International Trade Centre

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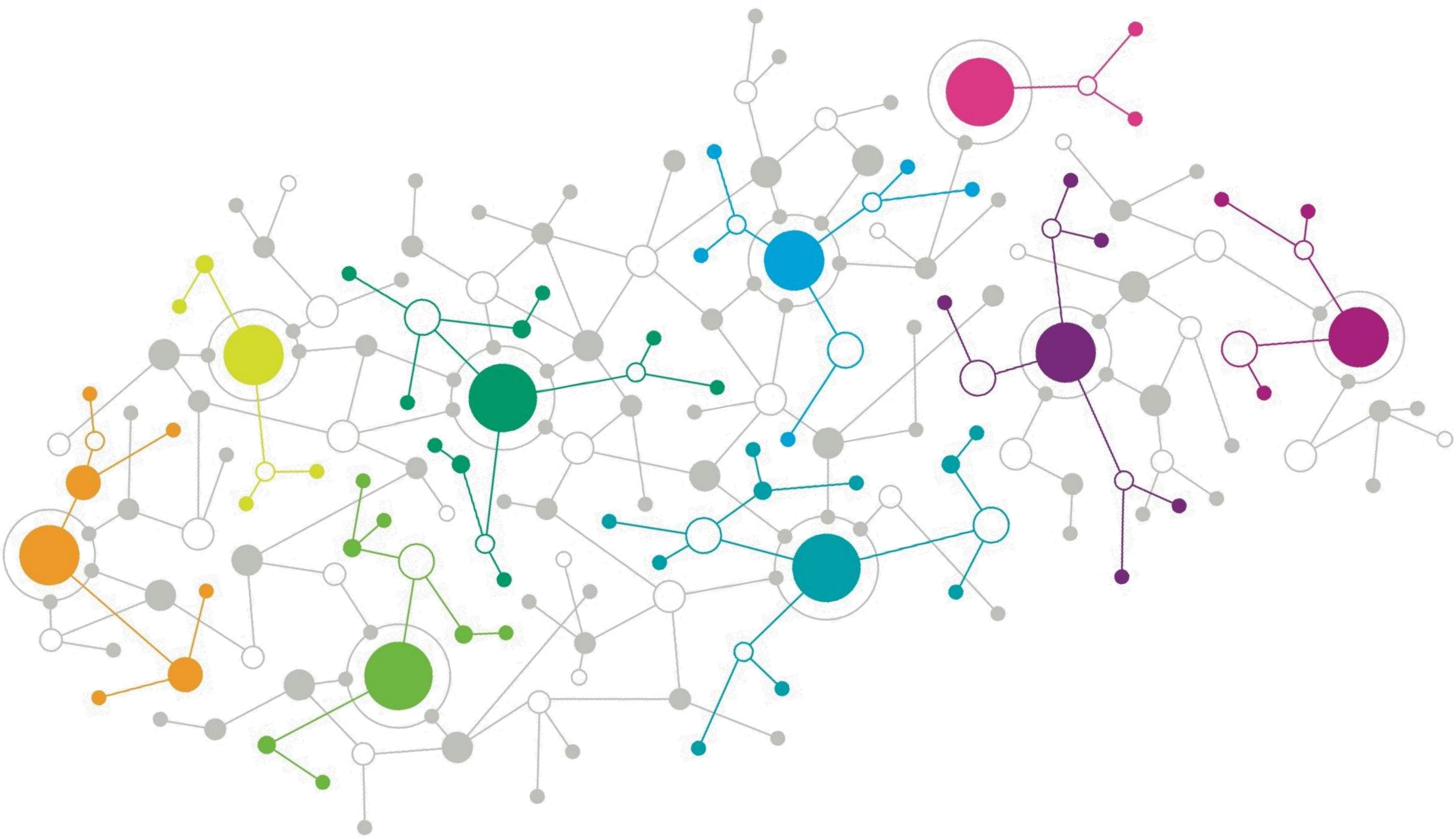
ENTREPRENEURSHIP ECOSYSTEM IN THE PHILIPPINES

NETWORK ANALYSIS AND MAPPING OF INSTITUTIONS SUPPORTING YOUTH ENTREPRENEURSHIP



ARISE+ Philippines
Funded by the European Union

FOREWORD

The International Trade Centre (ITC) is the joint agency of the World Trade Organization (WTO) and the United Nations (UN).

The ARISE Plus Philippines project aims to foster inclusive economic growth in the Philippines through improved international trade performance and competitiveness and economic integration. This is a project of the Government of the Philippines, with the Department of Trade and Industry (DTI) as the lead partner together with other relevant government agencies, as well as with the private sector. It is funded by the European Union (EU) with the ITC as the technical agency for the project. For more information on the project, please consult here: https://open.intracen.org/projects/XM-DAC-45001-C007

Under Activity Cluster 1.3, ARISE Plus Philippines aims to provide targeted support to address critical gaps to participation in global value chains that are hindering exports in priority products or industries, through linkages with EU industry, especially concerning inclusive innovation and the entrepreneurship ecosystem.

Particularly, under Sub-Activity 1.3.1. ARISE Plus Philippine seeks to strengthen the start-up ecosystem and relevant business support organizations (BSOs) in the Philippines. In this framework, an Ecosystem Mapping and Network Analysis has been conducted to pinpoint areas of strength that the local entrepreneurship and startup ecosystem can further build on, while determining gaps wherein interventions can be made.

ACKNOWLEDGEMENTS

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DISCLAIMER

The research conducted for the present report was carried out between Q4 2021 and Q1 2022. Therefore, the report represents a snapshot of the entrepreneurship ecosystem in the Philippines at said moment in time. We recognize the vibrant and moving nature of entrepreneurship ecosystems, thus some of the recommendations outlined in this report might have already been (partly) addressed by the time of its publication.

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LIST OF ACRONYMS

BIR	Bureau of Internal Revenue
BOI	Board of Investments
BPAP	Business Processing Association of the Philippines
BSO	Business support organization
BSMED	Bureau of Small and Medium Enterprise Development
CHED	Commission on Higher Education
DA	Department of Agriculture
DEPED	Department of Education
DICT	Department of Information and Communication Technology
DOF	Department of Finance
DOST	Department of Science and Technology
DTI	Department of Trade and industry
EMB	Export Marketing Bureau
ESO	Entrepreneurship Support Organization
EU	European Union
GDP	Gross Domestic Product
HDI	Human Development Index
HEIRIT	Higher Education Institution Readiness for Innovation and Technopreneurship
IPOPHL	Intellectual Property Office of the Philippines
ICT	Information and communications technology
IRR	Implementing Rules and Regulations
ITC	International Trade Centre
MAIN	Manila Angel Investor Network
MSME	Micro, Small, and Medium Enterprises
MVC	Minimum Viable Company
MVP	Minimum Viable Product
NEDA	National Economic Development Authority
NEET	Neither Employed, Educated Training
NIASD	National Innovation and Strategy Document
NIASD	National Innovation and Strategy Document
PCAARRD	Philippine Council for Agriculture, Aquatic and Natural Resources
PCCI	Philippine Chamber of Commerce and Industry
PCIEERD	Philippine Council for Industry, Energy and Emerging Technology and Research Development
PDP	Philippine Development Plan
PEZA	Philippine Economic Zone Authority
PHSW	Philippine Startup Week
ReSEED	Regional Startup Enablers for Ecosystem Development
RIICS	Regional Inclusive Innovation Centers
S-BOSS	Startup Business One Stop Shop
SUC	State University or College
TBI	Technology Business Incubator
TESDA	Technology Education and Skills Development Agency
VC	Venture Capitalist
YEP	Young Entrepreneurs Program

GLOSSARY

Born Globals	Born Globals (BGs) are defined as entrepreneurial start-ups that, from or near their founding, seek to derive a substantial proportion of their revenue from the sale of products in international markets.
Business support organization (BSO)	Business support organizations are nonprofit, public, and for-profit resource organizations that serve local businesses and support their growth and success. BSOs help client companies connect to talent, find co-working space, and test and validate business ideas. The term BSO and ESO (defined below) are used interchangeably throughout this report throughout this report as their support offering often overlaps.
Ecosystem	A complex network or interconnected system.
Ecosystem Actor/Player	Ecosystem Actor or Player means the individuals, groups, and organizations within the ecosystem that actively and continually support the advancement of the ecosystem through their time, resources, connections, and engagement. In this report the terms institution, organization, ecosystem actor and ecosystem player are used interchangeably to describe entities working to service entrepreneurs and provide services/support in the ecosystem.
Entrepreneurship support organization (ESO)	Entrepreneurship support organizations are nonprofit, public, and for-profit resource organizations that support, train, and sometimes fund entrepreneurs. ESOs help entrepreneurs connect to talent, find co-working space, and test and validate business ideas. The term ESO and BSO (defined above) are used interchangeably throughout this report as their support offering often overlaps.
Institution	An organization founded for a religious, educational, professional, or social purpose. In this report the terms institution, organization, ecosystem actor and ecosystem player are used interchangeably to describe entities working to service entrepreneurs and provide services/support in the ecosystem.
Organization	An organized group of people with a particular purpose, such as a business or government department. In this report the terms institution, organization, ecosystem actor and ecosystem player are used interchangeably to describe entities working to service entrepreneurs and provide services/support in the ecosystem.
Stakeholder	A person with an interest or concern in something, especially a business.
Start-up	A newly established business, usually in the information and communications technology (ICT) sector.

EXECUTIVE SUMMARY

Entrepreneurship is a key driver of economic growth that can be nurtured and encouraged through a conducive ecosystem. In an ecosystem that supports innovation and entrepreneurship for young people, local challenges and problems can be addressed through business solutions. These solutions can go on to play an important role in providing gainful employment and become engines for economic growth. In such an ecosystem, various types of stakeholders play unique roles in supporting, guiding, and stimulating the entrepreneurship ecosystem. Entrepreneurship support organizations that directly serve entrepreneurs can catalyze their growth and propel the ecosystem forward through providing cohesive and comprehensive services at every stage of the entrepreneurship journey. When a conducive ecosystem is in place, entrepreneurship support organizations work in concert with one another to multiply impact and enhance innovation.

Each ecosystem is unique and emerges as a result of various connections and exchanges as well as the local culture and business climate. Various institutions interact in an ecosystem in complex and often precarious ways, continuously engaging in building the ecosystem through this process. Accelerating the growth of such ecosystems is critical to supporting youth-led innovations and entrepreneurial endeavors to thrive. Tapping into the right service infrastructure through the ecosystem is important in spurring youth entrepreneurship.

Ecosystems can be studied through a variety of approaches. This report uses ITC's methodology to capture the characteristics and connections of the institutions active in the entrepreneurship ecosystem in the Philippines. The objective of this report is to provide an accurate depiction of the Philippines entrepreneurship ecosystem of institutions, with a special emphasis on youth, and to identify gaps, overlaps, and provide recommendations.

To conduct an ecosystem mapping, ITC begins with assessing the overall ecosystem. First, through gauging the types of support provided by institutions to entrepreneurs at different stages of the business lifecycle. This first section also includes the identification of gaps and overlaps in the service offer. Secondly, a network analysis is conducted to delve deeper and to observe the types of linkages or collaborations that occur between various organizations in the entrepreneurship ecosystem. This network analysis does not only show the connections between actors but also identifies which institutions are highly connected. Finally, complementing the institutional perspective, this report also captures the views and experiences of entrepreneurs when receiving support and navigating the ecosystem.

Current Ecosystem

The entrepreneurship ecosystem in the Philippines is young and developing rapidly. Entrepreneurship is a hot topic for many institutions seeking to enhance economic development, inclusion, and innovation to bring greater foreign investment into the country. The government as well as the private sector are actively engaged in supporting the development of a conducive entrepreneurship ecosystem and in supporting budding young innovators who can provide jobs and contribute to economic growth. Due in large part to the fact that quality jobs in the Philippines are not always available to recent university graduates, many youths are turning to entrepreneurship as a way to address problems they face and as a way to provide employment for themselves. With the right support, these young innovators can play an integral role in the Philippines' development trajectory and poverty reduction efforts.

Despite this immense potential, this ecosystem mapping report identifies several gaps in the support ecosystem:

- Stakeholders' confusion around the role of different government departments promoting entrepreneurship
- Limited access to finance
- Lack of sustainable programs
- Positioning entrepreneurship as a viable career path
- Providing youth with market-driven skill sets
- Limited support for commercialization and internationalization

This report focuses specifically on youth entrepreneurs and the ecosystem actors that offer specific programs to them, especially the large network of university-based Technology Business Incubators (TBIs). While TBIs can be found across the country, this report notes a severe lack of continuing and accessible programs for youth-led businesses that have participated in TBI programs. These youth entrepreneurs need tailored support, which is lacking in the provinces and areas outside Manila.

In addition to the gaps, this analysis identifies several overlaps with regards to the support available, specifically at the idea and early stage of the service offering. 75% of the institutions mapped for this report provide services at the idea- to early-stage of the business lifecycle. This has led to a high-level of engagement with young entrepreneurs to develop their ideas and create solutions. However, when it comes to taking those solutions to market, testing with consumers, and managing the company and its finances, available support tapers off significantly, especially outside Metro Manila. Most programs at the early stage are also heavily tech focused, leaving entrepreneurs in other sectors with limited support. Entrepreneurs in the Philippines have poor understanding on the lay of the land when it comes to which institutions provide which type of support, and how each of these should play a role in their entrepreneurship journey.

In the network analysis, the Philippines shows a high degree of connections, which can be further deepened through enhancing the number of programs that are jointly funded. There is a great deal of collaboration amongst TBIs and between privately funded incubators and accelerators. However, privately funded incubators and accelerators demonstrate a much more varied network of connections as they work with government, TBIs, associations, chambers, and investors to support their work. TBIs lack the linkages with the private sector and investors, leading to more homogeneous programs.

Connections with varied funding sources remain quite low. Many entrepreneurship support organizations rely on the Department of Science and Technology (DOST), the Department of Information Communication Technology (DICT), and the Department of Trade and Industry (DTI) to fund their programs. TBIs and privately funded ecosystem actors could benefit from attracting new donors and co-creating programs to ensure continuity in their offering and make their programs more sustainable and resilient to shocks in the market.

Through a series of FGDs with youth entrepreneurs in the tech sector and traditional businesses, it is clear that youth entrepreneurs in the Philippines have poor understanding of the lay of the land when it comes to which organizations provide which type of support and how each different organizations should play a role in their entrepreneurship journey. While entrepreneurs who have received support share that the programs in which they participated did add value, the service offer was not comprehensive, nor complete. Furthermore, entrepreneurs operating in more traditional sectors expressed they had less programs available to them with sectoral expertise and market specific knowledge. These young entrepreneurs highlighted that:

- Tech entrepreneurs rely on incubators for critical support at the idea stage
- Entrepreneurs in traditional sectors do not know where to access support
- Concentrated support in Manila leads to brain drain in the provinces
- Credibility and network access remains a challenge for young entrepreneurs
- Government support plays an important role in supporting entrepreneurship
- Access to finance remains a challenge for entrepreneurs

The root cause for many of the aforesaid issues is a lack of communication and information that is easily accessible to both entrepreneurship support organizations and entrepreneurs alike. While there are many institutions working on entrepreneurship and government departments engaged in enhancing the overall development of the ecosystem, these issues persist. This ecosystem mapping report aims to highlight these gaps and to propose recommendations to address them to provide a more cohesive ecosystem with a coherent service offering for youth entrepreneurs to tap into. From both the interviews with ecosystem actors and FGDs with youth entrepreneurs, enhanced information sharing, providing an overview of the entire ecosystem and its offerings and activities could address many of the above issues.

