

Analysis of Technological Extension Services in the Caribbean

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Abstract

The Caribbean countries have experienced positive economic growth rates and significant increases in their exports, but GDP remains relatively low, and indicators of poverty, productivity, and innovation reflect significant lags. Incorporating knowledge and technology through technological extension policies could help increase productivity and competitiveness, especially of small and medium-sized enterprises (SMEs). These policies consist of the adaptation and adoption of technologies already developed elsewhere, delivered through a variety of business development services (tools). Implementing them requires: (i) institutions with leadership and coordination capacities; (ii) instruments that meet the needs of business; (iii) human capital to execute projects; and (iv) capabilities to deliver technology services. Although the countries visited for this consultancy have different degrees of capacity to develop and implement technological extension programs, it is recommend that they carry out the policies using the same methodology and support platform, which could generate technical and financial benefits for the countries of the Caribbean region. The document proposes ways to further strengthen national (regional) systems to improve firm competitiveness.

JEL codes: O2, O33, O38, P5

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1. Public Policies on Technology Extension Services

1.1. Conceptual Aspects

According to the studies requested by the Inter-American Development Bank in 2013 to the Program of Policies of Science, Technology and Innovation of the Technological Institute of Georgia and to the Institute of Manchester of Innovation and Research, and in 2014 to IDOM Consulting , Technological extension services (TES) are support services provided directly to companies to improve their management and modernize their technologies, focusing mainly on already established small and medium-sized enterprises (SMEs). Their objective is to improve companies' productivity to make them more competitive and integrate them into value chains. Delivering TES is intended to achieve the following main objectives:

- Improve productive efficiency (i.e., competitiveness), especially of SMEs
- Facilitate the management and integration of value chains involving the beneficiary companies
- Facilitate the adoption and use of technologies developed outside the firms receiving the TES

The essence of TES is the delivery of support services to firms, especially SMEs, to enable them to implement activities that are innovative from the receiving companies' standpoint (even if these activities are not new in other parts of the world or in other firms). These innovations consist of changes in business management processes and production processes (i.e., technology). The services typically provided include the following:

- Measures that improve corporate governance and the production processes of firms. Examples include the following:
 - Greater access to sources of information to facilitate decision-making processes with increased knowledge and at lower cost
 - Access to consulting services and technical assistance in various aspects of business management, such as accounting, finance, marketing, human resources, and production, among others
 - Training of company employees, including executives
 - Incorporation of national and international best practices, quality norms and standards in technical aspects such as its business management, often required by markets

- Support services to incorporate new forms of business management, such as the establishment of vertical (development of suppliers or buyers) and horizontal (integration with other companies) business alliances, as well as their participation and integration in clusters and value chains
- Export support services, such as studies of market and trade missions, for prospecting, developing, and penetrating international markets
- **The identification, adaptation, and incorporation of new technologies** in all aspects required for this—that is, staff training, participation in practical applications of the technology to be incorporated, technical advice on its proper adoption, accompaniment in the various stages of the adoption process, and access to financing to make the required investments

TES are targeted to meet the needs of firms, especially SMEs, by supplying services that help firms improve their competitiveness by incorporating technologies already tested elsewhere. Their implementation is based on the transfer of knowledge by experts with experience and capacity in the industrial sector.

1.2. The TES and the Competitiveness of Enterprises

There are various ways to support the improvement of entrepreneurial competitiveness through public policies. One of the most important ways is support to business innovation in its broadest sense, including the development of new or significantly improved products and processes and new forms of management and marketing.¹ However, while public policies in support of innovation of individual enterprises can contribute significantly to the improvement of the production competitiveness units that run innovation projects, the overall results of these policies tend to be costly, concentrated in larger companies or those that have higher levels of technological development and management capabilities, and they do not necessarily improve a country's aggregate productivity.

In general, public policies in support of business innovation in the Latin American and Caribbean (LAC) region have concentrated their efforts on promoting investment in innovation and development (I+D), and have devoted less attention and fewer resources to programs designed to disseminate and promote adoption of existing technologies from other places in the world in the local companies, especially in SMEs (IDB, 2014). That is, public policies have tended to prioritize spending on promotion of innovation and development at

¹ Porter (1990) states "A nation's competitiveness depends on the capacity of its industry to innovate and upgrade. Companies gain advantage against the world's best competitors because of pressure and challenge."

the expense of efforts to promote technology transfer, its adaptation to local corporate reality, and dissemination to the local technology industry already developed and in full operation in companies elsewhere in the world.

Achieving an impact on aggregate economy productivity requires a massive incorporation of technological knowledge and management skills by firms, especially SMEs, at a cost commensurate with the financial possibilities of these companies. An interesting alternative to increase the competitiveness of SMEs in LAC is the design and implementation of public policies to support technological extension to reduce technology and knowledge gaps, thus improving their competitiveness and integration into the value chains in which they participate.

1.3. Public Policies to Support Technological Extension

Basically, public policies to support technological extension provide firms, especially SMEs, with mechanisms or instruments to provide direct external assistance that improve their management and modernize their technologies with the aim of increasing their competitiveness. These instruments include mechanisms to facilitate the improvement of business management and production processes, access to information, specialized consultancies, technical assistance and training, development of joint projects between companies, accompaniments in processes of technological adaptation, and access to financing. All these mechanisms are designed to lead to the identification, adaptation and incorporation of new technologies in companies.

It is important to clarify that technological extension programs do not support the new knowledge generation (innovations) to be applied in companies; rather, they use existing technological knowledge, adapting it to the reality of companies and industrial sectors that they are intended to benefit, and making available instruments that facilitate the adoption, adaptation, and use of technologies developed outside these companies. It is highly likely that the benefits that companies observe while incorporating new technologies in their operations will prepare and motivate them to carry out their own innovations later.

1.4. TES and BDS

TES activities can be delivered through traditional business development services (BDS), whose purpose is to incorporate existing management methods and technologies that are new (innovative) to the company that adopts them. For this reason, a TES-focused program does not necessarily have to develop instruments or services distinct from those already in existence; rather, it focuses them on innovative activities for the companies that use them.

1.5. Advancing in the Development of Public Policies to Support Business Competitiveness, Including TES

To execute public policies that support the improvement of companies' competitiveness, national systems of support to business development need to be strengthened. These systems are based on the following four main elements:

1. Institutional strengthening (governance), specifically, establishing clearly and precisely the leadership roles and mechanisms of coordination among public agencies, and between these and the organized private sector, in both strategic and operational areas. Defining roles for the private sector will depend on the levels of trust, willingness to dialogue, and existing collaboration between the public and private sector in each country, taking into account that the active participation of the organized private sector is essential for the success of the policies to support enterprise development. Institutions must guarantee transparency in the administration of resources and must be able to coordinate public and private actors and academia.
2. The development of financial and nonfinancial instruments to assist companies according to the needs of productive units within the productive sectors and/or territories receiving the support. Companies have different needs which evolve over time; thus, generic tools should be developed that can be adjusted to the needs of the companies. These tools should be reviewed and updated on an ongoing basis. Support for companies should be gradual and should address their technological and business management weaknesses. In countries where there is little experience in supporting companies through the development of projects with nonreimbursable financial contributions, these instruments should be implemented gradually, in line with locally acquired experience.
3. The strengthening of human capital to create the technical and professional capacities necessary to support companies. Transferring knowledge in business management and technology is a permanent process. Thus, the productive sectors and territories in where they are located should be prioritized in order to optimize the use of resources. In this process, it is essential to actively involve the productive sectors, universities, and technology centers in each country.
4. The strengthening of technological services, especially those related to the prioritized economic sectors and regions. To do this, an inventory of capacities of the technological and academic centers to provide services (e.g., metrology,

laboratories, certifications, training, among others) should be conducted in each country. Based on this inventory, a plan should be established to improve the infrastructure, equipment and the capabilities of its technicians and professionals. The professional services provided should include building the capacity to prepare and formulate business projects that require financial resources for the adoption of new technologies and knowledge, and evaluation capacities by those who allocate resources to the projects.

Box 1. PROINNOVA and CORFO

The PROINNOVA Program implemented by the Salvadoran Foundation for Economic and Social Development (FUSADES), a private business organization, has as its main objective the improvement of the competitiveness of the food industry sector of El Salvador, through innovation in products, production processes, and management models of companies in this sector. The program considered technology transference as an essential instrument, understood as the incorporation and adaptation of technology developed abroad to the reality of local companies. The Program supports companies in the preparation of projects and in the financing of activities through the nonreimbursable partial co-financing mechanism (NRA), either directly or through public funds of the Fund for Productive Development (FONDEPRO), under the Ministry of Economy. Initially (2008–2014), the Program received financial support from the IDB's Multilateral Investment Fund (MIF) and subsequently received support from other international organizations (USAID and USDA). To date, more than 100 projects have been carried out in Salvadoran companies in the food industry sector. The Corporation for the Promotion of Production (CORFO) is a Chilean state agency, under the Ministry of Economy, whose main objective is to support the productive development of the country through multiple instruments or BDS in the areas of management and innovation including entrepreneurship, aimed at all productive sectors. Businesses are supported through partial co-financing of nonreimbursable business projects, including project preparation, evaluation, and execution.

One of the instruments widely used by companies to improve their competitiveness is technology transfer, including activities such as technological missions, internships abroad, and experts. This has allowed new products, processes, and management models to be incorporated in different productive sectors of the country such as tourism, agriculture, agroindustry, and fisheries. Although the instruments are aimed at companies in all productive sectors, it is possible to prioritize sectors, areas, populations, and territories through better incentives (i.e., more co-financing). In both cases, the TES were carried out using the traditional BDS: consultancies, foreign missions, and internships. The services focused on the incorporation of new technology and new methods of management in companies.

2. Background to Competitiveness and Innovation in the Caribbean

This section presents the main economic, competitiveness, and innovation indicators of the Caribbean countries considered in this study.

2.1. Population and Territory

Two countries in the Caribbean region, the Dominican Republic and Haiti, have populations of more than 10 million inhabitants, and only two have populations between 1 and 10 million inhabitants: Jamaica and Trinidad and Tobago. The remaining countries have relatively small populations, including three countries with less than 100,000 inhabitants: Antigua and Barbuda, Dominica, and Saint Kitts and Nevis. All countries are relatively small, except the Dominican Republic, Guyana, and Suriname, with areas of 48,442 km², 214,970 km², 163,821 km², respectively (Table 1). The rest have areas ranging from 261 km² to 27,750 km².

Table 1. Population and Territory Size, Compete Caribbean Program Countries, 2016

Country	Population (miles)	Surface (km ²)
Antigua and Barbuda	92	440
The Bahamas	388	13,878
Barbados	284	431
Belize	359	22,966
Dominica	73	750
Dominican Republic	10,528	48,442
Grenada	107	344
Guyana	767	214,970
Haiti	10,711	27,750
Jamaica	2,726	10,991
Saint Kitts and Nevis	56	261
Saint Lucia	185	617
Saint Vincent and the Grenadines	110	389
Suriname	543	163,821
Trinidad and Tobago	1,360	5,131

Source: World Bank (2016).

2.2. Economies

The economy of the Dominican Republic is the largest among the countries considered in this study, followed by Trinidad Tobago and Jamaica. The economies with the lowest gross domestic product (GDP) are Dominica and Saint Vincent and the Grenadines, Grenada, and Saint Kitts and Nevis (Table 2).

Table 2. GDP and Per Capita Income, Compete Caribbean Program Countries, 2016

Country	GDP at current prices (in US\$ millions)	Per Capita Income (in US\$ PPP)	GDP distribution (percentage)		
			Agriculture	Industry	Services
Antigua and Barbuda	1,259	23,062	2.1	20.2	77.6
The Bahamas	8,854	23,001	1.7	13.7	84.6
Barbados	4,385	16,406	1.4	9.5	73.3
Belize	1,753	8,484	14.3	18.3	67.4
Dominica	517	10,865	15.6	13.3	71.1
Dominican Republic	68,103	14,237	5.8	27.3	66.9
Grenada	984	13,559	8.9	14.7	76.4
Guyana	3,166	7,528	19.6	21.8	58.7
Haiti	8,765	1,757	s/i	s/i	s/i
Jamaica	14,262	8,873	7.4	23.2	69.3
Saint Kitts and Nevis	876	25,088	1.2	28.3	70.4
Saint Lucia	1,431	10,944	2.9	13.5	83.6
Saint Vincent and the Grenadines	738	11,140	7.6	17.4	75.0
Suriname	5,150	16,703	10.6	30.8	58.6
Trinidad and Tobago	23,855	33,309	0.5	40.6	58.9

Source: World Bank (2016).

In 2016, Trinidad and Tobago had the highest per capita income at purchasing power parity (PPP) in the Caribbean, amounting to US\$33,309, followed by Saint Kitts and Nevis, at US\$25,088, and Antigua and Barbuda and The Bahamas at US\$23,062 and US\$23,001, respectively. Haiti had the lowest per capita income in the region (US\$1,757), followed by Guyana (US\$7,528), Belize (US\$8,484), and Jamaica (US\$8,873) (Table 2).

In most of the Caribbean countries considered in this study, the most important economic sector is services, which in some cases (Antigua and Barbuda, Barbados, Dominica, Grenada, Saint Kitts and Nevis, The Bahamas and Saint Lucia, and Saint Vincent and the Grenadines) represents more than 80 percent of national GDP. The exceptions are Guyana, Suriname, and Trinidad and Tobago, where the contribution of the services sector to GDP is slightly below 60 percent.

As Table 2 shows, the industrial sector accounts for more than 30 percent of GDP in only two countries: Trinidad and Tobago and Suriname, at 40.6 percent and 30.8 percent,

respectively. Barbados is the country where industrial activity has the smallest share of GDP, at 9.5 percent. The table also shows that the main economic activity in Guyana, Dominica, Belize and Suriname is agriculture, representing 19.6 percent, 15.6 percent, 14.3 percent, and 10.6 percent of local GDP, respectively. In The Bahamas, Barbados, Saint Kitts and Nevis, and Trinidad and Tobago, the contribution of agriculture to GDP is less than 2 percent.

