

SHARING GOOD PRACTICES ON INNOVATION: UNDERSTANDING SELECTED EUROPEAN STARTUPS ECOSYSTEMS TO FOSTER INNOVATIVE ENTREPRENEURSHIP IN BRAZIL



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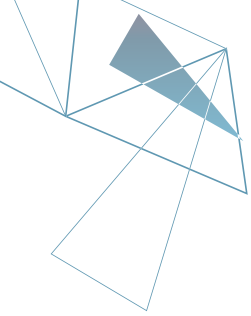
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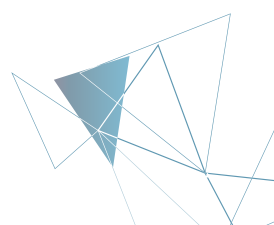


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Sharing good practices on Innovation: understanding selected European startups ecosystems to foster innovative entrepreneurship in Brazil

July 2020



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FOREWORD

We welcome the Report “Sharing good practices on Innovation: understanding selected European startups ecosystems to foster innovative entrepreneurship in Brazil” as a significant outcome of the European Union (EU) - Brazil partnership in the context of the bilateral Science & Technology Cooperation Agreement, within the framework of the present EU Programme for Research and Innovation Horizon 2020 and the Sector Dialogues EU-Brazil. The latter aimed to assure cohesion and support to a common understanding and good-practices exchanges at the highest political level, as well as the coordination among Brazilian and European institutions in the field of innovation to align the concepts and procedures to foster innovative environments, which will provide a common ground to the development of future activities and collaboration between innovation actors on both sides.

Innovation and technology are the leading trends towards future, to generate economic growth, welfare and sustainability and the start-ups, the entrepreneurship and the innovative new businesses are some of the main forces of this new economy, therefore, the role of state to foster this transformation goes far beyond enhancing economic freedom, reducing the red tape and requirements for new businesses, it has to provide a fair environment for R&D, academy, research facilities and companies cooperation, supporting the creation and growth of new enterprises with appropriate public policies.

The Report aims to exchange information and good practices under the scope of the Brazilian “Legal Framework for Start-ups”, an initiative to promote technology-based entrepreneurship by the Brazilian Ministries of Science, Technology and Innovation (MCTI) and of Economy (ME) including Brazilian innovation agencies as FINEP and EMBRAPA, as well as by EU initiatives to foster innovation ecosystems like the European Innovation Council (EIC), Smart Specialization Strategies, Access to Mentoring and Advisory Services and Knowledge Partners (e.g. European Institute of Innovation and Technology - EIT), prizes for breakthrough technologies, etc., comprising information on similar initiatives and best practices underway in specific EU Member States, in particular Italy and Spain and an accurate study on the Brazilian environment for innovative entrepreneurship.

This study provides valuable guidelines on such issues, comparing Brazilian environment with related good practices in specific EU Member States, which can contribute with their experiences and previous challenges to the present efforts of Brazilian government to promote start-ups and entrepreneurship, and offers recommendations and points out opportunities for further cooperation between EU and Brazil. Furthermore, this study paves the ground for the forthcoming Brazil-EU Innovation Conference and also represents a great impulse for a strategic bilateral cooperation under the framework of the next EU Programme for Research and



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Innovation Horizon Europe (2021-2027), in which Innovation is going to play a fundamental role -reflecting the needs of the society- being one of the three pillars of the programme.



EU Ambassador Ignacio Ybáñez



MCTI Minister Marcos Pontes

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List of abbreviations

ABDI	Agência Brasileira de Desenvolvimento Industrial
ABStartups	Associação Brasileira de Startups
ABVCAP	Associação Brasileira de Private Equity & Venture Capital
ACATE	Associação Catarinense de Tecnologia
Anprotec	Associação Nacional de Entidades Promotoras de Empreendimentos Inovadores
ASCRI	Spanish Association of Capital and Investment
BNDES	Banco Nacional de Desenvolvimento Econômico e Social
BNF	National Development Banks
CAPES	Coordenação de Aperfeiçoamento de Pessoal de Nível Superior
CEIS	Complexo Econômico-Industrial da Saúde
CER	Centro Sebrae de Referência em Educação Empreendedora
Certi	Centros de Referência em Tecnologias Inovadoras
CNI	Conferência Nacional da Indústria
CNPJ	Cadastro Nacional da Pessoa Jurídica
CNPq	Conselho Nacional de Desenvolvimento Científico e Tecnológico
ConSITec	Consórcios Setoriais para Inovação Tecnológica
CVM	Comissão de Valores Mobiliários
EEN	European Enterprise Network
EFSI	European Fund For Strategic Investment
EIB	European Investment Bank
EIC	European Innovation Council
EIT	European Institute Of Technology
Embrapa	Empresa Brasileira de Pesquisa Agropecuária
Embrapii	Empresa Brasileira de Pesquisa e Inovação Industrial
ENCTI	Estratégia Nacional de Ciência, Tecnologia e Inovação
ENIMPACTO	Estratégia Nacional de Investimentos e Negócios de Impacto
EU	European Union
ESBAN	Spanish Business Angels Network
ESIF	European Structural Investment Funds
Fapesp	Fundação de Amparo à Pesquisa do Estado de São Paulo
FET	Future and Emerging Technologies
FIESP	Federação das Indústrias do Estado de São Paulo
Finep	Financiadora de Estudos e Projetos
Fiocruz	Fundação Oswaldo Cruz
FIPs	Equity Investments Funds
FNDCT	Fundo Nacional de Desenvolvimento Científico e Tecnológico

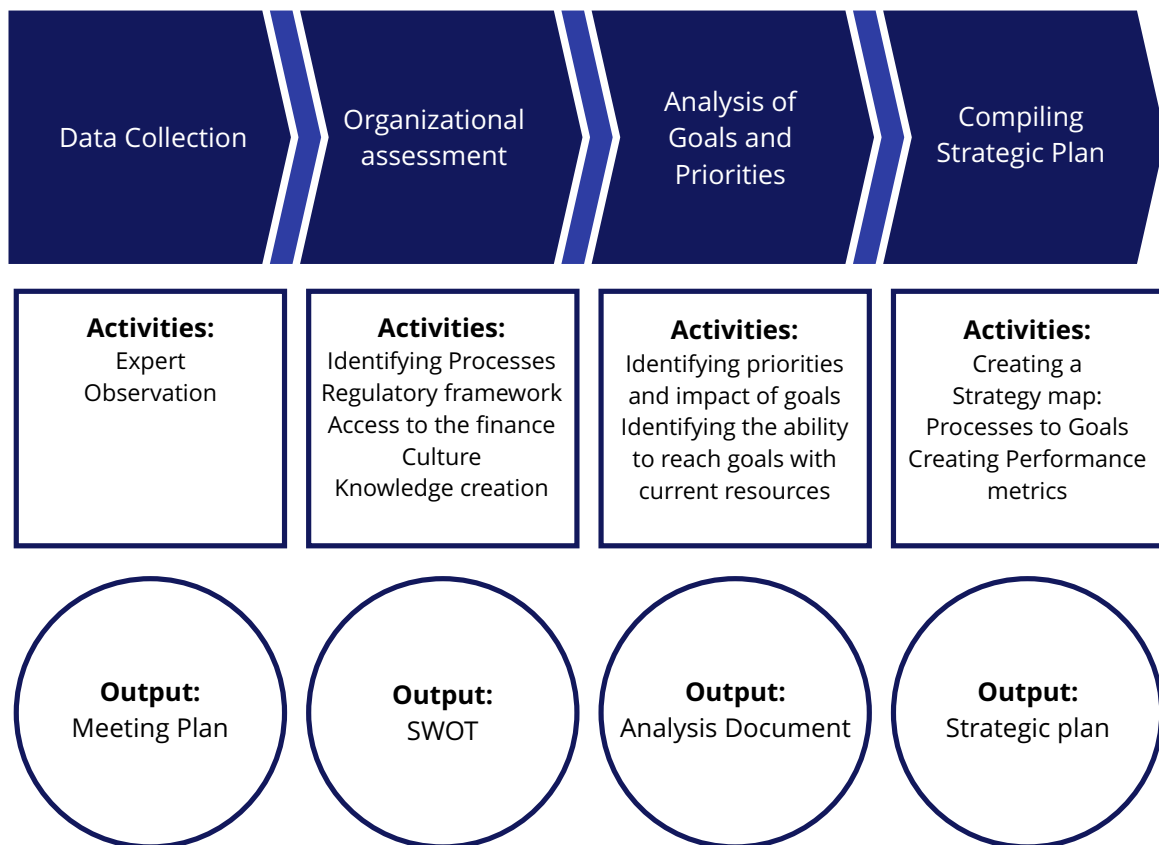
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FGTS	Fundo de Garantia por Tempo de Serviço
FGV	Fundação Getúlio Vargas
FTI	Fast Track Innovation
GEM	Global Entrepreneurship Monitor
GSER	Global Startup Ecosystem Report
HLG	High Level Group
IAE	Instituição Amiga do Empreendedor
IBGE	Instituto Brasileiro de Geografia e Estatística
ICE	Inovação em Cidadania Empresarial
ICT	Instituições Científica, Tecnológica e de Inovação
INPI	Instituto Nacional de Propriedade Industrial
IP	Invention Patent
ISA	Italian Startup Act
ISU	Italian Startup Visa
ISTAT	National Statistic Institute
KICs	Knowledge Innovation Communities
LAVCA	Latin America Private Equity and Venture Capital Association
LISTO	Latin American and European Cooperation on Innovation and Entrepreneurship
MCTIC	Ministério da Ciência, Tecnologia, Inovações e Comunicações
MDIC	Ministry of Economy, Industry, Foreign Trade and Services
MDS	Ministério do Desenvolvimento Social
MEC	Ministério da Educação
MEI	Mobilização Empresarial pela Inovação
MISE	Ministry Of Economic Development
NIF	National Innovation Fund
PAPPE	Programa de Apoio à Pesquisa em Empresas
PINTEC	Pesquisa de Inovação
PIPE	Pesquisa Inovativa em Pequenas Empresas
PITE	Programa de Apoio à Pesquisa em Parceria para Inovação Tecnológica
PNEE	Programa Nacional da Educação Empreendedora
SCP	Sociedade em conta de participação
SDGs	United Nations Sustainable Development Goals
SEBRAE	Serviço Brasileiro de Apoio às Micro e Pequenas Empresas
SENAI	Serviço Nacional de Aprendizagem Industrial
SNI	Sistema Nacional de Inovação
SUS	Sistema Único de Saúde
UnB	Universidade de Brasília
USP	Universidade de São Paulo

INTRODUCTION AND WORK METHODOLOGY

This project's main aim is to analyze how the European startup support policies and guidelines work and offer recommendations for the proposal for the "Brazilian Startups and Innovative Entrepreneurship Legal Framework", as well as to identify cooperation opportunities between European and Brazilian startups. The consultancy team, made up by Mr. Leonardo Piccinetti and Dr. Eduardo Felipe Matias, has examined the policy process issue which is one of the main aspects to understand the startups legal framework evolution and to foresee ways of potential development.

After the creation of the consultancy team involving a national expert, who knows the Brazilian business environment very well, and a European expert, who knows the European environment and has much experience in innovation projects within Latin America, the second step of the project was selecting two startup policies in the EU to be deeply analyzed (Italy and Spain).



After a review of the literature regarding startup policies in the EU and Brazil, the consultancy team has chosen two case studies in the EU (Italy and Spain), to be developed by the European expert. The choice was based upon culture, regulatory framework and knowledge creation in order to give some recommendations concerning synergies and possible joint actions.



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The policy analysis has been based both on official documentation and literature reviews as well as on the direct experience of the consultancy team in the EU and Brazil.

A preliminary research for gathering more information has been conducted before performing the study report. The research was aimed at outlining policies and programmes for startups' support and highlighting the different and most important development phases, especially the processes of formulating and conducting public consultation in the EU member states. Furthermore, the scope of the analysis was to underline the differences among the contexts in which the startup policies in the EU have been developed. Through the analysis of the various web sites and official documentation, the consultancy team has profiled the main stakeholders in the EU and Brazil, asking them what were the best practices and potential problems in startup management.

With the information gathered through these actions, the consultancy team has been able to outline the potential ways for cooperation between Brazilian and European innovation policies.

Through the analysis of the data collected, and thanks to the SWOT analysis, the consultants have created a setup of recommendations for improving the policy for stakeholder's engagement and overtaking the difficulties the Brazilian startups are facing nowadays.

1. EU POLICY FOR STARTUP INITIATIVES

Leonardo Piccinetti

Startups and scaleups are drivers of economic growth and create many jobs within the European Union. The fostering of SMEs, and in particular of entrepreneurship, are critical factors in driving economic development because of their impacts on wealth generation, innovation, skills and capabilities, the opening up of new markets, job creation and job satisfaction. SME and entrepreneurship policies are governmental initiatives aimed at positively influencing the formation, viability and commercial success of new and smaller scale firms. However, in the majority of the cases these policy initiatives are developed at different governance levels – **local, regional, national and supra national** –, so that policy is able to best access the right small-scale stakeholders at the local and regional levels. Indeed, this multi-level aspect of entrepreneurship and SME policies often makes their monitoring and evaluation somewhat harder than for other types of policies.

Today, all of the EU policies related to SMEs and entrepreneurship, fall under the broader **Europe 2020** pillar of Smart Growth. From this broader umbrella emerges the Entrepreneurship 2020 Action Plan which is a blueprint for decisive action to reignite the entrepreneurial spirit in Europe and this Action Plan acts as a follow-up to the Small Business Act (SBA) review of April 2011.

The Entrepreneurship 2020 Action Plan is built on three main pillars: **entrepreneurial education and training** to support growth and business creation; **strengthening framework conditions for entrepreneurs** by removing the existing structural barriers and **supporting them at different stages** of their business lifecycle and dynamising the culture of entrepreneurship in Europe by nurturing the new generation of entrepreneurs, additionally reaching out to specific groups whose entrepreneurial potential is not being tapped to its fullest extent or who are not reached by traditional outreach for business support is also under their priorities. In 2014, the EC launched a public consultation to gather feedback and ideas on how the SBA for Europe should be revised.

The needs expressed by the participants were in line with the five priority areas identified by the EC and the SME Envoys network: access to finance, access to market, smart regulation, entrepreneurship, and training and skills. Administrative and legislative burdens in the EU Single Market remained the stakeholders' major concern. A 2015 EC Staff Working Document indicated economic reform in the field of restoring labour productivity of the EU economy as a key area of concern for the EU Single Market. It also considered that investments in **digitisation**, adopting new technologies, and integration in **EU and global value chains** were sources of growth that needed to be further tapped into.

According to the SBA factsheet 2016, only some EU MS have registered progress related to **skills & innovation** since 2008, and some key indicators dete-

riorated at the EU28 level – including the percentage of turnover of new-to-market innovations and the percentage of SMEs innovating in-house. Also in the field of **internationalisation**, performance among EU SMEs shows limited progress.

The 2015 EC Staff Working Document also considered that innovation is hindered by **regulatory and structural barriers** such as the slow improvement in the EU regulatory environment (especially in EU15 countries), slow reforms of the public procurement system, and in general a regulatory climate that does not encourage innovation.

Reflecting the considerations made in the EC Staff Working Document, both the 2015 and the 2016 Annual Growth Surveys (AGS) show that pursuing *structural reforms* in the MS is key to modernising EU economies and ensuring better framework conditions for business. Further removing regulatory barriers to the Single Market, establishing the Digital Single Market for simplifying existing legislation have been highlighted as priorities for 2015; according to the 2016 AGS, increasing transparency, efficiency and accountability in public procurement, ensuring open and competitive product service markets, and modernising the public administration remain further challenges in the EU.

In the context of Europe's lagging behind in the creation of start-ups, also fostering an **entrepreneurial spirit** among the European citizen has been a major policy objective during the last two decades. The SBA factsheet 2016 informs that at the EU28 level, there has been continuous (yet moderate) progress since 2008. Early stage entrepreneurial activity and entrepreneurship intentions have steadily increased since 2008; however, the factsheet emphasises, "more policy efforts are needed to turn entrepreneurship into a desirable career choice and to promote education as a means to develop an entrepreneurial attitude".

Key challenges to address also include the difficulties firms face in surviving the first years of activity, as well as the barriers start-ups face to **starting anew**. Year-on-year survival rates decrease gradually. On average, less than half (44%) of the companies established in the EU in 2009 had survived by 2014. Companies in Romania, Latvia, Austria and the Netherlands had the highest five-year survival rates in the EU, while Belgium was the country with the lowest five-year survival rates of companies. The policy response has been to shift the attention towards 'second chance' policies and bankruptcy laws, to make it less costly to fail and to encourage the dynamism of the entrepreneurial environment as key driver of EU growth and employment.

On November 22, 2016 the European Commission adopted an initiative to improve the economic and **regulatory situation for startups and scaleups**. In total, 46 different policy actions has been implemented to make European policy more effective for young enterprises that have recently started or are in their early years of existence. Evidence-based policy-making requires the possibility to compare the situation before, during, and after a policy implementation. The EU recommendation [2003/361] defines a SME by headcount and either turnover or balance sheet total. In the case of startups, this is difficult to measure since a startup may have a large number of employees, but not yet a significant turnover

(19.8%). Furthermore, the initial capital to grow the business is commonly much higher (sometimes millions) for a startup than for an SME.

The sources of finance are often very different, Business Angel (29.0%), Venture Capital (26.3%), or Crowd Investor (18.1%) support is more common for startups than for SMEs— which often rely on traditional bank loans or savings of founders only. Since then several EU members have already put in place or are considering initiatives to create a favourable environment for innovation and entrepreneurship, such as creation, extension and reinforcement of the European Fund for Strategic Investments (EFSI). The Single Market Strategy, the Digital Single Market, and the Capital Markets Union have also provided a framework for further improvement.

In addition, a stronger focus of the existing European Structural and Investments Funds (ESIF) on innovation and SME support, includes venture capital support to 140,000 start-ups and scale-ups. EFSI agreements already target 377,000 SMEs, including startups. In January 2014 under the EU Start-Up Europe initiative during the World Economic Forum was established the **Start-Up Europe Partnership (SEP)** as a pan-European start-up ecosystem led by the **Mind The Bridge Foundation (MTB)**. The key findings of a public consultation under the Start-up Initiative carried out by the European Commission (EC) in 2016 confirmed the following negative factors:

1. **Startups looking to scale up still face too many regulatory and administrative barriers** especially in a cross-border situation;
2. for both startups and scaleups **too few opportunities exist to find and engage with potential partners in finance, business and local authorities;**
3. **accessing finance remains one of the biggest barriers to scaling up** (D-G for Internal Market, Industry, Entrepreneurship and SMEs, 2016).

As a targeted elaboration of these recommendations the European Commission launched the **start-up and scale-up Initiative** in November 2016 on measures how to tackle start-up/scale-up barriers in the member states. In the field of measures on creating new opportunities for start-ups and scaleups are important the following:

- a. reinforcing the Start-up Europe and coordination of EU work to connect clusters and ecosystems across Europe, as well as bring stronger coherence between the different EU initiatives at the level of responsible authorities; and
- b. further improvement of conditions for start-ups to access public procurement
- c. foster scaling up skills to improve the teaching and assessment of skills within the European Entrepreneurship Framework and Digital Competence Framework
- d. targeting breakthrough innovation projects with the potential for scaling up within the **Horizon 2020** and IPR support schemes for SMEs;
- e. scaling support of social startups through better access to finance and to the markets. In the field of access to finance there will be created new, inde-

pendently managed Pan European Venture Capital Fund of Funds with the EU cornerstone investments of up to €400 m (European Commission, 2016).

It is also important to increase the quality and financial returns of start-up projects. Financial support for testing, demonstrating and piloting new technologies, strengthening venture capital, angel investments, incubators and loans for high potential SMEs are some of the areas where action is possible. Entrepreneurs need funds to commercialize research and development and test innovative business models. Support for these areas is proposed by the Commission under the future Programme for the Competitiveness of Enterprises and SMEs (COSME)¹ and Horizon 2020, and are reinforced under the European Structural Funds². In 2008 the Commission created the Enterprise Europe Network, a partnership with over 600 hosting organisations, one of whose tasks is to provide businesses and would-be entrepreneurs with the necessary information on access to EU funding and EU finance. To date, better information on EU support is still a major business request.

This chapter of this study will be analysing the European Innovation Council, Smart Specialization strategies in the EU countries, the mentoring and advisory services for SME's start and finally the European Institute of technology.

1.1 European Innovation Council

Today's successful, high-growth innovative enterprises often rely on new business models and technologies emerging at the intersection between sectors and disciplines. Despite early technology leads, the EU has supported the creation of few companies that shape and capture these new markets. While Europe compares relatively well internationally in terms of numbers of start-ups, too few of these succeed in scaling up and generating the new, high-skilled jobs on which Europe's future depends and which would strengthen Europe's position in the platform economy.

In June 2015, Carlos Moedas, the Commissioner responsible for research, science and innovation, announced the idea of a European Innovation Council (EIC). In January 2017, the Commission created a fifteen-member High Level Group (HLG) of Innovators that will help shape the design of a possible European Innovation Council in the framework of the Commission's proposals for the successor programme to Horizon 2020.

The EIC pilot supports innovators developing breakthrough innovations with the potential to create new markets and boost jobs, growth and prosperity in Europe. The EU needs to help improve the conditions enabling the emergence and rapid scale-up of highly innovative enterprises. With a budget over € 2.7 billion

1 Proposal for a regulation establishing a Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (2014-2020), COM(2011) 834 final.

2 According to the Commission proposal for the future Structural Funds, comprehensive strategies for inclusive start-up support must be in place in order to obtain ESF or ERDF investments in entrepreneurship. (COM/2012/0496 final - 2011/0276 (COD).

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the objective is to strengthen breakthrough innovations and boost the number of high-growth companies. To support the various pilot activities and to prepare the future EIC, the Commission appointed on 27 June 2019 the first 'EIC Pilot Advisory Board', bringing together 22 exceptional innovators from the worlds of entrepreneurship, venture capital, science and technology. Members were selected following an open call for expressions of interest, which resulted in over 600 applications.

The interim evaluation of Horizon 2020 found that while the programme demonstrates potential in terms of fostering breakthrough, market-creating innovation, support for doing so needs to be substantially strengthened. This part of the Horizon 2020 work programme aims to do just that. It contains a package of actions, which were previously fragmented over different parts of the work programme. At the same time, reforms have been introduced to boost impact.



4400+
companies
-6000 by 2021

~1200
with funding
above €0.5 million

€1.9 bn
of EU funding,
+ €3 billion by 2021

39
countries

Source: World Bank Data.

The EIC Pilot brings together several innovation support schemes: the SME Instrument, the Fast Track to Innovation (FTI), FET Open, and Horizon Prizes. Each addresses the needs of a community in the innovation ecosystem. They provide support with no thematic restrictions and they are particularly aimed at people and companies who have ideas that are radically different from existing products or services on the market or under development (not incremental improvements), are highly risky, and require significant investments to get to market. Currently in its pilot phase, the European Innovation Council will be fully implemented from 2021 under Horizon Europe.

SME Instrument

For-profit SMEs, including young companies and startups, from any sector. The EIC Accelerator pilot (SME Instrument) provides full-cycle business innovation support, also includes coaching and mentoring.

Phase 1: Formulate a solid, high-potential innovation project with a European or global growth-oriented strategy. Your proposal must be based on an initial business plan and outline the specifications of a more elaborate one, which will be the outcome of the project. Funding is a lump sum of €50 000.



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Phase 2: Offers a grant only support to SMEs in need of one last push before the scaling-up phase; and it will offer blended finance (combining grant and equity) to SMEs looking to further develop their idea. funding is provided (funding rate 70%) of between €0.5 million and €2.5 million.

Phase 3: The Business Acceleration Services (SME Instrument) help you take advantage of additional EU support extended via a range of business support services offered on the EIC Community Platform, open to researchers and innovators benefiting from the different EIC calls for proposals. This support can take the form of coaching, training, links to investors, partnering and networking with other EIC beneficiaries. The Business Acceleration Services provide specific support to EIC clients that are SMEs, mainly to help them access new markets or customers and link with investors. It does not provide direct Funding.

Fast Track to Innovation (FTI)

The Fast Track to Innovation (FTI) is now central part of the **European Innovation Council (EIC)** pilot, targeting radically new, breakthrough products, services, processes or business models that open up new markets.

Fast Track to Innovation (FTI) is a fully-bottom-up measure in Horizon 2020 promoting close-to-the-market innovation activities that is open to all types of participants. FTI aims to reduce the time from idea to market and to increase the participation in Horizon 2020 of industry, SMEs and first-time industry applicants.

FTI also aims to nurture trans-disciplinary and cross-sector approaches. All kinds of innovation actors can work together to develop sustainable innovations addressing societal needs or areas under 'Leadership in enabling and industrial technologies' and, at the same time, create viable business opportunities. This is why FTI projects must be business-driven and clearly demonstrate a realistic potential for quick deployment and market take-up of innovations. On offer is a maximum EU contribution of €3M per proposal with time-to-grant.

Future and Emerging Technologies (FET)

Challenging Current Thinking: to lay the foundations for radically new future technologies of any kind from visionary interdisciplinary collaborations that dissolve the traditional boundaries between sciences and disciplines, including the social sciences and humanities. This topic also encourages the driving role of new actors in research and innovation, including excellent young researchers, ambitious high-tech SMEs and first-time participants to FET under Horizon 2020 from across Europe. The Commission considers that proposals requesting a contribution from the EU of up to €3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Proactive Boosting emerging technologies: aims to identify the future and emerging technological paradigms with highest potential for Europe's economy and society. For each of them, it looks to establish a broad and solid European basis in terms of knowledge, key technological building blocks and interdisciplinary communities. By reaching out well beyond the research world, it ensures that Europe has the best 'first mover' position to capitalise rapidly and effectively on emerging societal and industrial opportunities.

Emerging paradigms and communities: to explore and consolidate a new technological direction in order to put it firmly on the map as a viable paradigm for future technology, The Commission considers that proposals requesting a contribution from the EU of up to EUR 4 million and with a duration of up to 4 years would allow this specific challenge to be addressed appropriately.

Transition to Innovation Activities: to turn promising results from FET-funded projects into genuine technological or societal breakthrough and disruptive innovations. Since the typical researchers' mind-set is to identify further opportunities for research, promising research results that could be the basis for breakthrough and disruptive innovation risk to remain unexploited. The Commission considers that proposals for actions up to 24 months and requesting a contribution from the EU of between EUR 1.00 and 2.00 million would allow this specific challenge to be addressed appropriately.

Horizon Prizes

EIC Horizon Prizes aim to boost breakthrough innovation across sectors by fostering cutting-edge solutions which bring major benefits to citizens and society. EIC Horizon Prizes set an ambitious goal, without saying how that goal should be achieved or who should achieve it. The prize is awarded to whoever can most effectively meet a defined challenge.

Specific characteristics for each Prize are defined in the individual rules of contest, which lay down conditions for submission and participation, detailed award criteria (scoring and the weighting methodology), and the evaluation process.

1. EIC Horizon Prize for 'Innovative Batteries for eVehicles'. €10 million from the 2020 budget.
2. EIC Horizon Prize for 'Fuel from the Sun: Artificial Photosynthesis'. €5 million from the 2020 budget.
3. EIC Horizon Prize for 'Early Warning for Epidemics'. €5 million from the 2020 budget.
4. EIC Horizon Prize for 'Blockchains for Social Good'. €5 million from the 2020 budget.
5. EIC Horizon Prize for 'Low-Cost Space Launch'. €10 million from the 2020 budget.
6. EIC Horizon Prize for 'Affordable High-Tech for Humanitarian Aid'. €5 million from the 2020 budget.

1.2 Smart Specialization Strategies

In recent years, promoting innovation, research and development, entrepreneurship, and technology transfer has become an important public policy objective at all levels of government in Europe, the US, as well as in most developing economies (OECD, 2008; 2010; 2013). The EU's *Europe 2020* strategy promoted a flagship initiative, the so-called *Innovation Union*, which aimed to establish a policy framework for enhancing innovation throughout the 28 Member States (European Commission, 2010). The premise is that innovation and related elements are the key ingredients for promoting economic competitiveness in the global 'knowledge economy' (OECD, 2010).

Put simply, the assumption is that innovation can provide the foundations for new businesses, new jobs and potentially new industries, which should contribute towards enhanced employment opportunities and productivity growth (Audretsch and Feldman, 1996; Cooke, 2005; Cooke and Leydesdorff, 2006; OECD, 2008, 2010; Lundvall, 2007). According to the OECD, in the past 30 years, more than half the total growth in output of the developed world resulted from innovation (OECD, 2010).

A key assumption in these territorial innovation policy frameworks is that seemingly all localities will be able to engage in 'win-win' scenarios in which "knowledge" emanating from a range of sources, including universities, is transferred to improve innovation, R&D, enhance entrepreneurship and ultimately economic development (European Commission, 2010; OECD, 2008, 2010; Ylinenpää, 2009). Indeed, most of the empirical research on the issue has focused on the experiences of 'exemplar' cases such as Boston or Silicon Valley in the US and Cambridge in the UK (Grimaldi et al, 2011; Tödtling and Trippl, 2005). The reality, however, is much less straightforward and emulating such 'successes' is far from straightforward, particularly in local and regional authorities that are relatively weaker economically.

In this context, the EU's European Structural Investment Funds (ESIF) provides one of the main funding streams to help deliver the *Europe 2020* targets. For the 2014-2020 programming period, national and regional authorities across Europe had to design and implement so-called 'smart specialisation strategies' to ensure that innovation is a key priority within ESIF with policies tailored to the local context, acknowledging that there are different pathways for regional innovation and development. In short, 'smart specialisation' aims to encourage local and regional stakeholders (including public authorities, educational and research institutions, businesses and civil society organisations) to work together to develop 'place-based' policy priorities that promote regional economic transformation and investment through innovative activities in selected domains. The key aim, therefore, is the **identification** of strategic areas for policy, which are based on a thorough analysis of the strengths and potentials of the particular local economic context, using a robust evidence. In addition, a so-called entrepreneurial discovery process is encouraged which involves the **engagement** of stakeholders in the decision-making processes.

The interesting point is that the 'smart specialisation' approach builds upon a broad view of innovation that goes beyond a narrow focus based solely on research and technology-based activities. It also encourages a sound logic of intervention

encouraging evidence-based policy making accompanied by effective **monitoring** mechanisms. Having said that, while the aim to encourage ‘smart specialisation’ in all regions is laudable, the key policy challenge is implementing such strategies in Europe’s less socio-economically developed regions, which possess fewer opportunities to develop robust innovation-based policy strategies. The approach, however, does provide a useful toolkit for other local and regional authorities beyond Europe to explore and potentially employ in their policy-making efforts.

1.3 Enterprise Europe Network

The Network is an effective action in the COSME programme; close to all its services are widely used and appreciated by the client SMEs. The Network shows significant results in terms of outputs especially in the business cooperation services, while the new advisory services will need some time before reaching the expected results. The EEN services have been effective also in providing additional knowledge, overcoming innovation and business management obstacles and setting up valuable relationships between SMEs throughout the COSME countries. The COSME-funded action also fostered the capacity and integration of the EEN member organisations. EEN members reported to have increased their expertise as well as their ability to provide high level services to their client SMEs by participating in the Network. The EEN focused mainly on providing access to other national markets in the EU and services for the creation of business contacts outside of the EU were also provided, though not funded by COSME. Overall it can be stated that the EEN has been very effective in reaching SMEs in Europe and offering quality services leading to concrete results. The way of counting the SMEs reached makes it difficult to establish a verified number at the level of the action, though.