Next steps for the ecosystem

Based on the service mapping, identified gaps and overlaps, network analysis and user experience analysis, this report provides key recommendations to support the growth and success of the Philippines entrepreneurship ecosystem. These recommendations are intended to serve as guidance to the local ecosystem actors to redesign and create relevant support services for youth entrepreneurs.

Recommendations include driving the entrepreneurship ecosystem in a unified direction through defining clear leadership, deepening collaboration through enhancing organization, enhancing communication and information accessibility, addressing service gaps past start-up and into growth stages of the entrepreneurial journey and, access to finance. Based on best practice, several recommendations are presented:

- Institutionalize interagency coordination and consultation with relevant stakeholders, including the business sector
- Create a Philippine country guide for critical ecosystem information
- Identify an ecosystem driver
- Make support for youth non-negotiable
- Create a skills and operations manual for incubators and accelerators
- Diversify funding sources
- Build and develop accelerators outside Metro Manila
- Provide funding for early-stage entrepreneurs
- Embrace a global minds

INTRODUCTION

This Ecosystem Mapping and Network Analysis comes on the continuing struggles of the global economy to manage the covid-19 pandemic and now the shock of the conflict in Ukraine and its effect on prices worldwide. The Philippines continues to recover from the Covid-19 pandemic and signs optimistically point towards robust growth, fueled by favorable conditions in the local Philippine economy.

The Philippine Economy

The Philippines is considered one of the most dynamic economies in the East Asia-Pacific region according to the World Bank, with annual growth reaching 6.4% between 2010-2019. This has resulted in the Philippines being classified as a 'medium' rated country on the Human Development Index, which classifies countries based on several factors including the life expectancy, education attainment, and Gross National Income per Capita of the population. However, the National Economic Development Authority (NEDA) of the Philippines classifies the country as a low-middle income country. Even so, the World Bank goes on to state that, "the Philippines' economic dynamism is rooted in strong consumer demand supported by a vibrant labor market and robust remittances. Business activities are buoyant with notable performance in the services sector including business process outsourcing, real estate, tourism, and finance and insurance industries." Furthermore, according to the Asian Development Bank's Asian Development Outlook, the Philippines economy is poised to grow 6.0% in 2022. Thus, the Philippines remains on track to achieving the upper-middle-income country status by the close of 2022, according to NEDA. However, given the tumultuous economic climate in 2022 with various conflicts, food shortages, and climate risks, this outlook could change.

The Philippines economic growth, like so many countries around the globe, was disrupted by the global Covid-19 pandemic. The Philippines experienced one of the longest lockdowns in the world spanning from March 2020–March 2021. The Philippine Development Plan (PDP) 2017-2022, which sought to lay out a comprehensive plan to lead the nation toward more inclusive growth, build a high-trust and resilient society, and foster a globally competitive knowledge economy by 2022, has been disrupted by the pandemic. The country has instead seen a decline in consumption, investment, remittances, and tourism. Poverty reduction has also stalled. Below are some of the most pressing effects of the pandemic:

- The country's Gross Domestic Product (GDP) fell by 16.5 per cent in the second quarter of 2020;
- The unemployment rate was estimated at 10 per cent in July of 2020 compared to 5.4 per cent in July 2019;
- Work disruptions have displaced many youths as many had to adapt to reduced work hours or even layoffs;
- Education was disrupted, delaying the transition of the youth from school to the labor force as indicated by the decline from 7.7 million youth entering the labor force in 2019 to 6.5 million in 2020;
- 2 million youth became unemployed (or 31.6 per cent in comparison to just 12.9 per cent in 2019);
- Displaced youth or those neither employed, in education or training (NEET) grew from 18.7per cent in 2019 to 25.3 per cent in 2020;
- 9 per cent of MSMEs reported permanent closure during the first wave of the pandemic (99 per cent of enterprises are MSMEs who employ 63 per cent of the labor force), and;
- An estimated 2,068 companies closed down and over 69,022 workers lost their jobs during the first few months after the pandemic;
- Poverty incidence increased from 16.7% in 2018 to 18.1% in 2021 or 2.3 million Filipinos being pushed to poverty falling short of its target of 17.5% poverty reduction in the PDP 2017-2022.

Given these critical issues, it was prudent to update the Philippine Development Plan of 2017–2022 to consider the changing landscape brought about by Covid-19. Furthermore, it is even more important for the country to develop stable and decent jobs and/or alternative support structures to counteract the pandemic's effects.

However, there is reason to be optimistic as the Philippines continues to sustain its real GDP growth rate of 7.4% during the second quarter of 2022. The Asian Development Bank further predicts to see a GDP growth rate of 6.3% in 2023. To help continue the momentum, the next PDP of 2023–2028 will focus on job creation and poverty alleviation, The plan seeks to achieve these objectives by placing an emphasis on the following activities:

- Full opening of the economy
- Investment in human capital, social development & protection
- Transformation of the production sectors to generate more and quality jobs and competitive products

To compliment the above trends, a focus on supporting start-ups and developing youth entrepreneurship is a consistent focus of the Philippine government, especially in relation to two core pillars of the PDP, which emphasize expanding economic opportunities, investing in human capital, and generating more jobs with the transformation of the production sectors. Furthermore, these pillars can leverage the country's young people, who comprise 30% of the country's total population. With a median age of 25.6, the country's population is technology savvy and digitally literate, and are primed to not only be early adopters of innovation and technology but also sources of the transformation that production and industries require.

There is still further reason to be optimistic, as the recent successes of start-ups during the pandemic has brought increased attention to Philippine companies. The success of Mynt (GCash), Voyager (Maya), Kumu, and PayMongo to name a few, has had a marked impact on the local economy and startup scene as both Fil-Foreigners (Filipinos born abroad or with mixed lineage) and foreigners alike, begin opening shop in the Philippines. By attracting foreign talents, business owners, entrepreneurs, and experts, these startups bring expertise and foster greater knowledge transfer, which can help enhance the ecosystem's development.

Additionally, statistics show that there is an influx of founders who are taking advantage of the pandemic "reset" to go all in on their start-ups. As such, these founders are exhibiting the drive, grit, passion and more importantly vision, to push their ideas forward. Furthermore, their talent and expertise are then shared with the youth and can inspire them to also pursue their creative and innovative endeavors and increase entrepreneurial innovation down the line.

This is supported by Manila's continuous ecosystem growth recorded by Startup Genome in the past few years. From an ecosystem value of USD120M in 2018, Manila, the center of the Philippine startup ecosystem, has grown to USD584M in 2021, as reported by Genome. This growth is expected to accelerate further as more local startups find success in addressing the needs of a post-COVID Philippine market.

The Manila startup ecosystem is currently valued at USD6.4B as reported by Startup Genome's Global Startup Ecosystem Report 2024, released on 11 June 2024. The data showed a 72% compound annual growth rate between July 2019 and December 2021, and continued between July 2021 to December 2023.

The Ecosystem Mapping Analysis

To support the Philippines' efforts in improving entrepreneurship and creating an environment in which youth entrepreneurship can thrive, this report provides an analysis of the Philippines' entrepreneurship ecosystem with a specific focus on youth and the interaction among ecosystem actors and gaps in services in supporting entrepreneurs.

The ecosystem mapping analysis is presented in three perspectives:

Perspective 1: Service mapping and gap analysis. Key findings regarding the services offered in the ecosystem based on interviews conducted with relevant local institutions.

Perspective 2: Network analysis. Assessment of how the institutions within the entrepreneurship ecosystem interact using network analysis techniques.[1]

Perspective 3: User experience analysis. Insights from entrepreneurs in terms of navigating the entrepreneurship ecosystem.

[1] Social Network Analysis – Cambridge Intelligence
https://cambridge-intelligence.com/social-network-analysis

1. METHODOLOGY

Defining entrepreneurship/start-up support ecosystem

In the context of this report, an entrepreneurship/start-up ecosystem is a collaborative arrangement through which institutions/organizations and entities that support entrepreneurs as well as start-ups. These organizations combine their resources, capabilities, and products to offer coherent, entrepreneur-oriented solutions that address the needs of both start-ups and entrepreneurs.

When they work, ecosystems allow institutions to create value that no single one of them could have created alone. Well-managed ecosystems improve the management of critical interdependencies to increase or reduce costs while achieving greater impact for the community.

Defining the institutions within the entrepreneurship/start-up ecosystem

Pre-Incubators

- Offering mindset transformation for young entrepreneurs to engage in innovation and entrepreneurship
- Primary source of Innovative ideas
- Offers hands-on programs such as internships
- Program durations between 3 months to 1-year

University Technology Business Incubators (TBIs)

- Department of Science and Technology (DOST) funded or supported university-based incubators. Most often linked to a State-University or College (SUC)
- Focuses on technology and innovation at the ideation to early stage of the business lifecycle

Incubators (privately funded)

- Primarily focuses on helping early-stage start-ups become viable and scalable
- Provides an array of support services and infrastructure through systematic processes
- Quality controlled intake of start-ups with regular time bound exits
- Program duration generally between 1 to 3 years
- Receives most funding from private sources but may also receive public funds

Accelerators (privately funded)

- Can support early and growth stage start-ups
- Often invests financially in the start-ups
- Fixed-term, cohort-based programs that catalyzes start-up growth through intensive mentoring, networking, and educational services.
- Quality controlled, often highly competitive intake of start-ups with regular time bound exits
- Program duration generally between 1 week to 6 months
- Receives most funding from private sources but may also receive public funds

Young Entrepreneurs Associations

- Volunteer-driven non-profit organizations promoting youth entrepreneurship
- Provides networking and peer-to-peer exchange opportunities
- Lobbying and providing recommendations to policymakers on issues related to youth entrepreneurship

Co-Working Spaces

- A business service provision model that involves individuals working independently or collaboratively in shared office space

Venture Capitalists

- A venture capitalist is an investor who either provides capital to start-up ventures or supports small companies that wish to expand but do not have access to equities markets

Angel Investors

- Angel investors are also called informal investors, angel funders, private investors, seed investors or business angels. These are affluent individuals who inject capital for start-ups in exchange for ownership, equity or convertible debt.

Events and Business Competition Organizers

- Pitching competitions, bootcamps, business plan competitions, hackathons, B2B events, fairs and exhibitions are all different types of events and competitions for young entrepreneurs to ideate and scale up. Example events/competitions include Startup Weekend, Seedstars, Ignite, Techtonic and Philippine Startup Week.

Defining the stage of entrepreneurship

Idea Stage

The business idea requires testing and research/validation is conducted to determine whether it is worth pursuing.

Start-up Stage

The business entity is established legally, and the focus lies on developing the products/ services, adjusting the business model and understanding customer's expectations.

Early Stage

The business is generating revenue and adding new customers, with a focus on reaching breakeven cash flow and further fine-tuning the business model.

Later

The business has demonstrated viability, with a well-known product/service and strong market presence.

Growth

The business is thriving and established in the industry and focuses on expansion, particularly into new markets.

Mature

The business is on top of its industry, often with two choices, either push for further expansion or exit the business.

ITC’s Network Analysis Methodology

ITC’s Network Analysis methodology aims to capture interactions, trends and patterns in collaborations among institutions. The results presented in this section are based on the following pillars of analysis:

Desk Research
Preliminary research to understand the landscape of institutions in the country and their offerings. Research on specific studies and reports in the field of entrepreneurship support and start-up development in the country. Research to validate findings.

Entrepreneurship support institutions survey and interviews
Personal interviews to understand the role of the institution in the ecosystem, its contributions, perspectives, and specific collaborations within the network.

Entrepreneur survey and interviews
Personal interviews to validate the institution’s offering and to understand the entrepreneur’s journey in the ecosystem.

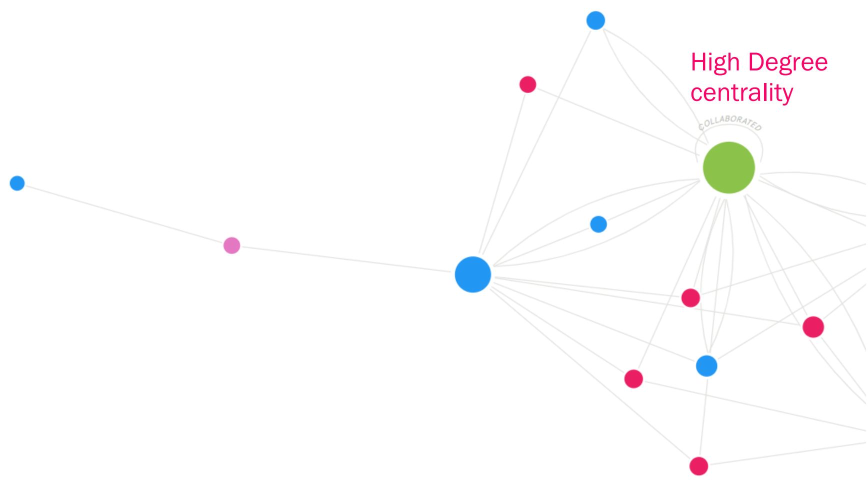
In order to represent and visually capture the interactions and linkages among the interviewed institutions, this section of the report provides qualitative and quantitative insights supported by a network analysis software.

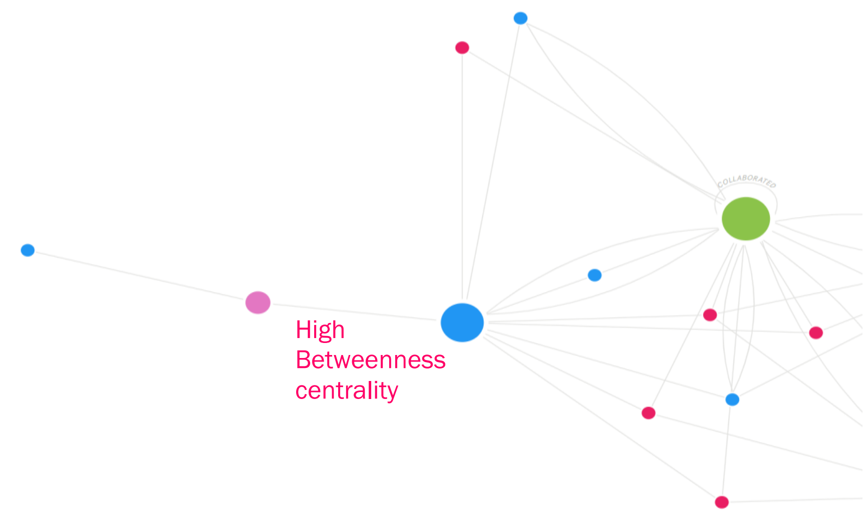
The following section provides answers to two key questions:

1. What are the main connections in the network? The analysis explores how the landscape of institutions interact with each other, which are the most connected institutions, with whom are they connecting and why are they connecting. The aim of this analysis is to understand what stimulates the collaboration or what might be preventing it and therefore what can be done to continue strengthening the ecosystem.

