



Recent experiences with entrepreneurship programmes and business incubators in Latin America and the Caribbean:
Towards the creation of an economy driven by entrepreneurship

# **Economic and Technical Cooperation**

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#### F O R E W O R D

This study has been prepared with the purpose of complying with Activity II.2.3 of the Work Programme of the Permanent Secretariat of SELA for 2016, entitled "Seminar-Workshop on Entrepreneurship", within the framework of the Latin American and Caribbean Regional Programme for Small and Medium-sized Enterprises (SELA-SMEs Programme).

The document, aside from an executive summary and an introduction, contains two important chapters. The first one is dedicated to analyse the entrepreneurship programmes of Latin America and the Caribbean, addressing the main trends, strategies and policies, applied in the region for the development of entrepreneurship programmes, and describing the main programmes on the subject of entrepreneurship in the region, assessing their strengths and weaknesses, as well as presenting a general vision of the new forms of financing for entrepreneurship. The second chapter analyses the initiatives of incubators in Latin America and the Caribbean, describing the main initiatives of business incubators in the region and the role they play in fostering and promoting entrepreneurship, by analysing existing experiences. The document ends with a series of policy conclusions and recommendations, derived from the analysis made.

The Permanent Secretariat expresses its gratitude to Edwin Ojeda for his dedication in the preparation of this study.

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### **EXECUTIVE SUMMARY**

This research is an analysis of public policies on entrepreneurship that have been recently developed in Latin America and the Caribbean.

A thorough analysis of the main experiences with programmes in support of entrepreneurship was made and shows the importance of the government actions in the development of entrepreneurial ecosystems. Similarly, it can be noticed the existing "gap" between several countries of the region, in regard to design, development and evolution of the strategies of support for these ecosystems.

The programmes that have had a greater impact are those that have evolved while the ecosystems have become more sophisticated. Most of the programmes identified as good practices are those aiming their offer at dynamic entrepreneurship, and not so much at the traditional ones. In these programmes, it has been understood that an entrepreneurial strong ecosystem requires more than willing entrepreneurs and investors.

#### **INTRODUCTION**

The most recent reports that assess and analyse the programmes in support of entrepreneurs in Latin America and the Caribbean highlight the prevalence given by the governments of each country to bust and draw together the different actors that breathe new life into entrepreneurial ecosystems. Unfortunately, there is not any detailed information on all the countries of the region that would indicate the impact that their programmes in support of entrepreneurs have had, and even worst, some countries do not report having programmes to this end. Few official entities present the information already processed and many simply do not make any reference to their cases. Only the reports compiled by researchers of multinational organizations such as CAF-Latin American Development Bank, IMD, Index of Systemic Conditions for Dynamic Entrepreneurship (ICSEd-Prodem) and the World Bank, among others, enlighten the current situation related with the policies and strategies used in the region to support entrepreneurship. Due to the fact that much of this information is atomized and scattered, as well as not updated or just focused on particular cases, the current research main goal is to gather and update the data obtained in different reports thus outlining a complete and concise outlook of the current situation of the support to entrepreneurs in the region.

To reach such a goal a country-by-country review was made of the documents, reports and official sites, and also the most recent reports of specialists in the area were analysed. Similarly, the reports on successful programmes in several countries were consulted. The information gathered was summarized and processed in tables and figures that allow showing quickly the information on the programmes in support of entrepreneurs in Latin America and the Caribbean. Unfortunately, there was no access to primary sources, due to limitations on infrastructure and time availability of informants and researchers.

Among the most striking findings, it stands out that most of the programmes identified as good practices, are those that aim their offer at dynamic entrepreneurship, and not so much at traditional ones (micro enterprises). Different from other regions (USA and Europe), in LAC the programmes that have a true impact in the entrepreneurial launching are those designed and driven by government entities. Additionally, there are three countries in the region that have managed to structure programmes in support of entrepreneurs that form the different ecosystems and the actors of such ecosystems show characteristics of maturity. Many of the programmes in support of entrepreneurs in the region are isolated, focused on some actors of the ecosystem, and in turn, time is still required so that such actors achieve a degree of experience and proper sophistication. A few of these programmes, promoted by the governments, are integrated with the educational system of their respective countries and, therefore, require international human capital (entrepreneurs) to be successful. At the same time, most of the efforts are limited to place trust in the work that the business incubators and accelerators can make to favour the development of contacts, or institutions that accompany the entrepreneurs in the programmes of seed capital, although many of these institutions do not have financial strength nor proper knowledge.

The report starts with a brief description of the trends in policies and strategies of entrepreneurial support in the region, what paves the way for the description and analysis of the different existing programmes. Afterwards, a tour is made for the most recent and important financial sources for entrepreneurs in Latin America and the Caribbean and it closes with a summary dedicated to the industry of incubation.

#### I. ENTREPRENEURSHIP PROGRAMMES IN LATIN AMERICA AND THE CARIBBEAN

# 1. Main trends, strategies and public policies applied in Latin America and the Caribbean for the development of entrepreneurship programmes

For ten years now, it has been observed that the growth potential (also called dynamism) of the new Latin American and Caribbean enterprises is much lower than that of the enterprises established in other continents. This type of evidence has implied that the dynamic entrepreneurship would be a subject of a growing interest in the public policies of some countries of Latin America and the Caribbean. Although certain group of countries still focus their policies and programmes in support of traditional entrepreneurs, that is, micro enterprises and the SME sector, the current trend is to allocate bigger budgets and longer time to bust entrepreneurship development based on innovation.

Most of the programmes highlighted as best practices of public policies in the region, are those that are focused on dynamic entrepreneurship, however, according to specialists such as Hidalgo, Kamiya y Reyes (2014), the variables to promote the development of these entrepreneurship has been in the last years, a pending subject that has not been easy to detect. In view of this situation, what has been happening is that some trend setting governments have given a step forward by creating programmes and reforms that they have been validating with the ecosystems of support for innovator entrepreneurs, whereas other more conservative governments had to settle for traditional programmes.

The governments that have emphasized the development of dynamic entrepreneurship, have broadened the mixture of programmes of support for different sectors to search, widen and mature the financing offer for early entrepreneurship, to strengthen accompaniment through incubation and effective acceleration and generate a culture and spaces for the formation of networks and/or entrepreneurial social capital. In some countries of the region there exist an institutional capacity of recent creation, like in Mexico and Colombia, or there are also some that have been earning specialization in the subject of entrepreneurship and innovation like Uruguay and Peru. Others already show a mature structure, which has been adapting to the needs of the support ecosystems, as well as those of the entrepreneurs, as it is shown in the cases of Chile and Brazil.

The programmes designed and aimed to strengthen the ecosystems of support for dynamic entrepreneurship have led to the development of policies to benefit programmes aimed at *Start-Ups*. In countries like Brazil and Chile, besides strengthening in a technical, structural and financial way sectors such as that of risk capital or the one of incubation and acceleration, there have had to strengthen the quality of the entrepreneur himself. That is, the entrepreneurial programmes in some countries are incorporating migratory policies, generating competition to draw international talent due to the lack of it in their respective nations. Just some countries are presenting this type of strategies, being Chile the pioneer during the last four years and Uruguay does it today at pilot scale.

In the next ten years, most of the policies of support for entrepreneurial programmes in the region will not insist in promoting entrepreneurship, that is, in increasing the appearance of more entrepreneurs, instead they will dedicate more resources and efforts in improving the quality of the emerging enterprises.



Because in the medium term many programmes will be focused in the development and maturation of the dynamic ecosystems, the strategic priority should be that the understanding of these should facilitate symbiotic interactions (win-win) between the actors, therefore, it should be natural in these a climate of opening to diversity, will to cooperate and inclusion of the newcomers, opening to risk (Hidalgo, Kamiya and Reyes, 2014). In spite of the growing importance of the dynamic ecosystems, nowadays it is observed that a few governments are acting in the development of spaces for entrepreneurs, or how it is said at present "aquariums for entrepreneurs". There are some brush-strokes in this sense, they are coming from private and independent initiatives, such as the co-working, hubs, and labs spaces, which in some way try to promote this interaction through events on a daily basis to discuss ideas, complete work teams, acquire knowledge, receive expert counselling, find financing and capital, as well as to forge commercial links. This is a trend that begins to be seen, by example with the Chilean case, whose government already incorporated in its strategic plan designed up to 2018, the partial launching of programmes that make sure the strengthening and development of this type of actors that allow generating the mentioned aquariums for entrepreneurs.

In addition, there are seen each day more programmes that support projects on configuration of accelerators with agile methods like *Lean Start-Up* or development of clients. Examples of those programmes are *Startup* Brazil, *Startup* Peru, and Uruguay *Soft Landing*, which not only support in a financial and technical way their own entrepreneurs, but offer support so that the accelerators can be sustained. These programmes try to form a network of value around these entities (business accelerators) so they can offer added value services, by means of access to mentors, advisers, international links, investor links, and through the access and strengthening of the own capacities of the managing team of the entity.

There are more programmes each time supporting accelerators with funds for discovery and innovation such as Wayra de Telefonica, installed in several cities of our region, however, it is observed that even many of these programmes lack the specialized "mentoring". These models, or launching platforms for entrepreneurs, must connect with mechanisms of financing following the seed capital for those business models that show market sense, incorporating networks of private investors. However, not all the countries own ecosystems of private investors to satisfy a critical mass of dynamic entrepreneurship and some have chosen to provide seed capital of public funds, preferably, non-refundable, or otherwise operated as credits of honour (which are only refundable if the project succeeds).

Lastly, another trend in the development of programmes in support of entrepreneurs is the one related with the group or entity that designs and drives the application and measuring of such policies. A great deal of the governments that implemented public entrepreneurship programmes made it with financial and technical support from multilateral organizations such as the Inter-American Development Bank (IDB) and CAF-Latin American Development Bank. Programme implementation requires a specialized know-how that mixes international standards with economic and social realities of each region.

# 2. Description of the main current programmes in the countries of Latin America and the Caribbean for the development of entrepreneurship

The programmes for the development of entrepreneurship in the region are varied and the vast majority is an initiative of the government of each country, with timely support from private and

multilateral organizations.¹ With the purpose of deepening in the programmes of great relevance, by their impact and effectiveness, there were studied the most recent reports of specialists in this subject, and there were selected for analysis the programmes mentioned there (see Table 1). The underlined programmes are successful cases that are used as examples of good practices of strategies and policies for the entrepreneurship support and development in the region. Usually, these initiatives are designed and managed by government agencies, whose vision has matured during almost two decades and has placed the focus beyond the direct aid to the individual (entrepreneur and his team), spreading towards the support of the different actors that make life in the entrepreneurial ecosystem.

The policies to support entrepreneurship are those aimed at the preparation and initial development stages of the entrepreneurial process and whose main goal is to promote the entrepreneurial choice as a career alternative, as well as to facilitate the transition of entrepreneurial projects to new enterprises (Stevenson and Lundström, 2007). In the last five years the policies of some countries of the Latin American and Caribbean region have been very focused, beyond fostering the entrepreneurial emergency, on improving the quality indexes of the emerging initiatives. The majority of the most recognized programmes, mentioned as good practices of public policies, are aimed at the development of dynamic enterprises.

The countries of the region that show mature programmes in support of entrepreneurs are Brazil, Chile, Mexico and Colombia. By example, the cases of the following government agencies Corporation of Production Development (CORFO) of Chile and the National Financial agency of Studies and Projects (FINEP) of Brazil are symbols of evolution in the design and development of programmes adapted to the changes of the entrepreneurial actors of their respective countries.

