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**Measure for Success Data Driven Innovation Ecosystem Development –
Insights From Brazil Canada and Russia**

*Plenary Session 6:
"The future"*

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Executive Summary

Around the world, university-based business incubators and accelerators have become a primary means of motivating, training, supporting, and retaining the entrepreneurs of today and tomorrow. However, few empirical studies have systematically assessed their relative performance and impact. This lack of data-driven monitoring jeopardizes the efficient allocation of resources, provision of services, and by extension the success of the incubation programs, their client startups, and innovation ecosystems.

This paper advances the argument that quantitative performance tracking and impact assessment need to be integral elements of any effort to establish successful local, regional, or national innovation ecosystems. By comparing and contextualizing key results from three empirical studies conducted by UBI Global in collaboration with regional and national partners in Brazil, Canada, and Russia, it uncovers best practices pertaining to incubation programs' business models, role within their respective innovation ecosystems, and efforts to provide the best possible client startup support.

Introduction

In the information age, entrepreneurs and the startups they create have become the central drivers of economic growth.²⁶² Across sectors, young firms consistently achieve higher employment growth than more mature companies.²⁶³ For instance, a Kauffmann Foundation study found that all net job creation in the United States between 1980 and 2005 occurred in firms less than five years old.²⁶⁴ What is more, entrepreneurship was found to have a major impact on the social well-being of a country's population.²⁶⁵

In light of startups' growing socio-economic importance, the reasons and consequences of their high failure rate have become the focus of a growing body of research. For instance, a comparative study of 16 countries found that the three-year startup survival rate is on average equal to just above 60%, decreasing to 50% after five years and to just over 40% after seven years.²⁶⁶ Other studies report a long-term success rate as low as 10%.²⁶⁷ The most frequently cited reason for this high failure rate is the insufficient preparation of their founders,²⁶⁸ particularly in the areas of business development, investment attraction, networking, and commercialization.²⁶⁹

²⁶² Flavio Calvino, Chiara Criscuolo, and Carlo Menon, *Cross-Country Evidence on Start-up Dynamics*, *OECD Science, Technology and Industry Working Papers* (Paris, 2015), 6.

²⁶³ Chiara Criscuolo, Peter N. Gal, and Carlo Menon, "The Dynamics of Employment Growth," *OECD Science, Technology and Industry Policy Papers*, no. 14 (2014): 96, 54.

²⁶⁴ Dane Stangler and Robert E. Litan, "Where Will the New Jobs Come From?," *Kauffman Foundation Research Series: Firm Formation and Economic Growth* (2009),4.

²⁶⁵ Cf. Sigal Haber, Matthew Lo, and Charles H. Davis, *2015 GEM Ontario Report - Driving Wealth Creation & Social Development in Ontario*, 2015.

²⁶⁶ Calvino, Criscuolo, and Menon, *Cross-Country Evidence on Start-up Dynamics*, 6.

²⁶⁷ Erin Griffith, "Why Startups Fail, according to Their Founders," *Fortune.com* (September 2014).

²⁶⁸ Fabio Q.B. da Silva, *The Creation of World Class Companies in Brazil: The Setting Up and Operation of a Distributed and Networked Enterprise Generation Programme* (Perth, Australia: IASP VII World Conference on Science Parks, 1998),1.

²⁶⁹ Cf. Jeffrey A Timmons and Stephen Spinelli Jr., *New Venture Creation : Entrepreneurship for the 21st Century*. (Boston : McGraw-Hill/Irwin, 2004).

While the creation of supportive innovation ecosystems has been identified as the most effective means to increase startup performance,²⁷⁰ their development can take decades.²⁷¹ Beginning in the 1980s, governments have therefore started to support the establishment of business incubation programs²⁷² that catalyze the creation of startups and the necessary support systems. Since then, incubation programs have become an industry segment in their own right,²⁷³ providing greater results at less cost than any other type of economic development program.²⁷⁴

Due to the fast moving pace of technological development²⁷⁵ and the need for interdisciplinary know-how and knowledge transfer,²⁷⁶ facilities and skilled labor²⁷⁷ physical proximity to and close collaboration with centers of knowledge and technology production have become key factors in determining incubation program success. Consequently, university-linked programs have come to play a particularly important role in many countries' innovation strategies.

To date, surprisingly few comparative empirical studies have systematically measured and evaluated the mechanisms by which such programs generate economic value, improve the performance of their client startups, and develop viable business models. This lack of data-driven monitoring jeopardizes the efficient allocation of resources and provision of services and, by extension the long-term success of the incubation programs, their client startups, and innovation ecosystems.

Based on these observations, this paper advances the argument that quantitative performance tracking and impact assessment need to be integral elements of any effort to establish successful local, regional, or national innovation ecosystems. It presents a research methodology that was designed for this purpose, allowing for a holistic comparative assessment of incubation programs' relative performance. The methodology was utilized to conduct empirical studies in the Brazilian state of Paraná, Russia, and the Canadian Province of Ontario. Comparing and contextualizing some of the results from these studies, the paper addresses the following research questions:

- 1) Which business models do university-linked incubation programs deploy to foster economic growth, best serve their start-up clients, and become sustainable?
- 2) How do different programs' design characteristics influence the measurable incubation outcomes in these three categories?

²⁷⁰ Startup Genome, *Global Startup Ecosystem Report 2017* (San Francisco, 2017), 9-12.

²⁷¹ Cf. Brad Feld, *Startup Communities: Building an Entrepreneurial Ecosystem in Your City*, Startup revolution (Hoboken, New Jersey: John Wiley & Sons, Inc., 2012).

²⁷² For the remainder of this paper, incubation program is used as an umbrella term to describe all variations of business incubators and accelerators.

²⁷³ Rip Empson, "Economic Impact Of Startup Accelerators: \$1.6B+ Raised, 4,800+ Jobs Created, 2,000 Startups Funded | TechCrunch," *TechCrunch*, last modified 2012, accessed April 5, 2017.

²⁷⁴ Peter Arena et al., *Construction Grants Program Impact Assessment Report*, 2008, 65-66.

²⁷⁵ Silva, "The Creation of World Class Companies in Brazil: The Setting Up and Operation of a Distributed and Networked Enterprise Generation Programme," 2.

²⁷⁶ Cf. Maura McAdam and Susan Marlow, "A Preliminary Investigation into Networking Activities within the University Incubator," *International Journal of Entrepreneurial Behavior & Research* 14, no. 4 (June 13, 2008): 219–241.

²⁷⁷ Cf. Andy Lockett and Mike Wright, "Resources, Capabilities, Risk Capital and the Creation of University Spin-out Companies," *Research Policy* 34 (2005): 1043–1057.

The three impact studies were carried out by UBI Global in collaboration with regional and national partner organizations. Based on a shared set of key performance indicators, the studies were designed to detect challenges and opportunities and to identify best practices that should inform future iterations of the respective innovation programs. For each case, the methodology was adjusted to meet the respective partner's requirements and to account for regional idiosyncrasies.

Measuring Incubation Performance and Impact

Since the publication of Temali and Campbell's pioneering "Business Incubator Profiles: A National Survey"²⁷⁸ in 1984, a substantial body of research has emerged that describes and classifies business incubation and acceleration programs. However, less attention has been devoted to comparatively evaluating short- medium- and long-term incubation outcomes.²⁷⁹ This is primarily due to the fact that it is difficult to objectively compare programs characterized by a large variety of missions, business models, and other idiosyncrasies. Different national ecosystems excel in different performance metrics. Their incubation programs, established by both public and private entities, often pursue a number of different objectives. While some programs are designed to support any kind of ventures, others focus on particular sectors, entrepreneur profiles, or university research commercialization.

Moreover, relevance and implications of many potential performance indicators remain disputed. For instance, a high survival rate can signify a supportive environment for startups. At the same time, a low survival rate could signal that startups are free to experiment with uncertain business ideas in a functioning "up-or-out" environment. It can be argued that in an industry driven by outliers – a majority of ventures cease to exist or remain small and only a fraction grow quickly over the years and create a disproportionate amount of jobs²⁸⁰ - low entry costs are crucial. Due to these unresolved issues, existing studies frequently focus on a limited set of outcome variables, such as the number of jobs created, number and success rate of client startups or impact on the local economy.

