are significantly fewer large venture capital funds in Europe than in the United States.

In addition, European households are often more risk-averse than US households, and although on average European households accumulate larger savings accounts, they disproportionately invest in fixed income instruments while equity investment only takes a small share of total investments.

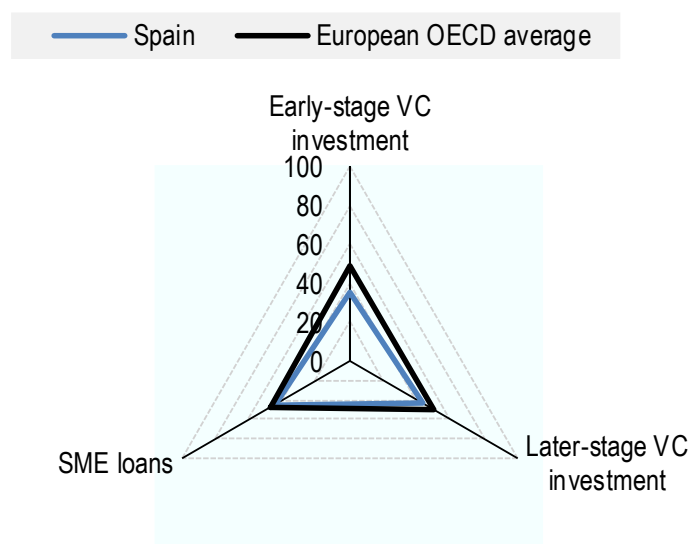
There are also global trends that an assessment of Spanish financial ecosystem must take into account. Globally, venture capital deals and investments were abnormally high in 2021 and 2022. In Europe, the sum of all VC investments was below EUR 40 billion in 2020 but spiked to EUR 100 billion and EUR 80 billion EUR in 2021 and 2022, respectively. Levels then returned to trend in 2023 and 2024, reaching about EUR 45 billion per year (Atomico, 2024<sup>[8]</sup>). A similar dynamic is observed across most OECD countries. Albeit lower than 2021 and 2022, European and global venture capital investments have been higher in 2024 than in the pre-pandemic period.

## Assessment

### ***Access to finance is strong overall but there is scope for growth in equity finance***

Overall, international benchmarking data suggest that Spain performs slightly below the European OECD average on access to finance (Figure 8.1). On the other hand, it is ahead of economies such as Italy, and its performance has improved compared to the 2016-2020 period. Spain's performance on SME credit supply (outstanding SME loans) is in line with the European OECD average; however, it is below the European OECD average on early-stage venture capital per-capita.

**Figure 8.1. Components of the Finance element**

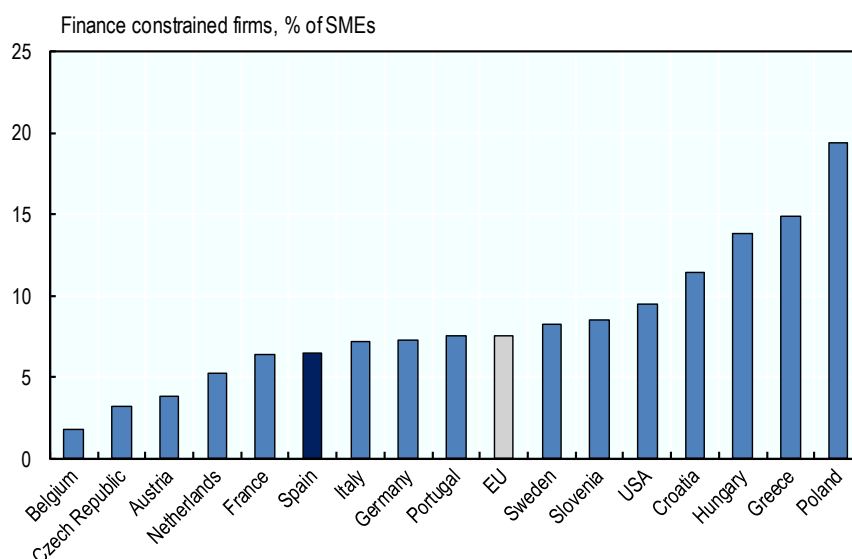


Note: Data are presented as normalised scores obtained by applying min-max transformations to the raw values, where the max/min are equal to the sample mean  $\pm 2$  sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period.

### **Bank loans are in line with expectations**

Loans are an important source of finance supply for startup and scaleup businesses and one of the important sources of capital for their development, alongside own finance and equity finance. On this aspect, Spain's credit supply (in per capita terms) is line of those of most European OECD countries, such as Germany and the Netherlands. Among the large European countries, only France performs better. This performance is confirmed by the 2023 EIB Investment Survey, which finds that less than 7% of Spanish SMEs are credit constrained (Figure 8.2). Access to credit is thus not a major bottleneck for the development of the entrepreneurial ecosystem.

**Figure 8.2. Share of SMEs reporting being credit constrained in Europe**



Note: Data refer to the year 2023

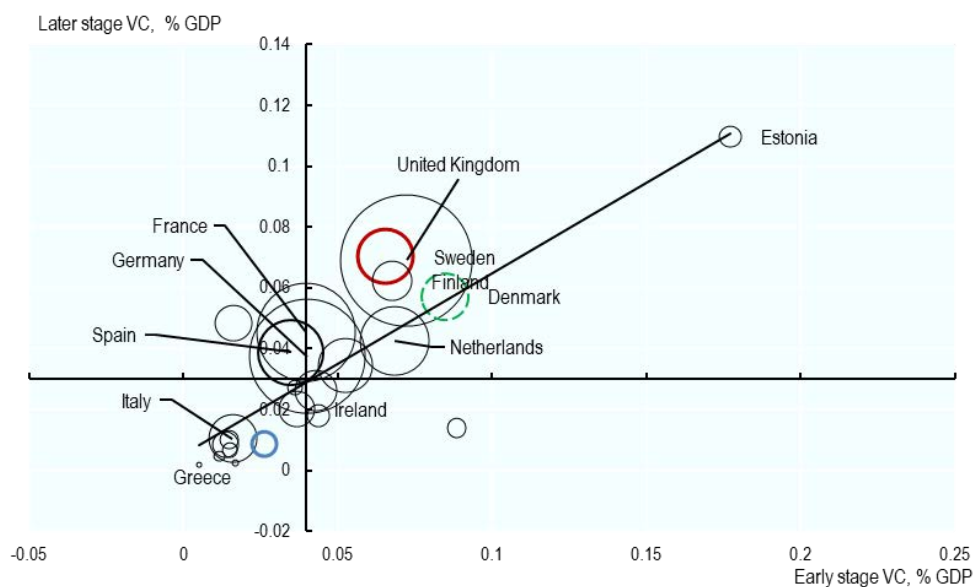
Source: 2023 EIB investment survey

### **The venture capital market is still developing**

On venture capital (VC), Spain is catching up with other large European OECD economies. Spain's early-stage VC investment levels have nearly caught up with France, Germany, and the United Kingdom during the last 10 years, and it is already ahead of Italy in per capita terms. Furthermore, Spain's score on the OECD entrepreneurial ecosystem diagnostics indicators for later stage venture capital investments is close to the European OECD average, although it is behind France and the UK.

Both early-stage investment and later-stage investments represent about 0.03%-0.04% of GDP in Spain. The ratio between them is similar to other large European OECD economies such as France and Germany. However, Spain operates on a significantly smaller scale than these economies as a share of GDP, and is well behind the United Kingdom levels, where both early stage and later stage investments represent about 0.07% of GDP. This is shown in Figure 8.3, where the total volume of VC is portrayed by the size of the bubble and the relative weighting towards early and later stages is shown by the position of the circle relative to the trend line.

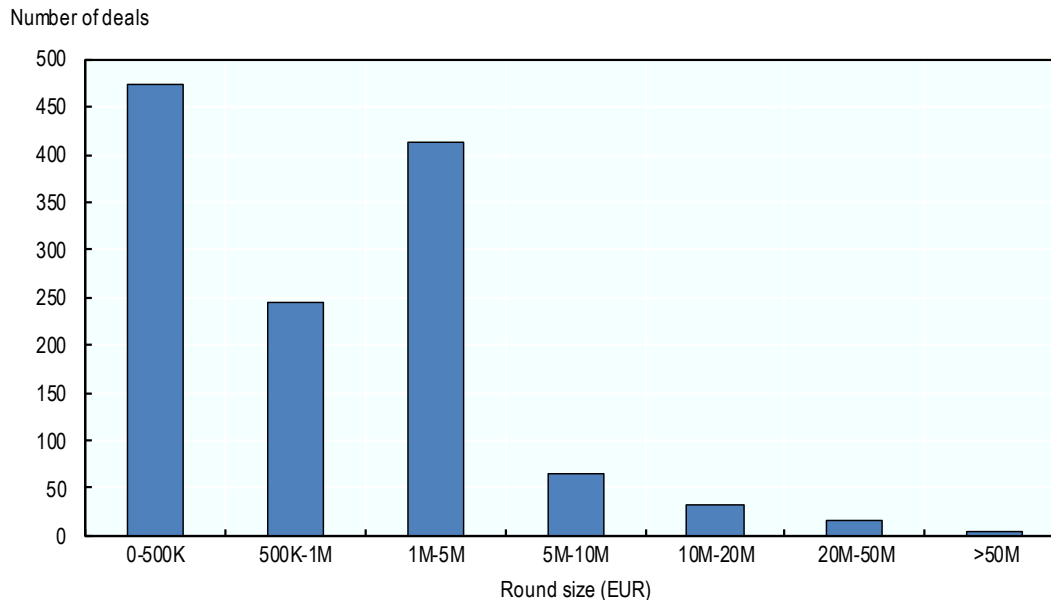
**Figure 8.3. Volume of early and later-stage venture capital by market size**



Note: The size of the bubble represents the total venture capital volume as a sum of early stage and later stage VC investments in USD billion. In these venture capital investments figures, only investments by formal fund managers (private equity funds making direct private equity investments, mezzanine private equity funds, co-investment funds or rescue/turnaround funds) are included. Investments by business angels, incubators, infrastructure funds, real estate funds, distress debt funds, primary funds-of-funds or secondary funds-of-funds are excluded. Investments are based on the location of the portfolio companies, regardless of the location of the private equity firms. The investment amount only captures the equity amount that is invested by formal fund managers and not the value of the entire financing round. Capital or buyout investments in current or formerly venture capital-backed companies are also not included.

Source: Based on OECD Entrepreneurship Financing Database

Although the venture capital ecosystem in Spain has grown over the past twenty years, it remains important to expand the availability of scaleup finance. According to Fundacion Innovacion Bankinter's Startup observatory data, over 91% of deals by domestic funds between 2017 and 2024 were below EUR 5 million (Figure 8.4).

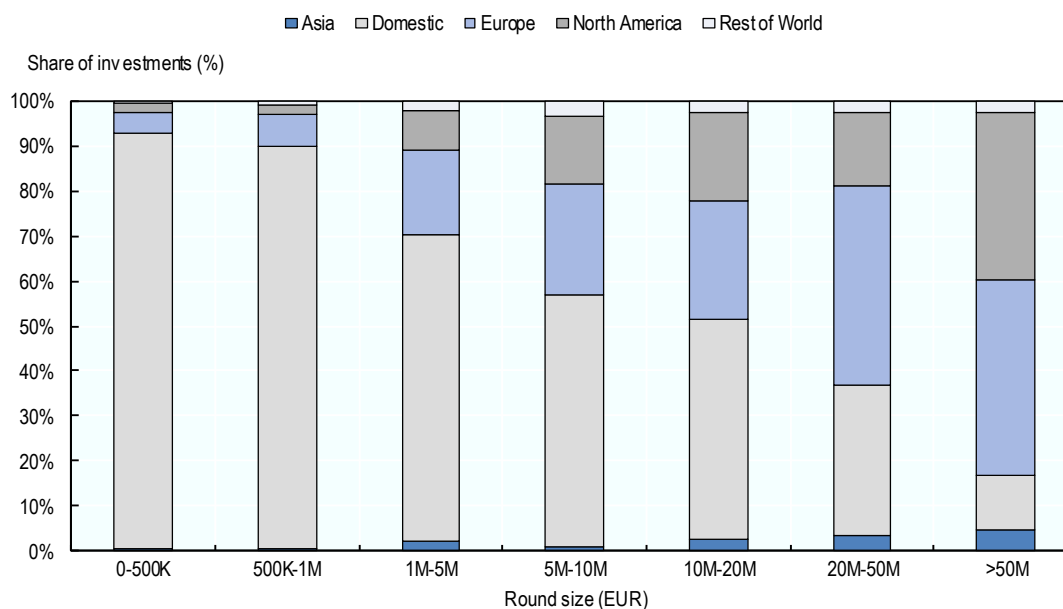
**Figure 8.4. Distribution of domestic VC deals by investment round size**

Note: Total number of deals by domestic investors, cumulative 2017-2024 investment data

Source: Fundación Innovación Bankinter, Startup observatory database

Many Spanish startups are small, have non-capital-intensive business models and may not even want to scale up. Such firms often do not seek to participate in investment rounds beyond Series A. However, for startups with scaleup potential, it is difficult to find venture capital beyond Series B rounds. The lack of this type of funding can lead promising startups to relocate abroad, frequently in the US. The rapid development of numerous, small venture capital initiatives, has not yet created a critical mass of sufficiently large, specialised funds with the necessary expertise to understand, guide and support all types of startup founders.

The core of the issue is that there are many family offices in Spain, but not enough large funds that can finance deals larger than EUR 50 million. This is a problem common to most European countries, but Spanish VC funds are significantly smaller. For instance, there were only 2 Spanish funds among approximately 450 active fund managers supported by the European Investment Fund in the context of the European Tech Champions Initiative.<sup>1</sup> In addition, the average and the maximum size of funds in the United Kingdom, Germany and France is significantly larger than those in Spain. For example, the Anglo-American Index Ventures had a fund size of about EUR 2.3 billion, and Atomico, a fund with offices in London, Paris and Stockholm reached a size of EUR 1.3 billion in 2024. In contrast, the larger Spanish funds can only commit up to around EUR 300 million. The lack of large Spanish funds means that whenever a Spanish startup grows to reach Series C or D, it often needs to find foreign sources of finance. According to Fundación Innovación Bankinter's Startups Observatory, only 33% of EUR 20-50 million deals and only 12% of over EUR 50-million deals that took place in 2017 and 2024 in Spain were financed by domestic funds (Figure 8.5).

**Figure 8.5. Share of VC investments by rounds size and region**

Note: Domestic identifies Spanish rounds. Share of investments by round size and origin of funds in the cumulative 2017-2024 investment data  
Source: Fundación Innovación Bankinter, Startup Observatory database

Nonetheless, most stakeholders in the ecosystem acknowledge a structural change in the Spanish VC market since the beginning of the century. Public and private VC funds and business angel networks have grown significantly. In addition, accelerators, incubators, science parks, research centres, and programmes to support startups have become more widespread and have improved access to finance for startups and scaleups (Asociación Española Business Angels Networks, 2024<sup>[9]</sup>).

In addition, the Spanish Securities Markets and Investment Services Law, Law 6/2023, has introduced important innovation to the listing process for non-equity securities, including a new legal regime for the representation or registration of negotiable securities by the means of distributed ledger technology systems ("DLT Securities"). While this reform does not impact venture capital markets directly, it helps create a positive sentiment among investors in the Spanish capital market.

These developments have created mutually reinforcing mechanisms through which increased finance opportunities have led to creation of more startups, which has in turn attracted more investors. According to Pitchbook, Spanish Private Equity raised EUR 2.9 billion in 2024, marking a new record for the country. At the same time, Spaincap has reported that the number of VC operations more than doubled between 2013 and 2023, creating a vibrant environment and healthy competition in seed and Series A capital markets. Access to capital at this level does not represent a major bottleneck for Spanish startups, at least in the main cities.

Some programmes have been particularly important in bridging the gap for relatively low capital-intensity startups which do not yet attract the interest of VC funds but cannot access bank credit either. ENISA's participatory loans have historically played this role, by offering a financial instrument halfway between a traditional loan and venture capital. The amount of the loan can be up to the founder's contribution, and the lender, apart from the ordinary interest, receives a payment that depends on the evolution of the company's activity. Such loans do not require collateral other than the business project itself and the professional solvency of the management team. These loans are typically long-term (up to 9 years) and allow for longer repayment terms and grace periods than traditional loans. In addition, in the event of a company reducing its capital or liquidating it, the loan is considered as accounting equity. Since the launch

of the participatory loan instrument, ENISA has provided finance to almost 7 850 companies, offering a unique instrument in the market for the development of non-capital-intensive startups.

A further recent development is the introduction of a stock exchange dedicated to small firms. About 15 years ago, Bolsas y Mercados Españoles (BME), the Spanish stock exchange authority, created a new multilateral trading facility called alternative stock market, where innovative and fast-growing companies (mainly startups, spinoffs, and family businesses) can raise equity, learn to deal with stock exchange mechanisms and requirements, and prepare to be listed in the main market at a later stage. This includes the “Entorno pre-mercado” programme, a training initiative for companies. For example, scaleups can learn about how to manage free float shares, due diligence, compulsory reporting requirements on markets, and comfort letters from auditors.

BME started with a single market segment, and over time opened two other segments: premarket (the most junior one) and BME growth (the more advanced one). After having moved up to the BME growth market, a company can be listed on the BME main market. To date, this alternative market is not yet mature. There are about 150 companies listed, but they have low capitalisation, few transactions per day and limited liquidity. On the other hand, there have been several capital increases, which is important to create a perception among investors that it is acceptable for companies to increase their capital gradually in this market. In this context capital increases do not represent an equity dilution issue.

There are opportunities to accelerate this positive dynamic in alternative stock markets. Firstly, tax incentives introduced by the Startup Law can be made available for companies listed on junior or alternative stock markets. To date, ENISA cannot certify a company as an emerging startup if it is listed on any stock exchange (including alternative markets). Moreover, the requirement to have a free float of at least EUR 2 million, distributed to at least 25 shareholders, could be lifted. As many firms are unwilling to expand their cap table, these requirements discourage firms from being listed. Going forward, Spain could improve the functioning and regulation of the market and develop a pipeline of companies that could be listed. The United Kingdom has pioneered the use of these subsegments of the stock exchange to involve startups with equity markets, and Spain can look to this model. The UK experience, as well as the experiences of Scandinavian countries shows that changing the mentality of investors and startup founders is critical for the development of these markets.

### ***Institutional and corporate involvement in venture capital can grow***

One of the factors behind the lack of large venture capital funds in Spain is a limited involvement of institutional investors (pension funds and insurance funds), which are the key players with the critical mass and investment horizon necessary for very large funds. This is a common issue in Europe, but some countries have started to incentivise institutional investors to participate more in Venture Capital and private equity. For instance, Spain can be inspired by France’s PACTE law as a way to promote investments in private equity by insurance companies and alternative retirement plans (Box 8.1).

Corporates could also represent an important source of funds, but they are also contributing less than in other countries. Based on 2023 data, family offices are the primary source of VC funds raised in Spain by domestic private entities (about 33%), followed by the public sector (about 23%), which support funds through *Axis Participaciones Empresariales* (the private equity arm of ICO, the Spanish development bank), CDTI a public entity under the Ministry of Science and Innovation, and, since 2024, SETT, a public entity under the Ministry of Digital Transformation and the Civil Service. Corporations and non-financial companies contribute about 20% of the total. A part of these investments is related to their commitment to a new public-private fund (Next Tech). Institutional investors provided only about 6% of total VC raised in 2023, much lower than the European average, which is above 15% (Spaincap, 2024<sup>[10]</sup>). Institutional investors in Spain tend to be risk-averse, allocating most of their funds to fixed assets and only small amounts to private equity or alternative investments, even in periods when interest rates were low.

Greater involvement of institutional investors would not only inject more long-term capital into the system but could also improve the liquidity of VC markets. Currently, a significant amount of capital is invested in startups that have grown but have not yet gone through an initial public offering (IPO) or acquisition. The involvement of institutional investors could help to build a stronger secondary ecosystem of funds. Some funds have unrealised returns that in some cases are high but caught in very long holding periods, locking capital in illiquid positions. Institutional investors, entering in these segments of the VC market could acquire profitable VC portfolios at a discount, providing liquidity to the system for new investments in emerging startups. The business of acquiring positions from Limited Partners (LPs) or General Partners (GPs) is a specific market segment that requires specialised agents, yet it is hard to develop a well-functioning secondary market if there is not enough liquidity in the system. Unlocking some positions and creating a deeper financial system is a precondition for the development of more sophisticated secondary markets.

Attracting financial resources from corporates into venture capital funds could also be important for boosting the finance element of Spain's ecosystem. Financial participations from large companies in VC funds could crowd-in other firms and investors, expanding the capital base. Corporates are also often better equipped to understand the technical and market aspects of products developed by startups, including through their own R&D efforts.

Investments in VC funds by corporates have often been limited by difficulties associated with internal VC fund management. Corporate governance and manager incentive structures may not accept investments that do not generate revenues, such as early-stage startups, and corporate structures may have slower decision-making processes than VC funds. In some cases, internal political economy further limits internally managed VC funds, especially if fund managers receive a greater financial benefit than core business directors. At the same time, it can be risky for startups to work with corporates, since there may not be satisfactory incentives and expertise from the corporates to develop the startup to the same level as a professional VC firm would do.

An ideal scenario would be a synergy between VC funds and corporates, where VC funds pool resources from different sources and provide expertise, and corporates provide funds and R&D insights. This scenario is still not very common in Spain, but there are signs of changes. Telefonica, the largest Spanish telecom corporation, recently created an externally managed EUR 70 million fund for VC investments. Similarly, Repsol and Iberia have recently started to allocate some resources to venture capital. These developments signal a change in the approach of corporates. However, a deeper cultural change is needed before corporates can participate in venture capital markets as much as observed in other European countries.

### **Box 8.1. France's PACTE law has incentivised insurance companies and alternative retirement plans to invest in private equity**

#### **Description**

Over the past 10 years, France has introduced various reforms that have progressively facilitated investments in private equity. At least two important laws have been introduced in France in this time frame: Law 2015-990 (called "Loi Macron") and Law 2019-486 (called PACTE).

In Law 2015-990, among the 308 articles, article 145 introduces limited partnership firms (Société de Libre Partenariat (SLP)), a new investment vehicle organised as a type of limited partnership (société en commandite simple) under the responsibility of the general partners. It is designed to address the

needs of foreign investors, including a legal personality and the possibility of benefiting from foreign tax breaks through more straightforward categorisation in foreign tax codes.

The second and arguably more impactful reform has been the Law 2019-486 (PACTE). This contains numerous articles aimed at boosting entrepreneurship such as reduced administrative procedures to start a company, a simplified liquidation procedure, a simplified property transfer procedure, and the creation of the 'business-to-mission' company category to encourage corporate social responsibility. With respect to finance, the Law introduces important measures that facilitate the involvement of life insurance companies and alternative retirement saving plans in private equity and venture capital.

A long-standing issue in Europe is that private savings and institutional investors do not flow into private equity markets but tend to be invested in lower risk asset classes (e.g. fixed income, or shares of listed companies). The PACTE Law allows life insurance companies to invest in private equity funds, such as Fonds Professionnels de Capital Investissement (FPCI), Fonds Professionnels Spécialisés (FPS) and Sociétés de Libre Partenariat (SLP). An important change was the expansion of eligible "FIA" (fonds d'investissement alternatifs) for life insurance and the relaxation of some previous limits. This has given the possibility for private equity vehicles to raise capital through a wider range of retail investors. The Law has also encouraged European Long-Term Investment Funds (ELTIF) to invest in unlisted companies via long-term closed-end funds. Finally, the Law has introduced an alternative retirement saving plan Plan d'Épargne Retraite (PER), which has made it possible for savings from retirement accounts to be invested in unlisted assets such as private equity (including VC), private debt or infrastructure.