TABLE 1
Main entrepreneurship programmes of the region, according to CAF and ICSEd-Prodem

Source	Creator/executor organization	Programmes created/executed
CAF (2014)		-Programme for the development of risk
	CORFO (Chile)	capital
		-Programme for seed capital (PCS)
	INNOVA-CORFO (Chile)	- <i>Start-Up</i> Chile
	FINEP (Brazil)	-Programa INOVAR
	Private initiative + National	
	Corporation of Development	Fondo Emprender (EE)
	+CAF and FOMIN	-Fondo Emprender (FE)
	(Uruguay)	
	SEBRAE (Brazil)	
	FINEP (Brazil)	-Programa INOVAR
	BNDES (Brazil)	-Programa INOVAR
	Ministry of Science, Technology	- <i>Start-Up</i> Brazil
	and Innovation (MCTI) (Brazil)	Start Op Brazil
	INNOVA (Chile)	- Start-Up Chile
	SENA (Colombia)	-Entrepreneurship National Network
	SENA (Colonibia)	-Fondo Emprender
	BANCOLDEX (Colombia)	-Programa Bancoldex Capital
	INNpulsa (Colombia)	-Colombia CO4 (open innovation)
	MINTIC (Colombia)	-Programa APPS CO

<sup>&</sup>lt;sup>1</sup> Organizations such as CAF, the Multilateral Fund of Investment (FOMIN), infoDev, among others, are essential allies for the preparation, development and execution of many of the entrepreneurship support programmes in the region.

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Source	Creator/executor organization	Programmes created/executed
	INADEM (Mexico)	-Programme for seed capital funds
	Entrepreneurial chambers and AMPYME (Panama)	-EMPRETEC Panama
	FINCYT (Innovation, Science and	
	Technology Fund)	
	-Peru	
	Ministry of Production (Peru)	- <i>Start Up</i> Peru
	National Agency of Research and	-Programme for early stage financing
	Innovation (ANII) -Uruguay	(Fondo Emprender)
ICSEd-Prodem (2015)	Ministry of Production	- <i>Startup</i> Perú
	(Produce) (Peru)	-Selection of Projects for Strengthening
		Business Incubators
	Ministry of Production (Peru)	-Peru Emprende
	National Council of Science,	-CienciaActiva (programme
	Technology and Technological	in support of the establishment of
	Innovation (CONCYTEC) (Peru)	Research+Development+Innovation centres)
	Secretariat of the SME (SEPYME) (Argentina)	-Programa INCUBAR
	Ministry of Science, Technology	-Programa Empretecno (creation
	and Production Innovation	of high technology enterprises from public
	(Argentina)	private cooperation)
	Government of Ecuador	-Proyecto Yachay (city of knowledge)
	FOMIN and Universidad	-Programa Xcala (create and strengthen the
	de Montevideo (Latin America)	networks of angel investors in the countries
1005   D   (2015)		of the region)
ICSEd-Prodem (2015)	CORFO (Chile)	-Start Up Chile
	INNpulsa (Colombia)	-Programme of incentives to investment for enterprises at early stages. (Aimed at private investors) -Programme for strengthening actors of the financing industry at early stages -Colombia CO4 (open innovation)
	National Institute of the Entrepreneur (INADEM)-Mexico	-Strengthening of incubators and creation, following up and strengthening of basic and high impact enterprises -Strengthening of the accelerators capabilities and the acceleration processes of enterprises -Development of the ecosystem of entrepreneurial capital -Network of Support to the Entrepreneur (Single Window)
	FINEP (Brazil)	-Programa INOVAR
	Banco Nacional de Desenvolvimento (BNDS) (Brazil)	-Programa de Fondo CRIATEC
	Ministry of Science, Technology and Innovation (MCTI) (Brazil)	-Start Up Brazil
	National Agency of Research and Innovation (ANII) (Uruguay)	-Programme in Support of Future Entrepreneurs (PAFE) -Softlandings Uruguay, (a programme that looks for drawing entrepreneurs, Uruguayans or not) -Network in Support of Future Entrepreneurs (RAFE),

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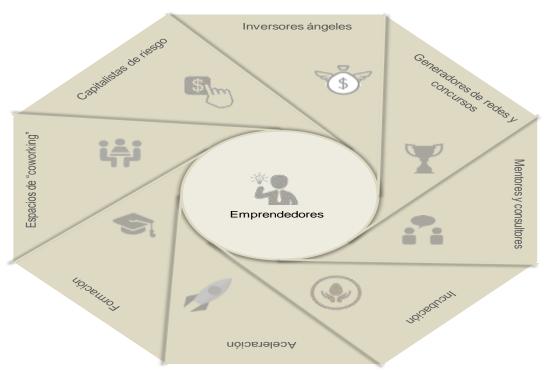
Source	Creator/executor organization	Programmes created/executed	
		-Programme of financial support to	
		incubators and accelerators	
	CORFO (Chile)	-Start Up Chile	

Source: Prepared by the author (2016).

In general, the main existing programmes in the countries of Latin America and the Caribbean for the development of entrepreneurship operate with eight big group of actors: risk capitalists, angel investors, competition generators and contact networks, mentors and consultants, enterprise incubators, enterprise accelerators, education and training and suppliers of co-working spaces, as it is shown in Figure 1, as follows:

FIGURE 1
Ecosystems that support entrepreneurs

Source: Prepared by the author (2016).



Some of these initiatives are aimed at developing some groups of numb or non-existing actors, whereas others have as a goal to invigorate and catalyse the actors already present in a region. These programmes in support to entrepreneurs are described according to the action that they exert in each one of these ecosystems, as follows:

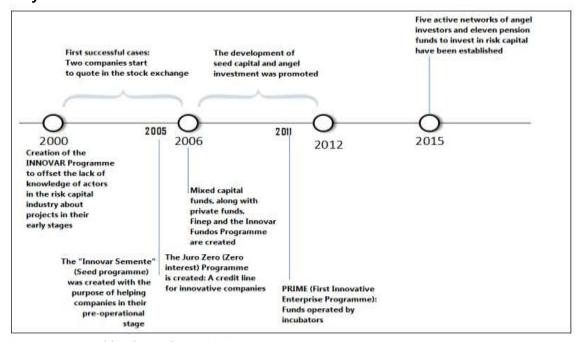
-Support to the actors of risk capital and angel investment: Most of the outstanding programmes at present, such as good practices of public policies, have been designed to strengthen the actors that provide new entrepreneurship with capital and not to finance them directly. Therefore, these programmes are fertile land for ecosystems of angel investors and risk capital because these are still immature and lack experience in most part of the region. INOVAR

(Brazil) is an example of this type of work. It was created in 2000 due to the lack of knowledge that the actors of the risk capital industry had in that moment for innovative projects at early stages (see Figure 2). After 15 years of learning, this programme has established five active networks of angel investors and eleven pension funds to invest in risk capital. In 2016, INOVAR considers services such as: the incubator of Inovar funds, the Brazil forum for innovation, the portal of Brazil risk capital, the Inovar network of business survey and development, and programmes of education and training of risk capital agents.

Likewise, in Chile, the "Programme for risk capital development" that started at the end of the 1990s by the CORFO state agency, and more recently INNOVA, has been aiming at modernizing the financing schemes of entrepreneurs of that country (see Figure 3). In different stages, this programme has implemented strategies to mature the Chilean risk capital industry, improving the experience and capacities of the requesting enterprises and the fund administrators.

In 2012, Colombia created iNNpulsa, the government agency for the development of programmes aimed at invigorating and updating the local financial ecosystems, which were poor in regard to sophisticated services for entrepreneurs with ambition and potential for grow. Since its creation, the iNNpulsa agency has worked in positioning the entrepreneurial culture, and alongside, has developed a financing industry at early stages. This has entered into operation with programmes such as the one of "bust to investment for enterprises at early stages", aimed at private investors, and the "programme for strengthening actors of the financing industry at early stages".

FIGURE 2
Case of Innovar (Brazil), evolution of the programme for the development of the risk capital ecosystem



Source: Prepared by the author (2016).

#### **HIGHLIGHT**

The emerging initiatives, especially the ones with a high potential for growth, present a degree of risk, uncertainty and innovative nature that do not favour them in the search for financial resources in the traditional commercial banking. Therefore, they require another type of capital source that would be specialized in "betting" on high risk projects. Along these lines, the

industry of entrepreneurial capital is an important driver of innovation and technological breakthrough, since its model of operation is focused on supporting those enterprises with a high potential for growth. This industry must consist of a series of actors that make it more or less mature or experienced. In substance these actors are: professional or angel investors, investment funds, fund administrators, investment consultants and advisers and fund managers, organizations that connect initiatives with fund management entities, risk capital institutions, investors trainers and mentors, and suppliers of investment information.

Source: Prepared by the author (2016), based on Rodríguez (2005).

Mexico is another good example of programme application to improve the ecosystem of early stage financing. The National Institute of the Entrepreneur (INADEM)<sup>2</sup> put into practice a programme for the development of the entrepreneurial capital ecosystem. This programme is aimed at the creation and strengthening of the capital investment instruments, and the promotion of the high impact ecosystem through fostering new financing sources by way of capital. Since 2013 there have been approved 26 funds that look for the transformation of the financing outlook of the dynamic entrepreneurship (Kantis and Garcia, 2015). In addition to the support for the creation of new investment instruments, the policy consisted of training and updating of the actors of the ecosystem, through courses for fund managers of private<sup>3</sup> capital. The Programme of Development of the Ecosystem of Entrepreneurial Capital looks for, since its creation, not only increasing the availability of private capital for innovative projects at early stages with a high potential for success, but also promoting and motivating national as well as foreign investors to invest in high impact enterprises in Mexico. The goals of this programme (INADEM, 2015) are: to increase the number of new investors in the ecosystem, increase the number of investment instruments for entrepreneurship, increase the number of investment occurrences through the fund created, give professional status to fund managers, and generate a financial culture in the entrepreneurs and MSMEs that would facilitate access to financing.

-Support to actors that promote incubation and acceleration: In parallel to the development of programmes focused on improving the capital industry for the entrepreneurs, there have been developed programmes that support, catalyse and promote the process of incubation and acceleration of entrepreneurship in the region. The incubation is a system that tries to provide new enterprises with a network of necessary resources to increase the probability of survival in the first years in operation, when they are more vulnerable (Young, 2001). Likewise, the acceleration of enterprises also has as a goal to provide resources (tangible and intangible) to new enterprises, but in a shorter time (months), because these support more dynamic enterprises due to their technological nature. The goal of an enterprise incubator and/or accelerator is to produce successful enterprises that when getting out of the programme would be self-sustainable and financially stable (NBIA, 2007). However, the incubators and accelerators have, as any other organization, troubles and needs to be able to render proper services to the entrepreneurs that they are home to. The most outstanding programmes in support of entrepreneurship in Latin America and the Caribbean have come from creating their own incubators and accelerators, to support in a financial and structural way those that already exist.

<sup>&</sup>lt;sup>2</sup> The direct origin of INADEM is in the Secretariat of Economy and, particularly, in the National Council for Competitiveness of the Micro, Small and Medium-sized Enterprise (CNCMIPYME).

<sup>&</sup>lt;sup>3</sup> The programme is called High Direction in Private Capital (AdeCap) and started in September 2011. The fourth one (2014) was started in the Research Center in Entrepreneurial Initiative of IPADE.