2. What are the different types of connections? To respond to this question, ITC’s network analysis focuses on three key factors of collaboration: information, funding collaborations and service delivery. In the case of information exchanges, the analysis investigates aspects such as sharing of databases of entrepreneurs, events information or market intelligence. Regarding financial exchanges, the analysis focuses on the exchanges of funds between institutions. This would be the case of institutions providing financial support for events to other institutions or logistics support. Finally, service delivery collaboration involves support for trainings, such as training material, training staff and collaboration for the organization of events and competitions.

Key Network Analysis Definitions:

Degree centrality The degree centrality measure finds actors (institutions) with the highest number of links to other institutions in the network. Institutions with a high degree centrality have the best connections to those around them – they might be influential, or just strategically well-placed.	

Betweenness centrality	
Institutions with a high betweenness centrality score are the ones that most frequently act as 'bridges' between other nodes. They form the shortest pathways of communication within the network. Usually this would indicate important gatekeepers of information between groups.	

Limitations of the analysis

The analysis provided in this report reflects the findings of desk research conducted on more than 145 institutions, as well as interviews and focus group discussions (FGDs) held with 50 institutions and youth entrepreneurs in the Philippines. This mapping exercise includes relevant institutions identified as the most important to the support for start-ups and youth in the country. This report focuses on the different stakeholders, players, as well as support institutions, based in the Philippines. Therefore, development initiatives led by international development agencies may not have been captured. Furthermore, this research focuses on innovation and entrepreneurship rather than traditional businesses.

Due to the Covid-19 pandemic, the mapping analysis was conducted remotely, with limited face-to-face interactions. The report is a snapshot of the situation in Q4 2021 as well as Q2 2022. Thus, as the Philippines continues to recover from the Covid-19 pandemic impacts, the situation may change.

The ecosystem mapping interview questions are based on ITC's Network Analysis methodology, designed specifically to understand the interactions of support institutions in an ecosystem. Questions in this methodology do not assess the situation of start-ups or entrepreneurs directly.

2. ECOSYSTEM MAPPING

Philippines Start-up/Entrepreneurship Support Ecosystem

Fostering Philippine entrepreneurship has been a key part of the country's national agenda since the early 1990s, when the government first began implementing programs targeting it. This can be traced through various government-led interventions:

- 1990s: establishment of the first generation of the Department of Science and Technology (DOST) funded Technology Business Incubators (TBIs);
- 2005s: Integration of entrepreneurship education in schools and universities by the Department of Education (DepEd) and Commission on Higher Education (CHED);
- 2010s: Department of Trade and Industry develops entrepreneurship development programs; and
- 2010s: Department of Information and Communication Technology (DICT) led technology innovation.

Each of the above actions demonstrates the government's long standing ambition to foster more entrepreneurship in the Philippines, starting from a young age.

To further cement the government's goal of fostering more entrepreneurs, the Innovative Startup Act was signed in 2019. This act mandates the three government agencies of DTI, DICT, and DOST, to spearhead startup and entrepreneurship development in the country with the objective of harnessing innovation to help the poor and marginalized while economically uplifting the nation. These actions are further complemented by other succeeding laws like the Philippine Innovation Act, Ease of Doing Business Act, Revised Corporation Code (especially on the creation of One-Person Corporations), CREATE Law, Amendments to the Foreign investments Act and the like.

Entrepreneurship is a key driver for economic growth by stimulating economic opportunities and creating jobs for Filipinos. The government's goal to create an entrepreneurial Philippines has encouraged other organizations to support this agenda. There is mutual recognition across the Philippines for the need to shift from the traditional employee-centric mindset to an employer-driven culture. The Philippines seeks to foster a job-creating culture rather than an employment-seeking mindset. Supporting youth entrepreneurship can provide this. With various home-grown solutions gaining recognition, such as Maya, Mynt and PayMongo and others from the ASEAN region, such as Shopee securing high valuations, there is also a greater interest among investors and business support organizations to spawn the next lucrative venture.

Many organizations have come together to develop an enabling ecosystem to allow the next generation of young innovators to explore their innovative potential and address current economic, social, and cultural opportunities that can be both profitable and lead to enhanced economic development in the Philippines. As the ecosystem continues to develop, a wide variety of ecosystem players enter the space. From an initial handful of organizations, the ecosystem has grown to over 145 ecosystem actors, comprised of incubators, accelerators, investor organizations, associations, as well as others. These organizations engage in various activities that develop and support entrepreneurs. These organizations are primarily clustered in metropolitan areas with the largest concentration found in Metro Manila.

Various types of ecosystem players, including incubators and accelerators, focus their support on idea to startup stage entrepreneurs, especially entrepreneurship support organizations that are publicly funded. These programs center on evangelizing, educating, and encouraging future entrepreneurs, particularly the youth and students to take the leap into entrepreneurship. Included in these programs are talks, training, events, skills development programs, and pitch competitions.

Privately funded ecosystem players, on the other hand, extend their support beyond the startup stage. These organizations support young entrepreneurs from developing an idea into the later stages of their entrepreneurial journey. While some of these organizations have different starting points, their intention is to be a part of the entrepreneur's journey until he/she secures significant investment, achieves stable revenues, and the business can perform the basic functions of a business well.

Programs offered by both private and publicly funded incubators are founded on the same principles and frameworks. However, throughout this mapping exercise, many ecosystem actors shared that privately developed programs drive the ecosystem. In fact, the DOST frameworks and programs that its beneficiaries follow, were co-developed with private incubators, and in some cases accelerators. In addition, co-incubation or collaboration between ecosystem players is common in the Philippines, as knowledge and experience-sharing help fast-track the development of the ecosystem and expand the networks of various ecosystem players. However, this mapping exercise provides evidence that extensive gaps remain for young entrepreneurs that can be addressed through enhanced collaboration between different ecosystem players offering a unique service to entrepreneurs. In particular, the ecosystem could benefit from enhanced collaboration between the public and privately funded institutions, to ensure that should a young entrepreneur wish to follow a journey from public TBI through to privately funded acceleration, he or she could easily map this path.

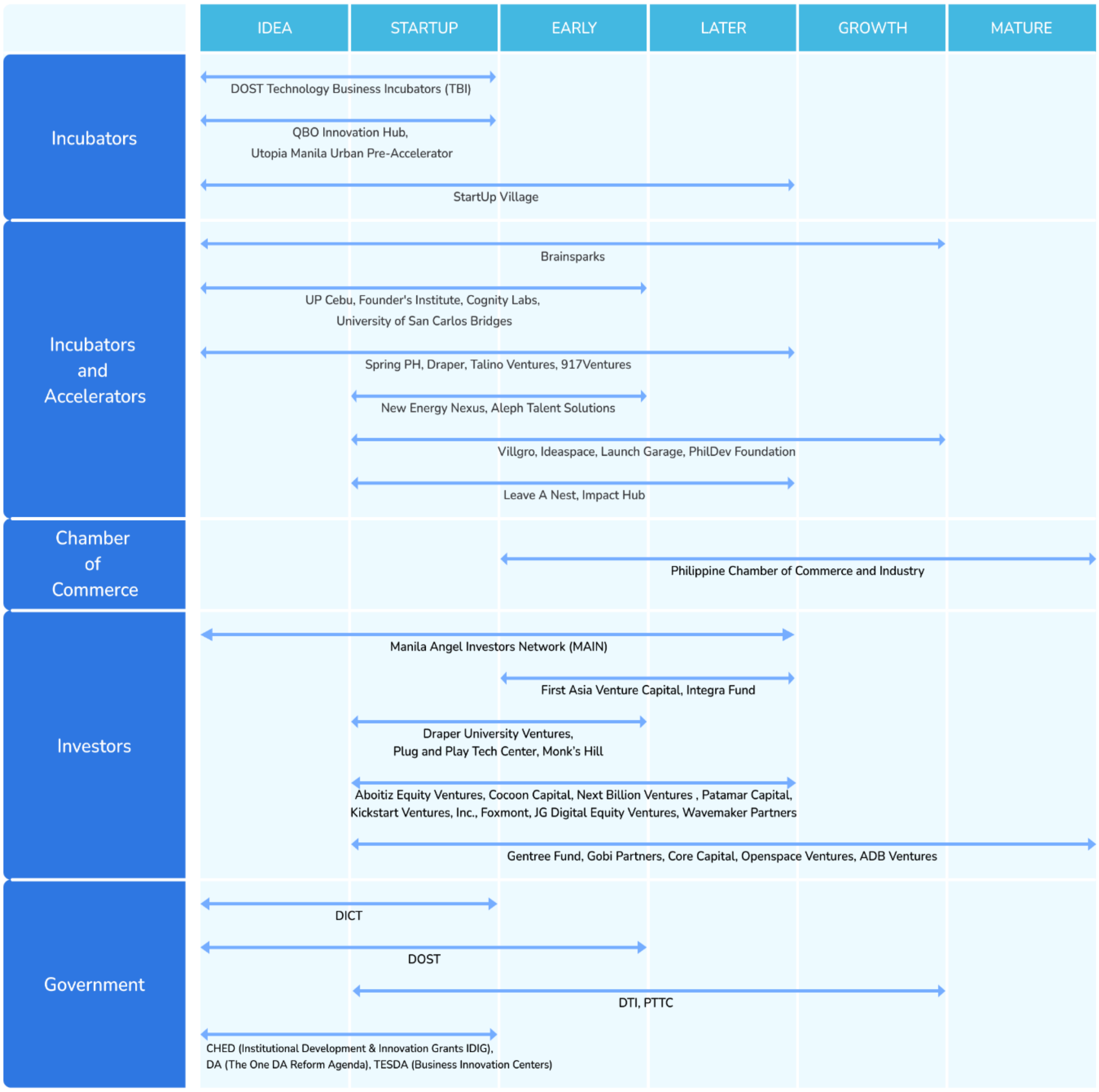
In addition, although many ecosystem players stated they collaborate extensively, especially those that are publicly funded, challenges remain for these incubators to sustain their business operations. In locations where there is more than one organization offering the same or similar programs and services to a target audience, organizations compete and work in silos. Working together to identify niche targets or sectoral expertise could therefore extend the possibilities for collaboration and provide more room for actors to address a specific target audience and secure more funding in the process.

The lack of alignment and coordination results in inefficiencies and overlaps among the ecosystem players and leads many would-be youth entrepreneurs to stall-out after completing a publicly funded incubation program. Of course, there are a myriad of reasons for this including societal pressure to get a job and have a stable income. However, through this mapping, it is clear that many young entrepreneurs do not see a clear path of support and services beyond the one initial program in which they enrolled to help them ideate and identify potential problems that could be solved through enterprise solutions.

Investors begin funding entrepreneurs at the startup stage and progress into the later stages of the business' development, with the objective of exiting in the next round or in some cases being a part of the journey until maturity stage. Unfortunately, there is a large gap between the idea and startup stage where aspiring entrepreneurs need funding to take their innovations to market and test their MVP or demonstrate proof of concept. Therefore, a key learning from the ecosystem mapping exercise is to enhance synergies between players that focus on incubation and acceleration and to differentiate the offering of each type of ecosystem actor more clearly. Furthermore, it is important to share knowledge and communication regularly with Angel Investors to ease concerns about investing in early to startup stage companies and reducing their risk in doing so.

Furthermore, many investors and VCs active in the Philippines are not based in the country. This leads to a significant lack of capital that is accessible to young entrepreneurs and means that funding is relegating to a small cohort of entrepreneurs that have access to international networks, are already active in the corporate or funding environment of the Philippines and leaves little opportunity for young entrepreneurs who lack these network linkages.

Figure 1: Ecosystem actors categorized by target share



80% of the organizations mapped for this report engage training, support, and other related activities. These services are provided mostly by incubators, accelerators, and government as part of their respective mandates. Investor/Venture Capitalist groups do not normally provide these services but do so when necessary. These support activities can be classified into the following focus areas:

Evangelization: encouraging the community to pursue the creation or development of a startup or enterprise. This includes hackathons, startup weekends and other similar programs that are geared towards providing more information about starting up and entrepreneurship.

Education (Hard and soft skills): teaching both hard and soft skills that are needed to successfully run a business. These primarily address skills gaps of founders and key team members.

Execution: tools and process training needed to help founders operate and execute their planned strategies for growth.

Expansion: specific modules that help prepare an organization to expand and reach more markets.

These programs are designed to help educate start-ups and entrepreneurs under their care. The main focus of these programs is to develop soft skills as was signified by 47% of those interviewed, while only 15% put emphasis on technical skills including those focused on science, technology, engineering, and math. 38%, on the other hand, try to strike a balance between the two. Many of the institutions mapped do not focus heavily on technical skills because they believe that technical skills have already been covered within the school curriculum. Therefore, they focus on the business fundamentals, design thinking, business development, validation, leadership, building an entrepreneurial mindset, marketing and sales, business modeling, and how to pitch to the business. These topics, along with other business-related topics, normally form the core of an incubator's program. Figure 2 below shows the most common topics covered as explained by various incubator managers during the mapping exercise.

Figure 2: Common Topics covered by programs

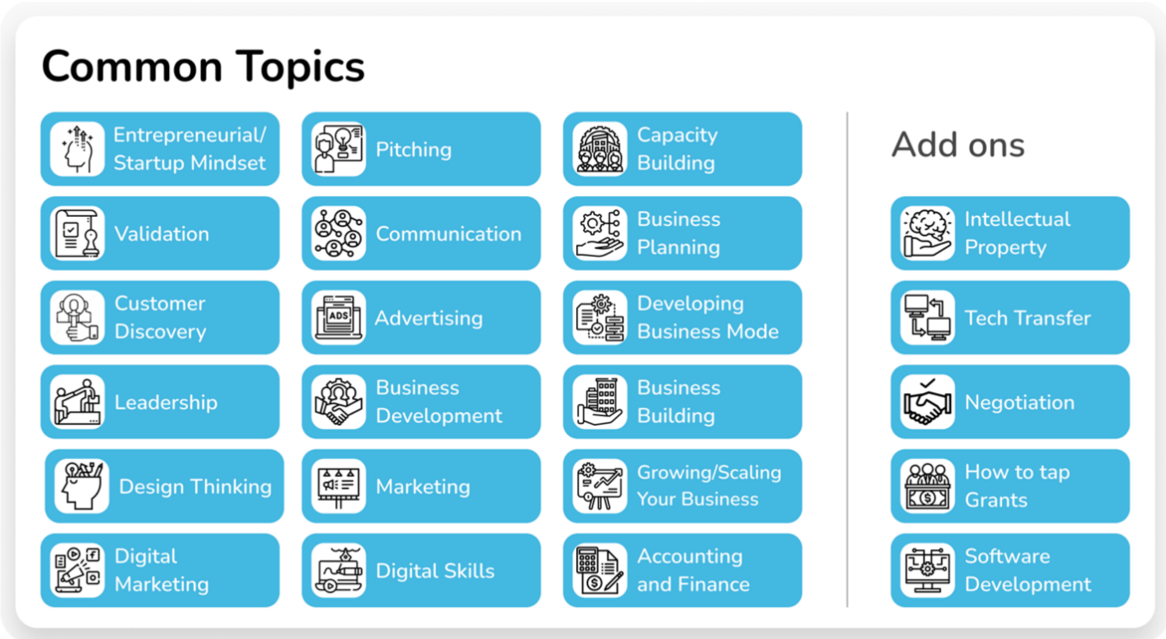


Figure 2 shows how the core emphasis of incubators are on business fundamentals. Focus primarily is on developing the individual, team, understanding of markets and products. What is missing is a clearer understanding of fund-raising, IP protection, investments, investors, and internationalization. These are normally provided as add-on sessions subject to the needs identified by the incubator. In addition, duplication of programs and offerings are common especially in areas where there is a concentration of local players.