2.3. Economic Growth

All countries in the LAC region experienced an average annual rate of positive economic growth between 2006 and 2015, albeit at different levels (Table 3).

Table 3. Average Annual Growth Rate, Compete Caribbean Program Countries, 2006–15

Country	GDP 2006 <i>(in current US\$ millions)</i>	GDP 2015 <i>(in current US\$ millions)</i>	Average annual growth rate 2006–15 <i>(percent)</i>
Antigua and Barbuda	1,135	1,259	1.1
The Bahamas	7,966	8,854	1.1
Barbados	4,303	4,385	0.2
Belize	1,217	1,753	4.4
Dominica	390	517	3.3
Dominican Republic	35,953	68,103	8.9
Grenada	696	984	4.1
Guyana	1,458	3,166	11.7
Haiti	4,756	8,765	8.4
Jamaica	11,906	14,262	2.0
Saint Kitts and Nevis	636	876	3.8
Saint Lucia	1,075	1,431	3.3
Saint Vincent and the Grenadines	611	738	2.1
Suriname	2,626	5,150	9.6
Trinidad and Tobago	18,369	23,559	2.8

Source: World Bank (2016).

Among the LAC countries under analysis, the following have relatively high annual growth rates: the Dominican Republic (8.9 percent), Guyana (11.4 percent), Haiti (8.4 percent), and Suriname (9.6 percent). The lowest growth rates were experienced in Antigua and Barbuda and The Bahamas (each with 1.1 percent) and Barbados (0.2 percent).

2.4. Trade Openness and Connectivity

Caribbean countries generally exhibit relatively high rates of trade liberalization (calculated as the value of international trade as a share of GDP). The highest rates are Belize and

Guyana, at 125.6 percent and 120.5 percent of GDP, respectively. The countries with the lowest rates of trade liberalization in the Caribbean are the Dominican Republic and Trinidad and Tobago, which in 2016 were 53.6 percent and 59.9 percent, respectively. Caribbean countries are widely divergent in degree of connectivity. While the percentage of Internet users is high in The Bahamas (78 percent), Barbados 76.1 percent), and Saint Kitts and Nevis (75.7 percent), Belize and Haiti have relatively low rates of Internet users: 25.4 percent and 12.2 percent, respectively. Similarly, with respect to access to mobile phones, Suriname and Trinidad and Tobago have a very high number of mobile phones per 100 inhabitants, reaching 180.7 and 157.7 respectively, while Belize and Guyana had 58.5 and 67.2 mobile phones per 200 inhabitants, respectively (Table 4).

Table 4. Commercial Opening and Connectivity, Compete Caribbean Program Countries 2016

Country	Trade opening (imports / GDP + exports / GDP)	Internet users (% of population)	Mobile phones per 100 inhabitants
Antigua and Barbuda	97.8	65.2	137.2
The Bahamas	93.4	78.0	80.3
Barbados	81.2	76.1	116.5
Belize	125.6	25.4	58.5
Dominica	80.7	67.6	106.3
Dominican Republic	53.6	51.9	82.6
Grenada	68.7	53.8	112.3
Guyana	120.5	38.2	67.2
Haiti	69.5	12.2	69.9
Jamaica	77.1	43.2	111.5
Saint Kitts and Nevis	79.0	75.7	131.8
Saint Lucia	96.3	52.4	101.5
Saint Vincent and the Grenadines	78.1	51.8	103.7
Suriname	91.1	42.8	180.7
Trinidad and Tobago	59.9	69.2	157.7

Source: World Bank (2016).

2.5. Human Development Index

The Human Development Index (HDI) rankings of the Caribbean countries in 2015 were generally low when compared to countries outside the region.² In fact, among the 188 economies analyzed, Barbados is ranked 54th, The Bahamas is ranked 58th, and Antigua and Barbuda is ranked 62nd. Belize ranks 103rd, Guyana ranks 127th, and Haiti ranks 163rd (Table 5).

Table 5. HDI, Complete Caribbean Program Countries, 2010–15

Country	Ranking year 2015	Value year 2015	Value year 2010
Antigua and Barbuda	62	0.786	0.782
The Bahamas	58	0.792	0.788
Barbados	54	0.795	0.780
Belize	103	0.706	0.700
Dominica	96	0.726	0.722
Dominican Republic	99	0.722	0.703
Grenada	79	0.754	0.741
Guyana	127	0.638	0.624
Haiti	163	0.493	0.470
Jamaica	94	0.730	0.722
Saint Kitts and Nevis	74	0.765	0.741
Saint Lucia	92	0.735	0.733
Saint Vincent and the Grenadines	99	0.722	0.712
Suriname	97	0.725	0.704
Trinidad and Tobago	65	0.780	0.774

Source: UNDP (2016).

In the 2010–15 period, all countries in the region increased their scores on the HDI, with Haiti (0.023), Saint Kitts and Nevis (0.024), and Suriname (0.021) showing the greatest improvement. The least-improved countries were Antigua and Barbuda (0.004), The Bahamas (0.004), Dominica (0.004), and Saint Lucia (0.002).

2.6. Global Competitiveness

The World Economic Forum's (WEF) Global Competitiveness Index (WEF, 2017) only has information for six of the 15 countries considered in this study: Barbados, Dominican

² The Human Development Index (HDI) was created to emphasize that people and their capabilities—and not just economic growth—should be the most important criterion for assessing a country's development. The HDI is a synthetic indicator of the average achievement achieved in the fundamental dimensions of human development, namely, having a long and healthy life, acquiring knowledge, and enjoying a decent standard of living. The HDI is the geometric mean of the normalized indices of each of the three dimensions. The HDI simplifies and reflects only part of what human development entails, since it does not address inequalities, poverty, human security, or empowerment.

Republic, Guyana, Haiti, Jamaica, and Trinidad and Tobago. For Belize and Suriname, the latest information available from the WEF is for 2012. For the other seven economies analyzed in this study, no background information on global competitiveness is available.

Table 6 presents the relative position of the countries of the region on the Global Competitiveness Index (GCI), among 138 economies analyzed. Caribbean countries for which information is available lag behind those in other regions. Barbados (72) and Jamaica (75) score the highest, while Guyana (121) and Haiti (134) score the lowest. Table 6 shows that between 2011 and 2017, several Caribbean countries improved their score. The Dominican Republic improved by 0.1 percentage point and Jamaica and Haiti each improved by 0.3 points, while Guyana and Trinidad and Tobago maintained the same score. Barbados decreased by 0.2 points with respect to 2010–11.

Table 6. Global Competitiveness Index, Compete Caribbean Program Countries, 2017

Country	Ranking	Value 2017	Value 2010/2011
Barbados	72	4.2	4,4
Belize	123	-	3,5
Dominican Republic	92	3.9	3,8
Guyana	121	3.6	3,6
Haiti	134	3.2	2,9
Jamaica	75	4.1	3,8
Surinam	112	-	3,7
Trinidad and Tobago	94	3.9	3,9

Source: World Economic Forum (2017).

Note: Figures for Belize and Suriname are for 2012. Thereafter, no information is available.

2.7. Challenges of Doing Business

According to the information available in the Annual Global Competitiveness Report of the World Economic Forum (WEF, 2017), the main difficulties for doing business in the Caribbean countries for which information is available are those presented in Table 7. It shows that the greatest challenges are inefficient government bureaucracy, corruption, tax rates, access to financing, and crime and theft.

Table 7. Challenges of Doing Business, Compete Caribbean Program Countries, 2017

Country	Inefficient government bureaucracy	Poor work ethic national labor force	Tax rates	Restrictive labor regulations	Corruption	Inadequate educated workforce	Access to finance	Crime and theft	Inflation	Inadequate supply of infrastructure	Policy instability
Barbados	x	x	x	x							
Belize			x		X		x	x			
Dominican Republic	x		x		X	x					
Guyana	x				X		x	x			
Haiti							x		x	x	x
Jamaica	x		x		X			x			
Suriname	x				X		x		x		
Trinidad and Tobago	x	x			X			x			

Source: WEF (2017).

Notes: The figures for Belize and Suriname are for the year 2012. There are no figures available after that year for both countries.

2.8. Innovation

Table 8 shows the relative scores and positions of Caribbean countries in 2017, among 138 economies analyzed, in terms of innovation. In general, the region lags behind other regions, with Barbados, Jamaica, and Guyana scoring the highest in the Caribbean, at 53, 70, and 71, respectively, while the Dominican Republic and Haiti lag far behind, at 114th and 138th places, respectively (in 2016, out of 140 economies).

Table 8. Innovation Index, Compete Caribbean Program Countries, 2017

Country	Ranking	Value 2017	Value 2010
Barbados	53	3.4	3.3
Belize	135	-	2.3
Dominican Republic	114	2.9	2.6
Guyana	71	3.3	2,6
Haiti	138	2.3	s/i
Jamaica	70	3.3	2.9
Trinidad and Tobago	105	3.0	2.9

Source: WEF (2017).

Notes: Figures for Guyana and Haiti are for 2016, which show data for 140 countries. The figures for Belize and Suriname are for the year 2012 (no figures available after that year).

Table 9 presents details on those aspects that most affect measurement of the capacity of Caribbean countries to innovate, according to the Global Competitiveness Index of the World Economic Forum 2017 (WEF, 2017). In general, the region lags behind, except for Barbados on the indicator of PCT patents applications. It occupies 25th place in the world on this indicator, while Guyana occupies 41st place in company spending on research and development (R&D).

**Table 9. Main Indicators in Innovation, Compete Caribbean Program Countries
2017**

Country	Capacity for innovation 85	Quality of scientific research institutions	Company spending on R&D	University-industry collaboration on R&D	Government procurement of advanced tech products	Availability of scientists and engineers	PCT patent applications
Barbados		76	93	83	100	63	25
Belize	131	128	140	132	125	140	90
Dominican Republic	90	124	119	111	104	108	83
Guyana	76	83	41	58	62	89	119
Haiti	128	139	138	135	136	139	119
Jamaica	55	52	72	67	106	97	78
Surinam	100	120	116	117	120	103	90
Trinidad and Tobago	110	77	124	112	120	54	84

Source: Global Competitiveness Index, World Economic Forum (2017).

Notes: Figures for Guyana and Haiti are for 2016, which show data for 140 countries. The figures for Belize and Suriname are for the year 2012 (no figures available after that year).

2.9. Conclusions

The main economic indicators presented above show that, in recent years, the countries of the Caribbean region have achieved relatively high rates of economic growth, which has generally resulted in a sustained increase in GDP and income levels. However, the figures also show that despite the advances in economic growth, Caribbean countries continue to have relatively low per capita incomes and human development indicators. They lag behind in competitiveness and innovation, manifested in relatively lean positions at the international level in the indicators that measure these aspects.

Accelerating economic growth in the Caribbean region and improving incomes will require the design and implementation of a system to increase firm productivity. This would improve their capacity to compete with greater chances of success in international markets in an increasingly globalized economy.

In this regard, it is necessary to assess existing capacity in Caribbean countries and in the region. Such an assessment will contribute to the design and execution of a set of public policies that promote, encourage, and facilitate improvement in the competitiveness of companies in the region. This includes the alternative of incorporating public policies to support the business sector through the delivery of TES.

3. Public Policies Analysis to Support Competitiveness

In response to the IDB's request to analyze the conditions prevailing in the Caribbean countries for the implementation of public policies to support business competitiveness through TES, it was necessary to conduct an assessment of the countries' readiness to promote public policies (including TES) to support the improvement of business competitiveness. Interviews were conducted with representatives of the public and private sectors and academia in Barbados, Belize, Jamaica, and Saint Lucia.

3.1. Barbados

3.1.1. Background

In the last 10 years, Barbados has experienced average annual growth of 0.2 percent per achieving GDP per capita (at PPP) of US\$16,406, which puts it slightly above the median (US\$15,000) of all Caribbean countries. The services sector represents 73.3 percent of national value-added, with tourism services being the country's main economic activity. The agricultural and industrial sectors contribute very little to GDP.

Barbados, with a population of 288,000 inhabitants, is a highly globalized country: it has a high rate of commercial opening³ (81.2 percent),⁴ a high rate of Internet users (76.1 percent of the population), and a high number of mobile phones per 100 inhabitants (116.5). Notwithstanding these indicators, Barbados ranks 55th out of 188 economies on the HDI, which, while the highest in the Caribbean, is far from a privileged position.

Similarly, Barbados ranks 72 out of 138 countries on the Global Competitiveness Index estimate. While this is the best position among all Caribbean countries, it is still a low ranking, considering that the absolute score reached in 2010 was higher than that of 2015. That is, in absolute terms, the country's competitiveness has deteriorated. Finally, Barbados ranks 53rd out of 138 economies on the Innovation Index. Again, it while it scores highest among all Caribbean countries, this is far from being considered a good position. However, its absolute score has improved, from 3.3 in 2010 to 3.4 in 2015.

3.1.2. Institutions and instruments to support the private sector

Barbados has a public institution charged with covering most of the important issues related to the design of public policies on competitiveness issues. However, this does not necessarily translate into concrete measures of direct support to companies (services or business support instruments) to carry out their competitiveness improvement projects,

³ Corresponds to exports/GDP + imports/GDP.

⁴ That value is higher than any of South American countries.

because it lacks either the financial resources or the practical knowledge to help the private sector improve its competitiveness. In other words, there is good disposition to support the productive sectors, but this is not sufficient to provide direct support to enterprises.