#### **HIGHLIGHT**

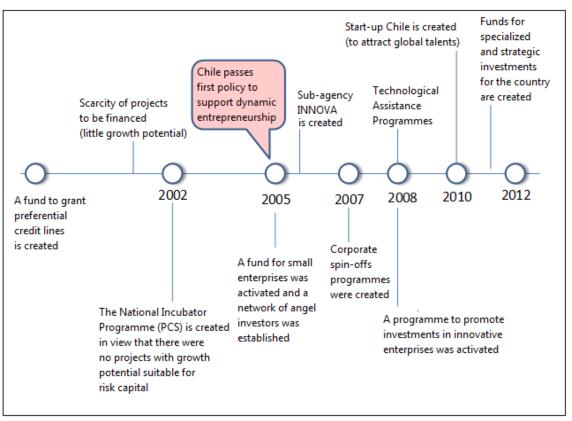
The emerging initiatives, especially the ones with a high potential for growth, present a high vulnerability at early stages of operation, because they do not have a business model proved. Therefore, a mature and experienced ecosystem of business incubation and/or acceleration is important to "protect" and assure the evolution of the innovations. Although the incubators and accelerators render the service, these depend on a series of elements that form an industry that make them more or less efficient: fund suppliers for incubators, culture of incubation, professional entrepreneurs, quality enterprises suitable for incubation, suppliers of incubation/acceleration services, network of investors willing to get close to incubators, professional managers of incubators/accelerators, and network of mentors willing to cooperate.

Source: Prepared by the author (2016), based on Tengeh and Choto (2015).4

The case of CORFO (Chile) is one of the most representative in this sense. There was not any critical mass of projects with a high potential for growth 15 years ago in Chile, because of this CORFO started its programme of seed capital for entrepreneurs and made it in parallel to the programme of creation and strengthening of the incubators that should give them accompaniment and technical assistance. After 2005 (see Figure 4), the incentives for incubators were redesigned, among these, the process of allocation of the first amounts of seed capital was decentralized, which increased the probability of creation of new enterprises. The key of this type of programmes was that CORFO understood that it should not leave alone the incubators and provided them with capital so that these would channel it towards the entrepreneurs. This brought relief in one of the tensions of the incubators such as it was the lack of capitalists to provide funds that would support the incubated entrepreneurs.

<sup>&</sup>lt;sup>4</sup> Tenget, R. and Choto, P. (2015) The relevance and challenges of business incubators that support survivalist entrepreneur. Investment Management and Financial Innovations, Volume 12, Issue 2, 2015.

FIGURE 3
Case of the Corporation of Production Development (CORFO) (Chile) (Programmes: Innova and Start-Up Chile)



Source: Prepared by the author (2016).

The lack of critical mass of technological entrepreneurs and innovators was a motive to strengthen the processes of incubation and acceleration in this country since 2006. The support to the network of incubators/accelerators became the main programme, and as a second option, although not less important, the one in support of the angel investors. As a learning consequence from those years, INNOVA-CORFO decided to support and strengthen *Start-Up* Chile, a more ambitious programme that would increase the number of high potential entrepreneurship occurrences through the integration of the acceleration process and sophisticated financing. Also, since 2010, there have been carried out programmes to move the world of entrepreneurship closer to that of technology transfer.

Another outstanding actor in programme development and execution in favour of business incubation and acceleration, is the one developed by the National Institute of the Entrepreneur (INADEM) in Mexico. Very much alike to the Chilean case, this State entity created a programme in support of entrepreneurs, which had as a goal improving the functioning of the country incubators. The system consists of two incentives in parallel: (1) a line of subsidies (based on seed capital) for entrepreneurs and (2) financial support (*matching grants*)<sup>5</sup> for the incubators aimed at strengthening their management teams, as well as their services, especially, those that look for high impact entrepreneurship. In addition, this organization has designed programmes for

<sup>&</sup>lt;sup>5</sup> *Matching grants* are funds established to be allocated in equal amounts to the funds from other parts. There are instruments to obtain capital used in situations of charity or public good.

strengthening the accelerator capabilities and the acceleration processes of enterprises through co finance subsidies so that the accelerators would be able to strengthen their management teams and their services of mentoring and consultancy. As an additional incentive, this programme gives the accelerators a subsidy by following up the accelerated enterprises (Kantis and Garcia, 2015).

Another case is found in Brazil, after the creation of a fund incubator (INOVAR Semente)<sup>6</sup> carried out by FINEP in Brazil (see Figure 4), this organization decided to work in the improvement of the quality of innovative projects that were presented. Therefore, the *Start-Up* Brazil programme was created, which is not only a business accelerator but a system that improves the quality of the selected entrepreneurs, such as that of the accelerators existing in the country. The programme provides seed capital, financial resources and social capital so that the accelerators would offer better services to the entrepreneurs year after year. In each official announcement there are selected entrepreneurs and accelerators according to pre-established criteria. Accelerators known by their efficiency, ranked among the 20 first of Latin America according to *Latam Accelerator Report 2014*, such as Wayra Brasil, 21212 *Digital Accelerator* and Aceleratech, have been part of this programme.

A very similar programme to the Brazilian one is carried out in Peru through *Startup* Peru. This programme gives non-refundable funds to innovative entrepreneurs and relatively new enterprises, but in addition, some incubators of the country are chosen so that they would comply with the requirements to be home to the selected entrepreneurs.<sup>7</sup> Therefore, the accelerators also receive non-refundable funds to improve management besides the pre-selected entrepreneurs that are suitable to benefit from the process of acceleration. This difference makes the process more efficient.

In Latin America, the programmes to support the incubation and acceleration are not only oriented to give financial, training and service incentives to the incubators and/or accelerators of the country, but also to provide them with "entrepreneurial raw material". An example of good practice in this sense is the *Softlandings* Uruguay programme. The National Agency of Research and Innovation (ANII) promotes the movement of entrepreneurs from different parts of the world towards Uruguay with the aim of starting their enterprises in that country. The entrepreneurs are encouraged with a non-refundable capital (US\$ 40,000) and an accelerator is assigned to them, until now the Incubator of Ingenio Enterprises. In this way, the programme provides the incubator of entrepreneurs with skills that do not exist in the country, and thus the incubators/accelerators can generate consumable goods appealing to sophisticated investors.

-Support to actors of training and mentoring, competitions and "co-working" spaces: Some of the government agencies or entities that develop programmes in support of the above-mentioned (capital and incubation) ecosystems, also concentrate efforts in support of other actors that accomplish different functions such as training and awareness through competition and networks and the creation of co-working spaces. In the region there are many public and private programmes that act as individual actors in the functions previously described. By example, in Venezuela, the Ideas Foundation in order to foster the entrepreneurial culture carries out the most important competition of business plans in the country. It was established in 2003, it has integrated, formed and connected, more than ten thousand entrepreneurs in the Venezuelan entrepreneurial ecosystems. However, there does not exist a programme in the country that

<sup>&</sup>lt;sup>6</sup> The **INOVAR** programme of FINEP (public corporation affiliated to the Ministry of Science and Technology) created an "incubator" fund to develop the offer of private entrepreneurial capital inspired in the successful model of Yozma in Israel (Kantis, Federico and Ibarra-García, 2015).

<sup>&</sup>lt;sup>7</sup> The incubators/accelerators that are part of the programme are selected through the Competition of Projects on Strengthening of Incubators of Peru (Kantis, Federico and Ibarra-García, 2015).

supports several individual actors, such as the Ideas Foundation, providing them with resources and structures. In Mexico, INADEM created the Network in Support of Entrepreneurs, which looks for coordinating and linking the policies and programmes in support of the different levels of the government and the private sector in one single window according to the needs of the entrepreneur or SME. By means of this programme, the entrepreneurs as well as the different actors that exist in the country are favoured. On the one hand, the entrepreneurs identify who could support them, and on the other hand, the actors (consultants, trainers, competitions and mentors) make themselves known in the entrepreneurial market.

Something similar happens with Peru Emprende, which is an example of programmes that search for integrating and setting up "networks" of actors that support entrepreneurship. It is a meeting space of the entrepreneurial ecosystem led by the Ministry of Production, in which more than 50 organizations in eleven cities of such country participate.

The RAFE Programme (Network in Support of Future Entrepreneurs) of Uruguay supports actors that promote actions in business awareness, pre incubation, design and preparation. In turn it integrates and cooperates with organizations that develop competitions of business ideas and plans for entrepreneurs.

Over the last two years there have been developed new programmes and projects to support a network of actors that perform new functions in the entrepreneurial ecosystem. The mentors and consultants that support the entrepreneurs in the region are more important each day since with their knowledge and experience, they are responsible for taking care of the novel entrepreneurs that need to be focused in the development of their initiatives. A few programmes have been identified that would concentrate efforts at present in assisting this group, which is a trend. The new entrepreneurship (2014-2018) policy in Chile recommends to give the utmost importance to the entrepreneur-mentor relation, with the creation of a network of mentors that follows up each project in which the government has invested, this will allow increasing the probabilities of success of the emerging enterprises.

As it was mentioned before, the more mature programmes of the region have spread, from the attainment of the entrepreneurial emergency to the improvement in the quality of the emerging initiatives. Therefore, these programmes are emphasizing an improvement in the conditions of the actors in support of the emerging enterprises and those that require to make a quality leap.

Another group of actors that have recently performed a main function in the development of new entrepreneurship in the region, corresponds to the space providers, which promote the cooperative work (co-working spaces) between the entrepreneurial teams and their ecosystems. Even though these actors are not completely established in the Latin American and Caribbean culture, like they are in places such as the USA and some European countries, the trend indicates that it is very likely that their presence will be essential to invigorate high potential entrepreneurship. There are not totally dedicated programmes to support these co-working providers. However, agencies like Innova-CORFO in Chile already planned for their immediate future the creation of a national network of spaces specialized in support of entrepreneurship (coworking, global hubs, labs), as well as investment in a new design of programmes that would work with the ecosystems (cities, campus, emerging sectors).

In Figure 4, the main programmes of the region are identified, and placed according to the support they give to each group of actors of the entrepreneurial ecosystem. It is observed that most of the programmes underlined in the reports of specialists are focused on those providers of

financial capital (risk capitalists and angel investors) and also on the actors that take part in the incubation and acceleration process. Next, there are also enough programmes that participate in organization and people who cooperate in the generation of contact and training networks of entrepreneurs. Lastly, as it was previously explained, the actors that fewer support programmes have at their disposal are the groups that provide advice, mentoring, and consultancy, as well as those that offer (co-working) spaces to connect ideas and ease work.

#### - Outstanding programmes in the Caribbean

The Caribbean countries, in general, have experienced low growth and high unemployment rates in the last decades. This situation has brought the need of a boost to the capacity of the private sector and thus, in the medium term, to increase its competitiveness and production capacity what will impact positively the economic growth of the countries of this region. Due to the lack of resources showed by these nations, their national governments have difficulties to assume without external support, the leadership in the development of broad programmes for boosting entrepreneurship. Therefore, there are programmes designed and carried out by multilateral organizations, development banks, economic commissions and governments of other countries, etc., whose goal is to promote the entrepreneurial support in the region of the Caribbean. In Table 2, some examples are shown. Many of these programmes have as a goal to support some of the present actors of the entrepreneurial ecosystems, whereas others serve exactly as actors aiming at performing functions that are not done by governments nor private institutions.