In terms of actual outcomes, the data above show very positive effects especially on the stimulation of cross-border cooperation: business cooperation services achieved a success rate of 40%. Five thousand Partnership Agreements were signed thanks to these services, about 70% of them in the field of business rather than innovation (i.e. technological or R&D cooperation). According to interviewees, the EEN services also had a positive indirect effect on business cooperation also at the regional level thanks to participation in the information events.

The survey results suggest that the information and advisory services are effective in providing additional knowledge, learning and skills, for the main contact person of the SMEs. These services are not set up as a training scheme, though. Instead, they focus on addressing knowledge or skill gaps, related to specific barriers or opportunities regarding business, innovation and crossing borders in the Single Market.

Outputs and outcomes of the EEN services (2015-2016)

	Information services	Advisory services	Business Cooperation services
N° SMEs directly reached	Unknown	More than 100,000	More than 50,000
N°) participants in events	More than 300,000	<i>No events for these services</i>	More than 45,000
Quality rating by SME clients	Very good: 50%	Very good: 55%	Very good: 48%

A large share of SMEs that benefitted from the EEN services indicate strong expectations of growth in terms of turnover and employment, thanks to the launch of new products/services and entry into new markets, mainly in another EU country.

1.4 European Institute of Technology

The European Institute of Technology (EIT) has pioneered the role of entrepreneurship as a key enabler of innovation on EU level and is helping to bridge the gap between education and innovation for industry.

A number of start-ups have already been created out of the EIT's Knowledge and Innovation Communities (KICs). EIT programmes ensure that students are exposed to excellence-driven science with entrepreneurship education, business creation services, and mobility schemes. Partnerships can provide a powerful platform for addressing the entrepreneurship skills of various sectors by directly involving in the provision, application and updating of skills.

As part of Horizon 2020, the EIT's specific objective is to integrate the knowledge triangle of higher education, research and innovation and thus to reinforce the Union's innovation capacity and address societal challenges. The EIT is designed to achieve its goals primarily through the KICs, which bring together higher education institutions, research organisations, industry and other stakeholders to create the critical mass needed to stimulate innovation and operate in specific societal challenges. In the period covered by the Horizon 2020 interim evaluation, KICs operated in the fields of climate change, health, energy, raw materials and the digital economy and society.

The five KICs selected and funded by the EIT

KIC	Mission	Numbers of KIC Partners
EIT Digital	To drive European leadership in ICT innovation for economic growth and quality of life	115
Climate-KIC	To create opportunities for innovators to address climate change and shape the world's economy	209
KIC InnoEnergy	To become the leading engine for innovation and entrepreneurship in sustainable energy	242
EIT Health	To accelerate entrepreneurship and innovation in healthy living and active ageing, providing Europe's top talents with new opportunities and resources for the benefit of all citizens	209
EIT Raw Materials	To boost the competitiveness, growth and attractiveness of the European raw materials sector via radical innovation and entrepreneurship	115

Source: ECA/EIT.

The KICs are independent legal entities structured around a partnership of core partners representing all sides of the 'knowledge triangle'. Each KIC has to develop and deliver a portfolio of activities in three areas:

1. research/innovation projects: the KICs link universities, research institutes and business through their innovation project portfolios. Innovation projects comprise demonstrators, pilots, proofs of concept, etc. All innovation projects are required to develop clearly identified products that address a specific business opportunity supported by a market study;
2. education: a set of postgraduate (MSc/ PhD) programmes and executive/ professional development courses characterised by a multidisciplinary approach, significant business involvement in the development of learning outcomes, and often, cross border mobility;
3. business creation and support activities: a range of business support services, often referred to as a start-up accelerator scheme, to help entrepreneurs translate their ideas into successful businesses.

These services focus on areas such as support for technology, market assessment, access to human resources, and seed and venture capital through specific KIC innovation funds. Most of the objectives/actions defined in the 2013-2015 EIT business plans have been accomplished, which is demonstrated by the fact that **the EIT has achieved most its targets set for the KPIs and other indicators**, as shown by the figures below.

Key Performance indicators for the EIT

Indicator 1: Organisations from universities, business and research into- grated in the Knowledge and Innovation Communities (KICs)		2014	2015	2016
	Target	240	450	500
	Actual results	550	800	1052*
Indicator 2: Collaboration inside the knowledge triangle leading to the development of innovative products, services and processes		2014	2015	2016
# Start-ups and spin-offs set-up	Target	30	280	400
	Actual results	181	250	381*
# Innovations	Target	300	800	1500
	Actual results	1184	2145	3565*

Source: EIT

Innovation KPI performance of the KICs (2013-2015)

Indicators	2013-2015 Actual	2013-2015 Target
Number of eligible applicants for EIT labelled PhD and Master programmes	12,783	11,577
Number of available seats for EIT labelled PhD and Master programmes	3,168	1,864
Number of new graduates	776	842
Number of business ideas incubated	1,249	1,076
Number of start-ups/spin-offs created	216	310
Number of knowledge adoptions (by KIC partners) that are direct output of a KIC Activity	429	326
Number of knowledge transfers (from one KIC partner to another KIC partner or to third parties) that are direct output of a KIC Activity	308	260
New or improved products/services/processes launched	212	290

Source: EIT

While start-up and newly created business are supported through the business incubators of the KICs, existing SMEs with high growth potential have greater difficulty in taking full advantage of the support offered by the EIT. In particular, the participation of SMEs in the innovation-driven project action line is very limited.

2. ANALYSIS OF EU SELECTED COUNTRIES

Leonardo Piccinetti

2.1 Italy

2.1.1 History

Culture

Italy has been struck by the Eurozone crisis in past years, which is reflected in the fact that only one in four adults perceive there to be excellent business opportunities (placing it at 53rd out of 60 countries) and just 30.5% believe they have the capabilities to start a business (ranked 56). Both figures have fallen marginally since 2014.

The country also has one of the highest rates for fear of business failure among GEM countries ³(ranked 59 out of 60), climbing to 57.5% of adults in 2015 from 49% the previous year. 8.2% of adults plan to start a business in the next three years – the lowest it has been since 2012. Five per cent of entrepreneurs expect to hire six or more employees in the next five years.

Italy ranks lowest of all the big European countries (and some emerging economies) across almost all aspects of the entrepreneurial ecosystem, with government policies and programmes and entrepreneurial education singled out as particularly lacking.

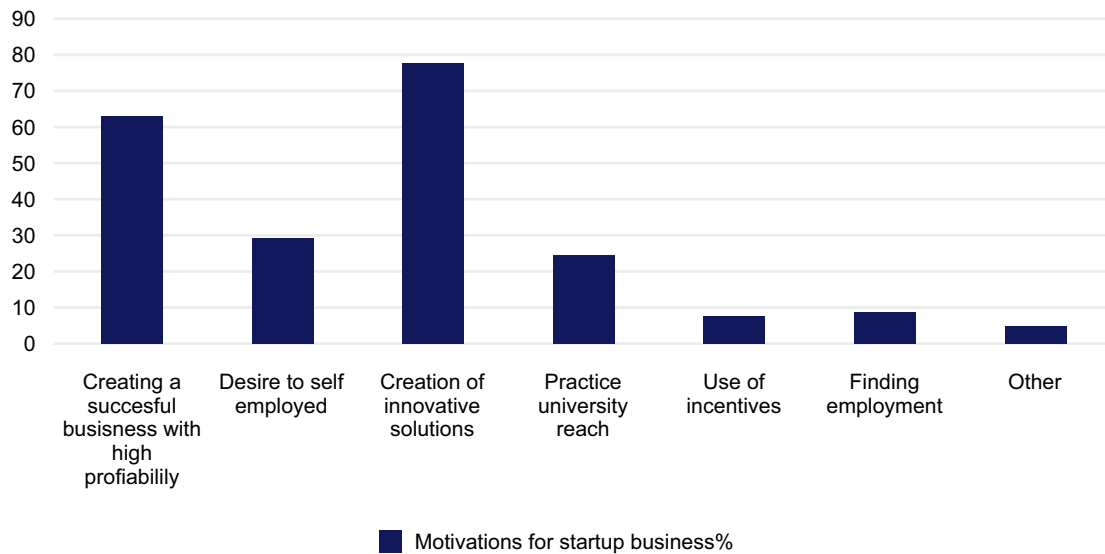
While Italy's TEA (Total early-stage Entrepreneurial Activity) rate had improved since the economic downturn in 2008, when it was measured at 5%, SME value-add in 2014 was still about 10% lower than in 2008. Value-add is expected to fall by a further two per cent and employment to drop by another four per cent between 2014 and 2016.⁴

3 Global entrepreneurship monitor Italy - <https://www.gemconsortium.org/economy-profiles/italy>

4 Global entrepreneurship monitor Italy - <https://www.gemconsortium.org/economy-profiles/italy>

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Motivations for startup business %



Source: Start-up Survey 2016, Italy

2.1.2 Stakeholder engagement process

Italian ecosystem Overview

Since 2012 Italy has developed several initiatives to support and promote innovative start-ups (defined as, among other things, as an enterprise in operation for less than five years with revenue of fewer than five million euros). These initiatives include:

The Italia Start-up Visa and Italia Start-up Hub:⁵ To attract innovative start-ups to Italy, the government in June 2014 introduced a special centralised fast-track mechanism for granting entry visas to self-employed persons and to those who intend to set up an innovative start-up. The Start-up Hub was launched in December 2014, to assist non-EU citizens who already have a valid residence permit (such as a study visa) and who want to remain in the country after the expiry of the license to establish an innovative start-up. It allows applicants to convert a residence permit to a “self-employment start-up permit” without having to leave Italy.⁶

The Investment Compact Decree-Law, which was passed into law in March 2015, allows entrepreneurs to establish innovative start-ups online and without the use external professionals, with lower costs and the use of digitally signed articles of incorporation.

5 Italian start-up Hub - <http://italiastartuphub.mise.gov.it/>

6 Italian Start-up visa - <http://italiastartupvisa.mise.gov.it/>



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Supporting venture capital investments: To encourage more investment in high-growth companies, the then former Minister of Economic Development, Federica Guidi, on 29 January 2015 passed a decree to allocate a share of the resources in the Fund for Sustainable Growth of €50 million (\$55m) to the Italia Venture I fund which is managed by Invitalia Ventures. The fund co-invests with other funds in high-growth companies.⁷

Zero-interest loans: Invitalia's Smart&Start Italia scheme was launched in 2015 to grant zero-interest loans to start-ups.

Research and development (R&D) tax credits: With the Stability Law of 2015, the government introduced significant tax benefits for companies that co-operate with research centres, laboratories and start-ups to conduct research and development (R&D).

Guarantee finance: Italy's Guarantee Fund for SMEs (Fondo di Garanzia), which has been in operation since 2000, also assists start-ups by guaranteeing 80% of a bank loan.⁸

Tax incentives: Article 29 of Growth Decree 2.0 allows individuals who invest in innovative start-ups to deduct 19% of the amount invested from their taxable income, up to a maximum amount of €500,000. Companies can deduct 20% of the amount financed in share capital from their taxable income, subject to a maximum of €1.8 million.

The deduction rate for persons increases to 25% and that for companies increases to 27% for investments in those innovative start-ups defined as having social goals or those that exclusively develop and market innovative high technology products or services for the energy sector.⁹

The number of innovative startups has grown from 4.206 as of 30 June 2015 to 5.818 as of 13 June 2016 (as registered in the special section of the Companies Register of the Chamber of Commerce).¹⁰

As of 30 June 2015, innovative startups employed 20.800 workers according to data from Italy's Chamber of Commerce. This was about 2.900 more than in the previous quarter and over 5.800 more when compared to late 2014.

Amongst the innovative start-ups, a significant number (782) of companies declared that they possess a means of protecting intellectual property.¹¹

When it comes to accessing finance, 461 startups were able to attract bank loans using the simplified and free procedure provided by the Guarantee Fund for SMEs, for a total amount of €198 million (at an average of €306 000 per loan).

7 Invitalia Ventures - <https://www.invitalia.it/>

8 MISE - Ministry of Economic Development - <https://www.mise.gov.it/index.php/en/>

9 Chambers of Commerce Statistics - Start-up Registro Imprese - <http://startup.registroimprese.it/isin/home>

10 Chambers of Commerce Statistics - Start-up Registro Imprese - <http://startup.registroimprese.it/isin/home>

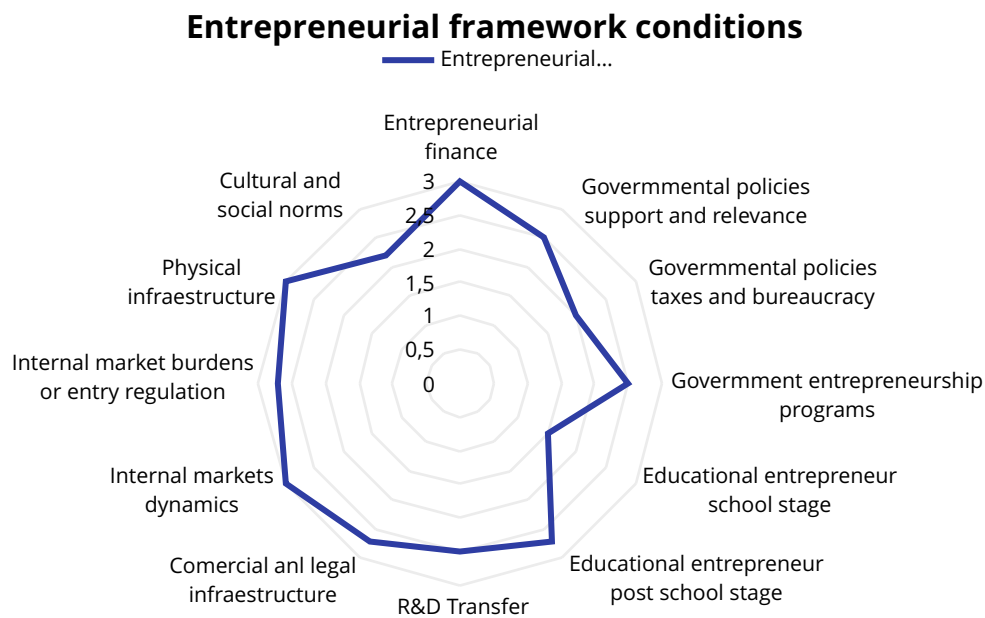
11 Start-up survey 2016 Italy - https://www.mise.gov.it/images/stories/documenti/Startup_Survey_2016_-_presentation.PDF

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When it comes to the tax incentives for investments in startup equity, the results of the first year of the incentive in 2013 reveal that 844 taxpayers (individuals and companies), directly or indirectly, invested resources amounting to €28.2 million.

In addition to this, in the first wave of Smart&Start Italia subsidies (between 16 February 2015 and 29 July 2015) 131 innovative start-ups received €65.8 million in grant funding. It is expected that the start-ups will trigger investments exceeding €63.2 million, of which nearly 75% will be for companies located in the Centre-North of the country.

However, less successful so far has been the Italia Start-up Visa and Italia Start-up Hub. The latest ministry reports show that 61 applications were made for the visa up until the end of 2015, of which 40 were successful (11 were rejected as the business plan was too weak and six were considered inadmissible). Also, five applications were made for the start-up hub regime – all of which were granted.

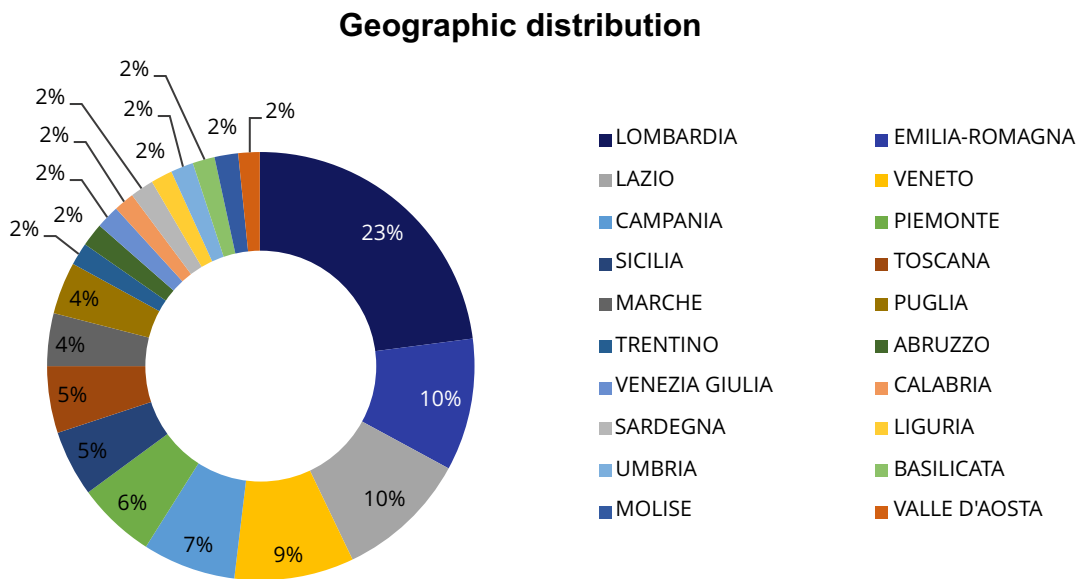


Source: ISTAT - National Statistics Institute

Geographic distribution

The main sectors of innovative start-ups in Italy are services to enterprises (software and IT consulting, R&D services, information services); industrial manufacture (computers, electronics and optical, machinery, electric equipment); commerce. Lombardy is the region with the highest number of innovative start-ups, followed by Emilia-Romagna, Lazio, Veneto and Campania. The primary concentration of start-ups is in the provinces of Milan, Rome, Turin, Naples and Bologna.

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Source: ISTAT - National Statistics Institute

2.1.2.1 Policy

Leadership, urgency, crisis, and challenge – Government

“Italian Start-up Act”

In late 2012, Italy introduced a comprehensive legislative framework (Decree-Law n° 179 of 18 October 2012) aimed at fostering the creation and growth of its start-up ecosystem. The so-called “Italian Start-up Act” (ISA) draws from the recommendations of the Restart, Italia! The Report, which was designed by a task force of 12 experts appointed by the Minister of Economic Development.¹²

Several public goals justify the need for policies tailored to innovative firms. The ISA aims first and foremost to spur sustainable growth and enhance productivity. An innovation-driven entrepreneurial culture should be spread across the entrepreneurial ecosystem as a whole, including small and medium enterprises, large corporations, incubators and accelerators, as well as the academia. Creating new employment opportunities particularly for the youth, regardless of their family, academic or professional background is another crucial objective of the ISA, also given spurring social mobility.

A dynamic and innovative business environment is also a key factor to attract and retain talent and financial capital from all over the world.¹³

¹² MISE - Ministry of Economic Development - <https://www.mise.gov.it/index.php/en/>

¹³ MISE - Ministry of Economic Development - <https://www.mise.gov.it/index.php/en/>

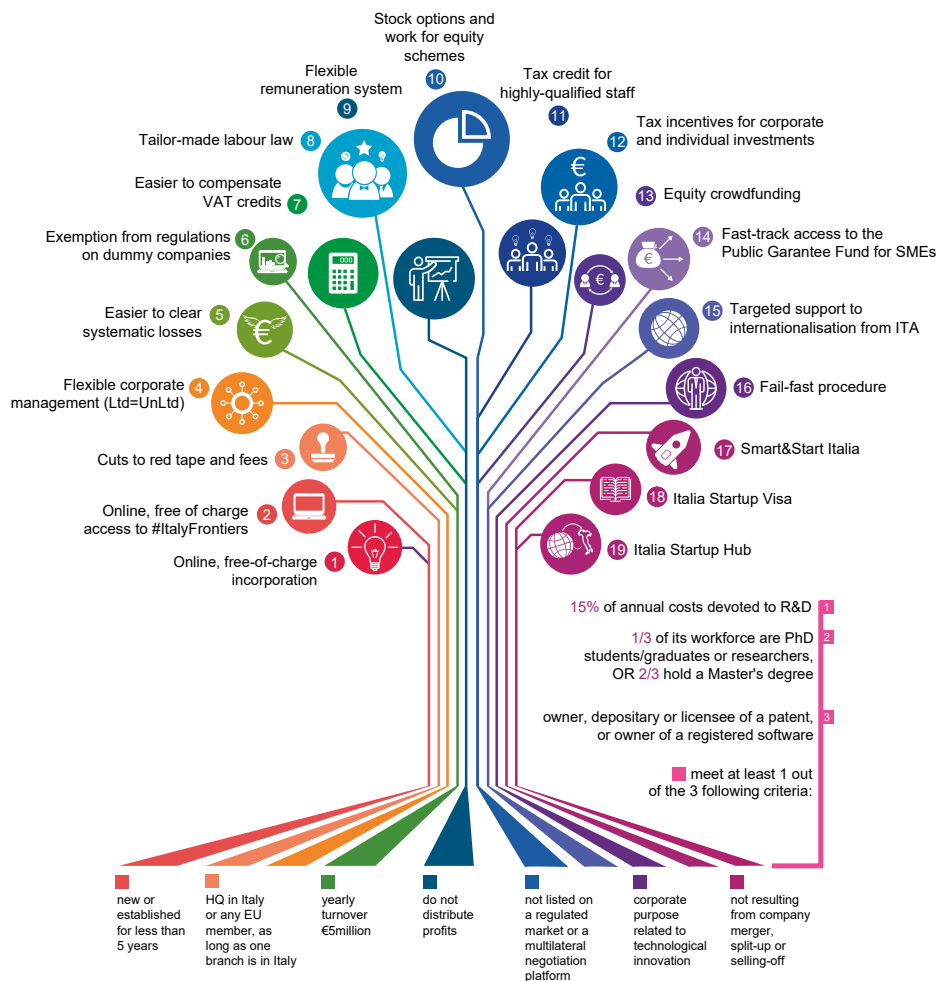
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Independent studies (OECD, 2018) showed that the ISA has significantly improved the growth perspectives and the propensity to innovate of the affected firms, compared to companies with similar characteristics that did not enter the policy.¹⁴

The ISA was subject to several updates and improvements over the years, but its core tenets remain unaltered. Provisions such as Decree-Law n° 3 of 24 January 2015, Law n° 232 of 11 December 2016 (2017 Budget Law) and Law n° 145 of 30 December 2018 (2019 Budget Law) have fine-tuned, strengthened and expanded the range of facilitation and incentives provided to innovative start-ups.

Beyond the framework laid out by the ISA, other policies launched in the last few years are particularly relevant for innovative start-ups, the most prominent of which is the National Plan for Industry 4.0 (2017).

The new Italian legislation on innovative start-ups is not only a regulatory framework but an organic and coherent industrial policy launching new instruments and measures to support the whole lifecycle of a company: since its incorporation to its growth, development and maturity stages. The benefits guaranteed to innovative start-ups and certified incubators are summed up in the chart below.¹⁵



14 The evaluation of the Italian "start-up act" OECD 2018 - <https://www.oecd-ilibrary.org/docserver/02ab0eb7-en.pdf?expires=1581601168&id=id&accname=guest&checksum=3238427582AA424775DE7EEF76CB61F6>

15 MISE - Ministry of Economic Development - <https://www.mise.gov.it/index.php/en/>



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The ISA introduces a legal definition of an innovative start-up, attributing to this category a specific set of facilitation and exemptions: a novel approach in the EU and OECD countries.

Companies that fulfil the requirements can (self-selection) register as innovative start-ups at their local Chamber of Commerce, and benefit from a vast array of policy measures.

The support measures are designed to help start-ups throughout their whole life cycle (first steps, growth, maturity) and to affect the national start-up ecosystem as a whole (investors, incubators, universities...).

Overview of regulatory advantages:

- a. Online, free of charge incorporation Unlike other Italian companies, innovative start-ups can be incorporated without a notarial deed.
- b. Exemption from specific duties and fees.
- c. More flexible corporate management fewer legal constraints to internal governance (e.g. non-proportional voting rights for shareholders, longer times to cover financial losses).
- d. Particular dispositions in labour law for fixed-term contracts.
- e. Internationalisation support by the Italian Trade Agency lower consulting fees, free-of-charge participation to events.
- f. Appropriate visa policies for start-ups.
- g. Conversion to innovative SME status «mature» start-ups (e.g. by age and size) can keep most of the benefits previously applied by shifting to another special status.

Institutions, financial support funds

Overview of financial benefits

In the case of Italy, the policy of promoting the entrepreneurial ecosystem has two well-defined lines of action, on the one hand, the support to start-ups in each of its phases. After the previous stage, more sustained support in time to the so-called innovative SMEs, the definitions of both concepts are included in the start-up above the law (ISA).

1. Tax incentives for seed- and early-stage investors:
2. One of the most generous schemes of its kind in Europe:
 - i. individuals can deduct from income tax 30% of equity investments in start-ups up to €1m



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- ii. limited companies can deduct from their tax base 30% of investments up to €1.8M
3. Equity crowdfunding:
4. For start-ups since 2013, for any company since 2017 – and booming since 2018
5. Debt finance: fast-track access to a Public Guarantee Fund for SMEs
6. A highly popular initiative: approx. €1bn of facilitated loans issued in 5 years
7. Public subsidised finance schemes
8. At the national (Smart&Start Italia) and local level

Regulatory framework incentives, tax benefits

This section, as mentioned above, is divided into two phases, the first one for start-ups and a second one, after the success of these in their early stage, they become innovative SMEs.

Start-up Initial Phase:

Note the legal definition of an innovative start-up, so a start-up is considered creative if it meets at least 1 of the three following conditions:

- a. Expenses in R&D and innovation are at least 15% of either its annual costs or its turnover (the most significant value is considered).
- b. Employs highly qualified personnel (at least 1/3 PhD holders and students, or researchers, or at least 2/3 Master's graduates)
- c. Is the owner, depositary or licensee of a registered patent, or the owner of registered software.

Initiatives	Impact
Incorporation	Innovative start-ups are able to draw up the deed of incorporation and its modifications by means of a typified standard model using digital signature.
Cuts to red tape and fees	Innovative start-ups are exempted from paying: <ul style="list-style-type: none">• Annual fees to the Chambers of Commerce;• Other registration fees and duty stamps usually owed to the Business Register when filing communications.

Initiatives	Impact
A flexible corporate management	An s.r.l. (Ltd) can be managed like an s.p.a. (plc). That is, all innovative start-ups are allowed to: create categories of shares with specific rights (e.g. categories of shares without voting rights, or whose voting rights are not proportional to the capital share carry out transactions on their shares; issue financial instruments such as stock options and work-for-equity; offer capital shares to the public.
Flexible remuneration system	Salaries can have a variable component linked to efficiency or profitability of the company, the productivity of the employee or the team of employees, or to other objectives and parameters for output and performance as agreed upon by the parties, including what is listed below.
Remuneration through stock options and work for equity scheme	In order to foster loyalty among management, employees and suppliers such as lawyers and accountants, start-ups and incubators may offer them capital shares by way of additional remuneration. The revenues resulting from these financial instruments are tax deductible for both fiscal and contributory purposes.
Tax credit for the employment of highly qualified staff	Priority access to benefits has been granted for employment of highly qualified staff in innovative start-ups and certified incubators. Such benefits consist in a tax credit of 35% of the company's total cost for permanent employment, even with an apprenticeship contract, during the first year of the new working relationship.
Easier to cover systematic losses	In the event of systematic losses, the innovative start-up benefits from a 1-year grace period to cover losses over 1/3 of the share capital (terms postponed by two financial years).

Initiatives	Impact
No regulations on dummy companies	Innovative start-ups are exempted from regulations on dummy companies and on companies registering systematic losses. As a result, start-ups do not need to undergo operability tests to verify their inactivity status. In case the revenues of start-ups are considered as «not appropriate», they are not subject to the tax penalties usually faced by dummy companies (e.g. computation of a minimum income and tax base for corporate taxation purpose).
More comfortable compensation of VAT credits	The innovative start-up is exempted from the duty to affix a compliance visa to compensate VAT credits, for a maximum of €50 000 (regular threshold: €5 000).
Ad hoc support by the Italian Trade Agency	Access to the “Start-up Service Card”, granting a 30% discount on the following support services: assistance in legal, societary, fiscal, real estate, contract and credit matters. The start-up can also benefit from a discounted participation in selected international fairs and showcases, and matching activities with potential investors.
Simplified access to Public Guarantee Fund for SMEs	Innovative start-ups enjoy preferential access to the SME Guarantee Fund, a public facility that supports access to credit through guarantees on bank loans: Free intervention; Fast-track investigation; Warranty on up to 80% of the total amount, with no evaluation of the business plan and balance sheets and with no additional assurances from the bank; Maximum amount guaranteed: €2.5 mln, which can also be spread on several operations.

Innovative SMEs Phase

“Grown-up» start-ups can turn into «innovative SMEs” and benefit from a very similar set of incentives, given that they maintain their innovative character. Innovative SMEs are SMEs as defined by EU law, with no age limit, that meets innovation requirements similar to those provided for start-ups. The regime is intended to support start-ups in their scale-up phase, and tech-intensive firms operating in sectors that entail a very long go-to-market period, hence needing extended public support.

Like the previous phase, note definition of innovative SME: SME as defined by EU law (Recommendation 2003/361/CE), HQ in Italy, or another EU country, with at

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least a production site branch in Italy, Certified statement of accounts, Not listed on a regulated market.

Meets at least 2 of the three following criteria:

- a. expenses in R&D and innovation are at least 3% of either its annual costs or its turnover (the most significant value is considered)
- b. employs highly qualified personnel (at least 1/5 PhD holders and students, or researchers, or at least 1/3 Master's graduates)
- c. is the owner, depositary or licensee of a registered patent, or the owner of registered software.

Initiatives	Impact
Exemption from the stamp duty	Innovative SMEs are exempted from stamp duties usually owed when filing documents at the Chamber of Commerce. However, unlike innovative start-ups, there is no exemption from secretarial and annual chamber fees, as it happens for innovative start-ups.
Simplified access to the Guarantee Fund for Small and Medium Enterprises	Unlike start-ups, innovative SMEs are not entitled to automatic access to the public guarantee – i.e. the Fund will perform a separate credit assessment based on its rating system. Companies that are classified in the lowest rating bracket are excluded by default.

Smart&Start Italia

Launched in 2014, Smart&Start Italia is the main financing programme dedicated to innovative start-ups at the national level, with a total budget of about €260 million.

- a. The programme offers interest-free loan to innovative start-ups (already active or soon to be established) to cover up to 70% of investment plans and managing costs worth at least €100 000 and up to €1.5 million.
- b. The loan coverage rate rises to 80% if company members are mostly women or under 35, or include a researcher returning from abroad.
- c. If the start-up is based in Southern Italy, 20% of the funding is issued as a non-repayable grant.
- d. The subsidised loan is published in the form of reimbursement of paid invoices.

Contract regulation, property rights, mobility and labour

Tailor-made labour law

Specific variants to the rules on fixed-time contracts, derogating d.lgs 81/2015 («Jobs Act»): No limits to durations and a total number of renewals (max 24 months) No obligation to keep a fixed ratio between fixed-term and open-ended contracts (only start-ups with more than five employees).

Tailor-made labour law Excluding a minimum provided for by collective bargaining; parties can independently set the fixed and variable parts of the remuneration. Collective agreements can set, also at decentralised levels, particular criteria to establish different minimum wages and job-relationship management rules for innovative start-ups.