### **Success factors**

The reforms, in particular the PACTE Law, have marked a milestone in enabling French savings to be channelled into less traditional and more innovative uses. Prior to these reforms, both regulatory constraints and prudential caution among fund managers limited the allocation of life insurance funds and savings to private equity and venture capital. The introduction of these reforms has improved governing rules and begun to shift mindsets.

To achieve these reforms political leadership required long consultations with all stakeholders. Notably, the PACTE Law took about two years and several meetings with business leaders, unions and different political leaders to be drafted. This long and comprehensive consultation ensured that all views were considered, and all stakeholders participated in shaping the reform. At this stage it is difficult to evaluate the impact of the reforms, but many stakeholders have welcomed the measures as positive developments towards a more robust venture capital ecosystem.

### **Lessons for Spain**

Moving from startup finance to scaleup finance is a priority for the Spanish entrepreneurial ecosystem. This can be boosted by fund mobilisation from institutional investors such as pension funds and insurance companies. The French experience shows that freeing resources and facilitating the participation of actors that were previously excluded from private equity investment is possible if there is a political will to act in that direction. Even marginal gains are important to unlock investments in promising startups, make the secondary market more liquid and incentivise future investments.

Sources: <https://www.dechert.com/knowledge/onpoint/2016/6/the-societe-de-libre-partenariat-a-new-french-fund-alternative.html> ; [Fin du grand débat, loi Pacte enfin votée: La Réforme de l'épargne déjà en marche. -- EGD FINANCE](#) ; [Loi PACTE : définition, objectifs et mesures pour les entreprises | Big média](#) | [S'inspirer, S'informer, S'engager](#) ; [Loi Pacte: impact on private equity in France, life insurance and retirement savings](#)

### ***Public support of the venture capital market is important***

Government is playing an important role in building the venture capital market in Spain, and its involvement has increased over the past decade, especially through public development banks (OECD, 2025<sup>[11]</sup>). Numerous programmes and significant resources have been allocated by different public institutions in Spain to capital and quasi-capital instruments, reaching about a quarter of the total venture capital raised in the country. As in most European countries, public funds usually cannot invest directly; they either operate through funds of funds or they create co-investment programmes, where private investors must commit at least the same amounts supplied by the public entity. This means that by themselves, the public sector cannot solve the lack of large investment funds. They need large private actors who can commit billions of dollars in a fund to work with them.

At national level, the three larger players in this area are ICO (Instituto de Crédito Oficial) which operates through Axis, its venture capital subsidiary, CDTI (Centro para el Desarrollo Tecnológico y la Innovación) and SETT (Sociedad Española para la Transformación Tecnológica). The former operates 3 large funds and fund-of-funds (ICO Next tech, ICO Global, ICO Pyme and ICO Infrastructure). CDTI is mainly focused on startups emerging from university scientific research, providing a large fund (INNVIERTE), a fund-of-funds and multiple grants, loans and partially refundable aid instruments. And SETT manages several strategic investment vehicles linked to the Recovery and Resilience Facility, including the Next Tech fund, the PERTE Chip initiative and the Audiovisual Hub fund, with a focus on technological transformation and the scaling-up of innovative companies. In addition, COFIDES, a state-owned enterprise specialised in state funds, manages the Co-investment Fund (FOCO), a public financial instrument to mobilise resources from foreign investors. There are also other smaller initiatives at national and regional level.

This creates a complex ecosystem of large public-backed venture capital funds where available resources are not pooled in a single place, and the multiplication of programmes makes it hard for startups and scaleups and potential investors to be aware of available opportunities. Some stakeholders therefore propose that there should be a single client-facing contact point for all existing public-backed funds.

### ***There is scope for growth in angel finance***

While Spain's main limitation in the finance element of the entrepreneurial ecosystem relates to scaleup finance, there are some possible areas for improvement in the smaller-scale venture capital investment space. For instance, angel investments have yet to reach their potential and angel investors have yet to achieve the level of expertise of the frontrunner entrepreneurial ecosystems in Europe and globally. One boost that can be given to the system is to apply available tax incentives to investors in startups both to individuals and syndicates as well as investors who set up special purpose vehicle (SPV) or other legal structures.

The volume of investment in this segment is still relatively small, reaching about EUR 50 000 per investor in 2023. An associated lack of liquidity limits exits' options for angel investors, who often need to hold their positions longer than expected, reducing possibilities to recycle funds towards new business founders. This issue was particularly acute in 2023, when the investment environment worsened, and exits collapsed. Recently there has been some consolidation of private investor networks, investor groups, and online platforms to improve access to finance to entrepreneurs. As investor networks grow, they also improve their level of professionalism and sophistication. For instance, business angels have started to co-invest with other business finance instruments and adopted in-house investment vehicles (Asociación Española Business Angels Networks, 2024<sup>[9]</sup>). However, developing a more professionalised, specialised and liquid angel investment environment will still require time and efforts from all the stakeholder in the ecosystem.

### ***More international participation in venture capital investment can be stimulated***

In Spain, foreign investors and venture capital funds are playing an important role in large VC rounds. Most Series C and Series D funding rounds in Spain are sourced from foreign European or US funds. However, despite these trends and new incentives to foreign investors introduced by the Startup Law, more could be done to boost entrepreneurial finance by mobilising foreign capital. Attracting large foreign VC funds not only increases total capital in the Spanish ecosystem but is also crucial to bringing in the specialisation and venture management skills that most Spanish funds have not yet developed. In addition, the presence of reputed, large funds signals the quality of the investment environment and can crowd-in other major international funds.

Currently, Spanish public and private funds attract foreign funds (especially European funds), by allocating capital that foreign investors need to match with a multiplier of 1.2 (e.g. 120 million for every 100 million from a local fund). There are however regulatory and structural issues that limit the possibility of using this mechanism to its fullest. One of the issues is that since December 2024, investors who aim to acquire a stake of 10% or more in a Spanish company must obtain prior authorisation if they invest in “strategic” sectors such as infrastructures, technology, dual-use items, access to sensitive information, and media (Ministerio de Economía, 2024<sup>[12]</sup>; Garrigues, 2024<sup>[13]</sup>). Another challenge for investors is the administrative process required whenever the equity structure of a startup changes, such as capital increases. All changes to the equity shares must pass through a notary and often require the presence of all the equity owners or their legal representative in one place. This adds time and transaction costs that could discourage investments. In contrast, in the US, the use of NVCA’s free model legal documents simplifies these procedures and makes the system more attractive to investors.

Moreover, the proliferation of many different funds offered by different national and regional governments and government agencies makes it difficult for international investors to be aware of all the opportunities available in the Spanish ecosystem. While the ONE platform introduced by the Startup Law may in the future serve as a one-stop shop for information on initiatives and funds, to date it does not gather all information and is not yet sufficiently well-known by foreign investors, universities and other stakeholders.

Another issue concerns the identification of foreign investors. The Startup Law has made an improvement by waiving the requirement for the investor to be physically present in Spain to obtain a foreigner’s identity number (NIE), so that only an electronic application for a tax identification number (TIN) is required, which can be obtained without being physically in Spain. However, before an investor can apply for a tax identification number, they must validate their identity by presenting themselves physically in Spain or through an attorney who acts on their behalf. The procedure is simpler if a new company is created from abroad. In this case, the investor can request a TIN through an electronic platform (“CIRCE”), using the Single Electronic Document (DUE) obtained from the Entrepreneur Support Office. Nonetheless other countries allow personal identification of investors abroad through their networks of embassies, consulate or dedicated offices abroad, which would ease access for potential investors while maintaining national security protocols.

Adjustments to tax incentives could also be considered. The Startup Law introduced tax incentives on fund managers’ carried interest, yet these benefits are only available to domestic or international individual investors, and do not apply to financial groups, companies or juridic entities. This reduces the potential effect on attraction of foreign investments, which predominately take place through funds and other investment vehicles. Moreover, the possibility for foreign investors to opt for non-resident taxation was discontinued as of March 2025 as defined by the Law 1/2025.

## Policy mapping

**Table 8.1. Finance policies**

Institution(s)	Policy name	Description	Objectives	Target group
Ministry of Finance	Personal income tax deduction for business angels (Startup Law)	Individuals investing in qualifying startups can deduct 50% of their investments from their taxable income, up to EUR 100 000 per year. The Startup Law increased these benefits from a previous 30% of investments and limit of up to EUR 60 000 previously.	To stimulate public and private investment in emerging companies.	Individual investors.
Ministry of Finance	Income from fund management taxation (Startup Law)	The Startup Law establishes that only 50% of carried interest income from fund management is subject to personal income tax. This applies if the fund has held equity in the entity associated with the carry for at least five years.	To promote the development of venture capital as an instrument for financing economic activities.	Individual investors
ICO – Axis	Fond-ICO global	A public-backed large (EUR 4 billion) fund that invests in both venture capital funds and other types of private equity funds. It operates through yearly tenders which define how to allocate tickets to invest in different strategies.	Inject capital into the private equity market in Spain	Private equity funds
ICO – Axis	Fond-ICO pyme	A public fund with a capacity of EUR 250 million dedicated to investments in startups and SMEs, including a section of about EUR 5-10 million dedicated to investments in social funds.	Crowd-in investments in startups and SMEs	Startups and SMEs
ICO – Axis	Fond-ICO sustainability	Fund dedicated to investment in renewable energy, with a particular focus on hydrogen and solar	Crowd-in investments in sustainable technologies and firms operating in this sector	Investors and startups that operate in the renewable energy sector
-SETT	Fondo Next Tech	Fund with a focus on investments in scaleups and deeptech. It acts both as a fund of funds, and through direct investments in companies.	Mobilise investments in scaleups and deeptech	Scaleups
CDTI	Fondo Innvierte	Venture capital fund, set up as a separate entity 100% owned by CDTI through two instruments: 1. A co-investment	Support development of deeptech firms sourcing from university research	Science-based deeptech ventures

		<p>instrument (with national and international co-investors) on a pari-passu regime. It offers co-investments on a demand basis (141 co-investments so far, up to EUR 450 million committed). Investors should submit investment proposals to CDTI.</p> <p>2. A fund-of-funds instrument for technology-based companies. In 2024 it committed EUR 1.3 billion through about 30 operations. In the first six months of 2025 it committed EUR 800 million of which EUR 340 million were in the defence area and EUR 300 million in TechTransfer.</p>		
CDTI	Neotec programme	<p>Grants to technology-based companies, defined as firms with activity focused on the exploitation of products or services that require the use of technologies and knowledge developed through R&amp;D. It includes a line of support dedicated to women entrepreneurs. So far, CDTI has supported more than 1 000 start-ups with an amount of around EUR 260 million.</p>	Supporting the establishment and consolidation of technology-based enterprises	Technology-based firms
ENISA	Participatory loan	<p>Participatory loans of values between EUR 25 000 and EUR 1.5 million. These loans are characterised by: no collateral or guarantees required; Long-term (up to 9 years) horizon; Long repayment and grace periods (up to 7 years); Deductible interests; Classification of the loans as equity in case of reducing the company's capital or liquidation; interest rates linked to results offered in 2 tranches (Tranche 1: Euribor + 2% or + 4.25%, Tranche 2: Variable, between 3% and 6%)</p>	Increase access to finance to innovative and high-potential firms	Innovative and scalable firms as defined by Enisa's eligibility criteria
ICEX	Foco Fund	<p>A co-investment fund with an endowment of 2 billion EUR to invest in the</p>	Attract foreign capital to Spanish companies operating in strategic	Spanish firms in sectors such as energy, mobility, sustainable agriculture

		capital of companies established in Spain through co-investment agreements with different types of foreign investors.	sectors	and biotechnology.
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## Conclusions and recommendations

Traditional loan financing instruments as well as products such as leasing and factoring are well developed in the Spanish banking system and are important sources of entrepreneurial finance for startups and scaleups. Early-stage venture capital and private equity is also expanding, giving additional opportunities for startups. During the last two decades, the offer of venture capital funds has increased exponentially, and most stakeholders agree that it is relatively easy, at least in the main urban centres, to find early-stage venture capital for good business ideas.

The availability of scaleup finance, however, is limited. Although this is a challenge common to most European countries, Spain suffers from a lack of large domestic funds to a greater extent than several other large European countries such as the United Kingdom, France and Germany. An increased involvement of institutional investors (mainly pension funds and insurance companies) in venture capital and private equity investments would provide an important boost to scaleup finance, as would greater involvement of the corporate sector. There has been an important increase in support for venture capital from public funds in Spain recently, but greater co-ordination across the public actors would be useful, while for the largest investments large private players are needed as partners.

At the same time, despite the presence of some large foreign funds in the market, there is a widespread perception that there is potential to further boost the attraction of foreign investors, which could be supported by further regulatory and bureaucratic easing and increasing the visibility of emerging investment opportunities.

Going forward, to improve the finance element of the Spanish entrepreneurial ecosystem, it is important to prioritise resolving the scaleup finance bottleneck. This can be driven by to incentivising institutional investors and enhancing the attractiveness of the market to foreign investors. To these ends, the following policy actions are recommended:

- Set up incentive schemes and introduce legal reforms to encourage institutional investors to invest more in venture capital and private equity.
- Extend the tax benefit to investors introduced by the Startup Law to SPVs and angel investor syndicates.
- Reduce legal and bureaucratic barriers to capital increases and investment rounds, for instance, by leveraging information technologies for identity validation and signature that reduce the involvement of notaries and enable the signature of official documents remotely.
- Publish information about funding opportunities for investors on the ONE platform and introduce functionalities to facilitate networking and matchmaking between funding entities.
- Act at European level to change critical aspects of AIMFD regulation, including the limits for retail investments from private savers into venture capital and support European Investment Fund initiatives to launch European-level funds of funds.
- Continue leveraging public development banks and other public-funded entities (e.g. CDTI) to crowd-in private investors to venture capital markets, and possibly institutional investors.
- Better support impact investors by extending venture capital tax benefits to European Social Entrepreneurship Funds (ESEFs) and European Venture Capital Funds (EuVEFs).

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## Note

<sup>1</sup> For more details about the initiative, refer to <https://www.eif.org/etc/etci/about-etci/index.htm>

# 9 Knowledge

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This chapter analyses the knowledge base that startups and scaleups can leverage in Spain to emerge and grow. It represents the seventh of the ten elements of the entrepreneurial ecosystem framework used to assess the country's ecosystem. The chapter identifies strengths and areas for improvement, presents an international example for inspiration, reviews recent policy developments, and provides recommendations for further progress in the knowledge domain.

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## What's the issue?

A strong and accessible knowledge base is widely recognised as a critical pillar of productive entrepreneurship. Research (Audretsch, Keilbach and Lehmann, 2007<sup>[1]</sup>; (Qian, Acs and Stough, 2013<sup>[2]</sup>)) has shown that the presence of universities, public research institutions, and knowledge-intensive firms significantly enhances regional innovation capacity and entrepreneurial dynamism. When scientific and technical knowledge is effectively transferred from research institutions to startups via licensing agreements, collaborative R&D, researcher spin-offs, or talent mobility, it fuels the emergence of high-potential ventures, particularly in deep tech, life sciences, and advanced materials.

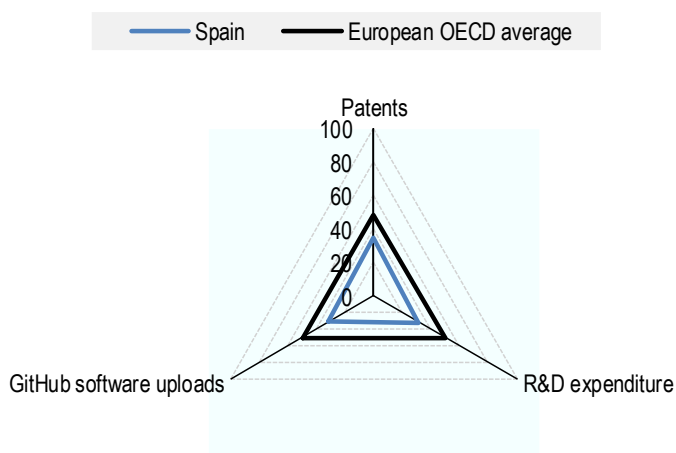
(Kastelli, Siokas and Tsakanikas, 2023<sup>[3]</sup>) and (Kirschning and Mrożewski, 2023<sup>[4]</sup>) highlight that productive entrepreneurship is most likely to emerge where knowledge flows freely across institutional boundaries and where entrepreneurs possess the absorptive capacity to understand and apply scientific and technological advances (OECD, 2023<sup>[5]</sup>). Barriers between academic research and entrepreneurship, incentive structures that do not reward commercial engagement, or lack of professional technology transfer capabilities in universities can result in a rift between research and the business world (Muscio, Shibayama and Ramaciotti, 2021<sup>[6]</sup>; OECD, 2021<sup>[7]</sup>). Entrepreneurial ecosystems that bridge this gap, for instance through innovation districts, incubators and accelerators, and co-investment programmes, produce more scalable and investment-ready startups. Based on the OECD ecosystem diagnostics data, Knowledge is an area that could be further developed in Spain.

## Assessment

### *The Knowledge element of the ecosystem can be strengthened*

The Knowledge element is a bottleneck for Spanish entrepreneurial ecosystem. The international comparative benchmarking data suggest that Spain lags behind the European OECD average on some key measures, namely patents production (per capita), R&D expenditure and software production (Figure 9.1).

**Figure 9.1. Components of the Knowledge element**



Note: Data are presented as normalised scores obtained by applying min-max transformations to the raw values, where the max/min are equal to the sample mean +/- 2\*sample standards deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period.

### ***Knowledge generation can be enhanced***

While not all entrepreneurial ventures stem from research, an ecosystem that offers a larger and deeper knowledge base offers more opportunities to turn some of these breakthroughs into new commercial businesses. The Knowledge element measures such research capacity.

The Knowledge element is an important bottleneck for the Spanish ecosystem. For example, in terms of patents per capita, Spain is still below the average of leading ecosystems in Europe. Spanish universities and research institutions produce a substantial volume of research and include several prominent centres of excellence, yet patenting activity remains relatively low.

This result is partially explained by relatively low R&D investment levels. In 2023, gross domestic R&D expenditure reached USD (PPP converted) 32 355 million (OECD, MSTI database), a 28% increase since 2018. However, despite this progress, the average R&D expenditure (2020-2023) stood at approximately 1.4% of GDP, which is still below the 2% to 3% range observed in more advanced European OECD ecosystems. Investments in R&D are below par across all the ecosystem stakeholders, including the private sector (notably, large corporates), the public sector, and universities where research investment rates are about half of OECD universities on average. Efforts to better fund research that can generate breakthrough innovation should thus take place across all ecosystem actors.

On software production, proxied by Github uploads, Spain is also performing slightly below the average of the European OECD countries, denoting a delay, at aggregate level, in catching up with top European countries (such as the Nordics) on the development of digital technology capabilities.

### ***More can be done to translate Spain's strong research base into commercial innovation***

Spain has developed a strong research base embodied in a network of “Unique Scientific and Technical Infrastructures” and a network of research and technology organisations (RTOs) (Ministerio de Ciencia, 2025<sup>[8]</sup>). Over 70 RTOs are listed in the European Commission’s Monitor of Industrial Ecosystems, including several large RTOs such as Tecnalia (1500+ employees) in the Basque Country and Eurecat (800+ employees) and Leitatz (400+ employees) in Catalonia (Ministerio de Ciencia, 2025<sup>[9]</sup>).

A key signal of Spain’s growing technological relevance is IMEC’s decision to establish a major R&D and potential manufacturing facility in Málaga, its first large-scale operation outside Belgium. IMEC is a world-leading nanoelectronics and digital technology research hub. The project involves a total investment of EUR 615 million, with the Spanish government contributing EUR 500 million. It aims to position Málaga as a major European centre for semiconductor research and manufacturing, an important step in supporting Europe’s technological sovereignty in microchips. The facility is expected to create around 450 highly skilled jobs.

Despite these developments, collaboration between research institutions and businesses remains underdeveloped in Spain’s innovation ecosystem, leading to a low conversion rate of research into commercial ventures. One of the causes is the lack of effective “bridging organisations” that can connect academic research with startups and corporates. Another factor is relatively weak internal R&D capabilities among many startups, which reduces their capacity to absorb and apply research outputs in product development. A further issue is that while deep tech founders need long development cycles and significant capital to create an innovative commercial product, the ecosystem lacks adequate support mechanisms to bridge the so-called “valley of death”, the critical stage between initial technology development and the point at which a product is ready for commercialisation. Instruments such as technology transfer funds, patient capital, and industrial PhD programmes remain insufficient to meet these needs and accelerate research commercialisation.

Public programmes like NEOTEC, “Misiones Ciencia e Innovación 2025” and “Cervera” (managed by CDTI) aim to address some of these issues by providing targeted support to science-based start-ups,

improving public-private collaboration in R&D and enhancing technology transfers. However, some of these programmes are mainly focused on early-stage development, while those that aim at cultivating sustained research collaboration are relatively new (e.g. the Cervera and “Misiones” programmes started in 2019) and their impact has not yet spilled over beyond the main beneficiaries of these programmes. Going forward, R&D platforms and co-creation environments, such as innovation districts, research-focused accelerators, or sectoral collaboration hubs could be further strengthened. These mechanisms could play a key role in better integrating universities, entrepreneurs, and industry actors, helping Spain capitalise on its excellent research base.

In addition, there is potential to level up the scale and quality of knowledge transfer activities of universities. Most Spanish universities and public research centres (111 of which have received accreditation) maintain Knowledge Transfer Offices (KTOs, formerly known as OTRIs) or innovation units, demonstrating an awareness of the opportunities and a willingness to act. However, the strength of the knowledge transfer supports varies across universities and regions, and in some cases the knowledge transfer structures lack adequate resources, commercial expertise, mandates to actively support start-up creation. Intellectual property (IP) policies also vary significantly between institutions, leading to uncertainty and delays for researchers attempting to license their innovations or launch spin-offs.

To address these gaps, a national office for knowledge transfer has been established with the goal of professionalising and standardising KTO operations. There are also regional initiatives, such as in Asturias, which is taking steps to professionalise its regional innovation infrastructure by connecting universities with business incubators and industrial R&D centres. Harmonising and professionalising university knowledge transfer mechanisms nationwide would help strengthen the exploitation of Spain’s research.

### ***There is potential to increase university spin-offs***

The concept of university spin-offs is loosely defined, ranging from the notion new companies that build on intellectual property created in academic institutions broader definitions that focus on the academic background of founders (Berger, Dechezleprêtre and Kirpichev Cherezov, 2026<sup>[10]</sup>). While there is no consensus on the definition, nor reliable internationally-comparable official statistics on university spin-out activity in Spain, preliminary data from a new open-source database - the SpinoutFYI – suggest that Spain’s university spinout generation may be slightly behind that of the European OECD average.<sup>1</sup> While these data are not nationally representative and incomplete, they are suggestive of a relatively low capacity of universities to generate research output that translates into commercial products.

Other indicators also point to a potential to boost academic entrepreneurship in Spain. Thus, as of May 2024, Spain’s total university spinout value was estimated to be significantly lower than the top three European countries. There were also fewer deep tech companies linked to universities and research centres in Spain in 2024 (approximately 1 200) than in the UK (3 500), although the numbers were higher than France (950) and equal to Italy (1 200). In addition, only approximately 15% of the innovative startups certified by Enisa under the Startup Law are deep tech spin-offs. European Patent Office (EPO) data identifies only about 100 Spanish deep tech spinouts (5.6% of the European total) and 302 deep tech startups (2.9%). In terms of valuation, the only high ranked Spanish located deep tech spin-out is Qilimanjaro Quantum Tech (Barcelona), 43rd in Dealroom’s Deeptech spinout listing.