Unlike other Latin American countries, such as the cases seen before (i.e. Chile, Brazil, Colombia, Argentina and Uruguay), in which the respective states and governments carry out programmes of entrepreneurial support, there are more leadership of the multilateral organizations in the Caribbean at the time of driving such programmes. This is the case of *Info*Dev Growing Innovations, a programme promoted by the World Bank, which promotes innovation and technology in the Caribbean. This is a programme of multiple donations that, levered with a global network of business incubators, is oriented to the promotion and support of entrepreneurship connected with climate technology, agro-business and digital business, and it is also focused to a great extent on the training of women entrepreneurs. The initiatives driven there are connected with a network of knowledge, technology, financing and international markets with the purpose of growing in a short time. According to its 2014-2015 managerial report, *Info*Dev was able to support entrepreneurs in more than 70 countries (the Caribbean and Africa), published more than 30 educational tools for managers of business incubators, and gathered information on the entrepreneurial ecosystems of this region (*Info*Dev 2015).

In turn, InfoDev along with the Government of Canada and with the support of non-governmental organizations such as KoltaiCo, BCSI of Barbados, and UWI consultancy, carry out an ambitious programme of business acceleration: *Accelerate Caribe*. This accelerator promotes innovation and entrepreneurship in 14 CARICOM countries, and not only focusses on promoting growth in the incubated projects, but also the development of the actors in the acceleration ecosystem. Activities like "*Accelerate Caribbean Business Incubation Clinic*", "*Business Incubation Management* (BIM)", and "*Entrepreneurship Ecosystem Development Workshop*", pursue to form and update, constantly, the actors of the entrepreneurial ecosystems in the region.

In Table 2 it is observed that just as InfoDev, in the region of the Caribbean, there are other programmes promoted and implemented by multilateral organizations, development banks and economic commissions of other countries and continents. Some of these, as the cases of Young Americas Business Trust (YABT) and El Hueco Caribe are focused on specific sectors like the young promoting and improving young entrepreneurship. Others like *Small Business Development* 

*Centre* in the Caribbean (SBDC) are focused on growth, innovation, productivity and profit of the small enterprises.

Unlike other Latin American countries, like the outstanding cases of Brazil, Chile, Mexico and Colombia, where the programmes in support of entrepreneurship are driven and many times carried out by the same governments with the support of external organizations, in the Caribbean, as it was said previously, the common pattern is that the extra governmental organizations are vital and essential for the design, preparation and financing of the most ambitious programmes in support of entrepreneurs. Nevertheless, although this is the trend in the Caribbean, there are cases in which the national government tries to take the lead in the development of these programmes. Just like Barbados. Within the strategic framework of the government, whose goal is to promote the economic development and improvement in the quality of life of the people of Barbados through trade facilitation, entrepreneurial spirit, and consumer protection, the Ministry of Industry, International Trade, Small Business Commerce and Development have been developing promotion agencies and departments of programmes for entrepreneurs and their ecosystems. Programmes such as: Barbados *Youth Business Trust, Youth Entrepreneurship Scheme*, Barbados *Manufacturers' Association, Small Business Association (SBA)*.

One of the agencies dedicated to the promotion of entrepreneurship in Barbados is "*Small Business Association (SBA)*". The SBA undertook activities during 2015 to contribute with the entrepreneurial development, and also promote the necessary actions to strengthen the sector. In Table 3, it is observed the result of the economic management of the programmes and services carried out in 2015.

As in the SBA agency there are others that depend on the central government, and their goal is to promote entrepreneurship programmes. The Barbados Investment and Development Corporation (BIDC) is an organization aimed at finding solutions to create capable, innovative, dynamic and creative enterprises. The most recent information that was published, in which some of its indicators can be observed is the 2012 annual report. In this, programmes are highlighted such as The Entrepreneurial Development Division (EDD) that is focused on entrepreneurship in general that makes life in the country, and especially, in the entrepreneurial development of the young. In the 2012 report, an emphasis is made in the broadening of the Entrepreneurial Programme, bringing it to the secondary school, offering a whole vision of the process of business development and the activities that could lead to the establishment of a business. The result of this intense programme was to establish a business managed by students with BIDC supervision. Likewise, there were activities of disclosure to disseminate and educate the public about the benefits of becoming an entrepreneur, aimed at generating the spirit of the entrepreneurial initiative in Barbados. The programme supports the incubators, and the Incubator Programme continued rendering services to 16 enterprises and four virtual incubators enterprises, to offer a variety of services and products for the local market in particular, promoted by the Centre of Development of Small Business.

FIGURE 4
Main programmes to support entrepreneurship in the region, relevant actors



Source: Prepared by the author (2016).

TABLE 2
Entrepreneurship programmes led by multilateral organizations

Entrepreneurship Programmes	Objectives	Member countries	Organization and promoters
Young Americas	To support young	Antigua and Barbuda,	Organization of
Business Trust (YABT).	entrepreneurship and creation of employment.	Bahamas, Grenada, Jamaica, Dominican	American States (OAS)
		Republic, St Kitts and Nevis, Suriname, Trinidad and Tobago.	Inter-American Development Bank (IDB)
Inter-American Forum of Micro enterprises	To contribute with the dissemination of knowledge and good	It is formed by all the countries of Latin America and the Caribbean.	Inter-American Development Bank (IDB)
(FOROMIC).	practices in the field of the development of the micro enterprise.		The Government of each country
Multilateral Fund of Investment (FOMIN).	To conduct high risk experiments to test new models in order to draw and inspire the private sector and solve problems of economic development in Latin America and the Caribbean.	It is formed by all the countries of Latin America and the Caribbean.	-IDB -Ministry of Industry and Commerce of each countryMinistry of Youth. Centre of industrial development and competitiveness.
Initiative for Investment in the Caribbean Basin (CRII). (In the process of establishment)	To facilitate the countries of the Caribbean region the assessment of its entrepreneurial surroundings and to make recommendations for an agenda of reforms.	Antigua and Barbuda, Barbados, Belize, Grenada, Jamaica, Netherlands Antilles, Dominican Republic, Saint Lucia, St Vincent and the Grenadines.	-OECDOAS Multilateral Investment and Guarantee Agency (MIGA)World Bank (WB). Economic Commission for Latin America and the Caribbean (ECLAC).
Small Business Development Centre in the Caribbean (SBDC).	To promote growth, innovation, productivity and profit of the small enterprises.	Barbados, Belize, Dominican Republic, Jamaica, Saint Lucia.	Organization of American States (OAS). University of Texas in San Antonio. Caribbean Export.
El Hueco Caribe	To contribute with the development of the social economy and social entrepreneurship between the vulnerable young and their organizations, universities and NGOs.	Haiti, Dominican Republic	European Commission Cives Mundi NGO National University of Distance Education (UNED) from Spain.
EMPRENDE	To support the creation of new enterprises based on technology	Taiwan Dominican Republic	Government of Taiwan FOMIN Programme.

Source: Prepared by the author (2016).

TABLE 3
Small Business Association (Barbados): Programmes and indicators 2015

Programmes and Services	Measured indicators
Education and Training	<ul> <li>Enrolment was 181 participants, 70% were women and 30% men, if compared with 2013 and 2014 represents a 7% decrease in the enrolment of 194 participants from the previous year.</li> <li>80% of training was received by the general public.</li> <li>56% represented full time (freelance) employees. 64% of the students used training to acquire new skills, even those in lay-off, whose goal was to develop abilities for business development activity.</li> <li>51% reached ages between 25 and 40 years old</li> </ul>
Seminars and Workshops	<ul> <li>E-Commerce: Benefits and Challenges.</li> <li>Changes to the Central Bank's Financing Schemes.</li> <li>Strategies to Build Market Share.</li> <li>Seminar on Disaster Preparedness</li> </ul>
Training based on competences	<ul> <li>It was started the training administration for the owners of small enterprises and managers of the work area.</li> <li>It was continued the training in the development of a Level 3 new or existing business enterprise with 25 participants to attain the national professional qualification (CAP).</li> </ul>
Business and network development	• It was focused on the assistance of members to increase income sources and improve commercialization at general level, consisted of activities for the relaunching of the <i>Sé SME inteligente</i> programme and to encourage the use of social networks and Internet to promote its products.
SME Intelligent Programme	• A marketing programme to strengthen the opportunity of MSMEs to increase contributions, also called SME Be Intelligent.
SME intelligent competition of essays	• Aimed at primary school students from second to fourth grade, to write up to a maximum of 350 words on the subject "The importance of the small enterprises in the local economy".
Techsmart Programme	• Its goal is to offer free websites for the members providing assistance in the advancement of the operation efficiency and competitiveness through the use of the World Wide Web.
Social Media	The influence in social networks drew 4,000 followers in Facebook (4,187 at present) and a 50% increase in Twitter accounts with 607 followers and in LinkedIn with 713 followers.
Web Pages	It grew exponentially during the year, comparing 750 sessions per month at the end of June 2014 and a monthly average of 1,542 sessions in June 2015, it showed 106% increase.
Electronic Bulletin	• It was shown an increase up to 11,272, or 13% over the amount of the previous year, in relation to the database of the beneficiaries.
Small Business Week	Small Business Week (SBW) was coordinated 11 consecutive times starting from August.
Next Projects	Through the HRDS Funds to complete a national survey of the sector and develop a set of start-up tools for potential business owners.

Source: Small Business Association. Annual Report (2015).

# 3. Evaluation and analysis of the strengths and weaknesses of the development programmes for entrepreneurs in Latin America and the Caribbean

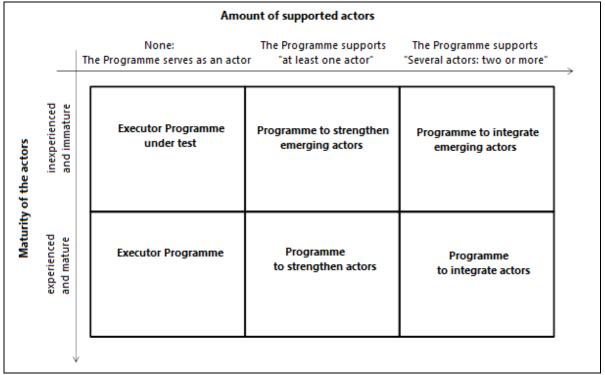
The maturity of the actors that make life in the different entrepreneurial ecosystems of the region, as well as the amount of these, allows the design and execution of effective programmes for the entrepreneurial support. Agencies with experience like CORFO (Chile) and FINEP (Brazil), since their creation, made an initial emphasis in developing programmes to encourage and improve the ecosystem of seed capital for emerging enterprises, since it seemed that the actors that functioned in this sector were not very sophisticated. However, after enlisting in that mission, they realized that in these countries there were not enough projects with innovative and growth potential, suitable to receive private capital. Therefore, they had to develop concurrently programmes to improve the quality of emerging entrepreneurship. In the Chilean case, after almost 15 years dedicated to the industry of risk capital, the specialists claim that this industry does not grow into the proper maturity yet. There are theories about the fact that the enterprises requesting funds such as fund administrators need more experience and that, in addition, the country does not have a flow of entrepreneurship projects attractive enough to make feasible the development of a true industry of risk capital (Kantis and Garcia, 2015). According to these experts, the measurement recorded by ICSEd-Prodem in 2014 show, in the Chilean case, not having enough in the technological platforms like a lack of social capital, a slowdown in the financial subject and a poor understanding of the corporate ecosystem. This has led to the reconsideration of the support programmes, adapting them to the maturity of each sector and no longer seeing the entrepreneurial activity as an isolated ecosystem, to offer them solutions of policy that integrate all sectors and not only designing particular programmes and self-contained efforts.