Regardless of company form, employees and consultants can be rewarded through stock options and work for equity that is not included in taxable income.

Other innovation policies

Initiatives	Impact
R&D Tax credit	Tax credit on incremental R&D expenditure: 50% for in-house and R&D outsourced to universities, research centres, innovative start-ups & SMEs. 25% for other payment (e.g. consulting, materials...).
Tax incentives for corporate and private investments in start-ups made by individuals	(20% tax credit up to a maximum investment of 1,000,000 Euros) or legal entities (30% fiscal deduction up to a maximum investment of 1.8 million Euros) for the years 2013, 2014, 2015 and 2016. Conditioned to a holding period of no less than two years.
Tax credit for Industry 4.0 for "on-the-job training	Any Italy-based firm can deduct from income tax 40% of costs sustained to train personnel in I4.0 fields.
Patent Box	50% tax break on IP-related income (eligible IPR: patents, copyrighted software, know-how, industrial models).

Initiatives	Impact
Hyper-depreciation	The ordinary depreciation deduction is significantly increased for investments in I4.0 machinery and technologies, effectively resulting in massive, multiannual tax relief. Since 2019, the rate of the incentive is subject to a bracket system: it is higher for investments under €2.5m and progressively decreases up to a maximum of €20m.
“Fail fast” procedure	Start-ups are exempted from the standard bankruptcy procedure, preliminary closure agreements and forced liquidation in the event of an over-indebtedness crisis. As a result, waiting times are cut, and the administrative and reputational burden sharply reduced.

2.1.2.2 Investment ecosystem in Italy

Main new measures for innovative start-ups

Initiatives	Impact
National Innovation Fund	Presented on 4 March 2019 and not yet operational, the FNI will be managed by CDP (Italy's public investment bank) and will have an initial endowment of about €1bn. Its principal goal is to bolster the growth of Italy's VC industry. Types of intervention: Direct and indirect investment in start-ups Fund of funds» and matching activities Fund for emerging technologies €45 m in 3 years to support experimentations (e.g. tenders, challenges) in Blockchain, IoT, IA.
Tax relief for start-up investors	Valid only for investments in 2019, not yet operational (pending approval by the EU to assess compliance with State aid law): • 40% in all cases (individuals and companies); • 50% for acquisitions (100% of shares) (only for companies).
Funnel public resources to VC funds	New investment reserves and particular dispositions for: • PIR (individual saving plans); • Profits of state-owned firms; • Pension funds.

Initiatives	Impact
Innovation managers	Up to €40 000 for SMEs that hire professionals in I4.0 technologies (covering max 50% of individual labour costs).
Fast-track	Simplified and free-of-charge access for innovative start-ups and certified incubators to the Fondo di Garanzia per le Piccole e Medie Imprese, a Government Fund that supports access to credit through guarantees on bank loans. The guarantees cover 80% of the bank loans up to a maximum of 2.5 million Euros and it is provided through a simplified fast-track procedure.

Tax incentives for investments in innovative SMEs

Tax incentives for equity investments extended to innovative SMEs with some differences compared to innovative start-ups, unlike start-ups, the temptation is subject to constraints related to the age of the innovative SME, with particular reference to the date of its first commercial sale:

- Fewer than seven years: Allowed in all circumstances
- Between 7 and 10 years: Only if the innovative SME did not generate enough incomes yet (expert evaluation)
- No age limits: Only if the company will make new investments (e.g. develop a new product) for over 50% of the turnover of the past three years.

Equity investments

In 2016 only 8.2% of the innovative start-ups had received, during the incorporation phase, financing in equity by venture capital enterprises, business angels or other enterprises. However, 5% have launched their activity with venture capital coming mostly or entirely from private investors. The number of enterprises that were launched thanks also to the contribution of venture capital from other legal persons is relatively higher for enterprises in the North. This proportion is particularly high for innovative start-ups with over ten employees (18.2%). The balance of the enterprises that had received new equity investments did not exceed 11.2%. There is, however, a fraction of enterprises, (7.2% of the total), that works with financing coming primarily from outside investors. The start-ups of the North West seem to be particularly attractive for the market of investors in venture capital (14.4% have received funds, 10.2% for a majority share), and the enterprises incorporated between 2010 and 2012 (17.5%, 12.4% for a majority share). It should also be noted that equity investments are used by no less than 15% of the innovative start-ups, with turnover exceeding €500,000. As many as 27% of the enterprises with over ten

employees. The data confirm that the venture capitalists prefer to invest in larger start-ups and ones that are already present on the market.¹⁶

Initiatives	Impact
Tax incentives for equity investors	<p>For investments made in the 2017 tax year and onwards, the benefit is one of the most generous in the EU:</p> <ul style="list-style-type: none"> • 30% deduction from gross personal income tax (IRPEF) on the sum invested by individuals, up to a ceiling of €1m (max. benefit: €300 000) • a 30% deduction on taxable corporate income (IRES) on the sum invested by other limited companies, up to a ceiling of €1.8 million (max. benefit: approx. €130 000) • The incentive can also be claimed when executed via a VC fund or a CIU (indirect investments). • Holding period: 3 years

Equity crowdfunding

Between 2012 and 2013, Italy became the 1st country in the world to introduce dedicated regulations. Italian innovative start-ups can raise capital by offering shares to the public through equity crowdfunding web portals, provided that they meet some enabling requirements (professional investors hold, e.g. 5% of the money). Since 2017, all Italian SMEs can launch equity crowdfunding campaigns.

Possibility to collect capital through authorized equity crowdfunding portals. In July 2013, Italy was the first country in the world to enact comprehensive regulation for this instrument. In early 2015, the already mentioned Decree-Law “Investment Compact” has introduced three important amendments: innovative SMEs can now take advantage of the 57 instrument; CIUs and other corporations that invest predominantly in innovative start-ups and SMEs can use equity crowdfunding as well, an evolution that allows for the diversification of the portfolio and decreased risk towards retail investors; once again waiving ordinary norms, the transfer of shares of innovative start-ups and SMEs is dematerialized, and as such related burdens are reduced, aiming for fruitification of the secondary market. By a deliberation on 24 February 2016, CONSOB – the equivalent of the American SEC – has updated the Regulation, adding to the aforementioned measures new procedural simplifications. The verification of adequacy of the investment can now be carried out by the administrators of the portals themselves, and not exclusively by banks as required before, bringing the entire procedure online. Moreover, two new categories of professional investors have been added: “professional investors on request”, identified according the EU directive “Markets in Financial Services” (Mifid), and “investors in support of innovation”, which includes business angels.¹⁷

16 Start-up survey 2016 Italy - https://www.mise.gov.it/images/stories/documenti/Startup_Survey_2016_-_presentation.PDF

17 CONSOB - <http://www.consob.it/web>

Public investment

Minister of Economic Development, Welfare and Social Policies, Luigi Di Maio, presented in Turin the National Innovation Fund (from now on NIF) as well as other initiatives regarding the venture capital sector. The Fund, established at the initiative of former Minister Luigi Di Maio, has a starting budget of 1 billion €, set out in the Budget Law 2019, and will be managed by Cassa Depositi e Prestiti (Deposits and Loans Fund), through a coordinated control room aiming at unifying and multiplying public and private resources dedicated to the strategic topic of innovation.¹⁸

Innovation and adequate support to the entire sector of innovative companies are essential to guarantee Italy the opportunity to grow, compete, generate new opportunities for qualified workers, create and distribute new wealth uniformly throughout the territory. Without these elements, a country is not able to grow stably and sustainably, especially in a sector such as the innovation, nowadays dominated by foreign (usually extra-European) operators, supported mainly by markets, investors and broad public and private entities.¹⁹

The operational tool used by the National Innovation Fund is the venture capital, meaning the investments, both direct and indirect, in qualified minorities within the metropolis of innovative companies, aiming at supporting start-ups, scale-ups and innovative SMEs, to avoid the sale off and dispersion abroad of talents, intellectual property and other strategic assets.

The dichotomy between financing in debt and equity, although in reality relevant only for a limited part of the respondent start-ups, is investigated in a structured way. 65.7% of the 2,039 innovative start-ups who respond to this question consider that their ideal financing should derive from an adequate mix of equity and debt. In 24.5% of the cases, the typical investment is found only in ownership. It is interesting to note how 11.6% of the enterprises with turnover exceeding €500,000 are willing to finance themselves with the inflow of new venture capital. In 9.8% of the cases, they would prefer using only debt financing, and it is indeed the innovative start-ups with higher turnover preferring this solution (14.4%).²⁰

Support for knowledge creation

Infrastructures, initiatives, incubators and accelerators.

Certified incubators

Certified incubators of innovative start-ups are identified by d.l. 179/2012, art. 25, paragraph 5. According to the definition provided by the law, a “certified incubator of innovative start-ups” (incubator certificate) is a company that meets

18 MISE - Ministry of Economic Development - <https://www.mise.gov.it/index.php/en/>

19 MISE - Ministry of Economic Development - <https://www.mise.gov.it/index.php/en/>

20 Start-up survey 2016 Italy - https://www.mise.gov.it/images/stories/documenti/Startup_Survey_2016_-_presentation.PDF



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a set of requirements outlined in Ministerial Decree of 22 December 2016, encompassing facilities, staff, technical equipment and, most importantly, a solid track record in physical incubation of innovative start-ups. Key goal of the “certified incubator” status is to reward excellence in business incubation, giving recognition to the best practices in the field nationwide (e.g. by success of firms they supported, and by quality of infrastructure and services) To be considered as such they must meet a series of legal requirements:²¹

- a. it provides premises, including real estate, as reserved spaces to install trial, test, verification or research equipment appropriate to host innovative start-ups;
- b. it provides the necessary infrastructure for the activity of innovative start-ups such as broadband internet connections, meeting rooms, and test, trials or prototypes machines;
- c. recognised experts manage it on enterprise development and innovation, and it includes permanent technical staff for management consulting;
- d. it has collaborative relationships with universities, research centres, public institutions, and financial partners which carry out activities and projects related to innovative start-ups;
- e. it has a proven track record in start-up support, meeting specific indicators set out by the Italian Ministry of Economic Development.

Certified incubators are entitled to the following benefits:

- a. Free, online incorporation and quick registration procedure on startup.registroimprese.it
- b. Exemption from chamber fees and stamp duties
- c. Stock options and work-for-equity schemes
- d. Easier access to SME Guarantee Fund
- e. Italia Startup Visa (priority access)

Initiative Start-up Visa in Italy

Launched in June 2014, Italia Start-up Visa is aimed at non-EU entrepreneurs who want to establish an innovative start-up in Italy. Through the ISV procedure, talents from all over the world can obtain a 1-year self-employment visa for Italy, freely renewable at expiration if the start-up is up and running. Non-EU citizens who already in Italy, e.g. with a permit for study, and want to extend their stay to set up an innovative start-up, may benefit from the same procedure via the Italia Start-up Hub programme.

²¹ ISA – Italian start-up act - https://www.mise.gov.it/images/stories/documenti/Slides%20innovative%20startups%20and%20SMEs%2007_2019.pdf



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The procedure is fast; it never takes more than 30 days, centralised while based on a Committee of experts, representing the Italian innovation ecosystem, the Ministry of Economic Development is the single contact point for the applicant, free-of-charge, completely online and fully bilingual, all documentation can be submitted in Italian and English.

Note the investor Visa concept, with a duration of 2 years, for non-EU citizens who invest considerable amounts in assets of strategic value. The investment must be carried out within three months from the issue of the permit, and it must be maintained for its entire duration. Drawing from the Italia Start-up Visa experience, the procedure is online, fast (no more 30 days) and centralised.

These are the qualifying investments:

- €2M in Govt. Bonds
- €1M in a limited Italian company
- €500,000 in an innovative startup
- €1M donation in selected fields (culture, education, immigration management, scientific research, cultural and natural heritage)

2.1.2.3 Monitoring and evaluation system

The Italian Start-up Act includes an explicit commitment for the Italian Minister of Economic Development to M&E the impact of the policy, given ensuring accountability and inform future policy interventions.

- Every Monday: A DataBase of all registered innovative start-ups and SMEs, freely accessible and editable (.csv format), with a rich set of information, published on "startup.registroimprese.it"

- Every three months: 4 reports; Italia Start-up Visa (it – en), Digital incorporation, SME Guarantee Fund, Trends in the Business Register

- Every year: Minister's Report to the Parliament, based on the work of an M&E Committee

The monitoring system also includes ad hoc studies and reports, such as Start-up Survey (2018), an extensive survey on the «human side» of the start-up phenomenon.

2.1.3 Analysis

SWOT Italy

Strengths	Opportunities
<ul style="list-style-type: none"> • An increasing number of innovative start-ups • Growing industrial investments • Growing R&D investments • Robustness of manufacturing sector • Strong policy framework for innovative start-ups • High fiscal attractiveness for digital investments • The critical role of illustrious universities and research centres in development and innovation • Strong cultural traits of finished products 	<ul style="list-style-type: none"> • Traditional methods of doing business sometimes preferred to implementation of digital and innovative techniques • Few digitised enterprises • Poor digital culture • Outdated education system • Lack of managerial skills (particularly in SMEs) • The unwillingness of SMEs to open up to the global market • A limited number of industries champions able to coordinate the evolution process of the value chain • Few large industrial and ICT private players able to lead Italian manufacturing transformation
Weakness	Threats
<ul style="list-style-type: none"> • Productivity and competitiveness gains – due to the current digital gap and to the potential of the Italian economy linked to digitisation • The emergence of new jobs New business models focused on integrated services • Excessive bureaucracy when processing aid or financing • Excessive initial cost to establish companies • Notable lack of collaboration and links with the academic and educational sector • Inability to manage and deplete the resources offered from European programs. 	<ul style="list-style-type: none"> • Lack of innovation culture • Productivity loss in comparison with the EU countries if technologies are not adopted • Slow economic recovery • Excessive number of family businesses and with a traditional tendency • Resistance to generational renewal in established companies • Excessive mistrust in collaboration between companies and regions, perhaps due to an inefficiency of intellectual property and data protection policies.

2.1.4 Conclusions

In this regard, it is worth noting the importance of periodic monitoring carried out by the Italian administration of the state of its start-up ecosystem, this tool not only allows you to adapt your performance to the needs that arise in your ecosystem but also allows you generate new policies continuously in line with those needs. This



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type of tool is very interesting for its application in the early stages of implementing a general law that regulates start-up ecosystems, since it is possible to correct the possible deficiencies that may arise in the application of this new regulatory framework.

Through the monitoring tool of the Italian administration regarding its start-up ecosystem, it conducts periodic surveys to collect indications, suggestions, requests and proposals to incorporate into its national start-up policy. The analysis of the responses has allowed them to identify seven main categories:

- a. "access to credit": one start-up out of five made proposals concerning the relationship with banks and, in particular, for access to the Guarantee Fund for startups;
- b. "taxation and incentives": included in this category are all the responses that refer to the topic of taxation and the incentive measures of fiscal nature, such as the CIR&S. This is a category that, especially in the less detailed responses, has a certain degree of overlap with the next class;
- c. "labour and contribution": several innovative entrepreneurs have submitted suggestions regarding both the fiscal obligations (among the most common, the topic of the INPS minimal for the start-ups that do not invoice) and under the labour law aspect (discipline of contracts, recruitment etc.);
- d. "financing programmes": this is a vast category, which contains references to already existing programmes for facilitated financing (such as Smart&Start Italia) and any proposal concerning financing measures other than banking or tax ones. Many of the answers contained herein are short and relatively vague, but some are more complex and make reference to the entrepreneur's specific experiences. In any case, there is a widespread request for grants (mentioned 37 times);
- e. "equity and alternative finance": there are a tendency to associate this category to the world of start-ups automatically: the responses cover incentives for investment in equity, equity crowdfunding, the role of Venture Capital and so forth. However, we note that this is a relatively under-represented topic in this context;
- f. "red tape": the majority of innovative entrepreneurs has proposed less red tape, including lower starting costs and less need to make use of notaries and accountants. This category includes a majority of generic responses as well as several that are more precise and articulated;
- g. "communication, training, networking and internationalisation": this category has as its common thread the need to facilitate the movement of information within the national and international ecosystem: information materials, networking events, matching with other enterprises, support for access to national and international markets;
- h. "other measures": around a hundred suggestions that do not fall entirely into any of the previous categories and are too infrequent to have their clas-

sification. The most recurrent proposals concern measures on intellectual property, the world of incubation and innovative public procurement.

2.2 Spain

2.2.1 History

Spain has not historically been characterized as a country prone to entrepreneurship, despite being the fourth largest country in Europe by size and population, after the departure of the United Kingdom, Spain does not have large internationally recognized technology companies. Historically it has not been a country dedicated to the attraction of international talent, instead of the opposite, much of Spanish talent has been forced to move to other markets in search of opportunities they could not find in Spain. Regarding trade regulations, these have not been characterized by their speed and simplicity, and the productive force of the labour market is lower than the European average even though the Spanish dedicate more daily hours to their jobs than their European neighbours. The number of financing options has always been precarious and reduced, and the promotion of a Venture capital ecosystem has not been historically a priority, forcing companies to seek financing in other surrounding countries.

With all this in recent years, Spain has experienced significant growth in the start-up activities, being 2018 and 2019 its best years, with cases like Cabify and Glovo exceeding 1000 million investment and with Barcelona and Madrid in the top 10 European start-up ecosystems.

The entrepreneurial culture shows rapid growth in Spain. In 2018, a total of 4,115 new start-ups were founded, 56% more than those created three years ago. This development was accompanied by an increase in the volume of investment, which in 2018 reached 1,312M euros, 128% more than in 2015.²²

Also, in 2018, Spain was rated by the European Commission as the most improved digital economy in the EU, with a score close to five points (the EU average is 3.2).

Undoubtedly, a critical moment for this change of course and evolution in recent years was the economic crisis that in Spain would continue until 2012, forcing many companies to close and many workers to unemployment, while others were radically forced to change their business models to survive, with internationalization being a real lifeline for many of them. This internationalization although still far from being a reference in the Spanish business culture is gradually changing the business ecosystem in Spain, especially in start-ups it is very clear that this internationalization is key to achieving success in their models.



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This growth in Spain has been fundamentally driven by private actors themselves, forced into a radical change to adapt to the new features of an increasingly globalized Spanish market and thus be able to compete with foreign companies both nationally and internationally.

For its part, the administration in recent years has been gradually renewing some aspects of the business ecosystem, such as labour reforms that allowed the labour market to become more flexible. Some measures to attract talent and foreign investment, such as in 2013, the visa for foreign entrepreneurs or the expatriate tax system, among others. In terms of investment, the administration in recent years has tried to become an essential factor in this support for the business creation ecosystem, with various programs and with the progressive improvement of infrastructure, high-speed connectivity throughout the national territory etc.

All these small measures, together with the strong momentum of the private sector, caused by the economic crisis, have caused Spain to position itself in a very promising dynamic concerning its entrepreneurial ecosystem. Could only be expected that in the coming years more initiatives will be undertaken, such as the future start-up law, which will finally provide a regulatory and cross-cutting framework to make Spain a start-up and entrepreneurial culture country.

Culture

Spain continues to have a less entrepreneurial culture than the European average, which adds a slight downward trend in the status of the entrepreneur. Implementing the entrepreneurial culture in Spain is a difficult job since, according to statistics, practically 74% of Spaniards want to be civil servants, and only 4% have entrepreneurial intentions. From all the comments, it follows that to face ideas that are not culturally accepted, we will have to start changing them from the root.

This idea what the legislator tries to transmit, in Law 14/2013 of September 27, of support for entrepreneurs and their internationalization when talking about entrepreneurship education. The idea of an entrepreneur has indeed been introduced in some educational stages, especially in university postgraduates. However, this law tries to emphasize and expand this element, incorporating it as a specific objective in all stages of primary education, as well as in vocational training, and high school, a dynamic that aims to be reinforced with the future start-up law. University teachings also receive individual attention, so that universities carry out information and advice tasks so that students can begin their enterprises.

The main goal is encouraging the initiation of business projects, as well as promote meetings with entrepreneurs. On the other hand, it urges teachers to be trained to gather the necessary competencies and skills to achieve this objective effectively.²³

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In Spain, there is a negative vision of entrepreneurship, and of the person who gets rich quickly and, on the other hand, due to the robust control that exists of the Tax Agency, the individual has a particular fear of deciding to undertake.²⁴

The entrepreneurial activity of a country is usually the reflection of the perceptions that the population has about their entrepreneurial skills and the existing entrepreneurial culture. To start, in 2019, only 29.1% of the population believes that the market offers excellent business opportunities, a fact that is well below other European countries. It is a problem since the detection of business opportunities is an essential preliminary step to decide to undertake²⁵.

A similar reading offers the indicator of fear of failure, which is seen as an essential obstacle to be undertaken by 43% of the Spanish population. It is a value that is well above the countries of the European Union, which makes it difficult for people to undertake. On the contrary, up to 43.1% of the Spanish population considers that it has the necessary skills and abilities to undertake, being above the European average.

Concerning culture, the Spanish population considers that Spain does not have an entrepreneurial culture. Only 53.1% of the population believes that entrepreneurship is a desirable professional option, and only 49.8% consider that the social and economic status of entrepreneurs is positive. The two values are clearly below the average of EU countries.

However, the indicator that assesses whether the media show stories of successful entrepreneurs is 49.5%, more in line with the European average. Finally, 71.5% of the Spanish population considers that equity among people is a positive value, a very high indicator when compared to other countries in the world.²⁶

The following table shows a list of the cultural indicators studied in the countries under study.

	Perception of opportunities	Knowledge and skills to undertake	Fear to fail as an obstacle to undertake	Model reference	Equity in living standards in society	Undertake as an excellent professional option	Entrepreneur-ship provides social and economic status	Media and entrepreneur-ship
España	29,1	48,5	43,1	33,4	71,5	53,1	49,8	49,4
Italia	34,6	29,8	52,0	26,0	66,3	63,9	74,6	60,2
Brasil	31,4	54,3	44,0	34,4	-	-	-	-
EU28	45,8	44,9	43,9	33,6	63,1	59,6	69,2	57,6

Source: GEM Monitor

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25 Global entrepreneur monitor Spain 2019

26 Global entrepreneur monitor Spain 2019

2.2.2 Stakeholder engagement process

Spain ecosystem Overview

The sector, in general, is experiencing a maturation process that is also reflected in the regulatory changes that are taking place, such as, for example, the new «Law of start-ups.»

This new regulation is being promoted while evaluating the creation of a test bench (“sandbox”) for financial technology companies before their approval in the Council of Ministers. Another example is the Participatory Financing Promotion Law passed four years ago to regulate crowdfunding platforms.

Venture capital market is quite small in terms of actors in Spain and tends to be conservative compared to other countries. This risk aversion responds to the lack of market liquidity.

Spanish national taxation does not favour new start-up businesses. The bureaucratic procedures and, especially, the tax burden, can drown entrepreneurs, preventing them from developing their new projects.

Spain gathers 6.7% of the best developers in Europe, attracted by the connectivity of the national and European entrepreneurial ecosystem, as well as by the fact of being a Spanish-speaking market, with the international scope that this can mean.²⁷

However, countries such as Germany or the United Kingdom bring together 21.5% and 20.5% of these professionals. Salaries in the cities like Berlin, London, San Francisco or New York are much higher than in Spain, so they tend to attract ICT talent.²⁸

Foreign investment in Spain has increased in recent years but is still far from what is enjoyed in countries such as the United States, Germany, Israel or the United Kingdom.

Spanish start-ups are strongly concentrated in a handful of regions, which the 65% is located in the axes of Barcelona and Madrid, which bring together 34% and 31.5% of the companies, respectively. Spain is the only European country with 2 technological axes. Both cities hold the fifth and sixth place in the ranking of Europe, only surpassed by London, Paris, Berlin and Dublin.²⁹

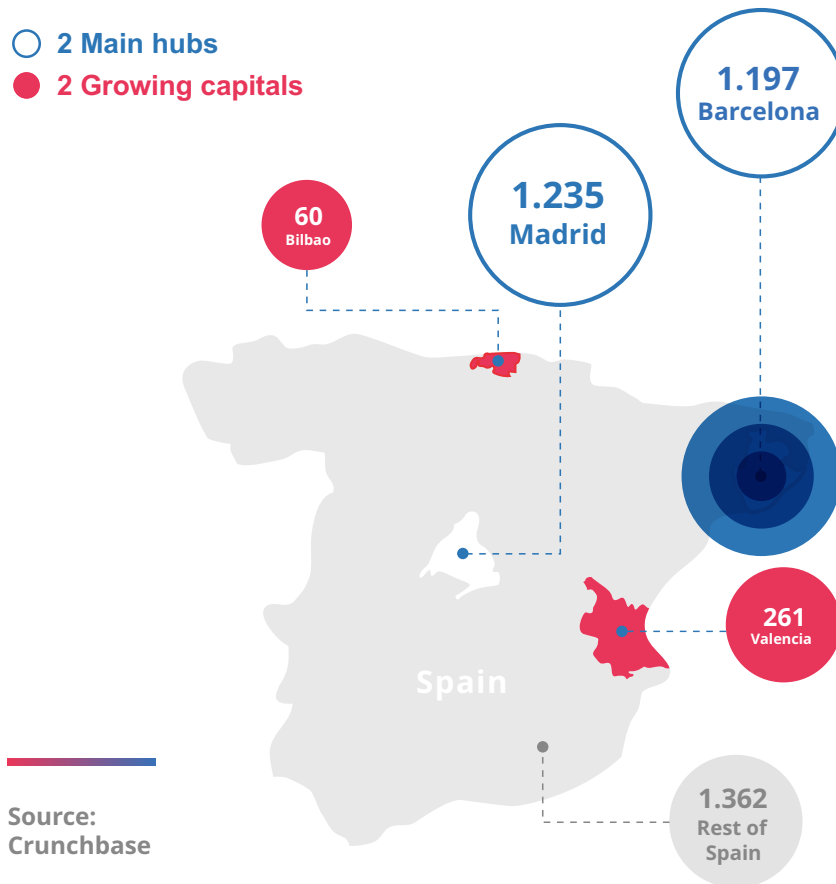
However, Spain has also two other emerging regions: Valencia and Bilbao, which already have 5.5% and 3% of national start-ups.

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28 Global entrepreneur monitor Spain 2019

29 Mobile World capital Start-up ecosystem 2019 Spain.

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Madrid

Madrid's start-up ecosystem has had a growth spurt over the past 5 years in terms of VC activity (a 340% increase over the past 4 years), corporate innovation, and the sheer number of start-ups, now 1200 start-ups substantial.

Madrid is in early globalization phase of his start-up ecosystem and focused in fintech and life sciences. Around 19% of Spain's financial services firms are headquartered in Madrid, and Madrid-based banks execute 72 % of the banking activity. In March 2019, Pagantis, a provider of consumer finance for e-commerce transactions, raised \$73 million in a Series B round led by Rinkelberg Capital. Madrid is also the most competitive financial centre in Southern Europe according to the latest Global Financial Centres Index³⁰. Madrid is home to some of Spain's best universities specializing in healthcare and produces one-third of Spain's scientific publications in biomedicine. It also hosts top international companies like Pfizer, Bristol Myers Squibb, Merck Serono, Novartis, Abbott Laboratories, Roche amongst others. In March 2017, Medlumics raised \$37 million in a Series B round. Furthermore, the Madrid region is #1 in the EU for the average life expectancy of 85.2 years.

In terms of the Business Angels incentives there is a deduction of 30% on investment income tax (IRPF) up to €70,800 and a tax deduction of 42% in R&D&I projects.

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There is also another positive aspect of support measure in the Spanish capital city. Madrid City is leading municipal investment in public procurement of innovation (€11.8 million forecasts in 2019) and fosters the creation of a local innovation market, aggregating public/private demand via Madrid Mobility Movement (M3).³¹

Barcelona

Barcelona is one of the most competitive European start-up hubs with lots of multinational enterprise innovation centres and access to local and international talent and VC investment.

Barcelona is in early globalization phase of his start-up ecosystem and focused on gaming and life sciences. Catalonia is home to over 130 gaming companies with approximately €365 million in revenue. Major global players like Ubisoft and I Got Games have set up their European headquarters in Barcelona, and events such as Barcelona Games World attract 150,000 people each year. In 2017, Social Point was acquired for \$270 million. Scopely, a North American gaming platform, settled up its Barcelona headquarters in 2017 and now is doubling its workforce there. Barcelona has over 100 digital health start-ups and hundreds of health care events, including Eyeforpharma and Bio Europe Spring. The European branch of the Health Information Management Systems Society has opened an office in Barcelona's Health Hub. In 2018, Minoryx Therapeutics, a disease therapy developer, raised \$25 million and patient testing solutions start-up STAT-DX was acquired for \$191 million.

Centre of gravity: Barcelona plays host to major international events such as the Mobile World Congress (MWC) and Smart City Expo. These bring together multinational companies and start-ups and make the ecosystem a focal point for launching new ideas and building connectedness. Alongside MWC, the 4YFN event for start-ups has developed into a global platform.³² Connectivity, the airport, a half-hour taxi ride from the centre, has direct flights to San Francisco, Tel Aviv and most leading European tech hubs.

2.2.2.1 Policy

Leadership, urgency, crisis, and challenge - Government

One of the most important aspects that are being sought in Spain to promote the entrepreneurial ecosystem is well-defined leadership, which has emerged, among other reasons, for a sense of urgency regarding the need to implement changes in regionally competitive models in Spain. The administration must offer support to these issues, however, the leadership must be of the entrepreneurs

31 Genome global start-up ecosystem 2019

32 Genome global start-up ecosystem 2019

themselves and of the private sector, thus generating identifiable regional brand feelings in their own entrepreneurial ecosystems.

In the case of Spain due to its cultural position regarding entrepreneurship, these leadership processes and change of models often come from situations of economic crisis that challenge the sustainability of current models and force the generation of new models. The administration must encourage that these transitions are not caused by economic challenges but are integrated into its policy of promotion and creation of the business fabric. It is very important and especially in countries of traditional non-entrepreneurial culture that the administration occupies a facilitating task in terms of the visibility of success stories, the social awareness of the figure of the entrepreneur as creator of wealth and work and in any case lead the normative process that facilitates the creation and promotion of these entrepreneurial ecosystems.

Institutions, financial support funds

In Spain, more than a thousand public and private institutions offer some kind of help to all those who want to undertake. These grants refer to everything related to training, advice, mentoring, financing, incubation, acceleration etc.

And that, on the one hand, is positive, because there is a wide range of resources to choose from, but at the same time, and in some cases, it becomes counterproductive. Many times, that vast amalgam of resources baffles entrepreneurs.

There are communities where they overlap, bridge, conflict, individual institutions that offer duplicate aid. Another curious paradox is that, on occasion, many of these grants are 'orphaned' due to lack of candidates, mainly due to ignorance.

Below, a list of resources from public and private organizations and institutions that support the entrepreneurial ecosystem in Spain are detailed in Annex 1.

Regulatory framework incentives, tax benefits

Tax incentives for investment by natural persons

In Spain, entrepreneurs or investors can deduct up to 30% of the amounts invested in newly created companies in their income tax return, with a maximum base of 60,000 euros. The application of the deduction requires that the participation does not exceed 40% of the social capital of the start-up, that it has own funds of less than 400,000 euros and that the shares be transferred within three to twelve years of their acquisition. Also, on condition of reinvesting the amounts obtained in the acquisition of other start-ups, the benefit obtained from the divestment would be exempt from taxation.