Government policy is active in seeking to enable academic entrepreneurship. Notably, a key revision in 2022 to the Science, Technology and Innovation Law (Law 14/2011) has allowed public researchers and professors to participate in startups while maintaining their academic posts. This legal change is expected to stimulate the creation of more spin-offs, particularly in scientific and deep tech domains, and was cited by several stakeholders as a long-awaited enabler of knowledge-based entrepreneurship. The 2022 reform introduced significant measures to bolster academic entrepreneurship and facilitate the commercialisation of publicly funded research. Key provisions include:

- **Participation of Public Researchers in Startups:** Researchers affiliated with public institutions are now permitted to establish or join spin-offs and startups without relinquishing their academic positions. This change aims to encourage the translation of research into marketable innovations.
- **Institutional Support for Spin-offs:** Public administrations are authorised to promote or participate in companies that facilitate knowledge transfer activities. This includes the ability to invest in or co-invest with seed and venture capital funds targeting Spanish technological and innovative enterprises.
- **Incentives for Knowledge Transfer:** The Law mandates that a minimum of one-third of the income generated from patents be allocated to the inventors, providing a financial incentive for researchers to engage in commercialisation efforts.
- **Enhanced Funding Mechanisms:** The reform supports emerging science and technology-based companies through grants and public venture capital funds. Notably, the CDTI's Neotec programme offers funding to launch new business projects that leverage technologies or knowledge developed through research activities.

However, so far, these recent reforms have not yet translated into major changes in universities' long-standing structural barriers. Possibly, the effect of the reforms will materialise with a delay. To date, however, conservative academic cultures and inconsistent leadership commitment to entrepreneurship within public universities continue to limit the growth of spin-off activity. Moreover, the decentralised nature of Spain's higher education system has hindered uniform adoption of reforms and common standards. Individual universities retain discretion in how reforms are interpreted and implemented. In some cases, the lack of timely communication further delayed the effective rollout of these changes.

An important step to strengthen university spin-offs would be the creation of clear, standardised national guidelines on spin-off creation policies by universities, covering key areas such as intellectual property (IP) ownership, equity distribution among researchers, universities, and external stakeholders, as well as transparent revenue-sharing models. These guidelines would reduce uncertainty, speed up spin-off negotiations, and ensure fair and consistent treatment across institutions. By aligning incentives for researchers, institutions, and investors, such frameworks can foster a more predictable and supportive environment for transforming research into commercial innovation.

### ***Universities are increasingly active in encouraging students to become entrepreneurs***

A further channel for increasing the exploitation of knowledge through startup and scaleup companies is student entrepreneurship, supported by entrepreneurial education and startup support for students. As mentioned in the Culture section, entrepreneurial education is improving, especially at business schools and select universities, but is not yet systematically integrated into STEM curricula.

The Spanish Startup Law includes several provisions aimed at encouraging students to take on entrepreneurial projects and connecting education with startup pathways. This would be a distinct action from courses simply providing entrepreneurship classes and would support students with the purpose of starting a company. For instance, the Law calls for a dedicated legal framework for student startups. However, this framework is not yet operational. A draft text has been prepared by the Ministry of Digital Transformation, but further refinement is needed, particularly on issues such as civil liability protections for student founders. Full implementation will require additional ministerial orders or a Royal Decree. In developing programmes to support entrepreneurship among university students Spain could look at the experience of other countries with decentralised education system. For instance, Germany's EXIST Programme (Box 9.1) provides an example of how to increase co-ordination and support for students' entrepreneurship in a federal setting.

In parallel, universities are taking more active roles in promoting industrial PhDs, company-linked master's theses, and entrepreneurship training modules. These are valuable tools for exposing students to

commercialisation pathways, though their availability varies across institutions. Implementation challenges, however, remain. For instance, deep tech founders report difficulties in hiring a non-EU PhD student under an industrial doctoral programme due to visa processes and high contract costs. Such cases underscore the need for more flexible and accessible talent pathways that enable universities and startups to collaborate effectively. More importantly, Spain still lacks coherent, student-friendly, and operational mechanisms to support student entrepreneurship within universities. This would require better integration of entrepreneurship into STEM curricula, simplified registration and compliance processes for student-led startups, more robust support infrastructure, including incubators and access to mentoring. National co-ordination on innovation skills and translational support could better leverage Spain's strong research base.

### **Box 9.1. Germany's EXIST Programme – Fostering Entrepreneurship among University Students**

#### **Description**

Germany's EXIST programme, initiated by the Federal Ministry for Economic Affairs and Climate Action (BMWK), is a comprehensive national initiative to promote entrepreneurship in universities and research institutions. It supports students, graduates, and researchers in turning innovative ideas into viable businesses. The programme strengthens the entrepreneurial ecosystem in higher education and encourages the commercialisation of academic research.

Key components include:

- **EXIST Business Startup Grant.** A financial support for up to 12 months for teams preparing innovative, technology-oriented startups. Funding includes a monthly living allowance (EUR 1 000 for students, EUR 2 500 for graduates), material costs up to EUR 30 000, and coaching services up to EUR 5 000.
- **EXIST Transfer of Research.** A fund for complex research-based projects with commercial potential, typically in two phases: development of prototypes and business planning (Phase I), followed by company launch and initial operations (Phase II).
- **EXIST-Women.** A newer pilot initiative that provides tailored support, mentoring, and networking for female students, graduates, and researchers interested in founding startups.

In addition, the EXIST Startup Factories initiative was launched in 2024. The initiative aims to establish up to 10 high-impact, university-linked startup centres. These centres are designed to significantly increase the number and quality of knowledge-based spin-offs by fostering robust collaborations between academia and private sector partners. Each Startup Factory is expected to secure at least 50% of its funding from private sources, promoting sustainable business models and reducing reliance on public funds. The initiative encourages the development of regional startup ecosystems with international visibility, integrating universities, research institutions, investors, and established companies. In the initial concept phase, 15 projects received funding to develop detailed proposals, with 5 to 10 expected to proceed to the implementation phase starting in 2025. These Startup Factories will serve as entrepreneurial beacons, enhancing Germany's position as a leading startup nation.

Evaluation results have consistently shown the EXIST programme to be highly effective in fostering university-based entrepreneurship. According to programme monitoring data, over 2 600 projects have been supported through the EXIST StartUp Grant, with more than 85% of these teams going on to formally establish companies, out of which nearly 90% remain active after three years, and close to 80% after five years.

### Success factors

The main drivers of the programme's success include integrated financial and mentoring support, institutional engagement, and tailored instruments for deep-tech and female-led ventures. Another important feature of this programme is its holistic support for student start-ups, combining living stipends, coaching, and prototyping funds lowers barriers for young founders. These elements determine the main building blocks for policies that aim at boosting entrepreneurship within higher education ecosystems.

### Lessons for Spain

The German experience can inspire Spain on how to establish a national student entrepreneurship programme in a federal/decentralised setting. Spain could use national-level long-term funding and visibility as a way to unify fragmented support to student entrepreneurship.

The experience of Germany also shows the importance of linking funding to institutional strategies to foster deeper integration of entrepreneurship into higher education. It also shows how women and research-based ventures require targeted instruments to close gaps in these domains.

Sources : <https://exist.de/en/> / <https://startupport.de/en/exist-funding-springboard-for-successful-start-ups>

## Policy mapping

**Table 9.1. Knowledge policies**

Institution(s)	Policy name	Description	Objectives	Target group
Ministry of Science, Innovation and Universities	Oficinas de Transferencia de Conocimiento (OTC).	OTCs are intermediaries between research institutions and the productive sector. Their roles include: Identifying and protecting research results. Facilitating commercialisation (e.g. licensing, spin-offs). Promoting collaborative R&D between public and private sectors. Supporting innovation services and technology transfer.	KTOs are established to bridge the gap between research outputs and societal application. Their primary mission is to facilitate the transfer of knowledge generated by research and innovation activities to the industry and society, thereby achieving tangible economic and social benefits.	Universities, research centres, research hospitals, etc.
Ministry of Science, Innovation and Universities / CDTI	Misiones Ciencia e Innovación 2025	Financial support to collaborative innovation projects that address horizontal social issues such as developing technological solutions that reduce hospital stays, promote the adoption of responsible artificial intelligence, advance territorial planning, strengthen capabilities for strategic autonomy in security and defence, drive sustainable mobility.	Foster firms' research collaboration in mission-driven R&D projects	Groups of 3 to 6 firms, out of which at least one firm should be an SME or startup

		Budget: EUR 60 million.		
CDTI	Cervera Centres	Support to Cervera Excellence Centres in research, development and innovation. These centres will prioritise i. Civil technologies (food chain safe and healthy and efficient management and sustainable energy development) and ii. Dual technologies (communications artificial intelligence, advanced autonomous vehicles, advanced materials, technologies, and digital quantum industry 5.0). Budget: EUR 60 million.	Boost Spanish research capacity	Groups of between 4 and 7 technological centres certified as "Cervera Excellence Centres"
CDTI	Programmes in international technology co-operation (PCTI)	International calls at EU level for partially refundable funding, grants (e.g., Eurostars), and support through European co-financed schemes. CDTI serves as the managing authority for these international calls, handles international certification, and supports Spanish participants even when they choose to self-fund their participation.	Increase Spanish companies' technological capacity	Innovative projects in firms
CDTI	Deep Tech Transfer funding instrument	A new funding instrument established by CDTI with the European Investment Fund in 2025 to promote technology transfer from research centres. With a budget of EUR 350 million, the instrument invests in deep tech projects in the pre-seed and seed phases, originating from universities and research centres. Some instruments that had not been taken into account in the development of the report have been incorporated.	Boost technology transfers from universities and research centers	Deep tech research
Agencia Estatal de Investigación (AEI)	Grants for contracts aimed at training industrial PhD candidates (Doctorados Industriales)	Four-year grants for different types of entities whose purpose is to promote industrial research or experimental development projects, including doctoral theses, to facilitate the entry of research personnel into the labour market at the beginning of their professional careers,	These grants support four-year contracts for PhD candidates to carry out industrial research or experimental development projects within companies or other organisations.	Companies of all sizes: SMEs, large enterprises, startups, spin-offs, and Young Innovative Companies (Jóvenes Empresas Innovadoras)

		<p>contribute to the employability of these researchers, and promote the incorporation of talent into the productive fabric to increase its competitiveness.</p> <p>The industrial research or experimental development project may be carried out entirely within the applicant entity or in collaboration with another public or private entity.</p> <p>The grants cover direct costs of implementing the project and tuition fees for doctoral studies.</p>		
Red.es, Ministry for Digital Transformation and Civil Service	Research and Development projects in Artificial Intelligence and other Digital Technologies and their integration into Value Chains	<p>Since 2021 and with a budget of EUR 33.5 million, this programme offers grants for innovative industrial research and experimental development projects that integrate artificial intelligence and other advanced technologies into the value chains of Spanish companies, with a particular focus on SMEs and startups.</p> <p>A priority is given to strategic sectors where these technologies can make a significant impact on production processes.</p> <p>The grants cover between 25% and 80% of project costs, depending on company size, location, type of project, and results dissemination plans.</p> <p>Project selection is based on strategy, market, and exploitation of results; innovativeness; team management and collaboration; financial viability of the entity; socioeconomic impact and gender equality.</p> <p>About 200 projects are supported each year.</p>	Facilitate early career integration of researchers.	SMEs, startups, and other technology-driven businesses
Universidad Politécnica de Madrid (UPM)	Competición Actúa UPM	<p>Competition for startups created within the university context. The 10 best ideas receive a prize of 1 000 EUR, free training and mentoring of the team members, and free participation in a pre-acceleration programme.</p> <p>The three best startups</p>	Identify innovative ideas and talent to be developed and incentivise knowledge transfer	All stakeholders in the UPM network (professors, students, alumni up to 10-years since graduation)

		also receive prizes between EUR 5 000 and 15 000		
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## Conclusions and recommendations

The Spanish university system has produced substantial research with potential commercial applications. There is a bottleneck, however, in the translation of research into commercial products, due to challenges including limited knowledge transfer infrastructure outside a few centres of excellence, uneven knowledge transfer activities across regions and universities, limited awareness of research commercialisation routes among academic staff, cultural barriers to commercialisation activities in the university sector, and weak university-business linkages.

Spain has made some important strides in improving conditions for generating spinoffs and academic entrepreneurship through recent policy reforms and entrepreneurial education is improving, especially at business schools and select universities, although it is not yet systematically integrated into STEM curricula.

To enhance a startup-supportive knowledge system, it is recommended that the Spanish authorities:

- Raise awareness of recent reforms in university commercialisation legislation such as on IP ownership and academic staff employment regulations through communicating information to academics and helping researchers and institutions to navigate recent updates, e.g. Red.ES.
- Incentivise researchers to find commercial applications for their inventions by: i. defining conditions for spin-off participation, ii. issuing guidelines on how to apply “one-third income” IP provisions, iii. offer proof-of-concept grants and translational R&D funds for spinouts.
- Maximise research commercialisation by supporting university-linked accelerators, research-based innovation districts, and dedicated joint research funding tenders involving teams of academics and startups.
- Enhance Knowledge Transfer Office (KTO) capability by investing in training, commercialisation funding, and technical services (e.g. legal, valuation) and reduce legal uncertainty by issuing national guidelines on equity, licensing, and revenue-sharing principles.
- Promote student entrepreneurship, as foreseen by the Startup Law, by introducing liability protections, flexible registration, and tailored incubation/acceleration support for student-founders.
- Expand and optimise existing programmes that incentivise collaboration in innovation across firms and knowledge transfers between university and the private sector.

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# 10 Talent

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This chapter analyses talent availability for Spanish startups and scaleups. It constitutes the eighth of the ten elements of the entrepreneurial ecosystem framework used to assess Spain's ecosystem. This chapter identifies strengths and areas for improvement, presents an international example for inspiration, maps recent policy developments, and offers recommendations for further progress in the talent element.

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## What's the issue?

One of the enablers of startup and scaleup development is the prevalence of business founders and potential employees with technical and business skills in the ecosystem. The literature shows that entrepreneurship rates are higher in countries where talent pools are larger and better educated (Dimov, 2017<sup>[1]</sup>; Nguyen, Canh and Thanh, 2021<sup>[2]</sup>), and that a higher incidence of entrepreneurship education tends to increase startup rates (Martin, McNally and Kay, 2013<sup>[3]</sup>). Evidence also indicates that startup revenues are higher when staffed with high-skilled professionals who can identify opportunities in markets, and display creativity, problem solving, and capacity to use newer technologies (Botella-Carrubi, Ulrich-Berenguer and Ribeiro Soriano, 2023<sup>[4]</sup>). Startups and scaleups therefore benefit from ecosystems where the population is well-educated, where there is abundant supply of highly-competent professionals and where there are professionals who have completed tertiary or vocational training in STEM fields (e.g. engineering, biology, etc.) (Botella-Carrubi, Ulrich-Berenguer and Ribeiro Soriano, 2023<sup>[4]</sup>).

This section provides an assessment of conditions and policies for the Talent element of Spain's entrepreneurial ecosystem and make recommendations for policy.

## Assessment

### ***Spain performs better on tertiary level than lower-level skills***

Spain performs relatively well at the top end of the educational system compared with European OECD countries. The share of people who have attained a tertiary education degree in Spain is equal to the European OECD average level (41%), Spain is above the European average in the incidence of a master's degree, and only 4 points below the European average in terms of incidence of doctorates in the total population.

Spain also performs well on the diffusion of digital literacy (as measured by internet users) and entrepreneurial capabilities. Over 94% of the Spanish population is an internet user, which makes Spain one of the top 8 countries in Europe on basic digital skills, just behind the United Kingdom and Sweden.

Tertiary-educated talent in Spain is available, and according to some Spanish stakeholders, relatively cheaper, more loyal and easier to retain than technical workers in other ecosystems such as Silicon Valley.

At lower educational levels, however, Spain's performance is weaker. Mean years of schooling attained by current working age people is relatively low and Spain's share of adults without at least a secondary education degree is higher than the OECD average (36% to 19%). This reflects lower educational attainment in older cohorts of workers and a relatively high rate of young people leaving the education system, which is about 14% in Spain compared with an OECD average of 9% (OECD, 2023<sup>[5]</sup>).

Early school-leaving represents a source of talent loss in the ecosystem. Some of these students, even without obtaining a tertiary degree, could have become trained professionals. Over the past decade, Spain has reduced its early school leaving rate, bringing it down from one of the highest levels in Europe in 2010 (over 28%) to 13.9% in 2022. Despite this progress the leaving rate remains above the European average (9.3%), and recent progress does not fully compensate for the human capital losses of the past decades. Early school leavers from ten or twenty years ago are still in the labour force. In addition, only 4 out of 10 adults participate annually in training or reskilling programs.

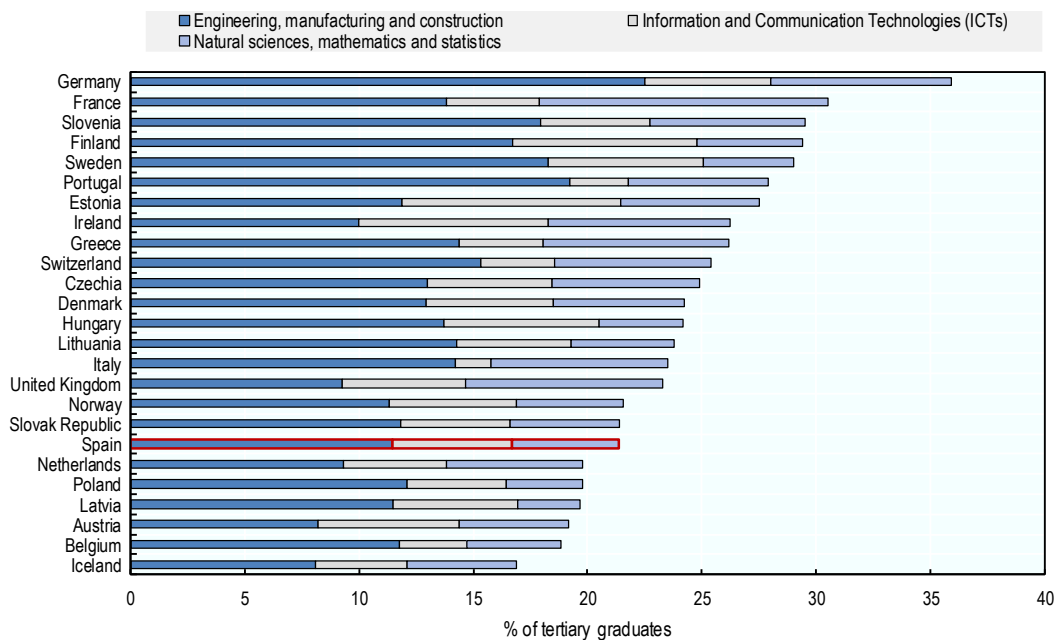
The total skilled talent pool in Spain today is therefore below its full potential. In particular, many stakeholders consider the average level of English of the Spanish labour force to be insufficient, and that digital skills, financial literacy, critical thinking and creativity should also be improved.

The Spanish Government's Spain 2050 Report: Foundations and Proposals for a National Long-Term Strategy, has set out three strategic areas for interventions to improve Spain's educational system and talent pool. They include reducing the share of the population without compulsory secondary education, improving basic competencies (e.g. reading, comprehension and mathematics), and promoting lifelong learning. A recently launched programme in this space is the Digital Vocational Training Plan (Plan FP-Digital), which aims at integrating digital competencies into vocational education, augmenting the supply of trained professionals in highly-demanded functions.

### ***There is need to boost skills in growing sectors***

Innovative startups tend to specialise in technology-intensive industries, where scientific, engineering and digital skills are at a premium. However, Spain features a relatively low share (21%) of tertiary education students who graduate in sciences, engineering and ICT disciplines (Figure 10.1). The availability of domestically produced talent in these domains is thus proportionally lower than in other countries, which can affect startups capacity to recruit the type of talent they need. Skills mismatches between the education fields selected by graduates and the skills demands of startups contribute to talent shortages for certain professional profiles.

**Figure 10.1. Tertiary graduates in STEMs by country**



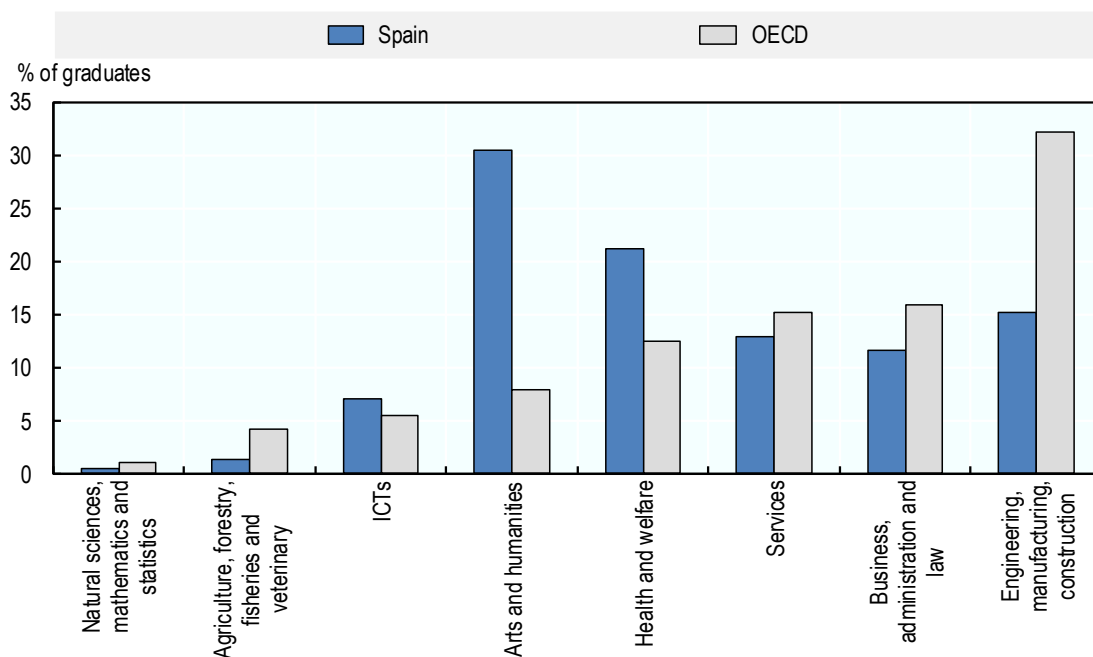
Note: Data refer to 2022, as of April 2025

Source: OECD, Education at a glance database

Since the COVID-19 pandemic, Spain has continued to face a relatively high unemployment rate compared to the OECD average. Nevertheless, around 75% of Spanish firms report difficulties in finding qualified employees. This challenge persists today, with particularly acute talent shortages in fields such as engineering, ICT, customer service, operations and logistics, as well as in emerging areas requiring expertise in artificial intelligence, big data, and digital marketing (IESE Business school, 2022<sup>[6]</sup>; Manpower Group, 2025<sup>[7]</sup>). This is linked to a relatively lower incidence (35%) of university graduates in STEM (science, technology, engineering, and mathematics) compared to other European countries, which reduces the talent pool in these domains.

A similar pattern occurs in vocational training. Relatively few people attain non-tertiary degrees in computer science or other technical fields (Figure 10.2) which are constrained in high-demand sectors. Stakeholders argue that vocational training is not sufficiently connected to the demands of startups and scaleups, which need data scientists and other operational technical profiles who can perform specific tasks even without a university degree. Vocational training does not produce enough of these profiles, and there are few placement services to connect vocational education graduates with job openings in startups. In this space, the Alliance for Vocational Training will help involve employers more in defining training curricula and activities and collecting information about labour market placements to help align vocation training with companies' requirements.