Therefore, the programmes aimed at entrepreneurship in Latin America and the Caribbean can be analysed according to the number of actors supported and with the maturity of those actors (see Figure 5). It can be said that in the region there are three types of programmes in support of entrepreneurs, namely:

- (1) Programmes focused on different actors that support entrepreneurship, which can be defined as "programme integrating actors". These programmes are ambitious and attempt to strengthen some specific group of support to entrepreneurship, and also look for integrating efforts between different actors. These programmes create synergies between several actors of different ecosystems, and thus, make more powerful their individual task in favour of the emerging enterprises.
- (2) Programmes aimed at supporting, at least, one actor of the entrepreneurial ecosystem. These programmes can be catalogued as "fortifiers of actors", since there are designed and carried out with the purpose of improving the effectivity and efficiency of a specific group of actors that wrap the entrepreneurs. By example, the programmes that support only the development of incubators or accelerators try to make these processes more efficient by providing them with suitable resources, capital and entrepreneurship (entrepreneurs with scalable ideas).
- (3) Programmes that do not support service providers, but carry out by themselves the function of the entrepreneur. These are "**executor programmes**" since they are not aimed at entities or organizations that serve entrepreneurs, but directly at the same entrepreneurs. By example, a programme whether public or private, that trains entrepreneurs, or allocate seed capital to emerging enterprises, can be catalogued as executor.

**24** FIGURE 5

Types of programmes for entrepreneurship developed in la region



Source: Prepared by the author (2016).

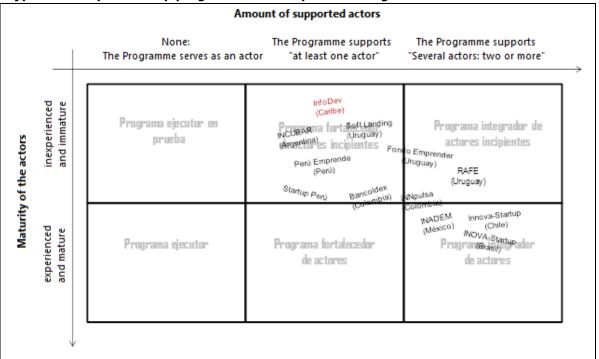
Each one of these three types of programmes (integrating, fortifiers, and executors) can be designed and applied to actors that have different degrees of maturity. That is, some industries or ecosystems of actors that support entrepreneurs, can have more or less experience and level of sophistication (see Figure 6). By example, in the Colombian case of iNNpulsa, which is an agency created in 2012, it was found that there existed a high degree of immaturity in the actors that functioned as providers of seed capital for enterprises with a high potential for growth, as well as a very poorly sophisticated level of those that offered technical and entrepreneurial services. Likewise, in the case of INOVAR (Brazil), at present (2016), although there has not been achieved an optimal level of maturity of the actors in the risk capital industry, it is a very much mature and knowledgeable sector than it was a decade ago. Between 2001 and 2011, this programme made considerable progress by decreasing the voids initially identified in the entrepreneurial ecosystem in Brazil. INOVAR made 12 calls to create new funds and five additional ones for seed capital. From more than the 220 proposals received, there were selected 24 funds that invested in around 100 enterprises (Leamon and Lerner, 2012).8 Therefore, an analysis of strengths and weaknesses was made taking into consideration the extent of the programme (how many supported actors), and the characteristics of the supported groups or actors (degree of maturity of the actor).

From the programmes underlined as good practices of public policies in support of entrepreneurs, it can be said that those promoted by the National Institute of the Entrepreneur (INADEM) of Mexico, Innova-*Startup* (Chile) e INOVA-*Startup* (Brazil) are the most efficient and powerful since they are capable of integrating mature and sophisticated actors of the entrepreneurial ecosystems in their respective countries. These programmes have the strength of having been validated over time because they were developed whereas the supported actors matured. They are symbolic

<sup>&</sup>lt;sup>8</sup> Leamon, A. and Lerner, J. 2012. Creating a Venture Ecosystem in Brazil: FINEP's INOVAR Project. Harvard Business School Working Paper 12-099.

programmes in their respective countries, and the economic, social and cultural cost of being eliminated by a determined political change is very high.

FIGURE 6
Types of entrepreneurship programmes developed in the region, with relevant actors



Source: Prepared by the author (2016).

These programmes are projected out of their countries, what gives them international legitimacy and, therefore, can draw the glance of actors who support entrepreneurship in other countries with higher standards of maturity and greater sophistication. This allows the transfer of knowledge from the USA and Europe towards these countries, thus achieving to improve and modernize the programmes. Finally, to have an idea of the power of these programmes, US\$ 35,381,9449 were invested in the region to support new innovative enterprises, and 85.2% came from these programmes. That is, of the 872 *start-ups* developed in 2014 in the continent, 736 (84%) came from these three programmes. Likewise, the great disadvantage or weakness that these programmes could have, is that there are encouraged mainly by government entities, what causes that their growth or strengthening would depend on one sector, the public one.

Likewise, initiatives like iNNpulsa (Colombia), Rafe (Uruguay), the Entrepreneurial Fund (Uruguay), even though they are designed to support different actors of the entrepreneurial ecosystem in their respective countries, such actors still require to mature and obtain higher levels of sophistication. The bigger weakness of these programmes can come from the low speed of evolution and assimilation that the different actors (capitalists, investors, trainers, mentors, incubators, accelerators and entrepreneurs) can have. For these programmes to achieve efficient integration of all the actors of the entrepreneurial ecosystem, they should walk hand in hand with the experience of each one of these, or at least, with the most influential ones. It is for this reason that by example, iNNpulsa (Colombia), in its first four years of operation, has tried to promote a change in mentality and culture towards innovation, has attempted to correct some failures in the

<sup>&</sup>lt;sup>9</sup> Figures provided by Fundacity (2014)

financing markets at early stages and has strengthened the perception of entrepreneurship in some regions of the country. It is not a surprise that in the medium term, this agency would produce programmes that act on a group of already mature actors, attaining its efficient integration.

Lastly, programmes such as *Start-up* (Perú), INCUBAR (Argentina), *Soft Landing* (Uruguay), InfoDev Caribe and Perú Emprende, are initiatives whose strength resides in the capacity of focusing efforts on specific actors and act, especially, in the development of those. The big weakness resides in the fact that the effectivity of said programmes depends on the nature and state of evolution of the different actors on which they act. Notice that they are located in the upper quadrant, a place where the ecosystems are still emerging or immature, what poses to them the challenge of accompany each one of these actors in their experience and sophistication, such as in the case of Chile and Brazil.

### 4. New sources of financing for entrepreneurship in Latin America and the Caribbean

As indicated by Hidalgo, Kamiya and Reyes (2014), in their early stages entrepreneurs tend to be financed through what is known as 3F: *friends, family and founders*. Later on, it is necessary to have the contribution of others, of angel investors and venture capital to provide the necessary funds to withstand the period of losses and support early growth. These investment models provide much more than capital, given that they involve people with experience and relevant knowledge for business management as well as on the board of directors, contributing their ideas and social networks. Companies that receive support from investors in the early stages, have higher rates of growth and creation of jobs.

In order to promote the emergence of new entrepreneurial initiatives (of high impact) it is necessary to devise, at the early stages, new mechanisms for alternative credit financing. Innovative initiatives are characterized by not having a history of previous demand for the product or service, nor the business model (where the innovative component possibly lies), hence the necessity to conduct various tests of concept (Hidalgo, Kamiya and Reyes 2014).

Some government schemes in this line aim to supply seed capitals to fund lost with the aim of generating capacity and a *stock* of entrepreneurship in contexts where there is a weak entrepreneurial culture. However, the funding supply in the early stages, is just one of the factors involved in the increase of the quantity and quality of the entrepreneurship (Hidalgo, Kamiya and Reyes 2014).

According to *Latin America Venture Capital*, venture firms from *Silicon Valley* made their first investments in Brazil in 2011, helping to motivate an important cycle of venture capital activity across Latin America. Since that time, the venture and entrepreneurial ecosystem has evolved not only in Brazil, but also in Argentina, Mexico, Chile and Colombia. Similarly, an innovation culture has been shaped given that governments in the region, as well as the private sector, have encouraged new accelerators, programmes and areas of co-working dedicated to entrepreneurs (*Latin American Private Equity & Venture Capital Association*, 2016).

Venture capitalists (*VC, Venture Capital*) in Latin America have signed agreements for US\$ 2,300 million for fundraising since 2011. Although historically Brazil has been the leader in the region, Mexico excelled Brazil for the first time in 2015, in terms of the number of fund closures and the total capital obtained. This increase in revenue in Mexico has been driven by the National Institute of Entrepreneurship (INADEM), a government agency that has invested in 36 funds in recent years (*Latin American Private Equity & Venture Capital Association*, 2016).

Chart 1 shows the behaviour of the venture capital industry in Latin America during the period 2011-2015, expressed in millions of dollars.

CHART 1
Venture capital industry in Latin America during the period 2011-2015



Source: Prepared by the author (2016), based on Latin America Venture Capital: Five-Year Trends. It uses LAVCA Industry Data (2016).

Chart 2 shows the number of projects funded by the venture capital industry during the period 2011-2015 in Latin America.

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CHART 2
Number of projects funded in Latin America (by country) during the period 2011-2015



Source: Prepared by the author (2016), based on Latin America Venture Capital: Five-Year Trends. It uses LAVCA Industry Data (2016).

It is important to note that investments in the venture capital industry, as reflected in Charts 1 and 2 (in dollars and number of projects, respectively) can impact companies in the following stages of development:

- Seed/Incubation: initial capital to incubate an idea in a company or product.
- **Early stage:** start-up capital for businesses.
- **Expansion stage:** capital for companies that have reached a sustainable level of development and can deliver products.

Another form of financing used by entrepreneurs in the region is angel investors. Usually, they are entrepreneurs or executives who invest in entrepreneurships that are in the early stages, amounts ranging from fifty thousand to one million dollars. Besides capital, these investors can provide advice and business contacts. Angel investors are often associated with networks or clubs for joint forces in key tasks for the operation of the investment process: attracting prospects, case analysis, negotiation, joint venture, legal costs, among others. In this way, the network enables reduction of information and transaction costs by identifying, analysing, establishing and supporting the investment agreements. It also enables minimizing risk as it unites contributions from different investors to cover a larger number of projects. Indeed, the most institutionalized networks operate as joint investment funds or *sidecar fund*. The role of these funds is to invest jointly with small groups of networks. The experience of Latin American countries in angel investor networks is still very emergent. Greater support is needed for the formation of these networks, as well as tax incentives for both capital gains and possible losses (Hidalgo, Kamiya and Reyes 2014).

Recent experiences with entrepreneurship programmes and business incubators in Latin America and the Caribbean: Towards the creation of an economy driven by entrepreneurship

Although *crowdfunding* is a new phenomenon in the countries of the region, with support from governments and multilateral organizations, it could become a useful tool for financing companies, as in developed countries.

According to the *Crowdfunding's Potential for the Developing World* (infoDev, 2013), some key points or considerations to be taken into account in the development of these financing platforms are:

- *Crowdfunding* emerged after the 2008 financial crisis, in response to the difficulties faced by new businesses to access funds.
- *Crowdfunding* is an extended line of financing from family and friends.
- Contributions range from US\$ 1,000 to 1 million.
- During the early stages, capital came in the form of grants but the model has rapidly evolved and now has been transformed into investment capital or debt.

Investment through *Crowdfund (Crowdfund investing, IFC)* is the alternative to the leveraged investment in *crowdfunding* promises. This term describes security based on equity and debt fund raising through *crowdfunding* platforms.

*Crowdfunding* emerged recently as an alternative to the traditional financing tools, such as bank loans, angel investors or venture capitalists (VC), for financing entrepreneurs and small and medium enterprises (SMEs) (infoDev, 2013).