Customization is commonly done by accelerators that need to provide more tailored support to their entrepreneur cohorts. Incubation programs generally offer coverage of similar core topics that may be combined with supplementary sessions that complement the specific focus of the program. Programs in general are built with some degree of flexibility and many of the ecosystem players mapped expressed that they could adapt their programs to the needs of the cohort, while maintaining the core aspects.

TBIs on average follow a basic program schedule that is sometimes adapted based on the target audience or a sectoral approach.

For this mapping exercise, the incubators and accelerators that were interviewed can be categorized in two ways:

- Privately funded: These organizations receive funding from various private sources including conglomerates, private donors, or foundations, however, they may also receive some funding from the government.
- Publicly funded: Receive government funds, in most cases through the Department of Science and Technology.

Below are the key differences between the offering of these two categories and their respective challenges:

Publicly funded organizations

In the Philippines, various types of publicly funded entities exist to support innovation and entrepreneurship, especially during university. These organizations are often funded by the government including by the Department of Science and Technology (DOST) through their technology business incubators (TBIs) program, the Department of Trade and Industry (DTI) through the Regional Inclusive Innovation Centers (RIICs) and the DTI Negosyo Centers. Each structure operates differently and with a unique mandate and funding scheme. More information can be found on the various types of support structures in the annex of this report. The variety and prevalence of these publicly funded structures demonstrates a clear emphasis by the government to develop the entrepreneurial capacities of Philippine human capital. In this report, we focus largely on analyzing the TBIs as they are located within universities and therefore, target the youth demographic.

During this mapping, when analyzing TBIs, it became evident that the support an entrepreneur could access differs depending on where in the country he/she is located. Publicly funded incubators like TBIs, do have strong coverage outside of Manila, including in areas which are developing such as in Baguio, Cebu, Davao, and Iloilo. However, the greatest and most tightly clustered support ecosystem is the National Capital Region (NCR).

The expansion of entrepreneurship ecosystem beyond Metro Manila comes as more TBIs open in various provinces, particularly in State Universities and Colleges (SUCs) through the Higher Education Institution Readiness for Innovation and Technopreneurship (HEIRIT), a preparatory program for universities to establish a TBI of the DOST. This paves the way for more TBIs to nurture and develop startups and entrepreneurs coming from their respective locations and universities.

The HEIRIT program funds the creation, preparation, and development of TBIs. So far, more than 30 TBIs have been created and funded under the DOST-PCIEERD program with another 20 underway. In addition, there are 16 Agricultural TBIs under the DOST-PCARRD initiative that focus on agri-based technologies. The current TBIs mapped under DOST-PCIEERD are shown in Figure 3 below. While this is a positive development, the support in these areas is by-and-large incubation, and thus, needs to plug in cohesively with other program offerings in the ecosystem.

Figure 3: DOST Funded Technology Business Incubators (TBIs)

	INCUBATION					CROSSOVER ACTIVITIES (available in both incubation and acceleration programs)				ACCELERATION		
	Business Training	Mentoring	Technical Training (STEM)	Soft Skills Training (Communication, Leadership)	Co-Working	Entrepreneurship Events/Talks	Prototyping	Market Information	Funding	Linkage to Investors	Business Support (Recruitiing, Legal Advice)	Trade Fairs
Miriam - UNBOX	✓	✓		✓	✓	✓		✓		✓	✓	
Bulacan State University	✓	✓	✓	✓	✓	✓		✓		✓	✓	
TUP	✓	✓	✓	✓	✓	✓		✓		✓	✓	
UPLB	✓	✓		✓	✓	✓	✓	✓		✓	✓	
Adamson	✓	✓		✓	✓	✓		✓		✓	✓	
QBO	✓	✓	✓	✓	✓	✓		✓		✓	✓	
UST	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
SLU	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
UC	✓	✓		✓	✓	✓	✓	✓		✓	✓	
UPSCALE	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
TIP-NITRO	✓	✓		✓	✓	✓		✓		✓	✓	
MAPUA	✓	✓	✓	✓	✓	✓		✓		✓	✓	
UP Mindanao	✓	✓	✓	✓	✓	✓		✓		✓	✓	
Navigatu	✓	✓	✓	✓	✓	✓		✓		✓	✓	
Kwadra	✓	✓		✓	✓	✓		✓		✓	✓	
DLSU	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
BatStateU	✓	✓		✓	✓	✓	✓	✓		✓	✓	

The presence of these provincial TBIs is significant as a conduit for developing the youth entrepreneurship from within universities. It is important to highlight that the majority of the TBIs found outside Metro Manila focus on providing incubation for idea stage and startup stage entrepreneurs in the tech sector. These TBIs largely focus on students and youth entrepreneurs due to the fact that they are located within a university. This has a pronounced impact on the ecosystem overall, as there is an abundance of support found at this stage of the business development process. However, support beyond this stage tapers off significantly and this can be seen in the rates of entrepreneurs which participate in programs but do not pursue commercializing their business once they leave university and taking it to market. To further support this fact, TBI managers interviewed for this mapping explained they have high drop-out rates from their cohorts once the participants graduate, demonstrating that when the real-world responsibilities set-in, entrepreneurial ambitions take a back seat.

The continuing expansion of DOST funded incubator programs exemplifies that the Philippine government recognizes the value of innovation, specifically technology, outside of Metro Manila. 75% of the total incubators and accelerators mapped for this report stated they receive funds through the DOST program. 32 incubators mapped for this report are funded by DOST, a huge jump from the 1990s, with more to be developed in the coming years.

Privately funded organizations

Locally based ecosystem actors that receive funds from private entities demonstrate the growing interest by the private sector to discover and develop entrepreneurs and innovation aligned with their core businesses, whether by developing their own incubator/accelerator or by funding other ecosystem actors. These organizations play a critical role in the Philippine entrepreneurship ecosystem and often focus on entrepreneurs more advanced along the entrepreneurship journey. Furthermore, these organizations bring different competencies and expertise to their services and programs. Often these services and business linkages are not accessible through academic institutions. This brings greater competition to the ecosystem and a diversity of programs. These entities may, in some instances, crowd out other actors as they continue to expand the scope of their programs in line with donor demands.

Additionally, these organizations may also serve as an extension of the organization they receive funding from or were setup by, as these private entities often have the hope to capitalize on the product development or innovation initiatives of these units. In some instances, ventures created through these privately backed programs might be spun off as a separate business unit, bought out early, or the technology could be purchased by a larger corporate entity and incorporated into its offering.

Figure 4: Overview of services offered by private institutions

	INCUBATION					CROSSOVER ACTIVITIES (available in both incubation and acceleration programs)				ACCELERATION		
	Business Training	Mentoring	Technical Training (STEM)	Soft Skills Training (Communication, Leadership)	Co-Working	Entrepreneurship Events/Talks	Prototyping	Market Information	Funding	Linkage to Investors	Business Support (Recruitiing, Legal Advice)	Trade Fairs
Draper Startup House		✓			✓	✓		✓				
Aspace					✓	✓						
Launchgarage	✓	✓		✓	✓	✓		✓	✓	✓	✓	
StartUp Village	✓	✓		✓	✓	✓		✓	✓	✓	✓	
Brainsparks	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Leave A Nest	✓	✓	✓	✓		✓		✓	✓	✓		
Villgro	✓	✓	✓	✓		✓		✓	✓	✓	✓	
UP Cebu	✓	✓		✓	✓	✓				✓		
New Energy Nexus	✓	✓	✓	✓		✓		✓	✓	✓		
PhilDev	✓	✓		✓	✓	✓		✓	✓	✓	✓	
Phil Export						✓		✓				✓
Talino Ventures	✓	✓				✓	✓	✓	✓	✓	✓	
917Ventures	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
PYEA				✓		✓						✓

Figure 5: Overview of services offered by investors

	INCUBATION					CROSSOVER ACTIVITIES (available in both incubation and acceleration programs)				ACCELERATION		
	Business Training	Mentoring	Technical Training (STEM)	Soft Skills Training (Communication, Leadership)	Co-Working	Entrepreneurship Events/Talks	Prototyping	Market Information	Funding	Linkage to Investors	Business Support (Recruitiing, Legal Advice)	Trade Fairs
Manila Angel Investors Network (MAIN)	☐	✓	☐	☐	☐	✓	☐	✓	✓	✓	☐	☐
Gentree	☐	☐	☐	☐	☐	☐	☐	✓	✓	✓	☐	☐
Gobi Partners, Core Capital	☐	✓	☐	☐	☐	✓	☐	✓	✓	✓	✓	☐
Openspace	☐	☐	☐	☐	☐	☐	☐	✓	✓	✓	☐	☐
ADB	☐	☐	☐	☐	☐	☐	☐	✓	✓	✓	☐	☐
Draper	☐	✓	☐	☐	✓	✓	☐	☐	✓	✓	☐	☐

Figure 6: Overview of services offered by government departments

	INCUBATION					CROSSOVER ACTIVITIES (available in both incubation and acceleration programs)				ACCELERATION		
	Business Training	Mentoring	Technical Training (STEM)	Soft Skills Training (Communication, Leadership)	Co-Working	Entrepreneurship Events/Talks	Prototyping	Market Information	Funding	Linkage to Investors	Business Support (Recruitiing, Legal Advice)	Trade Fairs
DOST-PCIEERD	✓	✓	✓	☐	✓	✓	☐	✓	✓	✓	✓	☐
DTI	✓	✓	✓	☐	✓	✓	☐	✓	✓	✓	✓	✓
DICT	✓	✓	✓	☐	✓	✓	☐	✓	✓	✓	✓	☐
PTTC	✓	✓	✓	✓	✓	✓	☐	✓	☐	✓	✓	☐

As shown in figure 3 and 4, the vast majority of publicly and privately funded ecosystem actors focus their support on the incubation and acceleration of entrepreneurs. As mentioned earlier, these programs center on evangelizing, educating, and encouraging future entrepreneurs, particularly the youth and students, to take the entrepreneurial leap and then at the acceleration level, the bring the product or service to market and see if it sells. From the figures 3 and 4 above, you can see that almost all of these programs include some form of talks, training, events, and skills development. What these two figures show is that there is a high volume of similarity amongst the service offering at the beginning of the journey, and while this makes sense if the support is spread out across various regions and provinces, when it is clustered closely, it leads to a great deal of overlap. Furthermore, there is no real emphasis on specific industry or segment.

Private institutions, on the other hand, often extend their support beyond incubation and into acceleration. These organizations want to support young entrepreneurs from their initial idea generation and business fundaments up to taking that idea to market and formalizing the business. While some of these organizations have different starting points (i.e., idea, start-up, or early stage), the desire is to be a part of the entrepreneur's journey until the company is generating stable revenues and possibility turns profitable, or to the point that the company has received investment. The only difference is their aversion to risk as shown by their participation in certain stages as shown in Figure 1.

Programs offered by both private and public incubators are founded on the same principles and frameworks. However, private institutions by-and-large drive the ecosystem. In fact, while DOST has prescribed frameworks and programs that its beneficiary TBIs follow, these have been co-developed with private incubators an/or accelerators because of their strong linkages with the private sector. In addition, co-incubation or collaboration between ecosystem players is not uncommon, as knowledge and experience-sharing help fast track the development of the ecosystem. The challenge arises during implementation, especially in locations where there is more than one similar organization offering the same programs and services to a similar target audience. The lack of alignment and coordination results in inefficiencies and overlaps among the ecosystem players.

Identified Gaps

Lack of clear understanding from stakeholders of different government departments roles as well as lack of awareness on government legislations and initiatives supporting innovation and entrepreneurship

The Philippine government has made great strides in legislating around innovation and entrepreneurship. Two Acts have been signed into law to formalize the role of the government in supporting businesses to innovate and receive adequate support along their entrepreneurial journey. However, key hurdles remain in implementation and ensuring the laws achieve their intended aims.

In relation to the Innovative Startup Act signed in 2019, many of the provisions and related actions of the leading government agencies are now being implemented. The leading government agencies, DTI, DOST, and DICT, must act in alignment and with transparency to ensure that the provisions of the law are properly implemented. It is crucial that these government entities continue working together and intensify their efforts in harmonizing their startup programs.

When it comes to the Philippine Innovation Act, signed into law in June 2019, the government sought to ensure the Philippines can harness innovation efforts to help the poor and the marginalized, as well as enable Micro, Small, and Medium Enterprises (MSMEs). Through the law, the National Innovation Council was established to develop the goals, priorities, and long-term strategy for the nation. Furthermore, the development of the National Innovation and Strategy Document (NIASD), which forms the country's long-term vision, goal, and roadmap are also included in the mandate.

While these laws and policies are a welcome sight and stakeholders have long expressed the need for such legislation, there is a significant lack of clarity in terms of implementation, especially given that the Implementing Rules and Regulations (IRRs) were completed in 2020.

According to the interviews conducted for this report, a majority of the respondents have little knowledge about the IRRs and how it impacts the ecosystem or their individual initiatives. Thus, the government needs to intensify its efforts to properly communicate about its programs and activities and how they will impact the work of various stakeholders on the ground. This can lead to confusion about what government agencies are doing.

While the trio of DTI, DOST, and DICT form a formidable combination of government agencies, there is still a need to further harmonize the programs of each agency, so as not to duplicate activities and further overlap in terms of initiatives and have clarity with program segmentations. This has resulted in ecosystem players getting confused about where to go for certain concerns or needs because they do not understand the role of each department in rolling out the various provisions of each Act.

Unfortunately, the national government's initiatives relating to entrepreneurship ecosystem development have been sidelined by the COVID-19 pandemic, shifting the country's focus towards COVID response. This has further delayed steps towards organizing the ecosystem.

Limited access to funding (especially for Idea stage to Startup stage)

The entrepreneurship ecosystem in the Philippines continues to struggle to attract sufficient capital to support early-stage businesses. The lackluster performance of the Philippines in terms of equity investments in relation to tech start-ups had not picked up significantly until 2021. This is quite remarkable given that amidst the first wave of the pandemic in 2020, the local startup ecosystem managed to register an increase in both deal count and deal value, which eventually ushered in the record high in terms of deal count and deal value for 2021. The deal value in 2021 more than doubled, rising from USD 310 million in 2020 to USD 858 million in 2021. Total deal counts nearly doubled from that of 2020, which was pegged at 23 according to the Gobi-Core Philippines Startup Ecosystem Report 2021 and increased to 40 in 2021.

Most of the above-mentioned deals are focused on Pre-Series A to Series C stages. Majority of the funds raised were for only a few mature start-ups in comparison to idea or early-stage start-ups. For idea- to early-stage entrepreneurs, there remain very few opportunities to secure capital. As many early-stage businesses rely on access to capital to scale their operations, this can lead to many companies stalling out or not reaching their intended level of growth as they are constrained by capital. This is particularly true for student entrepreneurs. According to stakeholders interviewed for this mapping, there is a huge drop in the number of student-led ventures that continue after completing University-based incubation programs. On average, ecosystem actors mapped shared that on average, out of a cohort of 10, 1 or 2 pursue their entrepreneurial ambitions after finishing the program and graduating from university.