The private sector, for its part, focuses its actions on decisions that favor profitability based on cost reduction rather than activities that would add value by strengthening value chains. Therefore, there is a lack demand for business development services that foster association and long-term, collective efforts of the various links of value chains with a long-term vision. This is particularly important in the case of tourism development. In the hotel sector, there is little demand for deepening the work carried out through supplier development programs that incorporate a broader spectrum of local actors in the value chain, such as music, dance, gastronomy and handicrafts, among others.

As a result, there is a shortage of revealed demand for business development services by the private sector, and scant supply by the public sector to encourages it. This keeps the local market for business development services underdeveloped. Symptomatic of this is the shortage of consultants and technology centers in support of business development activities.

One area where Barbados has developed business services is public–private partnerships (Devlin and Mogueillansky, 2010). These partnerships are an important strength for the design and implementation of public policies to support the development of business competitiveness. The following institutions, among others, participate in the policies to support business development:

- Barbados Investment and Development Corporation, a public agency focused on the development of local businesses (food clusters, call centers, furniture, sugar, sauces and spices, among others) and export promotion
- Invest Barbados, a public investment attraction agency focused essentially on finding investors in the United States and Canada in areas considered sustainable, such as technology, call centers, software, insurance and information and communication technology (ICT), among others
- Barbados National Standards Institution, an agency specializing in working with standards and certification processes for companies,⁵ especially in the services and tourism sectors. Their aim is to support the food and renewable energy sector. In general, they seek to adapt international standards to local conditions and attempt

⁵ They support companies in certification processes. They have two ISO consultants, who come from abroad.

to approximate international standards. They help micro, small, and medium-sized enterprises (MSMEs) understand business by achieving standards.

- Barbados Renewable Energy Association, a public–private agency in charge of promoting the use of renewable energies: biogas, biomass, solar, and wind. It also promotes energy efficiency.

3.1.3. Human and technological capabilities

Most of the human resources required by the country’s most important economic sectors are trained locally. The University of the West Indies (UWI) trains professionals to develop the tourism and financial services sectors. The UWI is strong in the administrative, legal, and financial areas. In addition, local institutions, such as the Hospitality Institute, trains technicians, especially those required by the tourism sector. This institute, along with Barbados Community College, offers a wide range of technical careers. The UWI is mainly concerned with the training of technicians and professionals; it does not conduct research, which significantly restricts the possibility of developing innovation and greater linkage between academia and the productive sectors. The country needs managers and investment in areas such as medical laboratories, test laboratories, tests, analytical services, traceability systems, metrology systems, temperature, and others.

In general, the consulting market is underdeveloped and lacks skills. This is essential for improving the services delivered to entrepreneurs through programs or instruments that could be implemented to improve competitiveness. This is due both to a scarce supply of training for professionals specialized in consulting and to a low demand for these services by the business sector, especially MSMEs. It is frequent to find companies, especially MSMEs, that require support from specialized professionals, but they are not able to obtain it or, consequently, to generate demand for these services. For this reason, in many cases, public policies are needed to stimulate development of the specialized consulting market in the areas required by the country’s productive sectors. Such policies should provide incentives to trainers (universities, technology centers), and strengthen the demand for professional services by promoting them and providing monetary incentives for contracting these services. That is, the policies should seek to foster the development of both the supply and the demand for the specialized consulting market.

3.1.4. Productive sectors

The economic sectors where there are significant possibilities of improving competitiveness are the following:

- **Tourism:** Tourism is the most important economic sector in the country. Barbados has many hotels, restaurants, and associated services (e.g., travel, tours, sports, and others) that purchase a significant amount of inputs (goods and services for their operation) locally. This provides significant employment opportunities related to the development and strengthening of value chains. In general, tourism in Barbados is not the all-inclusive type developed by large companies, which generally have few links to the local economy. Some segments of the tourism sector, such as restaurants and handicrafts (garments, jewelry, and ceramics) have significant room to grow. In addition to reinforcing national identity, they contribute significantly to the local economy.
- **Financial services:** The financial services sector is important to the economy of Barbados. It developed from the tax advantages offered to foreign companies located in the country. Globalization and the accelerated development of ICT offer both important challenges and attractive opportunities for the development of this sector.
- **Global services:** Global services, especially those related to software development and the creative industries, with emphasis on musical development, are another opportunity to develop the local economy. The country's important competitive advantages, including high Internet access and mobile telephony, facilitate the development of these services. In the creative industries, the possibilities for the development of music and dance, in great demand in the world, and associated in an important way to the development of tourism, are significant. There are indications of possibilities to develop the audiovisual industry, especially animation, which should be explored.
- **Renewable energy:** The country has set ambitious targets for energy generation⁶ through nontraditional sources, which offers important opportunities for the development of solar, wind, and biomass energy, among others. To advance in this area, public-private collaboration is required to carry out legal reforms, work plans,

⁶ Barbados has set itself the goal of achieving 100 percent use of renewable energy. By 2030, it is expected to reach 65 percent.

tax incentives, and specialized development in aspects such as technical assistance, specialized consulting, attraction of investments and innovation. It is a developing sector, which requires new ways of working. Appropriate coordination is required among the ministries of energy and telecommunications, transportation, agriculture, and environment, among others.

- **Agriculture:** The agriculture sector is small and offers few possibilities for development that could generate significant impact. However, it seems feasible to develop niche markets with processed agricultural products (agribusiness) on a reduced scale but of high quality and high value added. It would also appear feasible to improve the competitiveness of the sugar sector, which is of traditional importance to the country's agricultural development and therefore of broad productive knowledge, through a process of adding value to products that use sugar cane or sugar as inputs. In relation to the productive sectors, it is important to note the following:

- There is an important need to incorporate aspects such as traceability, good practices, quality controls and certifications, technical assistance, and training, for which it is possible to incorporate collective or associative mechanisms that enable the development of value chains and the aggregation of value in them.
- In general, the tourism sector is very well organized and has significant state support. Generally, this is not the case with other productive initiatives that have less state support and depend more on private initiative and organization.

In general, it is difficult to make progress on export promotion on a massive scale due to the reduced scale of the country's productive capacities. Thus, it is necessary to produce goods and services for domestic consumption, for consumption by the tourism sector, and to meet international demand that can be identified in niche markets with high value added.

3.1.5. Joint services or instruments

In general, in the public, private, and academic sectors, there is a willingness to perform joint work related to institutional design and technical content for the development of instruments or services to support the improvement of business competitiveness in member countries of the Caribbean Community (CARICOM), but not their implementation. They explicitly believe

and say that individual countries themselves should implement public policies to support business development.

3.1.6. Women in the workforce

The participation of women in business is relatively high in Barbados, especially in services sector activities such as restaurants and hotels, healthcare, education, financial and administrative services, and professional services. In these activities, a relatively high percentage of businesses are women-owned, especially those companies classified as microenterprises (fewer than five workers).⁷ According to a 2015 study by the International Labour Organization (ILO) entitled "Women in Business Management," Barbados ranks 13th among all countries in terms of women in managerial positions, reaching 43.4 percent.

3.1.7. Sustainability

Frequently, programs to support the development of competitiveness in the business sector, especially those sponsored by international cooperation, seek to be financially self-sustaining. That is, they tend to seek financing that does not depend permanently on external agencies, but rather comes from the national budget. However, for this to happen, several important conditions must be in place. These include: (i) public and private institutional capacity to manage the services and the resources; (ii) the permanent capacity to design and implement ad hoc services or instruments to strengthen business competitiveness; (iii) the presence of specialized human capital and its constant expansion according to the needs of the country's productive sectors; and (iv) the presence of technology and knowledge centers in the most important areas of the national economy. The institutional system must also operate at reasonable cost, which can be defrayed by the local budget. However, in small economies, such as that Barbados, with a small number of businesses able to demand such services, the unit costs of providing specialized services to the business sector are expected to be high and, therefore, can hardly be covered in the national budget. Operating costs tend to be high, due in part to the high specialization required to provide business development support services and at the same time to low demand from the business sector for each type of service, given the low number of businesses

⁷ The State of Small Business in Barbados, Summary of the National Survey of the Micro, Small & Medium Enterprise Sector, Small Business Association, September 2016.

3.2. Belize

3.2.1. Background

In the last 10 years, Belize has experienced significant economic growth, averaging 4.4 percent per year and achieving a per capita GDP (at PPP) of US\$8,484. This is considerably below the regional average (US\$15,000), higher only than Guyana and Haiti. The services sector, especially tourism, has added the most to national GDP, reaching 73 percent. The industrial sector contributes 18.3 percent, while the agricultural sector contributes 14.3 percent. Around 60 percent of the territory is under different forms of preservation and controlled management. Belize, which has a population of 359,000 inhabitants, has high rates of trade opening,⁸ which at 125.6 percent is the highest in the region. It also has a low rate of Internet users, with 25.4 percent of the population, surpassing only Haiti, and only 58.5 mobile phones per 100 inhabitants, the lowest in the Caribbean. Regarding the HDI, the country ranks 103 out of 188 economies, surpassing only Guyana and Haiti among the countries of the Caribbean. Nevertheless, its absolute score in that index has improved, from 0.700 in 2010 to 0.706 in 2015. The Global Competitiveness and Innovation studies conducted by the WEF do not contain figures from Belize.

3.2.2. Institutions and instruments to support the private sector

The Ministry of Economic Development, Investment, Trade, and Commerce is the public institution charged with ensuring the permanent improvement of the competitiveness of the country and its companies. To fulfill its mission, this ministry depends on the Belize Trade and Investment Development Service (BELTRAIDE), which seeks to stimulate investment, entrepreneurship, business growth, and innovation. For this purpose, it has four work areas: (i) generation of investments and business facilitation; (ii) skills training⁹; (iii) business development; and (iv) trade promotion and export development.

In addition, the ministry has an Economic Development Council, whose mission is to create a permanent dialogue between the public and private sectors. This enables the country to create an enabling environment for better business development. In this dialogue, there is a notable absence of the academic sector.

Another important organization is the Belize Tourism Board (BTB). Under the Ministry of Tourism and Civil Aviation, it seeks to govern, improve, and promote tourism in

⁸ Corresponds to exports/GDP + imports/GDP.

⁹ To date, it has carried out important training processes based on the demand of the productive sectors, in four areas: (i) business process outsourcing (BPO) industry; (ii) tourism industry; (iii) home-health care; and (iv) professional development.

Belize. It undertakes strategic initiatives and implements policies to meet the needs of the tourism industry. The BTB's goal is to ensure Belize's socioeconomic growth through prudent, transparent, and effective governance.

The private sector has important organizations that represent the most important productive sectors of the country, among them the Belize Tourism Industry Association (BTIA), the Belize Agro Productive Sector Association (BAS Group)¹⁰ in the agricultural and agro industrial sector, and the Belize Coalition of Service Providers (BCSP), among others. The most important of the organizations that brings together the private sector is the Belize Chamber of Commerce and Industry (BCCI). These organizations maintain a permanent dialogue with representatives of the public sector to improve the business environment in their respective sectors and in the country.

With respect to agricultural development, the Belize Agricultural Health Authority (BAHA) has a board composed of representatives of the public and private sector. Its objective is the modernization of the country's agricultural, fishing, and food production sector.

3.2.3. Human and technological capabilities

There is strong consensus in the country that the main obstacle to business development is the scarcity of human capital, especially personnel highly skilled in both management and technology. There is a shortage of professionals required by the business sector. In addition, there is unanimous opinion that local universities, including the University of Belize, which operates with public resources and grants subsidized enrollment, and the private Galena University, are training professionals in fields that do not necessarily match the needs of the country's most important productive sectors. Specifically, the representatives of the productive sectors interviewed point to a shortage of engineers. In addition, the universities do not engage in research and development, training of technology centers, or extension activities. There is consensus among the public sector and the organized private sector, that it is imperative to carry out educational reform that considers and includes the entire formal education system of the country: primary, secondary, technological, and university education.

The scarcity of statistical information about the economic activity of the productive sectors is another important weakness observed in the country. There is also a need to

¹⁰ Important entity that represents the interests of the tourism sector throughout the country, which has three main objectives: (i) identify and promote market opportunities for the sector; (ii) to train the different participants of the tourism sector that require it, and (iii) to defend the interests of the sector.

massively introduce ICT into government processes so that they can be conducted online (e-government), making them more efficient and more transparent.

3.2.4. Productive sectors

The main economic sectors in which there appear to be significant possibilities of improving competitiveness are the following:

- **Tourism:** Tourism is the country's main economic activity. It is carried out under the modality of cruises and visits to the country. In general, tourism is developed by many small hotel entrepreneurs who do not use the "all inclusive" modality. This sector has great possibilities to continue growing due to the great amount of tourist attractions that the country offers: beach, sun, entertainment, national parks and forest reserves, handicrafts, archeology, and Mayan and Garifuna culture. Recently, medical tourism has begun to develop. The country has great ethnic diversity and has a characteristic that gives it an important competitive advantage: it is a bilingual country. Although English is the official language, a large majority of its population speaks or understands Spanish.
- **Agriculture:** Agriculture has been a traditionally important productive sector. Belize exports sugar, bananas, and citrus. In recent years, new agricultural products such as cocoa, papayas, legumes, rice, livestock, and poultry have been incorporated, with ample possibilities of producing new goods for a tropical climate, both for domestic consumption and for export.
- **Agroindustry:** Agricultural producers are making important contributions to the process of change, from the export of bulk products to their processing, adding more value and obtaining better prices. Among the products being produced are rum and spirits, paprika sauces, poultry, and chocolate products, among others.
- **Fishing and marine production:** Belize has traditionally exported crustaceans, including lobsters. It now exports shrimp, whole fish, fish fillets, and crab. Artisanal fishing, high seas fishing, and aquaculture (tilapia) offer significant growth possibilities.
- **Offshore outsourcing:** Belize has been selling services to other countries. Its competitive advantages include lower wages than many of its competitors and a bilingual workforce. A large part of its population speaks English and Spanish.
- **Renewable energy: A priority of Belize is to increase its production and supply of renewable energy, especially through the generation of energy from biomass and**

water. Strategies are being developed to incorporate solar and wind power generation.