Crowdfunding Web-based platforms provide scale and scope, and help overcome many of the challenges for financing companies that have hindered economic development and growth in developing countries. The challenges for countries that want to convert *crowdfunding* into a truly massive financing platform are, according to the *Crowdfunding's Potential for the Developing World*:

- Provide SMEs with access to capital.
- Promote the development of dynamic enterprises.
- Support access to export markets.
- Catalyse flows of capital within and between communities, irrespective of distance.

In Latin America, Colombia has recognized CFI as a key area of study to allow for early-stage capital (seed). Brazil has been a leader in South America in *crowdfunding* spaces. It has more than 15 recognized platforms, and the country's first merger of platforms took place in 2012 (infoDev, 2013). The first *crowdfunding* platform in Chile was founded in 2011. Presently, there are five active *crowdfunding* platforms in Chile, two being debt-based (Cumplo and Becual), one equity-based (Broota) and two rewards-based (Dale Impulso and Fondeadora). These platforms have helped to finance nearly 1,500 projects with a total sum of over US\$ 55 million. The amount of fundraising varies depending on the platform (FOMIN, 2015).

In general, the region has seen remarkable growth that exceeds other regions, increasing from five platforms to 41 since 2010. This is a positive sign for the potential of *crowdfunding* in the region: platforms that expand quickly in a region where access to capital has traditionally been difficult (infoDev, 2013).

Two of the most active and successful platforms in the region are Catarse and Ideame, both Brazilian, which are described as follows:

- Catarse (http://catarse.me) has raised over US\$ 4.1 million for over 1,000 campaigns from over 40,000 supporters on its rewards-based platform. To demonstrate the acceleration of this platform's growth, it took 10 months to surpass the first funds raising equivalent to R\$ 1 million (about US\$ 450,000). In 2013, it was able to fund that same amount in just 45 days (infoDev, 2013).
- Ideame (http://idea.me/) was also founded in 2011 and has campaigns in six countries in the region: Argentina, Mexico, Chile, Brazil, Colombia, and Uruguay (infoDev, 2013).

Countries in the region can use technology and business processes to implement *crowdfunding* systems. To develop a strong *crowdfunding* ecosystem it is necessary to consider aspects such as entrepreneurial culture, economic regulations, community participation and access to technology. The key element is building trust. It is then the duty of political leaders, the private sector and the NGOs to begin assessing their own readiness and participation in *crowdfunding* systems.

#### II. INITIATIVES BY BUSINESS INCUBATORS IN LATIN AMERICA AND THE CARIBBEAN

#### 1. Main initiatives by business incubators in Latin America and the Caribbean

In the opinion of Miller and Bound (2011), the benefits of supporting new businesses through their emergent and, generally, fragile early stages have been recognised for decades. In the public sector, for over 30 years business incubators have been a popular policy instrument to foster entrepreneurship and regional development, aiming to create jobs and catalyse local economic growth. For the private sector, dedicated to incubation with a focus on a rent-seeking, the model of incubation has grown into a significant industry in itself, in which professional services firms collaborate with the new companies. Investors have experimented with incubation a way to improve the performance of their portfolio, and some large companies have developed inhouse incubators to support new companies as a way to generate supply chains or source of new ideas (innovation).

There are notable variations in the incubation processes. Those wishing to analyse and assess the issue come up against the problem that there are no fixed definitions for different types of incubation, and the semantics used vary widely across countries and sectoral backgrounds. This issue is compounded by the stigma attached to incubation as a concept. For some, incubation is only a kind of "life support" for companies (Miller and Bound, 2011).

# Latin America and the Caribbean (LAC) represented in the International Association of Science Parks and Areas of Innovation, IASP

The IASP is the worldwide network of science parks and areas of innovation, aimed at enhancing the competitiveness of companies and entrepreneurs of their cities and regions; contributing to global economic development through innovation, entrepreneurship and transfer of knowledge and technology. It comprises 70 countries and characterizes its affiliates as follows: *i) Full member*, corresponding to organizations (science parks, areas of innovation, business incubators) that have operating companies and a team that manages the science park, the areas of innovation or the incubator. *ii) Affiliate member*, corresponds to organizations that are under construction, not operational. *iii) Associate member*, corresponding to institutions like universities, development agencies that wish to join the association. The IASP member countries of the LAC region are: Brazil,

Recent experiences with entrepreneurship programmes and business incubators in Latin America and the Caribbean: Towards the creation of an economy driven by entrepreneurship

Colombia, Ecuador, Mexico, Panama, Paraguay, Peru, Uruguay and Venezuela. Table No. 3 shows the participation of these countries in the IASP.

TABLE 4
IASP member countries in the region

	Full member	Affiliate member	Associate member
Brazil	12	3	4
Colombia	1	1	2
Ecuador	0	2	0
Mexico	3	4	0
Panamá	1	0	0
Paraguay	0	1	0
Peru	0	0	1
Uruguay	1	0	0
Venezuela	1	0	0

Source: IASP; 2016. Prepared by the author (2016).

#### Science and Technology Parks (STP), incubation strategy in Latin America

Rodríguez-Pose (2012; p-7) acknowledges that "despite its growing popularity, there is no globally accepted definition for the STPs in specialized literature. The commonalities, among most academics and associations of STPs, refer to an initiative – most times public – for creation of a delimited geographic area and aimed at favouring the development and implementation of scientific and technological activities, in order to promote and accommodate research institutions (in many cases associated with universities in the area) and knowledge-intensive companies, among which knowledge transfer is stimulated and produced. This transfer is mainly in the area of the park and its surroundings, but also with research institutions and companies located outside it. In addition, the impetus for this transfer occurs through active management of the area by specialized professionals, providing research centres and companies with high added value services as well as physical space and basic services. The ultimate goal of all this activity is the generation of sustainable economic growth in the long term, in the territory in which the STP is installed".

The essential elements of an STP are: a) a significant technological component; b) the presence of technological cooperation flows; c) the development of new technology-based companies and d) a contribution to the development of the surroundings, based on the promotion and sharing of knowledge (Rodríguez-Pose, 2012; p-8).

In 2012, Rodríguez-Pose identified the existence of three types of STPs in the region: i) operational; ii) those that are under construction and are scheduled to open in the relatively near future and iii) parks project, provided by public or private entities but have not yet passed from the planning phase to the construction phase (Rodríguez -Pose; 2012; p-18). Table No. 3 points out the main indicators of the STPs in the region.

**32**TABLE 5
Characterization of the STPs in the region

	Operational	In implementation process	In project	Dimension	Initiative of the parks
Brazil	22	31	11	Variable, from parks with more than one hundred companies and more than 3,000 workers to farms with less than a dozen companies	Mainly public and at the federal level, with high participation by state governments.
Mexico	21	7	7	Variable	Mixed. Private initiative, state governments, federal government and academic.
Argentina	5	1	1	Relatively small	More dependent on the private sector than the public.
Colombia	5	2	3	Relatively small	National programme for the development of parks, but with little follow-up. Two operational parks outside the national programme.
Venezuela	4	1	1	Relatively small or medium- sized. Some multisite.	Mainly dependent on the public sector.
Chile	2	2	2	Relatively small- sized	More dependent on the private sector. Preponderant role by the universities.
Uruguay	1	1	1	Relatively small- sized.	Greater balance between public and private initiative.
Peru	0	0	7	Plans for intermediate-sized parks.	Mainly public initiatives, with links to universities.

Source: Rodríguez-Pose; 2012.

## **Business accelerators**

Business acceleration programmes or accelerators represent the new wave in terms of business incubation. Driven in their early stage almost exclusively by private investors, they were focussed on the *web* and mobile sectors. This model was born in 2005 with the launching of *YCombinator*, followed by *Techstars* the following year. Their origins lie in the business incubators model, but have completely different business models and have a focus on *"lean startup"*.

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While there may be differences between the various acceleration programmes, Miller and Bound (2011) establish five different characteristics with respect to other programmes. These features are:

- An open application process, usually very competitive.
- Provision of pre-seed investments, usually in exchange for shares.
- Focus on small teams, not on individuals.
- Limited support in time, comprising scheduled events and intensive tutoring.
- Start-ups supported in cohort or "class" batches.

For Fundacity consulting firm, "in recent years, Latin American countries have increased their efforts in developing mechanisms to support innovation and *start-ups*. The acceleration and incubation programmes, both public and private, are playing a key role" (Latam Accelerator Report, 2015). According to this report, 31,563,841 million US dollars were invested in the region in 1,333 *start-ups* by 62 Accelerators.

The most active countries in the region in terms of financing *start-ups* are represented in Table 6, as follows:

TABLE 6
The most active countries in the use of accelerators

	Amount in dollars	Number of financed start-ups
Brazil	11,450,194	265
Chile	11,256,000	297
Mexico	7,447,500	174
Argentina	3,116,250	83
Colombia	800,000	17
Uruguay	627,000	23

Source: Fundacity, Latam Accelerator Report, 2015.

#### Accelerate Caribbean

Accelerate Caribbean it is a programme designed by infoDev as part of its Entrepreneurship Programme for Innovation in the Caribbean (EPIC), funded by the Government of Canada. The objective of this project is to strengthen innovation and entrepreneurship across the region and support job creation across 14 CARICOM countries.

Two initiatives of Accelerate Caribbean are related to business incubation processes, namely:

- Business Incubation Clinic (BIC): It is testing an innovative 12-month programme of business incubation. Ten entrepreneurs, competitively selected across the region, will be provided with (clinical) assistance from an internationally renowned entrepreneurship mentor, who will provide bi-weekly, one-on-one coaching and advice.
- Business Incubation Management (BIM): It is based on a tried and tested curriculum, designed to strengthen emerging entrepreneurship ecosystems. Each session is delivered by

world-class experts and offers an unparalleled opportunity to learn from their experience and *know-how.* 

# 2. The role of business incubators in Latin America and the Caribbean. Description, analysis and assessment of existing experiences

Science and Technology Parks (STPs)

According to Rodríguez-Pose (2012), the installation of the STPs in the region dates back to 1984, with the initiation of the Brazilian Programme of Technological Parks. In this primordial stage, the development of the STPs was linked to policies of an industrial nature rather than technological or scientific.

Since the beginning of this century, the drive towards STP policies has been much higher, due both to the strong integration of STPs in science and technology policies throughout Latin America as well as a process of regionalization of innovation policies. Compared to the first Latin American STP, always promoted by central or federal governments, many of the most recent STPs have been the initiative of states and municipalities (although most times they continue to be partially financed by the central government as well as international organizations such as the World Bank, and local institutions such as universities and business associations). Most of the identified STPs are aimed towards science and technology activities, particularly software development, telecommunications, electronic manufacturing and technical engineering services (Rodríguez-Pose, 2012; p-17).

The Latin American experiences in the development of the STPs, according to research by Rodríguez-Pose (2012), are described as follows:

#### **Brazil**

- Brazil is the country that has had the best policy for development of technology parks, although the initiation of the STPs is much later, and that has resulted in the largest deployment of STPs throughout Latin America.
- The vast majority of STPs in operation and in implementation are located in the south eastern and southern states, having higher income, greater industrial tradition and qualified human resources.
- Many of the parks in these states are either in large urban agglomerations or surrounding areas.
- Nevertheless, the phenomenon of STPs in the south and southeast of Brazil is not exclusively linked to large conurbations. Many intermediate cities and smaller municipalities have played an important role in the creation and promotion of STPs, for example, São José dos Campos, a city of about 600,000 inhabitants in the state of São Paulo, strategically located between São Paulo and Rio de Janeiro.