Young entrepreneurs cannot survive on their own capital as they often lack the savings needed to tap into to fund their own business ventures. They need resources to build and validate their ideas and bring them to market. They need the opportunity to innovate, develop, test, and fail. With little financial resources available, bright, and equally passionate young entrepreneurs often quit early as they see few opportunities to scale up and receive financial support. For the Philippines, this means many innovative young people decide to join the labor force instead of pursuing their innovative ideas.

Early-stage funding opportunities could be offered through angel investors and local institutions. While ecosystem actors can also facilitate linkages with investors for early-stage businesses to ensure that expectations are aligned. More of this will be addressed in the recommendations section.

Few local investors active in the entrepreneurship ecosystem

In 2021, investment deals were primarily led by foreign organizations. This can be seen in figure 5 above. These investors are linked with international investment firms, in most cases. These organizations have a wealth of experience and understanding of startup investing that have propelled them toward investing in the Philippines. Because of this, local family-owned conglomerates began to follow suit, deciding to launch their own VC funds or to heavily invest in start-ups that are aligned with their core businesses. Some of the notable conglomerates that made significant investments in tech start-ups are Globe/Ayala via Kickstart and 917Ventures, PLDT via PLDT Capital, and JG Summit's JGDEV to name a few.

Driving local capital is necessary to spur local entrepreneurship activities. Incubators and accelerators shared their struggle in tapping local funding to support the young entrepreneurial ventures under their care. These organizations struggle because (1) they do not know who or how to access these individuals (network) and (2) they lack knowledge about how investing in start-ups actually functions. Local organizations would normally approach their local chamber of commerce to see if they can tap the resources available from these successful entrepreneurs. These conversations have not materialized into concrete investments due to the lack of knowledge on the deal broker side, e.g., the ecosystem player coupled with the aversion to risk on the side of the potential investor. Thus, many local investors opt to invest in traditional instruments like real estate, the stock market, or traditional businesses, where their money is more secure. Once again, this leads to a series funding gap for early-stage ventures and young entrepreneurs, making the entrepreneurial landscape bleak and marred with stop-start efforts that don't inspire others to pursue the path of entrepreneurship.

Lack of sustainable programs

While the number of TBIs continues to grow, there is still a concern about their overall sustainability. The DOST funding is designed as a starter fund to help establish the incubators. The funding lasts for two years after which point, the incubator is expected to be self-sustaining or the university takes over financing its operations.

Unfortunately, a majority of the incubators do not achieve this level of sustainability after only two years. According to the mapping conducted, there are several reasons for this:

1. Incubatees need more time to develop
2. Incubatees need to transition from being a school-based project to a valid and sustainable business
3. Local support from industry and investors has been limited
4. There is high duplication of initiatives
5. Decline in student participation - parents want their children to find jobs
6. Have not discovered sustainability model for operations

In effect, government funding does not align with the entrepreneurial lifecycle experienced by young entrepreneurs. The gestation period for nurturing these young enterprises takes longer than expected.

The pandemic has further magnified the challenges faced by TBIs as management support has dwindled with the decline in enrollment and suspension of operations. Still, existing TBIs continue to embrace the challenge by lobbying for school support while finding other means to sustain operations.

Privately funded incubators and accelerators also face the challenge of finding ways to sustain their operations. These organizations do not have the luxury of having access to funds from large corporations nor do they qualify to get support from the government while working towards the development of a public good. These organizations are forced to innovate and be creative in developing sustainability models for operations. This is seen to change with the full implementation of the Innovative Startup Act where provisions that help finance startup enablers are included provided that appropriations under the General Appropriations Act (GAA) be made.

Therefore, both public and privately funded incubators and accelerators would benefit from enhanced oversight and training to encourage them to build a sustainable business model and generate multiple revenue streams or a diverse funder portfolio, rather than rely solely on one funding source.

Positioning entrepreneurship as a viable career path

Ecosystem actors mapped express concern over the declining number of the youth who are interested in pursuing entrepreneurship. Students in particular, have begun to pivot back towards building themselves up as skilled employees instead of creating their own enterprise. This trend further manifested during the pandemic as school enrollment dwindled and as students look for more sustainable career options with a reliable income. The mass lay-offs seen around the globe and economic decline worldwide, no doubt played a key role in this trend.

The desire to identify a consistent pool of interested youth to participate in their programs has forced University-based incubators to look outside of their institution’s walls to find young people to participate in their incubation programs. Attention has been placed on converting displaced employees to pursue an entrepreneurial path. While the need to capture and retain interested participants has led University-based incubators to broaden their target audience, there is a concern that this could lead to an even greater lack of opportunities for youth to explore their passions and potential innovations. Only by ensuring that an innovation mindset is fostered early on in a young person’s life can the ecosystem nurture and develop young talent. If youth-focused programs continue to express the need to fill their programs and look elsewhere for interested participants, these programs may shift their focus and lose their access to this niche audience.

Developing the mindset of the youth to create a deeper pool from which ecosystem actors can mine from should not rest solely on the shoulders of ecosystem supporters. The development of this pool takes a larger effort which starts at an earlier time in youth development, a stage that has yet to gain attention and needs reprioritization among current ecosystem actors.

Providing youth with market-driven skillsets

Another concern raised by ecosystem actors mapped for this report is the steady decline in the skills and competencies of young tech talent and engineers who can build new innovations. This has manifested over the years as employers have been forced to retrain or upskill their new hires because of the skills mismatch. This issue has been raised many times but has yet to be addressed. The skills mismatch between the market and the current school curriculum may be beyond the scope of this report. However, it must be noted that TBIs should not take for granted that many of the technical skills they thought were being taught are being absorbed by their youth incubatees. Therefore, ecosystem players would be wise to put a greater focus on the technical skills needed to innovate and address modern challenges in their programs.

The decline in market-driven skills has caused a shortage of qualified talent available for companies both big and small, who are competing against one another for top talent. To add to this, the global pandemic has opened the doors for borderless work arrangements. This includes the ability to work from home, as well as recruit and manage employees remotely. This has pushed organizations both locally and regionally to pirate and poach talent, offering huge sums and hearty packages that young companies and start-ups cannot compete with.

This has had a crippling effect on young enterprises who rely on technology and innovation as a key driver of their organization. Tech talent has become expensive and unaffordable for these young organizations. Tech Co-Founders or Chief Technology Officers (CTOs) for start-ups are also harder to come by as lucrative packages offered by larger companies are hard to decline. This has forced local start-ups to resort to hiring cheaper talent from abroad like Vietnam, Cambodia, Ukraine as well as others.

The dualling challenges of making entrepreneurship attractive to young people and addressing the skills mismatch, has the possibility, over the long term, to lead to a lack of innovation and fewer entrepreneurial endeavors being started up. Ecosystem actors must focus on addressing these challenges through providing access to local experts and mentors to continue to encourage interest amongst youth in the potential of entrepreneurship to build a stable livelihood and expand their program offer to cover core skills that are in-demand by the market and invariably needed to run your own company.

Limited support for businesses looking to expand internationally

Few organizations provide formal support to help entrepreneurs to think global and scale up internationally. DTI, prior to the pandemic, provided support for some small businesses to participate in international conferences or trade shows.

Of the ecosystem actors mapped, only 28% provide programs for internationalization or provide any support or linkages to international markets. The programs that did offer these services informally and on a need's basis. There is no structured program offered through a local accelerator with this focus. Accelerators working to help entrepreneurs with scaling mentioned they would simply refer their entrepreneurs to similar organizations or programs in other countries. Similarly, international VCs and investors will simply link a business to their counterparts based in other countries to help them explore possibilities for expansion. There are no real bridges built for regular exchanges to happen.

This gap can be attributed to three things. First, the bulk of support provided for start-ups in the Philippines focuses on incubating idea stage startups. Entrepreneurs participating in incubation programs are often students and young individuals who are still trying to validate and determine the viability of their business models and achieve product-market fit locally. These young entrepreneurs are still in the discovery and validation phases and are not yet ready to consider international expansion. Help with scaling internationally usually targets businesses with at least some market traction and proven business models. Second, the lack of focus on internationalization can be attributed to the hyper-local nature of the start-ups and their ideas. Their limited exposure to what happens beyond their borders, particularly for provincial based start-ups, limit their vantage point for opportunities beyond their location. This local focus applies not only to the entrepreneurs but also to the programs themselves which focus on addressing local issues. Third, lack of funding contributes to limiting the entrepreneur and her/his vision. With limited funding available, entrepreneurs focus on prioritizing the solutions addressable in a local market where they know they can gain traction and generate revenue. Therefore, entrepreneurs build solutions to local challenges instead of global issues.

However, these issues can be addressed by creating programs which have a 'born global' focus. In the tech sector and according to London Business School, "Classically, born globals, or international new ventures (INVs) are defined by one source as 'business organizations that, from inception, seek to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries. A more quantitative definition, from another source, describes born globals as 'companies who have reached a share of foreign sales of at least 25 per cent within a time frame of two to three years after their establishment'." Accelerators in the Philippines should coordinate their efforts to ensure that certain programs have this focus and that incubated ideas that can be scaled internationally are tracked toward these programs to fast-track their development and ensure they focus on a globally feasible business model.

The DTI has recently begun to address this issue by establishing the Global Acceleration Program (GAP) – a publicly funded acceleration program geared towards helping startups expand their operations outside the Philippines. The program aims to assist startups to scale up and globalize. It seeks to help accelerate the growth of viable technological Startups. The Global Acceleration Program is a part of DTI's Startup Development Program in partnership with Startup Enablers.

Lack of focus on areas outside Metro Manila

Metro Manila is seen as the center for Philippines' entrepreneurship ecosystem's development activities as key ecosystem actors such as government, funders, incubators, and accelerators can be found there in abundance. Start-ups that have received investments, such as Kumu, Paymongo, Nextpay, and Great Deals are also located in Manila. While recently more support has become available in other regions through the proliferation of the DOST funded TBIs, Manila remains the central hub for the ecosystem.

Though this may be the case, other locations in the country such as Cebu, Baguio, Davao, etc., are trying to develop their own identities and support ecosystem. Steps to organize these young and fragmented ecosystems have begun as DOST initiated the Regional Startup Enablers for Ecosystem Development (ReSEED) in 2021. This program aims to strengthen the startup ecosystem in the various regions by providing support for the formation of Regional Startup Ecosystem Consortiums. These consortiums are initiated by a DOST funded TBI. Aside from organizing and bringing together regional startup ecosystem players, this consortium is also tasked to establish a regional startup development roadmap, strategies to promote startup programs, establish a pool of mentors to increase fundability of start-ups, craft skills enhancement programs for TBIs and startup enablers, bring together local investor groups and more.

Since 2018, DTI together with DOST has mobilized resources in establishing Regional Inclusive Innovation Centers (RIICs) across regions, piloting in Visayas and Mindanao and further expanding in Luzon. The RIICS was established to become a platform for innovation stakeholders to convene and share information and resources towards the development of next generation enterprises across the regions. Likewise, the ecosystem approach is geared towards cultivating an environment for young, talented, and gifted individuals with creative and innovative ideas who are based in the provinces.

The Philippine entrepreneurship ecosystem goes beyond Metro Manila. There are equally talented and gifted individuals with creative and innovative ideas who are based in the provinces. One such example is Peddlr, an inventory and business financial management start-up that was founded in Catbalogan, Samar, a province located in the Visayas region. This startup continues to generate significant traction receiving $4.3M in funding to date to help micro and small businesses go digital and improve financial literacy. Such startups demonstrate that strong support beyond Metro Manila can spur scalable companies, which attract high levels of venture capital. When ecosystem support focuses too heavily in Manila, it leaves many areas under-served and leaves potential youth talent stranded in the process.

Identified Overlaps

Duplication of programs with majority of support focusing on idea to early-stage entrepreneurs

Given the nascent stature of the ecosystem, it is not surprising to see incubators and accelerators supporting or helping the same start-ups. This points to the very collaborative nature of the ecosystem wherein it is not uncommon for similar organizations to co-incubate start-ups, co-organize events, co-initiate and even invest in the same start-ups. Coopetition (cooperation + competition) is a term used commonly by ecosystem actors mapped for this report.

Figure 3 and 4, shown earlier in this report, makes visible the vast number of ecosystem actors, particularly incubators, offering the same services. While some duplication is needed as not all actors operate in the same geographic area, it is critical that there is more differentiation in programs available to entrepreneurs. Be this through ensuring some programs have a tech angle, while some focus on medicine, consumer goods, or ecommerce, or some take a born global or human centered design theoretical framework for their incubation program, ecosystem actors who are focused on incubation can bring a clearer offer to their target audience by focusing on a particular sector or framework. This can also help incubators to hone their offering and work with other accelerators who have the same sector focus, offering a clearer entrepreneurship support journey to the entrepreneur in the process.

While the steering committee, composed of DTI, DOST, and DICT, provides strategic guidance and oversight in the formulation, implementation, and development of the Philippine Startup Development Program, there is still work that needs to be done for system orchestration as well as delineating of roles and areas of focus for each department. Coordination, alignment, and harmonization of programs are still a work in progress. Furthermore, as mentioned earlier in this report, ecosystem players are often confused about which agency to go for certain concerns or needs as well as clearly identifying which department leads on which activities to support the ecosystem.

As highlighted previously in this report, ecosystem actors in the Philippines focus heavily on supporting idea stage and early-stage entrepreneurs through programs targeting business fundamentals and fostering an innovation mindset, e.g., incubation programs. With 80% of the organizations in the Philippines entrepreneurship ecosystem providing support for idea to start-stage entrepreneurs there needs to be a greater emphasis on differentiating these programs through enhanced collaboration and/or communication. While this is understandable given that half of these are University-based DOST funded TBIs, whose main mandate is to develop and execute entrepreneurship related activities within the university, these TBIs can ensure greater coordination amongst one another to identify clear sector or theoretical focuses given the strength of the University, the economy of the surrounding area, or other unique factors.

High competition

As many ecosystem actors mapped for this report offer a similar service, organizations must compete for limited resources. This includes not only funding for the program but also competing for the small pool of entrepreneurs who are locally present to participate in their programs. This poses a threat for ecosystem players that are dependent on public funding. Most TBIs for example, are dependent on the conversion of start-ups and exits to finance their operations. Competing for a small pool of resources, with a similar offering, will challenge the sustainability of TBIs trying to support the development of entrepreneurs in the ecosystem.

Currently, TBIs are feeling the crunch, particularly those whose funding from DOST is about to end. According to those mapped, they are scrambling to get support from the University as roles are redefined and team members let go. These schools, while previously committed to the mission of the TBI, place least priority on sustaining these programs. This is unfortunate as these institutions potentially lose all the gains and investments they made into developing the local entrepreneurship ecosystem. In this instance, the government investment in the DOST program also falls short of achieving its return on investment, whether in the form of revenue generated, innovation developed, employment created and the like. It is critical that DOST alongside the other leading departments identify ways to continue funding these TBIs over a longer period or focus on supporting these TBIs to develop a more sustainable model, instead of simply focusing on the number of incubatees.