**Figure 10.2. Share of graduates in upper secondary vocational education by field of study**



Note: Data refer to 2022

Source: OECD, Education at a glance database

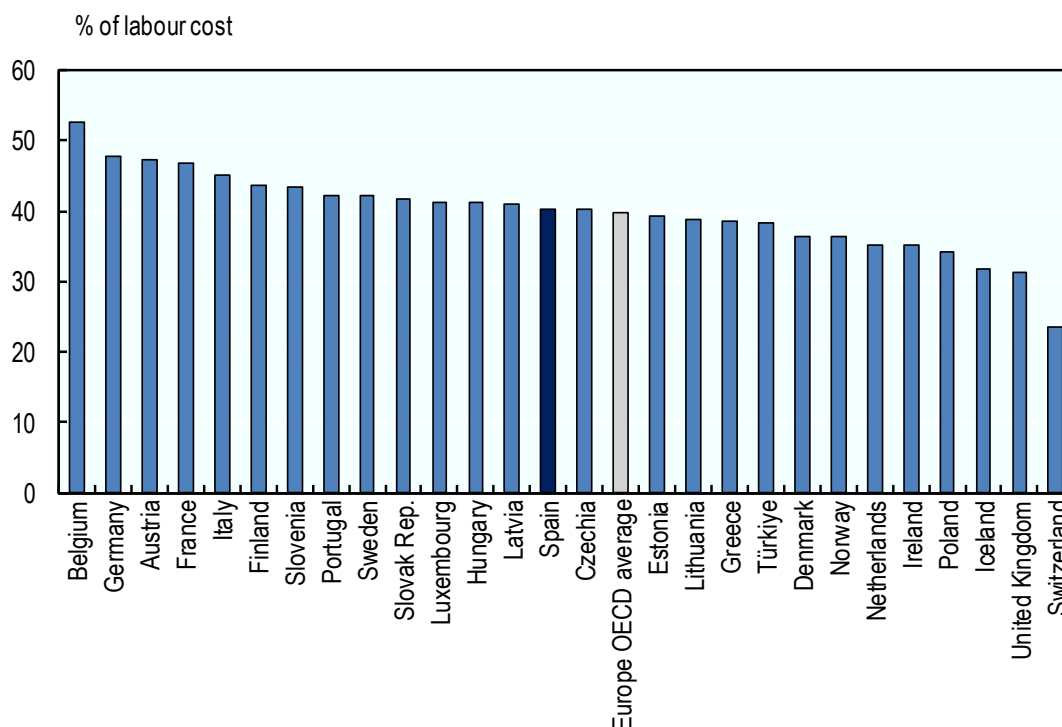
The rapid expansion of Spain's startup and digital ecosystem over the past two decades has also intensified talent shortages in technical fields. According to a recent study by the VASS Foundation and the Foundation of the Autonomous University of Madrid, around 193 100 new technical professionals entered the job market over the past three years. Yet, despite a slowdown in hiring in 2023, demand continues to outpace supply. That year alone, nearly 20 000 companies opened more than 55 000 new technical positions, while Spain's formal education system produces only about 45 000 young technical graduates annually.<sup>1</sup>

### ***Labour taxes and regulations are constraining of entrepreneurship***

Salaries are relatively lower in Spain than in other European OECD countries, which offers an overall competitive advantage to startups and scaleups. However, the average tax burden – including all social contributions less cash benefits as a share of total labour costs (the “tax wedge”) – is higher than the European OECD average (OECD, 2023<sup>[5]</sup>). Social security contributions and payroll taxes represent about 40% of total labour cost in Spain (Figure 10.3), while the OECD average is below 35% (OECD, 2024<sup>[8]</sup>). These taxes impact the fixed cost structure of all companies and could be problematic for some startups

given the importance of the talent component in their valuation and success. Typically, the quality of a startup's team is one of the aspects assessed by VC funds to decide where to invest and the tax wedge may affect their ability to attract top talent.

**Figure 10.3. Labour tax wedge by country**



Note: Data refer to 2023

Source: OECD Labour taxation, comparative indicators

Spanish smaller firms are also disincentivised to hire due to relatively rigid labour laws, with strong employee protection and high dismissal costs. Since startups have uncertain revenues, they are wary of hiring workers with permanent contracts that can represent a financial liability if business does not grow as planned. According to the EIB's investment survey 2023, 57% of Spanish SMEs cite labour market regulations as a major obstacle to investment, a high share in the EU.

The government has introduced two labour market reforms in the past 15 years, one in 2012 and another in 2021, to reduce structural unemployment and duality in the labour market, where some very well protected workers coexist with many precarious workers. According to the OECD and the IMF, the 2012 reform reduced the gap in firing costs between permanent and temporary workers, while the 2021 reform increased employment protection for current temporary workers, and shifted workers from temporary to permanent contracts (OECD, 2023<sup>[5]</sup>). While these developments are positive, they do not fully address the overly costly social security contribution nor some of the rigidities in the overly-protected part of the labour market (IMF, 2024<sup>[9]</sup>). The reforms also did not address the large difference in dismissal costs of permanent versus temporary workers (OECD, 2023<sup>[5]</sup>).

## ***Entrepreneurial skills are widespread, but entrepreneurship education could be strengthened***

A relatively high share of Spanish adults reports that they possess sufficient entrepreneurial capabilities to start a business, with rates being similar to Italy and slightly below the United Kingdom. On the other hand, the EOI Business School (an educational institution managed by the Spanish Ministry of Industry, Energy and Tourism) points to a scarcity of entrepreneurial skills among Spanish university graduates, referring to competencies including creativity, innovation, risk-taking, and ability to plan and manage projects. This partly reflects the limited scope of business education. The 2023 Global University Entrepreneurial Spirit Student's Survey (GUESSS) found that over 68% of university students in Spain have never attended entrepreneurship courses (Global University Entrepreneurial Spirit Students' Survey (GUESS)), 2024<sup>[10]</sup>). As mentioned in the Culture section, entrepreneurial education modules could be offered at different levels of education, to build at the same time entrepreneurial skills while broadening entrepreneurial mentality in the Spanish society.

To boost entrepreneurship in education, the Education Law 2/2006 and Education Law 3/2020 provide legal settings for defining entrepreneurship in education and suggest an entrepreneurship syllabus in training curricula, focusing on primary, secondary and vocational education. However, the national government can only provide general guidelines and frameworks, and responsibility for directly implementing education reforms is with the autonomous regions. Regarding vocation education, the Entrepreneurship Classrooms initiative has recently been launched to improve entrepreneurial soft skills across vocational education graduates in all disciplines and create connections between schools, firms and other institutions to facilitate the creation of new businesses from VET graduates. Programmes have also been rolled out to boost entrepreneurship education in secondary schools, including Empresa Joven Europea (EJE), which trains students to create mini-companies (Bernal-Guerrero et al., 2024<sup>[11]</sup>), and Entrepreneurial Potential in Adolescents (PEIEO), which aims at building specific competences among younger students including creativity, personal control, goal orientation, leadership and intuition for problem solving (Martín-Gutiérrez et al., 2025<sup>[12]</sup>), as well as many regional initiatives.

Overall, however, entrepreneurial education remains optional, with limited human and financial resources committed, and varying outcomes across regions and implementing institutions. More consistency, better co-ordination and structural change in education curricula could help to equip future cohorts of Spanish people with sharper entrepreneurial skills from a young age.

### **Box 10.1. EOI programmes as an example to close the entrepreneurial skills gap**

The Spanish Escuela de Organización Industrial (EOI), with the support of the European Social Fund Plus (ESF+) has created multiple programmes to support entrepreneurship through entrepreneurial skills training in Spain.

The Coworking Programme is a training programme for aspiring entrepreneurs that combines ad-hoc mentoring, workspace and networking activities to boost early-stage entrepreneurship projects.

The European Coworking Programme is an extension of the Coworking Programme, allowing entrepreneurs to gain international experience at an entrepreneurship or innovation centre located in an EU member state for several weeks.

Acelera Startups offers entrepreneurship training across the country using existing entrepreneur networks. With an overall budget of EUR 43 million, it supports 50 business accelerators distributed by geography and sector, with the goal of training 6 100 entrepreneurs.

Generación Digital offers digital skills training in the context of the Digital Skills National Plan. With a

budget of EUR 356 million, a first component aims to train 94 530 SME managers to empower them to lead the digital transformation of SMEs, and a second component aims at training 33 000 experts and SME employees on digital skills to improve the availability of specialised talent for the digital transformation.

### ***Spain is attracting international entrepreneurial talent***

Talent shortages in technology-driven industries have led some startups to look to attract foreign professionals to fill their gaps. The Spanish government has introduced different measures to facilitate the attraction of foreign high-skilled professionals, especially in fields such as ICT.

In 2013, Law 14/2013 introduced new types of visas: the Investor Visa (so-called “Golden Visa”), the Entrepreneur Visa, the Highly Skilled Professional visa, and the Intra-Company Visa. It also set the criteria in terms of education and work experience to be considered as a highly qualified professional, and established the complementarity of authorisation of entry and residence for highly qualified professionals with the EU Blue Card.

In 2022, the Law 28/2022 (Startup Law) introduced additional measures to attract foreign investors and talent. This includes a tax advantage for natural persons who relocate to Spain and a reform of Law 14/2013 allowing eligible professionals (entrepreneurs, investors and high-qualified professionals) to obtain Spanish residence for three years, with a two-year renewal option, and simplified procedure for obtaining the visa. In addition, a visa for international teleworkers aims at attracting foreign talent to live in Spain while continuing working for a foreign employer. Teleworkers can receive a one-year residence visa or a three-year residence authorisation, giving them the right to work and apply to open vacancies in Spain. These measures have been inspired by Estonia’s Startup Visa and e-Residency system (Box 10.2) which still represents a reference for most European countries as they adopt similar arrangements.

In addition, in 2022, ICEX (the Spanish agency for exports and investments) launched Spain-Latam Scale-Up with the Inter-American Development Bank (IDB) to invest in Latin American startups, among which about 50 relocate to Spain every year.

Since 2014, the total inflow of foreign population in Spain grew from about 265 000 people in 2014, to over 1.1 million in 2022 (OECD, 2024<sup>[13]</sup>). While it is hard to distinguish the effect of the various reforms and incentives introduced in this period from international migration trends, the reforms have certainly created more favourable conditions for certain types of immigration. For instance, the total number of people who entered Spain with an authorization issued based on Law 14/2013 grew from about 3 000 in 2014 to almost 98 000 in 2023<sup>2</sup>. These individuals entered the Spanish labour market with a specific type of permit and in principle should include only highly skilled professionals.

Various measures could be taken to build on these positive developments. Firstly, according to Spanish stakeholders, there are still some bureaucratic or regulatory barriers to hiring international talent. Despite recent improvements, Spanish entrepreneurs still consider the visa issuing process for highly skilled workers as too slow, with several steps and bureaucratic delays before startups can onboard needed employees. In principle, Spanish startups could access foreign talent to fill skills gaps by taking on remote workers rather than going through a visa process to hire in Spain. However, there are also regulatory barriers in this case. There are no streamlined pathways to obtain “remote work visas”, and startups must set up a branch abroad to hire foreign workers under a local contract. Overall, there is scope to ease Spain’s legal framework for hiring international talent to reach the level of the most startup-friendly countries such as Estonia.

Secondly, salaries in Spain are lower than in other countries for similar positions. According to Glassdoor, in February 2025, software developers’ average salary in Madrid was between EUR 26 000 and EUR 43 000 EUR per year, compared with between EUR 48 000 and EUR 76 000 in London, and between EUR

42 000 and EUR 55 000 in Paris. Although cost of living varies across these cities, these are significant differences, which not only discourage foreign professionals to move to Spain but also cause Spanish talent to move abroad. The number of Spanish people who left the country has increased recently, mainly to France, Germany and the United Kingdom. Among them there are both foreign-born and Spanish native-born. Foreign-born tend to be older and less well educated, but Spanish-born individuals are mostly highly educated. For example, about 56% of Spanish-born individuals who have entered France in the past ten years had a tertiary qualification (Capote Lama, López Pereiro and Fernández Suárez, n.d.<sup>[14]</sup>).

For startups, the Startup Law has attempted to attract foreign talent through fiscal incentives on startup employees' stock options. Although this has been an important step forward, there is strong competition across countries on offering better conditions to remuneration from stock options. For example, France and the Netherlands have recently increased the attractiveness of stock option plans, and the conditions offered in the US or the UK remain significantly more attractive than those in Spain. For instance, in Spain, only employees of ENISA-certified startups can benefit from fiscal incentives on stock options, and stock options "gains" are taxed as income from work, rather than as equity gains (NordicHQ, 2024<sup>[15]</sup>). There is scope to review and potentially revise some of these conditions in an effort to increase the competitiveness of Spanish startups and scaleups in attracting foreign talent.

### **Box 10.2. Estonia Startup Visa and e-Residency for attracting entrepreneurial talent**

#### **Description**

Since 2017, Estonia offers startup visas and related work permits to accelerate and simplify application procedures for foreigners to create or work in startups in Estonia.

It was the first country to offer e-Residency (a government-issued digital identity and status) to foreigners to enable them to access to the country's e-services from abroad. To obtain an e-Residency, the applicant must submit a CV, motivation, passport and digital photo online, pay a small fee, and select a pick-up point in over 50 cities worldwide where the applicant's identity is checked. This allows the visa to be registered and validated without travelling to Estonia.

Estonia has also created the Startup Visa programme, to allow entrepreneurs who plan to establish a startup in Estonia to opt for a Startup Visa instead of a traditional work permit. A Startup Visa has a dedicated application track which allows a faster visa issuance compared to a standard work permit. Thanks to the e-Residency programme, it is possible to apply and obtain a Startup visa remotely, before entering the country. This type of visa allows founders to live in Estonia and develop their business for up to 12 months, with possibilities of extension, until a Temporary Residence Permit (TRP) is obtained.

To be eligible to obtain a Startup Visa the company must be innovative, scalable, and technology driven. The business idea is evaluated and approved by the Estonian Startup Committee, which consists of experts from the local startup ecosystem.

The programme has a dedicated provision for skilled professionals hired by a startup established in Estonia. Estonia has introduced an annual immigration quota for non-EU nationals, but it does not apply to startups (founders and their employees), IT specialists, and top-level specialists whose monthly income is at least equal to double the Estonian average wage. To obtain visas for workers hired with a contract of 1 year or less, the employer startup can use the Short-Term Employment Registration (STR). Through this process, workers can obtain a visa within a few days, and in some cases in just one business day. With this short-term visa status, employers must offer a salary that is at least Estonia's average wage.

There is also a Long-Term Residence option to hire foreign workers by applying to the Temporary

Residence Permit. In this case, workers can obtain a visa permit valid for more than one year. This process takes a bit longer (approximately two months), but it is still faster than regular work permit application. The application must be approved by the Estonian Startup Committee. The applicant must also provide proof of qualifications and an employment contract to the Estonian Police and Border Guard Board.

### Success factors

Key to the success of the Estonian programme has been the commitment of the government to establish a system that facilitates immigration while respecting security and border control measures. To make this possible, Estonia has: 1. Organised a significant global network of official points where the identity of founders and workers can be validated, and fingerprints can be taken. 2. Invested heavily in digital e-government infrastructure to allow the transmission of information across government departments, to submit, scan and validate documents and application forms, and to cross-reference applicants' data with international databases (e.g. Interpol), if needed. 3. Created ad-hoc visa categories and procedures for individuals with desired skills and competences. 4. Complemented simplification of administrative processes with a triple helix approach to talent retention in the labour market.

### Lessons for Spain

One of the key bottlenecks to issuing visas is the validation of the identity of the applicant. In Spain, since 2013, many administrative procedures have been digitalised and visa processes for foreign highly skilled individuals who want to move to Spain have been simplified. However, identity verification still takes place in Spain. Establishing a network of pick-up points in several cities globally can facilitate visa applications from abroad, allowing foreign workers to prepare their move to Spain from their country of origin. In addition, integrating digital systems with the possibility of cross-referencing databases from different ministries, institutions and international organisations could further speed up processes, minimise document submission and strengthen security. Further, a more comprehensive talent attraction and retention approach could be taken accompanying visa processes with labour market policies that improve Spain as an appealing destination to work and do business.

Sources: investinestonia ([National Policies for International Talent Attraction and Retention in Estonia](#))

## Policy mapping

**Table 10.1. Talent policies**

Institution(s)	Policy name	Description	Objectives	Target group
Ministerio de Inclusión, Seguridad Social y Migraciones	Digital nomad (Startup Law)	Teleworkers can receive a one-year residence visa or a three-year residence authorisation. It can be extended by 2 years or modified to another legal figure. They have the right to work in Spain and can apply to Spanish open positions. Teleworkers also obtain fiscal residence in Spain, but they can pay their taxes on personal income as non-residents, at a	Encourage foreign teleworking from Spain to attract highly qualified foreign talent.	All foreign teleworkers who have a contract with a foreign employer

		lower rate.		
Ministry of Finance	Tax regime on stock options (Startup Law)	The Startup Law increases the tax exemption threshold on stock options given to employees of emerging companies from EUR 12 000 to 50 000 per year.	To attract and retain talent in the startup ecosystem	Workers of Spanish startups
ENISA	Mandatory reports for residence authorisation for entrepreneurs	Issuance of mandatory reports for foreign entrepreneurs to obtain a Spanish residency permit. ENISA assesses whether the entrepreneurs will conduct business activities that meet the following criteria: 1. innovation in terms of business model, product or service, process, use of own technology, use of patents and other industrial property rights. 2. special economic interest for Spain with respect to: degree of market attractiveness; maturity of company, scalability of the business model, competition, solvency of team and partners, contracts with providers, suppliers, and rental contract; customers.	Encourage the attraction of entrepreneurship talent by easing applications for residence permits for entrepreneurs.	All foreign entrepreneurs who carry out an innovative / strategic entrepreneurial activity
ENISA	Mandatory reports for access to the special income tax regime for entrepreneurs	Eligible individuals who move to Spain and become tax residents can opt to be taxed under Non-Resident Income Tax (IRNR) instead of the standard Personal Income Tax (IRPF), even though they are considered tax residents in Spain. The main benefit is lower tax rates on their Spanish-source income while avoiding worldwide taxation on their foreign income. A flat tax rate of 24% applies (instead of progressive IRPF rates up to 47%). This special tax treatment lasts for six years. ENISA assesses that entrepreneurs will conduct business activities that meet the following criteria: 1. innovation in terms of business model, product or service, company's differentiated processes, use of its own technology	Encourage the attraction of entrepreneurship talent by providing tax incentives	All foreign entrepreneurs who carry out an innovative / strategic entrepreneurial activity

		use of patents and other industrial property rights. 2. special economic interest for Spain with respect to: degree of market attractiveness; maturity of company, scalability of the business model, competition, solvency of team and partners, contracts with providers, suppliers, and rental contract; customers.		
Ministry for Digital Transformation and Civil Service	Digital Vocational Training Plan	Since 2021, this programme increases the offer of vocational training through a "modular offer in companies" with a focus on digital skills. In the future the programme plans to add a specific module of applied digitalization in all vocational training degree programmes and to create a network of 1 500 digital training centres (still under development).	Increase the supply of digitally-trained skilled workers	Vocational training students
ICEX	Spain-Latam Scale-UP	Identify and support Latin American startups to grow and expand in Spain. Fourteen Latin American startups were selected to participate in 2024. It involves an immersion programme and connections to the main players in the Spanish entrepreneurship ecosystem.	Attract entrepreneurial talent from the Latin American region into the Spanish ecosystem	Founders of startups with a turnover of between USD 85 000 and 1.4 million and between 6 and 60 employees, operating internationally.

## Conclusions and recommendations

Talent availability in Spain has been subject to different trends. On the one hand, the demand for skilled labour has increased, especially in specific technical domains, in parallel with the development of the Spanish economy and the take-off of its entrepreneurial ecosystem. Internationalisation of talent and remote work opportunities have also increased the demand for specific high-skills professions that can be performed remotely, relevant to startup up development, such as IT engineers and applications developers. On the other hand, the supply of skilled labour in technical domains has increased in Spain, sourcing both from the domestic education system and through immigration, but not at the same pace as the demand for skills by startups. As a result, talent shortages have become a relevant bottleneck for further development of the Spanish startup ecosystem.

Against this backdrop, the following policy actions are recommended to improve the Talent element of Spain's entrepreneurial ecosystem:

- Improve domestic supply of technical professionals by encouraging students to pursue technical programmes both in tertiary and vocational education.

- Reduce the labour tax wedge and labour regulations affecting the ability of startups and scaleups to employ high-skilled workers.
- Further ease startups' access to foreign talent through high-skilled professionals visa applications, establishing a network of pick-up points in several cities globally to facilitate visa applications from abroad.
- Maintain alignment of fiscal incentives stock options with other countries by adapting thresholds and accessibility.

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## Notes

<sup>1</sup> Source: <https://vasscompany.com/apac/en/about-us/newsroom/VI-Employability-and-Talent-Digital-Study/>

<sup>2</sup> Source: Ministerio de Inclusion, Seguriad Social, y Migraciones [Infografías OPI](#)

# 11 Leadership

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This chapter examines the entrepreneurial leadership landscape within the Spanish entrepreneurial ecosystem. It represents the ninth of the ten elements of the entrepreneurial ecosystem framework used to assess the country's ecosystem. The chapter identifies strengths and areas for improvement, presents an international example for inspiration, reviews recent policy developments, and provides recommendations for further progress in the leadership domain.

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## What's the issue?

Entrepreneurial leadership – from both private and public sectors – supports the development and co-ordination of actions that build entrepreneurial ecosystems. Research shows that the active involvement of experienced entrepreneurs in ecosystem activities, through mentorship, reinvestment, and ecosystem stewardship, can significantly enhance startup formation, growth, and resilience (Wurth, Stam and Spigel, 2023<sup>[1]</sup>; OECD, 2023<sup>[2]</sup>). Successful founders who remain embedded in the ecosystem after an exit also act as role models, lowering perceived risks and providing tacit knowledge to emerging entrepreneurs (Spigel, 2017<sup>[3]</sup>). This “entrepreneurial recycling” of skills, capital, and networks contributes to a cumulative advantage, helping ecosystems evolve from fragmented startup activity into dense, innovation-rich environments with a higher proportion of scaleups and high-growth firms (Brown and Mason, 2017<sup>[4]</sup>).

Evidence from countries such as Finland, the United States, France, and Estonia demonstrates that initiatives fostering peer-to-peer support, founder-led investment, and structured mentoring networks can accelerate ecosystem maturity (OECD, 2023<sup>[5]</sup>). For instance, leadership-driven platforms like Slush in Helsinki and Station F in Paris leverage founder involvement to attract talent, mobilise private capital, and foster a culture of collaboration in ecosystems.