3.2.5. Shared services or instruments

As in the other countries visited for this consultancy, most of those interviewed expressed the need for forums for discussion and analysis of the development of public policies that meet the needs of the countries of the Caribbean region, implemented individually by the countries themselves. Clearly, the joint implementation of public policies is not seen as politically viable for the moment.

3.2.6. Women in the workforce

In Belize, women participate broadly in the country's productive activities, especially in management, in both the public and the private sectors. According to the 2015 International Labor Organization (ILO) study entitled "Women in Business Management," Belize occupies the 18th place in the world in terms of female participation in managerial positions in companies, reaching 41.3 percent of such positions.

3.2.7. Sustainability

Although Belize has the same difficulties as other countries in the Caribbean with respect to the high unit cost of supporting companies in their individual projects, it has been able to design and launch an organization such as BELTRAIDE, which has been growing gradually in the area of generating the services needed to support the private sector, since it is constituted as an entity that could provide new support services to the productive sectors. Business development and innovation are among BELTRAIDE's strategic areas in which the work required for the implementation of TES policies could be inserted.

3.3. Jamaica

3.3.1. Background

Jamaica, with a population of 2,726,000, has had an average annual growth rate of only 2.0 percent in the last 10 years, achieving a per capita GDP (at PPP) of US\$8,873, which is below the average (US\$15,000) of the countries analyzed here. The services sector represents 69.3 percent of national value added, with tourism being the most important economic activity. The country has relatively high rates of globalization, reaching a commercial opening rate of 77.1 percent, an Internet users rate of 43.2 percent of the population, and a high number of mobile phones per 100 inhabitants, of 111.5 percent. The

country ranks 94 among the 188 economies on the HDI, with an increase of 0.722 points to 0.730 between 2010 and 2015. Jamaica ranks 75th out of 138 countries in the Global Competitiveness Index. Its score has risen 3.8 to 4.1 between 2005 and 2010. In terms of innovation, the country is in 70th place among 138 economies on the Innovation Index, with its score rising from 2.9 in 2005 to 3.33 in 2010. Among the best innovation indicators are the quality of scientific research institutions (52) and the capacity for innovation (55). These are the best positions in the Caribbean, but are still low on a global scale.

3.3.2. Institutions and instruments to support the private sector

Jamaica has several public institutions that support business development, including the following:

- **Development Bank of Jamaica:** This is a state institution that provides credit for business development and for companies to export. The bank works with value chains in sectors such as coffee, pepper, oils, and energy. It is especially concerned with supporting the development of the creative industries sector and innovation projects, especially startups.
- **Jamaica Promotion Corporation:** The Jamaica Promotion Corporation (JAMPRO) is an agency of the Ministry of Economic Growth and Job Creation that promotes business opportunities in export and investment to the local and international private sector. By facilitating the implementation of investment and export projects, the organization is a key policy advocate and advisor to the government in matters pertaining to the improvement of Jamaica's business environment and the development of new industries. JAMPRO has the traditional tools of promotion in both aspects (exports and attraction of investments). It does not have direct support instruments for exporting companies that would allow them to improve the quality of their products and their competitiveness.
- **Jamaica Business Development Corporation (JBDC):** The Jamaica Business Development Corporation (JBDC) was established in 2001 as the premier government agency providing business development services to Jamaican MSMEs. It provides guidance for business startups and expansion, offering business advice and consultation, research services, business monitoring, training and capacity building, project management services, financial advice, design and product development, as well as market penetration support and access. It operates throughout the country through five offices, with a staff of 120. It has an Incubator

and Resource Center (IRC) to provide technical support and incubation services for startups and established businesses. It also has a marketing support services delivered through its Things Jamaican retail arm, which provides market access and includes retail opportunities. Its operation is financed from the national budget and the sale of its services. It operates with partial nonrefundable co-financing.

The representatives of the small business sector demonstrate the need to have support instruments that benefit association in clusters in areas such as hotels (accommodation) and beauty products (fashion), among others, to generate processes of marketing sets. In general, there is a lack of knowledge about the type of instruments that the private sector could use to support technological improvement and business management. In particular, there is a lack of knowledge about the Compete Caribbean Program.

An important alternative to analyze is the formation of public–private alliances, which represent an important strength for the design and implementation of public policies to support the development of business competitiveness. Finally, the increase in theft and violence is one of the main problems affecting the investment climate and should be addressed as a priority.

3.3.3. Human and technological capabilities

There is broad agreement that one of the main impediments to improving the country's competitiveness is the shortage of technicians and professionals that can meet the needs of its most important productive sectors. Universities train people for careers that do not necessarily correspond to the demand from the business sector. Nor are they linked to the private sector by providing institutional services or relevant R&D. The UWI, the leading university in Jamaica, clearly prioritizes the training of professionals and conducts only limited R&D. It does not have specialized technological centers that contribute to the development of one or more of the country's productive sectors. The UWI's development plans include the creation of a technology center at its Mona headquarters in Jamaica and another in Trinidad and Tobago.

3.3.4. Productive sectors

The main economic sectors in which there are significant possibilities of improving competitiveness appear to be the following:¹¹

¹¹ This consultancy is not intended to focus on establishing the productive sectors in which TES programs should be carried out. This would require methodological work that was not contemplated in the TOR and is therefore

- **Tourism:** As in other Caribbean countries, tourism is Jamaica's most important sector. For this reason, it should be fully taken into account in public policies to support competitiveness. Jamaica presents a wide variety of options, based on recreational tourism around its beaches and sun. It also offers attractions in aspects such as music, carnivals, and special interests. Recently, medical tourism has become more prominent. The important development of competitive athletics, especially short and fast races, is a heritage that should be valued and marketed better abroad as another of the attractions that Jamaica has to offer. One interesting aspect to mention is that Jamaica has focused on the promotion of tourism in English-speaking markets such as the United States, Canada, and the United Kingdom, to the detriment of important Spanish- and Portuguese-speaking markets in Latin America. To focus on these markets, it would be important to intensify the teaching of Spanish and Portuguese.
- **Agriculture and agroindustry:** This productive sector is the second most important economic sector in the country and requires significant support for its competitive improvement, with special emphasis on the introduction of good practices in this area. Its main agricultural export products are bananas, coffee, and sugar. There is also significant production of corn and potatoes for the domestic market. The country has ample space to increase agricultural production by adding value to its agricultural products for sale in niche markets abroad, including sales to tourists visiting the country. According to what was observed, considerable support is required in terms of business management and processes that help Jamaica meet the food quality standards demanded by international markets.
- **Global services:** There is considerable growth potential in the creative industry, particularly music, film, animation, and video development.
- **Mining:** The main minerals mined in Jamaica are alumina and bauxite, all of which is destined to export markets. Bauxite is the second-highest value export after sugar. Developing products made from bauxite and alumina opens up important prospects; thus, improving the competitiveness of this industry is vital.
- **Industry:** The industrial sector has been growing steadily, especially in the areas of textiles and footwear. Both sectors present export opportunities if promoted in niche markets.

not analyzed in this study. Nevertheless, the consultant proposes to analyze the possibility of working in some of the sectors observed during the study.

3.3.5. Shared services or instruments

As in all other countries visited for this consultancy, there is a consensus view that there is a need for discussion forums and analysis to develop public policies that meet the needs of the countries of the Caribbean region but which could be executed individually by each country, without any interference from the others. Clearly, the shared implementation of public policies is not seen as politically viable.

3.3.6. Women in the workforce

Female participation in the workforce in Jamaica is relatively broad. Women work in all productive sectors and are well represented in managerial activities in both the public and the private sectors. According to the 2015 International Labour Organisation (ILO) study entitled "Women in Business Management," women occupy 59.3 percent of managerial positions in Jamaica, the highest percentage of any Caribbean country.

3.3.7. Sustainability

Despite its relatively small size, Jamaica has better conditions than other Caribbean countries for the sustainability of public policies to support business development. It has a set of institutions that can coordinate a network to support the business sector and ensure operational and financial continuity. These institutions include the Development Bank of Jamaica, JBDC, and JAMPRO, which provide an important set of business development support instruments covering aspects such as financing, training, attracting investments, opening and consolidation of international markets, technical assistance, and business support.

3.4. Saint Lucia

3.4.1. Background

Saint Lucia, with a population of 185,000, has had an average annual growth rate of 3.3 percent in the last 10 years, with a GDP per capita (at PPP) of US\$10,944, which is lower than the median of Caribbean countries (US\$15,000). The services sector generates 83.6 percent of the country's value added, with tourism being the most important economic activity.

The country has relatively high rates of globalization, reaching a commercial opening rate of 96.3 percent, a rate of Internet users of 52.4 percent of the population and a high number of mobile phones—101.5 for every 100 people. Santa Lucia ranks 92nd among 188 economies on the HDI, rising slightly from a score of 0.733 in 2010 to a score of 0.735 in

2015. The studies of global competitiveness and innovation carried out by the World Economic Forum do not contain figures from Saint Lucia.

3.4.2. Institutions and instruments to support the private sector

Through the program called Compete Caribbean 1,¹² the National Competitiveness and Productivity Council (NCPC) was created. It was established with the aim to identify the key issues related to competitiveness and productivity in St. Lucia and to provide timely and effective recommendations to policymakers, the private sector, and other stakeholders. In a short period of time it has become a reference and the impetus for activities to strengthen the competitiveness of the private sector. The NCPC conducts two actions:

1. Design and implement a system of indicators to measure productivity at the microeconomic level, in both the private and the public sectors. This would allow the development of public policies more in line with business needs.
2. Modernize (automate) the commercial part of the judicial system, recently separated from the rest of the judicial system, to speed up procedures and processes related to commercial and productive activities.

The NCPC coordinates with the organized private sector which, in general, shows great interest in the improvement of business competitiveness. The organized private sector is particularly interested in receiving support to boost business development in the following areas: (i) startups; (ii) technical assistance, technology transfer, and incorporation of norms to achieve standards and good practices; (iii) certifications in the labor market (critical point); and (iv) development of the consulting market in areas of registration, certification, training, and qualifying of consultants. Among the most important aspects highlighted by the private sector is the need for a system to carry out the following:

- Maintains a one-stop shop
- Does not privilege specific productive sectors
- Has specialized staff for the preparation of business projects
- Includes the marketing aspects and sizes of the target markets, since production in small volumes should be geared to specific market niches
- Is flexible, that is, it meets the needs of companies and productive sectors

¹² It receives funding from the Canada, the IDB, and the United Kingdom and support from the Caribbean Development Bank.

- Provides access to specialists who can act as project coaches to facilitate management

One of the first activities that needs strengthening in the country, where the NCPC has taken a leadership role, is the generation of information that enables the degree of competitiveness and innovation of the country to be measured and compared, which will provide the necessary background to establish public policies in these matters. As with Barbados, the small size of the Santa Lucia's population is structurally constrained by the fact that the costs of implementing public policies on competitiveness are very high and therefore difficult to sustain on the part of the government.

3.4.3. Human and technological capabilities

According to the people interviewed, there are important educational deficiencies in St. Lucia, both in aspects related to business management and in technical aspects related to production processes in the most important economic sectors in the country. There is also an important presence and diversification of the agricultural sector, which requires considerable support for its development. The presence of highly specialized training centers and technological development centers was not observed in the country's most important economic sectors, including the tourism sector and the agricultural sector. In the tourism sector, there is a large presence of hotels that operate under the "all inclusive" modality, which in general has limited connection with the local economy. Therefore, it is necessary to identify incentives that enable the implementation of program to develop local suppliers that can compete with outsiders with the same prices and quality of products.

3.4.4. Productive sectors

The main economic sectors in which there are significant possibilities of improving competitiveness appear to be the following:

- **Tourism:** Tourism is the country's most important economic sector. It is characterized by the presence of large companies that work mainly under the "all inclusive" modality, which in principle presents fewer opportunities for local business development around tourism activities. This modality makes developing successful models of supplier development more complex.
- **Agriculture and agroindustry:** The agriculture sector presents interesting development opportunities in the cultivation of fruits such as avocados, bananas, citrus, grapefruits, mangoes, and spices. In any case, it should be taken into account that its

expansion possibilities should be aimed at relatively small markets, ideally niches, for which it is imperative to make efforts to incorporate higher value added of high quality. Considering the type of fruit that the country produces, there are good opportunities for the development of agribusiness in products such as alcoholic and non-alcoholic beverages, sauces, and spices, among others, ideally marketed in niche markets.

- **Creative industries:** This sector has potential to develop, especially audiovisual, handicrafts, and music, which are closely related to the significant flow of tourism to the country. Although the sector presents opportunities to meet existing demand by tourists visiting the country, a significant challenge is improving the quality of the goods, especially local handicrafts.
- **Furniture and building tools:** Both sectors have experienced considerable development in the local environment, and present good prospects for export.
- **Fishing and aquaculture:** According to the information obtained in the interviews, fishing and aquaculture present good development opportunities, given the significant growth in local demand stemming from the growth of tourism.
- **Other sectors:** There is interest on the part of the authorities to encourage the development of ICT, offshore financial services, and renewable energy.

3.4.5. Joint services or instruments

As in the other countries visited, in general, in the public and private sectors and academia there is willingness to perform joint work on institutional design and technical content for the development of instruments or services to support the improvement of business competitiveness of the member countries of CARICOM, without this implying their joint implementation. In general, they believe that the implementation of public policies to support business development should be addressed by each country individually.

3.4.6. Women in the workforce

Women's participation in business is high in the country, especially in services sector activities such as administration and professional services, healthcare, education, financial services, and restaurants and hotels. According to a study by the 2015 International Labour Organisation (ILO) entitled "Women in Business Management," St. Lucia ranks third in the world in terms of management positions in women-owned enterprises, reaching 52.3 percent.