Despite their diversity, incubators and accelerators in the subset of university-linked programs frequently offer very similar core services, ranging from coaching and mentoring to subsidized space, access to capital, networking opportunities and administrative and business development support.²⁸¹ In 2014, Dhruv Bhatli and Joel Ericsson Enquist at UBI Global used this insight to start the development of a research methodology that allows for a holistic comparative assessment of university-linked business incubators and accelerators worldwide. Since then, UBI Global has continuously refined this methodology, based on the latest research and in collaboration with industry experts.²⁸²

Incubation programs are generally designed as long-term strategies for economic development.²⁸³ At the same time, many incubation programs have only been in existence for a short period of time. For this reason, short-, medium- and long-term key performance indicators (KPIs) were identified, defined, weighted, and included in

²⁷⁸ Mihailo Temali and Candace Campbell, *Business Incubator Profiles : A National Survey*. (Minneapolis, MN : Hubert H. Humphrey Institute, 1984).

²⁷⁹ Cf. David M Dilts and Sean M Hackett, "A Systematic Review of Business Incubation Research," *The Journal of Technology Transfer* 29 (2004): 55–82.

²⁸⁰ Calvino, Criscuolo, and Menon, *Cross-Country Evidence on Start-up Dynamics*, 7.

²⁸¹ Donna Kelly, Slavica Singer, and Mike Herrington, *GEM 2015/16 Global Report, Global Entrepreneurship Monitor*, 2015, 34.

²⁸² For the latest published iteration, see: Dhruv Bhatli, *Global Benchmark Report 15/16 - Top University Business Incubators* (Stockholm, 2016).

²⁸³ Cf. Candace Campbell and David N Allen, "The Small Business Incubator Industry: Micro-Level Economic Development.," *Economic Development Quarterly* 1, no. 2 (May 1987): 178.

the methodology. As any relative performance analysis requires a benefit/cost analysis,²⁸⁴ outcomes are evaluated relative to each program’s size.

Each assessed program is assigned an overall performance score, based on its relative achievements in three distinctive categories: *Value for the Ecosystem*, *Value for the Client Startups*, and *Value for the Incubation Program* itself. Further subdivided into seven subcategories, these categories are designed to capture the most important incubation performance dimensions identified by the literature. Table 15 provides a simplified overview of the categories, subcategories, and KPIs used to calculate each program’s overall performance score.

Table 15: Categories, Subcategories, and KPIs²⁸⁵

3 Category	Value for Ecosystem		Value for Client Startups			Value for Incubation Program	
	Economy Enhancement	Talent Retention	Competence Development	Access to Funds	Access to Network	Incubation Offer	Post Incubation Performance
41 Key Performance Indicators	# jobs created (5,h)	% non-locals remaining in region (1,h)	# coaching hours (1,m)	\$ investment attracted (5,h)	# contacts with corporations (1,h)	\$ incubator investment (1,h)	# IPOs (10,h)
	\$ sales revenue (5,h)	# applications accepted (1,m)	# mentoring hours (1,m)	*Avg. size of investment (1,h)	# events (1,h)	# applications received (1,m)	% clients acquired (1,m)
	# intl. sponsors (1,m)	% non-local applications (1,m)	# clients utilizing coaching (1,m)	# investors in network (1,h)	# national sponsors (1,h)	# university staff (1,m)	% clients profitable (5,m)
	# intl. partners (1,m)		# clients utilizing mentoring (1,m)	# investors invested (1,h)	# national partners (1,h)	* program adaptation (1,m)	% clients growing (5,m)
	\$ self-generated revenue (1,m)		# coaches (1,l)	% seed-funded clients (1,m)	# alumni (1,m)	# graduates (1,m)	% clients surviving (1,m)
			# mentors (1,l)	% unfunded clients (1,m)	# contacts with governments (1,l)		% clients terminated (1,l)

²⁸⁴ Cf. Thomas S Lyons, Byungsu Kang, and Cass Pursell, *Birthing Economic Development : How Effective Are Michigan’s Business Incubators?* (East Lansing, Mich.: Center for the Redevelopment of Industrialized States, Social Science Research Bureau, Michigan State University, 1990).

²⁸⁵ Since the implementation of the three projects discussed in this paper, the UBI Global research methodology has been updated. For the latest iteration, please see: <http://ubi-global.com/>.

	# training modules (1,m)	# contacts with seed capital firms (1,h)	# contacts with research centers (1,l)
		# contacts with investors (1,m)	

Unit: # = Number of, \$ = US Dollars, % Percentage, Period: 1 = 1 year, 5 = 5 years, 10 = 10years, Weight: h = high, m = medium, l = low

Value for Ecosystem measures the economic impact of the incubation program, its client and alumni startups as well as its capacity to retain knowledge and startups in the ecosystem. The subcategories *Economy Enhancement* and *Talent Retention* encompass 8 KPIs identified in the literature.²⁸⁶ *Value for Client Startups* measures benefits client startups derive from utilizing the incubation program's services. Numerous studies, focusing on the entrepreneurs or the startups as units of analysis, have shown that the quantity and quality of services provided is a crucial indicator of long-term startup success.²⁸⁷ Of equal importance - not only for the individual startups but for the growth of the ecosystem - is the incubation programs function as a facilitator of community and network building.²⁸⁸ The UBI Global research methodology groups the provided services in three subcategories: *Competence Development*, *Access to Funds*, and *Access to Network*, containing 22 KPIs. *Value for Incubation Program* measures the programs' reputation regarding the creation of viable companies. Graduate success is perceived by entrepreneurs, potential employees, partners and investors alike as a valid indicator for program success.²⁸⁹ However, the industry is driven by outliers. The category is therefore divided into the *Incubator Offer* and *Post Incubation Performance* subcategories, containing 11 KPIs. While a detailed discussion of the full methodology is beyond the scope of this paper, Figure 7 provides a graphical overview of the research process.

²⁸⁶ Cf. Deborah M Markley and Kevin T. McNamara, "Economic and Fiscal Impacts of a Business Incubator," *Economic Development Quarterly* 9, no. 3 (1995): 297–278. Campbell and Allen, "The Small Business Incubator Industry: Micro-Level Economic Development." Criscuolo, Gal, and Menon, "The Dynamics of Employment Growth." Ryan Decker et al., "The Role of Entrepreneurship in US Job Creation and Economic Dynamism.," *Journal of Economic Perspectives* 28, no. 3 (2014): 3, Calvino, Criscuolo, and Menon, *Cross-Country Evidence on Start-up Dynamics*.

²⁸⁷ Cf. Startup Genome, *Global Startup Ecosystem Report 2017*, Haber, Lo, and Davis, *2015 GEM Ontario Report - Driving Wealth Creation & Social Development in Ontario*, Campbell and Allen, "The Small Business Incubator Industry: Micro-Level Economic Development", María Redondo and Carmen Camarero, "Dominant Logics and the Manager's Role in University Business Incubators," *Journal of Business & Industrial Marketing* 32, no. 2 (March 6, 2017): 282–294.

²⁸⁸ Jed Christiansen, "Tracking Global Growth in Seed Accelerators," *All Things D*, last modified 2012, accessed April 27, 2017, http://allthingsd.com/?p=273009&ak_action=printable.

²⁸⁹ Cf. Startup Genome, *Global Startup Ecosystem Report 2017*, Markley and McNamara, "Economic and Fiscal Impacts of a Business Incubator," Redondo and Camarero, "Dominant Logics and the Manager's Role in University Business Incubators."






1 Data Collection	2 Data Treatment	3 Performance Assessment	4 Program Ranking	5 Program Benchmarking
				
Assessment of all applying university-linked incubation programs	Data cleaning and validation, detection of input errors, outliers, and anomalies	Preliminary score calculation by summing each program's KPI scores	Relative ranking of incubation programs based on verified performance data	Benchmark level calculation, including global top, average, regional, and other levels
Collection of performance and descriptive data from all accepted programs	Performance data normalization and weighting, reflecting each dimension's relative importance	Impact evaluation of program type, age, size, ecosystem and other factors	Identification of top performers in multiple global, regional and national categories	Benchmarking of all programs against relevant benchmark levels
Verification & Validation	<i>After step 2 and 3: Automatic flagging of unusual or suspicious data: desk research; request for supporting documentation; input from research advisory board members, country ambassadors, and other industry experts; qualitative interviews with a subset of incubation program managers</i>			

Figure 7: Assessment, Ranking and Benchmarking Process

Continuously refined and updated, this research methodology has been used to assess and compare the relative performance of almost 700 university-linked incubation programs across regions and over time. However, it is important to note that the final evaluation of any incubation program's success always needs to incorporate its objectives, mandated operating restrictions and socio-economic context.