Taxation of start-ups

The start-up companies can apply a 15% reduced tax rate in the Corporate Tax in the first year in which their tax base is positive as well as in the following.

Additionally, those start-ups that receive their income from the exploitation of certain intangible assets may take advantage of a reduction in the tax base of the Corporation Tax of up to 60% (effective tax rate of 10%) by application of the tax regime known as patent box. However, after the last modification approved in 2018, its scope has been restricted, since the exploitation of know-how is no longer considered as an activity suitable for the application of the tax benefit, which is limited in the scope of start-ups to those who obtain their income from the exploitation of patents or registered advanced software.

Exit Taxation

There is an essential asymmetry in the taxation of divestment in start-ups depending on the typology of the investor, whose comparison - downwards - constitutes one of the historical claims of the entrepreneurial community.

Thus, if a qualified investor (with corporate form and participation of at least five per cent older than one year) transmits a start-up, in principle, it may benefit from the full exemption in the Corporate Tax for the capital gain generated. On the contrary, the individual investor would pay for the gain, in general, at the rate of tax on savings income, currently 23% for capital gains of more than 50,000 euros.

Tax incentives for highly qualified foreign workers

In addition to the entry and residence and work permit facilities promoted from Law 14/2013 of September 27, on Support for Entrepreneurs and their Internationalization, highly qualified workers who come to perform their activity for Spanish companies, will enjoy during the transfer time to Spain and during the following 5 years of the special tax regime for expatriates in the income tax of natural persons, known in Spain as the Beckham law.

The scheme is designed to encourage the hiring of highly qualified management personnel, although initially, the primary beneficiaries were professional athletes. The Law has been amended several times since its entry into force; professional athletes are currently excluded. The scheme applies to incomes of less than € 600,000 per year, which will be taxed at 24% and after that at 45%.³³

Contract regulation, property rights, mobility and labour

Spain does not currently have a labour and Social Security legislation that has been adapted to the needs of the new initiatives and businesses of start-ups. During the period of the financial and economic crisis that began in 2008, entrepreneurship and the creation of start-ups and collaborative platforms began to be considered as a valuable alternative to the destruction of jobs.

33 IRPF Law 35/2006



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Based on the above, a set of legislative measures was adopted whose objective was to strengthen and facilitate such initiatives that could help alleviate the severe problem of unemployment.

Thus, Law 3/2012, of July 6, on Urgent Measures for the Reform of the Labour Market, created the “contract for an indefinite period of support for entrepreneurs”, with a one-year trial period, tax incentives and social security bonuses.

In line with the above, Law 11/2013, of July 26, on Measures to Support Entrepreneurs and Encouragement of Growth and Job Creation, implemented a set of stimulus for employment, such as the “indefinite contract of a young person by microenterprises and autonomous entrepreneurs “or” incentives for hiring in new projects of young entrepreneurship”.

However, such legislative measures were not born as structural figures or with a vocation of permanence. However, as a plan of shock against unemployment and, for this reason, its validity was linked ab initio to the fact that the unemployment rate in Spain remained above 15%. Thus, since according to the Survey of Active Population (EPA) unemployment stood at 14.55% in the third quarter of 2018, Royal Decree-Law 28/2018, of December 28, for the Revaluation of the Public Pensions and Other Urgent Measures in Social, Labour and Employment Matters, has expressly repealed these measures with effect from January 1, 2019.

On the other hand, through Law 14/2013 of September 27, on Support for Entrepreneurs and their Internationalization, a set of provisions aimed at supporting the entrepreneur and business activity were approved, both in the initial moments, as in its subsequent development, growth and internationalization, in areas as diverse as education, corporate business configuration, institutional support to the entrepreneur, simplification of administrative burdens or financial support. This law also includes initiatives for the entry and residence in Spain of highly qualified investors, entrepreneurs and high-quality workers. However, in labour and Social Security matters, it contains limited measures and aimed at the entrepreneur’s figure (ex. flat rate for freelancers or the possibility of returning the unemployment benefit to the entrepreneur who fails) and not to labour relations in the business or activity that is started by it.

To all of the above, it is necessary add the awkward fit they have, in the real traditional figures to date, individual service delivery schemes that have been developed by entrepreneurs and start-ups, such as the so-called crowdsourcing or collaborative platforms. This has generated an intense debate about the nature of the relationship that unites such initiatives with its collaborators and, therefore, legal uncertainty that does not help investment or entrepreneurship.

In short, with the scenario described so far, it can be concluded that currently there is not a labour and Social Security regulatory framework that has adapted to the needs of these new initiatives and businesses that need to have: legal certainty; flexibility to be able to hire and to be able to adapt to stressful situations in an agile way depending on the evolution of the business; more incentives for hiring, at least, in the early phases of the activity; measures that facilitate the mobility of workers; and schemes that allow the permanence and working conditions of the employees

to be linked to their productivity and the value they contribute, as well as to the success or failure of the activity undertaken.

In this sense, the future Law of Start-ups, whose legislative procedure began at the end of last year and that is still in a preliminary phase can be an ideal opportunity to try to respond to the claims of entrepreneurs and strengthen their initiatives.

Future law of start-ups

By the provisions of article 26.2 of Law 50/1997, of November 27, of the Government, the aspects corresponding to the preliminary draft of the “Law for the Promotion of the Start-up ecosystem” are detailed below:

The problems that are intended to be solved with the new standard

In this sense, the currently global transformation is modifying social and economic relations. Without undermining the essential advances that have occurred in recent years, the situation in Spain shows that there is still a meaningful way to go compared to other countries in EU environment.

It must be borne in mind that finding a successful global innovative business model in a start-up is an iterative and risky process, which requires conditions to attract special financing and talent. The regulatory environment in which technological entrepreneurs and start-ups operate is essential for the gestation and development of initiatives of the high innovative component to obtain a successful result.

The activity of “start-ups” is subject to laws of various kinds such as commercial or tax that do not take into account the particularities of these new business models and impose excessively burdensome requirements for these innovative initiatives, even when there is current regulation regarding Entrepreneurship, highlighting Law 11/2013, of July 26, on measures to support entrepreneurs and stimulate growth and job creation, Law 14/2013, of September 27, on support for entrepreneurs and their internationalization, Law 25/2015, of July 28, of second chance mechanism, or Law 5/2015, of April 27, of promoting corporate financing that regulates crowdfunding, which have been surpassed by the reality of the Spanish innovative ecosystem.

The need and opportunity for approval

It is well known that there is an intense international competition to favour the creation of start-ups and attract talent and investments, and there are several countries in Spanish environment that have already launched programs with this objective.

Therefore, in order not to be left behind, Spain need undertake as soon as possible the reforms necessary to implement the appropriate measures to boost this sector, which constitutes one of the pillars for the transformation of the economy, to turn Spain into a “Entrepreneur Nation” at the European forefront of entrepre-

neurship, employment generation and economic growth, as well as the promotion of sustainable development.

One of the most important measures to achieve this objective is to make the necessary adjustments in the legal framework to adapt to the singularities of start-ups. Thus, the normative process of a necessary law for the articulation of public policies that promote its activity through the implementation of multiple measures at all stages of its life cycle must be undertaken. In particular, it is necessary to bet on the acquisition of risky investment and talent, to give an adequate response to the current needs of its ecosystem, recognize the specific figure of start-ups as an entrepreneurial initiative, adapting aspects of the legislation to its characteristics and uniqueness, and allowing them to benefit from aid for technological innovation, to improve and strengthen the financing systems for entrepreneurship. All this, with the strategic objective of placing Spain in the first line of technological entrepreneurship, observing the best regulatory practices of the environment and adapting them to the Spanish economy.

The objectives of start-up Law

The objective is, consequently, to create an appropriate legal framework for technology-based entrepreneurship, allowing the flexibility required by the dynamism of the innovative ecosystem, and trying to provide Spain with legislation adapted to the reality of start-ups.

The purpose of this public consultation in Spain is to obtain the opinion of all interested agents regarding the main aspects that must be taken into account.

This new law to promote the start-up ecosystem in Spain will pursue, among others, the following main objectives:

- Clearly and unequivocally define the organizational, labour, technical and investment requirements that characterize a start-up and establish an accreditation mechanism by the administration.

- Establish a legal frame of reference for investment in start-ups to grant legal certainty.

- Tax incentives for research, development and technological innovation activities, as well as about investments and financing of start-ups

- Incentives in labour, Social Security, and support for the recruitment and loyalty of talent

- Positive discrimination measures to promote gender diversity in entrepreneurship and encourage it among vulnerable groups

- Incentives for large companies to integrate the activity of “start-up” in their chain of production of goods and services

- Improvement of second chance mechanisms

- Simplification of administrative burdens

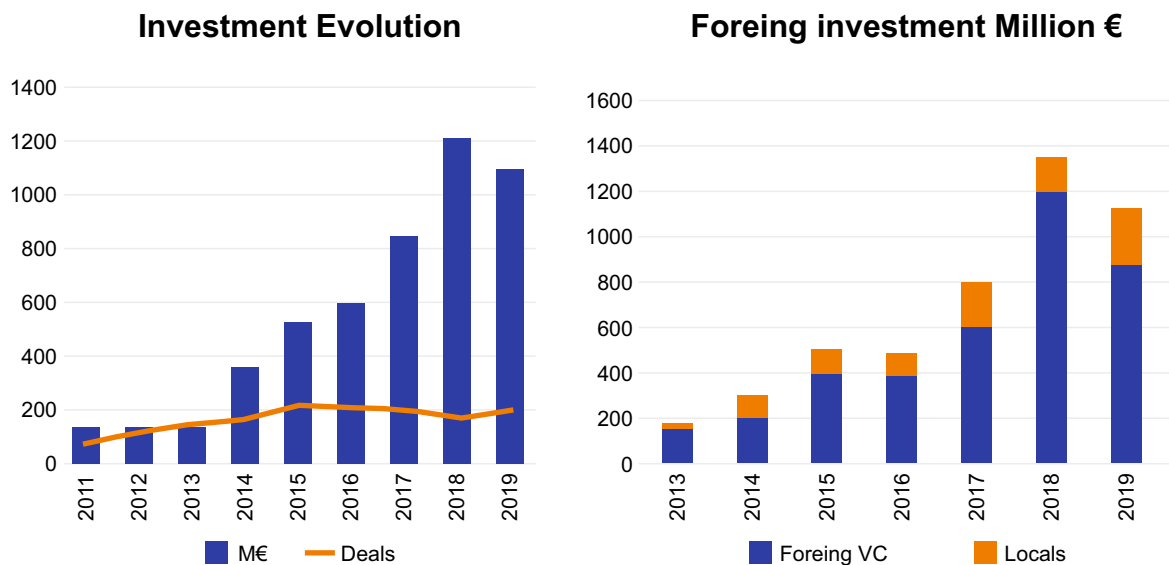
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- Measures to boost the use of public procurement instruments that promote the participation of “start-up” in the Administration’s projects
- Any other means aimed at identifying and addressing elements related to talent, entrepreneurship and business culture that need to be activated.

2.2.2.2 Investment ecosystem in Spain

There are two main types of financing for Start-ups, although due to the very nature of the projects, from which essential investment needs are derived, in many cases at very early stages with high risk, private financing is usually the most common, in many cases through public-private collaboration programs.

The year 2019 closes with more than 1,000 million euros invested in start-ups in Spain and with two Spanish technology companies, Cabify and Glovoo, considered as unicorns (companies with valuations that exceed 1,000 million euros), whose latest operations have helped these Accumulated be a reality. The last round of € 150M announced by Glovoo last December means that the investment in 2019 reaches € 1,098.12M in a total of 206 operations.³⁴



Source: Startupxplore

Ecosystems Balance

The following table shows the current balance of the Spanish ecosystem, led by the two large hubs of Madrid and Barcelona, reflecting a current process of maturation and growth of other hubs in the national territory.

	Population (millions)	Start-ups per capita	Ecosystem size	Investors	Investment (€ M investment)	Antiquity (years)
Barcelona	1,6	0,057%	26,2%	30,6%	52%	18
Madrid	3,2	0,033%	30,2%	43,7%	36%	12
Valencia	0,8	0,066%	14,8%	9,3%	4,5%	8
Bilbao	0,4	0,046%	4,5%	6,8%	2,6%	5

Source: INE, Startupxplore, Mobile world capital

Trends

There is a significant increase in initiatives and the emergence of new specialized investment funds, which leads to the emergence of some competition for leading companies, there are still large differences between public and private investment markets, the leading industries shortly in Spain is concentrated in logistics, Industry 4.0, electric car, 3D, Health, automation, education, AI. Finally, there is a cooling of the economy, giving even more importance to liquidity to face investments.

Business angels

Business angels look for start-ups with high growth potential, scalable and with a committed and enterprising team. They usually invest between 10,000 and 50,000 euros, although figures of up to 300,000 euros can be reached.

At the national level, there are Business Angels networks such as the Spanish Business Angels Network (ESBAN) that groups private investors and facilitates their contact with entrepreneurial projects. At the level of associations, there are many of them distributed at local, regional etc.

Venture capital

The “venture capital” or venture capital entities provide the capital necessary to set up a start-up in an early development phase, with high potential and risk, since they do not know if the service or product is successful in society.

Typically, entities of this type invest in business models focused on the technology sector such as biotechnology, ICT and software.

It is worth mentioning the work of the Spanish Association of Capital, Growth and Investment (ASCRI), which is the body that represents the private capital industry (Venture Capital & Private Equity) in Spain.

Among some of the leading national Venture Capital Funds, Active Venture Partners, Axon Partners Group or Kibo Ventures.

The decisive factor has been the proliferation of capital, with more funds and more professionalism. Now there are many investors for the initial stages of any

start-up. There is a significant increase in investment in recent years, while in 2012 the Spanish funds invested 200 million euros, in 2019 were more than 1,000 million.

Professionalization has been imposed. Mainly because the investors themselves were born from the ecosystem; venture capital has been quite successful. Although the mortality rate of these firms is high, the impact of failures is controlled. A resounding success compensates for 10 closed start-ups. Also, the failures of highly funded companies have been counted. Bodaclick, EyeOs, Groupalia, Gowex, Softonic, TuDespensa.com or Ideateca. Almost all of these funds have earned money. Seiya, who invested in 20 companies, has jewellery like Cabify, Glovo or Spotahome. Bonsai, which invested in 35 start-ups, has CornerJob, Glovo, Wallapop or Gigas in its portfolio. Kibo is at 21: Buttons, Carto, Devo, Flywire, Jobandtalent, Worldsensing.

Crowdfunding

It is collective financing, where an entrepreneur receives limited support (in financial terms) from numerous investors. This system is characterized by being less demanding than other ways of financing. There are two types of modalities. Crowdfunding, as such, is a system of cooperation that allows the project promoter to obtain commercial financing through collaborators who, in exchange for their participation in the project, receive some kind of non-monetary benefit. On the other hand, equity crowdfunding is one in which the people who collaborate in the start-up become investors and shareholders of the company. As examples of crowdfunding platforms, Kickstarter stands out worldwide in categories among which are art, design, fashion, film, music or fashion projects. At the national level, platforms such as Lánzanos stand out, in which all kinds of projects are accepted, be they business, social, cultural, solidarity, technological, and so on. Of course, everyone must be related to self-employment.

Crowdlending

Crowdlending consists of financing companies, projects or people by numerous investors, rather than by a single or a limited number of investors. It is an innovative model that allows financing by the financial community without resorting to the services of a bank or other traditional financial entity. As an example of a crowdlending platform, ECrowd specializes in technological projects that are based on a real business plan, and that is already working, suitable for projects with an absolute path.

Public investment

These are non-reimbursable grants, which, outside those aimed at any company, do not usually abound specifically for start-ups. In many cases, the risk associated with this type of projects means that entrepreneurs are at a disadvantage compared to other types of companies already consolidated in the calls that are governed by competitive procedures. This is the case of subsidies such as those of the SME Instrument, which in its first phase can obtain a subsidy in depth of 50,000 Euros. In some cases, they materialize through the provision of services and logistical support, assuming the cost of the administration. This is the case of the Rising Start-Up Spain Program, which offers free physical space and specialized mentoring to support the financing process, among many other advantages.



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These are aid whose conditions are usually more advantageous than those available in the market, for which the presentation of guarantees is not necessary. There are some lines aimed explicitly at entrepreneurs (which are developed later), and others more general, but which allow their participation.

Equivalent to the previous point, these are granting whose conditions tend to be more advantageous than those available in the market, although in this case, the granting body does require an endorsement or equivalent before obtaining it.

The European Union, to reverse the decline in the level of investment in Europe resulting from the crisis, has developed the so-called Investment Plan for Europe. The main element underpinning the plan above is the European Fund for Strategic Investments (EFSI), created in collaboration by the European Commission and the European Investment Bank (EIB) group, based on the mobilization of private financing for investments Strategic Financing is offered to economically and technically viable projects, including those with a risk profile higher than that of the EIB's ordinary activities, such as investments for start-ups.

The FEIE can also finance investment platforms to channel a financial contribution to various investment projects with a thematic or geographical focus, as well as operations with national development banks (BNF). Through the European Investment Fund, support for investments is also channelled from which start-ups can benefit.

Finally, Among the nationwide calls for Start-ups, those that even if they are not specific to Start-ups have been identified, their participation fits clearly.

2.2.2.3 Support for knowledge creation

Infrastructures, initiatives, incubators and accelerators.

The best options for specialized advice for Start-ups are found in accelerators and incubators, which cover not only this aspect but also access to financing at different times during project development.

The main objective of the incubators is to launch the first phases of a start-up. They help these new companies to find their workspace, in addition to providing an initial seed capital that allows them to see the viability of the idea and its business model in a short period. These programs include mentoring, intensive training, digital education, and mentoring by the company.

The incubators are a financing option similar to the accelerators but, unlike the latter, they help to create the business idea from scratch, and accompany the start-ups for a limited period until they get the first benefits, and these take off.

Business incubators usually are sponsored, supported and operated by private companies, government entities or universities. Its primary purpose is to help create and grow young companies by providing them with the necessary support in technical and financial services.

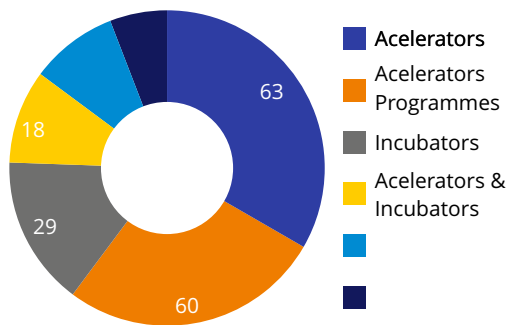
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The accelerators offer resources, knowledge and support to entrepreneurs to negotiate their first rounds of investment with their networks of investors, business angels, investment funds, etc., since many of the projects, especially those with high potential, require significant investments. Unlike Incubators, start-up accelerators only invest in start-ups that are in full development, so they are committed to start-ups whose work team already has previous experience, covers the primary roles of a company and is committed to its project.

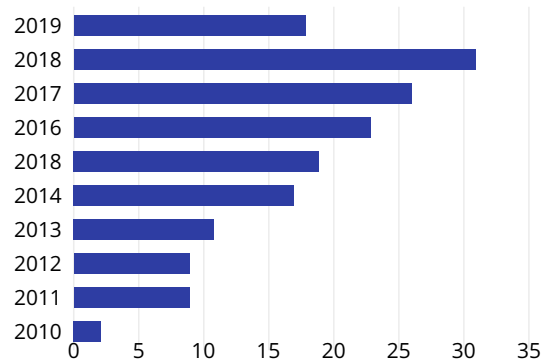
They are designed to accelerate growth and ensure the success of entrepreneurial projects through a wide range of resources and business services that can include income from physical spaces, capitalization, coaching, mentoring, networking and even other essential services such as telecommunications, or even cleaning or parking.

Many accelerators and incubators have competitions oriented to the selection of the best projects, whose prizes that can be a source of financing, either direct (cash prizes), or indirect (stays in coworking spaces, mentoring services, networks of investors, etc.).

Iniatiaves by Type



N° Iniatiaves/Year



Source: StartupXplore

2.2.3 Analysis

SWOT Spain

Strengths	Opportunities
<ul style="list-style-type: none"> • Top European country in size and population. • The strategic situation, climate and environment. • More than 600 million people speak the Spanish language in the world. • Of the few countries in the world that have two main hubs in the same territory and that are world top, such. 	<ul style="list-style-type: none"> • Promotion of women entrepreneurs and talent over 45 years. • New Spanish start-ups begin to consolidate and have international recognition, which can drag new participants into the ecosystems and attract investment. • Ample room to involve more actors in entrepreneurship ecosystems. • Attract foreign direct investments thanks to a friendly tax regulation. • BREXIT can be a great opportunity to attract investment from the United Kingdom, especially in the London financial sector, with Madrid being a prominent European hub in this area.
Weakness	Threats
<ul style="list-style-type: none"> • Lack of entrepreneurial culture. • Lack of highly qualified professionals because of the ineffectiveness of the education system to produce the required talents. • Lack of specific regulation for entrepreneurship. • Multiple regulatory systems within the same national territory. • The high tax burden on entrepreneurship. • Low investment capacity of national origin. • Non-uniform infrastructure and connectivity throughout the national territory. 	<ul style="list-style-type: none"> • Slowness in the process of promoting entrepreneurship ecosystems as a result of political instability. • Transfer of capital and talent to other nearby ecosystems with better performances, like Israel, UK, Germany. • Foreign investment in Spain has increased in recent years but is still far from what is enjoyed in countries such as the United States, Germany, Israel or the United Kingdom.

2.2.4 Conclusions

Definitely, the Spanish ecosystem, despite not having a regulatory framework defined by a general law on start-ups, has experienced significant growth in recent years, with the emergence of strong companies with a very strong international



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character. And with the importance of two very competitive and internationally recognized hubs.

This growth has been accompanied by small legislative initiatives that have been promoting the entrepreneurial ecosystem, such as the law to support entrepreneurship and internationalization, policies to attract foreign talent, visa initiatives for researchers and highly qualified professionals, tax advantages for innovative enterprises etc.

These small but continuous initiatives have been forming an own ecosystem adapted to the needs and culture of Spanish entrepreneurs and that will culminate with the configuration of a general regulatory framework on the startup ecosystem in Spain.

Therefore, the Spanish case is a good example of how the private initiative is the one that pushes the administration to make decisions that support these growing sectors in Spain. It must be taken into account that Spain is a country with a business fabric and an eminent trend of services and therefore this type of new companies focused on providing services and solutions have a more important impact and faster growth in this ecosystem.

3. MAPPING BRAZILIAN STARTUPS ECOSYSTEM

Eduardo Felipe P. Matias

3.1 The key players

Startups began to flourish in the Brazilian scenario over a decade ago, and according to data collected by the Associação Brasileira de Startups (ABStartups), Brazil currently has over 13,000 startups and 77 communities³⁵, present in over 600 cities.³⁶

The Brazilian ecosystem is undergoing a more mature moment, which is evidenced by startups conquering market shares, the emergence of unicorn startups, the conduct of different researches and studies that lead to greater knowledge about the ecosystem and the discussion about a specific legislation focused on this kind of company (Brazilian startups legal framework).

3.1.1 Knowing Brazilian Startups

What is considered a startup company in Brazil?

According to Complementary Law N° 167/2019, the concept of a startup is:

“An innovative company that aims to improve systems, methods or models of business, production, services or products characterized by developing their innovations under conditions of uncertainty that require constant experimentation and validation, including through provisional experimental marketing, before proceeding to full commercialization and revenue generation.”

The number of startups computed by StartupBase, a database managed by ABStartups, doubled between 2012 and 2017, emerging from 2519 to 5147³⁷. Nowadays, according to this same database, there are 13.125 startups in the country – an impressive growth in just 3 years.³⁸

Back then, we could find Brazilian startups in different growth stages.³⁹

35 Communities are groups formed by startups in various stages that interact with the entire ecosystem searching for more opportunities and development.

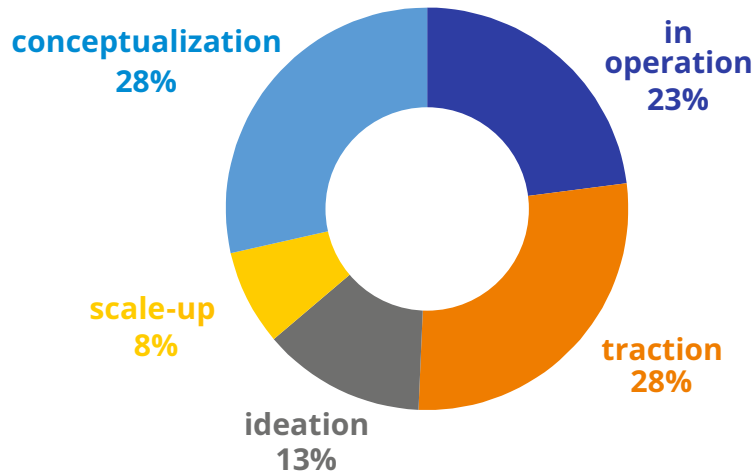
36 Available at: <<https://startupbase.com.br/home>>. Accessed on May 28th, 2020.

37 Available at: <https://exame.com/negocios/dino_old/brasil-ultrapassa-numero-de-12-mil-startups/>. Accessed on December 4th, 2019.

38 Available at: <<https://startupbase.com.br/home>>. Accessed on May 28th, 2020.

39 Associação Brasileira de Startups, Accenture. Radiografia do Ecossistema Brasileiro de Startups. 2017. (https://ecosistemasdestartups.com.br/?utm_campaign=blog-site-radiografia&utm_medium=organic&utm_source=blog&utm_content&utm_term).

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Source: Associação Brasileira de Startups, Accenture. Radiografia do Ecosistema Brasileiro de Startups. 2017

Since early 2018, when the startup 99 became the first Brazilian unicorn, reaching a market capitalization of US\$ 1 billion through an investment from Softbank, 11 more unicorns have emerged in the Brazilian ecosystem, with Nubank being considered a decacorn (market value over US\$ 10 billion). The expectation is that many others will emerge.

Brazilian Unicorns



The probable next Brazilian unicorns?⁴⁰



The executive report “Entrepreneurship in Brazil”⁴¹, published in 2018 by Sebrae, as part of the Global Entrepreneurship Monitor project in Brazil, revealed that in 2018 startup entrepreneurs (with businesses with up to 3.5 years of activity) accounted for approximately 6,5 million formal and informal jobs in Brazil, and concluded that Brazilian entrepreneurship has fulfilled the social function of providing occupation and income, especially to entrepreneurs and their families.

40 Distrito. Corrida dos Unicórnios 2019. Available at: <https://jornal.usp.br/wp-content/uploads/2019/04/Distrito-2019-Corrida-dos-Unicornios-1sem2019_final-.pdf>. Accessed on May 28th, 2020

41 Available at: <<http://materiais.cer.sebrae.com.br/relatorio-executivo-gem-2018>>.

Solely in December 2019, there were at least 1,000 job openings in Brazilian startups.⁴²

3.1.2 Other relevant players

In addition to startups, the Brazilian innovation ecosystem has several accelerators, incubators and other key players focused in fostering entrepreneurship, providing support, training and mentoring services, as well as financial investments.

Incubators and accelerators, for instance, play important roles in the ecosystem by providing entrepreneurs with physical resources such as equipment, tools and structure.

A recent survey from Anprotec⁴³ verified that currently there are 363 incubators and 80 accelerators in Brazil, mostly located in the Southeast and South regions.

INCUBATORS						
REGION	NORTH	NORTHEAST	MID-WEST	SOUTHEAST	SOUTH	TOTAL
Nº Identified	39	61	31	132	100	363
Nº Respondents	9	17	12	45	38	121
% by Region	23%	28%	39%	34%	38%	33%

ACCELERATORS						
REGION	NORTH	NORTHEAST	MID-WEST	SOUTHEAST	SOUTH	TOTAL
Nº Identified	2	6	4	33	12	57
Nº Respondents	1	5	1	14	8	29
% by Region	50%	83%	25%	42%	67%	51%

Source: Anprotec. Mapeamento dos Mecanismos de Geração de Empreendimentos Inovadores no Brasil. 2019.

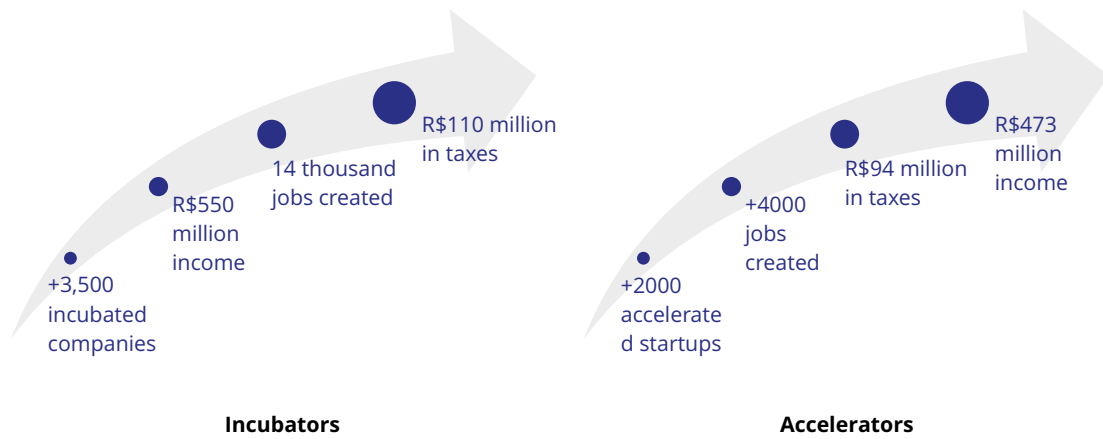
Data collected in 2017⁴⁴ indicate that the number of incubated and accelerated companies impacted positively on employment and the economy:

42 <https://g1.globo.com/economia/concursos-e-emprego/noticia/2019/12/11/32-start-ups-abrem-mais-de-1-mil-vagas-de-emprego-no-pais.ghtml>

43 Available at: <https://informativo.anprotec.org.br/mapeamento-dos-mecanismos-de-geracao-de-empreendimentos-inovadores>

44 Available at: http://anprotec.org.br/site/wp-content/uploads/2019/09/Mapeamento_Empreendimentos_Inovadores.pdf

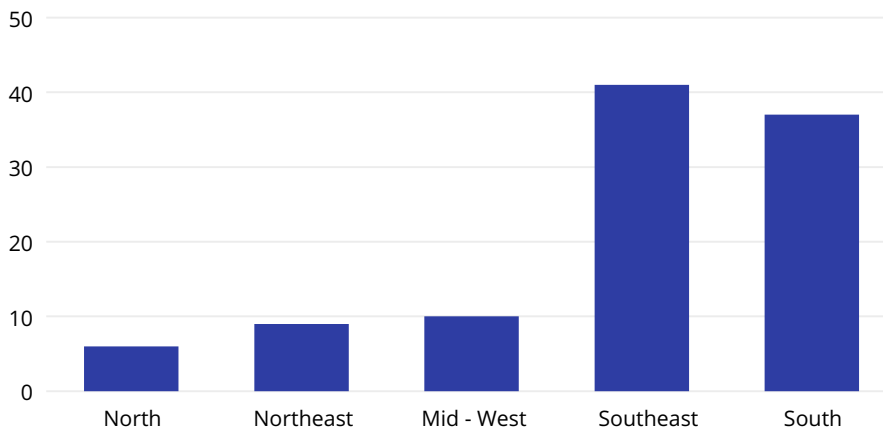
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Source: Anprotec. Mapeamento dos Mecanismos de Geração de Empreendimentos Inovadores no Brasil. 2019.