3.4.7. Sustainability

Although the sustainability of possible policies to support the improvement of business competitiveness can be an important aspiration, the conditions do not seem to be present to achieve it. As in Barbados, this is essentially because the operating costs of public policies to support the development of business competitiveness are relatively high. The small volume of projects in each productive sector due to the small number of companies leads to high unit costs.

3.5. Summary

The main aspects of the analysis carried out around the business development support system in the countries visited can be summarized as follows:

3.5.1. Institutions and instruments to support the private sector

In all the countries visited, there is significant concern about business development, specifically how to confront the challenges of making local businesses more competitive. It is not surprising, therefore, that all of them have created and strengthened institutions responsible for supporting business development on issues such as improving the business climate, facilitating procedures for doing business, improving the quality of products and services and the associated certification processes, the promotion and international insertion of products and services, the facilitation of credit and the guarantees to access them, among others. Examples include:

- Barbados, with activities carried out by agencies such as Barbados Investment and Development Corporation, Invest Barbados, Barbados National Standards Institution, and Barbados Renewable Energy
- Belize, with bodies such as Belize Trade and Investment Development Service (BELTRAIDE), Economic Development Council and Belize Tourism Board (BTB)
- Jamaica with institutions such as Development Bank of Jamaica, Jamaica Business Development Corporation (JBDC), and Jamaica Promotion Corporation
- Saint Lucia, with work recently initiated by the National Competitiveness and Productivity Council (NCPC).

There are also regional organizations operating in several Caribbean countries that have carried out important work in the delivery of BDS, such as the Caribbean Development Bank and the Caribbean Export Development Agency, among others.¹³

The work carried out by the Organization of American States (OAS, 2016) also deserves mention. With the support of other local and international organizations, it has been able to establish Small Business Development Centers (SBDC)¹⁴ in Barbados, Belize, Dominica, Jamaica, and Saint Lucia. The SBDC model combines the resources of higher learning institutions and the public and private sectors to assist small businesses, contributing to the sustainability of the program and promoting synergies and the efficient use of resources.

However, while the initiatives mentioned above are examples of the important efforts made by the public sector to strengthen support for the development of business competitiveness, there are still some aspects that need strengthening with the aim of consolidating a comprehensive system to support the improvement of the competitiveness of companies. In other words, although the institutions created contribute significantly to solving specific problems of companies (credit, exports, specific training, among others), they do not appear to be able to cover the entire chain of support that the companies require. Advancing in this area will require the adoption of a holistic, systemic view of support for business development, through the development of a consensus strategy.

At the level of the private sector, in general, although with some exceptions, there is a very private view of business development, which assigns little relevance to public policies to support business development, except for the generation of an ecosystem prone to development and macroeconomic stability. For this reason, the demand for BSD is relatively low. This may be due to the absence of public policies to support business projects, lack of awareness of available supply, high costs, mistrust of public policies, or distrust in the business information delivered.

For its part, the academic sector has few links to the challenges of business development. Its essential and often exclusive concern is the academic education of students. In this process, academic centers have few links to the specific needs of local companies. In addition, they do not take up the tasks of generating and expanding knowledge to strengthen the local development process. In any case, there is concern in all

¹³ The Caribbean Development Bank has played an important role in the Compete Caribbean I Program.

¹⁴ SBDC is a model to support SMEs developed by the University of Texas at San Antonio. This model has been implemented in several Latin American countries: Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, and Panama.

areas, especially in training centers. All actors are seeking ways to meet the needs of the private sector.¹⁵

With respect to the instruments or services and mechanisms to support business development, either individually or collectively, although there is some experience already accumulated, it seems necessary to move toward greater diversification, as well as broader dissemination of the existing instruments by business organizations, and especially by the entrepreneurs themselves.

With regard to the existing institutional system, it is important to mention that a significant part of its weaknesses may be largely due to a structural problem in the countries analyzed. The relatively small size of the population of these islands leads to high unit costs for countries operating their institutions for business, since they have to have administrative structures and a minimal range of business support services to meet relatively few productive units that demand them. In other words, having the various professional services required by the companies is expensive because it requires the presence of multiple specialties to meet the varied business needs in small quantities or bringing them from abroad at very high cost.

3.5.2. Human and technological capabilities

In general, the productive sectors do not have the quantity or the quality of the specialized labor required. Along with this, there are important gaps in relation to the technology required to increase their competitiveness.¹⁶ The gap between the demand for professionals on the part of the companies and the supply provided by the universities, as well as the absence of contributions to the technological development by the local universities in relation to business needs, are, to a great extent, a reflection of the scarce linkages between the knowledge centers and the productive sectors of the countries visited. As already mentioned, the universities focus on training professionals and technicians, without delivering the training that corresponds to the real needs of the business sector and without the ability to offer technological solutions to the productive sector. One manifestation of this is the absence of technological centers that provide specialized services that meet the needs of the productive sectors. The productive sectors, for their part, have not been able to disseminate the demand for technicians and professionals required for their operation and

¹⁵ As an example, UWI is planning to open technological centers in Trinidad Tobago and in Jamaica (Mona).

¹⁶ For most of the interviewees, these are the main problems that must be faced in the Caribbean to advance in the improvement of business competitiveness.

growth in an organized and clear way, and even less the need for the technological services required to improve competitiveness.

3.5.3. Productive sectors

- **Tourism:** In all the countries visited, the most important economic sector with the greatest prospects is the tourism sector. For that reason, it should be considered a priority in the design and implementation of public policies to support business development. In general, there appear to be important opportunities to improve the competitiveness of the sector, especially through greater specialization targeting specific market niches, with greater promotion in nontraditional markets in the Caribbean, such as Latin America, and by valuing activities such as local gastronomy, music and dance, crafts, traditional production processes, and others. To accelerate this process, public, private, and academic participation is necessary. It requires the organization of processes and a greater professionalization of activities, based on more in-depth study and knowledge of market niches and the use of instruments proven to be successful in other places. These include the development of suppliers or the transfer or technological extension. Learning or improving languages, such as Spanish, if the Latin American market is targeted, should be considered a priority.
- **Agriculture and agroindustry:** Despite the small size of the countries and the scarcity of arable land, it is possible to improve the productivity and competitiveness of the agricultural sector to supply the local market, including the demand for food generated by the tourism sector, local agro-industry, and agricultural and agroindustrial production with higher value added directed to specific niches of highly demanding international markets. In general, the sector has significant deficiencies in technology and business management, which creates important areas for improving the competitiveness of the sector. This can be successfully addressed by incorporating greater knowledge especially about the needs observed in the target markets. The diversification and segmentation observed today in the markets make it possible to increase the competitiveness of this sector as products are developed for specific market niches with high quality standards (traceability, good agricultural practices, certifications, treatment and use of waste, among other aspects) and with modern promotion and marketing mechanisms. The sector presents good conditions for the production of avocados, bananas, cacao, citrus fruits, mangoes, spices, and sugar, among others, and industries that use these products as inputs, such as alcoholic and non-alcoholic beverages, chocolates, and salsa, among others.

- **Global services:** Global export services, especially software development, offshoring services, and the creative industries, with emphasis on musical development, constitute an important opportunity for the development of the countries visited for Caribbean countries in general. In terms of software development and the provision of offshoring services, including financial services, the countries of the area offer advantages due to their relatively high levels of connectivity, their location, their language, and, in some cases, lower wages. As for the creative industries, possibilities for the development of music and dance (dance) stand out. They are in great demand worldwide and associated to the development of its main economic activity, tourism. There are indications of other potential sources of economic growth, such as animation and audiovisuals, which should be analyzed more comprehensively.
- **Renewable energy:** The generation of renewable energies is another economic sector that offers good prospects for development in the Caribbean countries, which can contribute significantly to cost reduction for other productive sectors and make the productive processes of the area more sustainable. In general, there are good prospects for developing the renewable energy sector based on water, sun, wind and biomass, among others. This sector is expanding, and local governments are increasingly interested in supporting this expansion.
- **Fishing, mining and industry:** Some countries of the region have important development opportunities in sectors such as fisheries (Belize and Saint Lucia), alumina and bauxite mining (Jamaica) and in some sectors of industry (Jamaica, textiles and footwear; Saint Lucia, construction tools), with the possibility of supplying specific market niches that require knowledge and a demand analysis.

3.5.4. Joint services or instruments

In the countries for this consultancy, in general, there is no interest in implementing public policies shared in matters related to the support of business development and the improvement of its competitiveness. The general approach is that studies and designs of institutional models and forms of management could be carried out for the delivery of services to support business development in a shared way, but in no case should this result in the direct application of public policies in an associative way. Several of those interviewed based their opinion on the possibility of developing services in a shared way on the experience they observed in the performance of CARICOM. They maintain that it is feasible

to seek consistency of public policies between countries, agreed collectively or associatively, but the policies should be implemented by each country individually.

3.5.5. Women in the workforce

With respect to gender, in general, there is a high rate of female participation in the labor force in Caribbean countries. The countries visited have high rates of female participation in managerial positions, especially in Jamaica and Saint Lucia, which compare favorably worldwide in this respect. According to the ILO (ILO, 2015), these countries are in first and third place, respectively, in female participation in management positions. Nonetheless, in general, men own the companies and businesses and the wage gap in favor of men is even greater in managerial positions. There is greater female participation in small businesses, which tend to be informal and therefore very vulnerable. This is most notable in the case of St. Lucia, where there is a very high participation of women in small businesses.

3.5.6. Sustainability

Frequently, one of the objectives of programs to support the competitiveness of the business sector, especially those financed by international cooperation is achieving technical and financial sustainability, that is, to become autonomous without having to resort to resources provided by international organizations. In general, this means finding ways to obtain the resources required to operate the programs from the national budget. However, this tends to be difficult to achieve, since allocating public resources for the improvement of the business sector requires a political decision. This is more complicated in economies with important unsatisfied basic needs and important social demands. For business development support programs to achieve technical sustainability, the following conditions must be present:

- Public and private institutional capacities to promote and manage human, technological, and financial resources to support business development
- Permanent capacity to design and implement the services or instruments required to strengthen the development of business competitiveness
- Presence of specialized human capital (stock) and its constant expansion (flow) according to the needs of the productive sectors of the country, especially the most important ones, as well as emerging and innovative sectors
- Technological and knowledge centers in the most important sectors of the national economy that put the intelligence and the knowledge at the service of the development of the country's productive sectors

The government must be willing to finance with its own budget the costs of the programs that are implemented, which often require significant subsidies to the companies or entities demanding or providing these services. It must also finance the operating expenses required to deliver services to the business sector.

However, in small economies such as those of the Caribbean countries, with a small number of businesses with the capacity to demand services or support instruments for their development, the unit costs of providing specialized services are very high and therefore can hardly be financed from the national budget. The high costs are due both to the high technical specialization and high diversification required coupled with low demand by the business sector for each service. This is a structural problem, since these countries, with relatively small populations, require the same degree of specialization and services as larger economies. This forces their public authorities to exercise a multiplicity of responsibilities and activities without necessarily having the knowledge, the specialized personnel, or the financial resources to develop in depth the activities necessary to support the business sector. Other aspects that may hinder the sustainability of business development support programs include the following:

- The political difficulties of justifying support to the business sector amid other pressing needs and social demands
- While the private benefits of entrepreneurial projects are evident, the public benefits, such as increased employment and tax revenues are not, and are more difficult to demonstrate
- The high risks inherent in private sector projects
- The effects (results) of public policies to support the development of business projects tend to be seen only in the long term

3.6. Conclusions

The main aspects brought to light by the analysis can be summarized in the following set of conclusions:

- In general, the economies of the Caribbean countries show significant growth, which is reflected in a steady increase in GDP. Nevertheless, their indicators of human development, competitiveness, and innovation lag significantly behind those in other regions, although with important differences among them. Therefore, introducing new technologies and management capabilities through business development

programs could become an important tool to contribute to improving productivity in the countries of the region, and thus to narrow the competitiveness gaps with respect to more developed countries.

- In the countries included in this study, no public policies focused exclusively on technological extension were identified as a mechanism to support enterprises to increase productivity in the productive sectors. Nevertheless, in several of their business development support programs, it would be possible to incorporate technology transfer activities and management methods into the business projects that they support.
- Caribbean countries are implementing programs to support the development of business competitiveness through different instruments aimed at providing solutions to specific problems of companies, such as financing, certification, investment attraction, and export promotion. These programs comprise what could be called national systems of support for business development. The systems could be strengthened by adopting a holistic vision, shared by different sectors, that incorporates new challenges and includes national strategies to support the improvement of competitiveness.
- In general, the representatives of the public, private, and academic institutions interviewed expressed great interest in the idea of implementing public policies to support the development of the business sector, although in many cases they required more information to measure their possible benefits and understand how they would be implemented.
- In the public sector, there is widespread recognition of the need to improve business competitiveness, which has led to the creation and strengthening of institutions to support the sector's development. This process should be strengthened through the elaboration of a national strategy to support the development of competitiveness, led by the public sector and with the explicit consensus of the main public, private, and academic actors related to the issue. In general, there are ample opportunities to optimize the development of institutional governance and the concrete way of providing support instruments for the productive development of companies.
- It is costly to deliver services to companies in Caribbean countries, due to their small size and the high degree of specialization needed coupled with low demand for these instruments. The relatively low demand for BDS could be due to ignorance of the needs, lack of awareness of available supply, high cost, mistrust of public policies,

or distrust in the business information delivered. The high cost of the instruments to support business is a serious obstacle to improving the competitiveness of Caribbean companies.