For each of the three studies discussed below, the general UBI Global research methodology was adjusted to account for case-specific requirements.²⁹⁰ The Paraná project primarily focused on educating stakeholders on how to measure incubation program performance and which essential tracking mechanisms to implement. In contrast, the Russia project was designed to generate a general overview of the innovation ecosystem, identify top performing programs, and highlight their best practices. The Ontario project focused on determining and highlighting the aggregate impact of the university-linked incubation programs and exploring their client startups' experience. The results of the three studies are contextualized by comparing the assessed samples to the performance of subsets of the 356 incubators and accelerators that participated in the UBI Global Benchmark Study of 2015.²⁹¹

²⁹⁰ A discussion of the data collection, validation, and verification procedures is beyond the scope of this paper. Please see <http://ubi-global.com/> or contact the author at Holger@ubi-global.com for case specific documentation.

²⁹¹ Cf. Bhatli, *Global Benchmark Report 15/16 - Top University Business Incubators*.

Brazil: Benchmarking University-linked Business Incubators in the State of Paraná

Policy makers identified the need for business incubators, science parks and areas of innovation to foster the development of competitive future industries in Brazil's efficiency-driven economy²⁹² early on.²⁹³ Since the creation of its first incubation program in 1982,²⁹⁴ Brazil has implemented a number of ambitious national and regional programs to promote entrepreneurship and create university-linked innovation ecosystems.²⁹⁵ Supported by the Brazilian Micro and Small Business Support Service (SEBRAE) and the Brazilian Association of Science Parks and Business Incubators (ANPROTEC), the country today maintains one of the world's largest science park and business incubator systems, consisting of about 400 incubation programs and 90 science parks.²⁹⁶ Evaluating the success of these organizations, recent studies have found Brazil to be one of the countries with the highest startup job creation rates²⁹⁷ while producing the highest percentage of female entrepreneurs.²⁹⁸ However, the overall startup rate remains comparatively low²⁹⁹ and the number of exits due to lack of profitability particularly high.³⁰⁰ Moreover, entrepreneurship promotion efforts, monitoring, and tracking mechanisms, as well as platforms to share best practices among programs remain underdeveloped in many regions of the country.

In 2015, SEBRAE/Paraná and UBI Global devised a two-year project to address these challenges in the state of Paraná. Based on the research framework outlined above, the project was designed to:

1. Measure the performance development of all 18 university-linked incubators in Paraná that implement the CERNE³⁰¹ management model
2. Identify top performing programs and highlight their best practices
3. Rank and benchmark the assessed programs against international reference groups³⁰²
4. Raise internal and external awareness for the programs and their activities
5. Implement a monitoring system and a knowledge sharing platform that support the programs in improving their efficiency, effectiveness, and competitiveness

In line with global trends, many of Paraná's incubation programs tailor their offerings to tech startups. For instance, 45% of the sampled programs focus on information and communications technology (ICT) ventures.

²⁹² The World Economic Forum classifies economies as factor-, efficiency- or innovation-driven. Efficiency-driven economies are more competitive than factor-driven economies, having implemented more-efficient production processes and increased product quality. However, firms are not yet as knowledge-intensive and the service sector is not as developed as in innovation-driven economies. Cf. Mike Herrington and Penny Kew, *Global Entrepreneurship Monitor 2015/16 Global Report* (London, 2017), 17.

²⁹³ Cf. Eduardo Moreira da Costa and J Fabio Marinho de Araujo, "Genesis of the Incubator Movement in Brazil: How the Need for New Software Companies Helped Foster the Development of Dozens of Incubators All Over the Country," *Hélice* 3, no. 4 (2014).

²⁹⁴ Gustavo Tietz et al., "Business Incubators in Brazil: Main Gaps to Be Explored by Academic Researchers" 10, no. 4 (2015), 20.

²⁹⁵ Cf. Fabio Q.B. da Silva, *The Creation of World Class Companies in Brazil: The Setting Up and Operation of a Distributed and Networked Enterprise Generation Programme* (Perth, Australia: IASP VII World Conference on Science Parks, 1998).

²⁹⁶ Anprotec - Associação Nacional de Entidades Promotoras de Empreendimentos Inovadores, "Mission, Vision and Strategic Areas," accessed April 27, 2017, <http://anprotec.org.br/site/en/>.

²⁹⁷ E.g. Calvino, Criscuolo, and Menon, *Cross-Country Evidence on Start-up Dynamics*, 13.

²⁹⁸ Herrington and Kew, *Global Entrepreneurship Monitor 2015/16 Global Report*, 28.

²⁹⁹ Calvino, Criscuolo, and Menon, *Cross-Country Evidence on Start-up Dynamics*, 14.

³⁰⁰ Herrington and Kew, *Global Entrepreneurship Monitor 2015/16 Global Report*, 25.

³⁰¹ The CERNE management model was implemented by ANPROTEC in partnership with SEBRAE to improve incubation results in both quantitative and qualitative terms. Cf. Francilene Procópio Garcia et al., *Reference Center for Business Incubation: A Proposal for a New Model of Operation*, n.d.

³⁰² The Global reference group encompassed 338, the Latin American sample 99, and the Brazilian sample 38 incubation programs. Moreover, participants were benchmarked against a Global Top reference group, consisting of the top 10% of the global sample.

The data provided by the participating programs indicates that many of them have developed business models that significantly differ from those of their international peers. Figure 8 illustrates that they neither use return on equity nor corporate sponsorship to finance their operations. Moreover, they rely significantly less on university funding than the reference groups. Instead, the programs are largely dependent on government support and income generated from service fees and space rental.

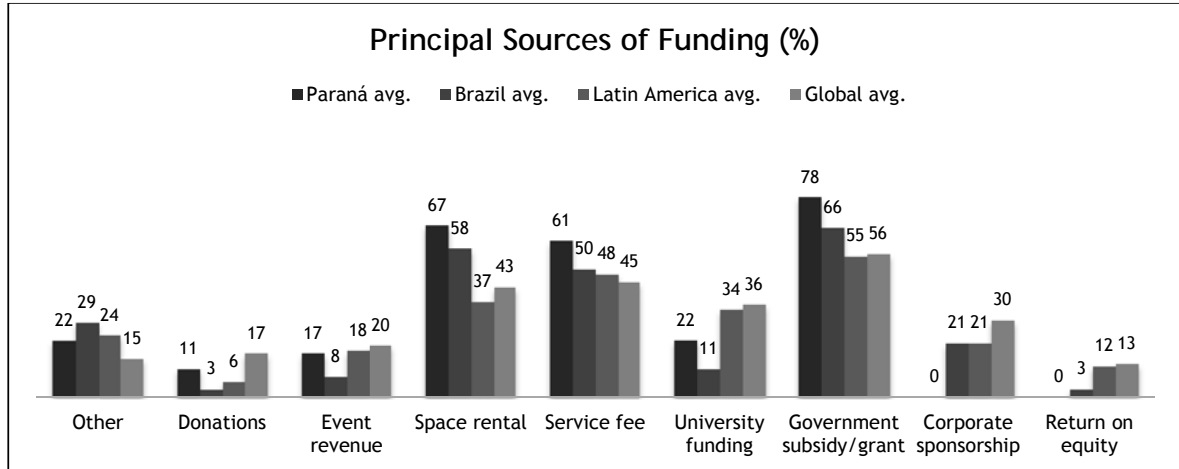


Figure 8: Incubation Programs' Principal Sources of Funding (%)

A comparison of the 18 programs' average subcategory performance scores to those of the Latin American, Global and Global Top reference groups reveals that they trail their regional and global peers in all but one (*Post-incubation Performance*) subcategories. Figure 12 reveals notable differences in performance of up to 33% (*Economy Enhancement*) between the programs from Paraná and the Global reference group. Moreover, Paraná's incubators' performance (average total performance score: 46.5) trails the national average (48.8) in all but one (*Access to Funds*) subcategories.³⁰³