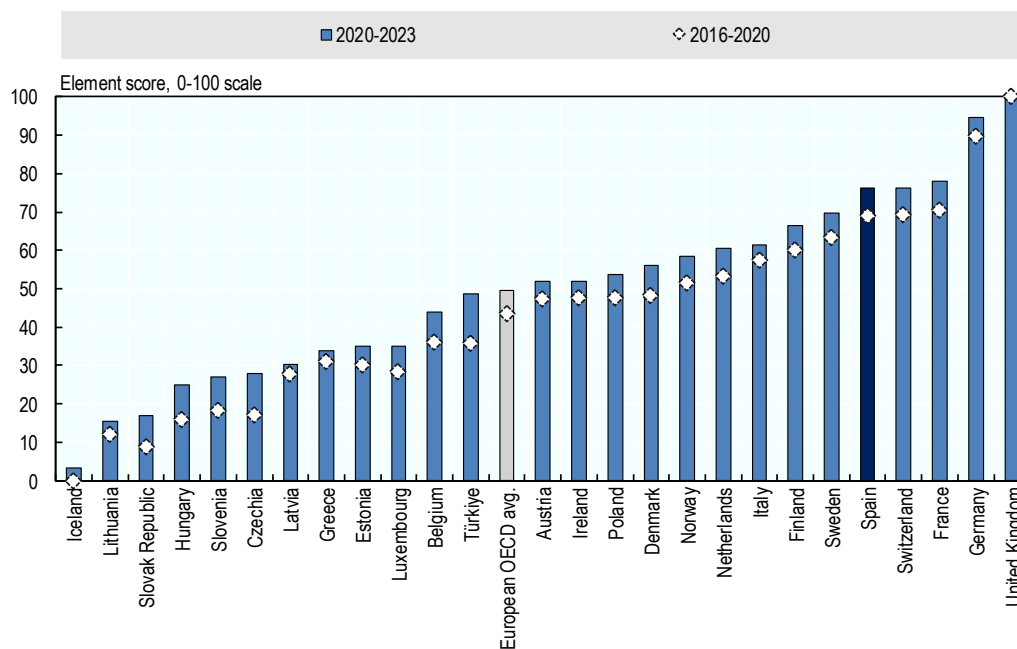
Public policy can also play an important role in ecosystem leadership. At one level, policy makers can develop entrepreneurship strategies and relevant entrepreneurship support actions directly. At another level, policy can strengthen the capacity for private leaders to support the ecosystem, for example by incentivising mentoring schemes, supporting entrepreneurial alumni networks, and facilitating connections between successful founders and new ventures. In ecosystems where entrepreneurial leadership is weak or nascent, public policies can help build trust, embed entrepreneurial norms, and unlock latent potential (Isenberg, 2010<sup>[6]</sup>).

## Assessment

### ***Successful entrepreneurs acting as leaders in the ecosystem***

An entrepreneurial ecosystem can greatly benefit from the presence of successful entrepreneurs who can serve as an example and as mentors for other aspiring entrepreneurs. Successful entrepreneurs can also re-invest the profits from their venture exits in the ecosystem, for example becoming business angels, venture capitalists or serial entrepreneurs. The OECD ecosystem diagnostics measures Leadership in terms of the number of serial entrepreneurs, on which Spain performs relatively well (Figure 11.1).

Figure 11.1. Leadership element scores



Note: These scores correspond to the normalised values of the number of serial entrepreneurs' total count. 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  $\pm 2$  \* sample standards deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data and must be interpreted as relative performance the 2020-2023 period.

Source: Based on Crunchbase

Successful founders are playing a growing role in mentoring and reinvesting in early-stage ventures in Spain. For example, a visible group of at least 15 scaleup CEOs in Madrid and Barcelona are shaping a new wave of founder-led ecosystem leadership. These individuals are increasingly active in selection panels, advisory boards, and ecosystem-building events. Scaleup companies such as *Wallbox*, *Tucuvi*, and *LeapWaveTech* exemplify this dynamic. Founders from these and other startup companies not only lead innovative ventures in health, AI and deep tech sectors but also engage with policy and public funding frameworks, often advocating for more supportive regulation, better procurement access, and reduced bureaucracy.

As of 2025, although Spain generates significantly fewer unicorns than other more advanced ecosystems, it already leads Southern Europe's tech landscape. Key companies include *Jobandtalent*, an online staffing platform; *Cabify*, a ride-sharing service active in Spain and Latin America; *TravelPerk*, a business travel management platform; *Wallbox*, specialising in electric vehicle charging solutions; and *Factorial*, a human resources software provider. Additionally, emerging startups like *Copado*, *Devo*, *Fever*, and *Domestika* underscore the ecosystem's dynamism across sectors such as cloud security, event discovery, and online education.

These internationally recognised startups not only drive economic growth but also enhance Spain's reputation as a vibrant hub for innovation, legitimising entrepreneurship as a viable and respected path in a country where risk-taking still faces cultural headwinds. They also contribute to attracting investment and talent while supporting policy efforts to strengthen the startup and scaleup environment.

### ***Investor communities, corporates and banks also bring ecosystem leadership***

While successful Spanish start-ups, and prominent founders, especially serial entrepreneurs, are the most visible drivers of ecosystem leadership, they are not the only contributors. Major Spanish corporate firms, investors, leading startup events, bank foundations, and other organisations contribute to bring leadership in the Spanish ecosystem.

In terms of corporates, major international businesses such as Telefónica, Santander, Zara, and Cabify have started to play a leadership role in the startup ecosystem through mentoring initiatives or by investing in public-private facilities and fund-of-funds.

Moving to the investor community, several venture capitalists and angel investors are playing key roles in scaling the ecosystem. On the VC side, figures such as Lourdes Álvarez de Toledo (JME Ventures), Marta Zanchi (Nina Capital), and Sonia Fernández (Kibo Ventures) are notable not only for their investment portfolios but also for their mentorship of emerging entrepreneurs and support for diversity in tech. Similarly, Enrique Penichet García, of Draper B1, exemplifies the entrepreneur-to-investor pipeline, having launched multiple seed-stage funds. Prominent angel investors are also shaping the ecosystem from the grassroots up. Helena Torras champions female founders and sustainability-focused ventures through Seastainable Capital, while Tom Horsey brings capital and visibility to startups in underrepresented regions outside Madrid and Barcelona. Meanwhile, Dídac Lee, through Galdana Ventures, leverages global VC networks to strengthen Spain's positioning in the international innovation arena. These individuals not only provide capital but also act as mentors, role models, and ecosystem builders fostering the virtuous cycle of entrepreneurial leadership Spain needs to consolidate and scale its startup ecosystem.

Some banks and financial institutions are also very active entrepreneurial ecosystem leaders, supporting and promoting the ecosystem through their foundations and venture capital arms. For example, Bankinter, through its Fundación Innovación Bankinter, has been instrumental in promoting entrepreneurship. The foundation organises the Future Trends Forum, an international think tank identifying trends impacting the economy and society, providing valuable insights for startups and scaleups. It has also established the Scaleup Spain Network in collaboration with Wayra and Endeavor. This six-month programme is designed for high-potential companies with validated product-market fit and annual revenues exceeding EUR 1 million. It combines personalised mentoring, practical workshops, and peer-to-peer learning to address scaling challenges. The potential scaleups benefit from a collaborative network sharing growth and international expansion strategies, with support offered at no cost to the participants themselves.

### ***Leadership needs to grow further, especially outside the main entrepreneurship hubs***

The recent growth of ecosystem leadership has been remarkable, but this growth needs to continue as the Spanish startup and scaleup ecosystem develops. While Spain's ecosystem began to gain real momentum only after the global financial crisis, countries like France and the United Kingdom had already been nurturing their ecosystems for at least two decades and have been able to build up more serial entrepreneurs acting as mentors and ecosystem promoters. At national level, the development of successful entrepreneurs as ecosystem leaders is encouraged by Endeavor Spain, which provides a structured platform for scaleup support through its "pay-it-forward" model, bringing successful founders and corporate leaders into direct engagement with new ventures. Spain, could, however, do more to connect its growing community of successful entrepreneurs to the national ecosystem through a leadership programme, drawing from the experience of the United Kingdom (Box 11.1).

Moreover, ecosystem leadership and development is uneven across the country, and needs to be encouraged more widely. Spain's main city hubs, particularly Barcelona and Madrid, host a large share of ecosystem leaders across all sectors and stakeholder types. This agglomeration helps explain why these cities consistently rank among the top 50 global startup ecosystems, while other urban centres rank

significantly lower or are not mapped. There are some inspiring initiatives in other cities and regions in developing entrepreneurial ecosystem leadership at local level. For instance, the Asturias regional government has mobilised local investor networks and highlighted the importance of experienced founders in supporting deal flow and mentoring.

Another important initiative at national level is the creation of the Startup Forum (Foro Nacional de Empresas Emergentes), an initiative of the Startup Law. This is starting to play a role in ecosystem leadership, particularly in public-private dialogue, consensus-building, and policymaking legitimacy. The Forum brings together more than 50 public and private sector members. It can become a key mechanism for fostering stakeholder consensus and enhancing policy credibility, as well as consulting with stakeholders to support the effective drafting of legislation to meet the needs of the ecosystem and to ensure that policy measures like visas, tax incentives, and innovation support are effective in practice.

### ***Female ecosystem leadership needs a boost***

Spain's entrepreneurship movement is increasing its attention to women's leadership and female entrepreneurship. A growing number of initiatives target women leadership in entrepreneurship. For instance, large events like South Summit are increasing the visibility of female founders and innovation leaders through the Women Awards. CDTI's Neotec Women programme targets at least 25% of funded projects led by women and prioritises women-led deep tech and science-based start-ups, aiming to expand the pipeline of female founders in tech and research-intensive sectors. Similarly, ICEX's DESAFIA programme includes specific key performance indicators for fostering women entrepreneurship, with a target of increasing the share of women-led start-ups in participating cohorts from 13% to 31%. Another example is WA4STEAM, a women-led angel investment network promoting women entrepreneurs in STEAM (science, technology, engineering, arts, architecture and mathematics) fields.

Despite these efforts, female-led startups remain underrepresented in the ecosystem and there are gaps in visibility, funding, and structural support for women entrepreneur leaders. More must be done on multiple fronts: shifting cultural mindsets, building confidence among aspiring women entrepreneurs and managers, and fostering gender-diverse investment vehicles and promoting the presence of women investors and syndicates.

#### **Box 11.1. United Kingdom – Supporting Scaleup Leadership through Tailored National Programmes**

##### **Description**

In the UK, two complementary national programmes – Tech Nation's Upscale and Innovate UK's Scaleup – aim to strengthen the leadership capacity of founders and executive teams in scaling businesses.

Tech Nation's Upscale is a three-month leadership accelerator designed for post-Series A scaleups. Delivered by Tech Nation, the programme targets high-growth companies with between GBP 1.5 and 5 million in revenue, focusing on founder and executive leadership through structured workshops, mentoring, and peer learning. Over 250 companies have been supported through this programme, including now-prominent firms such as Olio, Faculty AI, and Bloom & Wild. Several beneficiary companies report having improved access to funding and international expansion readiness.

The Innovate UK Scaleup Programme is a flagship initiative by Innovate UK that provides intensive, tailored support for UK-based scaleups. Each company is assigned a "Scaleup Director" to co-develop a strategic action plan across leadership, market access, finance, and governance. Innovate UK's

Scaleup Programme has been recognised as a core pillar in the national innovation strategy. Although formal evaluation data is limited, demand is strong, and participants report high satisfaction with leadership advisory support and strategic outcomes.

### Success factors

Features contributing to the success of these two programmes are: placing founder and executive team development at the core of the workstream, including modules on strategic leadership, people management, and scaling operations; tailored one-on-one support (Scaleup Directors); curated peer communities allowing founders to share real-world challenges and co-develop solutions; integration with other stakeholders (mentors, investors, policymakers, and successful alumni); association with the important national brands of Tech Nation and Innovate UK.

### Lessons for Spain

Spain can leverage its growing cohorts of successful entrepreneurs by connecting them to a new national-scale, leadership-focused programme (e.g. “Spain Upscale”) targeting post-early growth companies with high potential to scale internationally while staying rooted in Spain. This could include pairing cohort-based executive development with personalised mentorship (via “Scale-up Advisors” or regional directors); expanding structured peer networks to foster trust-based exchange among scaleup founders in different regions and sectors; involving national institutions (e.g. ICEX, CDTI, ENISA) and private scale-up alumni as mentors to maximise reach and visibility; and tracking leadership development impact through founder satisfaction, governance improvement, and post-programme growth metrics.

Sources: Tech Nation Upscale Programme (2016–2022): [www.technation.io/programmes/upscale](http://www.technation.io/programmes/upscale), Innovate UK Scaleup Programme: <https://iuk-business-connect.org.uk/programme/scaleup/>

## Policy mapping

**Table 11.1. Leadership policies**

Institution(s)	Policy name	Description	Objectives	Target group
ENISA	TOP101 Spain UP Nation awards	ENISA selects firms for this initiative based on the following criteria: Young SMEs (less than 5 years old) or certified startups; registered and paying taxes with a majority of employment in Spain; revenue less than EUR 5 million; not listed; ownership by a person who works mainly in the company; high level of innovation with economic, social and environmental impact; potential for growth and sustainability; up to date with obligations to the public administration. Winning companies have the following benefits:	Recognise the best young firms and promote interaction between entrepreneurs, companies, and the regional administrations	All SMEs and young firms can apply.

		<p>TOP101 Spain UP Nation branding; tailored training; fast-track for ENISA certification as an innovative startup; pitch deck training; B2B and investor networking.</p> <p>The top 19 companies with the greatest impact in each autonomous community also receive: Appointment as a Spain UP Nation territorial ambassador, participation in events promoted by ENISA, communication actions to increase the company's visibility.</p>		
Escuela de Organización Industrial (EOI) - Ministry of Industry, Commerce and Tourism.	National acceleration programme funded through the Recovery and Resilience Facility. It provides 50 hours of group training and 40 hours of individual mentoring for over 6 000 startups	To strengthen strategic leadership, business capabilities, and market-readiness among founders.	National acceleration programme funded through the Recovery and Resilience Facility. It provides 50 hours of group training and 40 hours of individual mentoring for over 6 000 startups	To strengthen strategic leadership, business capabilities, and market-readiness among founders.
Cámara de Comercio de España (with support from local Chambers of Commerce and South Summit).	Impulsa Startup	Pilot programme funded through the Recovery and Resilience Facility. Combines two phases: "Crea & Crece" (creation and MVP development) and "Despega" (growth and scaling), with mentoring, expert workshops, and demo-days.	Build leadership and entrepreneurial capacity among early-stage founders; support the transition from idea to market; enhance regional innovation ecosystems	Entrepreneurs and startup founders, particularly those in the early and pre-scaling phases.
Ministry for Digital Transformation and Civil Service	National Startup Forum	The Startup Law introduced the National Startup Forum to: 1. analyse, discuss and recommend policies that promote entrepreneurship in research and development and innovation. 2. Help to co-ordinate and harmonise innovative entrepreneurship policies and programmes implemented by different Spanish institutions in their areas of competence. 3. Give visibility to innovative entrepreneurship measures carried out by national, regional and local administrations and bodies. 4. Identify good national and international practices in innovative entrepreneurship through	Promote the development and growth of startups in Spain.	National Startup Forum

		<p>the publication of reports, with special attention to scaleups, access to finance, internationalisation, and innovation policies. 5. Disseminate innovative entrepreneurship and startup policies recommended by the European Union, the OECD, and other international organisations. 6. Act as an observatory of startup data and policies, analysing startup status, needs and trends through studies, workshops, events, and by preparing informative material. 7. Encourage dialogue between Central Administration and other stakeholders in the Spanish ecosystem. 8. Prepare a mandatory non-binding evaluation and monitoring report of the Startup Law</p>		
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## Conclusions and recommendations

In Spain, the public sector plays an important leadership role in mobilising the startup ecosystem with strategies, policy actions and the new National Startup Forum, which promises to improve co-ordination across the national and regional levels and between the public and private sectors and take on an institutional leadership role.

Over time, private sector's leadership of the entrepreneurial ecosystem has also picked up, backed by a growing cohort of successful founders, investors, and internationally recognised startups, as well as corporates and banks. Mentoring, advocacy, and public visibility are beginning to foster a “give-back” culture, critical for long-term ecosystem development.

Leadership, however, is still developing, especially in the private sector, and it is important to continue to grow the numbers and broader ecosystem involvement of serial entrepreneurs. The most prominent leaders tend to be located in top hubs (mainly Madrid and Barcelona) with lesser presence in other regions.

Women's leadership in the entrepreneurial ecosystem is gaining momentum and is supported by a range of initiatives. However, women remain underrepresented in entrepreneurship and startup management roles.

To increase the level of leadership in the Spanish entrepreneurial ecosystem, it is recommended that the Spanish authorities continue to play an active leadership role. Priorities include:

- Disseminate entrepreneurial role models through media campaigns, events, and networks that showcase successful entrepreneurs, including women founders and investors, and entrepreneurial leaders from other underrepresented populations.
- Increase support to post-exit reinvestment by successful entrepreneurs through platforms, peer-to-peer learning activities and incentives.

- Better measure the development of leadership in the ecosystem by improving data collection on serial entrepreneurs and their activities, developing new key performance indicators (e.g. founder board participation, pay-it-forward engagement), and building datasets on mentor networks and founder involvement in policy.
- Promote women leadership roles in the entrepreneurial ecosystem by women entrepreneurs, women investors and women leaders in other stakeholder organisations such as corporates and banks by women entrepreneurship programme support, measures to encourage women participation in networks and consultation groups, and communication and educational campaigns across society on women entrepreneurship and leadership.

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# 12 Intermediate services

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This chapter analyses how intermediate services support startups and scaleups in Spain including business incubation and acceleration and legal, advisory and other business services. It constitutes the tenth element of the entrepreneurial ecosystem framework used to assess Spain's ecosystem. This chapter identifies strengths and areas for improvement, presents an international example for inspiration, maps recent policy developments, and offers recommendations for further improve intermediate services to startups and scaleups.

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## What's the issue?

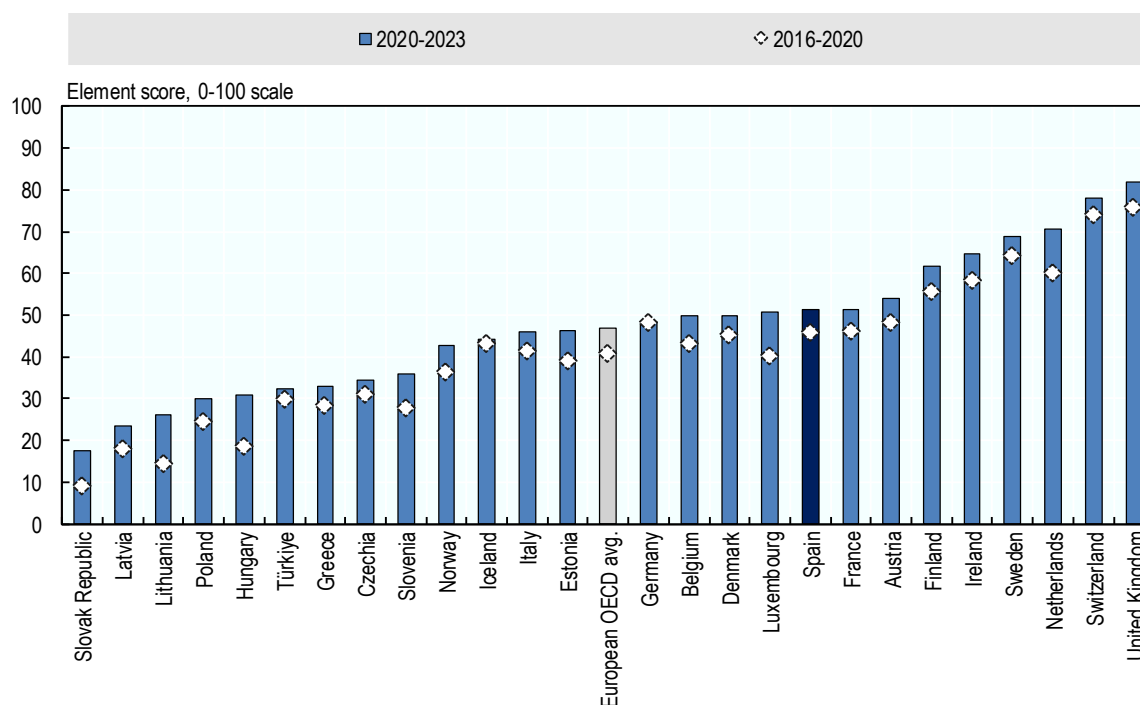
The availability of Intermediate Services in an entrepreneurial ecosystem is important in helping entrepreneurs obtain advice and guidance. They also help them overcome challenges in technical areas such as legal, financial, accountancy, engineering, and regulatory issues, without having to develop the competences internally (Clayton, Feldman and Lowe, 2018<sup>[1]</sup>). These inputs can be obtained from a range of sources including private firms, such as consultancies and legal firms, incubators and accelerators, and publicly-funded entrepreneurship support organisations (Bergman and McMullen, 2022<sup>[2]</sup>).

## Assessment

### *Spain's entrepreneurial ecosystem offers strong intermediate services*

The OECD entrepreneurial ecosystem diagnostics data show that Intermediate Services is a strong element in the Spanish ecosystem relative to European OECD countries overall. Notably, Spain is just behind France, but ahead of Germany and Italy on this element. Spain's performance has also improved over the past decade (Figure 12.1).

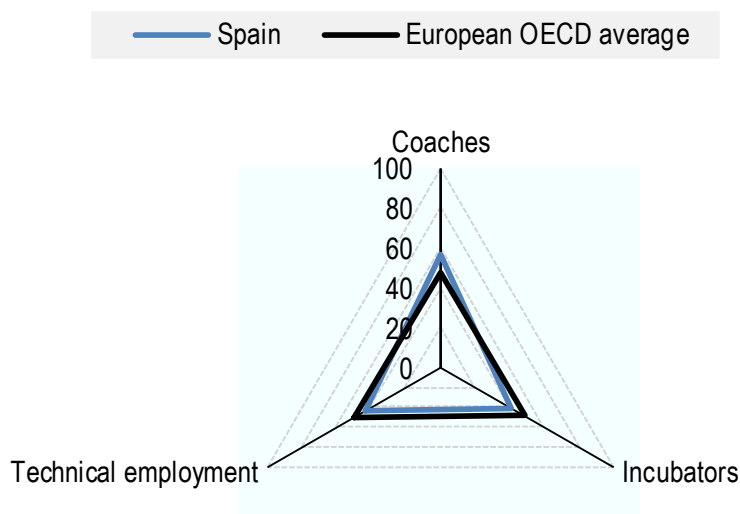
**Figure 12.1. Intermediate services scores**



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 standards deviations, relative to data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data.

Looking at the indicators composing the Intermediate Services element (Figure 12.2), Spain's availability of coaches and mentors is above the European OECD average, while the availability of incubators and technical experts are in line with the European OECD average.

**Figure 12.2. Components of the Intermediate services element**



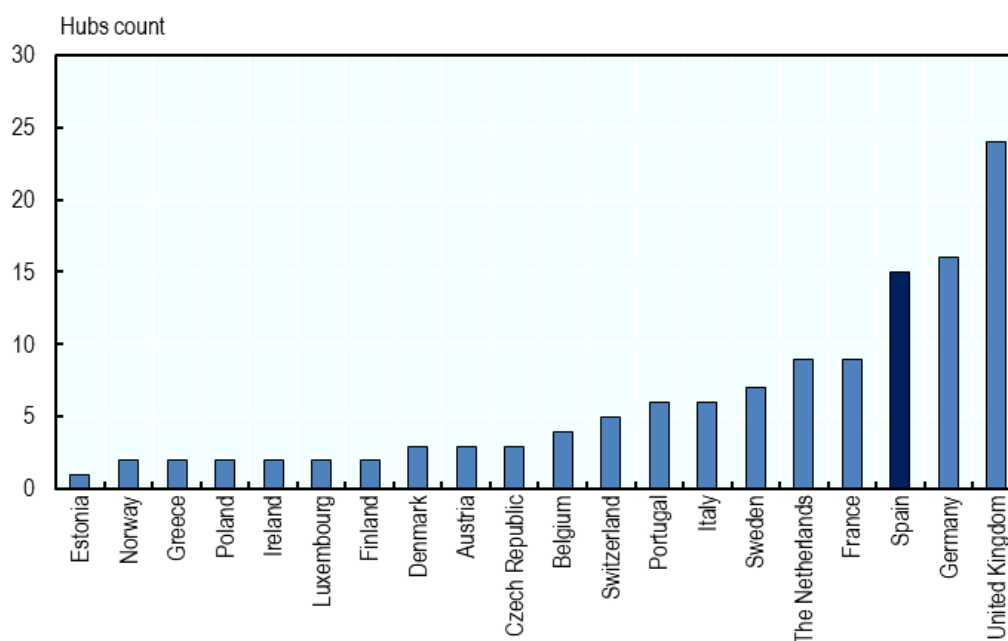
Note: Data are presented as normalised scores obtained by applying min-max transformations to the raw values, where the max/min are equal to the sample mean  $\pm 2$  sample standard deviations, relative to the average of data from the 2020-2023 period. 2016-2020 scores are anchored to the 2020-2023's data.