- As in other parts of the world, the organized private sector is quite clear about the need to improve the macroeconomic environment and the business climate. However, it makes few contributions to a vision of public policies to support business development through co-financing of business support instruments or services. This may be due to their lack of experience in the field, or to the fact that the private sector, as in many other parts, does not understand what is needed to improve competitiveness. Therefore, it does not demand such services or instruments.
- In all countries of the region, even those most advanced in terms of training of technicians and professionals, there is a need to strengthen human capital to facilitate the development of technology adaptation and transfer to the main productive sectors.
- As in many other places, the academic sector's central aim is to train professionals rather than prioritizing linkages with the private productive sector. The quantity and quality of the professionals trained by these centers do not necessarily coincide with the needs of the business sector. Moreover, academic institutions do not have technological centers that link them with the productive sector, although some are considering moving in that direction.
- The private sector has relatively little knowledge about the types of instruments, services and mechanisms that could be used for the development of entrepreneurial projects, and it has little information about the business development support services already operating in the country. In addition, there is scant presence of individual consultants and consulting firms that are experts in evaluation and preparation of technology projects, an essential aspect for the good performance of projects and programs in the field.
- In general, universities do not incorporate research, innovation, and technological extension as a possible business. Consequently, they do not allocate human or financial resources to these functions. In addition, public policies do not encourage the development of a market for technology services to support business development.

- In the private sector, there is no clarity regarding their support needs, in either the technology or the professional area. Therefore, they cannot clearly convey their needs to the public sector and the academic sector. This is a very common problem.
- In all the countries visited, the main economic activity is, by far, tourism. This sector offers broad opportunities to improve competitiveness, access new markets, and incorporate more value added to its local supply. This could be accelerated through the implementation of specific public policies in this area.
- The authorities consider the development of agriculture and agribusiness to be of strategic interest. These sectors offer alternatives of improvement that are not necessarily of a technological nature; rather, they consist of valuing the local elements that make the product more attractive, accompanied by very good marketing campaigns in specific market niches. Global services and renewable energies are two important sectors whose competitive improvement could have a significant impact on the diversification of production and value added at the local level. In addition, in some countries, fishing, industry, and mining are important, and all of them are aimed at specific market niches.
- In general, in the countries visited, a willingness to conduct public policies jointly with the other Caribbean countries is lacking. Nevertheless, all recognize the need to make progress on the design of instruments to support business development collectively, in conjunction with other Caribbean countries, but not in implementation, which they believe should be carried out individually by each country. In general, there is a strong willingness to develop programs to support productive development, but given the lack of knowledge and experience in this area, they recognize the need for external support, especially from international organizations.
- All of the countries visited have high rates of female participation in economic activities, especially in management positions of public and private companies, and in self-employment, which tends to be informal and therefore more vulnerable.
- The sustainability of public policies to support business development, while a desirable goal by those who promote them, is not easy to achieve, for various reasons. The main reasons are: high operating costs, the difficulty of justifying high spending politically, high project risk, especially in the most innovative projects, high private sector ownership of the most obvious benefits of public policies to support business development, and visible positive effects on the economy observed only in the long term, among others.

4. Proposals to Optimize the Caribbean's Competitiveness Support System

Based on the findings discussed above, this section proposes the following main lines of action.¹⁷

4.1. Institutions and Instruments to Support the Private Sector

It is advisable to seek a way to design, with a comprehensive and long-term vision, a support system for the development of business competitiveness that will contribute to meeting the needs of the productive sector. This system would have the capacity to respond to the needs of the business sector to develop its projects. It would be highly flexible and capable of adapting to all productive sectors, regardless of the size of their business, and to the needs of the productive units. To strengthen the institutional development and the services or instruments to support the business sector, the following activities, among others, should be carried out:

- Create a public sector-led entity with the participation of representatives from the public, private, and academic sectors to analyze and propose improvements to public policies to support the development of the business sector. It could be called the National Competitiveness Council. This body should establish a work plan agreed upon by its participants, and should operate with transparent rules and promote frank dialogue and collective decision making. This would contribute to prioritizing the important issues to support the development of the private sector.
- It is essential to establish a systemic, integral, holistic vision. The main idea is to create a value chain of support to the business sector that includes a variety of services to meet the needs of the business sector and the institutional capacities to address them. It can gradually add new services in a planned way, without losing sight of the objectives of the global system. The design of a system to support the development of competitiveness requires a joint analysis with the participation of representatives of influential organizations to achieve essential agreements in the areas of greatest importance in relation to the enhancement of competitiveness.^{18 19}

Such agreements should be considered the principles and criteria that should form

¹⁷ The IDB could lead this effort through the Compete Caribbean II Program.

¹⁸ Broad participation is needed because all of the parties depend on each other, and the strengthening or weakening of one of them affects the entire system.

¹⁹ These include the public sector, organized business sector, organized academic sector, political organizations, opinion leaders, civil society, trade unions representing the productive sectors, and community leaders, among others.

the basis of the system that will support the national competitiveness system, and should therefore be permanent.²⁰ It is strongly recommended that the formulation of these principles and criteria be made explicit, that is, be documented along with the argument that sustains them and be broadly disseminated. Annex 1 presents, as an example, the principles and criteria that have implicitly or explicitly inspired the development of the business competitiveness support system of Latin American countries such as Chile, El Salvador, and Uruguay.

- The aspects that should be present in the value chain of the business support system should be identified and compared with what currently exists to identify the gaps and weaknesses in the system, establishing a priority order of activities based on the impact that they could have and the difficulties detected. This will allow a long-term program to be established, which should be periodically reviewed (e.g., every two years) to update it and prioritize activities. The program should promote the permanent enrichment of the institutions and services that it provides, in direct relation to the gaps observed in the value chain of the development system, including the human, technological and financial requirements. A set of instruments should be implemented in a planned and gradual manner to support the development of business competitiveness. It is important to gradually develop these instruments and generate the knowledge of how to manage them effectively before implementing new instruments. Too many instruments without an efficient administration can lead to a serious management problem of support to the private sector. The following instruments, among others, should be considered to support business development: management systems, business alliances, technology transfer, innovation, export promotion, and investment attraction (see Annex 2 for more details).²¹
- An important aspect to be included are methodologies to prioritize productive sectors and their value chains (Calatayud, Fernández and de Groote, 2017), including risk analyses of the productive sectors to be supported, to minimize risks and find ways to mitigate their impact. This should contribute to establishing more comprehensive public policies with greater probability of success. Annex 3 presents a summary of a

²⁰ Permanent does not mean inflexible, but if they change it is again by consensus between the parts that make up the system.

²¹ BDS instruments are not delivered free of charge to entrepreneurs. They are co-financed by the state and the private companies that benefit from them. Generally, this financing has a maximum amount per project; the state is responsible for a percentage of the financing and entrepreneurs for another percentage. The state contribution is in the form of a nonrefundable donation.

methodology entitled “Risk Management in Value Chains: Guide to the Design of Programs” (Calatayud, Fernández and de Groote, 2017).

4.2. Human and Technological Capacities

To make progress on the implementation of the private sector development support system, it is essential to have more and better information on the most urgent needs of the business sector, at all levels of its business: destination markets of its assets, access to credit, financing needs, technology needs and gaps, management models, development of the value chain in which the company is inserted, among others. This should lead to the design of public policies and support to the private sector more clearly in line with their most urgent and evident needs. Regardless of the specific needs that can be identified in each country, it is essential to promote the strengthening of two important markets: the consultants market and technological services market. The development of both markets is necessary for the elaboration, evaluation and subsequent implementation of business projects, since expert consultants and technological services are needed at all of these stages.

Due to the high costs of developing the consultants and especially the technological services market, agreements should be sought among the countries to develop a regional market. In this way, the high investment costs of both markets, especially the technology services market, can be avoided in individual countries. Moreover, if agreements are reached in this area, it will be possible to attract investments from entities that provide technological and consulting services in other parts of the world and that could be installed in the region if there is sufficient demand for them.

4.2.1. Consultants market

Public policies to support business development require the participation of consultants from a wide range of technical specialties, in accordance with the support needs of the companies in the economy concerned. But for the good functioning of the market, a large number of consultants should be present to allow the possibility of choosing between them based on the quality and price of the services offered. Thus, information about them should be made available in a transparent way. In other words, a supply of consultants is required that is varied, competitive and transparent.

However, companies, especially SMEs, usually do not resort to hiring consultants to solve their problems. This is mainly because they are not clear about their support needs, they do not have the resources to hire them, they do not know how they can access the

consultants, or how much they should pay for their services. Thus, to develop public policies aimed at improving business competitiveness in which the presence of specialized consultants is required, it is essential to support the development and strengthening of a market of consultants through actions that strengthen both the demand for and the supply of consulting services.

The demand for consultants can be strengthened through assessments of companies to identify objectively and clearly their main external support needs, a consultant registry with sufficient information about their knowledge, experience, and capabilities, and financial incentives for hiring them (nonreimbursable financial support) so that companies can choose between them. The supply of consultants can be strengthened, by the support or financing of professional specializations and technicians in the areas required by the most important productive sectors in the country, the evaluation of their knowledge and experience by a knowledge certification of national or international prestige, and the establishment of a detailed consultant registry that contains information on their knowledge, their work, their pricing, their willingness to take on new jobs. It should be made available to potential applicants for consultancies using today's modern technologies. Ideally, the participation of consultants in this market should be as broad as possible, subject only to the professional characteristics of the consultants in relation to the needs of the public policies and programs that are implemented. For this reason, the participation of professionals coming from the country, the Caribbean, diaspora, immigrants, nongovernmental organizations (NGOs) and professionals from other regions should be considered. local universities and eventually external universities should be involved in training consultants in topics related to the needs detected by the business development support system.

There are several experiences of developing Consultant Records in Latin America. Examples include the Roster of Consultants of the PROINNOVA Program executed by FUSADES in El Salvador, the Consultant Registry for a wide range of instruments developed by the Production Development Corporation (CORFO) in Chile, and the Consultant Registry of the Innovation Program developed by the Research and Innovation Agency (ANII) of Uruguay. In all of them, the main objective was to unite supply with demand for consultancy in a clear way, and to ensure the availability of appropriate consultancy pricing and quality.

4.2.2. Technological services market

As in the case of consultants, it is necessary to develop market for technological services market in places where today both the supply and the demand for them are relatively scarce. Demand can be stimulated through appropriate public policies that encourage the contracting of technological services through nonreimbursable financial contributions directed at companies. This will not only improve the quality of production but will also indicate new ways of managing companies by incorporating services provided by third parties.

Box 2. PROINNOVA Program: Consultant Roster

PROINNOVA, established in El Salvador in 2008, is managed by the Salvadoran Foundation for Economic and Social Development (FUSADES) with the assistance of the Inter-American Development Bank (IDB) through the Multilateral Investment Fund (MIF). The objective of the Program is to support exporting SMEs in the food sector through technical assistance activities to strengthen technological innovation and quality. To carry out the activities corresponding to the assessments of the companies that were requesting support for innovation and quality, to elaborate innovation and quality projects adjusted to the needs of each company, and later to implement these projects, PROINNOVA prepared a consultant roster. The roster consisted of a registry of professionals authorized to deliver services based on their training, knowledge, and experience. All the information in the registry was made available so that the entrepreneurs could decide who to hire. The program regulates the consultants' fees based on market conditions. Consultants are added annually based on program growth and specialties needed.

FUSADES' consultant roster has been fundamental in providing access to specialized professionals. Consultants provide detailed resumes and can be hired quickly at market prices that have already been disclosed and agreed by the parties. FUSADES' management team supervises the quality of the work performed by the consultants. PROINNOVA and its consultant roster have been in operations for 10 years. The roster currently has 20 consultants. For proper management, PROINNOVA has systematized the procedures for the administration of the roster and work orders.

The supply of technological services can be strengthened through calls for bids, which lead to the adjudication of resources to invest in equipment and additional facilities and/or loans for their installation, in addition to training of personnel to operate the equipment and instruments. The laboratories and/or technological centers that are awarded the resources to make the investments will be able to expand their markets in response to the demand from other Caribbean countries. For this, it is important to make progress on coordinating public policies to jointly address market development, with some countries specializing in

certain areas of knowledge and not competing against each other, which could raise the cost. The small scale of these economies makes it advisable for them to work together rather than competing among each other, provided that information on international market prices is available.

Ideally, public policies to support the demand and supply of technological services should be carried out in a coordinated manner, to optimize the market enhancement of these services. As in the case of consultants, it is fully possible to have a Registry of Technology Centers that provides services to companies. Such a registry could increase the transparency of the supply of these services in a particular Caribbean country or throughout the region. In addition, a working group made up of representatives from the public, private, and academic sectors (depending on the National Competitiveness Council) should be established to analyze and propose joint solutions to the need for human capital formation and technological services to provide services to companies. To support this process, special conditions that encourage the incorporation of new careers or modify the curricula in teaching centers should be established, and academic opportunities in both business management and technology devoted to serving business sector should be created.

4.3. Productive Sectors²²

In the Caribbean countries visited, tourism is the most important economic sector. Other sector, such as agriculture, agroindustry, global services, and renewable energies, also have the potential for further development. An important aspect of tourism development is that the value chain that underpins it can be extensive and therefore very inclusive. In other words, a good tourism development strategy may include the development of most of the other sectors mentioned, especially if a tourism value chain development policy is chosen. Such a policy would include the development of agriculture for food sector, gourmet products, recipes, flavors, and local cuisine based on the products grown in the area; development of local music and artistic and recreational activities for different types of tourists; development of dance, painting, and local handicrafts, as well as the generation of clean energy for the productive processes of the sector. In view of the importance of the tourism industry, it should be used as a platform to develop value chains that complement industries in agriculture, agribusiness, cooking, music, dance, painting, handicrafts,

²² These ideas are not the result of a thorough study of the productive sectors in the Caribbean countries, which would require working on a previously established methodology and more intensive work on the subject. Consequently, what is presented here is only a first approximation proposed by the consultant. The IDB has just published a guide to identify, select, and prioritize productive sectors and their value chains and to analyze their risks and alternatives to mitigate them. See Calatayud, Fernández, and de Groote (2017).

renewable energies, among others, in which the countries of the region have growth potential.