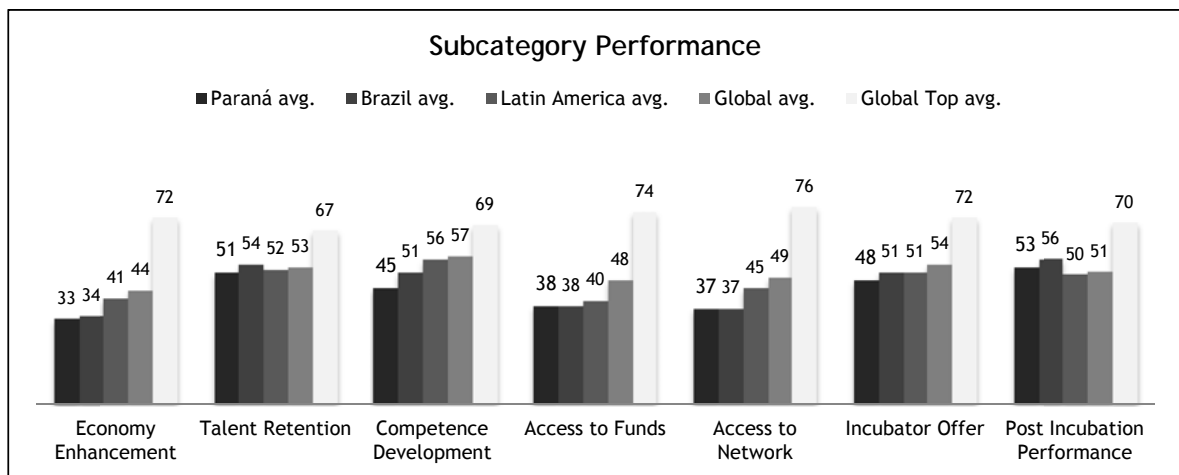


Figure 30: Subcategory Performance - Paraná vs. Brazilian, Latin American and Global samples

³⁰³ The difference in the *Access to Funds* (38.4 to 38.2) and *Access to Network* (36.5 to 37.4) subcategories is negligible.

Paraná's developing university-linked innovation ecosystem, characterized by a blend of incubators of different sizes, capacities, and stages of development has come a long way since 2015. For instance, the programs have caught up to top performing global incubators with regard to office and desk space rental services. However, operating on budgets half the size of the global average, the programs continue to rely more heavily on government grants and subsidies than their global peers.

In order to become more competitive, Paraná's university-linked incubators need to further diversify their revenue streams. While many of the programs take in space rental and service fees, they have yet to develop effective strategies to attract corporate sponsors. Moreover, host universities need to increase their financial commitment to their incubators. These measures would not only improve the financial situation of the incubators but also their attractiveness and consequently deal flow.

In 2016, a workshop with all 18 incubators outlined the strength and weaknesses of each program and provided explicit recommendations on how to improve their overall performance. Since then, strategies to diversify revenue streams, find and train qualified employees, intensify stakeholder engagement, and ultimately close the gap to the reference groups have been implemented. Moreover, new outreach options and more efficient ways to support clients' efforts to attract financing are currently being explored. The results of these efforts will be published at the end of 2017.

Russia: Mapping and Benchmarking University-linked Incubation Programs

Russia's factor-driven economy³⁰⁴ is home to a large variety of incubators and accelerators. Many of the programs have not only caught on to emerging trends but developed their own strategies. As a result, a number of competitive regional innovation ecosystems emerged over the past decade.³⁰⁵ However, Russia's socio-economic context poses challenges to the development of a flourishing entrepreneurial culture.³⁰⁶ For instance, a comparative study of 66 economies found that the country's innovation rate, as well as its citizens' perception of entrepreneurship as a viable career option, entrepreneurial intentions, and total early-stage entrepreneurial activity, are among the lowest in the world.³⁰⁷

In order to better understand and address these challenges, the Russian Venture Company (RVC), the Business Incubator of the Higher School of Economics (HSE {Inc}) and UBI Global conducted a national benchmark study. Based on the methodology outlined above, the study's principal goals were to:

1. Map and assess the country's innovation ecosystem, with a particular emphasis on university-linked incubation programs
2. Measure and compare the performance of university-linked programs and a university-unaffiliated reference group
3. Identify top performing innovation programs and highlight their best practices
4. Rank and benchmark the assessed programs against international reference groups³⁰⁸

³⁰⁴ According to the WEF's classification, factor-driven economies are characterized by a continuing reliance on agricultural and extraction businesses, (unskilled) labor and natural resources. Cf. Mike Herrington and Penny Kew, *Global Entrepreneurship Monitor 2015/16 Global Report* (London, 2017), 17.

³⁰⁵ For instance, Moscow was ranked as the world's 13th best startup ecosystem in 2015. Cf. Startup Compass Inc., *The Global Startup Ecosystem Ranking 2015* (San Francisco, 2015), 24.

³⁰⁶ Cf. Garry D Bruton, "Incubators as a Small Business Support in Russia: Contrast of University-Related U.S. Incubators with the Zelenograd Scientific and Technology Park," *Journal of Small Business Management* 36, no. 1 (January 1998): 91–94.

³⁰⁷ Herrington and Kew, *Global Entrepreneurship Monitor 2015/16 Global Report*, 20.

³⁰⁸ The Global reference group encompassed 354 and the European reference group 109 incubation programs. The Global, European and National Top reference groups consist of the top 10% of the respective samples.

5.

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6. Raise internal and external awareness of the programs and their activities

60 university-linked and 14 university-unaffiliated programs took part in a comprehensive survey. These 74 programs are located in 42 regions across Russia. **Hata! Başvuru kaynağı bulunamadı.** illustrates that the vast majority agglomerate in Russia's Volga and Central Federal Districts and tend to be clustered in innovation hubs such as Moscow, St. Petersburg, Kazan, or Samara. In line with global trends, many Russian incubation programs tailor their offerings to tech startups. 34% of the sampled programs indicated that they focus on supporting such ventures. 39% of their European and 48% of their Global peers have a similar focus. Interestingly, four out of five clients of the Russian programs physically enroll in their respective programs. In contrast, only 67% and 72% of the clients of their European and Global peers physically enroll, with an increasing number of entrepreneurs opting for virtual enrollment.



Figure 31: Geographical Location of the 74 assessed Incubation and Acceleration Programs

The assessed Russian university-linked programs are on average four years young, while the unaligned programs have an average age of eight years. In contrast, the average age of the European and Global samples is nine and ten years old respectively. Consequently, contextualization is of paramount importance when interpreting the results of this comparative study. Similar to their international peers, the analyzed Russian programs are characterized by a large variety of missions, setups, sizes, and capabilities: For instance, the average annual operating budget of the Russian sample is just over \$265,000, while individual budgets range from \$50,000 to \$2.8 million, with a median of \$125,000.

Like the university-linked incubators in Paraná, Russian programs have developed business models that differ significantly from those of their international peers. Similar to the samples from Brazil and Paraná, the Russian programs tend to rely less on university funding than their European and Global peers. Instead, they focus more on service fees and event revenue as sources of income. **Hata! Başvuru kaynağı bulunamadı.** illustrates that top-performing Russian programs were not only more successful in generating event revenue and government support than their national and international peers, but also in attracting corporate sponsorships.

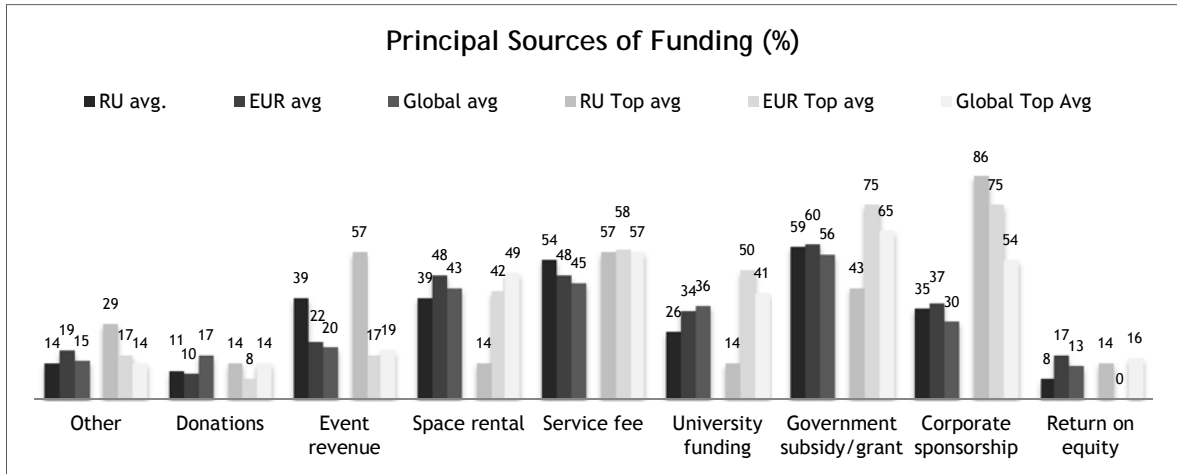


Figure 32: Incubation Programs’ Principal Sources of Funding (%)

A comparison of the Russian samples’ average subcategory performance scores to national samples from Brazil and Canada reveals that the programs in the developing Brazilian (average score: 48.1) and Russian (48.7) innovation ecosystems are in many ways comparable. In contrast, Canada’s highly developed university-linked business incubators and accelerators (52.3) operate in one of the most mature, effective, and efficient entrepreneurship environments in the world. Figure 12 visualizes the notable differences in performance of up to 27% (*Access to Network*) between Canadian and Russian average subcategory scores. Moreover, it illustrates the noteworthy performance gap between the top 10% of the surveyed programs and the national average in all seven subcategories. Russian top-ranked incubators and accelerators outperform the country’s average in the three subcategories *Value for Ecosystem*, *Value for Clients* and *Attractiveness* by 31%, 38%, and 28%, respectively.