### ***There is a dense base of incubators, mentors and technical experts***

Spanish entrepreneurs can rely on extensive intermediary services. This includes a high density of mentors and coaches per capita. Spain has similar densities as other European OECD countries in this area. Numbers of mentors and coaches have increased rapidly in Spain over the last decade, confirming the notion that the ecosystem is developing and may have not yet reached its maximum potential.

Spain's incubator density (including related organisations such as accelerators and startup hubs) is in line with other European OECD countries. In per capita terms, smaller dynamic countries like Estonia or Switzerland have higher density, yet Spain features more incubators per capita than France and Germany, and only the United Kingdom can count more incubators than Spain among the largest European OECD economies.

In the Financial Times ranking of Europe's 125 leading startup hubs – i.e. centres for founders offering incubator and /or accelerator programmes – 15 are in Spain, including one (Lanzadera) in the top 10 (Financial Times, 2025<sup>[3]</sup>). Only Germany and the United Kingdom do better (Figure 12.3). However, all Spanish leading startup hubs are located in one of the main cities (Madrid, Barcelona, Valencia). Incubators in other regions are less strong.

**Figure 12.3. Number of top startup hubs per country in European OECD countries**

Source: Financial Times, Europe's Leading Start-Up Hubs

In terms of technical employment, a proxy for availability of technical experts, Spain's score is below the European OECD average. This points to a possible challenge for Spanish startups and scaleups to access technical support services.

### ***Incubator and accelerator numbers have grown rapidly***

The development of incubators and accelerators is decentralised in Spain, and the autonomous regions have played an important role in investing in the creation of various types of entities including public and private incubators, accelerators, business innovation centres (BICs), and science parks.

Thanks to these investments, Spain has grown its incubation and acceleration supply significantly over the past twenty years. The very first incubator in the country (Fivelab) was introduced in 2007 (Funcas, 2020<sup>[4]</sup>), and over the past 20 years the number of incubators has grown to over 200 as Spain has caught up with other European countries. For instance, France counts about 280 incubators and accelerators and Italy less than 200. A large share of incubators and accelerators are public entities, financially supported by regional and local governments (Social innovation monitor, 2019<sup>[5]</sup>). Although, going forward, it would be important to assign roles and responsibilities to avoid inefficient overlaps and duplications, the growth of incubation offer in Spain has granted access to these services across regions (OECD, 2023<sup>[6]</sup>).

Within this incubation supply, Spain has a total of 124 business innovation centres (BIC) (or Agrupación Empresarial Innovadora (AEI)) each signed up in the official national register. 33 of them are connected to the network of European BICs, with the Asociación Nacional de Centros Europeos de Empresas e Innovación (ANCES), representing the Spanish actors within the European BIC network. These centres are essentially clusters that include incubators, offering transfer knowledge services, other integrated services, and access to finance. They also act as public-private dealmakers; they establish connection between founders and research centres and provide a validation service for quality certification. The breadth of their operations has increased over time, evolving from just incubation to a more complete offer of innovation services.

Science parks have been developed in parallel to incubators, with many started even earlier. The first 8 Spanish science and technology parks were created between 1985 and 1992, mainly driven by the regional governments. About the same time, the central government introduced the Law 13/1986 on the "Promotion and General Co-ordination of Scientific and Technical Research", which has put research on the policy agenda, and prepared the ground for strengthening the research system and its financing. Among the first 8 science parks realised in Spain there is the Andalusia Technology Park, which is now recognised as one of the most important technological parks in southern Europe. Since 1995, it hosts the headquarters of the Association of Science and Technology Parks of Spain (APTE) as well as the International Association of Science Parks. In the 1990s, universities started to get involved with the development of science parks, and from the early 2000s the central government contributed to the development of science parks through grants. Today, about 60 parks are members or affiliates of the APTE, reaching collectively over EUR 2 117 million of investments in R&D activities in 2024.<sup>1</sup> There is at least one science park in each of the 17 autonomous regions of Spain.

Recently, the Association of Science and Technology Parks has created the APTENISA programme with Empresa Nacional de Innovación (ENISA), which has now reached its third edition. The programme put in place a common system for scouting and financing, aiming at identifying 75 new promising technology ideas and the acceleration of 30 startups through the support of 7 science parks located in 5 autonomous regions.

Large corporates are also active in incubation, not only through internal dedicated research centres, but also through incubation companies and their spin offs. For example, ArcelorMittal has established a research unit, an incubation company, and several spin-offs in the Asturias region, building on the region's shipbuilding and steel industries. Regional governments can also work with corporates to propose open innovation initiatives, focusing on innovation co-operation activities rather than just R&D. The idea is to move from a situation where innovation is either created internally (through R&D) or transferred from large research centres to a model that supports specific projects to share existing capabilities and knowledge across corporates and other partners to generate innovation, including innovative startups and scaleups.

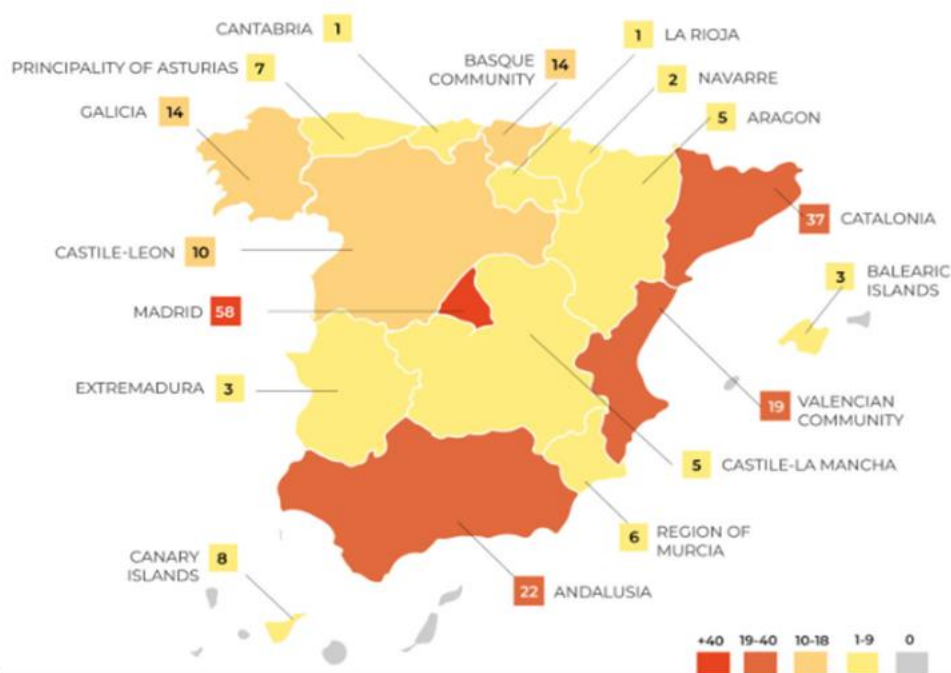
A further initiative, Desafía, created by Red.es and ICEX (the Spanish trade and investment promotion agency), aims at offering soft-landing services to Spanish startups in foreign markets. Since 2011, the programme mentors and accompanies startups in establishing relations with stakeholders in some of the most innovative ecosystems in the world, at the same time creating a community of startup founders, mentors and established companies. There are 13 different programmes, each set up in a different global city, with a specific sector focus, managed by experts from the foreign ecosystem. The initiative offers an opportunity for Spanish startups and scaleups to learn from some of the best experts and mentors in top innovation hubs and to prepare their access to foreign markets.

### ***Availability of incubation and mentoring varies across regions***

According to the Spanish think tank Funcas, about 60% of incubators are located around the two main Spanish cities (Barcelona and Madrid), followed by other large cities such as Malaga and Valencia, while in less urbanised regions such as Extremadura or Navarra support exists but at a much lower extent (Funcas, 2020<sup>[4]</sup>). Data from the social innovation monitor also highlight these regional differences in incubation (Figure 12.4).

Overall, there are differences in incubator provision between the larger cities and smaller centres and rural areas. This can have adverse effects on smaller communities, where the typical challenges encountered by startup founders, such as not knowing where to start, access to funding, and lack of direction, are more difficult to overcome due to lower density of peer networks and support structures.

Figure 12.4. Regional distribution of incubators and accelerators in Spain



Source: Social innovation monitor (2020)

Recently, the European Commission has introduced EU-financed AI factories in various European cities, and Barcelona has been selected as the city hosting one of them, where the EU supercomputer centre and related services will be developed (European Union, 2025<sup>[7]</sup>). This centre will provide a natural connection point with other European hubs, and, at the same time, existing incubators in the region will also benefit from the creation of access points to the supercomputing network. It will, however, also further reinforce the leading position of Barcelona within the Spanish ecosystem. In this area, Spain can draw from the Germany's Digital Hub Initiative as a way to build a co-ordinate a network of hubs in a federal context (Box 12.1).

There are also differences across regions in availability of quality mentoring. In Spain, most mentors are volunteers. Some of them come from the public sector, while many are CEOs who received earlier support (e.g. funding or an entrepreneurship award) and want to help other founders. Their time, however, is precious. Their mentoring services are not rewarded economically, they almost always have other jobs or businesses and tend to reside close to the main cities, making it difficult for incubators in remote locations to attract them.

Currently, each regional government has its own incubator programme, but no mechanism exists to synchronise them. Better co-ordination and linkages across incubators could help improve access of entrepreneurs in less well served communities to advice and technical expertise from incubators elsewhere.

### ***Startups and scaleups can be helped with access to technical and legal expertise***

Drafting non-disclosure agreements, negotiating contracts, interpreting the tax code, setting intellectual property (IP) rights, and understanding product-specific regulations are essential for business development, but hiring specialists in these domains can be extremely costly for startups.

There is currently no dedicated programme to facilitate access to legal counselling for startups. Incubators and accelerators can offer meetings with lawyers, but they are often not detailed and long enough to solve specific startups' problems. In some cases, the involvement of a venture capital fund can help founders to better access lawyers and legal advisors. However, programmes to help startups access legal support would be beneficial in supporting startups and scaleups to access these services.

### **Box 12.1. Germany Digital Hub Initiative**

#### **Description**

The Federal Ministry for Economic Affairs and Climate Action launched the Digital Hub initiative (initially called 12 DE-HUB) in 2017, with the goal of establishing Germany as a leader in digital innovation by fostering localised, sector-driven but globally connected ecosystems.

A sector-focused hub was set up in 12 regions, each specialised in a sector aligned with the region sectoral strength. The hubs act as a connector between startups, SMEs, universities and corporations and offer industry-specific incubation/acceleration programmes with mentoring and VC connection opportunities. Some hubs also establish open innovation platforms allowing startups to access testbeds and shared labs.

The hubs are also networked with one another to co-ordinate them along with the country's strategic vision, and to take advantage of synergies to transfer technologies that emerge from hub to hub based on complementary capabilities. For example, a hub with a strong manufacturing specialisation base can offer solutions to startups developing IT hardware.

In 2024, the initiative was expanded to 25 themed hubs, each located in a different city and focused on a specific digital technology or industry vertical. The new hubs were selected by the central government through an application process based on fit with the initiative's thematic and regional goals. For example, hubs need to be based in regions where there are universities and companies that are global market or innovation leaders in their industry and conduct industry-specific research. The hub location should also already have a start-up community with people who can serve as mentors or advisers.

A particularly important aspect of the 2024 expansion of initiative is to help German startups to internationalise. The Federal Government is in the process of identifying international startup ecosystems to network with. Once the selection is completed, a point of contact will be created for startup players, co-ordinated by the German Office for Foreign Trade (GTAI). The objective is at the same time to promote learning opportunities for German startups, increase the visibility of the German start-up ecosystem, create a stronger startup-Germany brand, and create soft-landing opportunities for German startups abroad.

The Federal Ministry for Economic Affairs is developing a creative international marketing campaign in co-operation with the Hub Agency and GTAI to attract international startups to set up their business activities in Germany.

The German Federal Ministry for Economic Affairs and Climate Action finances the Hub Agency (RCKT), and the GTAI. However, it does not fund the single hubs directly. The local hubs are financed by private supporters and partners, and through the development of their own programmes.

#### **Success factors**

Germany is a federal country, thus, while incubation and acceleration are decentralised, the federal government acts as a platform co-ordinator, which connects the local ecosystems. Every hub is locally managed, but part of a nationally co-ordinated framework. Each hub, while managed regionally, benefits

from a common branding vis-à-vis international actors and strategic alignment via the Ministry. The role of the central government is also to set the framework, standards, and evaluation mechanisms. Such co-ordination supports regional sector specialisation, encouraging each region to develop sector-specific rather than general-purpose incubators.

### Lessons for Spain

Spain is decentralised with regions specialising in specific industries. A national Spanish “Local Hubs” Initiative could maintain the regional hubs’ structure but with greater national co-ordination. A national ministry or entity could act as platform co-ordinator to maximise synergies across regions and encourage specialisation and limit competition across hubs. In addition, local ecosystems could benefit from a single branding and international soft-landing infrastructure set up by a national central government unit or agency, allowing startups in each hub to interact with foreign investors, firms, experts and incubators under a “Spain” umbrella initiative.

Sources: Federal Ministry of Economic Affairs and Climate Action. The Digital Hub Initiative in brief; Second progress report on the implementation of the Federal Government’s startup strategy; Digital hub initiative press kit.

## Policy mapping

**Table 12.1. Intermediate services policies**

Institution(s)	Policy name	Description	Objectives	Target group
ENISA and APTE	Aptenisa	National programme to support startups, including detecting 100 business ideas and accelerating 32 promising startups. Implementation is through 10 science and technology parks participating in the first pilot edition. There are 4 main programme activities: train the trainers; identify ideas among scientists, teachers, students or science and technology-based entrepreneurs; an accelerator programme; and an investor network.	Help innovative ideas to emerge from the research world	Scientists, teachers, students, science and technology-based entrepreneurs
RED	Support for the establishment of SME Acceleration Network Offices	Developed within the framework of the Acelera pyme initiative, and with a budget of EUR 17 million per year, this programme offers grant calls for establishing SME Accelerator Offices across Spain. These offices can operate both physically and virtually but are required to focus on digital transformation. Services offered by the SME	Create a nationwide network of offices that promote the adoption of digital technologies by Spanish SMEs and startups	SMEs and entrepreneurs

		<p>Accelerator Office include personalized advisory services; awareness-raising, and training for SMEs on innovative methodologies and technologies; facilitation of connections between available technological solutions and the specific needs of SMEs. Eligible entities to become a network office are legally registered associations, professional associations, technology centres and Innovation Technology Support Centres and, branches of the Spanish Chamber of Commerce.</p> <p>The programme is multiannual. In the first call, launched in 2020, 240 projects received support. The second call, launched in 2025, is expected to fund around 90 additional projects.</p>		
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## Conclusions and recommendations

Incubation, acceleration and other support services to startups and scaleups have grown exponentially over the past twenty years and have today caught up with many European OECD countries, with the involvement of many stakeholders and regions.

Many incubation and acceleration supports are driven by funding from autonomous regional governments and there are challenges to better synchronise these efforts at national level by creating better connections between incubators and accelerators and ensuring good availability of incubation and accelerator outside the main urban centres.

To improve Spain's intermediate services, it is recommended that the Spanish authorities:

- Improve regional co-ordination by creating institutional mechanisms that enhance harmonisation and collaboration among incubators and accelerators across regional ecosystems.
- Leverage regional competitive advantages encouraging local incubators to specialise in regionally strong sectors.
- Improve monitoring and evaluation of incubation programmes to establish track records and performance history of different programmes.

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- Social innovation monitor (2019), *Incubators and Accelerators in Spain*. [5]

## Note

<sup>1</sup> Source: APTE <https://www.apte.org/en/>

# 13 Cross-cutting issues for ecosystem development

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This chapter discusses five cross-cutting areas for policy reforms that can boost Spain's entrepreneurial ecosystem covering women entrepreneurship, regional supports, globalising startups and scaleups, co-ordinating policy and tailoring supports. They relate to horizontal issues rather than issues confined to the individual entrepreneurial ecosystem elements discussed in the previous chapters.

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## Enabling women entrepreneurs

There is strong potential in Spain to boost entrepreneurship activity and the entrepreneurial ecosystem by encouraging greater rates of entrepreneurship by women. Across OECD and EU countries as a whole, this group accounts for approximately two-thirds of the “missing entrepreneurs”, i.e. people who would be entrepreneurs if their entrepreneurial activity rate was in line with that of mid-aged males, requiring overcoming barriers that particularly affect these population groups (OECD/European Commission, 2023<sup>[1]</sup>). Across the OECD area, women face a number of common barriers to entrepreneurship, including negative social attitudes towards women entrepreneurship, risk aversion, poor self-perceived skills and capabilities, and financing offers and entrepreneurship support systems that do not always reflect women’s needs and circumstances.

According to data from the Global Entrepreneurship Monitor’s (GEM) Adult Population Survey, women in Spain were, on average, slightly more likely to be involved in starting or managing a new business than men during the period 2019-2023, with an early-stage entrepreneurial activity rate of 5.6% for women compared to 5.2% for men. This bucks the trend for most other European and OECD countries. However, women in Spain are significantly more likely than men to be engaged in necessity-based entrepreneurship, where the project is being pursued due to a lack of alternatives in the labour market, rather entrepreneurship based on a perceived market or growth opportunity. It is the latter kind of entrepreneurship that policy seeks to promote because of its economic benefits. Looking more narrowly at growth-focused, equity-based start-ups, as captured in the Crunchbase dataset, only 17.3% of Spanish founders were women between 2020 and 2023. A major opportunity for Spain is therefore to address this underrepresentation of women in equity-based start-up companies, arriving at least at the levels of performance of countries such as France and the United Kingdom, where women account for more than a quarter of such founders.

One important area of action in this respect would be to address a low representation of women in science, technology, engineering and mathematics (STEM) fields, as reported by Spanish entrepreneurial ecosystem stakeholders. This weighs on business creation rates in innovation-intensive sectors. In particular, women are significantly underrepresented in engineering fields in Spain, although they are more prominently represented in biosciences.

Another issue is risk aversion among potential women entrepreneurs in Spain. GEM data aggregated from 2019 to 2023 show that 60% of Spanish women who see good opportunities for starting a business would not do so for fear it might fail. This compares to 50% across the EU as a whole. Survey data from the Spanish Association of Financial Advisors and Planners paints a similar picture, with respondents believing that women take less risks with their personal finances than men. Another important factor is that women in Spain are significantly less likely than men to report having the skills and capabilities needed to start a business. The fear of failure and lack of confidence in entrepreneurial skills and capabilities in women can be addressed through entrepreneurial education and training initiatives that are either designed for women or deliberately seek to involve women. A culture of entrepreneurship among women can also be built by a range of measures seeking to increase the involvement of women in growth-oriented entrepreneurship as well as by promoting successful women entrepreneurs as role models.

A range of policy initiatives have been introduced in Spain to promote women entrepreneurship in recent years, while Spain’s Strategic Plan for Effective Equality between Women and Men 2022-2025 includes an objective to foster female entrepreneurship, business creation and self-employment. At national level, ENISA, with the financial support of the Ministry for Digital Transformation and the Civil Service, has recently launched a participatory loan initiative, which will allocate up to EUR 59 million in funding to women-led digital ventures. The Ministry of Equality has a funding line that provides microcredit of up to EUR 25 000 to women. The Women’s Institute – an independent organisation attached to the Ministry of Health, Social Services and Equality – is another important actor in this space, providing a range of relevant

programmes including the Business Support Programme for Women, the Rural Women Challenge, and Innovatia 8.3. In addition, the School of Industrial Organisation (EOI) operates the Break programme, which aims to attract women from other countries to develop start-ups in Spain, with funding from the EU-Next Generation as part of the Recovery, Transformation, and Resilience Plan. At regional level, there are several important activities, with examples being the “Womenemprende” scheme in Galicia and “Andaluciaemprende” in Andalucía.

It is also positive that for some of Spain’s major entrepreneurship support programmes have dedicated carve outs or streams for women entrepreneurs. For example, some editions of ICEX Spain Trade and Investment’s Desafia programme have been exclusively for women entrepreneurs. Desafia provides two-week immersive soft-landing programmes for Spanish start-ups in foreign markets. Prior to the organisation of the women-only programmes, only 13% of participants in Desafia initiatives overall were women. This share has since risen to 31%, with stakeholders reporting that the organisation of targeted programmes for women helped to raise the profile of the scheme among women and increased their willingness to get involved. Another example is the allocation of 25% of the available budget of the CDTI’s flagship Neotec programme for funding technology-based start-ups that are owned or managed by women. More generally, however, it appears that while diversity quotas are a feature of some entrepreneurship support programmes, women remain underrepresented as a whole.

In the non-profit sector, the Spanish Women Angels Association is a network of female angel investors that invests in women-led companies. The network was formed in order to address the gender gap in access to entrepreneurial finance, particularly in STEM fields. Beginning with 34 members, the network has subsequently grown to include approximately 200 members – around three quarters of whom had never invested as business angels before. Entry barriers have been set deliberately low to enable more women to participate – the requirement is for each angel to invest at least EUR 1 000 per year in a company. As of 2025, EUR 3.2 million of investment has been made across 36 women-led companies.

It has been noted by stakeholders that women angel investors are more likely to invest in groups. This would mean that the exclusion of investor groups from certain benefits under the Startup Law could have a disproportionate impact on women entrepreneurs’ access to funding, given the higher propensity for women investors to invest in women-led start-ups.

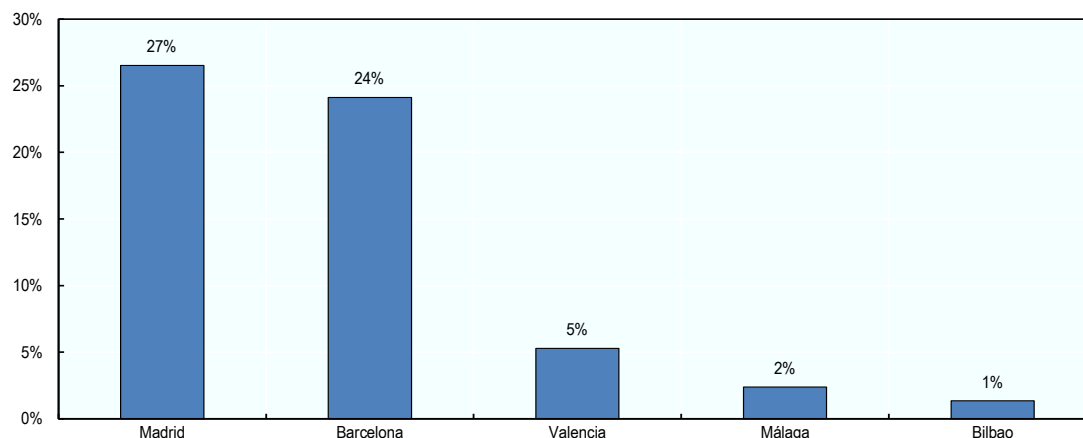
- To further bolster women entrepreneurship in Spain, it is recommended that the Spanish authorities:
- Develop a dedicated strategy for women entrepreneurship promotion, articulating the key actions to be taken and their objectives, responsible entities, timelines, and key performance indicators.
- Increase public support for women entrepreneurs’ access to key resources such as funding, training, networks and testing facilities.
- Raise awareness of entrepreneurship as a viable career option for women.
- Review regulations on the ability of groups of investors to benefit from Startup Law incentives, given the relatively strong propensity for women angels to invest in groups.