This would require improving environmental conditions, in addition to providing entrepreneurs with instruments or services for their productive improvement, including: technical assistance, advisory services in the different areas of administrative tasks of the company, management models, supplier development, implementation of standards and certifications, and technology transfer (TES), among others.

One important aspect is the focus on marketing efforts by Caribbean countries to attract tourists from English-speaking countries such as Canada, the United Kingdom and the United States. In the consultant's opinion, it would be interesting to deepen these marketing efforts in European and Central American countries, and especially in South America.

South America has more than 400 million inhabitants and is relatively close to the Caribbean. Because it is in the southern hemisphere, its greatest demand for recreation occurs in seasons that are different from those of Central America, Europe, and North America. The greatest difficulties are that the per capita income of South American countries is not very high and most of its population does not speak English. This would force Caribbean countries to invest heavily in the teaching of Spanish as a second language. This would also serve the market of Central America and Spain, and to a lesser extent the Portuguese-speaking countries.²³

In this regard, Belize has a huge advantage. About 60 percent to 70 percent of its population speaks or understands Spanish. In view of the above, the tourism marketing policy should be revised and part of its efforts should be directed toward Latin American countries, especially those in South America.

Support for the tourism sector should not be an obstacle to consistently supporting other productive sectors that also need to improve their competitiveness, such as the agricultural export sector, the renewable energy sector, and the global services sector. Each of these sectors and their respective value chains should be analyzed in an integrated way, to support the development of the entire value chain.

4.4. Women in the Workforce

According to what has been observed, women participate in economic activities in relatively high numbers in Caribbean countries. However, their participation is characterized by a high

²³ Brazil is the only South American country that does not speak Spanish, although many Brazilians understand it. Brazilians speak Portuguese and represent almost half the population of South America.

proportion of self-employment and high vulnerability. It is important to find ways to incentivize the development of projects that prioritize associativity among them, to expand demand, improve quality, market together, and therefore decrease vulnerability.

To address this challenge, it is advisable to prioritize associative projects (women) through the delivery of larger amounts of money than would be provided for individual projects and with higher co-financing rates. Parallel to this, and as the first project, it is incentives (in amount and percentage of co-financing) should be created to formalize their economic activities, which would provide them the benefits of formality (e.g., improved access to credit, government programs, old-age pensions, unemployment insurance, among others). In any case, it is necessary to keep in mind that projects, to be approved and financed with contributions of public co-financing, should always reach the required standards and should turn a profit.

4.5. Joint Services and Sustainability

The Caribbean countries do not endorse joint provision of services to the business sector, although they are willing to work collectively in their design. There were no dissenting opinions on this issue. The seeming reluctance among countries to collaborate on the implementation of public policies should be reassessed given the ongoing collaboration through regional trade and private sector agencies such as Caribbean Export Development Agency and the Caribbean Regional Negotiating Machinery (CRNM).

However, in the opinion of the consultant, it is necessary to find ways to persuade the authorities of the different countries to seek formulas that allow collective work, since it can make improving the competitiveness of companies more feasible. This could lead to greater specialization, better quality of technological and consulting services, and better prices to access them. Therefore, despite the opinions gathered in the interviews, we propose the establishment of a collective way to address some of the necessary aspects for the enhancement of a support system for the improvement of business competitiveness.

As discussed above, the sustainability of business development support programs presents structural problems. It is therefore necessary to address their governance in a different way than that of larger countries. To ensure the sustainability of business development support programs, the following non-mutually exclusive activities should be considered:

- Implement a set of measures of a general nature that have a significant impact on the national economic system, through reforms to the business climate and to the regulatory framework of the economic and social system. These include possible tax reforms,

procedures for starting, managing, and closing companies, stimulating private–public companies, access to the Internet, accounting reforms, labor reforms, creating forums for dialogue and joint initiatives between the private sector and knowledge centers, strengthening of the consultant market, strengthening of links between the productive sector and knowledge centers, development and strengthening of technological centers, creation of institutions or entities that bring together actors that contribute to the improvement of value chains, generation of indicators and measures of competitiveness, among many others. These activities can improve the enabling environment for increased competitiveness.

- Simultaneously, a network of information and contacts should be created and made readily available that contains data and prices of specialized service providers for companies: consultants and consulting companies, laboratories, research support centers, certification support companies and certification companies, business support institutions to export and attract investment, business organizations, value chains, among others. This information could be collected in each country, and a database of the area could be formed that could serve as an online marketplace where business development support services could be supplied and demanded. This would require the technical and financial support of the governments interested in forming this network. These activities could form the basis for the development of a Caribbean market of consultants and technological and management services, with databases common to all countries wishing to join it.
- Caribbean countries should establish an association or collective support system to manage BDS that are prohibitively expensive if contracted individually by each country. As a suggestion, a shared system for the evaluation and approval of business projects (project committee, or PC) could be designed on the condition that the countries that join it do not compete for the same budget. Each country has its own budget, so the projects in each country will compete only with other projects in their own country. It is suggested that the competitiveness councils in each country could be directly involved in this PC. This PC could operate as follows, by way of example:
 - Each country allocates annually an amount of resources to support the financing (nonrefundable contributions) of project development for the entrepreneurial sector of its own country under the conditions that it considers necessary, such as the sectoral focus, gender considerations, territory and business size, among others.

- Projects submitted in each country would be funded with resources from the country to which they belong, so that there is no competition for financial resources between the countries that form the PC.
- Each country would establish an open window system that would receive business project proposals on a rolling basis, in the formats and methodology established by the PC.
- The PC would elaborate an annual calendar of monthly sessions (held in person or virtually) to analyze the proposals.
- The competitiveness councils of each country would receive the proposals and verify that they meet all the eligibility requirements for financing the projects.
- Once eligibility has been verified, the proposals would be sent to the PC to evaluate them collectively and decide whether to grant funding to the applicants. The PC should comply with all of the previously established requirements or standards of project selection.
- Once approved, the projects would be executed under the supervision and control of the local competitiveness council following the guidelines established by the PC.
- Initially this process could be carried out using a portion of Compete Caribbean funds. Therefore, the team of the IDB Executing Unit of this program should be present in all PCs that are carried out and. The Executing Unit should have the right to veto projects which it deems do not meet the required standards or processes, for a period of two or three years.
- The installation of such a system would require training of PC members in project preparation and evaluation. It may take about two or three years to install and adapt this process.
- The preparation and presentation of business projects would require the presence of specialized consultants capable of transforming the ideas of entrepreneurs into projects in previously established formats. The preparation of these specialists is essential for the good performance of the system.
- Likewise, monitoring of project execution requires the presence of professionals specialized in these activities.

Work Program	
<p>The above recommendations can be ordered in recommendations of internal activities suggested to be implemented by each country and in recommendations for activities that could be carried out collectively or associatively among the Caribbean countries, which are presented below with an order of precedence:</p>	
Recommendations	Comments /arguments
A. Internally (in each country)	
<p>1. Establish a National Competitiveness Council (NCC), a public sector-led entity, with the participation of representatives from the public, private and academic sectors, to analyze and propose improvements to public policies to support the development of the business sector.</p>	<p>It is essential to have an entity whose permanent concern is the strengthening of the national system to support competitiveness.</p> <p>This entity is essential to strengthen the institutional framework of the national system to support competitiveness. It will be responsible for always keeping in mind the optimization needs of the system.</p> <p>It should fall under the ministry of economy or another ministry in charge of business development support policies.</p> <p>A meeting should be held between the authorities interested in developing and strengthening competitiveness policies, with the aim of creating a working team among participating countries (which could form a Project Committee (PC)).</p>
<p>2. Establish the principles and criteria considered essential to support the improvement of competitiveness. Representatives of the public, private, and academic sectors that participate in the NCC should do this.</p>	<p>The principles and criteria should be analyzed in depth, as they synthesize and frame the central elements of the institutional framework and tools to support business development. These principles and criteria and the arguments that support them should be documented. An example of the type of principles and criteria to which we could aspire is provided in the Annex 1.</p> <p>It is essential to providing congruence, continuity, and transparency to the decision-making system of the institutions and the instruments involved in supporting the improvement of business competitiveness.</p>
<p>3. Describe the value chain of the national business support system and compare it with the value chain reasonably desired, which will reveal the gaps that will need to be addressed through:</p> <ul style="list-style-type: none"> • Ecosystem reforms for business development; • Generation of new functions and/or strengthening of existing ones; 	<p>This aims to analyze in detail the complete system of support to the development of companies. This vision will identify the main gaps and based on this, propose the necessary reforms, functions, and services to promote and/or incorporate.</p> <p>It is necessary to observe the whole system, including reform needs in the public and private sector (generation and strengthening of associations or business associations, for example) and academia</p>

<ul style="list-style-type: none"> • Generation of new instruments and/or strengthening of existing ones. 	<p>(generation of technological centers and support for business management for example). Incentives can be generated to drive the required activities of the private and academic sector.</p>
<p>4. Establish the priorities of these functions and develop a sequential, long-term work plan to implement them.</p>	<p>The work plan should be reviewed on a permanent and modified based on new information. It is suggested that it be analyzed at least once a year or at most every two years.</p>
<p>5. Identify the productive sectors that are intended to benefit from public policies and instruments, incorporating an analysis of the value chains and their risks.</p>	<p>Support should be provided to all productive sectors that have the capacity to present profitable projects.</p> <p>It is suggested not to exclude any productive sectors (all of them need support) although some of them may be prioritized for different reasons by stimulating co-financing.</p> <p>The most important thing is to create more value, and for that it is necessary to develop private sector projects that are profitable from both the private and social point of view.</p>
<p>6. In the countries visited tourism is the main economic activity, so it is important to improve its competitiveness by extending and improving its value chain, which can radiate to an important part of other activities of society. However, it is recommended to support other productive sectors as well and not focus only on tourism and its value chains.</p>	<p>This activity can demand considerable resources, since tourism offers many possibilities. Therefore, it should proceed gradually and in a prioritized manner, leaving budgetary space to cover other productive sectors as well.</p> <p>It is important to encourage deep working relationships between the tourism sector and the different productive activities that empower it: crafts, cooking, music, dance, sports, among others.</p> <p>New markets for tourism should be identified and promotional campaigns carried out in them.</p> <p>The South American market should be targeted. This will require increased efforts to teach Spanish and/or Portuguese.</p>
<p>7. Adjust the design of the instruments according to the priority needs of the productive sectors and their value chains.</p> <p>It is necessary to take into consideration the need to promote the available instruments, the objectives to be achieved with them, how to access them and how to finance them.</p>	<p>Specific instruments can be developed for a sector, with differentiated co-financing. The mode of operation of each instrument should be established. Specifically:</p> <ul style="list-style-type: none"> • The application system for companies, forms, evaluation times, and response times to companies; • Eligibility requirements for companies, which clearly establish the administrative elements that companies must meet to access the funds to execute their projects, taking into consideration that failure to comply with one of them disqualifies the company's application;

	<ul style="list-style-type: none"> • Project selection requirements, i.e. project evaluation criteria to be exceeded for projects to be selected for financing by the Compete Caribbean II Program, against the resources available for that purpose in each country; • Key elements for monitoring and evaluating project performance; • Rules and procedures for the use of project money and for the provision of related expenditures.
8. Permanent generation of information about companies' needs	For this, it is important to have associations and/or chambers that represent the different business sectors to channel business needs and draw them to the attention of the discussion forums.
9. Working group to support the formation of human and technological capital, made up of public, private, and academic representatives.	This should contribute to greater convergence in the training of technicians and professionals according to the needs of companies and the national system of support to competitiveness: training of experts in the evaluation of business projects and opening of technology centers according to the needs of companies.
10. Encourage the formalization of business activities in areas with high female participation, through instruments that benefit their activity and which, by way of example, do not require payment of taxes for at least a significant period or until they have achieved certain minimum levels of income.	This activity should be very well promoted and should be carried out in coordination with programs that provide immediate access to certain benefits, such as access to credit and access to consultancies with a high component of state co-financing.
11. Incorporate additional benefits to projects of any productive sector where there is minimum female participation.	Projects should be profitable from a private and a social perspective. Technology extension services should be given priority through different instruments or BDS.
B. Associatively: Collectively between countries	
1. Creation of a Project Committee (PC) comprising members from different countries of the region, with the capacity to evaluate and decide on the project proposals presented in different countries that have their own budget to finance their projects. The main characteristics proposed for the operation of this PC are the following:	<p>Although there is no favorable environment for the joint work of countries to improve the competitiveness of the business sector, a set of activities should be carried out collectively. This which would improve the quality of the services offered (consulting and technology) and reduce costs.</p> <p>One of the main aspects to consider to reduce operate costs of a business support system is to establish a common institution with a team of professionals capable of evaluating business project proposals and making decisions that minimize the risks of allocating resources to projects that are not profitable financially and socially.</p>

<ul style="list-style-type: none"> • Each country sets its budgets and conditions for the projects that will be developed in its country; • The system operates under the open window mode (first come, first served), with an annual calendar for the analysis and approval of projects under previously designed methodologies; • Once the projects have been approved, execution and monitoring is the responsibility of the country in which the companies belong; • The system requires a lot of knowledge in project preparation and evaluation, for which expert advice should be provided. Training in these subjects should be conducted in the local universities. 	<p>Since this requires high levels of preparation and therefore high cost, it is recommended that these activities be carried out collectively.</p>
<p>2. Strengthening the market for business support services:</p> <ul style="list-style-type: none"> • Consultants' market: initially through a list of consultants in the different specialties to progress toward a Consultant Registry that includes their specialties, qualifications, work done and prices of their services. • Technology services market: initially through a list of consultants in the different specialties to progress toward a Technology Services Registry that includes their specialties, qualifications, work done, and prices of their services. 	<p>This should be done gradually, simultaneously and consistent with the development of BDS in a way that produces a harmonious growth of the demand for services by the companies (with the support of the instruments or TES) and the supply of consulting services and technological services (with the support of instruments to strengthen this supply).</p> <p>In both cases, it is possible to move forward, through a Consultant Registry and Technology Services Registry, towards an offer with more actors, with greater knowledge of their skills and work done and the prices of their services.</p> <p>The records should be kept up to date. This requires having the human, financial and technological resources to do so.</p>
<p>3. Support productive sectors and their value chains, identified in each country.</p>	<p>Promoting the necessary reforms and financing private projects through different instruments, giving preference to TES (it is cheaper than innovation, and its effect is broader).</p>

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Annex 1. Principles and Criteria of a Business Development Support System

A set of principles or criteria should be elaborated to underpin a proposal for sustained improvement of the institutional framework for the design and implementation of public policies and the instruments or services supporting the development of the companies' competitiveness. These should be considered the permanent basis of the system, which will contribute to its congruence, soundness, and sustainability over time. The principles and criteria proposed here should enjoy broad consensus and be known by all those who participate in the system, especially those who have an impact on the decision-making processes, so that all the important decisions are fully consistent with them. The principles and criteria set forth here are based on best practices observed in other programs and systems linked to the development of business competitiveness, both for the institutional structure and for the design of the instruments or services to be offered to the business sector.