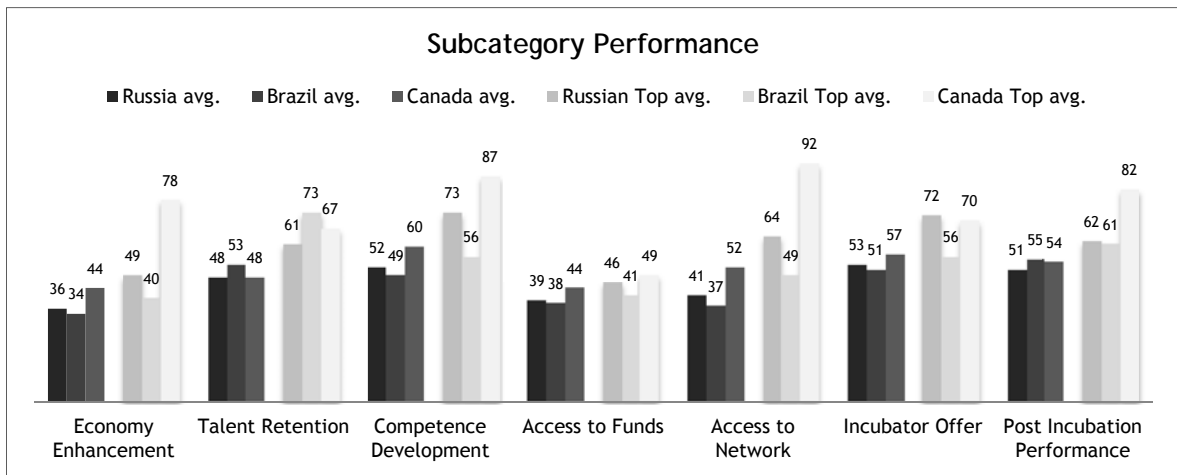


Figure 12: Subcategory Performance – Russian, Brazilian, and Canadian samples

Overall, the presented insights indicate that Russia’s incubation programs are having a major impact on its economy as well as on its entrepreneurs. Despite their comparatively young ages, limited budgets, and smaller workforces, they have achieved remarkable successes. At the same time, the country’s incubators and

accelerators as a group face important challenges in the areas of administration, seed fund establishment, public relations, international partnerships, and client startup-investor matchmaking. While they outperform international competitors with regard to some key performance indicators, they do not yet reach the same performance levels as the reference groups.

Like their international counterparts, Russian top-performing programs provide a larger variety of services to their client startups and have a higher number of coaches and mentors at their disposal. They organize a greater number of events and have established impressive networks of investors, partners, and sponsors (whose sizes even significantly exceed global averages). Not surprisingly, the average amount of investment attracted by their client startups over the past five years (\$8.3 million) is almost 40% higher than the national average. Relatedly, the number of client startups that have successfully graduated from top incubation programs is nearly 3.5 times higher than the national average. However, fostering entrepreneurship remains a low priority in Russia's economic development strategies. Consequently, even top-performing programs often receive only limited financial support from their host universities and governmental bodies.

Without a radical shift in Russia's economic development policies and a strong commitment to the development of an entrepreneurship-friendly business culture, closing the gap to their international top-performing peers will remain a daunting challenge for the country's incubation programs. However, the country's top-performing accelerators and incubators have shown that the development of business models that focus on non-public sources of revenue can help address these challenges.

Canada: Assessing the Impact of Ontario's Campus-Linked Accelerator (CLA) and On-Campus Entrepreneurship Activities (OCEA) Programs

The innovation-driven³⁰⁹ Canadian economy is home to one of the most advanced innovation ecosystems in the world (cf. Figure 12). Ontario, Canada's largest province by population and economic output plays a central role in its development.³¹⁰ The provincial government has long been investing in programs that support technology commercialization, creating a network of innovation centers and financially assisting university-linked incubation programs. In 2014, it launched the two-year Campus-Linked Accelerator (CLA) and On-Campus Entrepreneurship Activities (OCEA) programs. Administered by the Ontario Centres of Excellence (OCE), these programs supplied a total of C\$25 million to start or expand a network of 59 accelerators, incubators and other entrepreneurship initiatives at 42 academic institutions across the province. Figure 34 highlights key locations in Ontario's innovation ecosystem.

³⁰⁹ According to the WEF's classification, innovation-driven economies are the most advanced type of economy. Their businesses are more knowledge-intensive and their service sectors significantly larger than those in factor-driven and efficiency-driven economies. Cf. Mike Herrington and Penny Kew, *Global Entrepreneurship Monitor 2015/16 Global Report* (London, 2017), 17.

³¹⁰ Cf. Haber, Lo, and Davis, *2015 GEM Ontario Report - Driving Wealth Creation & Social Development in Ontario*.

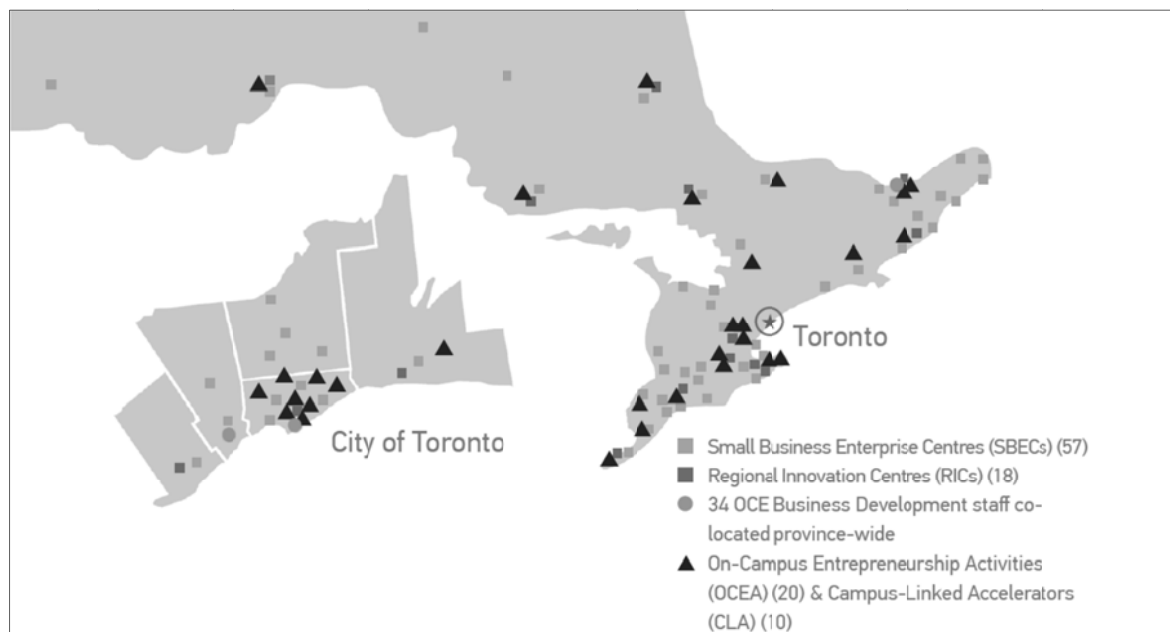


Figure 34: Ontario's Innovation and Entrepreneurship Support Network

Today, Ontario enjoys one of the highest levels of positive attitudes reported toward entrepreneurship among innovation-driven economies. Its entrepreneurs are pleased with the conditions to start a business, confident that they have the necessary skills, and trust in agencies and business incubators.³¹¹ In 2016, two years after the start of the CLA and OCEA programs, OCE commissioned UBI Global to:

1. Assess the direct, indirect, and induced impacts of the OCEA and CLA programs on Ontario's economy, entrepreneurial ecosystem, and young entrepreneurs
2. Evaluate the programs' impact in national, North American and Global contexts
3. Estimate the programs' potential impact over the next ten years

The evaluation is based on an adjusted version of the UBI Global research methodology. It utilizes survey data collected from 10 CLA and 20 OCEA projects, the 42 participating universities and colleges and 1064 client startups. Unlike the two studies discussed above, it focuses on assessing the aggregate absolute impact of a group of programs rather than evaluating their relative performance.