## Co-ordinating regional entrepreneurship supports and regulations

The regional business environment has a strong effect on local entrepreneurial activity (OECD, 2025<sup>[2]</sup>), particularly in countries like Spain which are highly decentralised from a policy and regulatory perspective. The governments of Spain’s 19 regions have a high degree of autonomy in the setting of tax and regulatory regimes, the design of startup support programmes, and many other aspects of policy important to entrepreneurial ecosystems, such as higher education policies surrounding spin-off creation. In addition, there are strong differences in the scale of entrepreneurship, and the scale of entrepreneurship ecosystem supports across the country, with much stronger activities in the two hubs of Barcelona and Madrid than

in more peripheral regions (Figure 13.1). Indeed, these two cities account for the majority (51%) of Spanish startup companies registered in the Crunchbase dataset.

**Figure 13.1. Geographical distribution of Spanish start-ups**



Note: Data includes companies aged 10 years old or less

Source: Crunchbase, 2024

In some respects, this diversity can be a positive thing, enabling a tailoring of support and resources based on local needs and strengths. The divergence of different policies and regulations can also bring to the surface innovative approaches that other regions can learn from. For example, some stakeholders identified Catalunya's policy for facilitating the transfer of knowledge and intellectual property from universities as a learning model for other regions. The presence of two, internationally recognised entrepreneurship hubs in Madrid and Barcelona should also be celebrated. With that being said, decentralisation does also bring some challenges affecting startup and scaleup development:

- **Weak linkages between regional entrepreneurial ecosystems.** Links between Spain's regional ecosystems need strengthening. The siloing of actors and resources between different regional ecosystems results in missed opportunities to share knowledge, contacts, resources and opportunities. It also means that chances to initiate potentially fruitful collaborations are foregone, for example for an entrepreneur in a specialised sector to benefit from advice and mentoring from an incubator in another region. Priorities for Spain are to boost linkages between the two major hubs of Madrid and Barcelona and to establish better connections between more peripheral ecosystems and the country's two major entrepreneurship hubs, which can help to plug resource gaps at the regional level. It should be noted that there are good initiatives underway – including by private actors such as South Summit and Endeavour – to reduce this fragmentation in the national entrepreneurial ecosystem, with high profile ecosystem events held each year to convene stakeholders from across the country.
- **Accessing public support.** Spanish startups and scaleups can benefit from a broad mix of public support programmes, some delivered by national government and others by regional governments. For example, many regions have their own incubator programmes or grant programmes for their companies. This can make it difficult for companies to navigate what can be a complex public support landscape. The creation of the National Entrepreneurship Office (ONE), as part of the Startup Law, is a very important development in this regard. ONE is a digital platform to co-ordinate support services for entrepreneurship, serving as a hub for calls and events and removing the need for companies to consult many different national and regional websites. Spanish stakeholders

often report that better co-ordination is needed between the national and regional levels of government in Spain, with willingness to co-operate with national entities varying from region to region. The strong influence of regional governments means that good co-ordination is essential to ensuring a coherent policy approach and to unlocking potential synergies in the delivery of public supports. There are good opportunities for co-operation here given the relative consensus between different political parties on the need to promote innovative start-ups and scale-ups. An important step that the authorities have taken is to establish the National Startup Forum, which will periodically convene representatives from national ministries and agencies, the autonomous regions and cities, as well as other organisations and ecosystem actors. The forum has working groups in which all the entities can participate, including a group on public policy for the ecosystem. There are further opportunities for better co-ordination to be achieved between national and regional support initiatives. Where national programmes are oversubscribed, regional entities with available resources could step in to support startups that narrowly missed the grade for the national programme. For example, only around 25% of applicants receive grants through CDTI's Neotec programme. In some cases, Neotec passes rejected applications to the relevant regions for potential support. This removes the need for the region to verify and assess the project applications, facilitating the channelling of support to local companies without the need for an extensive further evaluation. This reduces the administrative burden both for local governments and for start-ups. However, only some regions co-operate with the Neotec programme in this way. A future aspiration is to make available CDTI services to those awarded grants through the regions via CDTI, although this too would require effective co-operation between CDTI and its regional partners.

- **Regulatory harmonisation and scaling up.** The extent of decentralisation means regulations vary significantly in different parts of Spain, making it more difficult for innovative start-ups to scale domestically than it is in other countries. For example, differences in investor incentives between regions may discourage capital investments across regions, while differences in regulations like construction permits, environmental regulations, licences to open businesses, digital labels, food standards or energy efficiency certifications could affect the ease of firms to scaleup their businesses by expanding directly in other regions. Efforts are underway to alleviate this issue. The 2022 “Create and Grow” Law established the Sectoral Conference for Regulatory Improvement and the Business Climate. This serves as a forum for the Ministry of Economy and the economic departments of the autonomous communities and cities to identify barriers in sectors where there is potential for regulatory harmonisation or unification. The conference then works to remove unnecessary red tape and simplify business regulations in the selected areas, prioritising regional co-ordination. Related to this, “Régimen 20” is a new proposal from to create a common set of minimum rules that companies can adopt with a single set of permits instead of adapting to different regional and local rules that apply currently. Implementing “Régimen 20” will significantly enhance entrepreneurs’ access to the full Spanish domestic market, wherever in the country they might be based. Moreover, a working group within the National Startup Forum (the Territory and Innovative Entrepreneurship Ecosystems group) has been created to work on improving territorial distribution of technological hubs across the Autonomous Communities, as well as on promoting initiatives that foster synergies between regions. It also expected to work on strengthening local networks of mentors and investors to improve availability of quality mentoring beyond the main urban centres.

In order to further improve the co-ordination of regional entrepreneurship supports and regulations, the Spanish authorities should:

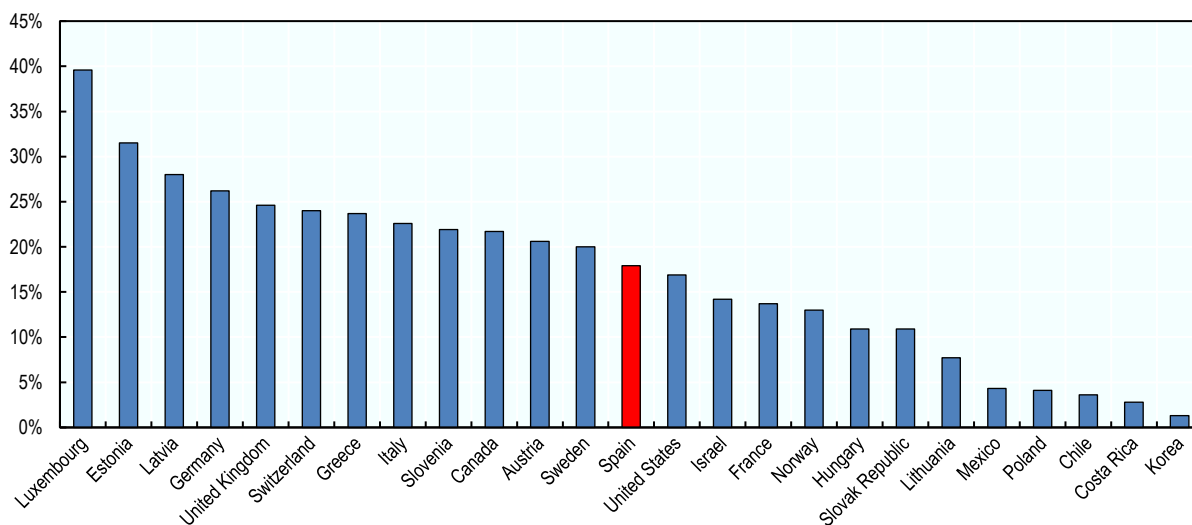
- Continue the implementation of Régimen 20.
- Encourage further cross-regional collaborations in the design of public support programmes for startups and scaleups.

- Foster more opportunities for startups and scaleups in peripheral regions to network and collaborate with ecosystem actors in Spain's major entrepreneurship hubs.
- Strengthen referral mechanisms between national and regional programmes to guide firms towards the most appropriate supports.

## Globalising startups and scaleups

Internationalisation is an important channel for scaling up (OECD, 2025<sup>[3]</sup>). It offers the opportunity for startups to grow into a much larger market, as well to access a more diverse revenue base, new technologies, and new partners, all leading to more rapid growth (Burgel et al., 2005<sup>[4]</sup>). Spanish startups and scaleups benefit from good overall access to international markets. This is reflected in relatively good levels of startup internationalisation. For example, international sales accounted for more than 25% of total revenues for 18% of Spain's nascent entrepreneurs (owner-managers of new businesses aged up to three and a half years) in 2024, which is above the average for OECD countries (Figure 13.2). However, Spain lags behind some other large European countries – including Germany and Italy – in the export-orientation of early-stage entrepreneurship, indicating that there is still scope to increase Spain's startup internationalisation.

**Figure 13.2. Percentage of total early-stage entrepreneurial activity with more than 25% of revenue coming from overseas**



Note: Early-stage entrepreneurial activity refers to owner-managers of new businesses aged up to three and a half years

Source: (Global Entrepreneurship Monitor, 2025<sup>[5]</sup>)

A number of supports are available for startup internationalisation in Spain. The major support actor is ICEX Spain Trade and Investment. Startups can benefit from the broader ICEX consultancy support and financial assistance of up to EUR 24 000 to help SMEs develop and implement their export plans. ICEX also offers some dedicated programmes for startups, reaching approximately 500 startups per year. Its main startup scheme is Desafia, which is run jointly by ICEX and Red.es, and provides two-week immersive soft-landing programmes for startups in international innovation hubs. In 2024, the scheme organised 14 delegations of 8 startups each to visit a total of 12 international ecosystems. Each programme has specific objectives depending on the characteristics and opportunities associated with the international ecosystem.

For example, the programme in Singapore aimed to help Spanish startups to establish a foothold in the wider region, the programme in Switzerland emphasised open innovation opportunities, while in San Francisco, the focus was on teaching the startups how to communicate with US investors. In recent iterations, Desafia has also brought Spanish venture capital investors alongside the cohort of startups, with the aim of facilitating richer dialogue with investors from the international market.

ICEX also supports Spanish startups to attend high-profile international events on entrepreneurship such as Websummit in Lisbon and Slush in Helsinki. At these events, the selected startups will generally have a booth or pavilion where they can present themselves to and meet potential partners. Another key resource that ICEX can offer to startups and scaleups is its network of 104 international offices. These offices provide consultancy advice, services and international matchmaking for companies on an ad-hoc basis as they request it, which can be instrumental in helping Spanish companies to find partners in target markets. However, there is not a formal programme through which this assistance is delivered and there is some scope to use this critical resource more intensively for startups.

There are also important private initiatives. The BankInter Innovation Foundation's Scaleup Spain Network targets entrepreneurs with the ambition to penetrate international markets, selecting 15 startup CEOs each year and providing a range of training and networking supports through 6-month programmes. Meanwhile, Endeavour Spain (also one of the operators of the Scaleup Spain Network, along with Wayra) helps its clients to internationalise by facilitating cross-border connections, leveraging Endeavour's presence in more than 40 markets.

Going global is a key milestone for the most impactful startups and scaleups. Public support for startup internationalisation is relatively well-defined in Spain, with ICEX being the public agency with lead responsibility in this area. The Desafia programme is providing excellent soft-landing opportunities for young companies to discover and set up a base in overseas markets. However, there is scope to further leverage ICEX's rich network of international offices and consultants for startup support.

To boost the internationalisation of startups and scaleups, it is recommended that the government:

- Launch a matchmaking programme to connect Spanish startups and scaleups with potential customers in overseas markets, leveraging ICEX Spain Trade and Investment's network of international offices.
- Strengthen promotion of the Spain Up Nation brand internationally and promote the companies certified under the Startup Law internationally.

## Co-ordinating entrepreneurship policy

Startup and scaleup policy is a broad and diverse policy area, with many different public entities involved in the delivery of supports and programmes to enhance development of these firms. In the context of the OECD, strategies and action plans are an important tool for co-ordination of SME and Entrepreneurship policies either at national level (OECD, 2025<sup>[3]</sup>) or regional level (OECD, 2025<sup>[2]</sup>).

The 2021 entrepreneurship strategy "*España Nación Emprendedora*" (Government of Spain and the Council of Ministers, 2021<sup>[6]</sup>) is ambitious and far-reaching, setting goals that require actions across the Ministry of Science, Innovation and Universities (which houses CDTI), the Ministry of Industry and Tourism, the Ministry of Digital Transformation and Civil Service, the Ministry of Economy, the Ministry of Finance, the Ministry of Education, Vocational Training and Sports, the Ministry of Foreign Affairs, European Union and Co-operation, the Ministry of Inclusion, Social Affairs and Migration, Axis, and ICEX Spain Trade and Investment. Regional and local government authorities also operate entrepreneurship support policies. This policy landscape implies a need for effective co-ordination.

A key initiative to strengthen policy co-ordination is the creation of the National Startup Forum, as one of the measures of the Startup Law. The Forum involves representatives from national ministries involved in startup and scaleup promotion as well as regional government actors and other ecosystem stakeholders. It meets periodically to analyse, discuss and recommend policies to promote entrepreneurship, co-ordinate policies and programmes across different parts of government, identify good national and international policy practices, and collect, analyse and disseminate data on startup performance. Current priorities for the National Startup Forum are support for scaleups, access to finance, internationalisation, and innovation. Specialised working groups can also be formed within the Forum to address specific topics and bring in external experts who are not normally represented. As well as boosting co-ordination between public entities, the Forum helps to engage non-governmental actors from the entrepreneurial ecosystem in the policy development process, which is key to ensuring that policy interventions align with the needs and opportunities of the ecosystem.

A further important activity the Forum could oversee is the monitoring and evaluation of the Startup Law. This is critical for ensuring the effective implementation of the Law and its co-ordination across government entities. To achieve this role, the Forum can be supported by a monitoring and evaluation secretariat based in a ministry championing the Startup Law, for example the Ministry for Digital Transformation and Civil Service. The Forum and the central monitoring and evaluation unit could encourage evaluation by different ministries and agencies, undertake some evaluations itself, agree an evaluation plan with different ministries and agencies, prepare regular monitoring reports on Startup Law implementation progress, assemble monitoring and evaluation results, report to ministers, stakeholders and government bodies on implementation progress and impact and organise discussions across government on monitoring and evaluation results and next steps for implementation. The central monitoring and evaluation unit could report to the Forum.

The Startup Law has also established the National Entrepreneurship Office (ONE), which publishes information on public supports for entrepreneurship via a single platform. This increases the navigability of the support landscape for startups and scaleups, removing the need for an entrepreneur to visit many different national and regional entities to learn about available supports and services.

National strategies can be an effective means of co-ordinating entrepreneurship support policies across government ministries and agencies. While the Spanish Startup Law sets out numerous important policy actions to support the entrepreneurial ecosystem, it could be beneficial to situate these measures within an updated entrepreneurship strategy for Spain that sets out the context, objectives and targets of policy and identifies all the relevant policy initiatives and responsible bodies for entrepreneurship development. An updated strategy could also be a platform for raising awareness of the Spanish Startup Law, which currently suffers from the lack of a clear reference document that describes its objectives and the details of the different measures.

To further enhance the co-ordination of entrepreneurship policy in Spain, the authorities could:

- Ensure the National Startup Forum convenes regularly and has buy-in and engagement from key national and regional entities.
- Undertake monitoring and evaluation of the implementation and impact of the Startup Law via a champion government ministry and report and discuss results through the National Startup Forum.
- Review and update the 2021 national strategy “Spain: An Entrepreneurial Nation”, taking stock of the milestones achieved. Re-assess priorities in light of recent policy developments and reinforce those areas that require additional efforts.

## Tailoring supports for different firms and entrepreneurs

The policy needs of startups and scaleups vary substantially depending on their characteristics and circumstances. For example, supporting very early-stage entrepreneurs with as yet unproven products or business models requires a distinct set of public interventions compared to those needed for more advanced, scaling companies. Policy needs also depend on companies' geographical location, their sectors of operation, the type of products or services they provide, the markets they target, and their development priorities overall. Granularity is therefore required in the design and implementation of entrepreneurship policy.

Policy granularity can be delivered by operating a broad set of different programmes and/or by integrating specialised streams within programmes. An example of the latter is the School of Industrial Organisation's (EOI) Startup Acceleration Programme, which has a Regional and Sector-specific stream. Meanwhile, the Impulsa Startup programme run by the Chamber of Commerce of Spain applies a phased, two-step structure, with the first phase ("Crea & Crece") helping entrepreneurs to learn about startup methodologies and developing a minimum viable product and the second ("Despega") focusing on growth and scaling. Another good example of policy granularity in the Spanish context can be found in the design of the criteria for becoming certified under the Startup Law. In most cases, start-ups cannot be more than 5 years old if they are to be certified. However, the Startup Law allows companies up to 7 years old to be certified if they operate in strategic sectors such as biotechnology or if they have developed proprietary technology that has been designed in Spain. This reflects the long timelines associated with developing and commercialising technologies in certain sectors and ensures that startups in these sectors receive the benefits of the Startup Law for a more extended period.

Many of Spain's public financing instruments deploy a granular approach, too. ENISA has separate financing lines for different types of beneficiaries, with dedicated lines for young entrepreneurs, early-stage SMEs, and scaling companies. Importantly, these financing lines do not just provide a carve out for certain beneficiary types; they also adapt the nature of the support product to the needs of the relevant group. For example, the maximum loan duration (9 years) and amount (EUR 1.5 million) for the "Growth" financing line is significantly higher than for the "Entrepreneurs" line, reflecting the large capital costs and sometimes uncertain development timelines associated with business expansion projects. Fostering innovative, technology-based companies is a priority for Spain's policy interventions to bolster access to finance. For example, CDTI's Innvierte programme invests capital into investment funds specialising in technology-based companies, while Fondo Next Tech, managed by SETT (a public entity under the Ministry of Digital Transformation and the Civil Service), has a EUR 4 billion endowment to boost access to capital for high-impact, innovative entrepreneurial projects in the digital space. CDTI's major Neotec grant programme also funds technology-based enterprises.

It is important for policy to reflect the tailored support needs of companies active in specific sectors or industries (OECD, 2022<sup>[7]</sup>). Dedicated programmes for specific sectors help to ensure that the financial and non-financial supports are relevant and appropriate for the programme beneficiaries. This approach also enables governments to focus public resources on strategic priority sectors. In Spain, sector-targeted policy support is evident through the Ministry of Industry and Tourism's longstanding cluster policy, which funds innovative business clusters across the country. These clusters provide specialised support to facilitate collaboration and networking within specific sectors. The environment and energy sector has the highest number of funded clusters, followed by ICT and agri-food. Another example is ICEX Spain Trade and Investment's Desafia programme, which organises for cohorts of Spanish start-ups from a certain sector to visit a particular overseas market. For instance, there is a programme specifically for Spanish biotech companies to visit Boston's life sciences ecosystem, enabling curated networking, advice and matchmaking in a selected geography with strong opportunities for Spanish firms in the biotech sector. There are also specific supports for social enterprises including specific recognition in Spain's Startup Law.

### Box 13.1. Challenges to supporting and incubating social entrepreneurs in Spain

Social entrepreneurship focuses on firms that aim to integrate social benefits in their business model. In Spain, the idea of social entrepreneurship was traditionally linked to co-operatives, where the country has a strong historical background. For instance, the Mondragón co-operative movement in the Basque Country has been widely studied as a leading example of an industrial-sized conglomerate owned by its workers that has combined human values, social impact, and competitiveness. Social enterprise laws and regulations are thus derived from co-operatives legislation in Spain.

Since 2012, however, there has been a rapid development of new models of social entrepreneurship in tandem with impact investing. In this context, some incubators have specialised on this type of entrepreneurship. Ship2B in Barcelona and Fundación Unlimited in Madrid are two of the main incubators specialised in social impact in Spain. At the same time, many universities have introduced social entrepreneurship courses and the success of startups such as Paco Polo's Actuable civic tech startup have all contributed to a growing social entrepreneurship movement.

Spain's Startup Law, introduced in 2022, has taken a further step in promoting social entrepreneurship, introducing the business type "empresas con proposito", defined as startups with a social focus which are neither considered as not-for-profit organisations, nor as traditional companies with social responsibility. Social startups need to manage a trade-off between profit and social purpose, and for example may choose to generate social impact rather than maximise revenues. It is thus common that return on investments is lower in these types of companies than other types of startups.

Policy supports have been developed in Spain to help social entrepreneurs overcome specific challenges they face. Typically, social entrepreneurs struggle to access finance more than other startups. This is exacerbated by the difficulty of measuring social impact, which slows impact investors. A related challenge is the lack of a clear certification system for social entrepreneurs which limits the possibility to signal to impact investors which companies are truly purpose-driven. Other countries are more advanced in this aspect than Spain. For instance, Korea has introduced a social entrepreneur's certificate since 2007, which recognised social enterprises on multiple criteria such as shares of employees who are disadvantaged (e.g. disabled, seniors, etc). The United Kingdom has introduced Community Interest Companies (CICs), which are limited companies which operate to provide a benefit to the community they serve, and in the United States B-Corps are certified for their social impact by B Lab, a global non-profit organisation.

A B-Corp movement also exists in Europe, including Spain. Yet, the legal status of these companies is not yet clear, and there currently no tax benefits for these types of companies in Spain. The most closely related tax incentives are those applied to co-operatives. Since 1990, co-operatives are allowed to apply faster depreciation rates on fixed assets acquired within three years from the date of their registration, and a reduced tax rate on their tax rate, which has been brought down to 20% from January 2025. In addition, some co-operatives defined by the Law, can also obtain a 50 per cent rebate on their total tax liability. However, not all B-corp firms are co-operatives, which creates grey areas in which some social entrepreneurship is not equally supported.

Business exits also represent a challenge for social entrepreneurs as these purpose-driven founders want to make sure that the firm they have created continues to be focused on achieving social impact even after the firm is acquired or has been listed on the stock exchange. As a result, debt tends to be privileged as a financial instrument relative to equity, to limit the possibility that venture capital funds acquire a significant share of the company ownership.

Spain's entrepreneurship policy therefore incorporates a substantial offering of tailored and dedicated policies aimed at different types of enterprises and entrepreneur. However, Spain's entrepreneurship policy appears more geared towards supporting startups than scaleups, for example with flagship initiatives such as the Startup Law and CDTI's Neotec programme focusing on relatively early-stage enterprises. It is important not to neglect the needs of scaleup companies, which face challenges in numerous areas such as accessing later-stage financing, demonstrating and deploying technologies at commercial scale, expanding overseas, and finding first customers.

It is recommended that the Spanish authorities pursue the following actions to increase the match between the policy support mix and the needs of different types of startups and scaleups:

- Create dedicated teams within key entrepreneurship support entities such as CDTI and ICEX with a mandate to deliver tailored advice and guidance to startups and scaleups in specific sectors or technology areas.
- Launch a public tender for the development and delivery of a specialised incubation or acceleration programme in a select sector of strategic importance to Spain's entrepreneurial ecosystem.
- Establish a legal status or certification for Spanish scaleups, with corresponding benefits and incentives to support their development.