Institutional Design

To design and strengthen the institutionality of a support system for the development of business competitiveness, the following main principles and criteria should be considered.

Leadership and Coordination

To develop a support system for business development, a public institution should lead and coordinate all the strategic and operational tasks that are required to execute it. Its leadership should be explicitly and clearly recognized by the rest of the participating institutions. To carry out this role, the entity should have the following institutional strengths:

- The political authority (political support) that enables it to establish or permanently influence the design of public policies to support business development in the country. To this end, the presence and participation of the highest authorities of the institutions involved are essential.
- The technical authority that enables the institution's value added to be recognized as having the technical and professional capacities for methodological development and design of the instruments required for business development.

Given the scarcity of human resources at the local level, management by political authorities is essential to involve international institutions of technical prestige to contribute to overcoming local shortcomings. That is, even if there are no local technical capacities, the institution can obtain them through agreements with institutions recognized in the various subject areas required for business development.

- Financial resources for the implementation of the development instruments required, ideally established through formal, multi-year budget allocations that allow for project implementation over time.
- Presence in (or access to) the country in which it is intended to act, which allows it to provide its instruments to all companies and organizations interested in participating. If it is successful, it should recognize that there will be increasing demand for a larger budget.

Public and Private Sector Participation

The development of a public policy with the capacity to lead processes of transformation of local capacities in the quest to improve a country's competitiveness should be of interest to everyone who lives in the region. The public and private sectors, including academia, should participate actively in the development of these policies. The private sector, including the academic sector, can actively participate in the different levels or instances of public policies to support business development, at the following levels:

- Strategic level: at this level, the private sector can play an important role in the area of leadership and coordination of local public policies through its participation in collective competitiveness entities, such as competitiveness committees or councils or strategic advisory bodies of the public ministries involved, among others.
- Management level: in the process of implementing development support instruments, the private sector can act as a service provider (operator or broker) and conduct activities that it can perform more efficiently than the public sector.
- Service delivery level: the private sector can participate in the delivery of services required by companies, offering them through the market either individually (individual consultancies) or through an organization (consulting firms).
- Beneficiary level: private companies are the main objective of the public policies of support to competitiveness, without this necessarily excluding state-owned enterprises.

The participation of the private sector should contribute to the development of a culture of public-private cooperation. This is essential to reach consensus on how to contribute to local development, to give greater transparency and credibility to public policies, and to provide greater continuity over time. The scope of private participation is a matter for decision making by public authorities, and it can evolve as results are achieved and greater collaboration between the two

sectors is developed. The idea is to achieve the presence of the private sector in the different instances of public policies to support business development.

Collegial Decisions

It is necessary to establish mechanisms to ensure that decisions, especially those related to the allocation of public resources for the financing of business development projects, are arrived at collectively (collegially) through an institutionality that operates formally and follows clear, pre-established standards. It is important to design procedures for the agile and efficient operation of these collegial bodies, so that they do not become an obstacle to the good management of public policies. To do this, it is necessary to define mechanisms that operate automatically in case of bureaucratic delays. As mentioned previously, private participation, including academia, in committees or policy decision makers is important since, in addition to the technical input they can provide, their presence enhances the transparency and credibility of the decisions made.

Long-term Results

The results that can be achieved with the development of public policies to support business development are gradual and long term. Therefore, it is not advisable that authorities request, demand, or expect results in the short term. Doing so will only lead to frustration and unmet expectations, and to an eventual abandonment of the efforts already made. Nevertheless, it is generally possible to find projects that achieve quick results, provide examples of the way forward, and play an essential role in disseminating public policy instruments and generating greater demand for services to support new projects that contribute to local development. It is important to disseminate such cases while emphasizing that not all projects will achieve the same results in the same timeframes.

Design of Instruments or Business Development Services

For the design of the tools to support the development of local companies, the following principles or criteria should be considered:

Business Demand

Instruments to support the productive sector should be directed at projects that have their origins in business demand and that are financially profitable, that is, projects that emerge from the initiative of the private sector and that can demonstrate that the expected benefits of the project

will outweigh its expected costs. This is because business projects must be sustained over time. This can only be achieved if the projects are profitable from the standpoint of who executes them, that is, the private sector. The public sector can encourage private initiatives through the dissemination and promotion of the supports it can provide and the effects that this can produce in the country. In no case should business support be provided to companies that are not viable or that present projects considered not financially profitable. To do this, it is necessary to establish mechanisms that clearly allow rejection, from the initial stage, of projects that are not economically profitable. Such projects must be rejected early so as not to waste the resources of the state or the efforts of entrepreneurs, or create false expectations. It is important to point out that the implementation of the programs with assistance and redistributive objectives among the MSMEs implemented by the public sector should not be carried out within the framework of public policies to support competitiveness.

Partial Nonrefundable Financing

BDS projects should be implemented through the nonreimbursable partial financing mechanism, or private–public co-financing, where the public sector finances a portion (percentage) of the total cost of the project through nonreimbursable financial contributions, and entrepreneurs finance the remaining percentage. The main arguments for public financial support for development projects are that their implementation generates private benefits (for companies directly related to the project) greater than their costs, and that can additionally have significant social benefits (externalities) by generating higher tax revenues, more local employment, and consequently greater participation, cohesion, and social inclusion.

Assistance to all Productive Sectors

These instruments should be aimed at all productive sectors, without excluding any of them. All productive sectors can be supported provided that they are deemed profitable. It is important to note that although there is not much project evaluation knowledge in the region, it can be acquired gradually through training and technical assistance. Initially, a very simple analysis can demonstrate the strengths and weaknesses of the project. Making the assistance available to all productive sectors should not preclude the possibility of focusing resources, if necessary, on one or several specific productive sectors considered priorities for local development. This can be, for example, through greater co-financing from the public sector or through calls for special competitions. It will depend on the type of public policy that is implemented. In addition, the

instruments may be directed to both suppliers and demanders of a productive sector to ensure that the market strengthens and develops. That is, the instruments can strengthen the suppliers of a service for a particular productive sector or the clients for them, or both. The ultimate aim is to strengthen the market for services required for business development.

Gradual Delivery of BDS

To the extent that public policies consolidate their actions, the types of services offered to entrepreneurs should be expanded in accordance with their needs. Likewise, to the extent that results are achieved, private–public trust is strengthened and the management team has more experience, the services provided should become more sophisticated and adapted to the needs of business. In other words, there must be a permanent gradual evolution of the instruments that can be offered to entrepreneurs to improve their competitiveness.

One Objective per Instrument

Instruments are frequently designed to achieve a specific objective, but it is also common for the authorities involved in its implementation to incorporate other objectives. This only makes the administration of these services more difficult. In general, the authorities intend to add objectives of social inclusion. While these are laudable objectives, they may seriously hamper the achievement of the central objective and the good management of projects. Therefore, when considering instruments to support competitiveness, each should be designed to achieve a single objective.

Annex 2. Instruments (BDS)

The following is a summary of the main business development services (BDS).

Management Systems

Management systems help to improve the efficiency and effectiveness of production processes in different areas of business activity in order to increase competitiveness. These systems include, among others, quality management, product quality, safety, and environment. Some examples are: quality management systems (ISO 9000), food safety management systems, good agricultural practices, good manufacturing practices, hazard analysis systems and critical control, metrology systems, and stamps—such as the organic seal or fair trade and solidarity—and clean production agreements.

Business Alliances

Business alliances help companies improve their competitiveness through the formation of partnerships among entrepreneurs. There are two types of business alliances:

- Horizontal (associative projects): programs that aim to support companies to face common challenges and/or generate businesses in a collective or associative way, in aspects such as complementation of supply to expand markets, centralization of purchases to reduce costs, development of information and marketing systems, joint ventures, new business development, among others, to enter markets in a more competitive manner.
- Vertical (suppliers' development): programs that aim to support companies to improve the competitiveness of production chains by strengthening the relationship between companies and a firm demanding their products (goods and/or services), of greater size, in aspects such as technology transfer, incorporation of new and better practices, and improvement of management, among others.

Technology Transfer Services

Technology transfer services support companies in incorporating new technologies into their management and/or production processes, improving their competitiveness. These services can be useful at any hierarchical level of the company and in any field of business management, such as strategic development, business training, finance, accounting, institutional design, production processes, marketing, and human resources, among others. They take different forms, but in

general they can be grouped into the following types: technical assistance and training, technological missions (national and/or international), expert bringing (highly specialized technical consultancy, national or international), and technological internships (specialization in the field, either inside or outside of the country, in companies or technology centers). Technology transfer services reduce the knowledge gap and differences in technological and management capacities between the companies that make use of these services and companies of greater relative development.

Innovation Services

Innovation supports companies in the development and/or incorporation of new products (goods and services) and/or processes. Innovation services support projects that aim to develop new products, improve products, develop new production processes, improve production processes, and incorporate new products and/or types of production techniques. They contribute to improving the competitive position of companies and optimizing the use of resources.

Export Promotion Services

Export promotion services support companies in executing projects whose purpose is the prospecting, penetration, and consolidation of international markets. In general, these services include the execution of specific market studies, the execution of commercial missions (direct and reverse), business rounds, and support in marketing or export management. They contribute to the maintenance and expansion of the target markets of the companies abroad, and consequently, to increase their exports and destination markets. Although these programs conduct many of their activities abroad, their aim is to support companies in their export processes located in the country itself.

Investment Attraction Services

Investment attraction services help foreign companies facilitate and manager their investment projects. In general, these services seek potential investors through direct contacts and in the delivery of relevant information about the advantages and facilities offered by the country for its installation and subsequent operation. The goal is to attract highly competitive companies that enable the country to employ resources competitively without exploitation.

Annex 3. Risk Management in Value Chains: A Guide to Program Design²⁴

Latin American and Caribbean countries have implemented support programs to improve the performance of value chains, through investment financing and technical support to their production processes. Although many of these programs have achieved good results, in general these efforts focused mainly on some actor, node, or value chain problem, in an atomized, non-integrated way. The limitation of this approach is that the performance of value chains depends not only on the performance of an actor, node, or process of those chains, but on the performance of all actors, nodes, and processes. For this reason, greater effectiveness of public policies and programs for value chains can be achieved through comprehensive attention to the many problems that may arise along a chain. A practical guide is proposed to improve the performance of value chains, through the design of programs that allow the risks that may affect them to be managed in a systemic, non-segmented or atomized manner. The methodology proposed by Calatayud, Fernández and de Groote consists of three parts or phases: (i) identification and selection of value chains; (ii) mapping of value chains and their risks; and (iii) design of a risk management program for value chains.

Identification and Selection of Value Chains

To proceed with the selection of the value chains to be supported, the following process should be followed:

- The process is initiated through the search of economic and social information at a general level, which allows the main productive sectors and their value chains in the country to be identified.
- Each value chain has its own characteristics that will make it more or less important for the achievement of development objectives (growth, distribution, employment, inclusion, and sustainability) and the relative weight assigned to them (weights) depending on the values established by the national authorities.
- Each chain identified should be evaluated based on the development objectives established in the country, for which it will receive a score that will determine its place or relative position in relation to the other chains.

²⁴ This annex is based on Calatayud, Fernandez, and de Groote (2017).

- Value chains will be selected according to the order of the scores reached by one, considering the country's budget constraints.

Mapping of Value Chains and their Risks

To identify the risks specific to each selected value chain, the following procedures are recommended:

- Identify the information required for each value chain selected, including the level of risk to which the chain is exposed. For this reason, it is necessary to identify information from different areas: general environment in the country, sectoral environment related to the value chain, productive processes of the value chain, actors (companies and institutions) of the chain, and its various linkages.
- Search for the existing information regarding the selected value chains, in all the areas indicated above.
- If the required information does not exist, it is necessary to generate new information in relation to the aforementioned areas related to the value chain in question.
- Systematize and analyze the information, which will provide the necessary elements to proceed with the identification of the risks of the value chain.
- Establish the types of risks that the value chains selected may confront, and then, based on the information collected, proceed to identify and analyze the main risks to which each value chain is exposed.

Risk Management of Value Chains

Once the risks are identified, it is necessary to evaluate ways of managing them and reducing the likelihood that they actually occur. For this, it is suggested to proceed as follows:

- Prioritize the identified risks, based on a combination of the probability that the risk will occur, the magnitude of the impact if it occurs, and the existence of an effective solution through the eventual implementation of public policies.
- Identification of preventive actions and mitigation of prioritized risks.
- Development of a risk management program aimed at mitigating and preventing risks and, if they occur, minimizing their potential effects.