The funds provided by the CLA and OCEA programs were used to implement a network of 59 entrepreneurship initiatives. OCE contributed between \$100,000³¹² and \$3.3 million to each of the projects. In turn, the institutions administering the projects contributed an additional \$27 million in cash and \$23.7 million in in-kind contributions. The projects thus had a combined budget of approximately \$72.2 million with a leverage ratio of 2.36.

Since their inception, the two programs helped create or support 2,214 startups. Incubated for an average period of nine months, the ventures achieved a 91% two-year survival rate. In comparison, the average

³¹¹ Ibid, 2.

³¹² All dollar symbols (\$) in this section indicate Canadian dollars.

national and global two-year survival rates for startups are approximately 70%. 96% of the startups established their businesses in Ontario, with 80% staying within proximity of their program. Projected to create 1,500 jobs over two years, supported startups created or sustained an estimated total of 8,293 jobs, including 4,716 direct and 3,577 indirect or induced jobs in other businesses.

Young entrepreneurs supported by a CLA or OCEA raised an estimated total of \$264.2 million between 2014 and 2016. The total amount of investment raised increased from \$56.8 million in 2014/15 to \$207.4 million in 2015/16. Investment by the federal and provincial governments increased from \$11.5 to \$32 million over the same period, representing 17% of total investment. These public investments stimulated private investment at a leverage ratio of 4.96. However, the relative share of public investment in total investment declined from 20% to 16% during the past two years, due to a significant increase in private investment. Thus the leverage ratio improved from 3.95 to 5.31 year-over-year.

Venture capitalists (\$82.5 million) and angel investors (\$70.3 million) provided the majority of private capital. Their share constituted almost 58% of total investment and 72% of all private investment. Loans and credit accounted for an estimated \$24.9 million, friends and family for \$20.7 million. Other sources made up the remaining \$21.4 million. Figure 35 illustrates the distribution by funding source.

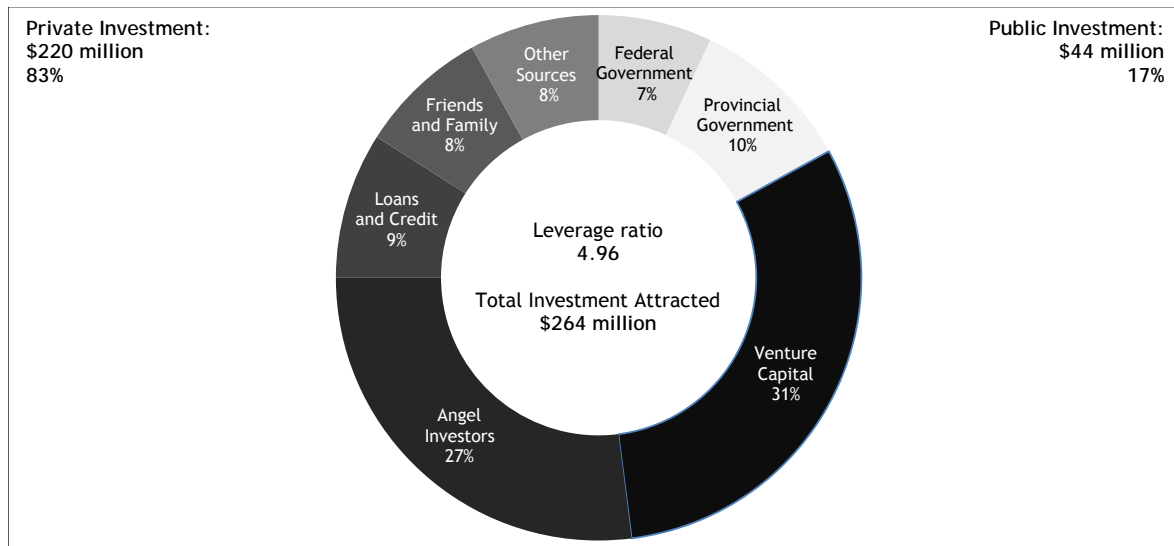


Figure 35: Estimated Total Investment Attracted by Source of Funding

The startups generated estimated direct sales revenue of \$138 million and an additional \$109 million in indirect and induced revenue. The total fiscal revenue in provincial sales tax and provincial income tax was estimated at \$16.6 million over the last two years alone. Provided that the programs continue to be funded at current levels, the CLA and OCEA programs are projected to break-even by the end of fiscal year 2016/17, with new provincial tax revenues covering the costs of maintaining the programs. In following years, they are projected to become net contributors to Ontario’s fiscal bottom line.

Promoting entrepreneurship as a critical, long-term, strategic priority within Ontario’s academic institutions and their respective communities, the programs have become an essential part of the province’s startup feeder

system, with 38% of their clients referred to Regional Innovation Centres. Moreover, the initiatives forged strong collaborations with 908 partner and 258 sponsor organizations. They hosted 4,621 events and seminars and 392 competitions. Since 2014, 178,827 students and 101,331 youth from the communities participated in activities hosted by the CLAs and OCEAs.

Entrepreneurs benefited from coaching provided by experienced entrepreneurs serving as advisory or volunteer mentors, local service providers as well as Regional Innovation Centres (RICs). As Figure 36 illustrates, they received 41,918 hours of coaching from advisors, 34,436 hours from volunteer mentors and 8,618 hours from RICs. The value of the volunteer hours alone was estimated to be \$3.4 million.

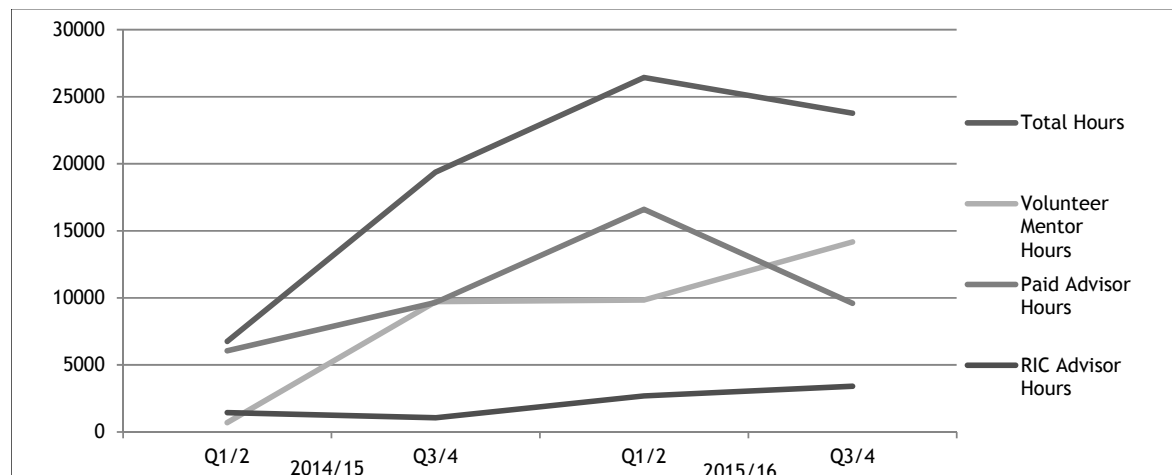


Figure 36: Hours of Assistance Provided by Source

A large majority of participants in the programs attribute parts of their success to the CLA and OCEA programs: 79% of surveyed founders believe that participation was significant or vital to their ventures’ chance of success. Equally noteworthy, 86% said that participation increased their likelihood of pursuing entrepreneurship in the future.