Privately funded incubators and accelerators are creatively pivoting their business models to adapt to the changing demands on donors and their requirements. Unfortunately, this has become a distraction for some as their focus shifts from looking at the long-term growth of the institution towards adapting to the constraints of donors and the latest trend.

In certain instances, the need for privately funded incubators to adapt to donor demands brings them into competition with TBIs as they pivot to support younger idea-stage entrepreneurs and student entrepreneurs to show higher numbers as there are a greater number of youth that can be supported at the earlier stage of enterprising than at the later stages. To address this issue a formal startup industry association/group among the organizations might help align the programs and resources available and craft a more coordinated effort from the sector. The government can also play a key role in providing and coordinating critical sustainable support to TBIs and private enablers (incubators/accelerators) to ensure sustainable co-existence and focus on student and idea stage entrepreneurs and by linking privately funded incubators to donors who can support them with developing more niche programs that target under-served stages or sectors such as is the case with the Arise Plus Ye! Boost Accelerator being rolled out with support from DTI and in cooperation with Ideaspace.

3. NETWORK ANALYSIS

The following section summarizes the findings of the network analysis as well as the conclusions drawn about the community within the Philippines entrepreneurial ecosystem. The analysis provides insights on density, centrality and three types of network connections: information sharing, funding and service provision collaborations.

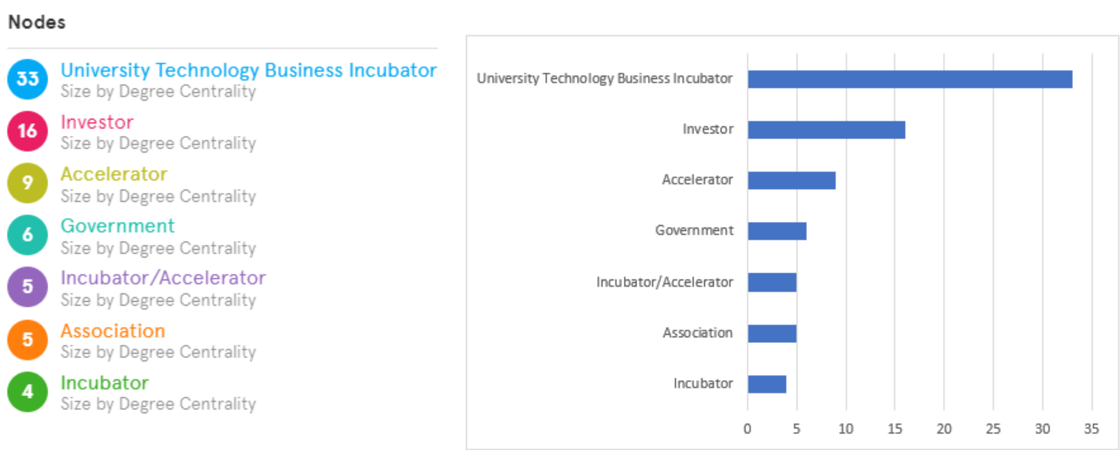
ECOSYSTEM NETWORK ANALYSIS

The network analysis of the Philippines entrepreneurial ecosystem sheds light on the high-level of collaboration present in the ecosystem. Throughout the mapping exercise, and what is made visible from the network analysis, is that while there is a lot of collaboration happening and it remains largely at the level of info sharing. Most connections amongst ecosystem actors, whether between privately funded incubators or accelerators to publicly funded TBIs, is that most of this collaboration is in the form of information sharing. From the network analysis, there remains plenty of room to connect the ecosystem more comprehensively through exploring shared funding schemes, joint-programming, and service-delivery exchanges.

While many refer to the ecosystem as nascent, there are many ecosystem actors vying for space in the Philippines.

Institutions Connecting in the Ecosystem

Figure 9: Actors by Degree Centrality



There is a heavy emphasis on supporting technology-enabled start-ups in the Philippines. With the large majority of local institutions falling within the Technology Business Incubator or 'TBI' category, many of the private incubators also place an emphasis on supporting tech entrepreneurs. The reasons for this are plenty, including the lower barriers to entry in tech, high scalability, and investor interest. Few ecosystem actors in the Philippines have an explicit emphasis on supporting hardware, consumer goods, or product-oriented entrepreneurial ventures. This was also clear from the focus group sessions where entrepreneurs operating in the traditional sectors did not know where to turn for support.

Considering the overall network, incubators, especially those linked to universities are clearly predominant within the ecosystem. This demonstrates that within the ecosystem there is a heavy focus on supporting ideation and startup stage entrepreneurs through various programs.

The network analysis also demonstrates that many local actors do not clearly distinguish between the offering of an incubator or an accelerator. Some claim to do both and are shown in the analysis as incubator/accelerator if they claim to support entrepreneurs from ideation through scaling. And while some do cover both incubation and acceleration, more clarity could come from understanding where each type of service has its added value and what is encompassed in such support through its intended aims.

In the Philippines, one such institution that offers both incubation and acceleration is the now joined entity of QBO-Ideaspace. While this entity has recently merged to become one incubator/accelerator, for the purpose of this mapping we analyzed them separately as each arm of the institution offers different support – QBO provides incubation from idea to early stage and Ideaspace from startup to growth stage.

Given the high quantity of institutions focusing on incubation, the ecosystem could benefit from identifying those who could shift their focus and work exclusively at the acceleration level, whereby other actors can more easily channel relevant companies to this level of support.

For reference, see the below segmentation of incubator and accelerator service offerings in figure 8.

Figure 12: Services offering of incubators and accelerators

CONNECTIONS IN THE NETWORK

Connections at the level of information are the most abundant in the Philippine ecosystem. Although this demonstrates a high collaborative spirit among ecosystem actors, these connections remain superficial.

Connections for service delivery most often happen from privately funded incubators or accelerators offering experts, training, or other services to both private or publicly funded incubators and accelerators. This demonstrates that privately funded actors have greater access to experts, training materials, and program development, which publicly funded incubators do not. Given this insight and taken into consideration with the struggle for TBIs to build a sustainable business model, it is clear that emphasis has to be placed on the development of a stronger TBI structure that includes investing in staff training, hiring, program design, partnerships, and developing in-house expertise to ensure these institutions can become more self-sustaining.

NETWORK DENSITY

The Philippines' network, while seemingly dense, leaves a lot of connections untapped. There is a variety of ecosystem actors regularly sharing a great deal of information and collaborating on service delivery, however many potential connections can still be bridged. Many ecosystem actors connect with more than five other actors in the ecosystem; however, those connections are often not linked to one another. This leads to a hub and spoke network where certain ecosystem actors have high degree centrality (strong individual networks) and those that they collaborate with, less so. Overall, actual connections stand at 19 percent of the total potential connections in the network. The network analysis survey data show that actual connections are 467 while total potential connections are 3,240. This demonstrates that there is room to grow and strengthen the ecosystem through building new connections as approximately 85 percent of potential connections remain unrealized.

Furthermore, connections in the ecosystem are by and large at the level of service delivery and information sharing. The existing density can be actualized by sharing more information between the actors that appear largely as "spokes" in the network and through enhancing the number of connections happening in relation to partnering to receive or distribute funding. This figure can serve as a baseline for the ecosystem to increase connections. In this case, this would translate into more connections with already established actors. Specific connections are examined later on in this section.

INSTITUTION CENTRALITY

About the measures:

Institution nodes are ranked according to betweenness centrality. This type of centrality measures how many times a node (institution) acts as a gateway in the network. The higher the betweenness centrality of an institution, the more paths run through that entity to connect two other actors. When an institution has a high betweenness centrality, and therefore a bigger node size in the map, it means that a node is a key bridge or facilitator between different actors.

Overall, betweenness centrality measures how often an institution appears on shortest paths between nodes in the network. Institutions with high betweenness may have considerable influence within the network by virtue of their control over information passed between others. They are also the ones whose removal from the network will most disrupt communications between other institutions because they lie on the largest number of paths taken by messages.

This report has also evaluated degree centrality, defined as the number of links upon a node (i.e., the number of ties that a node has). This indicates which institutions have built a bigger network for themselves but does not provide insights on their work as ecosystem builders.

Figure 9 shows the overall network of institutions supporting entrepreneurs in the Philippines. The size of the nodes (institutions) corresponds to their betweenness centrality score (the higher the node, the higher the betweenness centrality).

Overall Network

Deeper analysis of this ecosystem indicates the following possibilities for growth in the network:

Figure 15: The Philippines Entrepreneurship Ecosystem

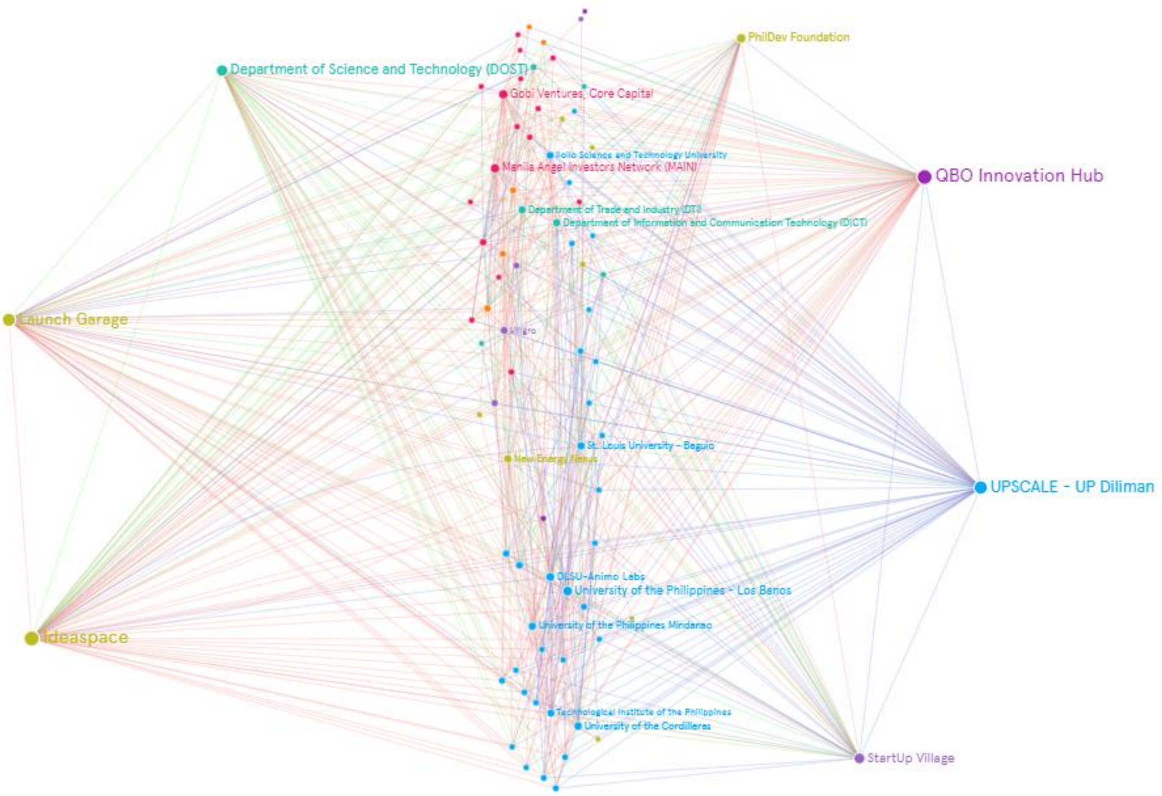


Table 1: Overview of Actors by Betweenness Centrality

Overview of Actors by Betweenness Centrality	*(High bridging capabilities)*
QBO Innovation Hub	538.66
Ideaspace	519.73
UPSCALE – UP Diliman	342.78
Launch Garage	275.19
Department of Science and Technology	114.80

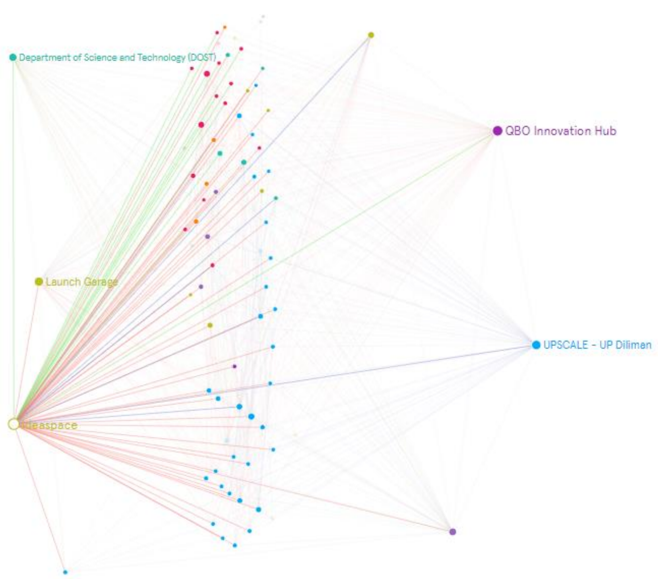
Table 2: Overview of Actors by Degree Centrality

Overview of Actors by Degree Centrality	*(Strong individual network)*
Ideaspace	70
QBO Innovation Hub	68
UPSCALE – UP Diliman	58
Launch Garage	57
Department of Science and Technology	45

When looking at the distribution of the results (see Annex II), Ideaspace has the highest degree centrality while QBO Innovation Hub has the highest betweenness centrality. As these organizations sit under one institutional umbrella, it is clear that it has the largest overall network by far and could play a leading role in enhancing connections amongst its network partners. Furthermore, this aligns with QBO's mandate as a Private-Public Partnership and recognition as an extension of government. The top institutions with bridging capabilities (betweenness centrality) could act in coordination to provide guidance to the overall network and more comprehensively leverage their support to other actors and ensure ecosystem actors are well-connected.

Additionally, organizations with both high degree of betweenness centrality and degree of centrality can lead in developing the entrepreneurship association, mentioned previously in this report, and guide the ecosystem's overall trajectory for development and support in stimulating youth entrepreneurship. QBO and Ideaspace, along with other high-ranking organizations such as Launch Garage, UPSCALE – UP Diliman, StartUp Village, and Brainsparks could play a leading role in such an association due to their strong networks, influence, and credibility. It is clear that other less inter-connected organizations in the ecosystem who already work closely with these organization would respect decisions made by such an association.