#### Mexico

- Mexico follows Brazil as the country with the largest deployment of STPs in Latin America.
- An important part of the STPs in Mexico is located in cities or around the three major conurbations of the country.
- Predominating are those parks that are very small in size and with a reduced number of companies, linked to the private sector or a university, college, or university department.

• In line with the increasing division of the country in terms of development, southern Mexico practically lacks not only parks but even park projects.

# **Argentina**

- From a geographical point of view, the city and province of Buenos Aires has three of the five operating parks in the country.
- In the Argentinian case, as in other countries, there are also a number of business clusters in different parts of the country that, although they respond to the name of industrial parks, technology centres or business conglomerates, they are hardly comparable to the concept of a STP.
- The Argentinian parks, compared to some of the Brazilian and Mexican parks, tend to be relatively smaller, both in their physical size as in the number of companies and employees associated with them.

#### Colombia

- A total of 10 parks have been identified in the case of Colombia. Among them, five are operational, two are in the implementation process and three in the project phase.
- Three of the operating parks are linked to the national policy of technological parks promoted by the Ministry of Commerce, Industry and Tourism since 2000.
- In all cases, the operating Colombian parks are small in size.

## Venezuela

- Venezuela has a total of four operating parks, one in the implementation process and another in the project phase.
- The established parks tend to be located near major cities.
- Outstanding is the Technological Park of Merida (which is more virtual than physical).

#### Chile

- Despite its high level of development, Chile has a very limited number of STPs.
- Among the six parks identified, two are operational.
- In both cases they are small-sized parks, both physically and in the number of participating companies.

# **Uruguay**

- Uruguay has one operational park in Montevideo.
- There is a technological pole in the implementation process in the city of Pando, on the outskirts of Montevideo in the Department of Canelones. This pole is linked to the Faculty of Chemistry of the University of the Republic.

#### Peru

- Peru does not have any operating park.
- There are, however, seven projects underway, linked in most cases to different universities and of which at least five are supported and partially funded by the Peruvian government through the National Council for Science, Technology and Innovation.
- The first park will be established in Arequipa, while the implementation of the others four in Lima, one in Piura and another one in La Libertad is scheduled for 2020.

# Accelerators

Out of the 62 accelerators and incubators identified in the Latam Accelerator Report, 2015, we would highlight a top 10 which have had a greater impact on the number of companies supported. These accelerators are:

- Startup Chile: Chilean government programme to attract world-class entrepreneurs in the initial phase to start business in Chile. The ultimate goal of the programme is to turn Chile into the accelerator of innovation and the entrepreneurship hub of Latin America. 250 accelerated start-ups, US\$ 7,049,130 invested.
- Wayra: From the Telefonica group. Present in Brazil, Chile, Peru, Mexico, Venezuela, Colombia and Argentina. 112 accelerated start-ups, US\$ 2,186,700 invested.
- Startup Mexico: it is the first campus specially designed to foster collaboration, innovation and the creation of new high-impact companies in Mexico. 84 accelerated start-ups, US\$ 840.000 invested.
- Startup Farm (Brazil): It is a company that operates as a bridge between high-tech entrepreneurs and the success they are seeking, supporting them through various initiatives. 58 accelerated start-ups, MMUS\$ 100 invested.
- Venture Institute (Mexico): It is a space for the creation and development of innovative and high impact companies. The programme consists of three elements: i) the physical space for collaboration, ii) a structured acceleration methodology and iii) mentoring venture capital experience. 38 start-ups accelerated.
- Angels Ventures Mexico: It seeks to support entrepreneurs and growing SMEs to obtain capital through angel investors that are part of its network, in its various chapters. To present projects to investors, it must pass through different filters, which involve from a business plan well done, to the obtaining of network investors interested in the particular industry. 38 start-ups accelerated.
- Softlandings Uruguay: It seeks ventures or companies with high scalable commercial potential, with clear exporter profile, and that will add value. The programme will provide up US\$ 40,000 in the form of grant funds for the installation and start-up of the business. 31 accelerated start-ups, US\$ 30,000,000 invested.
- Socialab (several countries): It seeks, through social media, launching of viral campaigns to promote their own projects, where they have successfully completed numerous projects in all categories of digital marketing and communication media, not only social, consistently delivering results. 33 start-ups accelerated.
- BlueBox Accelerator (Mexico): It promotes the potential of operating business models and entrepreneurial projects with high growth opportunities through our experienced trajectory in business and innovation. 32 start-ups accelerated.
- NXTP Labs (several countries): It is a network of entrepreneurs, investors, executives and organizations that believe in building the best companies with global impact. It operates in several countries in the region. 31 accelerated start-ups, US\$ 6,500,000 invested.

## Accelerate Caribbean

The infoDev 2014-2015 Annual Report highlights the following results for the Caribbean Accelerate Programme:

• In March 2015, the twelve-month Business Incubation Clinic (BIC) Programme was launched. 10 entrepreneurs (of 45 nominated) were selected from Jamaica, Barbados, Trinidad and Tobago, Grenada, Guyana, St. Vincent and the Grenadines, and Suriname.

• In June 2015, (two-day) meetings for Business Incubation Management (BIM) were initiated. Four training sessions on business acceleration will be held in the region for a period of one year.

# Assessment of existing experiences

In this section we will focus only on assessing the impact of the STPs and the accelerators, given that the components of Accelerate Caribbean started functioning in March and June 2015, respectively.

For the assessment of the STPs we will refer to the study by Rodríguez-Pose (2012), which intends to evaluate these initiatives according to the following dimensions:

- **Technological component:** what distinguishes a STP from a simple company park or a business park is the presence of knowledge-intensive companies capable of generating high technology and products of high scientific component. The technology component of the parks can have two types of origin. On the one hand, the origin can be internal, linked to the presence of universities and leading research centres and to knowledge or technology creating companies. On the other hand, technology can be achieved by attracting outside companies and, mainly, multinationals. In the case of Latin America, as in the rest of the world, most existing parks refer to research centres, universities and local companies as the main source of scientific knowledge. This situation arises from macroeconomic and knowledge circumstances in which Latin American STPs are created, and not by a conscious commitment by the drivers and park managers to rely on the local knowledge base rather than external sources. In order to create a technological base in the park, it is necessary to have creative knowledge centres in the form of research centres and leading universities or innovative companies in the immediate vicinity of the STPs. In the case of Latin America, and despite the recent improvement in training and innovation systems, there are very few parks that can count on the support of innovation centres and truly advanced universities.
- Technological cooperation flows: The concentration of companies with high knowledge component in a small geographical area should theoretically lead to the emergence of technological cooperation flows which, in turn, should help dynamize the productive sector. However, in the vast majority of Latin American parks, these flows are either very low or virtually non-existent. There are several reasons why these flows have limited sizes. The first is related to the small size of many of the STPs. As we have seen, many Latin American STPs currently have only a handful of companies based in them. In other cases, the absence of technological cooperation flows is simply because companies do not get enough benefits from interaction with other companies in the park. The high technological companies are more likely to interact with other dynamic companies anywhere else in the world than with those located in the park (pages 32 and 33).
- Creation of technology-based enterprises: a fundamental function of the STPs is their ability to create new technology-based companies as a result of the presence of other innovative companies and resulting knowledge overflows. To some extent, STPs become incubators for new knowledge companies that, in turn, are integrated into the park and help generate virtuous circles of innovation and entrepreneurship. However, once again the situation of Latin American STPs in this field is variable and, in many cases, far from the ideal. There is no doubt that in some of the largest parks in the continent Campinas, Porto Alegre, Florianopolis, the parks in Rio in Brazil, or Monterrey in Mexico incubation function

is being fulfilled and often grows as the park is developed. These STPs are having a positive effect on the progress of initiatives by companies with a development strategy based on knowledge, as they have, at the same time, helped to awaken a genuine interest in this type of strategy. Carryover effects of the research centres of the universities and the knowledge overflows between university and park, and inside it, are favourable to the growth of enterprises located in these STPs and the emergence of new technology-based companies.

But in Latin America these mechanisms tend to be the exception rather than the rule. Generally, the institutional framework of Latin American STPs, although it includes promoting institutions in most cases, is often not sufficiently developed and responsibilities appropriately distributed to provide continuous and adequate support for generating companies with technological content. The dimensions of the STPs play an important role so that this can be so. As already mentioned above, many of the parks have no more than a handful of companies, some small-sized, so that the park itself may be considered more as an incubator than as a STP, so to speak. Practically all Chilean parks, the Technological Park LATU in Uruguay, many of the Colombian and Venezuelan parks, as well as several parks in Brazil – including the vast majority of those to the Northeast – and Mexico are all in this situation: centres with functions similar to that of incubators and with little prospect of change in the short term. Another common figure among Latin American STPs is the gradual degradation of their technological component and knowledge. As in the parks of southern Europe, several Latin American parks have a high percentage of companies with low technological content and knowledge.

Such is the case of most Argentinian parks – which are often nothing more than technological poles – but also the case of a high percentage of parks in Brazil and Mexico. The degradation of technological contents of the parks tends to be higher in those with better initial provision of infrastructure, where managers have been frequently under pressure to relax the scientific-technological criteria to the tenants of the park for the sake of greater level of occupancy and higher short-term profits, even at the cost of dithering over the main objectives of the STP (pages 33 and 34).

- Contribution to regional development: given the few years of operation of most STPs in Latin America, one can consider that it is too early to draw firm conclusions, and it would therefore be better to focus on the intermediate effects of the parks. However, if one takes into account that the technological component of the Latin American STPs is often scarce, that the cooperation flows in knowledge are limited, and that the creation of technology-based companies is conspicuously absent in many cases, it is not surprising that the contribution to regional development and the creation of innovation systems of much of the parks is restricted. One can speak of parks that have not had a major impact on the development of local and regional innovation systems, and whose influence on the local economy has been, still is, and is likely to continue being limited, with the exception already pointed out in the scores of parks of great sizes and with important technological component. The only effects that are usually detected on the region are, on the one hand, a territorial relocation towards them on the part of the few companies of local origin with intensive knowledge or with the aim to be so for reasons of cost and image (pages 35 and 36).
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that the cooperation flows in knowledge are limited, and that the creation of technology-based companies is conspicuously absent in many cases, it is not surprising that the contribution to regional development and the creation of innovation systems of much of the parks is restricted. One can speak of parks that have not had a major impact on the development of local and regional innovation systems, and whose influence on the local economy has been, still is, and is likely to continue being limited, with the exception already pointed out in the scores of parks of great sizes and with important technological component. The only effects that are usually detected on the region are, on the one hand, a territorial relocation towards them on the part of the few companies of local origin with intensive knowledge – or with the aim to be so – for reasons of cost and image (pages 35 and 36).

Business accelerators are a relatively new phenomenon and there is a more structured need to do quantitative research related to the impact of these programmes on the founders and enterprises (Miller and Bound, 2011). Quantitatively we can compare the amount invested in accelerating companies in different regions of the world. By 2015, according to Fundacity, these amounts were as follows for Latin America, Europe, Asia (Oceania included) and North America (USA and Canada) respectively:

- US\$31,563,841 in 1,333 start-ups for 62 accelerators, Latam Accelerator Report, 2015.
- € 37,533,632 in 2,574 *start-ups* for 113 accelerators, *European Accelerator Report*, 2015.
- US\$16,842,427 in 1,295 start-ups for 54 accelerators, Asian Accelerator Report, 2015.
- US\$90,295,774 in 2,966 *start-ups* for 111 accelerators, *USA & Canada Accelerator Report,* 2015.