The **Science and Technology Parks (PCTs)**, the acronym in Portuguese), which focus in enterprises that develop innovation, also play an important role in Brazil. They have been multiplied across the country and, according to data from the recent study by the Ministério da Ciência, Tecnologia, Inovações e Comunicações (MCTIC) and the University of Brasilia (UnB)⁴⁵, jumped from 10 in 2000 to 103 in 2017.

Tech Parks by region

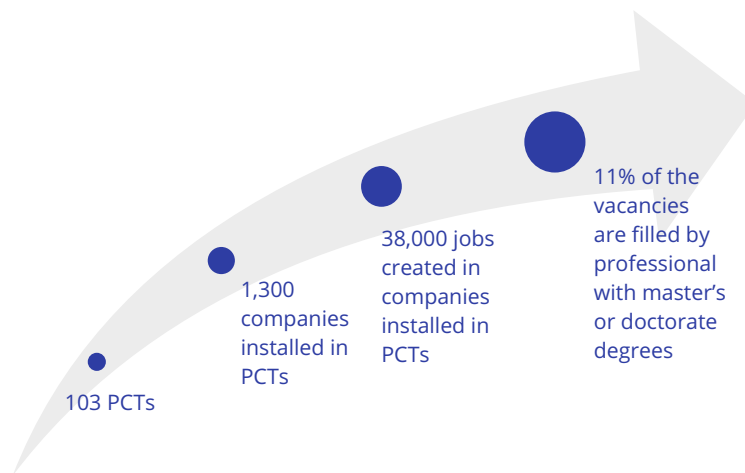


Source: MCTIC. Indicadores de Parques Tecnológicos – Fase 2, Estudo de Projetos de Alta Complexidade. 2019.

45 Available at: <https://www.mctic.gov.br/mctic/export/sites/institucional/arquivos/MCTIC-UnB-ParquesTecnologicos-Portugues-final.pdf>.

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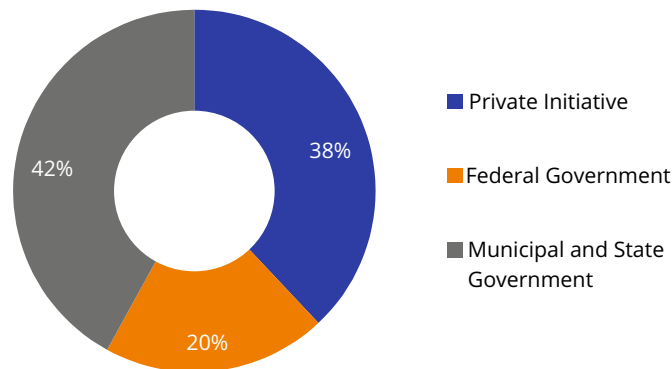
Also according to this study, PCTs have significant social and economic impact on their regions:



Source: MCTIC. Indicadores de Parques Tecnológicos – Fase 2, Estudo de Projetos de Alta Complexidade. 2019.

Moreover, the study reveals that sectors most exploited by PCTs are Information Technology, Energy and Biotechnology, and its main sources of funding are: (i) federal government; (ii) municipal and state governments; and (iii) private initiative.

PCTs Finance Sources



Source: MCTIC. Indicadores de Parques Tecnológicos – Fase 2, Estudo de Projetos de Alta Complexidade. 2019.

One of the main points presented in the MCTIC and UnB study is the need to attract and integrate more private companies, convincing them about the advantages of establishing themselves in the PCTs.

Angel investors represent an important category in the Brazilian ecosystem. According to data from the association Anjos do Brazil, there are currently around 7.000 angel investors and these have been offering startups, besides their knowledge, experience and networking, a significant amount of capital. Solely in 2018, these

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actors invested R\$ 979 million in startups, with the most invested sectors being Fintechs, Software, Healthtechs, Edtechs and HRTechs, in this order.⁴⁶

With respect to **funds**, the Associação Brasileira de Private Equity & Venture Capital (ABVCAP) has 69 Private Equity⁴⁷ and around 159 Venture Capital⁴⁸ funds registered within the association.

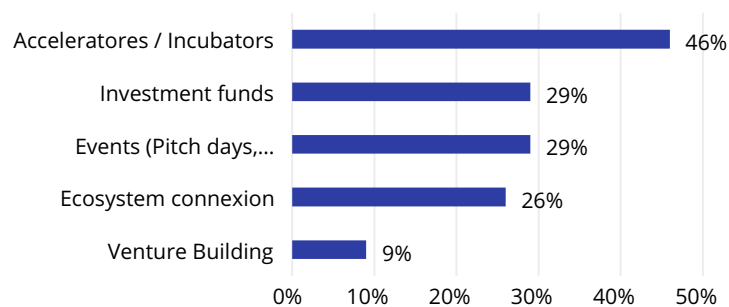
According to data raised by the Latin America Private Equity and Venture Capital Association (LAVCA), Brazil led in all stages of investment among Latin American countries, attracting 55.9% of investments made in 2018 in the region, totalling US\$ 1,3 billion.⁴⁹

In addition to Brazilian Venture Capital funds, entities from other nationalities have invested in Brazilian startups. The Japanese conglomerate Softbank, for example, has invested in 19 companies in Latin America, 10 of them Brazilian, totalling R\$ 10 billion.⁵⁰

Many large companies have chosen to develop new products or services through **corporate ventures**, establishing partnership programs with innovative startups focused on certain specific markets. Main Brazilian companies are increasing their corporate venture programs, which are becoming efficient tools to streamline and develop their innovation processes.⁵¹

This cooperation occurs in different ways, such as⁵²:

Collaboration methods between companies and startups



Source: SEBRAE. Corporate Venturing no Brasil: Co-inovando em rede. Um guia para corporações e entidades de apoio. 2018.

46 Available at: <https://www.anjosdobrasil.net/uploads/7/9/5/6/7956863/evolu%C3%A7%C3%A3o_do_investimento_anjo_no_brasil_-_resultados_da_pesquisa_2019_ano_base_2018_-_anjos_do_brasil.pdf>.

47 ABVCAP. . June 2019

48 ABVCAP. . August 2019.

49 Available at: <https://lavca.org/industry-data/inaugural-survey-of-latin-american-start-ups/>

50 Available at: <https://exame.abril.com.br/pme/os-planos-do-softbank-para-o-brasil-em-2020-apostas-menos-obvias/>

51 Available at: https://www.insper.edu.br/wp-content/uploads/2019/11/Corporate_Venture_v2.pdf

52 Available at: [https://bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/90442283ac84a141d260882aa4705f57/\\$File/19275.pdf](https://bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/90442283ac84a141d260882aa4705f57/$File/19275.pdf)



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This kind of initiative has growing importance in the Brazilian ecosystem, and there are already many examples of corporate ventures in the country. The TOP 50 Open Corps 2019 list of “large-scale companies that relate to startups”, prepared by 100 Open Startups⁵³ mentions, among others:

Vivo - Wayra
BMG - BMG UpTech
Accenture – Accenture Ventures
Braskem – Braskem Labs
Andrade Gutierrez – Vetor AG
EDP – EDP Ventures Brasil
Nestlé - Henri@Nestlé

3.1.3 Gender and race issues

The startups universe in Brazil is still predominantly male: 74% of Brazilian startups have mostly male staffs⁵⁴.

However, it is possible to notice an increase in the number of women heading startups. While in 2013, only 12% of startups registered in InovAtiva Brasil, a relevant acceleration programs in Brazil, were headed by women, in 2019 that number grew to 49%.⁵⁵

In September 2019, the Instituto Rede Mulher Empreendedora, with support from UN Women, published a report demonstrating that Brazilian women start their own business for family-related reasons, such as flexibility and time availability, as well as because, for most Brazilian women, this is an important tool for social transformation.

A recent research on this topic states that women invest 24% more time than men in family time, while women’s own business represent the main family income for 38%.⁵⁶

Most of Brazilian female entrepreneurs work on their own, rendering services from home. When it comes to fundraising, this aforementioned research shows that 63% of women do not consider bank loans, once they turn to family or friends.

53 Available at: <https://www.openstartups.net/site/ranking.html>

54 Associação Brasileira de Startups, Accenture. . 2017.

55 Available at: <<https://www.startse.com/noticia/empreendedoras/mulheres-empendedoras-empendedorismo-feminino>>.

56 Instituto Rede Mulher Empreendedora (2019).



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Besides that, according to data consolidated by Sebrae, formalized entrepreneurial women (those who have registered at the CNPJ) stand out in the beauty, fashion and food activities.⁵⁷

Meanwhile, afro descendants are also fighting for their space and recognition in the ecosystem. According to research promoted by PretaLab, in partnership with ThoughtWorks, technology workforce in Brazil today is mainly white (58.3%)⁵⁸.

One of the hallmarks of afro-entrepreneurship is the focus on offering products and services to its own community, strengthening bonds, generating new businesses, expanding job and income opportunities.

Nevertheless, there is much still to be done in order to achieve these objectives. According to a study commissioned by PretaHub, in partnership with Plano CDE and JP Morgan⁵⁹, which interviewed 1,220 people, black entrepreneurs declared that entrepreneurship is the solution found for the lack of opportunities – 46% of them said that they endeavour out of necessity. Besides that, some numbers revealed by the same study are striking: for example, 32% of afro-descendant entrepreneurs in Brazil declare having already been denied credit without any explanation.

It is worth mentioning that a growing number of initiatives have been adopted recently to try to reverse the low representation of women and afro-descendant in the ecosystem, such as Feira Preta, which is the biggest event of black culture and entrepreneurship in Latin America, the accelerator Vale do Dendê, in the city of Salvador, and the program Mulheres Inovadoras, a partnership between MCTIC, Finep and the government of the city of São Paulo.

3.1.4 Regional distribution and markets

The startup ecosystem is spread all over the country, as today it is possible to identify 77 communities located in all 5 Brazilian geographic regions, distributed in more than 600 cities⁶⁰.

Some factors contribute to the development of such communities: i) government; ii) capital availability; iii) culture; iv) support; and v) talent and market⁶¹.

All factors above are directly related to the presence of major universities, large corporation initiatives (CUBO, Oito, Oxigênio etc.) and government development programs (Seed, Desenvolve SP, Pitch Gov etc.), which are in major urban centres such as São Paulo and Rio de Janeiro.

It is important to highlight the recent dissemination of entrepreneurship events outside the Rio-São Paulo axis, such as the community of Recife, in the state

57 Sebrae. Março 2019.

58 Available at: <https://assets-global.website-files.com/5b05e2e1bfcfaa4f92e2ac3a/5d671881e1161a6d2b8eb78b_Pesquisasa%20QuemCodaBR.pdf>. Accessed on June 3th, 2020.

59 Plano CDE e JP Morgan. Estudo do Empreendedorismo Negro no Brasil. 2ª Edição. 2019.

60 Available at: <<https://startupbase.com.br/home>>. Accessed on May 28th, 2020.

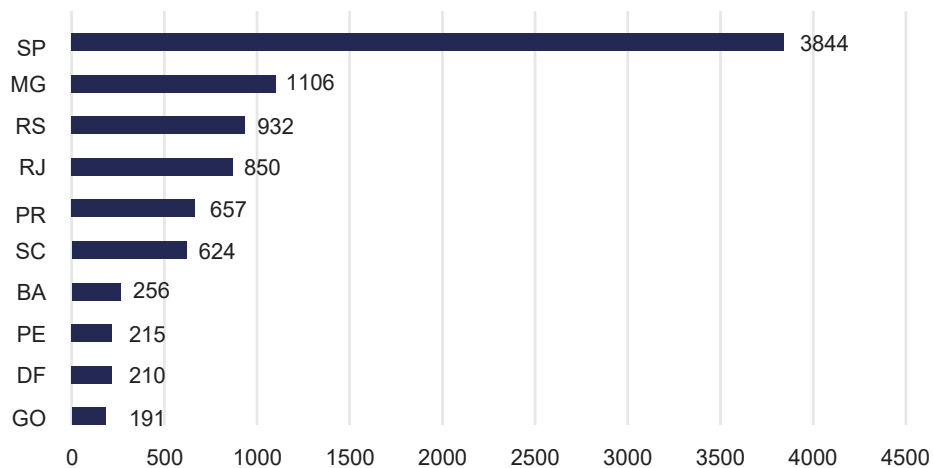
61 ZAMBRANA, Luiza. Quais são as comunidades de startup no Brasil. 2019. Available at: <<https://abstart-ups.com.br/quais-sao-as-comunidades-de-start-ups-no-brasil/>>. Access on December 5th, 2019.

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of Pernambuco, headquarters of the PCT Porto Digital, that, besides hosting more than 300 companies and institutions, has 3 incubators, 2 accelerators and a higher education institution – CESAR School – dedicated to Science and Technology⁶².

In the south of Brazil, it must be highlighted the role of the Associação Catarinense de Tecnologia (ACATE), which manages a network of Innovation Centers in the city of Florianópolis, state capital of Santa Catarina, and is a support and training network for entrepreneurs, by means of its MIDITEC incubator, for instance.

Concentration of startups by state



Source: StartupBase

In May 2019, it was released the Global Startup Ecosystem Report (GSER), a worldwide startup study published annually by Startup Genome, that highlighted São Paulo as one of the 30 most promising ecosystems in the world, with its main sectors being Fintech and Health⁶³.

3.1.5 Main economic sectors and markets

According to StartupBase data from December 2019, EdTechs, Fintechs, Health Techs, IT Techs, Agtechs and Retail Techs are the sectors that have most startups in Brazil. In addition, it is possible to verify that startups operating in the SaaS business model (41.97%) and having a B2B target audience (48.74%) predominate in Brazil.⁶⁴

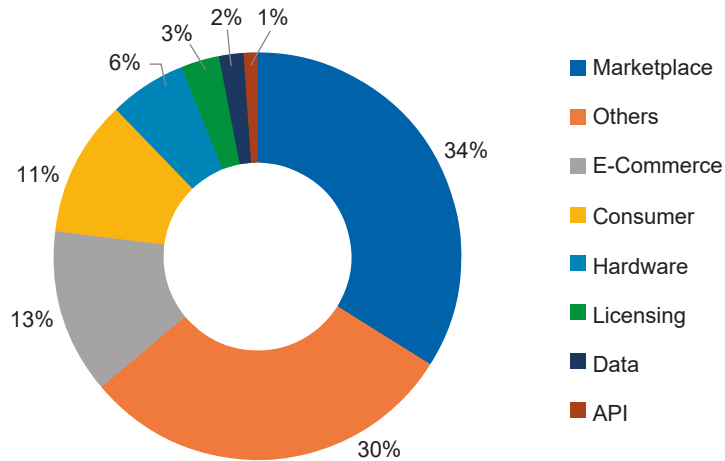
62 Available at: <<https://www.portodigital.org/home>>.

63 Available at: <https://startupgenome.com/reports/global-startup-ecosystem-report-2019>

64 Available at: <https://startupbase.com.br/home/start-ups?q=&states=all&cities=all&segments=all&targets=all&phases=all&models=all&badges=all>. Access on December 16, 2019.

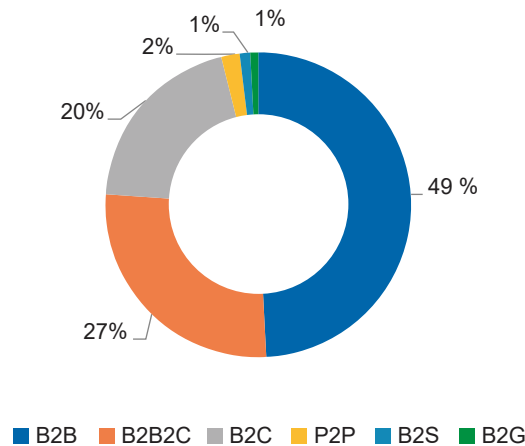
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Startup business model



Source: StartupBase

Startup by target public



Source: StartupBase

The main technologies used in startup solutions are Analytics/Big Data (36.89%), followed by cloud (23.09%), artificial intelligence (13.69%), Internet of Things (8.24%), Blockchain (2.32%), Virtual Reality (2.09%), Biotechnology (1.74%) and Augmented Reality (0.58%)⁶⁵.

The Instituto Nacional de Propriedade Industrial (INPI, entity in charge of intellectual property registries in Brazil), identified that only 42% of Brazilian startups used its invention patent (IP) system, which includes the following assets: patents, trademarks, industrial design and computer programs. Most of these records were filed with INPI after 2016 (45 requests).

65 Associação Brasileira de Startups, Accenture. . 2017.

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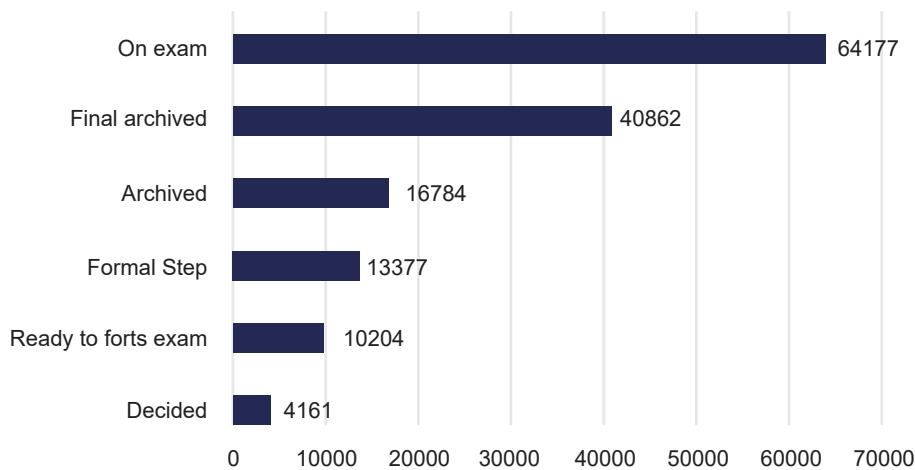
Source: INPI, Uso do Sistema de Propriedade Industrial pelas Startups. 2019.

The poor use of IP registration may severely interfere on Brazilian startups businesses, since, without the protection of their immaterial assets, they cannot prove authorship of inventions, protect from trademark abuses, license their product, account for company assets etc.

In fact, patent deposits at INPI have hovered in the range of 7,200 - 8,000 per year over the last 15 years, showing a stagnation of the number of patents deposited by Brazilian nationals⁶⁶.

INPI has recently initiated a project to reduce the registry backlog, for decreasing the large quantity of patent applications pending on decisions.

Backlog status



Source: INPI, Uso do Sistema de Propriedade Industrial pelas Startups. 2019. ⁶⁷

⁶⁶ FRISHTAK, Cláudio R. Science and innovation in Brazil. Where to Now? Innovation in Brazil: advancing development in the 21st century. New York: Routledge, 2019, p. 101.

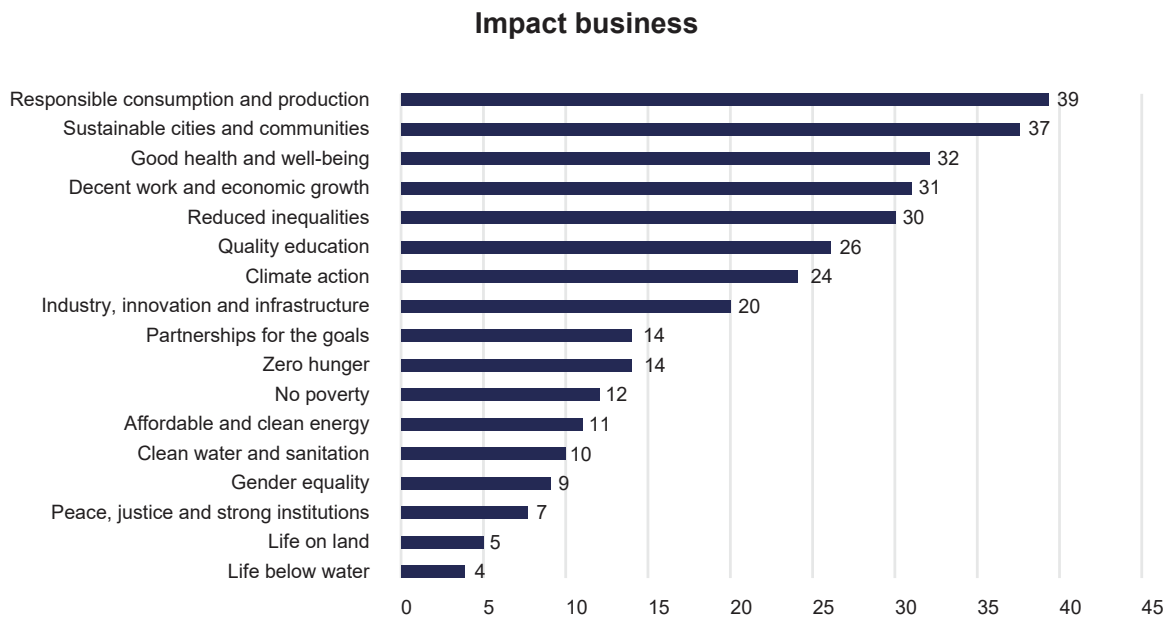
⁶⁷ Available at: <http://www.inpi.gov.br/menu-servicos/patente/plano-de-combate-ao-backlog>

3.1.5.1 The case for social impact businesses

The term *impact business* was defined in the Brazilian legal system by the Decree N° 9,244 of December 19, 2017, which established the Estratégia Nacional de Investimentos e Negócios de Impacto (ENIMPACTO), that will be further detailed in item 3.2.1 hereunder.

IMPACT BUSINESS = socioenvironmental impact + sustainable financial results

Impact businesses could be aligned with the 17 United Nations Sustainable Development Goals (SDGs). In a recent study, Pipe.Social, a social and environmental impact business platform that aims to foster the Brazilian ecosystem, identified, based on the 2,000 impact businesses mapped, that the Brazilian ecosystem is divided among the SDGs⁶⁸ as follows:



Source: Pipe.Social. 2º Mapa de Negócios de Impacto – Social + Ambiental. 2019

In what concerns the challenge of global warming, specifically, the Climate Ventures Institute conducted a study in which it identified 552 businesses in Brazil that have a positive impact on climate change, the so-called clean techs, which promote low carbon and regenerative economy⁶⁹. Examples of clean techs sectors of activity are: water management, waste management, food, energy, logistics, land use and forests.

According to the data arising from the study conducted by the Climate Ventures Institute, each region of Brazil operates in impact business sectors that are directly linked to their main social and environmental problems⁷⁰.

68 Pipe.Social. 2º Mapa de Negócios de Impacto – Social + Ambiental. 2019 Edition.

69 Available at: <https://sustentabilidade.estadao.com.br/noticias/geral,na-era-da-economia-de-baixo-carbono-brasil-jatem-552-start-ups-ambientais,70003133891>

70 Available at: https://static1.squarespace.com/static/5bbbd7c7a9ab95657472072f/t/5bf54ec74ae2376294e54c38/1542803165183/%5BClimateVentures%5D+Infografia_AF_12nov2018_FO.pdf



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In the Southeast, 4 out of 10 mapped impact business solutions refer to waste management; in the South and Northeast, clean energy represents 35% and 25% of the initiatives, respectively, while in the North 35% of the impact business are related to forest issues.

Besides that, the Pipe.Social study also found that impact businesses focused on education are using artificial intelligence as the main technology for this type of business, while blockchain is mostly used for green technology and financial services businesses.

Given the current scenario of the Brazilian economy, impact businesses are a great option for public and governmental entities to act on socio-environmental problems. Besides that, the government may, throughout government procurement, stimulate these impact businesses and, consequently, collaborate with the solution of such problems.

3.1.6 Internationalization grade

Concerning internationalization, as pointed out by the latest survey conducted by the Global Entrepreneurship Monitor 2018/2019 Global Report⁷¹ (GEM 2018/2019), a study carried out by researchers from over 100 countries, Brazil is considered one of the least internationalized countries in the world, once national companies do not reach the baseline of 25% of their sales to customers abroad. Some of the reasons for this, as the research remarked, is that most national entrepreneurs consider the Brazilian domestic market attractive and sufficient for their businesses.

In order to change this reality, the Ministry of Economy, the Brazilian agency in charge of promoting exports and investments (Agência Brasileira de Promoção de Exportações e Investimentos – Apex-Brasil), the Foreign Relations Ministry (Ministério das Relações Exteriores), Sebrae and Anprotec, created the StartOut Brazil program, targeting to increase Brazilian startups businesses abroad.

StartOut Brasil



The target is to select 20 startups per edition, held in several cities around the world during the year, that: i) are billing over R\$ 500.000 or that have received some kind of investment; ii) have a 100% dedicated business team; iii) have English fluent entrepreneurs; and iv) demonstrate ability to expand internationally without compromising their operations in the country.

Program:

71 Available at: <https://www.gemconsortium.org/report/gem-2018-2019-global-report>



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- a. Expert advice on internationalization, mentoring with target market specialists and pitch training;
- b. Participation in mission with agenda focused on prospecting clients and investors and connecting to innovation environments, with visits to accelerators, incubators and local companies; opportunity seminar; round of meetings with service providers; matchmaker and demo day meetings for investors;
- c. Post-mission support to define the startup internationalization and/or soft-landing strategy in the target market.

Startups Main Destinations⁷² are:

- a. Portugal (Lisbon) - 191 registered startups;
- b. United States (Miami) and Canada (Toronto) - 115 registered startups;
- c. Germany (Berlin) - 109 registered startups;
- d. Chile (Santiago) - 108 registered startups;
- e. United States (Boston) - 93 registered startups;
- f. France (Paris) - 77 registered startups;
- g. China (Shanghai) - 57 registered startups.

3.2 Regulatory Framework and Business Environment

Startup companies tend to improve their chances of success when inserted in an ecosystem that encourages business development and innovation.

As the entrepreneurial environment requires dynamism to develop, having a regulatory framework that breaks with the bureaucratic hamstringing and contributes to the business development process is extremely relevant.

The existence of specific legislation applicable to innovative products and services is essential to offer legal security, and, thus, to encourage the development of new businesses, and Brazil is taking many initiatives to foster these activities.

3.2.1 Examples of Brazilian legislative initiatives focused on fostering innovation and startups

Lei do Bem

The so-called “Lei do Bem” (Law N° 11.196/2005 and Decree N° 5.798/2006) creates tax incentives for legal entities operating under the actual profit (“Lucro Real”), tax regime that conduct “technological innovation research and development”.

⁷² Available at: <https://www.startoutbrasil.com.br/conheca-os-destinos-mais-procurados-para-a-internacionalizacao-de-startups/>

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Tax benefits apply to research and technological development (directed basic research, applied research and experimental development) and activities that allow to acquire new knowledge. It shall not be applicable for buying or ordering technology activities.

The declaratory system to apply for the tax incentives dismisses any prior formalization of the request by MCTIC. It is up to the taxpayer to conclude whether it complies. whether or not the requirements foreseen in the legislation. From then on, he automatically makes his accounting using or not using the benefits, and must control the R&D expenditures in specific accounts. Legal entities benefiting from tax incentives must provide MCTIC with annual information on their technological innovation research and development programs by July 31 of the year following each fiscal year via the internet.



What is considered innovation, according to this Law?

The conception of a new product or manufacturing process, as well as the addition of new features or characteristics to the product or process that implies incremental improvements and an effective gain in quality or productivity, resulting in greater competitiveness in the market.

Tax Breaks

Full accelerated depreciation of new equipment, machinery and instruments applied for research and technological development, for the purpose of calculating IRPJ and CSLL;	Reduction of 50% of the Industrialized Products Tax (IPI) on equipment, machinery and instruments applied for research and technological development;	Expenses deduction when calculating the net income for the payment of the Corporate Income Tax (IRPJ);
Accelerated amortization of expenses related to the acquisition of intangible assets applied for research and technological development for purposes of IRPJ calculation;	Withholding income tax credit, levied on amounts paid as royalties, technical or scientific assistance and specialized services, provided for in transfer of technology agreements;	Reduction of the withholding income tax rate to zero in remittances abroad for the registration and maintenance of trademarks, patents and cultivars;

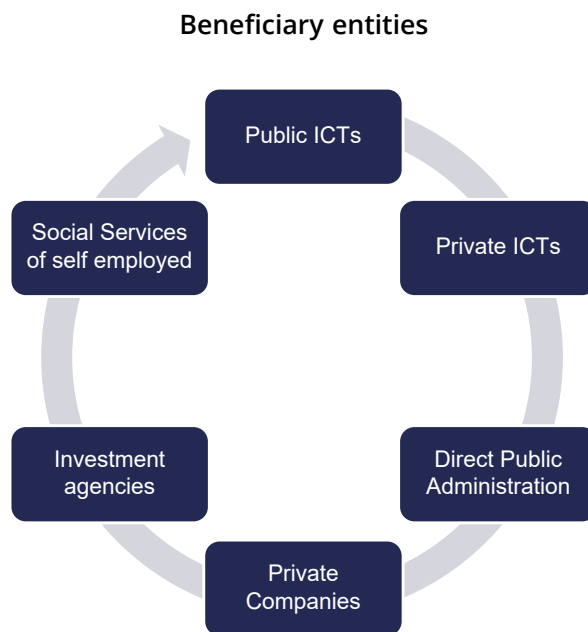
Source: Federal Law n. 11.196, November 21, 2005.

Novo Marco Legal da Ciência, Tecnologia e Inovação

In force since the Decree Nº 9,283/2018, the new legal framework for Science, Technology and Innovation has as its principles:

- a. Encouragement of scientific and technological activities as a strategy for the economic and social development of the country;
- b. Promotion of cooperation and interaction between public entities, public and private sectors and companies;
- c. Stimulating innovation activities in public and private companies and science and technology institutions (ICTs); e
- d. Simplification of procedures for science, technology and innovation project management, and the adoption of results control in its evaluation.

The targets are: i) to create networks and international projects of technological research; ii) develop technological entrepreneurship actions and the creation of environments that promote innovation, including technology centres and business incubators; and iii) form and qualify human resources.



Source: Federal Law n. 13.243, January 11, 2016.

This law set forth a “technology bonus” as a subsidy to micro and small and medium-sized enterprises, based on budget allocations from government agencies and entities, intended for the payment of sharing and use of technological research and development infrastructure, contracting services, technology or technology transfer, when it is merely complementary to those services.

Government agencies and entities may use different sorts of remuneration to share technological risk and circumvent the difficulty of estimating the costs of Research, Development and Innovation activities based on market research:



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- a. fixed price;
- b. fixed price plus variable incentive compensation;
- c. reimbursement of costs without additional remuneration;
- d. cost reimbursement plus variable incentive compensation;
- e. reimbursement of costs plus fixed incentive compensation;

Partnership Instruments:

- a. Grant Term
- b. Research, Development and Innovation Partnership Agreement
- c. Research, Development and Innovation Convention

Inova Simples

The Complementary Law N° 167/2019 created a special simplified regime that offers startups differentiated treatment, in order to stimulate the creation, formalization and development of this kind of company.

Facilitated proceedings comprehend:

- a. opening and closing companies;
- b. opening bank accounts;
- c. obtaining trademark protection;
- d. commercialization of experimental products and services.

By this regime, the company may choose to automatically communicate to the INPI about any inventive content of the business, if any, for the purposes of registering trademarks and patents.

If the company does not succeed, the CNPJ will be automatically cancelled through a self-declaration procedure over the internet.