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# Annex A. Summary of recommended policy actions

## Recommendations for specific entrepreneurial ecosystem elements

### *Institutions*

- Simplify eligibility criteria for certification under the Startup Law to enable more young companies to benefit. Notably, extend fiscal and other benefits for a longer period, up to eight years, for deep tech startups, taking into account their technical characteristics and development needs.
- Further streamline insolvency procedures, especially for companies whose sole creditors are public entities.
- Continue progress on the harmonisation of administrative procedures across regions by: i. Enhancing the role of the Sectoral Conference for Regulatory Improvement and the Business Climate; ii. Introducing opt-out regulatory options for regions to accelerate reform convergence; iii. Continuing the implementation of “Régimen 20”.
- Remove the minimum social security contribution for self-employment individuals whose main activity is their startup company and who own stock in their company (corporate self-employed).

### *Culture*

- Introduce campaigns to promote entrepreneurship to the Spanish population under the “Spain Up Nation” brand and tailor communication to a more mainstream audience that extends beyond the narrow ecosystem boundaries.
- Create an “entrepreneurial schools” label for schools and universities that meet certain standards with respect to entrepreneurship promotion, in partnership with the “Spain Up Nation” brand. Issue “Spain Up Nation” awards for standout schools and universities that demonstrate excellence in entrepreneurship promotion.
- Provide training for teachers in teaching entrepreneurship in secondary schools, vocational training institutions and universities.
- Embed a module on entrepreneurship education in tertiary, vocational and secondary education and make pedagogy more practical.

### *Networks*

- Launch a public matchmaking programme that provides tailored introductions between Spanish startups and large corporates operating in Spain, based on identified needs and competencies, with a clear process for progressing to a pilot project where there is a suitable fit.
- Publish information on Spanish startups and ecosystem actors (including large corporates, investors, researchers, startup support providers, mentors, and public entities) on the ONE platform and introduce online matchmaking functions.

- Organise events and establish a platform for companies certified under the Startup Law to share relevant resources, contacts or experiences, discuss shared challenges, and explore potential collaborations.
- Assign mandates and provide resources to chosen incubators, business innovation centres, or innovative business clusters to create and manage specialised ecosystem networks in selected sectors.

### **Infrastructure**

- Strengthen the access of startups and scaleups to strategic “technology infrastructures” housed in universities, supercomputing centres, and public research institutions (e.g. testbeds, AI sandboxes, pilot manufacturing, water labs). Simplify rules and interfaces to make these assets usable for early-stage firms.
- Promote inclusive infrastructure development through better national-regional co-ordination and targeted incentives for digital and transport infrastructure in underserved regions (notably “Empty Spain”).
- Leverage Spain’s strengths in renewable energy and green hydrogen by supporting startups and scaleups working on smart grid, storage, and decarbonisation solutions through sector-focused accelerators, innovation-friendly procurement, and test environments.
- Advance open data and interoperability frameworks to reduce barriers for startups and scaleups in data-intensive sectors such as health, mobility, and energy, using sandboxes to balance data protection with innovation needs.
- Use public procurement strategically to crowd in startup and scaleup innovation addressing infrastructure challenges (e.g. smart mobility, digital inclusion, water efficiency), supported by new tools like GovTech missions and challenge-based calls.

### **Markets**

- Enhance startup internationalisation through co-investment bridge funds, legal support, B2B matchmaking and soft-landing services delivered via embassies, ICEX, and local hubs.
- Modernise public procurement to become a strategic innovation lever by including clearer innovation criteria, faster decision-making, and dedicated calls for startups. Expand successful GovTech and innovation procurement pilots across national and regional governments.
- Incentivise corporate-startup collaboration by introducing match-making mechanisms between startups and corporate supply chain management to facilitate purchase of innovative goods and services solutions from emerging startups. Consider introduction of preferential procurement conditions for large firms to source solutions from startups, especially in strategic sectors.
- Continue working at European level to foster greater harmonisation in goods and services markets as well as access to public procurement.

### **Finance**

- Set up incentive schemes and introduce legal reforms to encourage institutional investors to invest more in venture capital and private equity.
- Extend the tax benefit to investors introduced by the Startup Law to SPVs and angel investor syndicates.

- Reduce legal and bureaucratic barriers to capital increases and investment rounds, for instance, by leveraging information technologies for identity validation and signature that reduce the involvement of notaries and enable the signature of official documents remotely.
- Publish information about funding opportunities for investors on the ONE platform and introduce functionalities to facilitate networking and matchmaking between funding entities.
- Act at European level to change critical aspects of AIMFD regulation, including the limits for retail investments from private savers into venture capital and support European Investment Fund initiatives to launch European-level funds of funds.
- Continue leveraging public development banks and other public-funded entities (e.g. CDTI) to crowd-in private investors to venture capital markets, and possibly institutional investors.
- Better support impact investors by extending venture capital tax benefits to European Social Entrepreneurship Funds (ESEFs) and European Venture Capital Funds (EuVEFs).

### ***Knowledge***

- Raise awareness of recent reforms in university commercialisation legislation such as on IP ownership and academic staff employment regulations through communicating information to academics and helping researchers and institutions to navigate recent updates, e.g Red.ES.
- Incentivise researchers to find commercial applications for their inventions by: i. defining conditions for spin-off participation, ii. issuing guidelines on how to apply “one-third income” IP provisions, iii. offer proof-of-concept grants and translational R&D funds for spinouts.
- Maximise research commercialisation by supporting university-linked accelerators, research-based innovation districts, and dedicated joint research funding tenders involving teams of academics and startups.
- Enhance Knowledge Transfer Office (KTO) capability by investing in training, commercialisation funding, and technical services (e.g. legal, valuation) and reduce legal uncertainty by issuing national guidelines on equity, licensing, and revenue-sharing principles.
- Promote entrepreneurship among students, as foreseen by the Startup Law, by introducing liability protections, flexible registration, and tailored incubation/acceleration support for student-founders.
- Expand and optimise existing programmes that incentivise collaboration in innovation across firms and knowledge transfers between university and the private sector.

### ***Talent***

- Improve domestic supply of technical professionals by encouraging students to pursue technical programmes both in tertiary and vocational education.
- Reduce the labour tax wedge and labour regulations affecting the ability of startups and scaleups to employ high-skilled workers.
- Further ease startups’ access to foreign talent through high-skilled professionals visa applications, establishing a network of pick-up points in several cities globally to facilitate visa applications from abroad.
- Maintain alignment of fiscal incentives stock options with other countries by adapting thresholds and accessibility.

### *Leadership*

- Disseminate entrepreneurial role models through media campaigns, events, and networks that showcase successful entrepreneurs, including women founders and investors, and entrepreneurial leaders from other underrepresented populations.
- Increase support to post-exit reinvestment by successful entrepreneurs through platforms, peer-to-peer learning activities and incentives.
- Better measure the development of leadership in the ecosystem by improving data collection on serial entrepreneurs and their activities, developing new key performance indicators (e.g. founder board participation, pay-it-forward engagement), and building datasets on mentor networks and founder involvement in policy.
- Promote women leadership roles in the entrepreneurial ecosystem by women entrepreneurs, women investors and women leaders in other stakeholder organisations such as corporates and banks by women entrepreneurship programme support, measures to encourage women participation in networks and consultation groups, and communication and educational campaigns across society on women entrepreneurship and leadership.

### *Intermediate Services*

- Improve regional co-ordination by creating institutional mechanisms that enhance harmonisation and collaboration among incubators and accelerators across regional ecosystems.
- Leverage regional competitive advantages encouraging local incubators to specialise in regionally strong sectors.
- Improve monitoring and evaluation of incubation programmes to establish track records and performance history of different programmes.

## **Recommendations for cross-cutting issues**

### *Enabling women entrepreneurs*

- Develop a dedicated strategy for women entrepreneurship promotion, articulating the key actions to be taken and their objectives, responsible entities, timelines, and key performance indicators.
- Increase public support for women entrepreneurs' access to key resources such as funding, training, networks and testing facilities.
- Raise awareness of entrepreneurship as a viable career option for women.
- Review regulations on the ability of groups of investors to benefit from Startup Law incentives, given the relatively strong propensity for women angels to invest in groups.

### *Co-ordinating regional entrepreneurship supports and regulations*

- Continue the implementation of Régimen 20.
- Create a working group in the National Startup Forum to focus on how synergies between national and regional government support initiatives can be increased.
- Encourage cross-regional collaborations in the design of public support programmes for startups and scaleups.
- Foster more opportunities for startups and scaleups in peripheral regions to network and collaborate with ecosystem actors in Spain's major entrepreneurship hubs.

- Strengthen referral mechanisms between national and regional programmes to guide firms towards the most appropriate supports.

### ***Globalising startups and scaleups***

- Launch a matchmaking programme to connect Spanish startups and scaleups with potential customers in overseas markets, leveraging ICEX Spain Trade and Investment's network of international offices.
- Strengthen promotion of the Spain Up Nation brand internationally and promote the companies certified under the Startup Law internationally.

### ***Co-ordinating entrepreneurship policy***

- Ensure the National Startup Forum convenes regularly and has buy-in and engagement from key national and regional entities.
- Undertake monitoring and evaluation of the implementation and impact of the Startup Law via a champion government ministry and report and discuss results through the National Startup Forum.
- Develop a national entrepreneurship strategy, which articulates priority areas, policy actions, key performance indicators, targets, implementation steps, monitoring and evaluation arrangements, and responsible entities for the delivery of public support to entrepreneurs and startups across ministries and agencies that are active in this policy area.

### ***Tailoring supports for different firms and entrepreneurs***

- Create dedicated teams within key entrepreneurship support entities such as CDTI and ICEX with a mandate to deliver tailored advice and guidance to startups and scaleups in specific sectors or technology areas.
- Launch a public tender for the development and delivery of a specialised incubation or acceleration programme in a select sector of strategic importance to Spain's entrepreneurial ecosystem.
- Establish a legal status or certification for Spanish scaleups, with corresponding benefits and incentives to support their development.

## Annex B. Prioritisation of recommended policy actions

This Annex makes a tentative categorisation of each proposed policy action into three priority levels, from 1, highest priority, to 3, lowest priority, and three time periods necessary for ecosystem impacts to be observed, short term (up to two years), medium term (5-6 years) or long term (over 6 years). This is set out in the Table, which starts with short term actions, with a more rapid expected impact, moving towards actions with a longer expected time horizon to achieve effects. Given the dynamic feedback loops that characterise entrepreneurial ecosystems, quick impacts are very beneficial in generating improving conditions overall. Within each time period, the highest priority actions are set out first, moving to medium and lower priority actions.

**Table A B.1. Recommendation categorisation by time horizon and priority level**

Priority level	Time	Objective	Suggested action
1	Short term	Improve system co-ordination and information diffusion	Update the national entrepreneurship strategy, which articulates priority areas, policy actions, key performance indicators, targets, implementation steps, monitoring and evaluation arrangements, and responsible entities for the delivery of public support to entrepreneurs and startups across ministries and agencies that are active in this policy area.
1	Short term	Improve system co-ordination and information diffusion	Publish information about funding opportunities for investors on the ONE platform and introduce functionalities to facilitate networking and matchmaking between funding entities.
1	Short term	Further improve regulatory and administrative conditions for startups and scaleups	Simplify eligibility criteria for certification under the Startup Law to enable more young companies to benefit. Notably, extend fiscal and other benefits for a longer period, up to eight years, for deep tech startups, taking into account their technical characteristics and development needs.
1	Short term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Expand and optimise existing programmes that incentivise collaboration in innovation across firms and knowledge transfers between university and the private sector.
1	Short term	Improve system co-ordination and information diffusion	Ensure the National Startup Forum convenes regularly and has buy-in and engagement from key national and regional entities.
1	Medium term	Expand scale-up finance	Set up incentive schemes and introduce legal reforms to encourage institutional investors to invest more in venture capital and private equity.
1	Medium term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Incentivise researchers to find commercial applications for their inventions by: i. defining conditions for spin-off participation, ii. issuing guidelines on how to apply “one-third income” IP provisions, iii. offer proof-of-concept grants and translational R&D funds for spinouts.
1	Medium term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Enhance Knowledge Transfer Office (KTO) capability by investing in training, commercialisation funding, and technical services (e.g. legal, valuation) and reduce legal uncertainty by issuing national guidelines on equity, licensing, and revenue-sharing principles.
1	Medium term	Further improve regulatory and administrative conditions for startups and scaleups	Reduce legal and bureaucratic barriers to capital increases and investment rounds, for instance, by leveraging information technologies for identity validation and signature that reduce the involvement of notaries and enable the signature of official documents remotely.
1	Medium term	Further improve regulatory and administrative conditions for	Continue the implementation of Régimen 20.

		startups and scaleups	
1	Medium term	Further improve regulatory and administrative conditions for startups and scaleups	Further streamline insolvency procedures, especially for companies whose sole creditors are public entities.
1	Medium term	Further improve regulatory and administrative conditions for startups and scaleups	Establish a legal status or certification for Spanish scaleups, with corresponding benefits and incentives to support their development.
1	Medium term	Improve market opportunities for startups	Launch a matchmaking programme to connect Spanish startups and scaleups with potential customers in overseas markets, leveraging ICEX Spain Trade and Investment's network of international offices.
1	Medium term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Maximise research commercialisation by supporting university-linked accelerators, research-based innovation districts, and dedicated joint research funding tenders involving teams of academics and startups.
1	Medium term	Improve system co-ordination and information diffusion	Undertake monitoring and evaluation of the implementation and impact of the Startup Law via a champion government ministry and report and discuss results through the National Startup Forum.
1	Long term	Expand scale-up finance	Act at European level to change critical aspects of AIMFD regulation, including the limits for retail investments from private savers into venture capital and support European Investment Fund initiatives to launch European-level funds of funds.
1	Long term	Expand scale-up finance	Continue leveraging public development banks and other public-funded entities (e.g. CDTI) to crowd-in private investors to venture capital markets, and possibly institutional investors.
1	Long term	Improve market opportunities for startups	Continue working at European level to foster greater harmonisation in goods and services markets as well as access to public procurement.
1	Long term	Improve system co-ordination and information diffusion	Continue progress on the harmonisation of administrative procedures across regions by: i. Enhancing the role of the Sectoral Conference for Regulatory Improvement and the Business Climate; ii. Introducing opt-out regulatory options for regions to accelerate reform convergence; iii. Continuing the implementation of "Régimen 20".
1	Long term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Introduce campaigns to promote entrepreneurship to the Spanish population under the "Spain Up Nation" brand and tailor communication to a more mainstream audience that extends beyond the narrow ecosystem boundaries.
2	Short term	Improve system co-ordination and information diffusion	Strengthen promotion of the Spain Up Nation brand internationally and promote the companies certified under the Startup Law internationally.
2	Short term	Address the talent shortage	Further ease startups' access to foreign talent through high-skilled professionals visa applications, establishing a network of pick-up points in several cities globally to facilitate visa applications from abroad.
2	Short term	Address the talent shortage	Maintain alignment of fiscal incentives stock options with other countries by adapting thresholds and accessibility.
2	Short term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Increase public support for women entrepreneurs' access to key resources such as funding, training, networks and testing facilities.
2	Short term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Raise awareness of entrepreneurship as a viable career option for women.
2	Short term	Further enhance incubation/acceleration, balancing national and regional level	Create dedicated teams within key entrepreneurship support entities such as CDTI and ICEX with a mandate to deliver tailored advice and guidance to startups and scaleups in specific sectors or technology areas.
2	Short term	Further improve regulatory and administrative conditions for startups and scaleups	Remove the minimum social security contribution for self-employment individuals whose main activity is their startup company and who own stock in their company (corporate self-employed).
2	Short term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Assign mandates and provide resources to chosen incubators, business innovation centres, or innovative business clusters to create and manage specialised ecosystem networks in selected sectors.
2	Short term	Improve system co-ordination and information diffusion	Create a working group in the National Startup Forum to focus on how synergies between national and regional government support initiatives can be increased.
2	Short term	Improve system co-ordination and information diffusion	Foster more opportunities for startups and scaleups in peripheral regions to network and collaborate with ecosystem actors in Spain's major entrepreneurship hubs.
2	Short	Improve system co-ordination	Publish information on Spanish startups and ecosystem actors (including large corporates,

	term	and information diffusion	investors, researchers, startup support providers, mentors, and public entities) on the ONE platform and introduce online matchmaking functions.
2	Short term	Improve system co-ordination and information diffusion	Raise awareness of recent reforms in university commercialisation legislation such as on IP ownership and academic staff employment regulations through communicating information to academics and helping researchers and institutions to navigate recent updates, e.g Red.ES.
2	Short term	Improve system co-ordination and information diffusion	Strengthen referral mechanisms between national and regional programmes to guide firms towards the most appropriate supports.
2	Medium term	Address the talent shortage	Reduce the labour tax wedge and labour regulations affecting the ability of startups and scaleups to employ high-skilled workers.
2	Medium term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Create an “entrepreneurial schools” label for schools and universities that meet certain standards with respect to entrepreneurship promotion, in partnership with the “Spain Up Nation” brand. Issue “Spain Up Nation” awards for standout schools and universities that demonstrate excellence in entrepreneurship promotion.
2	Medium term	Continue building data and sandboxes infrastructure	Advance open data and interoperability frameworks to reduce barriers for startups and scaleups in data-intensive sectors such as health, mobility, and energy, using sandboxes to balance data protection with innovation needs.
2	Medium term	Further enhance incubation/acceleration, balancing national and regional level	Improve monitoring and evaluation of incubation programmes to establish track records and performance history of different programmes.
2	Medium term	Further enhance incubation/acceleration, balancing national and regional level	Launch a public tender for the development and delivery of a specialised incubation or acceleration programme in a select sector of strategic importance to Spain’s entrepreneurial ecosystem.
2	Medium term	Further enhance incubation/acceleration, balancing national and regional level	Leverage regional competitive advantages by encouraging local incubators to specialise in regionally strong sectors.
2	Medium term	Further improve regulatory and administrative conditions for startups and scaleups	Review regulations on the ability of groups of investors to benefit from Startup Law incentives, given the relatively strong propensity for women angels to invest in groups.
2	Medium term	Further improve venture capital ecosystem	Extend the tax benefit to investors introduced by the Startup Law to SPVs and angel investor syndicates.
2	Medium term	Improve market opportunities for startups	Modernise public procurement to become a strategic innovation lever by including clearer innovation criteria, faster decision-making, and dedicated calls for startups. Expand successful GovTech and innovation procurement pilots across national and regional governments.
2	Medium term	Improve market opportunities for startups	Enhance startup internationalisation through co-investment bridge funds, legal support, B2B matchmaking and soft-landing services delivered via embassies, ICEX, and local hubs.
2	Medium term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Strengthen the access of startups and scaleups to strategic “technology infrastructures” housed in universities, supercomputing centres, and public research institutions (e.g. testbeds, AI sandboxes, pilot manufacturing, water labs). Simplify rules and interfaces to make these assets usable for early-stage firms.
2	Medium term	Improve system co-ordination and information diffusion	Better measure the development of leadership in the ecosystem by improving data collection on serial entrepreneurs and their activities, developing new key performance indicators (e.g. founder board participation, pay-it-forward engagement), and building datasets on mentor networks and founder involvement in policy.
2	Long term	Address the talent shortage	Improve domestic supply of technical professionals by encouraging students to pursue technical programmes both in tertiary and vocational education.
2	Long term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Embed a module on entrepreneurship education in tertiary, vocational and secondary education and make pedagogy more practical
2	Long term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Develop a dedicated strategy for women entrepreneurship promotion, articulating the key actions to be taken and their objectives, responsible entities, timelines, and key performance indicators.
2	Long term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Provide training for teachers in teaching entrepreneurship in secondary schools, vocational training institutions and universities.
2	Long term	Boost the diffusion of entrepreneurial culture across all	Disseminate entrepreneurial role models through media campaigns, events, and networks that showcase successful entrepreneurs, including women founders and investors, and

		segments of the Spanish society	entrepreneurial leaders from other underrepresented populations.
2	Long term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Leverage Spain's strengths in renewable energy and green hydrogen by supporting startups and scaleups working on smart grid, storage, and decarbonisation solutions through sector-focused accelerators, innovation-friendly procurement, and test environments.
2	Long term	Improve system co-ordination and information diffusion	Encourage cross-regional collaborations in the design of public support programmes for startups and scaleups.
3	Short term	Boost the diffusion of entrepreneurial culture across all segments of the Spanish society	Promote women leadership roles in the entrepreneurial ecosystem by women entrepreneurs, women investors and women leaders in other stakeholder organisations such as corporates and banks by women entrepreneurship programme support, measures to encourage women participation in networks and consultation groups, and communication and educational campaigns across society on women entrepreneurship and leadership.
3	Short term	Improve system co-ordination and information diffusion	Organise events and establish a platform for companies certified under the Startup Law to share relevant resources, contacts or experiences, discuss shared challenges, and explore potential collaborations.
3	Medium term	Further improve venture capital ecosystem	Better support impact investors by extending venture capital tax benefits to European Social Entrepreneurship Funds (ESEFs) and European Venture Capital Funds (EuVEFs).
3	Medium term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Launch a public matchmaking programme that provides tailored introductions between Spanish startups and large corporates operating in Spain, based on identified needs and competencies, with a clear process for progressing to a pilot project where there is a suitable fit.
3	Medium term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Incentivise corporate-startup collaboration by introducing match-making mechanisms between startups and corporate supply chain management to facilitate purchase of innovative goods and services solutions from emerging startups. Consider introduction of preferential procurement conditions for large firms to source solutions from startups, especially in strategic sectors.
3	Long term	Address the talent shortage	Promote entrepreneurship among students, as foreseen by the Startup Law, by introducing liability protections, flexible registration, and tailored incubation/acceleration support for student-founders.
3	Long term	Further enhance incubation/acceleration, balancing national and regional level	Improve regional co-ordination by creating institutional mechanisms that enhance harmonisation and collaboration among incubators and accelerators across regional ecosystems.
3	Long term	Improve market opportunities for startups	Use public procurement strategically to crowd in startup and scaleup innovation addressing infrastructure challenges (e.g. smart mobility, digital inclusion, water efficiency), supported by new tools like GovTech missions and challenge-based calls.
3	Long term	Improve networks, knowledge transfer capabilities and conversion of research into commercial products	Increase support to post-exit reinvestment by successful entrepreneurs through platforms, peer-to-peer learning activities and incentives.

# Entrepreneurial Ecosystem Diagnostics of Spain

This report explores Spain's entrepreneurial ecosystem, startup and scaleup performance, and further entrepreneurship development priorities. It offers insights and guidance for policymakers, entrepreneurship support organisations, ecosystem stakeholders, and researchers on how to promote entrepreneurship in Spain and other countries.

It is the first country-level application of the OECD's Entrepreneurial Ecosystem Diagnostics framework, offering international benchmarking comparisons, government policy mapping, stakeholder insights and inspiring international policy examples.

Analysis covers enablers and bottlenecks in Spain's institutions, culture, networks, infrastructure, markets, finance, knowledge, talent, leadership, and intermediate services as well as cross-cutting issues such as inclusion, regional conditions and startup globalisation.

The report shines a light on a vibrant and rapidly progressing Spanish entrepreneurial ecosystem and highlights areas for further development, including building growth-stage risk capital, helping startups and scaleups attract talent, and commercialising university research. Future policy actions are proposed such as a startup-corporate matchmaking programme, establishing a legal status and incentives for scaleups and developing specialised incubators.



Funded by  
the European Union



PRINT ISBN 978-92-64-40025-2  
PDF ISBN 978-92-64-89988-9



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