This impact study has demonstrated how well designed and executed collaborative efforts by governmental agencies and host universities can significantly advance incubator development and performance. In conjunction with the insights of the previous two studies, it demonstrates that public commitment is vital to the establishment of a thriving entrepreneurial culture and ecosystem. Above par average survival rates of client and alumni startups and top performance with regard to job creation, government funding leverage, access to funding, entrepreneur engagement and satisfaction, and ecosystem invigoration support this conclusion. In all three impact categories, OCE’s CLA and OCEA programs deliver best practices for innovation ecosystems worldwide. Future challenges faced by the ecosystem include the facilitation of further inclusion of youths from local communities, the attraction of additional sponsor and partner organizations, and the balancing of support for a large number of Areas of Innovation across the province.

Best Practices and Lessons Learned

No advanced economy can thrive without continuing investment in its incubation programs. Therefore, it is crucial to implement consistent long-term policy frameworks that optimize client success, stakeholder buy-in, planning security and return on investment. University-linked programs have proven to be particularly suited for such endeavors. At the same time, nurturing a business sector as young, complex and rapidly evolving as the incubation industry poses significant challenges. While there is no single formula for creating successful incubation programs, the three projects discussed above nonetheless revealed a number of universally applicable best practices:

1. Measure and evaluate performance

Any attempt to improve a business incubator's or accelerator's performance needs to be based on a thorough analysis of its strength and weaknesses. What is more, providing tangible evidence of the impact of the program, the generated data can be used to attract client startups, partners, sponsors, and investors alike. In short, defining relevant KPIs and setting up a system to consistently measure and monitor performance over time is a crucial prerequisite for long-term success.

2. Raise awareness

Many of the assessed programs are relatively unknown to the general public as well as potential client startups and stakeholders. In contrast, top-performing programs have developed effective strategies to promote their services and communicate their successes. For instance, they routinely organize events targeted towards specific audiences. Actively engaging stakeholders allows for a higher quantity and quality of deal flow and opens up communication channels with potential partners and sponsors.

3. Provide quality instruction and advice

While access to facilities and funding is important, the strong correlation between coaching and mentoring quality and startup performance across ecosystems indicates that education remains the foundation of success. The Ontario study, in particular, has demonstrated that even on a limited budget, outstanding instruction and advice can be provided by supplementing the services provided by highly qualified staff with the expertise and enthusiasm of volunteers and alumni eager to give back.

4. Facilitate access to funding

In all three ecosystems under observation, funding remains one of the major challenges facing entrepreneurs as many lack connections or access to professional investors. By creating (or expanding existing) seed funds, introducing stipends for qualified startups, expanding investor networks, and developing investor readiness training programs, incubation programs can not only improve their client startups' success rate but also further promote entrepreneurship as a viable career choice.

5. Engage in national and international partnerships

Top-performing programs worldwide maintain extensive partnerships with peers, industry associations, investors, and sponsors. These connections are vital for learning about best practices, establishing advisor and supporter networks, gaining access to resources, forming strategic alliances, and attracting clients. Moreover, regional and national idiosyncrasies detected in the process can be leveraged to gain competitive advantages and sketch out the most promising future growth strategies.

6. Nurture and sustain a culture of innovation

All three projects revealed that incubation programs perform best when they are integrated into well-funded and supported ecosystems. Such environments are characterized by strong public support, active volunteer and alumni networks, extensive feeder systems, and a positive attitude towards entrepreneurship. While their creation requires foresight, a deep understanding of requirements and limitations, time and significant resources, the return on investment is frequently exponential.

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Raquel Altoe (Marketing And Communications Coordinator, UBI Global)

Appendix: Directory of Assessed Incubators and Accelerators**Brazil (Paraná)**

Centro Incubador Tecnológico / FUNDETEC	Universidade Estadual do Oeste do Paraná - Univel - Faculdade Assis Gurgacz - UNIPAR	Cascavel
FINDEX - Incubadora de Empreendimentos Inovadores e Tecnológicos de Francisco Beltrão	CITFBE - Centro de Inovação e Tecnologia de Francisco Beltrão	Francisco Beltrão
Incubadora de Empresas da Fundação Educere de Campo Mourão	Universidades parceiras. UTFPR – Universidade Tecnológica Federal do Paraná. UNESPAR – Universidade Estadual do Paraná – Campus Campo Mourão. UEM – Universidade Estadual de Maringá. Faculdade Integrado. UFPR – Universidade Federal do Paraná. UEPG – Universidade Estadual de Ponta Grossa	Campo Mourão - PR
Incubadora de Inovações da UTFPR Câmpus Cornélio Procópio	UTFPR	Cornélio Procópio
Incubadora de Inovações da UTFPR, Câmpus Pato Branco	Universidade Tecnológica Federal do Paraná (UTFPR)	Pato Branco - PR
Incubadora de Inovações Tecnológicas - IUT	Universidade Tecnológica Federal do Paraná - Campus Ponta Grossa	Ponta Grossa
Incubadora de Inovações Tecnológicas da UTFPR - Medianeira	Universidade Tecnológica Federal do Paraná - Câmpus Medianeira	Medianeira
Incubadora Internacional de Empresas de Base Tecnológica da Universidade Estadual de Londrina	Universidade Estadual de Londrina	Londrina
Incubadora Municipal Bernardino Zelindo Barbieri	UFPR - Universidade Federal do Paraná - Setor de Palotina	Palotina
Incubadora Santos Dumont - PTI	Universidade Estadual do Oeste do Paraná - UNIOESTE, Universidade Federal da Integração Latino Americana - UNILA, Centro Universitário Dinâmica das Cataratas, Universidade Aberta do Brasil - UAB, UTFP Medianeira	Foz do Iguaçu, Medianeira
Incubadora Senai Centro Internacional de Inovação	Pontifícia Universidade Católica, Universidade Federal do Paraná, Universidade de Califórnia em Los Angeles	Curitiba
Incubadora Tecnológica de Guarapuava - INTEG	Universidade Estadual do Centro-Oeste - UNICENTRO	Guarapuava
Incubadora Tecnológica de	State University of Maringa	Maringá

Maringá		
Incubadora Tecnológica do Instituto de Tecnologia do Paraná	Instituto de Tecnologia do Paraná - TECPAR	Curitiba
Incubadoras de Empresas de Base Tecnológica da UFPR	Universidade Federal do Paraná	Curitiba
ITS - Incubadora Tecnológica Sudotec	UTFPr Dois Vizinhos, Unisep e Vizivali	Dois Vizinhos
Incubadora de Inovações Tecnológicas da UTFPR - Curitiba	Universidade Tecnológica Federal do Paraná - UTFPR Câmpus Curitiba	Curitiba
StartUP - Incubadora de Projetos e Empresas da Universidade Positivo	Universidade Positivo	Curitiba
Russia		
Autonomous Institution Technopark-Mordovia	All-Russian Scientific Research Institute of Aviation Materials, Mordovia State University, ITMO University, St. Petersburg Polytechnic University, Russian Academy of Sciences, Institute of Radio-engineering and Electronics, Saint Petersburg Electrotechnical University	Saransk
Acceleration program "Guide on Innovation 2.0"	Bashkir State University, VEGU Academy	Ufa
Acceleration program of Pulsar Venture Capital	Kazan Federal University, Kazan National Research Technological University, Kazan National Research Technical University named after A.N.Tupolev, Kazan State Agrarian University, Kazan State University of Architecture and Engineering, Tomsk State University, Perm State University, Innopolis University, Higher School of Economics, Ural Federal University	Kazan
Accelerator "Impulse-A"	Northern (Arctic) Federal University, Northern State Medical University	Arkhangelsk
Accelerator UrFU	Ural Federal University	Yekaterinburg
APIT	university independent	Moscow
Arkhangelsk Business Incubator	Northern (Arctic) Federal University	Arkhangelsk
Autonomous Non-Profit Organization "Obninsk Business Incubator"	Obninsk Institute for Nuclear Power Engineering	Obninsk
biz14school	Schools of Saratov	Saratov
Bor business-incubator	N. I. Lobachevsky State University of Nizhny Novgorod	Bor
Business Incubator "LIFT"	Astrakhan State University, Astrakhan State	Astrakhan