## **HIGHLIGHT**

How should the performance and impact of acceleration programmes be measured?

To answer this question formulated by Miller and Bound (2011), these very authors acknowledge that beyond the benefits obtained by investors, the secondary and indirect impacts should also be quantified.

Miller and Bound (2011) propose that together with the traditional evaluation of incubators, such as creation of jobs, attracting talent, encouraging private investment and survival of enterprises, the assessment of accelerators could be strengthened by including the following aspects:

- Convening power: as acceleration programmes perform a useful function to bring together different interested groups and building of networks.
- Creating a corporate culture: as accelerators create stories of success, they could convince more people to start businesses and have a greater impact on corporate culture than investors or governments.
- Mentoring: for a long time it has been regarded as an important means of supporting entrepreneurship, but it is necessary to reconsider the role of mentoring with the following questions: what is the relative value of mentoring among equals?, what types of mentoring have the greatest impact?

We can find another way of answering the question, how should the performance and impact of acceleration programmes be measured? in the Seed Accelerator Rankings Project (SARP), an

initiative that aims to provide transparency and encourage productive discussion among accelerator directors, start-ups, investors, politicians, academics and the rest of the entrepreneurial ecosystem. The parameters used by SARP to measure the performance of US accelerators are: valuation of companies, qualified exits, access to qualified fundraising, survival rates and founders satisfaction.

Source: Prepared by the author (2016), based on Miller and Bound (2011) and Seed Accelerator Rankings Project (2016).

## **CONCLUSIONS AND RECOMMENDATIONS**

Table 6 shows the economic performance of Latin America and the Caribbean and presents some indicators related to entrepreneurship and innovation. This table enables us to summarize what has been an invariable in the development of this research: the dissimilar nature of the information that the various governments in the region generate and report, hinders research in different areas.

What table No. 6 does not reflect, at least on a first reading, is the vitality and robustness of some entrepreneurs' ecosystems. We say some because this research revealed that in the region, countries like Brazil and Chile, followed by Mexico and Colombia, are the ones that work more articulately in the development of their ecosystems.

We hope that in the near future, when comparing the equivalent to Table 6 (comprising 33 countries) we can say that "the majority" and not "some" are the ones who have these robust and developed entrepreneurs' ecosystems.

But, what can the most backward countries do to develop their entrepreneurial ecosystems to reach the regional leaders? Or put in another way, what can we learn from the most successful experiences in the region?

We would emphasize that the experiences of Chile, Brazil, Mexico, Colombia and Uruguay confirm the importance of government action (the State's role) in developing the entrepreneurial ecosystem. As stated by Hidalgo, Kamiya and Reyes (2014), "government intervention can be justified on the basis that it takes time to develop an entrepreneurial culture and a mature industry with venture capital, a process that can be accelerated through public policies, that can play a key role in the early stages, generating favourable conditions for the emergence and dissemination of successful cases and to reduce the perception of risk by investors. The cases of entrepreneurial success can generate virtuous cycles, as they inspire other potential entrepreneurs to follow their example and encourage investors to invest" (p. 61). It is therefore about aligning the different actors of the entrepreneurial ecosystem. Government action to create a healthy business atmosphere should focus primarily on providing structure and predictability, not in intervening too much to hinder the development of enterprises. This government action is evident in the establishment of programmes to promote entrepreneurship in some countries. In the field of business incubation, the evidence found in this report points out that government action is also important although there is enough space for private participation. And that participation is increasingly relevant.

We would also like to highlight the role played by multilateral organizations. In the Caribbean region, these institutions have a more prominent role, without detracting its importance in the rest of Latin America. In the Caribbean not only do they support the development of programmes, but in many cases they design, finance and execute them. That is, multilateral organizations, investment banks and economic commissions are vital, and not only a support, to the development of entrepreneurial support programmes. Additionally, these organizations may introduce or develop new financing platforms such as crowdfunding, as well as create capacities within entrepreneur communities and support specific ecosystems. Specific initiatives more outstanding in Central America and the Caribbean, such as InfoDev Caribbean, are currently being carried out with social and financial capital from various multilateral organizations or from governments of other regions/continents.

Finally, we emphasize the maturity and immaturity of the actors (and support programmes) of the different ecosystems. In the immature actors, they dominate isolated initiatives focused mostly on supporting the entrepreneur. The more developed, on the contrary, have experienced a paradigm change: they develop a more global vision for development of an ecosystem. They have understood that a solid entrepreneurial ecosystem requires more than entrepreneurs and willing investors.

**TABLE 7 Economic and entrepreneurial performance (by country)** 

Countries	WEF Competitiveness Ranking (2016)	Doing Business Ranking (2016)	Early-Stage Entrepreneurial Activity Rate (TEA): % Pop. Economically Active (2015- 2016)	Entrepreneuri al by Opportunity (% TEA) (2015-2016)	Creation Expectation 6+ Jobs (2015)	Business opening cost (% of income per capita) (Doing Business, 2015)	Investment in I+D (% GDP) 51 (2015)
Antigua and Barbuda	-	104	-	-	-	9,5	-
Argentina	106°	121	17,7	67,4	18.8	9,7	0.62%
Bahamas	-	106	-	-	-	10,9	-
Barbados	-	119	21,0	80,8	11.8	7,1	-
Belize	-	120		82.9 (2014)	-	40,7	-
Bolivia	117°	157	-	76,7 (2014)	-	57,9	0.16%
Brazil	75°	116	21,0	56,5	6.8	3,8	-
Chile	35°	-	25,9	67,4	33.6	0,7	0.40%
Colombia	61°	54	22,7	65,6	54.3	7,5	0.26%
Costa Rica	52°	58	-	79,4 (2014)	-	11,1	0.56%
Dominica	-	91	-	-	-	15,0	-
Ecuador	76°	117	33,6	68,8	9.3	22,0	0.35%
El Salvador	95°	86	-	67,8 (2014)	-	42,7	0.06%
Guyana	121°	137	-	-	-	10,9	-
Guatemala	78°	81	17.7	53,5	11.9	25,0	-
Grenada	-	135	-	-	-	17,3	-
Haiti	134°	182	-	-	-	235,3	-
Honduras	88°	110	-	-	-	38,7	-

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Countries	WEF Competitiveness Ranking (2016)	Doing Business Ranking (2016)	Early-Stage Entrepreneurial Activity Rate (TEA): % Pop. Economically Active (2015- 2016)	Entrepreneuri al by Opportunity (% TEA) (2015-2016)	Creation Expectation 6+ Jobs (2015)	Business opening cost (% of income per capita) (Doing Business, 2015)	Investment in I+D (% GDP) 51 (2015)
Jamaica	86°	64	-	65,6 (2014)	-	5,0	-
Mexico	57°	38	21,0	78,9	10.1	17,9	0.50%
Nicaragua	108°	125	-	-	-	72,2	-
Panama	50°	69	12,8	52,0	2.0	6,3	0.18%
Paraguay	118°	100	-	-	-	39,9	0.09%
Peru	69°	50	22,2	72,9	16.0	9,8	-
Puerto Rico	-	57	8,5	73,7	9.8	1,3	0.44%
Dominican Republic	98°	93	-	-	-	16,4	-
St. Vincent and the Grenadines	-	111		-	-	16,5	-
St. Kitts and Nevis	-	124	-	-	-	7,9	-
St. Lucia	-	77	-	-	-	22,4	-
Suriname	-	156	-	73,2 (2014)	-	100,7	-
Trinidad and Tobago	89°	88	-	86,5 (2014)	-	0,7	0.05%
Uruguay	73°	92	14,3	80,6	25.9	22,0	0.32%
Venezuela	132°	186	-	15,4 (2011)	-	88,7	-

Source: Prepared by the author (2016), based on Hidalgo, Kamiya and Reyes (2014).

## **INSTRUMENTAL DEFINITIONS**

## **Business acceleration:**

Process induced by one or more external entities by which a company or entrepreneurship in the early stages or up to 42 months (GEM standard) multiplies its business value in a period of 1 to 2 years.

#### **Business accelerator:**

Organization whose focus is to significantly increase (boost) the value of a company or start up to make it a high-growth company (dynamic company) and where there are therefore explicit promises regarding specific business results (such as increases in sales or having investment resources) to be obtained through a combination of efforts by entrepreneurs and potentiating staff themselves.

#### **Venture capital (VC):**

It is a type of private equity investment usually for early-stage companies. It has been fundamental in promoting innovation, frequently performed by new enterprises, in science and technology as well as to promote innovative business practices and bring new products to the market.

## **Private equity:**

It focuses on supporting and helping in the management of the company with large sums of money and experience. Private capital remains an option for SMEs that have escalated and need the resources of a private equity firm.

#### **Crowdfunding:**

It is a form of online fundraising, from a diverse group of small and large investors, loaners or contributors to existing or new promising businesses. Connectivity combines Internet technology, transparency of virtual history, the effectiveness of real-time data and the multifaceted interests of the people to direct capital to those in need.

#### Portfolio:

It is the set of entrepreneurial initiatives being supported by the business accelerator, incubator or other agency to support entrepreneurs.

## **Entrepreneurial ecosystem:**

Business economic environment from the network that frames the innovative and entrepreneurship character across the region, the economic, business and public agents.

#### **Business ecosystem:**

It is a business community supported by a base of interacting organizations and individuals that produce goods and services of value to customers who are themselves part of the same ecosystem. The parts of the ecosystem include suppliers, leading producers, and competitors, among others.

## **Elevator pitch:**

A quick description of a company and why it differs from the others. It is so called because the speech should be short enough so that it could be accomplished in the space of an elevator ride. It means answering the question "why should I be interested in your company" in a minute.

# **Dynamic entrepreneurship:**

Also known as "gazelles". It is a company that, after billing around US\$100,000 the first year of operation, manages to achieve sustained growth rates of 35% (minimum) in annual turnover during the first 5-6 years.

## **Deal source:**

Origin of business projects in the network environment: incubators/business accelerators, universities, research centres, business schools, venture capital funds, banks, assessors and consultants, business promoting agencies, chambers of commerce.

#### Side-car fund:

Similar structure to a capital fund used to finance operations and which can be complementary to funds contributed individually by investors.

#### **Business incubator:**

Organization that supports the entrepreneurial process by helping to increase survival rates of companies recently created through a specialized menu of services such as office space, consulting business plans, administrative services, intellectual property services, and business coaching, among others. There are incubators for various purposes: cultural or arts incubators, microenterprise incubators, gender incubators, technology incubators, etc.

# **Angel investors:**

Individuals with ultra-high net-worth who put a small part of this for start-ups. They usually have experience in starting or developing business and not only do they use their capital to help the business grow, but also their knowledge and experience; also, they manage syndication of deals among them to invest in attractive opportunities.

#### Mentoring/Coaching:

Encouragement-type support to entrepreneurs by businesses and managers with experience in fund seeking processes or business development.

#### Startup:

Recently created company, between 1 and 12 months of existence. According to Ries (2011), a Startup is a human institution designed to create new products and services under conditions of extreme uncertainty. In this sense, start-ups are emergent vehicles seeking a business model in highly uncertain environments.

## Follow-up:

It is the set of activities performed by an executive, to be updated on the status of the dynamic entrepreneurs which he/she supports: their needs, compliance with their commitments, their degree of progress.

Sources: MIF FOMIN Guide for Dynamic Entrepreneurship (2008 (2008), FOMIN Creating a Crowdfunding Ecosystem in Chile (2015). Ries (2011).

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