3.2.2 Other Governmental Initiatives

National Innovation Policy

MCTIC held a public consultation, from November 8 until December 18, 2019, to gather contributions to the National Innovation Policy proposal.

The National Innovation Policy intends to structure the Federal government actions for the next 10 years with respect to measures for encouraging and promoting the development of new technologies for improving economic activities and public services.

The main targets are to i) create a favourable environment for innovation in the country; ii) expand the capacity for innovation and expand the scientific and technological national base; iii) consolidate, improve and modernize the institutional apparatus of Science, Technology and Innovation; (iv) integrate all regions into the national training effort for Science, Technology and Innovation; v) develop a broad base of support and involvement from society in National Science, Technology and Innovation Policy; and vi) transform Science, Technology and Innovation into a strategic element of national development policy.

Legal Framework for Startups and Innovative Entrepreneurship

MCTIC held a public consultation in mid-2019, in order to improve the business environment, facilitate investment in startups, address aspects related to work relations and public procurement, among other subjects. The aim was to identify the difficulties that prevent the creation, growth, expansion of these companies and, thus, propose normative improvements and mechanisms to stimulate startups.

The final objective of these efforts is the creation of a Legal Framework for Startups and Innovative Entrepreneurship, in order to regulate this important sector of the economy. This law will improve the business environment for startups and, among its main proposals, stands out the creation of a unified concept of startup, the simplification of corporate models, and making the proceedings to open and maintain a company easier and cheaper.

The public consultation process has been an important part of this process, due to the direct involvement of both public and private sectors and had 3501 contributions from 711 respondents.

The central axes deal with the following themes: i) business environment (creation of a simplified corporation and protection for joint and several liability); ii) investment (instruments and incentives for small and medium-sized enterprises); iii) work and collaboration (labour relations; economy on demand; and stock options); and iv) public procurement (collaboration term for innovation testing).

In this context, Bill of Law N° 146/19, which focuses on establishing more favourable conditions for the creation of startups in Brazil, is currently being processed at the National Congress and deals with similar topics: creation of a new corporate type; improvement of the business environment; legal certainty for investors; reducing the bureaucracy of corporate opening and closing process; work relationships; new income tax rates for startups; tax breaks; and preferential treatment for startups in tenders, among others.

Estratégia Nacional de Ciência, Tecnologia e Inovação (ENCTI)

The Estratégia Nacional de Ciência, Tecnologia e Inovação⁷³, validated by the Conselho Nacional de Ciência e Tecnologia on 2016, contains the strategic

⁷³ Available at: http://www.mctic.gov.br/mctic/export/sites/institucional/publicacao/ciencia/ENCTI/MCTIC_ENCTI_2016-2022_210x240mm_14.03.2017.pdf

orientation framework for the implementation of public policies in the area of ST&I, as well as can serve as a basis for the formulation of other policies of interest.

The document consists of two sets of chapters: the first one contains a comprehensive contextualization of the national policies to this sector and the second present more strategic propositions that will guide the initiatives in ST&I for the next years.

Comitê Nacional de Iniciativas de Apoio a Startups

The Decree Nº 10.122/2019, of November 21, 2019, has instituted a National Committee for Supporting Startup Initiatives. The main targets are to: i) articulate Federal initiatives applicable for technology-based startups; ii) promote experiences exchange and good practices in initiatives involving support for startups; iii) make available and update platform in digital format with registration of public initiatives to support startups; and iv) collect and evaluate information about startup support initiatives and the obtained results.

National Investment and Impact Business Strategy (ENIMPACTO)

This program is an articulation of agencies and entities of the Federal Government, the private sector and society with the objective of promoting a favourable environment for the development of social impact business by startups that could bring innovative situations to socioenvironmental problems.

Requirements to be considered an impact business:

1. to have the purpose of generating explicit positive social and/or environmental impact on the company's mission;
2. to periodically know, measure and assess their impact;
3. to have an economic logic that allow it to produce revenue;
4. to have governance that considers the interests of investors, customers and the community.

The main targets are: i) coordination between BNDES, Caixa Econômica Federal, Fundação Banco do Brasil and Sebrae to set up an accounting fund to invest in impact business; ii) expansion of the Innovative Acceleration Impact program for impact startups, led by the Ministry of Economy, MDIC, Certi and Sebrae Foundation; iii) inclusion of impact criteria in the CERNE incubator and accelerator management methodology (Anprotec / Sebrae).

In addition, the following laws were created to benefit impact business in Brazil:

- i. Equity Fund Regulation (Law Nº 13,800 / 2019): regulates the creation of equity funds to raise and manage donations from individuals or corporations to programs in areas of public interest, such as culture and education

- ii. Regulation of Social Impact Contracts (PLS N° 338/2018): provides for a new type of impact business contracting from the fulfilment of social interest goals

3.2.3 Mechanisms for investing in startups

To know well the ecosystem, it is necessary to understand which forms of investment are set forth by the Brazilian regulatory framework. Among them, we highlight the formats most used by investors in startups;

- a. Direct participation in the capital stock: purchase of shares/quotas of the founders and/or contribution of new resources to the startup capital;
- b. Equity crowdfunding: widely used in social entrepreneurship, it has also been used as a means of capturing equity investments. This modality is regulated by CVM Normative Instruction N° 588/2017;
- c. Participation Agreement (Angel Investors): Lei Complementar N° 155/2016 created a new investment modality for startups named “participation agreement”. By means of this agreement, angel investors can contribute with resources to the company in exchange for profit sharing;
- d. Convertible loan: investment method whereby the investor lends capital to the company and may, at the end of a pre-established period, choose to convert the payment of this loan into equity interest in the company;
- e. Sociedade em Conta de Participação – SCP (“Participation Account Company”): is an investment agreement where an ostensible partner - in this case the startup - carries on business in its own name, assuming all responsibility towards third parties, receiving funds from one or more participant partners - the investors. The SCP is not registered with the Board of Trade, but must be registered with the CNPJ (national register of legal entities);
- f. Equity Investment Funds (FIPs): FIPs are a communion of financial resources formed as a closed condominium, intended for investment in equity interests. Their operating rules are provided by law and CVM (Comissão de Valores Mobiliários) normative instructions.

3.2.4 Investments and Funding Programs

There are several relevant Brazilian public and private players that undertake initiatives related to the development of startups, fostering innovative entrepreneurial activities through direct investments and/or acceleration programs.

The startups investment ecosystem in Brazil has been maturing with greater offers for fundraising to entrepreneurs. The access to credit is getting more democratic, as the universe of investors is growing and getting more sophisticated.

This chapter, that does not have the ambition to contemplate all existing programs and actors, describes some of the main entities and initiatives in the ecosystem aimed at investing in and financing startups.

National Startup Acceleration Program (Startup Brasil)

Startup Brasil is a national program created by MCTIC, managed by Softex, to accelerate startups through partnerships with accelerators.

Some of the differentials of this program, which has already supported 229 startups from 17 different Brazilian states⁷⁴, is that it offers the option of granting a 12-month researcher visa to foreign professionals, and its network of agreements with international hubs for projection of Brazilian startups.

Finep Startup Program

The program of the Financiadora de Estudos e Projetos (Finep), a Brazilian public company for the promotion of science, technology and innovation, aims to support startups in prototype or testing phase, by providing financial resources and knowledge to companies with high growth and return potential⁷⁵.

Finep grants reimbursable and non-reimbursable resources to Brazilian research institutions and companies. The support covers all stages and dimensions of the scientific and technological development cycle: basic research, applied research, innovations and development of products, services and processes.

It also supports the incubation of technology-based companies, the implementation of technology parks, the structuring and consolidation of research processes, the development and innovation of already established companies, and the development of markets.

InovAtiva Brasil

MCTIC has partnered with Sebrae to create, in 2013, a free large-scale acceleration program for startups from anywhere in Brazil.

This program has trained more than 2,000 startups, accelerated 1,064 and impacted more than 30,000 entrepreneurs.⁷⁶

74 Available at: <<https://www.startupbrasil.org.br/>>. Acesso em 30 dez. 2019.

75 Available at: <<http://www.finep.gov.br/apoio-e-financiamento-externa/programas-e-linhas/finep-startup>>. Acesso em 30 dez. 2019.

76 Available at: <<https://www.inovativabrasil.com.br/>>. Acesso em 30 dez. 2019.

Programa Nacional de Plataformas do Conhecimento

The Programa Nacional de Plataformas do Conhecimento (National Program for Knowledge Platforms) has been launched in 2014⁷⁷ to stimulate research in the area of science, technology and innovation. The program seeks to encourage research in 20 branches of knowledge, such as agriculture, health, energy and defense.

The program was designed to i) place a technological order to solve a specific technical problem or to obtain innovative products or processes, goods or services, involving technological risk; and ii) stimulate the partnership between companies and scientific and technological research institutions.

BNDES Garagem

BNDES, the largest seed capital and venture capital investor in the country, created the program BNDES Garagem to support national startups, either with financing or with technical knowledge.⁷⁸

In order to invest in startups, BNDES has created, in partnership with other Brazilian banks, the following investment funds, each of which has focus in certain phases of such companies (considering their turnover):

- Criatec Funds;
- Primatec Funds (investment in startups created in incubators and technology parks);
- Angel Co-investment Fund.

Anprotec – Associação Nacional de Entidades Promotoras de Empreendimentos Inovadores⁷⁹

- Programa Nexos⁸⁰

Applied to automotive industry, the program offers access to incubation and acceleration services, as well as direct investments in research, development and innovation of technologies, products, services and solutions for the sector, in addition to technical and legal support on tax instruments to support innovation.

- Creative Startups⁸¹

The Creative Startups Program consists on the identification, selection and support of technology-based ventures. The projects will be supported by Samsung,

77 By Decree N° 8,269/14, available at: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2014/decreto/d8269.htm

78 Available at: <https://www.bndes.gov.br/wps/portal/site/home/onde-atuamos/inovacao/bndes-garagem>. Access on December 30, 2019.

79 Available at: <http://anprotec.org.br/site/>

80 Available at: <https://www.sebrae.com.br/sites/PortalSebrae/sebraeaz/programa-nexos,a520f6c19850c610VgnVCM-1000004c00210aRCRD>

81 Available at: <https://anprotec.org.br/samsung/>



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Anprotec and incubators of participating companies, aiming at the generation and development of successful technology-based ventures.

Each edition selects up to 10 startups, which receive financial support and a package of services for improving their products and services.

– Programa de Incubação e Aceleração de Impacto ⁸²

An initiative of Anprotec together with Inovação em Cidadania Empresarial – ICE (Innovation in Corporate Citizenship) and SEBRAE, with the objective of mobilizing accelerators and incubators to design strategies to attract, select and accompany the structuring of social impact startups in their portfolio.

Embrapii – Empresa Brasileira de Pesquisa e Inovação Industrial ⁸³

Fostering research, development and innovation projects in the Brazilian industry, EMBRAPII is a federal social organization that supports technological research institutions promoting innovation through cooperation with scientific and technological research institutions, both public or private, focusing on business demands and targeting risk sharing in the pre-competitive phase of innovation.

In order to encourage the industry to invest in innovation, EMBRAPII has established partnerships with institutions representing the industrial sector (CNI; FIESP; SENAI etc.), especially to stimulate R&D projects between companies and EMBRAPII Units, and to establish a reference network for research and innovation activities in the Brazilian productive sector.

Moreover, in order to strengthen the support for the Brazilian innovation and promote initiatives for scientific collaboration and development in R&D research projects carried out in EMBRAPII Units, EMBRAPII signed technical cooperation agreements with development institutions in several states across Brazil. On another front, in order to streamline the supply of credit with low interest rates and long terms to the productive sector, guaranteeing the financing to the company's counterpart, EMBRAPII entered into partnerships with regional banks and financing agencies.

82 Available at: <https://ice.org.br/tag/programa-incubacao-e-aceleracao-de-impacto/>

83 Available at: <https://embrapii.org.br/en/>

Acting Areas



Source: Embrapii

ABDI – Agência Brasileira de Desenvolvimento Industrial

ABDI's Programa Nacional Conexão Startup Indústria⁸⁴ has the purposes of promoting the business environment among startups and industries, focusing on digital integration actions of the different stages of industrial products value chain and development of solutions or "concept proofs" by startups for demands identified by the industries.

In numbers:

- 30 industries and 120 startups selected to form work groups;
- 30 industries and 60 connected startups for the co-development of concept proofs;
- 90% for Brazilian industries and startups and 10% for Portuguese industries and startups
- Award for selected startup: R\$ 80,000.00;
- Total in ABDI awards: R\$ 4,800,000.00.

CNPq – Conselho Nacional de Desenvolvimento Científico e Tecnológico

Programa para Concessão de Bônus Tecnológicos e Capacitação para Inovação em Manufatura Avançada

Support for research, development and innovation projects for solutions in products, processes and services for advanced manufacturing, carried out by micro and small companies in partnership with medium and large companies.

84 Available at: <https://startupindustria.com.br/>

Fapesp – Fundação de Amparo à Pesquisa do Estado de São Paulo

It is also worth mentioning some state entities, such as Fapesp, from the state of São Paulo, that offers programs to support the execution of scientific and/or technological research. The main programs offered by this institution are:

a. Pesquisa Inovativa em Pequenas Empresas (PIPE) ⁸⁵

Supports the execution of scientific and/or technological research in micro, small and medium-sized companies in the State of São Paulo, as an instrument to promote innovation, promote business development and increase the competitiveness of small companies.

b. Programa de Apoio à Pesquisa em Empresas (PAPPE) ⁸⁶

Seeks to finance R,D&I activities for innovative products and processes undertaken by researchers who work directly or in cooperation with technology-based companies.

c. Programa de Apoio à Pesquisa em Parceria para Inovação Tecnológica (PITE) ⁸⁷

Intended to finance research projects in academic institutions or research institutes, in cooperation with research centres of companies located in Brazil or abroad, for intensifying the relationship between universities, research institutes and companies, through cooperative and co-financed research projects.

As previously mentioned, there are many other examples of actors and programs that are important to Brazil's startup ecosystem. Some of them focus on promoting R&D and innovation on their corresponding sectors, such as Embrapa (Empresa Brasileira de Pesquisa Agropecuária), which represents a successful effort for turning Brazilian agriculture into one of the most efficient and sustainable ones in the planet, with an agenda based on the generation of new knowledge translated into products, processes and services for the agricultural sector; and Fiocruz (Fundação Oswaldo Cruz), a public foundation, bound to the Health Ministry, focused on promoting health and social development, generating and disseminating scientific and technological knowledge through researches and technological development projects for the control of several diseases and other topics related to public health, including violence and climate change.

Finally, in the industrial sector, MEI (Mobilização Empresarial pela Inovação), a movement established by the Confederação Nacional da Indústria – CNI, is doing a consistent job in stimulating the innovative strategy of Brazilian companies and increasing the effectiveness of policies to support innovation through constructive and lasting dialogue between the private sector, academia and the public sector.

85 Available at: <http://www.fapesp.br/pipe/>

86 Available at: http://fapesp.br/pipe/pappe_pipe/4/

87 Available at: <http://www.fapesp.br/pite/>

3.2.5 Educating for innovative entrepreneurship

The school's mission is not only to prepare the youth for the labour market, but also to train critical and conscious citizens who can contribute to country as game changing agents.

An education focused on entrepreneurship can be fostered through the inclusion of disciplines in schools and universities that aim to develop skills such as adaptation to change, self-confidence, teamwork, planning and creativity, using innovative methodologies applied to solve problems.

Some initiatives that are being taken to promote an entrepreneurial education in Brazil:

Programa Nacional da Educação Empreendedora (PNEE)⁸⁸ is a Sebrae program designed to develop entrepreneurial skills and the possibility of insertion in the market for primary school students, high school students and higher education students from public and private schools

Centro Sebrae de Referência em Educação Empreendedora (CER)⁸⁹ has been developed by Sebrae, as a digital platform that has the mission of producing and sharing knowledge, prepare studies, research and tools focused on the development and promotion of entrepreneurial education.

Empretec⁹⁰ an United Nations (UN) methodology aimed at developing entrepreneurial behaviour characteristics and identifying new business opportunities. It is present in 40 countries and in Brazil is performed by Sebrae.

Law N° 15,693/2015, from the state of São Paulo, that creates the Plano Estadual de Educação Empreendedora to insert entrepreneurship in high schools and technical schools.

Instituição Amiga do Empreendedor (IAE) is an initiative from the Ministério do Desenvolvimento Social (MDS), Sebrae, Fundação Getúlio Vargas (FGV) and universities, to value and support entrepreneurship through the creation of physical spaces within the universities for mentoring and training entrepreneurs and potential entrepreneurs at no cost.⁹¹

LISTO (Latin American and European Cooperation on Innovation and Entrepreneurship)⁹² is an international cooperation project focusing on university-business relations, entrepreneurial education and business strategies, headed by the University of São Paulo (USP). Over a 3-year period (2017-2020), the project had the objective of bringing together 3 European universities, 1 technology park and 7 Latin-American universities, facilitating knowledge exchange and best practices between teachers, staff specialized on innovation and entrepreneurship and university managers.

88 Available at: <https://www.sebrae.com.br/sites/PortalSebrae/Programas/programa-nacional-da-educacao-empreendedora-pnee,2c7cd24a8321c510VgnVCM1000004c00210aRCRD>

89 Available at: <https://cer.sebrae.com.br/>.

90 Available at: <https://www.sebrae.com.br/sites/PortalSebrae/sebraeaz/empretec-fortaleca-suas-habilidades-como-empreendedor,db3c36627a963410VgnVCM1000003b74010aRCRD>

91 Portaria Interministerial nº 5, de 28 de setembro de 2017. Available at: <http://sisiae.mec.gov.br/docs/portaria-interministerial-5-de-28-09-2017.pdf>.

92 Available at: <http://www.inovacao.usp.br/listo/>

4. FINAL RESULTS AND RECOMMENDATIONS

Leonardo Piccinetti and Eduardo Felipe P. Matias

4.1 General remarks

4.1.1 Business environment

The inclusion of all possible sectors that make up the entrepreneurial ecosystem is of great importance, however, as has been seen with the Spanish case especially, it is important to take into account the needs and characteristics of each ecosystem, and push in the sectors that can have a positive result in the short term so that they can drag the other sectors along:

startups and communities of entrepreneurs
digital companies
business organizations
universities
innovation centres
territorial administrations
consumer organizations and citizen organizations

- a. "Red tape": the majority of innovative entrepreneurs want less red tape, including lower starting costs and less need to make use of notaries and accountants;
- b. Creation of a startup legal figure that recognizes its singularities;
- c. Encourage companies to hire services from startups by encouraging them to adapt their purchase requirements to these types of companies and reduce time in the hiring process;
- d. A very interesting point would be to expedite the collection of invoices of startups that have a service relationship with the administration, reducing the time lapses in their cash flows. Or, failing that, by promoting advantageous financial figures adhoc to cover that cash flow from startups while waiting to collect administration bills;



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- e. It is decisive to promote digital entrepreneurship by improving training and education. We understand that it is vital to adapt educational plans since childhood, devoting more resources and time to this purpose;
- f. Reduction of tax burdens during the first years;
- g. Removing obstacles to innovation.

According to the last edition of the Pesquisa de Inovação (PINTEC) report (2017), which is carried out by the Instituto Brasileiro de Geografia e Estatística – IBGE⁹³ (Brazilian Institute of Geography and Statistics) every three years, the reasons why Brazilian companies did not develop innovative activities or did not achieve the expected results on innovation, are the following:

- i. Had already executed other previous innovations projects;
- ii. Issues related to market conditions, as lack of demand or of structure to offer the intended solution (competitive or installed capacity), discouraging innovation;
- iii. Other problems and obstacles involving macro and microeconomic factors.

The list of factors that may have hindered innovative activities, informed by the companies that claim to have encountered such problems, includes some factors of economic nature (costs, risks, appropriate sources of financing); problems internal to the company (rigidity, organizational weakness); technical deficiencies (lack of adequate external technical services, lack of qualified personnel); information problems (lack of information about technology and on markets); problems with the Sistema Nacional de Inovação (SNI) (few possibilities of cooperation with other companies and institutions) and regulatory problems (difficulty in adapting to standards, rules and regulations).

4.1.2 Investments

Streamline and promote access to simple bank loans especially designed for this type of business. This is very interesting, since not all entrepreneurs will begin with large financing rounds or find financial partners with whom to start their projects. On this topic it is important to note that:

- a. On many occasions, these are simply small loans that facilitate the start of projects to test their validity and on many occasions the entrepreneur does not take that step for fear of the strong obligations he has with the financial entities that treat his innovative project like any other normal business or company;
- b. To establish attractive incentives for investors in the startups sector, not only at the fiscal level but at the bureaucratic level as well, since many times the ease and speed of the procedures is more valued than having tax advantages

93 Pesquisa de Inovação 2017, IBGE, 2020. Available at: <https://www.ibge.gov.br/estatisticas/multidominio/9141-pesquisa-de-inovacao.html?=&t=o-que-e>



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that can benefit investors. The objective is to achieve an attractive balance between incentives, bureaucratic speed and legal certainty;

- c. To centralize and standardize the financing lines and organizations that manage them, reducing costs, being more efficient, and giving transparency to the sector.

4.1.3 Labour

- a. Facilitate the recruitment of specialized talent abroad by launching a program such as the tech visa, innovation visa, golden visa etc;
- b. Improve the figure of the stock options whose objective in a startup is to give an incentive to employees who bet on a project;
- c. Include in the labour legislation a specific section for this type of companies where a line of action is determined with respect to startups in their first years and, once settled, they can move to the general labour regulation. Giving the opportunity to this type of companies in the first years to have a much more flexible labour regime than in general conditions, encouraging less indefinite hiring and more specialization and adaptation of startups human resources to the needs that emerge in its early years and thus not burden these companies by work templates not optimized for the needs of each moment;
- d. Another of the fundamental aspects is the promotion of self-employment and especially the elimination of any type of tax burden that affects this type of entrepreneurs during their first years of activity, seeking solutions to maximize the tax contributions of the self-employed, offering them the same financial tools that other companies can obtain etc. This point is critical since many startups are made up of entrepreneurs who were exercising as a freelancer and that, after that experience, decided to make the leap to entrepreneurs. This figure is commonly forgotten in the promotion of entrepreneurship in countries like Spain, and special attention should be given since it is undoubtedly a fundamental pillar in the entrepreneurial activity of any ecosystem;
- e. Facilitate the immigration of qualified professionals in certain relevant areas (engineering, computer science, mathematicians etc.), to compensate the lack of human capital.

4.1.4 Procurement

- a. Facilitate the participation of startups in public bids and create special categories of procurement, simplifying requisites in order to make it feasible to hire such companies to provide innovative products, services and solutions for public entities;



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- b. Intellectual property is very important when it comes to giving new entrepreneurs confidence in their respective projects, defending them from both internal and external competition, helping them in their trademark and patent configuration processes;
- c. The educational aspect from an early age is very important, not only at university levels but especially at primary levels of basic education. This aspect is critical to achieve the goal of a startup nation. Introducing in the educational programs economic concepts, business administration, funding search, project planning etc;
- d. Communication, training, networking and internationalization: these aspects are fundamental in order to achieve a true settlement of the entrepreneurial ecosystem, since many times the national ecosystems themselves are insufficient to make startups sustainable and they need to go to external markets to promote their growth and not to be conditioned by the circumstances of the markets to which they belong. Internationalization is a key aspect not only from the point of view of economic growth, but also from the point of view of opportunity to acquire and share new knowledge, incorporate new talent from other markets etc.

4.2 Similarities and Differences Between Ecosystems

Spain and Brazil have many similarities in their corresponding ecosystems, both in terms of the actors involved and regulations (and lack of them). Historically, Brazilians and Spaniards have sought to undertake business mainly due to the economic situation of their countries' economies, alongside with a decrease of formal employment and betting on personal skills and innovating ideas for creating and developing own businesses.

Considering the difference in territorial dimensions between both countries, Brazil's ecosystem is spread among all its territory and, therefore, not concentrated in main state capitals such as São Paulo, Rio de Janeiro and Brasília, unlike Spain, which has two main innovation hubs, Madrid and Barcelona.

For both Spaniards and Brazilians, labour legislation is one of the main obstacles to business growth, due to the burdens imposed on employers.

Another common characteristic between both countries is the necessity of a regulatory framework for startups and the initiatives to create such legal framework, which in both countries are still under discussion and waiting for the approval by governmental authorities.

Regarding investments, unlike Spain, Brazil has developed a strong venture capital and private equity industry recently. Only in 2018, Brazil attracted US\$ 1.3 billion in investments in these modalities. Meanwhile, Spanish investors still prefer to follow traditional models of mergers and acquisitions to invest in startups.

Italy, that recently occupied the lowest position of all major European countries across almost all aspects of the entrepreneurial ecosystem, has been developing, since 2012, great initiatives to support and promote startups.

It was in that year, for example, that the “Italian Startup Act” was introduced, regulating the startup ecosystem, similarly to the Brazilian Legal Framework for Startups.

Some measures already adopted in these two European countries are extremely positive and can be reflected in Brazil, such as, for instance, the creation of (i) positive antidiscrimination measures to promote gender diversity; (ii) a special visa proceeding to facilitate hiring highly qualified foreigners; (iii) tax benefits for companies to hire startups; (iv) easy access to credit and refund or conversion to donation policies if certain goals are reached, which will be detailed below.

4.3 Lessons from Analyzed European Ecosystems for the Brazilian Ecosystem

As already mentioned, if Spain, as well as Brazil, is currently experiencing the process of creating specific legislation designed to encourage startups, Italy, in turn, has created, in 2012, a regulatory policy for fostering entrepreneurship by means of the “Italian Startup Act” (ISA), which provides entrepreneurs with various advantages. Some of the benefits granted through this act, with very positive results for the country’s innovation ecosystem, serve as example. The following are noteworthy:

- a. Free online constitution of innovation companies, without public deeds like regular companies;
- b. Exemption from specific fees and duties;
- c. More flexible management rules, with less legal restrictions on internal governance (for instance: non-proportional voting rights for shareholders, longer terms to cover financial losses);
- d. Special provisions in relation to labour rights for fixed-term contracts;
- e. Internationalization support from the Italian Trade Agency, with lower consulting fees and free participation in events;
- f. Special visa granting policies for startups only;
- g. Conversion to “startup” status for mature SMEs (for example, by incorporation time and size), being able to perceive most of the benefits listed herein.

Some of the measures listed above have already been implemented in Brazil, for instance, through Inova Simples, which offers more efficient processes for incorporating companies, as well as reducing the tax burden for R&D activities. However, measures such as flexible labour laws for startups and a special visa granting regime for foreign entrepreneurs are lessons that can be implemented into the Brazilian ecosystem.



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In addition, in Italy there is a policy to promote the entrepreneurial ecosystem with two well-defined lines of action, on one hand, support for startups in each of their phases and, on the other hand, more support for the so-called innovative SMEs, such definitions being included in the ISA, offering:

- a. Tax incentives for seed and early-stage investors: individuals can deduct from income tax 30% of equity investments in startups up to € 1 million;
- b. Limited companies can deduct from their tax base 30% of investments up to € 1.8M;
- c. Debt financing: facilitated access to public funds for SMEs (approximately € 1 billion of loans already granted in 5 years);
- d. Subsidized public financing products.

Incentive laws can be a powerful factor in driving innovation in a country. In a recent survey⁹⁴, 70.49% of the interviewed entrepreneurs reported that the creation of incentive laws bringing tax benefits to startups and companies with innovative solutions would be the initiative that would contribute most to innovative entrepreneurship in Brazil.

Therefore, the adoption of similar measures to those contained in the ISA would effectively be beneficial to the development of the Brazilian ecosystem and has the potential to generate great impact, being such measure something already highly expected by entrepreneurs, as it significantly reduces the costs and risks involved in business.

Another issue that stands out about the Italian ecosystem, specifically in relation to Smart & Start Italia – the main financing program dedicated to innovative Italian startups, with a total budget of around € 260 million –, is the offer of privileged financing conditions if the company has a foreign researcher or if its employees are mostly under the age of 35 or are mostly women – which can contribute to correct distortions related to gender equality in the ecosystem, also found in the Brazilian case.

The attempt to correct a social distortion that occurs – not only concerning startups, but in the entire market, it must be said – would be very welcome in the Brazilian ecosystem. In the same sense, if the startup is located in the south of Italy, the company may be granted with the conversion of 20% of the amount financed for the project into a donation, encouraging local entrepreneurship. This is a very positive measure and has great potential to foster entrepreneurship in less favoured regions in Brazil.

In fixed-term contracts, the common labour legislation is derogated, and rules that are more flexible are applied to innovation companies, such as, but not limited to: exclusion of the minimum wage provided for in collective agreements; employees and consultants can be remunerated through stock options, among

94 “Panorama Legal das Start-ups” Report, developed by NELM Advogados. Available at <http://www.nelmadvogados.com/pdf/relatorio.pdf>, page 32.

others. There are no similar policies in Brazil on this topic, and the adoption of this kind of legislation would make the ecosystem more dynamic.

A clear example in Italy of the aforementioned flexibility is the linking of wages to the efficiency or profitability of companies, to the productivity of employees or staff, or to other output and performance parameters, as agreed by employers and employees.

Another interesting governmental measure adopted by Italy in 2014, that could be mirrored in Brazil with great practical results, would be the special centralized mechanism for granting visas to foreigners related to an innovative company. Through this Italian special procedure, talents from all over the world can obtain a 1-year visa for entering Italy, renewable for a longer period. As reported, it is a quite fast process, with an issuance term of less than 30 days, and it is a free, completely online and bilingual procedure (documentation can be sent in Italian and English).

Another important Italian lesson refers to the characteristics that must be met for the definition of a company as a “startup”, which must meet at least one of the following three conditions: (i) expenses with R&D and innovation must represent at least 15% of annual costs or invoices; (ii) hiring highly qualified personnel (at least 1/3 of doctors and doctoral students, or researchers or at least 2/3 of masters professionals); or (iii) there is title to a patent or software.

A definition establishing objective characteristics currently does not exist in Brazil, and it is a valid discussion if this would be an interesting initiative, so that the country could specify more clearly which companies can effectively benefit from the incentives and benefits created to foster the ecosystem and restrict access by companies that do not meet the basic parameters.

It is also noteworthy in the Italian experience the fact that startups are offered a fiscal grace period in the event of systematic negative results, being offered a one-year grace period for losses exceeding 1/3 of the share capital. There is no legislative initiative in this sense in Brazil to date.

An interesting mechanism to be considered is the *ad hoc* support from the Italian Trade Agency, which offers access to the so-called “Startup Service Card”, with a 30% discount on legal and corporate assistance, tax, real estate, contract and credit support services, and the startup may still benefit from discounts for participating in international fairs and events, as well as in activities promoted with potential investors. It is a private initiative that could be encouraged by chambers of commerce and other entities linked to the sector or even by public innovation agencies.

The Spain case also provides some lessons for the Brazilian ecosystem. Although Brazil has numerous public initiatives to foster innovation, some characteristics of the Spanish programs can be incorporated for improving the Brazilian ecosystem. Below are listed some of the Spanish initiatives that could serve as example:

- a. Internationalization: Both Brazilian and Spanish startups are not in a good position when it comes to internationalization, even though, in Spain, internationalization was the way out for many businesses to remain active during the

recent economic crisis. Currently, the mentality of Spanish startups is changing in order to consider internationalization as the key to the success of their business model. In this sense, a good example is Spanish Law N° 14/2013, which seeks to guarantee support for the internationalization of investors and entrepreneurs, by encouraging the international mobility of professionals, in particular highly qualified investors and entrepreneurs, facilitating the entry of foreign investment and talent – as occurs with visas in Italy –, in order to improve the competitiveness and innovation between companies.