Technical University, Astrakhan State University
of Civil Engineering

Business Incubator "Polytechnic"	St. Petersburg Polytechnic University	St. Petersburg
Business Incubator by the Pikalevo Entrepreneurship Support Fund	university independent	Pikalevo
Business Incubator of "STROGINO" Technopark	Moscow State University of Railway Engineering, Moscow Institute of Electronics and Mathematics	Moscow
Business Incubator of High Technology Park "IT-park"	Kazan Federal University	Kazan, Naberezhnye Chelny
Business incubator of HSE	HSE - Higher School of Economics	Moscow
Business Incubator of Irkutsk National Research Technical University	Irkutsk State Technical University	Irkutsk
Business Incubator of ITMO University	ITMO University	St. Petersburg
Business Incubator of Perm City	University independent	Perm
Business Incubator of Perm National Research Polytechnic University	Perm National Research Polytechnic University	Perm
Business Incubator of Plekhanov University of Economics	Plekhanov University of Economics	Moscow
Business Incubator of St. Petersburg State University of Economics	St. Petersburg State University of Economics	Vsevolozhsk
Business Incubator of The Chechen State University	Chechen State University	Grozny
Business Incubator of Vsevolozhsk	Russian State University for the Humanities, Vsevolozhsk branch	Vsevolozhsk
Development Corporation of Zelenograd	National Research University of Electronic Technology	Moscow
Business Incubator StartLab	Far Eastern State Transport University	Khabarovsk
Business Incubator, Vologda Region	Vologda State University	Vologda
Business-Energy	Ivanovo State Power Engineering University	Ivanovo
Business-incubator IT-park ALANIA	North Caucasus Mining and Metallurgical Institute	Vladikavkaz
Business Incubator of Academpark	Novosibirsk State University, Novosibirsk State Academy of Architecture and Fine Arts, Novosibirsk state university of economics and management, Novosibirsk State Technical	Novosibirsk

University, Novosibirsk State Agrarian University, Siberian State University of Water Transport, Novosibirsk State Pedagogical University, Siberian Transport University, Siberian State University of Geosystems and Technologies, Siberian State University of Telecommunications and Information Sciences

Captains	Plekhanov University of Economics	Moscow
Centre for the Development of Small Business and Consumer Market	university independent	Kingisepp
Educational program "Pusk"	Vyatskaya State Agricultural Academy	Kirov
Formula BIOTECH 2016	Moscow State University	Moscow
Foundation for SME Development - Microfinance organization Gatchina	university independent	Gatchina
Fregat	Moscow State University, Sevastopol branch	Sevastopol
Glazov Business Incubator	university independent	Glazov
GUP RK "RP "Business-incubator"	Syktyvkar State University	Syktyvkar
GVAccelerator	Moscow State University, HSE - Higher School of Economics	Moscow
iDealMachine	ITMO University	St. Petersburg
IIDF Accelerator	100+ university partners	Moscow
Innovation Center MOZGOVO	Perm State University	Perm
IT-Park 74	Chelyabinsk State University, South Ural State University	Chelyabinsk
Kabardino-Balkarian Business Incubator	Kabardino-Balkarian State University	Nalchik
Kirishi Business Incubator	university independent	Kirishi
MFO "Business Development Fund"	university independent	Priozersk
MGIMO University Business Incubator	MGIMO University	Moscow
Municipal Autonomous Institution Business Incubator "GCRP"	Novosibirsk state university of economics and management	Novosibirsk
Municipal Budgetary Institution "Biysk Business-Incubator"	Biysk Technological Institute	Biysk
NUMA Moscow Acceleration	Financial University under the Government of the Russian Federation, British Higher School of Design, Moscow Polytechnic University, Bauman Moscow State Technical University	Moscow
PERI Innovations	Dagestan State Technical University	Makhachkala

Possibility Navigator	Higher School of Economics, Perm	Perm
Republic of Buryatia Business Incubator	Buryat State University, East Siberian State University of Technology and Management	Ulan-Ude
Residency Program of Ingria Business Incubator	ITMO University, Saint Petersburg State University, HSE, St. Petersburg Polytechnic University	St. Petersburg
Scientific-educational center "Business-incubator"	Oryol State University	Oryol
Skolkovo SEED Accelerator	Skolkovo Institute of Science and Technology	Moscow
Slantsy Business Incubator	university independent	Slantsy
Social Innovations	Santa Clara University	Moscow, Odintsovo, Rostov-On-Don, Perm, Samara
South IT_Park	Southern Federal University	Rostov-On-Don
Startup Accelerator RedLamp	Petrozavodsk State University	Petrozavodsk
StartupSamara Accelerator	Samara University	Samara
State regional budget institution "Murmansk Regional Innovation Business Incubator"	Murmansk Arctic State University	Murmansk
Student Business Incubator NSTU	NSTU Novosibirsk State Technical University	Novosibirsk
Student Business Incubator OREH	North-Eastern Federal University in Yakutsk	Yakutsk
Sudogda Business Incubator	university independent	Sudogda
Technopark "Zhiguli Valley"	Togliatti State University, Volga Region State University of Service	Togliatti
The First St.Petersburg Business-Incubator	Baltic Academy For Tourism And Entrepreneurship, St. Petersburg State Institute of Mechanical Engineering, Russian Presidential Academy of National Economy and Public Administration, Russian State Hydrometeorological University, Herzen University, Saint-Petersburg State University of Architecture and Civil Engineering, National Mineral Resources University, St. Petersburg Polytechnic University, St. Petersburg State University of Trade and Economics, Saint Petersburg State University, Saint Petersburg State University of Aerospace Instrumentation, Saint Petersburg State University of Economics, Saint Petersburg Electrotechnical University, Saint-Petersburg Academic University of Management and Economics	St. Petersburg
TUSUR Business Incubation Program "Druzhba"	Tomsk State University of Control Systems and Radio-electronics	Tomsk
Volkhov Business Incubator	university independent	Volkhov

Win!Cubator	university independent	Krasnodar
Yekaterinburg Center of Enterprise Development	Ural State Economic University	Yekaterinburg
Youth Innovation Business Incubator RUDN University	Peoples' Friendship University of Russia	Moscow

Holger Meyer
Conference

34th IASP Annual World

Canada (Ontario)

Campus Linked Accelerator (CLA) programs

The Forge	McMaster University	Hamilton
ACCEL at the Centre of Entrepreneurship	Centennial College	Toronto
Queens Innovation Connector	Queens University	Kingston
EPICentre	University of Windsor	Windsor
Digital Media Zone i-CUE Fashion Zone Transmedia Zone iBoost Legal Innovation Zone Design and Fabrication Zone Launch Zone SocialVentures Zone Biomedical Zone Thinkubator	Ryerson University	Toronto
Creative Destruction Lab Department of Computer Science Innovation Lab Impact Centre The Hatchery UTEST Health 2 Innovation Hub I-CUBE	University of Toronto	Toronto (Mississauga)
The Hub		Toronto (Scarborough)
Propel	University of Western Ontario	London
LEAP Junction	Fanshawe College	
Imagination Catalyst	OCAD	Toronto
Startup Garage	University of Ottawa	Ottawa
Lead To Win	Carleton University	
SUMMIT	Algonquin College	

Accelerator Centre Velocity Conrad Business Entrepreneurship and Technology Centre St. Paul's GreenHouse	University of Waterloo	Waterloo
LaunchPad	Wilfrid Laurier University	
On Campus Entrepreneurship Activities (OCEA)		
Biolinc	Brock University	St. Catherines
Centre 4 Entrepreneurship	Conestoga College	Kitchener
StartGBC	George Brown College	Toronto
Henry Bernick Entrepreneurship Centre	Georgian College	Barrie
Centre for Business and Social Entrepreneurship	University of Guelph	Guelph
HumberLaunch	Humber College	Toronto
The Cube	Lambton College	Sarnia
Northern College Entrepreneurship Centre	Northern College	Timmins
HELIX	Seneca College	Toronto
Genesis	St. Clair College	Essex & Chatham-Kent
Sudbury Youth Entrepreneurship Hub	Laurentian University Boreal College Cambrian College	Sudbury
BEST Lab York Entrepreneurship Development Institute LaunchYU	York University	Toronto (North York)
Startup365	Loyalist College	Belleville
YouLaunch (Sault Ste. Marie Innovation Centre)	Algoma University Sault College	Sault Ste Marie
E- Hub (and Startup Nipissing)	Canadore College Nipissing University	North Bay
SURGE	Mohawk College	Hamilton
ncTakeOff	Niagara College	Niagara Falls
UOIT Brilliant Incubator FBIT Incubator	Univ. of Ontario Inst. of Tech.	Oshawa
The Cube	Trent University	Peterborough
Fast Start	Fleming College	

DC Accelerator	Durham College	Oshawa
Centre Jeunes Entrepreneurs	La Cite College	Ottawa
Partners in Innovation and Entrepreneurship (PIE)	Lakehead University	Thunder Bay
	Confederation College	