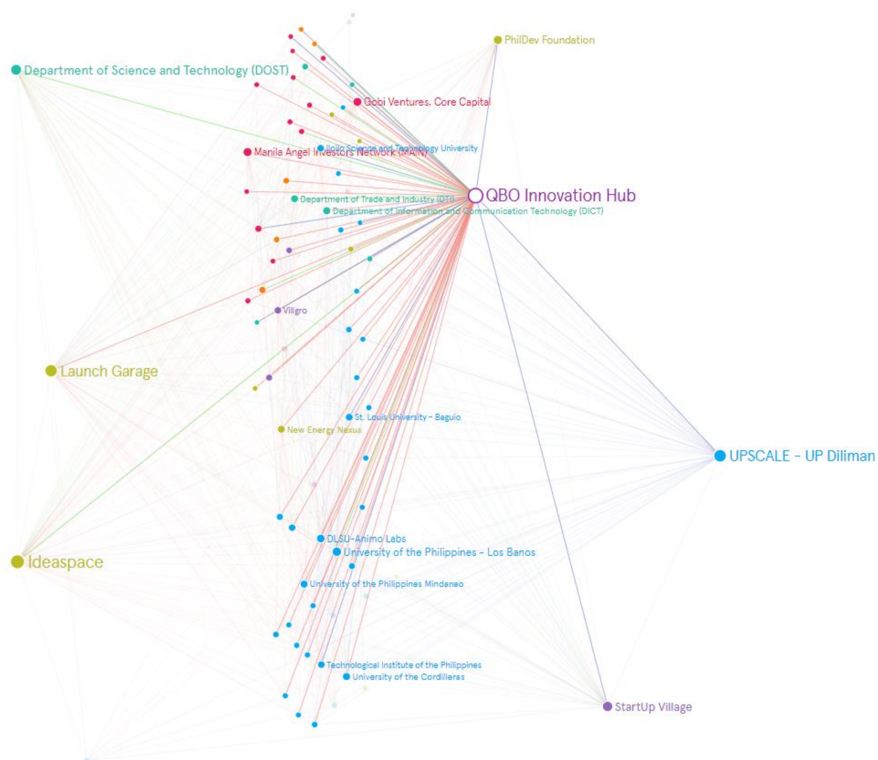
Figure 18: Ideaspace has the highest degree centrality (or strongest individual network)



You can see clearly the distinction separating the betweenness centrality of QBO, as shown in Figure 11 above, through its cluster, compared with its degree centrality shown below in Figure 12. Many of the entities to which QBO is connected remain disconnected from one another. This demonstrates the potential for network strengthening and where QBO can enhance linkages between actors in its existing partner network.

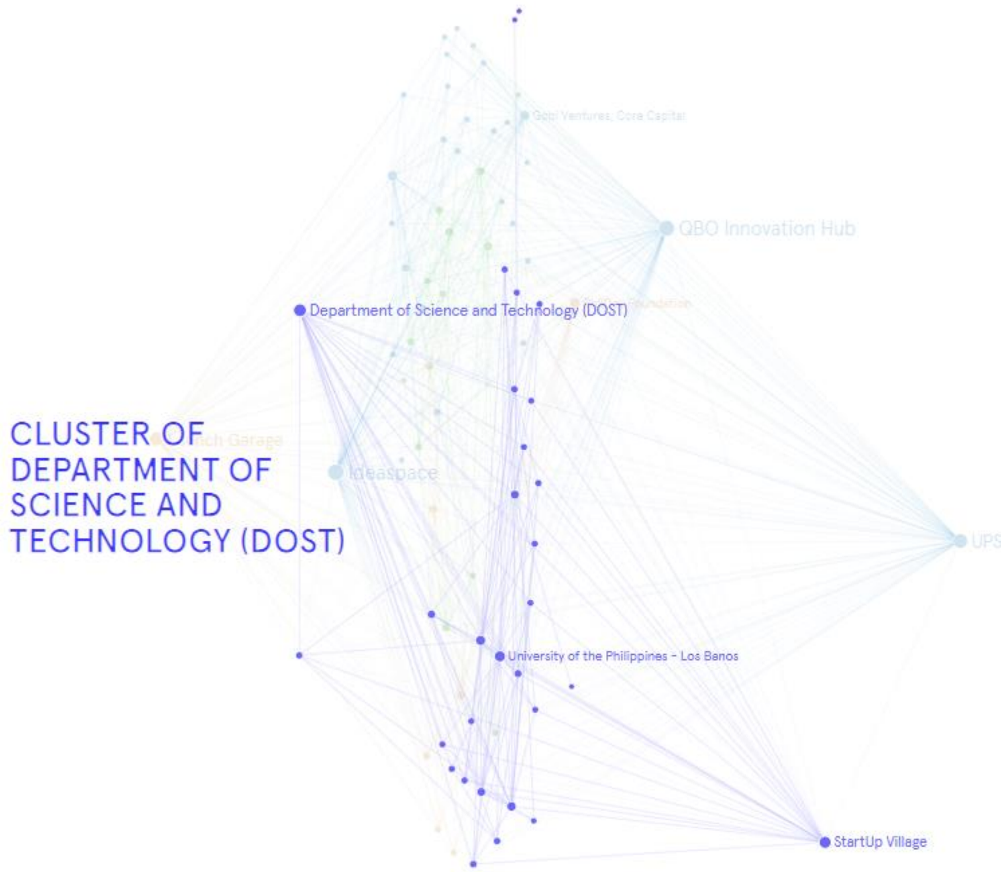
Figure 21: QBO Innovation Hub Cluster

Figure 24: QBO Innovation Hub Connections



DOST also appears high on both betweenness centrality and degree centrality but, unlike other actors this is due to its funding scheme supporting TBIs. This demonstrates the important role that DOST plays in supporting the ecosystem and driving engagements and program development. However, as shown below, there still remain many untapped connections between the institutions DOST supports. The betweenness of the cluster DOST supports could be further strengthened.

Figure 27: The DOST cluster demonstrates its high bridging connection capabilities and individual network



While there is a great deal of bridging already happening, the opportunity remains to explore ways to deepen these collaborations to better serve young entrepreneurs and position each organization in a certain niche. Furthermore, institutions would benefit from identifying which partnerships they want to build, the purpose of the partnership and engaging more strategically. This could foster deeper collaboration and ensure that collaboration is not just for the sake of saying you partner with certain organizations for show.

What are the main connections in the network?

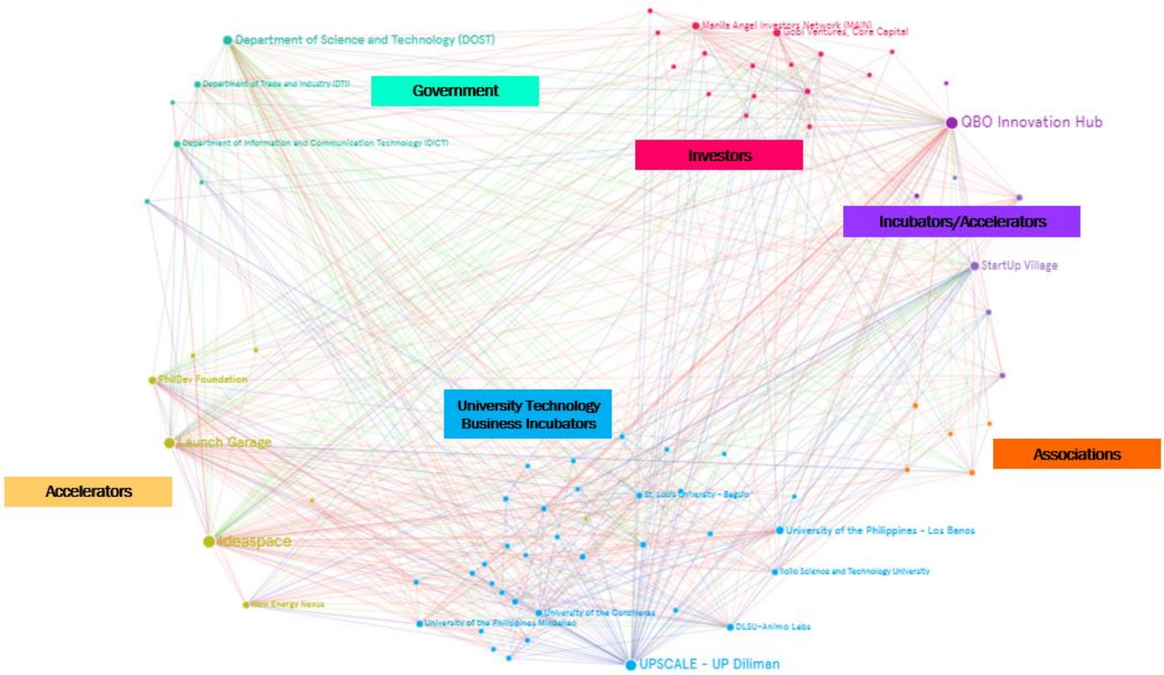
Connections concentrated in Manila

The most diverse group of TBIs, incubators, and accelerators are in Metro Manila. In addition, this is where most investors are also located and is the seat of the national government. This gives the ecosystem actors based in Metro Manila a distinct advantage over their competition in other areas of the country, as it is easier to collaborate, share information, and connect their supported entrepreneurs to investors.

While the linkages to local government through university based TBIs does exist, the TBIs located outside Metro Manila and other major metropolitan areas have less dense and varied networks. This in turn has a negative impact on the entrepreneurs they support who are less well-connected with other ecosystem actors who provide services that continue to the next stage of the business development lifecycle after incubation.

TBIs could take action on this fact by working to create a TBI info sharing network to streamline access to relevant updates and content and leave more time for TBIs to develop strategic partnerships with other entities.

Figure 30: Network analysis segmented by institution type



From Figure 14 above, there is much greater network density between privately funded incubators and accelerators and various other ecosystem actors than exists with DOST funded TBIs. The bulk of these privately funded institutions are located in Manila, and this leads to a much greater degree of connectedness between actors in Metro Manila than elsewhere in the country, thereby contributing to a much stronger Manila ecosystem than in any other region.

In light of the high concentration of activity in Metro Manila, knowledge exchange sessions or peer-to-peer engagements between different types of support institutions to exchange best practices and encourage a stronger network effect between the center- Manila and the periphery, could be organized.

Potential growth through differentiating connections

The network analysis points to a high volume of connections at the information exchange level. Most institutions share information on the start-ups they support, upcoming opportunities, and updates about programs and events. While this is important, this boils down to collaborate as information sharing. The network would benefit from differentiating further the type of connections which exist, e.g., which actors can provide services, training, or expertise, which can co-create or co-develop programs, and which can organize co-funded events to pitch to investors. Furthermore, the ecosystem should clearly identify which actors provide funding. These actors should focus on funding existing programs or co-creating new ones to ensure the funds are available to support services available, without adding in new services such as incubations programs, where a large variety already exist.

Furthermore, publicly funded incubators, accelerators, and institutions that offer both services are overall, better connected through both betweenness centrality (bridging capabilities) and degree centrality (strong individual network). This stems from the fact that on average, privately funded institutions have better network connections to a wider variety of ecosystem actor types. Therefore, the ecosystem has room to grow through supporting publicly funded institutions to expand their networks through seeking collaboration with a wider variety of ecosystem actors, not just other TBIs.

Setup a country guide to support service for entrepreneurs

The Philippines has a large number of actors supporting entrepreneurs, especially at the idea and startup stage, however, where it struggles is in communicating about these efforts. The ecosystem lacks a space where entrepreneurs, donors, and institutions alike can find information about various programs and projects that are available, as well as the focus and type of support each institution offers. Connections could be enhanced, and clarity offered by having a directory or guide that is managed by a leading institution or the government could provide such a service. Such a guide could support enhanced collaboration between publicly funded TBIs and privately funded actors and create better connections between institutions that at present, demonstrate less high connectivity with the key nodes in the ecosystem.

Expand the support beyond the tech sector

In the Philippines, the vast majority of ecosystem actors focus on tech, or tech-enabled solutions. This leaves a significant gap in the support ecosystem for supporting entrepreneurs that may have solutions in more traditional sectors such as agriculture or consumer goods. While these solutions may not always be identified as 'start-ups', their value to the economic development of the Philippines is essential.

Therefore, the ecosystem could benefit from identifying certain institutions that have a clear advantage or closeness to regions where enhancing youth engagement in these sectors is critical. Institutions could then bring a more sector-specific focus to their work and target young innovators who have an interest in innovating in agriculture, for example. This would allow certain institutions to carve out a specific niche in the market, while also ensuring that youth with an interest in agriculture know which institutions to turn to for support.

While tech is the key focus sector within the ecosystem due to the lower entry costs and high scalability of the solutions across borders, existing institutions with a focus on tech could also distinguish their offer by identifying where they can drill down to offer even more focused programs. Given the closeness of the TBIs to academia, this focus could align with the expertise of the University. For example, an institution could focus on agricultural technology or 'agri-tech' if the University the TBI is connected with has reputable degree programs, professors, and market linkages in this sector. While tech support is a cross-cutting issue that gains higher returns, institutions can differentiate themselves by offering more targeted programming.

While support for more traditional sectors is happening through the DTI Negosyo Centers and specifically for youth through the Youth Entrepreneurship Program (YEP), the information on these activities must reach its intended audience for the programs to have impact. Furthermore, this program supports young small business owners, more so than entrepreneurs, as the participants often lack the innovation or change mindset of an entrepreneur.

What are the different types of connections?

The following table summarizes the characteristics of the linkages (edges) connecting each institution (node):

Table 3: Network edges analysis

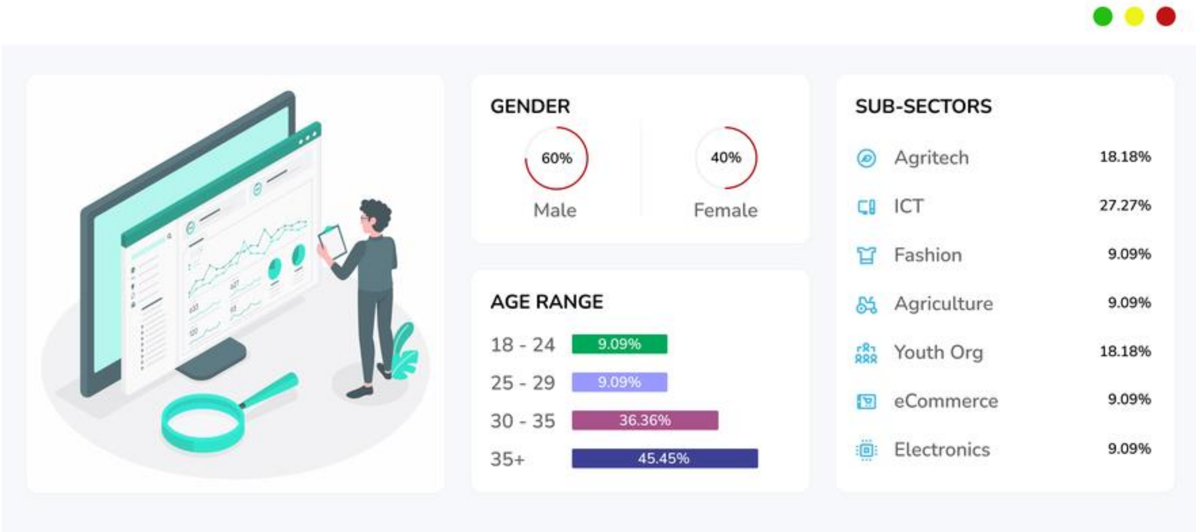
	Description	Linkages	Main barriers	Potential improvements
Service delivery collaboration	Support for trainings, such as training material, training staff and events/activity coordination.	High	Ecosystem actors provide similar services creates a more competitive environment and reduces cooperation.	- Institutions in the ecosystem should address the gaps and overlaps identified in section 1 of this report to improve their positioning and offer unique services in the ecosystem. In addition, the creation of a website to provide info on service offerings as well as to identify a lead to guide the ecosystem, alongside network convening events could ensure better collaboration on service delivery by ecosystem actors.
Information exchanges	Exchanges such as database of entrepreneurs, referrals, events participation or market intelligence.	Medium	There is no 'one-stop-shop' website or platform that provides an overview of the institutions in the ecosystem and their offer.	- Use of website or platform to compile relevant information. - Host network convening activities to connect ecosystem actors and share best practices.
Financial collaboration	Exchanges of funds happening between institutions (not funds given to entrepreneurs). This is the case for institutions offering financial support for events/programs to other institutions or logistics support.	Low	Institutions compete for funds due to donor dependency and are reluctant to act as bridge institutions to channel funds and share potential projects.	Ecosystem actors provide a stronger service offering when acting cooperatively. Multi-stakeholder bids for program funding could ensure greater collaboration. This approach could benefit both the donor and the ecosystem actors who would be incentivized to collaborate and therefore explore synergies. Further specialization of ecosystem actors would also increase complementarities between different ecosystem actor types.