- b. Education: In Spain, Law N° 14/2013 provides support for the introduction of entrepreneurship in all stages of education, from primary to high school, to university. At universities, entrepreneurs are encouraged to start business projects. Brazil could do the same, creating laws that encourage entrepreneurship education more broadly and deepening the initiatives that are already being adopted by some universities and by entities such as Sebrae.
- c. Fees and taxes: In Madrid there are reduced taxes and fees for angel investments. In Spain, a startup can reduce the tax on their operations by 15% in the first year in which it has a positive tax calculation base. There is also a reduction in tax on intangible assets, such as patents and software. Law N° 14/2013 also introduced the special tax regime for highly qualified foreign workers who are hired by Spanish companies.

As a general lesson, with regard to the public governance of innovation matters in Brazil, it would be interesting if the efforts were more centralized, unifying the coordination of policies to be implemented in the country.

Another important conclusion is that Brazil should also better monitor results and regularly review policies adopted to measure the efficiency of systematic and sustained evaluation of past policies. This could have an outside impact on helping to strategically redirect public investments and policies to favour well-performing institutions and to discontinue unsuccessful initiatives.

4.4 Lessons from the European Union to Mercosur

- a. Network between Startups: Brazil could lead the creation of a cooperation program for startups among Mercosur countries, such as the “Enterprise Europe Network” program, in which fostering knowledge, innovation and assistance on the obstacles of business management and establishing business relationships between startups that enable internationalization are the main focuses;
- b. Mercosur could develop programs similar to the Smart Specialization Strategies from the EU, which seeks to foster entrepreneurship education among students through postgraduate programs and professional courses with multidisciplinary approaches, as well as assisting startups to turn ideas into successful businesses;



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- c. The European Institute of Technology (EIT) has programs that offer education for entrepreneurship and business creation services through Knowledge and Innovation Communities (KICs). Such educational programs can provide a powerful platform to address the entrepreneurial skills of different sectors, something that could be implemented in Brazilian and other Mercosur countries' technical schools. The objective of the EIT is to integrate the knowledge triangle of higher education, research and innovation, with important topics such as the fields of climate change, health, energy, raw materials and the digital economy and society. Each KIC has the purpose of developing and delivering a portfolio of activities in three areas: (i) research/innovation projects: KICs bind universities, research institutes and businesses through their innovation project portfolios, which include demos, pilots, proof of concept etc.; (ii) education: graduate programs and executive and professional development courses characterized by a multidisciplinary approach; and (iii) business creation and support activities: a range of business support services to help entrepreneurs translate their ideas into successful businesses. These items can be an excellent mirror for reproduction in Brazil and in Mercosur;
- d. Large part of the investments in startups in Mercosur are concentrated in Brazil, and most Brazilian startups are located in the Southeast, which is the most developed region in the country and is responsible for the largest share of Brazilian GDP. Other Mercosur countries and Brazilian regions also present good numbers, but these could be increased by adopting incentive policies that favour local entrepreneurship, such as the incentives granted for enterprises located in South Italy;
- e. Companies in Romania, Latvia, Austria and the Netherlands had the highest survival rates in the EU (five years). They turned their attention to "second chance" policies, changing the bankruptcy rule for SMEs, mitigating the consequences of the entrepreneur's failure in their business activity, something that could be incorporated into Mercosur's countries legislation, in which the "fail fast" culture, unfortunately, does not prevail;
- f. Impact businesses: support for this type of initiative is one of the focuses of European policies, through the creation of the EIC Horizon awards, which aim to boost innovation in all sectors, rewarding cutting-edge solutions that benefit citizens and society. The specific characteristics of each award are defined in the rules of each contest, establishing the conditions for participation, the award criteria and the evaluation process. 2020 examples cover subjects as "Innovative batteries for electric vehicles", "Solar energy: Artificial Photosynthesis", "Early Warning for Epidemics", "Blockchain for social purposes", "Low cost aerospace launch" and "Low cost high technology for humanitarian aid", with prizes ranging from 5 to 10 million euros. Awards and prizes are a great way to boost impactful businesses, and Brazil could adopt this mechanism more frequently and in a structured way, for this purpose;



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- g. It would be worthy to create in Mercosur a governmental council similar to the European Innovation Council (EIC Advisory Board), which is composed of a group of 22 members, all high-level innovators, whose objective is to support entrepreneurs who develop innovations with the potential to create new markets and boost jobs, growth and prosperity;
- h. Business Acceleration Services were created in the EU, offering a range of business support services, open to researchers and innovators, who benefit from training, investor connection, partnerships and networking, in addition to offering specific support to European Innovation Council (EIC) customers who are SMEs, mainly to help them access new markets or customers and establish networking with investors. However, there is no direct funding.

4.5 Opportunities to enhance cooperation between EU, Brazil and Mercosur

Europe is concerned in inserting its companies in global value chains, a problem that also affects Brazil and other Mercosur countries. In the internationalization field, the performance among EU startups shows limited progress, which could be fostered through international cooperation agreements between EU and Mercosur to facilitate startups' access to these regions' markets. EU and Mercosur states could work on synergies with the objective of facilitating the internationalization of their startup activities, by executing bilateral or plurilateral agreements that promote access to their respective markets. Some possible measures:

- a. Facilitated proceedings for opening branches of European, Brazilian and/or Mercosur startups, and fiscal and tax incentives, to encourage internationalization, provided they are in compliance with existing international agreements;
- b. Encourage the contracting of services and/or products from European, Brazilian and/or Mercosur startups among large companies in these countries, also respecting existing international agreements;
- c. Knowledge exchange: mentoring programs for startups that intend to operate in a European and/or a Mercosur country in order to encourage internationalization;
- d. Creation of a special visa category to be granted for specialized people working in innovation enterprises, in order to stimulate the circulation of technology professionals between the two regions.

From the point of view of the exchange and transfer of technology and knowledge, it is highly recommended to implement formulas and programs that encourage the attraction of foreign talent and also offer opportunities for young Mercosur students and entrepreneurs to go to European markets to make stays where they can learn new models and acquire international appearance and contacts.

This issue must be addressed, from a labour and fiscal perspective, by attracting foreign talent to Brazilian and other Mercosur markets, and, from an investment and financing perspective, by programs for the departure of local entrepreneurs to Europe. Programs such as EU-Brazil Startup, an Erasmus Mundus External Cooperation Window project financed by the European Commission, started in 2009 and ended in July 2013, was managed by a Partnership of Universities including 11 Brazilian Universities and 8 European Universities. EU-Brazil Startup offered to Brazilian students, researchers and staff the opportunity to study, do research or teach in Europe for periods of different duration. Europeans had the same opportunities in Brazil. All mobilities within the program were successfully completed. 170 individuals from a broad range of academic areas and levels (124 from Brazil and 46 from Europe) benefited from the opportunity to broaden their perspective by studying, teaching or doing research in another part of the world.

4.6 Identification of Synergies between EU and Brazil Policies and Programmes Targeted to Innovation

- a. As already mentioned, the Startout Brasil program – a non-profit program sponsored by public and private Brazilian organizations –, offers support for the insertion of Brazilian startups in different innovation ecosystems in the world and training of entrepreneurs in internationalization, in addition to connection with possible customers, investors and partners in international markets. In connection to this startups internationalization program, there is great synergy for setting an institutional relationship between the EU and Brazil, especially for creating a governmental partnership focused on the development of an innovative environment between nations and joint actions to improve both ecosystems;
- b. There are several instruments tested in the European market, as it occurs in Brazil, for fostering entrepreneurial activities, based on supporting business innovation throughout its cycle, with acceleration services and financing programs – including government programs and private initiatives carried out by innovation agents, technology transfer policies and technical cooperation with information exchange. These measures could be institutionalized in an integrated manner between government entities, with the participation of companies located in both countries, as internet-based products and services may easily establish themselves in different locations;
- c. The breaking of the regulatory and administrative barriers between different countries may be accomplished through the execution of bilateral agreements to encourage the internationalization of startup activities, by applying reciprocal legislation between the signatory countries, with regard to the most relevant legal issues: facilitation of access to visas, facilitation in the recognition of foreign diplomas, compatibility of taxes; facilitation of



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investments and remittance of profits; application of different tax regimes and incentives to internationalization;

- d. The exchange of information by state entities regarding their respective experiences in the innovation market would be very beneficial for all parties, as this exchange would enrich, at the governmental level, the debate on policies and incentives to be applied, replaced or withdrawn;
- e. Internationalization programs through chambers of commerce and through international exchange of young professionals could help sharing experiences and creating new networks of contacts and collaboration;
- f. From the identified policies point of view, in 2004 it was entered the Bilateral Agreement for scientific and Technological (S&T) cooperation between the European Community and Brazil, which came into force on 7/8/2007. The objective of the agreement is to encourage, develop and facilitate cooperative activities in areas of common interest by carrying out and supporting scientific and technological research and development activities. The Joint Steering Committee is responsible for the management of the agreement and meets regularly. This agreement is a good support to extrapolate new initiatives to sectors of interest for entrepreneurship in Brazil. Other areas include cooperation with the European Commission's Joint Research Centre, The EU Research Programmes;
- g. There are very interesting co-financed initiatives for the promotion of different sectors of entrepreneurship. Different funding schemes are being set up in different Brazilian states through the existing research foundations in each state to fund Brazilian participation in Horizon 2020 collaborative projects. The first scheme was established by the Research Foundation of the State of São Paulo (FAPESP) in 2015. Following this, the National Council of Research Foundations has led a coordinated effort among the other research foundations in Brazilian states to follow the example of FAPESP;
- h. Trade reforms could be very significant, opening markets to facilitate and reduce costs on foreign inputs for technological innovation between Brazil and EU. Protectionist barriers in Brazil make the environment less competitive and, therefore, national companies tend get into a comfort zone, do not innovate and have difficulties in exporting and competing with foreign companies. A first and immediate step would be to analyse tariff and nontariff barriers to imports of goods, services, tools and inputs that are used in scientific research and innovation, as part of a broader effort at trade liberalization and reform.
- i. Some initiatives shall be stimulated, as the ones below;
 - Arrangement between the European Commission and the Brazilian National Council of State Funding Agencies – CONFAP, allowing for Brazilian scientists to join research teams funded by the European Research Council (ERC). Due to this initiative, Brazilian researchers will be able to undertake short or long-term research visits, and collaborate with ERC-funded teams, working across Europe.



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- Arrangement between the European Commission's Joint Research Centre (JRC) and the Brazilian Ministry of Science, Technology and Innovation (MCTI), which intends to strengthen and further structure scientific and other cooperative activities in the areas of disaster prevention and crisis management; climate change and sustainable management of natural resources and ecosystem services; energy, including bioenergy and smart grids; food security; bio-economy; information and communication technologies (ICT), as well as nanotechnologies;
 - DG Education and Culture and CAPES (Coordination for Improvement of High Level Education) signed a Memorandum of Understanding in July 2007, focusing on academic exchanges, the creation of an Institute of European Studies, and policy dialogue. A Joint Declaration on Education and Training was signed on May 2009;
 - CEBRABIC (2017-2020), funded under Horizon 2020, is the Centre for Europe-Brazil Business & Innovation Cooperation, working to enhance cooperation in research, technology and entrepreneurship between Europe and Brazil. The Centre provides support services and technology-related services, thanks to an extensive network of regional innovation hubs and external service providers. Focusing on knowledge-intensive sectors, CEBRABIC aims to stimulate collaborative research-to-market projects, to create research and business opportunities for European organisations in the Brazilian market and to prompt the demand for European technology services in Brazil;
 - Increasing International Science, Technology and Innovation Cooperation between Brazil and the European Union – INCOBRA is an EU funded organization aimed at encouraging bilateral cooperation between R&I actors in Brazil (BR) and the European Union (EU), fostering collaboration and implementing activities agreed within the BR-EU Policy Dialogue on Science, Technology and Innovation. Over 36 months, various activities will take place to identify main trends, help with coordination of funding opportunities, matchmaking of companies and institutions, to network and make alliances, and to support alignment of EU-BR agendas.
- j. In general, collaboration with national, regional and local systems is essential for specialization strategies and advisory services. That is, to promote not only collaboration in programs at the national level, but also at the regional and local level, between European countries and Brazil;
- k. Coordination between EU and national and regional funding support should be improved in the future financial programmes (such as Horizon Europe), and financial investments, especially for crowdfunding, should be improved in the EU and Brazil. Promote the inclusion of Brazil as to be taken into account in future European programs that continue the objectives of the so-called H2020, thus facilitating collaboration and the exchange of initiatives between both regions.

5. INITIATIVES AGAINST COVID-19 PANDEMIC IN EU AND BRAZIL

The situation generated by the covid-19 has put great pressure on the health systems of the affected countries, but it has also created a new scenario in the economic sphere, where most of the activity has been affected, suspended or paralyzed, due to the policies of confinement and isolation of the population. Companies have been forced to redirect their activity to remote working models and to redesign their ways of acting. Because of this, the productive fabric of many markets has been in need of liquidity injection and implementation of fiscal relaxation policies, to help keep companies and jobs alive and allow a subsequent recovery.

In the cases analysed in this report, the differences between Spain and Italy and with respect to the rest of Europe are again observed. In Italy a specific fund has been created with an endowment for the injection of liquidity to startups, while in Spain there is no initiative in this regard at the government level, only small initiatives at the autonomous regions, also called “comunidades autonomas” and above all initiatives by the private sector and reference companies in Spain such as Mercadona and Zara.

Not all European countries are applying the same measures in this regard. Annex 2 details the policies and initiatives being carried out by countries in the euro area.

The covid-19 pandemic spawned a series of government initiatives for sustaining the economy in this new global scenario that affects virtually all countries on the globe. The outbreak affects different businesses in a wide range of legal areas, especially with regard to labour and restructuring and bankruptcy issues.

In this scenario, the Brazilian Federal Government has promoted legislative initiatives seeking to keep companies in business, as the confinement of the population directly affected all sectors of the economy, to assist them to face the countless challenges brought by the coronavirus.

The measures directly destined to offer incentives to support companies overcoming this uncertain moment are:

Provisional Measure N° 927/20

The Provisional Measure N° 927/20 provides for alternative measures that may be adopted by employers to preserve employment and income during the state of public calamity resulting from covid-19.

The main topics set forth by this act are: (i) teleworking; (ii) anticipation of individual vacations; (iii) collective vacations; (iv) rules for anticipating and offsetting holidays; (v) hour-bank flexibility; (vi) safety and health at work; (vii) suspension of the employment contract and directing the worker to qualification; and (viii) deferment of Fundo de Garantia por Tempo de Serviço – FGTS (Government Severance Indemnity Fund) payments.

Provisional Measure N° 936/20

The Provisional Measure N° 936/20 establishes the Emergency Employment and Income Maintenance Program and provides for complementary labour measures to deal with the state of public calamity recognized by Legislative Decree N° 6/20, 2020, and the international public health emergency resulting from the coronavirus recognized by Law N° 13,979/20.

It provides for (i) the Emergency Benefit of Preservation of Employment and Income to be paid to eligible employees; (ii) the proportional reduction of working hours and wages; (iii) the temporary suspension of the employment contract (furlough); and (iv) rules for intermittent employment agreement.

Bills of Law N° 1,397/20 and N° 1,179/20

The restrictions and economic downturn resulting from the pandemic may significantly affect the companies on financial crises. A series of measures have been discussed and implemented to deal with the impact caused in the restructurings by the pandemic.

Therefore, in parallel with Bill of Law N° 1,397/20, that is being currently discussed in the Brazilian Congress, Bill of Law N° 1,179/20, already approved in the Senate (pending on presidential sanction), provides for some measures that can affect restructurings, such as restrictions to meetings and halting evictions of tenants from urban premises.

6. CONCLUSION

As analysed in previous chapters, the efficiency and concern of the government in seeking to offer a better environment for the development of new business aimed at innovative technologies is a reality, both in Europe and in Brazil.

This fact is confirmed by initiatives of the most diverse nature that have already been implemented or are in the process of being implemented in the different countries analysed in the preceding chapters.

For this reason, there is great space for converging policies and several lessons that can be learned and incorporated by government authorities and private sector by the countries involved.

There are countries that should be seen as reference with regard to initiatives directly related to entrepreneurship in the EU, due to the important actions taken to improve the local ecosystem.

One of the most interesting points of this report is the analysis of two cases of European countries with a similar culture but with a very different approach and development, where Italy really has a specific law for the regulation of the startup ecosystem, where you can see its impact and monitoring, and, on the other hand, Spain, where currently there is no specific regulation and where an attempt is being made to develop a law for startups, through a public consultation and the integration of the different agents of the ecosystem. Through these analyses, it can be seen that Italy has developed its ecosystem through initial regulation or in an early ecosystem development phase. On the other hand, Spain has developed its current entrepreneurship ecosystem, lacking that regulation and basically relying on the initiative of the private sector, currently having to regulate based on an ecosystem already in development. Therefore, there are two different cases and points of view on the regulation of an entrepreneurial ecosystem that can undoubtedly be of great help for the preparation of new models of regulation in other ecosystems.

The parts dealing with cooperation opportunities and the identification of synergies between the EU and Brazil in innovation policies are central points of the report, since they bring up topics that can be the object of effective positive changes in innovation ecosystems.

As seen, there are many government measures already implemented by the countries of the European Union and by Brazil to promote R&D activities. However, there are also great opportunities to learn lessons between the countries involved, as well as to develop joint actions between the EU, Brazil and other Mercosur countries.

7. INTERNATIONAL COOPERATION

Innovation is a key area and the main engine for development. The incentive for the creation and development of startups is one of the public policy mechanisms of ST&I to encourage technological innovation. Startups fulfill the function of continuously revitalizing the market and consequently boost innovation.

International cooperation enhances research results and provides an improvement in methods and techniques that can generate innovative ideas, translated into new products, processes, and services. In this context, the Sectorial Dialogues offer opportunities for strengthening the Brazil-European Union relationship over recent years in several areas, including innovation.

Brazil is constructing its public policy for startups, and getting to know the European experience was an important step. In the sphere of the Sectorial Dialogues, in 2019, an MCTI delegation visited some countries in Europe to exchange ideas, and prospect new collaborations in the area of Entrepreneurship focused on startups. MCTI delegates could learn more about the legal frameworks for startups in some European countries, which helped us elaborate on a modern regulatory environment, considering the best practices.

This book is a result of extensive work that joined three Brazilian Ministries, the European Delegation in Brasília, and the European Commission. It expresses the relationship that the teams from both sides built. The benefits for the Brazilian side, though, are invaluable and intangible.

International cooperation increases, values, and intensifies the production of knowledge, as well as the generation of wealth that drives a better quality of life for society. Brazil and the European Union are historical partners, and the Sectorial Dialogues were a crucial tool to intensify this relationship.

8. ANNEXES

ANNEX 1

Spanish institutions assist to start-up ecosystem

INSTITUTIONS	RESOURCES
<p>Dirección General de Industria y de la Pequeña y Mediana Empresa www.ipyme.org</p>	<p>They have an 'Entrepreneur Channel', where they offer information on the decision to create a company, self-diagnosis of entrepreneurial attitudes, a project simulator, business plan, choice of legal form, constitution process and procedures, creation of companies online (CIRCE), aid and incentives for the creation of companies, dynamic guide of aid and incentives for the creation of companies... Also, a 'Pyme Channel', with information on financing, financial instruments, employment contracts, policies and measures related to the European SMEs, information and programs...</p>
<p>Creatuempresa www.creatuempresa.org</p>	<p>Another portal of the General Directorate of Industry and Small and Medium Enterprises that provides entrepreneurs with tools to start-up businesses.</p>
<p>Agencias de desarrollo locales y regionales www.foroadr.es</p>	<p>The majority of town halls, councils, autonomous communities... have entrepreneur assistance services with different resources and grants.</p>
<p>Universidades y escuelas de negocios www.redemprendia.org</p>	<p>Virtually all Spanish universities, as well as business schools, have specific business creation programs. These institutions are associated and related to nurseries, seedlings, incubators, accelerators, investment clubs, etc.</p>
<p>Asociaciones de jóvenes empresarios www.ajeimpulsa.es</p>	<p>The associations of young entrepreneurs that operate throughout the Spanish geography also offer resources.</p>
<p>Cámaras de Comercio www.camaras.org</p>	<p>Like the AJE's, the Chambers of Commerce, through the Incyde Foundation (www.incyde.org), also offers numerous resources.</p>
<p>Portal de Emprendedores de la Agencia Tributaria www.agenciatributaria.es/AEAT.internet/Emprendedores.shtml</p>	<p>With tax information for individual and professional entrepreneurs (natural persons) and for companies (legal persons).</p>

INSTITUTIONS	RESOURCES
<p>Sepe www.sepe.es/contenidos/autonomos/index.html</p>	<p>Information for freelancers (for example, how to capitalize on unemployment) of the State Public Employment Service.</p>
<p>Emprende.coop www.emprende.coop</p>	<p>The Spanish Confederation of Associated Labour Cooperatives (COCETA) offers tools to undertake under the formula of labour cooperativism.</p>
<p>Centros Europeos de Empresas Innovadoras www.ances.com</p>	<p>CEEI's have business incubators, among many other specific services for entrepreneurs.</p>
<p>Parques Científicos Tecnológicos www.apte.org</p>	<p>Associated to universities and R&D centers, for innovative projects.</p>
<p>Sociedades de Garantía Recíproca www.cesgar.es</p>	<p>They support companies when they are going to ask for money with guarantees and guarantees.</p>
<p>ICEX www.icex.es</p>	<p>Among other services and programs and support services, it has a downloadable guide to internationalization services. From here you can access the services of the Spanish Export Credit Insurance Company (CESCE) (www.cesce.es), for risk management in international operations, and to those offered by the Spanish Development Financing Company (COFIDES) (www.cofides.es), which finances projects abroad.</p>
<p>ENISA www.enisa.es</p>	<p>This agency finances projects through participatory loans, which, among other features, allow a variable interest to be determined based on the economic and financial evolution of the company. The criterion to determine the repayment of the loan may be the net profit, the volume of business, the total equity or any other freely agreed by the parties.</p> <p>It has a 'Young Entrepreneurs Line' (www.enisa.es/es/financiacion/info/lineas-enisa/jovenes-emprendedores), which among other requirements requires that the minimum contributions of partners via capital / own funds must be, at less, 50% of the loan granted. Participatory loans are between 25,000 and 75,000 euros. And also, with the 'Enisa Entrepreneurs Line' (www.enisa.es/es/financiacion/info/lineas-enisa/emprendedores), which offers financial support for the first stages of SME life by entrepreneurs, with no age limit, so that they undertake the necessary investments and carry out their project, with amounts in 25,000 and 300,000 euros.</p>

INSTITUTIONS	RESOURCES
<p style="text-align: center;">ICO www.ico.es</p>	<p>It is important to remember that the Official Credit Institute finances business projects, but through banks. That is, the financial institutions are responsible for deciding whether or not to grant the loans. It has several financing lines: 'ICO Companies and Entrepreneurs' (www.ico.es/web/ico/empresas-y-emprendedores), offers to finance aimed at freelancers, companies and public and private entities, both Spanish and foreign, that Make productive investments in national territory, with maximum amounts per client of up to 10 million euros, in one or several operations. You can finance working capital needs such as current expenses, payroll, payments to suppliers, purchase of merchandise, etc., and also investments within the national territory is new or second-hand productive fixed assets (VAT included), passenger cars (whose amount do not exceed 30,000 euros plus VAT), acquisition of companies, liquidity with the limit of 50% of the financing obtained for this type of investment and rehabilitation of homes and buildings.</p>
<p style="text-align: center;">CDTI www.cdti.es</p>	<p>The Centre for Industrial Technological Development channels requests for financing and support to R & D & I projects. Among the financing instruments of innovative and technology-based companies, it has NEOTEC grants, which is under the review of the conditions, and the INNVIERTE program, venture capital to boost investment in technological and innovative SMEs with the high potential return. It has NEOTEC Venture Capital, a program to create a robust sector of technological risk capital specialized in early stages, and revitalization actions, to connect high-potential companies interested in financing through venture capital with private investors to help them Boost your projects. On an annual basis, it organizes the NEOTEC INNVIERTE forum, which it organizes together with ANCES every year in a Spanish city.</p>

INSTITUTIONS	RESOURCES
<p>El MAB (Mercado Alternativo Bursátil) www.bolsasymercados.es/mab MARF (Mercado Alternativo de Renta Fija) www.bmerf.es</p>	<p>through the purchase and sale of shares, and the issuance of promissory notes and debt bonds. The reforms introduced in the last years in the Law of Capital Companies, the Law of the Stock Market and the approval of the Law of Business Financing, give enormous facilities so that the promoters can finance or refinance their projects from Spanish companies. Everything is ready to multiply project bond issues in Spain. The structuring of these operations is simplified by making it unnecessary to incorporate an issuer in another jurisdiction. Significant cost savings are generated - relevant factor in medium-size emissions - and time. Also, to the extent that the issue finances or refinances one or more projects located in Spain and whose guarantees must be granted under Spanish law to ensure its effectiveness, the existence of a single applicable jurisdiction is safer and more straightforward. All this will facilitate the commercialization of these bonds among investors, who will have a single jurisdiction applicable to all documentation, facilitating the understanding of the risks associated with the project. In this way, an issue from a Spanish vehicle has advantages, both for promoters and issuers, as well as for structuring and placement banks and investors.</p> <p>Incorporating the issue into MARF provides, among others, the following advantages: flexibility and proximity of the Governing Body, which accepts documents in English, in international format, and even bonds whose applicable legislation is English or other that our investors may prefer; Being a market aimed at qualified investors, its circulars give great flexibility and autonomy in terms of the information to be provided to them, based on their requirements (base cases, certificates of compliance, etc.). Unlike other European platforms, the information and documentation requirements on the issuer are adapted to the nature of a Spanish issuer (saving on translation and legal opinions that may be required by other platforms). In our experience, the choice of MARF as a market is, from the legal and calendar management point of view, not only fully comparable to other European markets but even more efficient.</p>

ANNEX 2

Startup Rescue Packages in EU

Top of the class				
Strong measures				
Mild measures				
No data available				
Country	Loans	Tax	Vis-à-vis employees	Vis-à-vis self-employed professional & gig workers
Austria AT	Loans do not work for many startups because the criteria disqualify quite a few: - Bridge loans - Loan guarantees for SMEs: Worth EUR 10 million up to 80% of the loan amount or EUR 2,5 million for 5 years. - Crisis management fund: EUR 4 billion in funding. On 18 March, a further EUR 38 billion support fund was announced (EUR 9 billion in guarantees and warranties, 15 billion in emergency aid; 10 billion in tax deferral)	Reduction of pfront tax payments, the suspension of interest on back taxes owed, delayed payment of taxes or payment in instalments and reduction of overdue fees, Suspension of Tax Audits	- Short-time work: Companies can now register employees for short-time work with up to 90% loss of working hours within 48 hours - Parental leave: Granting of 3 weeks of exceptional leave and coverage of one third of the related costs for any employee faced with the care of a child under 14 years of age;	Two billion fund to cover living costs of self employed & gig workers and mini-companies

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<p>Belgium BE</p>	<ul style="list-style-type: none"> - The Flemish, Wallon & Brussels governments offers guarantees for loans to companies. 	<ul style="list-style-type: none"> - Extension of the deadline for income taxes and VAT. - Support regarding tax debts: a payment plan; an exemption from late payment interest; a waiver of fines for non-payment. 	<ul style="list-style-type: none"> - Temporary unemployment as a result of "force majeure". This possibility can be widely applied as from 13 March 2020 Employees will benefit from a temporary increase of their allowance in the event of temporary unemployment. - Extension for the deadline to pay social security contributions 	<ul style="list-style-type: none"> - The self-employed can benefit from support regarding their social security contributions in the form of a reduction, delay or exemption of payment. Possibility to apply for a replacement income.
<p>Bulgaria BG</p>	<p>250 million capital increase of the Bulgarian Bank for Development which will guarantee up to €1.25 billion in bank loans to companies.</p>	<ul style="list-style-type: none"> - Extension of the deadline for the payment of local taxes - Terms under pending court and administrative procedures will be suspended for the duration of the emergency state. - Suspension of Tax Audits 	<p>60% coverage of employees salary for the first month</p>	
<p>Croatia HR</p>	<ul style="list-style-type: none"> - The approval of loans for cash flow in order to pay wages, suppliers and to reschedule other liabilities. - Increasing of the allocation for the "ESIF micro loans" for working capital for micro and small enterprises - A new financial instrument "COVID-19 loans" for working capital for SMEs. 	<p>Defer public contributions for taxpayers who are in difficulty, such as income and profit tax and contributions for pension and health insurance</p>		

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<p>Cyprus CY</p>	<ul style="list-style-type: none"> - All performing business and public loans (capital and interest) will be frozen for nine months - A state guarantee of €2billion for businesses and self-employed: Any losses from these loans will be covered to 70% by the government and to 30% by the banks 	<ul style="list-style-type: none"> - Reduction of electricity prices by 10% for two months 	<p>Small Business Support Scheme provides for a subsidy of 70% of employee salaries.</p>	
<p>Czech Republic CZ</p>	<ul style="list-style-type: none"> - Interest-free financing for self-employed and SMEs: loans in amount 500k up to 15M CZK, maturity up to 2years, and postponement of instalments up to 12 months. 	<ul style="list-style-type: none"> - Liberation tax package – Businesses and the self-employed will not need to make the June income-tax prepayment; losses this year will be deductible from previous years' profits; late filings of property-transfer tax will be allowed without penalty 	<ul style="list-style-type: none"> - The state will pay 30-80% of wage, depending on the case. - Caregiver allowances will be paid by the state to one parent who must take care of children under 13 years 	<ul style="list-style-type: none"> - The state will pay 30-80% of wage, depending on the case.
<p>Denmark DK</p>	<ul style="list-style-type: none"> - Reduced loan restrictions - Loan guarantees by Ministry of Finance: The government provides a loan guarantee on 70 % of new corporate loans that are issued to cover losses directly relating to COVID-19. 	<p>Extension of payment deadline for VAT and labour market contributions</p>	<ul style="list-style-type: none"> - Compensation of salary up to 75 % (not more than DKK 23,000 per month per employee) - Emergency measures in relation to paid holidays - Extended right to a refund for employees' sick leave from day one (instead of after 30 days), if the given employee is on sick leave due to Covid-19. 	<p>Compensation for self-employed person's and freelancers' reduced turnover</p>

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<p>Estonia EE</p>	<p>- Loan collateral amounting to EUR 1 Billion for bank loans already issued in order to allow for repayment schedule adjustments (maximum EUR 600 Million for the surety collection) through the KredEx Foundation.</p>	<p>- Tax deferral for 18 months - Tax incentives - Suspension of payments into the pension system</p>	<p>Compensation of salary up to 70% of the average wages of the employee, but in the gross amount of no more than EUR 1,000 per one calendar month.</p>	
<p>Finland FI</p>	<p>- Loan collateral amounting to EUR 1 Billion for bank loans already issued in order to allow for repayment schedule adjustment - Guarantees for bank financing up to 80%</p>	<p>Tax and pension contribution payments postponed.</p>	<p>Entrepreneurs, including sole traders and free lancers, will be eligible for unemployment benefits.</p>	
<p>France FR</p>	<p>- Pret A Tout (Asset loan): specific loan for company that needs money from 50K to 5M€ for SMEs and up to 30M€ for ETI ; - Special state-guaranteed loans for startups (2 billion), it can be up to 25% of startups' annual turnover. It is aimed at all economic activities and has a guarantee of up to 90%. Direct Subsidies - Solidarity Fund €2bn for small businesses (turnover < €1m) and for self-employed professionals having lost 50% of their turnover between March 2019 and March 2020: €1500 in rapid assistance. - €80M in bridge funding for startups in between rounds</p>	<p>Speed up the reimbursement of tax credits due to startups: CIR / CII</p>	<p>- Partial unemployment indemnity paid by the company corresponding to 70% of the gross salary. If the company provides training, the compensation is 100% of the net remuneration. - Emergency measures in relation to paid holidays, hours of work and rest days - €2000 Additional flat-rate aid</p>	<p>- Self-employed professionals whose taxable profit for the last financial year is less than €40k can receive up to €1500 in rapid assistance (per month). - Additional aid paid by the region: they will be eligible for an additional flat-rate aid of €2000 if they employ at least one employee, are unable to pay their debts within 30 days and have been refused a cash loan by their bank.</p>

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<p>Germany DE</p>	<ul style="list-style-type: none"> - KfW Entrepreneur Loan Assumption of risk (liability waivers) of up to 90% for the on-lending financing partners (usually the regular banks) for working capital loans with a volume of lending of up to EUR 200 million. - Economic security fund with 600bn volume (100bn equity, 400bn loans, 100bn hybrid-tools) for all companies and startups with an post mones valuation above 50m in a financing round since January 2017 Direct subsidies <ul style="list-style-type: none"> - SMEs get small subsidies up to EUR 15k for operating expenses - Equity/VC tools": 2bn matching fund, matching VC-investments with a 70:30 key (70 state, 30 private) as equity or convertible loans - 600bn security fund (contains an equity component) 	<p>Refund and deferment of taxes and Social Security payments</p>	<ul style="list-style-type: none"> - Facilitate access to short-time working compensation: State pays for 60% (no kids) or 67% (with kids) of the percentage of work the employee is not working. - Relieve companies from social security contributions 	<p>Enable temporary workers to access short-time working compensation</p>
<p>Greece GR</p>		<p>Deferral of value-added tax (VAT) payments and social security payments</p>	<ul style="list-style-type: none"> - Employees and the self-employed receiving the 800-euro handout will be given a three-month suspension of debt payments. - Companies are allowed to transfer staff from parts of the business that had to shut down to other parts, as well as put employees on part-time work. 	



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Hungary HU	<ul style="list-style-type: none">- Loan repayments are suspended until the end of 2020 for all private individuals and businesses who took loans out before 18 March.- Short-term business loans are prolonged until 30 July.- The annual percentage rate (APR) of new consumer loans has been maximized at the central bank prime rate plus 5 per cent.	Exemptions from paying the employers' social security contribution, tax lump payments, state tax/ contribution on tourism development and social security contributions (depending on conditions and sectors).		
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<p>Ireland IE</p>	<ul style="list-style-type: none"> - The Credit Guarantee Scheme loans of up to €1 million (up to 7 years). The scheme provides an 80% guarantee to participating banks which are AIB, Bank of Ireland and Ulster Bank. - Loans for microenterprises from MicroFinance Ireland. - Strategic Banking Corporation of Ireland is giving out loans of up to €1.5m through its €200m working capital scheme. - Rescue and restructuring scheme packages through Enterprise Ireland for vulnerable but viable firms that need to transform their business. - Enterprise Ireland is working closely with startups on a case by case basis to support them to access bridging financing through existing mechanisms e.g. Competitive Start Fund or Innovative High Potential Startup Fund (where they will match private capital with government investment) 	<ul style="list-style-type: none"> - Deferral of Business Rates - Taxation Measures to alleviate short-term difficulties - Expedited payment of any 2020 instalments of excess R&D tax credits 	<ul style="list-style-type: none"> - Temporary wage subsidy of 70% of take home pay up to a maximum weekly tax-free amount of €410 per week to help affected companies keep paying their employees. This is the equivalent of €500 per week before tax; this scheme can apply to “pre-revenue” startups. - Enhanced emergency Covid-19 Pandemic Unemployment Payment of €350 per week (an increase from €203); - Short Time Work Support for employees who are put on a shorter working week or have had their hours cut due to the COVID-19 pandemic, - COVID-19 illness benefit of €350 per week 	<p>The COVID-19 Pandemic Unemployment Payment of €350 per week is available to the self-employed who have lost their job due to the COVID-19 (Coronavirus) pandemic.</p>
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<p>Italy IT</p>	<p>State guarantees of up to €5m for small and medium-sized businesses. The State, through the Central Guarantee Fund for SMEs, provides a guarantee, free of charge, for a single enterprise, up to 5 million euros, aimed at financing operations.</p>	<ul style="list-style-type: none"> - Companies can ask to suspend tax payments. - Payroll tax – withholding taxes suspended for March 2020 and April 2020. - VAT payments for March 2020 to be suspended. - Corporate tax – tax controls, field audits, coercive collection, litigation and tax compliance obligations suspended until June 2020. 	<ul style="list-style-type: none"> - Employees will be entitled to a monthly amount of 80% of their salary (subject to caps: EUR 939.89 where salary is EUR 2,159.48 or below, and EUR 1,199.72 where salary is in excess of EUR 2,159.49); - Specific leave for parents with children under the age of 12. 	<ul style="list-style-type: none"> - Suspension or extension of mortgage payments and other long-term loans for self-employed workers - A fund for last resort income support (appropriation of 300m€ for 2020) is established for employees and self-employed workers who ceased, reduced or suspended their employment relationship or business due to the pandemic. - Allowance for March of EUR 600 to autonomous workers, seasonal workers (tourism, agriculture).
<p>Latvia LV</p>	<ul style="list-style-type: none"> - Loan guarantees and loans for crisis. - Solutions to businesses Interest rates on loans for businesses will be cut by 50% for small and medium enterprises. 	<ul style="list-style-type: none"> - A postponement of tax overdue - Simplification and speeding-up of tax refunds for entrepreneurs and foregoing personal income tax advances in 2020. 	<p>Coverage of 75% of the costs of outbreak-induced sick leaves or workers' downtime, or up to EUR 700 per month.</p>	
<p>Lithuania LT</p>	<p>Government increases loan guarantees to businesses by EUR 500 million. It also softens the conditions attached to these guarantees.</p>	<ul style="list-style-type: none"> - Deferred tax payments. 	<p>Government foresees subsidies totalling EUR 500 million to ensure laid-off workers or workers with reduced working time (+salaries) still receive the minimum wage.</p>	<p>Also includes un the EUR 500 million for workers fixed payments to the self-employed who have previously contributed to the social security system.</p>

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<p>Luxembourg LU</p>	<ul style="list-style-type: none"> - A major liquidity initiative of 2.5€bn in guarantees. State backed guarantee scheme for new bank loans for up to 6 years. New credit facilities will be guaranteed at 85% by the State and 15% by the Participating Banks. Each loan will be capped to an amount of 25% of the turnover of the concerned company in 2019. - SNCI supports businesses in difficulties with a loan package of 600 million euros. - Repayable government loans: the government will grant financial aid up to EUR 500,000 in the form of a repayable advance to cover documented loss of income. - Non- refundable and tax-exempt direct aid of an amount of EUR 5,000 will be available for very small enterprises. This amount does not have to be paid back and is not subject to tax. The aid will take the form of a capital subsidy. 	<ul style="list-style-type: none"> - Extension of the deadline to file both corporate and individual (personal) income tax - Extension of the deadlines for submission of VAT returns and payment extensions. VAT credits below EUR10,000 should be reimbursed in priority. 	<p>The State pay 80% of salaries as compensation in partial unemployment schemes and also providing for a fast-track procedure allowing the payment of advances.</p>	<p>Up to 5000€ are available as direct support for self-employed and micro-enterprises (up to 9 employees).</p>
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<p>Malta MT</p>	<ul style="list-style-type: none"> - State guarantees on bank loans; Enable loans to businesses at subsidized interest rates; €750 million to be made available to businesses in the form of soft loans. 3-month moratorium can be requested from banks in relation to both personal and business loans. 	<p>Deferral of payments of Income tax, Value Added Tax, Maternity Fund and National Insurance Contributions of up to €700 million. Tax deferrals have now been extended to all employers and self-employed irrespective of industry.</p>	<ul style="list-style-type: none"> - Government will cover one day's salary per week, including self-employed, which suffered at least 25% reduction in operations. Self-employed persons who suffer such a reduction and who employ people will get coverage for an additional day. - Temporary benefit of €800 per month for those who lost their job. 	
<p>Netherlands NL</p>	<ul style="list-style-type: none"> - The Business loan guarantee scheme Capital providers receive a 50% guarantee from the government (max 8 years). Implementation of temporary bigger loan under the GO-scheme. Per business you can now take out a loan of €150 million maximum. - The SME credit guarantee scheme has been extended - Businesses can use the BMKB scheme for a bridge loan, or to increase the overdraft limit on their current account. The guarantee runs to 75% of the credit given by the financing party. 	<ul style="list-style-type: none"> - Deferral for paying taxes i. - Temporarily reduce the "collection interest" for all tax debts. - Tax rate reduction. 	<p>NOW Scheme - Temporary measure for compensation of wage costs for companies. Companies expecting a drop in value added (minimum 20%) can ask for a compensation of 90% of costs, 80% can be given as an advance.</p>	<ul style="list-style-type: none"> - Self-employed professionals (zpp-ers) who run a viable business can claim an extra, temporary financial support: income support, maximum of €1,500 (net). - Accelerated procedure for self-employed professionals.

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<p>Poland PL</p>		<p>Supporting business during hard times</p> <ul style="list-style-type: none"> - Retroactive settlement of tax loss - Postponed deadlines (VAT and SAF) - Social security contributions: entrepreneurs in "a difficult situation" may submit a simplified application for three-month deferment of the payment of social security - Postponed deadline for filing individual income tax returns; - Facilitations related to split-payment mechanism; - Accelerated VAT refunds; - Possible recognition of expenses as tax deductible costs, due to cancellations of tours by entities operating in the tourism sector; - Relief from prolongation fee <p>Supporting business during hard times.</p>	<ul style="list-style-type: none"> - Employers who find themselves in a difficult situation related to the spread of coronavirus will receive support from the Guaranteed Employee Benefits Fund. The financing will apply to companies whose turnover will drop by at least 15%. - Possibility to reduce the working time of employees by 20%, but not more than 50% of full-time employment. This means that each employee can have his working time reduced by up to 20% of his/her working hours. If this causes a reduction in excess of 50% of full-time employment for the already engaged part-time employees, then the employer has to ensure 50% of full-time employment. 	<ul style="list-style-type: none"> - 3-month exemption from social security contributions for self-employed and micro-entrepreneurs whose revenues in March dropped by more 50%.
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<p>Portugal PT</p>	<ul style="list-style-type: none"> - EUR 400 million in loans to support SMEs. - Launch of a credit line to support treasury, in the initial amount of EUR 80 million. Including measures to support liquidity and temporary layoff. - Businesses will be able to withhold interest and capital payments on bank loans for 6 months. - State grants mutual guarantee of 90% 	<p>Postponed of tax obligations VAT, SS & IT:</p> <ul style="list-style-type: none"> - First instalment of the special payment on account - Filing the corporate income tax return ("Modelo 22") for the 2019 tax period - First instalment of the payment on account and the first instalment of the additional payment on account by companies 	<ul style="list-style-type: none"> - Specific health guidance - Special budget to allow people who are out of a job to get training. - Layoff scheme 2/3 of the wages are supported by the government for companies affected for max of 3 month. 	<ul style="list-style-type: none"> - Deferred payments on all contributions and tax by self-employed people - Paid sick leave - Paid support for reduced economic activity - Deferred Bank loans payment
<p>Romania RO</p>	<p>Raising the ceiling for credit guarantees for SMEs affected by the coronavirus crisis by LEI 5 billion, which depending on the financing needs of SMEs, can be increased even further to LEI 15 billion. Interest is 100% subsidised. The guarantee will cover 90% of loan amounts of up to LEI 1 million lei and 50% for credits of over LEI 1 million.</p>	<p>All tax obligations which have their due date after 21 March 2020 and which are unpaid do not qualify as overdue, and therefore they are not subject to late payment interest and penalties. All tax related foreclosure procedures involving garnishments are suspended by law.</p>	<p>Covering 75% of the salary of employees sent into technical unemployment by companies affected by the coronavirus crisis</p>	

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<p>Slovakia SK</p>	<ul style="list-style-type: none"> - Granting of short-term interest-free loans for companies (mainly SMEs) via EXIMBANKA (Export-Import Bank) and the Slovak Guarantee and Development Bank (SZRB) to overcome the period of the state of emergency. - Negotiations with bank and finance sectors on possible postponement of loan instalments, mortgages and leasing without negative records in register for the debtor. Negotiations on possible bank product that would help companies to overcome the adverse financial situation – for that purpose, banks would be proportionally exempted the bank levy payments. Negotiations on the possibility that insurance companies would not have to pay the levies. 	<ul style="list-style-type: none"> - Postponement of taxes ; Extension of deadline for tax inspections and local investigation - Remit of interest on late tax income prepayments - Extension of deadline for customs debt payment” 	<ul style="list-style-type: none"> - Allowance to employers for keeping a job (financed by ESF and the state budget) - employers have to maintain the work position beyond quarantine (cost estimated from €254 million to €299 million) - Absolute exemption from social and health payments for employees, income taxes for those employers, who are unable to assign work to their employees for the reason of adhering to orders putting down the operation as a result of preventive quarantine measures. 	
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<p>Slovenia SI</p>	<ul style="list-style-type: none"> - Roughly EUR 600 million (with maximal flexibility regarding the repayment of loan and moratorium and now e.g. also possible to finance 100% of the project) coming from the state-owned export and development bank SID Banka, plus additional EUR 200 million from SID Bank for new financial measures (loans, credit lines) implemented directly or via banks to provide liquidity. - The Slovenian Enterprise Fund with EUR 115 million available for SMEs, while the Slovenian Regional Development Fund offering a scheme under which companies can roll over debt. 	<ul style="list-style-type: none"> - Prolonged deadlines for tax documentation filings for businesses until summer. - Companies can ask for a tax deferral of up to 2 years or for paying tax in up to 24 instalments within 2 years: a deferral has already been possible previously, but conditions were softened and simplified. 	<ul style="list-style-type: none"> - The state shall pay the employers' pension and invalidity insurance contributions for employees. - Most employees shall get monthly supplement of EUR 200. - Temporarily laid-off workers getting 80% of their wage, with the state paying all of this sum and the related social contributions (with some conditions). 	<p>Self-employed and one-person companies significantly affected by the crisis getting 3-monthly basic income and social contributions paid by the state.</p>
<p>Spain ES</p>	<ul style="list-style-type: none"> - Payments can be postponed on loans granted by the General Secretariat for Industry - The state will guarantee around 80% of unpaid loans to self-employed workers and small and medium-sized companies 	<p>Possibility of deferring tax payments for small and medium businesses and the self-employed.</p>	<ul style="list-style-type: none"> - ERTE, has been expanded to cover businesses affected by the virus. Up to 70 % of salaries will be paid, with a maximum of €1,412 per month. - Some social security payments will be suspended and there will be €600m to help vulnerable people and those depending on social services. 	<p>Aid from the Madrid region (max. €3 200) for self-employed persons without employees</p>

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<p>Sweden SE</p>	<ul style="list-style-type: none"> - The Riksbank will enable loans in US dollars against collateral - Lending up to SEK 500 billion (about EUR 46 billion) to companies via the banks 	<p>Deferral of payment of employer's social security contributions, preliminary taxes on salary and VAT that is reported on a monthly or quarterly basis.</p>	<ul style="list-style-type: none"> - Temporary lay-offs: reduced work hours but still receive more than 90 percent of the salary, with a cap up to SEK 44,000 per month. The Government will take on 75 percent of the cost for the employees' reduced work hours. - Central government to assume sick pay responsibility for two months 	<p>Self-employed persons can receive standardised sick pay for days 1–14.</p>
<p>UK GB</p>	<p>UK has loans but venture backed startups can't get them - Support for businesses through the Coronavirus Business Interruption Loan Scheme supports SMEs with access to loans, overdrafts, invoice finance and asset finance of up to £5 million and for up to 6 years.</p> <ul style="list-style-type: none"> - Business Interruption Payment to cover the first 12 months of interest payments and any lender-levied fees, so smaller businesses will benefit from no upfront costs and lower initial repayments. - Lenders with a guarantee of 80% on each loan (subject to pre-lender cap on claims) to give lenders further confidence in continuing to provide finance to SMEs. 	<ul style="list-style-type: none"> - Deferring VAT payments - "Time to pay" agreement which would suspend debt collection for SMEs. During the coronavirus outbreak the usual 3.5% annual interest on deferred tax payments will be waived. 	<ul style="list-style-type: none"> - Job Retention Scheme: Employers can claim for 80% of furloughed employees' usual monthly wage costs, up to £2,500 a month, plus the associated Employer National Insurance contributions and minimum automatic enrolment employer pension contributions on that wage. - Support for businesses who are paying sick pay to employees: allow SMEs and employers to reclaim Statutory Sick Pay (SSP) paid for sickness absence due to COVID-19 	<ul style="list-style-type: none"> - Support for self-employed (through the SEISS) who have lost income due to coronavirus (COVID-19). This scheme will allow to claim a taxable grant worth 80% of trading profits up to a maximum of £2,500 per month for the next 3 months. Self-employed profits last year must be less than £50k and more than half of total income.

9. REFERENCES

EU POLICY FOR STARTUP INITIATIVES

European Commission DG Enterprise and Industry (2010). Entrepreneurship 2020 Action Plan - Reigniting the entrepreneurial spirit in Europe. Retrieved May 3, 2017 from: <http://eurex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF>

European Commission Communication from the Commission "Towards a job-rich recovery", 18.4.2012, COM(2012) 173 final.

European Commission D-G for Internal Market, Industry, Entrepreneurship and SMEs (2016). Report on the public consultation under the Start-up Initiative: <http://ec.europa.eu/DocsRoom/documents/20222>

European Commission, The Future of the European Institute of Innovation and Technology (EIT) – Strategic issues and perspectives: https://ec.europa.eu/education/sites/education/files/eit-hlg-final-report_en.pdf

European Commission, (2016). Europe's next leaders: the Start-up and Scale-up Initiative.

Strasbourg, Retrieved May 3, 2017 from: <http://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52016DC0733&from=EN#page=1&zoom=auto,-268,842>.

European Court of Auditors, Special Report 04/2016: http://www.eca.europa.eu/Lists/ECADocuments/SR16_04/SR_EIT_EN.pdf.

Audretsch D and Feldman M (1996) R&D Spill oversSpillovers and the Geography of Innovation and Production. 86(3) 630-640.

Cooke P (2005) Regionally asymmetric knowledge capabilities and open innovation: Exploring 'Globalisation 2' - A new model of industry organisation. *Research Policy* 34(8) 1128-1149.

Cooke P and Leydesdorff L., (2006) Regional development in the knowledge-based economy: The construction of advantage. *Journal of Technology Transfer* 31(1) 5-15.

European Commission (2010). *Europe 2020 - A strategy for smart, sustainable and inclusive growth* Brussels; Belgium.

Grimaldi R, Kenney M, Siegel DS and Wright M (2011) 30 years after gg-Dole: Reassessing academic entrepreneurship. *Research Policy* 40(8) 1045-1057.



SHARING GOOD PRACTICES ON INNOVATION

Lundvall BA (2007) National innovation systems - Analytical concept and development tool. *Industry and Innovation* 14(1) 95-119.

OECD (2008) *Open Innovation in Global Networks*, OECD, Geneva: Switzerland.

OECD (2010) *Ministerial Report on the OECD Innovation Strategy: Fostering Innovation to Strengthen Growth and Address Global and Social Challenges*, OECD, Paris; France.

OECD (2013) *Main Science and Technology Indicators*, OECD, Science, Technology and R&D Statistics.

Tödtling F and Trippel M (2005) One size fits all?: Towards a differentiated regional innovation policy approach. *Research Policy* 34(8) 1203-1219.

Ylinenpää H (2009) Entrepreneurship and innovation systems: Towards a development of the ERIS/IRIS concept. *European Planning Studies* 17(8) 1153-1170.

Italy

Start-up survey 2016: https://www.mise.gov.it/images/stories/documenti/Startup_Survey_2016_-_presentation.PDF.

Italian Startup Visa Programme: <http://italiastartupvisa.mise.gov.it/>

Incentivi.gov.it: <https://www.mise.gov.it/>

Ministero Dello Sviluppo Economico: <https://www.sviluppoeconomico.gov.it/index.php/it/>

ICE/ITA: (www.ice.it)

SACE S.P.A.: www.sace.it

SIMEST: www.simest.it

Invitalia S.p.A.: <http://www.invitalia.it/>

MISE - ministry of economic development: <https://www.mise.gov.it/index.php/en/>

ISTAT - national statistics institute: <https://www.istat.it/>

Chambers of Commerce Statistics: <http://startup.registroimprese.it/isin/home>



SHARING GOOD PRACTICES ON INNOVATION

Global entrepreneurship monitor Italy: <https://www.gemconsortium.org/economy-profiles/italy>

Annual report to parliament on the implementation and impact of legislation in support of innovative start-up and smes: https://www.mise.gov.it/images/stories/documenti/Annual_Report_to_Parliament_Italian_Startup_Act_2017_-_full_text.pdf

OECD economic surveys: Italy 2019: https://read.oecd-ilibrary.org/economics/oecd-economic-surveys-italy-2019_369ec0f2-en#page1

The evaluation of the Italian “start-up act” OECD 2018: <https://www.oecd-ilibrary.org/docserver/02ab0eb7-en.pdf?expires=1581601168&id=id&accname=guest&checksum=3238427582AA424775DE7EEF76CB61F6>

The Italian Start-up Act: https://www.mise.gov.it/images/stories/documenti/Slides%20innovative%20startups%20and%20SMEs%2007_2019.pdf

Spain

ICEX, Invest in Spain Portal: <http://www.investinspain.org/invest/es/index.html>

INE Portal: <https://iria.ine.es/iriaPortal/contents/index.jsf>

BOE, Legislation, Tax, Government Initiatives: <https://www.boe.es/buscar/act.php?id=BOE-A-2013-10074> / <https://www.boe.es/buscar/act.php?id=BOE-A-2006-20764>

Startupxplore: <https://startupxplore.com/es/startups>

Cdti: <http://www.cdti.es/index.asp?MP=35&MS=0&MN=1&TR=C&IDR=34&idCategoria=6&accion=si>

South summit 2019 Entrepreneurship Map Report.

Mobile world capital Spain 2019: <https://mobileworldcapital.com/es/report/startup-ecosystem-overview-2019/>

Red GEM España, Global Entrepreneurship Monitor Spain 2019: <http://www.gem-spain.com/wp-content/uploads/2019/05/GEM2018-2019.pdf>

World bank, Country statistics, Doing Business Report: https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf

Spain Lean Start-up report 2015: <http://els2015.com/>

Dealroom, The State of venture capital in Europa and Spain: <https://blog.dealroom.co/wp-content/uploads/2019/05/Barcelona-EU-Startup-Summit-Newsletter-Final.pdf>

El referente, Spain initiatives assist start-ups startups 2019: <https://startupsreal.com/report/report-on-initiatives-to-assist-startups-in-spain-2019> / <https://www.eu-startups.com/category/spain-startups/>

Brazil

100 Open Startups. Ranking 100 Open Startups. Available at: <https://www.openstartups.net/site/ranking.html>.

ABES – Associação Brasileira das Empresas de Software. Guia de Fomento à Inovação (2ª Edição). Available at: <https://guia-fomento.abes.org.br/>

Anjos do Brasil. “O crescimento do Investimento Anjo. Pesquisa 2019 ano base 2018”. Available at: https://www.anjosdobrasil.net/uploads/7/9/5/6/7956863/evolu%C3%A7%C3%A3o_do_investimento_anjo_no_brasil_-_resultados_da_pesquisa_2019_ano_base_2018_-_anj%C3%B3s_do_brasil.pdf

Anprotec. Available at: <http://anprotec.org.br/site/>

Associação Brasileira de Startups, Accenture. “Radiografia do Ecosistema Brasileiro de Startups”, 2017. Available at: https://ecosistemasdestartups.com.br/?utm_campaign=blog-site-radiografia&utm_medium=organic&utm_source=blog&utm_content&utm_term

BNDES Garagem. Available at. Available at: <https://www.bndes.gov.br/wps/portal/site/home/onde-atuamos/inovacao/bndes-garagem>.

Centro Sebrae de Referência em Educação Empreendedora. Available at: <https://cer.sebrae.com.br/>.

Climate Ventures. “1ª Chamada – Bons Negócios pelo Clima”. Available at: https://static1.squarespace.com/static/5bbbd7c7a9ab95657472072f/t/5bf54ec74ae2376294e54c38/1542803165183/%5BClimateVentures%5D+Infografia_AF_12nov2018_FO.pdf.

Distrito. Corrida dos Unicórnios 2019. Available at: https://jornal.usp.br/wp-content/uploads/2019/04/Distrito-2019-Corrida-dos-Unicornios-1sem2019_final-.pdf

EMBRAPII. Available at: <https://embrapii.org.br/en/>.

Empreendedorismo no Brasil - Relatório Executivo. Global Entrepreneurship Monitor 2018: . Available at: <http://materiais.cer.sebrae.com.br/relatorio-executivo-gem-2018>



SHARING GOOD PRACTICES ON INNOVATION

Empretec. Available at: <https://www.sebrae.com.br/sites/PortalSebrae/sebraeaz/empretec-fortaleca-suas-habilidades-como-empendedor,db3c36627a963410Vgn-VCM1000003b74010aRCRD>

Estadão. “Na era da economia de baixo carbon, Brasil já tem 552 startups ambientais” . Available at: <https://sustentabilidade.estadao.com.br/noticias/geral,na-era-da-economia-de-baixo-carbono-brasil-ja-tem-552-start-ups-ambientais,70003133891>

Exame. “Os planos do Softbank para o Brasil em 2020: apostas menos “óbvias””. Available at: <https://exame.abril.com.br/pme/os-planos-do-softbank-para-o-brasil-em-2020-apostas-menos-obvias/>

FAPESP – Centro de Pesquisa em Engenharia. Available at: <http://www.fapesp.br/cpe/>

FAPESP CONSITEC. Available at: <http://www.fapesp.br/consitec>

FAPESP PAPPE/PIPE. Available at: http://fapesp.br/pipe/pappe_pipe/4/

FAPESP PIPE. Available at: <http://www.fapesp.br/pipe/>

Finep Startup. Available at: <http://www.finep.gov.br/apoio-e-financiamento-externa/programas-e-linhas/finep-startup>

FRISHTAK, Cláudio R. Science and innovation in Brazil. Where to Now? Innovation in Brazil: advancing development in the 21st century. In: *Innovation in Brazil*, New York: Routledge, 2019, p. 93-119.

G1. “32 startups abrem mais de 1 mil vagas de emprego no país”. Available at: <https://g1.globo.com/economia/concursos-e-emprego/noticia/2019/12/11/32-startups-abrem-mais-de-1-mil-vagas-de-emprego-no-pais.ghtml>

Global Entrepreneurship Monitor 2018/2019. Available at: <https://www.gemconsortium.org/report/gem-2018-2019-global-report>

Global Startup Ecosystem Report 2019. Available at: <https://startupgenome.com/all-reports>

Inovativa Brasil. Available at: <https://www.inovativabrasil.com.br/>

Inspere. “Corporate Venture: o cenário das parcerias entre empresas estabelecidas e empreendedores do Brasil”. Available at: https://www.insper.edu.br/wp-content/uploads/2019/11/Corporate_Venture_v2.pdf

Instituto Nacional da Propriedade Industrial. “Plano de Combate ao Backlog”. Available at: <http://www.inpi.gov.br/menu-servicos/patente/plano-de-combate-ao-backlog>



SHARING GOOD PRACTICES ON INNOVATION

Instituto Rede Mulher Empreendedora (2019). “Empreendedorismo no Brasil 2019 – Um recorte de gênero”.

Latin American and European Cooperation on Innovation and Entrepreneurship (LISTO). Available at: <http://www.inovacao.usp.br/listo/>

LAVCA. “Latam Venture Bulletin”. Available at: <https://lavca.org/downloads/inaugural-survey-of-latin-american-startups/>

Luiza Zambrana. “Quais são as comunidades de startup no Brasil. 2019”. Available at: <https://abstart-ups.com.br/quais-sao-as-comunidades-de-start-ups-no-brasil/>

Mapeamento dos Mecanismos de Geração de Empreendimentos Inovadores no Brasil. Available at: http://anprotec.org.br/site/wp-content/uploads/2019/09/Mapeamento_Empreendimentos_Inovadores.pdf

Ministério da Ciência, Tecnologia, Inovações e Comunicações. Indicadores de Parques Tecnológicos, Fase 2. Available at: <https://www.mctic.gov.br/mctic/export/sites/institucional/arquivos/MCTIC-UnB-ParquesTecnologicos-Portugues-final.pdf>

Nogueira, Elias, Laskowski & Matias Advogados. “Panorama Legal das Startups”. Available at: <http://www.nelmadvogados.com/pdf/relatorio.pdf>

Pesquisa de Inovação 2017, IBGE, 2020. Available at: <https://www.ibge.gov.br/estatisticas/multidominio/9141-pesquisa-de-inovacao.html?=&t=o-que-e>

Pipe.Social. “2º Mapa de Negócios de Impacto – Social + Ambiental”. 2019 Edition.

PITE-FAPESP. Available at: <http://www.fapesp.br/61>

Plano CDE e JP Morgan. “Estudo do Empreendedorismo Negro no Brasil”. 2ª Edição. 2019.

Portaria interministerial nº 5, de 28 de setembro de 2017. Available at: <http://sisiae.mec.gov.br/docs/portaria-interministerial-5-de-28-09-2017.pdf>

Porto Digital. Available at: <https://www.portodigital.org/home>

PretaLab, ThoughtWorks. “#QUEM CODABR”. 2019. Available at: https://assets-global.website-files.com/5b05e2e1bfcfaa4f92e2ac3a/5d671881e1161a6d2b8eb78b_Pesquisa%20QuemCodaBR.pdf

Programa Nacional Conexão Startup Indústria. Available at: <https://startupindustria.com.br/>

Programa Nacional de Educação Empreendedora – PNEE. Available at: <https://www.sebrae.com.br/sites/PortalSebrae/Programas/programa-nacional-da-educacao-empreendedora-pnee,2c7cd24a8321c510VgnVCM1000004c00210aRCRD>



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REYNOLDS, Elizabeth, SCHNEIDER Ben Ross and ZYLBERBERG, Ezequiel. *Innovation in Brazil: Advancing Development in the 21st Century*. New York: Routledge, 2019.

Sebrae e Anprotec. "Corporate Venturing no Brasil: co-inovando em rede". Available at: [https://bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/90442283ac84a141d260882aa4705f57/\\$File/19275.pdf](https://bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/90442283ac84a141d260882aa4705f57/$File/19275.pdf)

Startubase. Accessed on December 4th, 2019. Available at: <https://startupbase.com.br/home>

Startup Brasil. Available at: <https://www.startupbrasil.org.br/>



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