The government plays a large role in funding the ecosystem actors in the Philippines, specifically the DOST and its role in funding TBIs. As seen in the figures below, the ecosystem could develop significantly from seeking out other donors e.g., corporate foundations, development aid, etc., to differentiate funding sources. There is still room to develop the ecosystem by strengthening connections between publicly funded TBIs and investors interested in funding early-stage companies or funding programs which support them to bridge the existing gap between these actors in the ecosystem and address the gap of access to finance for early-stage ventures.

4. USER EXPERIENCE ANALYSIS

Understanding the entrepreneurial ecosystem of the Philippines requires insights coming from institutional players as well as entrepreneurs and "users" themselves. As such, to complement the network analysis, a series of focused discussions were conducted. This section provides an overview of the user experience by the interviewees.

The following shows the profile of the 11 entrepreneurs who participated in the focus group discussions which took place on 11th March 2022. Two focus groups were conducted to determine the insights based on young entrepreneurs from traditional sectors and the tech sector so that insights could be collected separately.



Based on the insights gathered from the focus group discussions, the following key trends came to the fore regarding the user experience in the Philippine entrepreneurship ecosystem. These insights help complement the results derived from the previous sections.

Tech entrepreneurs rely on incubators for critical support at the idea stage

Idea stage entrepreneurs require a high-level of guidance and support. The presence of DOST funded as well as privately funded incubators provide an abundance of services that complement the offerings of the traditional Negosyo Centers operated by DTI as well as the different programs of DOST and DICT. These institutions, as mentioned during the focus group discussions, provide knowledge sharing opportunities as well as connections that are vital to an entrepreneurs' development and success. Furthermore, the organizations mentioned have programs that help starting entrepreneurs through the idea stage and validation stages while creating a minimum viable product or MVP. The network connections and knowledge sharing sessions provided by incubators help young entrepreneurs who do not have experience, limited access to network, who may not come for a privileged background and who may or may not have the support from family or friends. In this instance, the tech entrepreneur focus group clearly understood the value of incubators to their overall startup journey.

Entrepreneurs in traditional sectors do not know where to access support

In contrast to the tech sector focus group, the entrepreneurs running businesses in more traditional sectors stated they were not familiar with the existence of incubators operating in their localities. These entrepreneurs were only familiar with the traditional network organizations around them, particularly government offices such as DTI, DOST, DICT, and PCCI to name a few. According to Louise Mabulo, Founder of agriculture company The Cacao Project and one of the youth entrepreneurs that participated in the focus group discussion, "When you are a first-time entrepreneur, things can be overwhelming. We do not know who to approach for mentoring and guidance." Similarly, Noreen Bautista, CEO of agri-textile sourcing platform Panublix said "aside from DOST and our partner university, we did not really know where to seek guidance and support when we were starting out." These entrepreneurs demonstrate that the existence of a severe gap in support for young entrepreneurs starting their entrepreneurial journey in more traditional sectors as the key support institutions that support small businesses in these sectors, tend by-and-large to focus on more mature companies. This reiterates the above-mentioned gap explained in this report.

The sentiments of these young entrepreneurs validate the findings in the ecosystem mapping section of this research. The lack of accessibility and visibility of ecosystem actors, especially in the provinces, has a negative impact on both entrepreneurs and the ecosystem actors. The entrepreneur cannot gain the support he/she needs because they do not know where to go, while the ecosystem actors are unable to support their programs because they do not secure large cohorts nor solid program enrolment.

Concentrated support in Metro Manila leads to brain drain in the provinces

Metro Manila continues to be the central hub of entrepreneurial activities in the Philippines. This indicates that most of the opportunities for young entrepreneurs are primarily found in Metro Manila, limiting attention and support for young entrepreneurs in the provinces. Consistent with the responses from various ecosystem actors interviewed, respondents in the focus group discussions stressed the need for providing more opportunities for equally bright and talented young entrepreneurs from the province.

Those in the tech sector focus group but located in the provinces were familiar with some local incubators but were more familiar with Manila-based incubators and accelerators who often receive a high-level of government support, attention, and recognition for their work. Nanotronics, a biotechnology company based in Laguna, benefited from its proximity to Metro Manila, allowing the company to tap into mentoring, support, and even funding, through multiple programs such as the global program by Shell called LiveWire. This program led by a multinational corporation to support enterprise development and strengthen local economies by promoting entrepreneurship is rolled out in countries worldwide.

Nanotronics Founder and CEO, Dr. Jerome Palaganas explained that because of the Livewire program, "We were fortunate to have received a lot of support from government agencies. The Board of Investments invited us to have an exhibit in Taiwan. The Department of Trade and Industry gave us a lot of opportunities to join webinars that lead to business collaborations and partnerships. The Department of Science and Technology gave us a startup grant way before they institutionalized funding start-ups. We also competed in the Shell LiveWire program and won first place, where we received funding and mentoring." However, he added, "It is very hard to start, especially for start-ups like us that are in deep tech and coming from the province. Problems like power, sustainability, carbon footprint, they are not quite (sic) given a big thought in the Philippines so there really are not a lot of investments in these sectors."

The knowledge by young entrepreneurs that the best support is found in Metro Manila contributes to a lack of comprehensive support in the provinces and validates the network analysis findings that TBIs located outside the provinces lack the network strength of privately funded institutions in Metro Manila. Furthermore, very few privately funded incubators or accelerators exist outside Metro Manila and therefore, entrepreneurial talent is funneled into Metro Manila to receive support and networks. This leads to a phenomenon known as brain drain in the provinces and takes valuable resources and employment opportunities away from rural areas.

Credibility and network access remains a challenge for young entrepreneurs

In a country where pedigree, connections, and experience are vital to succeed in business, most youth entrepreneurs must deal with credibility challenges and limited access to networks. As a first-time young entrepreneur, Noreen Bautista shared, "when I was younger, I got turned away a lot. Being young, female, and in the agriculture sector made it hard for me to be taken seriously. We only got a break when we got funding from the United Nations and National Geographic. This recognition increased our credibility."

Similar to Bautista, youth entrepreneur Melissa Varela echoed, "Lack of credibility is also a problem even though you have provided all the necessary legal documents. People tend to not take us seriously just because we are young."

Without credibility and access to strong network connections, young entrepreneurs face an uphill climb to grow their business. This can impact their confidence and desire to and, in some cases, even lead to premature business failure. These findings from the focus group highlight the importance of access to networks and networking activities by ecosystem actors, which can stimulate exchange, provide opportunities for building credibility, and link provincial entrepreneurs with experts or investors in Manila or outside the country.

Government support plays an important role in supporting entrepreneurship

Government plays a critical role in supporting the continuous advancement of the entrepreneurship ecosystem and developing young entrepreneurs. According to the focus groups, the government is seen as the go-to place for support, particularly DTI, DOST, and DICT for their role in executing various programs based on their respective mandates. This is true both from a national and provincial level. However, some in the FGDs still believe the government is missing the mark.

During one of the FGDs, it was mentioned that more progressive legislation and policies that support entrepreneurship is needed. The entrepreneurs mentioned various inefficiencies they have experienced when setting up a business, dealing with compliance, and many other administrative tasks that add an undue burden to a young entrepreneur when setting up and running a business. Another FGD session shared that start-ups are often taxed at the same rate as more mature companies and this does not enhance innovation. They expressed that the red tape needs to be dealt with and young entrepreneurs need special guidance in dealing with the heavy bureaucracy if they are to succeed.

Access to finance remains a challenge for entrepreneurs

Philippine investors who are open to investing, especially at the idea- to startup stage, are few and far in between. They prefer low risk investments or investments with guaranteed results. They often have limited knowledge about angel investing and thus avoid putting capital in young entrepreneurs. Therefore, the Philippines maintains a more traditional, risk averse, financing market.

Financing for companies in the Philippines is largely debt driven, which means that collateral is often part of the requirement for approval of a loan or similar instrument. Additionally, applying for institutional financing is a tedious process with an unsure outcome for youth entrepreneurs. This stifles young entrepreneurs who have innovative ideas, viable business plans, strong teams, but limited access to capital and limited collateral to secure a loan. These hurdles limit the ability of early-stage companies to scale up, especially when founded by a young person.

Jai Ferrer, CEO of iFarms, a Cagayan de Oro-based business development services provider expressed during the focus group that, “Most local businesspeople who give loans or are willing to make investments want a fast return on investment (ROI) here in Mindanao. This stifles the growth of start-ups and entrepreneurs in the provinces.” This sentiment is consistent with other young entrepreneurs and ecosystem actors both in Manila and the provinces.

The lack of knowledge around investing in early-stage companies coupled with the lack of information on the investment process by entrepreneurs has led to a severe gap in funding for early-stage companies. Investors need to understand how to invest in early-stage companies and young entrepreneurs need information on how to secure an investment and what the process looks like. Both traditional and start-up entrepreneurs who participated in the focus groups indicated that they have limited knowledge of where to access finance, the various types of financing options, what the investment process looks like, and what documents must be in place. The challenge in the Philippines around access to finance is therefore two-fold. The limited access to finance handicaps new and innovative business solutions from scaling up and generating real impact towards economic development and providing gainful employment.

To address this issue, the government can play a role in de-risking the funding environment, while organizations like the Manila Angel Investor Network can teach interested would-be investors about how to invest in start-ups. Angel Investors can collaborate with local accelerators to provide training and information on the investment process to young entrepreneurs who have traction in the market, so they are equipped with the right information and have the necessary documentation in place when approaching investors. Furthermore, Accelerators in the Philippines can work closely with Angel Networks to understand the profiles they are interested in, to create a pipeline of potential investees.

5. RECOMMENDATIONS

Based on the ecosystem mapping, identified gaps and overlaps, network analysis and user experience analysis, this section summarizes the nine recommendations to support the growth and success of the Philippines entrepreneurship ecosystem. These recommendations are intended as guidance to the local ecosystem actors.

1. Institutionalizing interagency coordination and consultation among with relevant stakeholders, including the business sector

The Philippines has a wide range of institutions that are active participants in the entrepreneurship ecosystem. The network analysis elucidates that many of these actors are interconnected through sharing information on entrepreneurs, programs, events, and opportunities. While it is clear that ecosystem actors are linked, connections could be deepened and the value of such connections to various actors strengthened.

An example of an attempt to already coordinate and organize the ecosystem are the DTI-led RIICs and the DOST-led, formation of regional consortia called ReSEED. Through the RIICs, various organizations and ecosystem actors, including the TBIs and the ReSEED program, can be connected through the strong Government-Industry-Academia network collaboration. On the other hand, through ReSEED, regions can map out local ecosystem players, identify what each is doing, and coordinate efforts to get everyone involved in the development of a regional startup roadmap. Furthermore, local ecosystem gaps and overlaps can be determined with specific action plans developed in response. This paves the way for ensuring all local stakeholders are involved in the development of the local ecosystem, while empowering them to create their own identities and areas of focus, to promote fewer overlapping programs.

Through the RIICs network including stakeholders from the industry and government, various linkages can be formed to be able to co-create new partnerships that would further spur innovation across the regions.

The formation of the first batch of RIICs and the ReSEED consortia can set the tone for the formation of other regional consortia or committees. These groups should be supported by both local, provincial, and regional players, to encourage inclusive participation. This includes organizing and encouraging active participation by all concerned stakeholders, while also providing means to sustain not just the momentum generated by the initiative but also helping finance projects and operations. Sharing of best practices and lessons learnt from these the RIICs and the ReSEED consortia can be fed back to the ecosystem to further expand the value of these learnings.

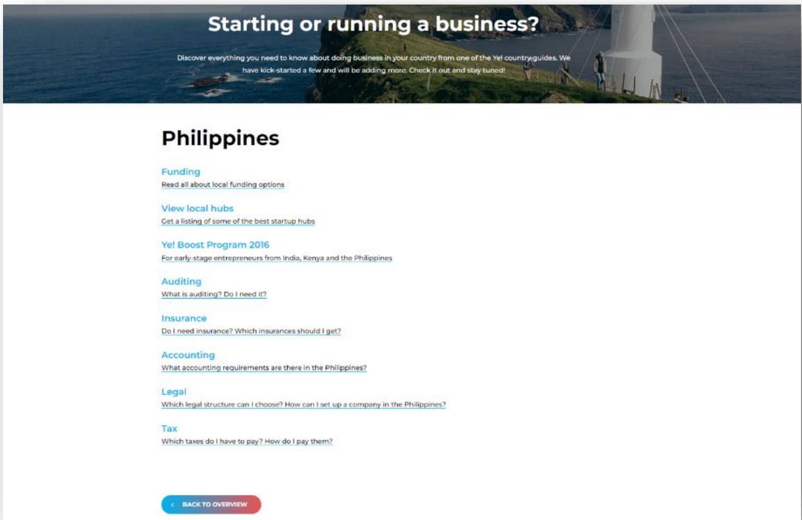
Building on these regional committees, a national committee could enhance cooperation and collaboration among various stakeholders and set up a more aligned approach for the development of the ecosystem. This can enhance information sharing amongst all ecosystem actors, reduce silos, and identify where resources and support are most needed across the country. Furthermore, by having government agencies play a role in overseeing such an effort, ecosystem actors will understand the role these agencies play in strengthening the ecosystem, an issue many actors stressed in the mapping exercise. Ideally, once such a coordinated effort is implemented, it will have a direct impact on the possibility of entrepreneurs to access the support they need.

Finally, another step that can be taken through local committees or by institutions is to identify areas to enhance specialization. Local institutions can specialize, focus on specific industries, develop niche markets and complementary services, to reduce duplication and repetition. This can lead toward a more cohesive series of interventions for entrepreneurs and a clearer vision of which institutions offer which services.

2. Create a Philippine entrepreneurship ecosystem guide

To facilitate easier access to relevant information and to ensure a single source can offer up-to-date information on the ecosystem at large, a country guide for the Philippines ecosystem is recommended. This guide can:

- Provide an overview of the stages of the entrepreneurial journey
- Offer a listing of institutions providing support at each level with a link to their website, their sector focus, and key contact information



- Provide relevant information on business registration, government offices, as well as various other types of active ecosystem actors that can support and guide entrepreneurs such as local associations and investors
- List incentives, policies, and relevant laws
- List funding sources

This guide could be managed by one of the three core government agencies guiding the ecosystem. As it is DICT that has a mandate to manage platforms providing key public information, they could be supported to lead in the creation of such a guide.

Currently the different RIICs are also hosting and maintaining their own ecosystem websites to provide relevant information regarding members of the Innovation ecosystem in the regions (e.g. www.riicdavao.ph, iliganice.msuiit.edu.ph)

Another such example is the DICT managed startup.gov.ph site, currently in the process of launching. Sites such as these can serve as the initial host for such a guide. It can be further enhanced and developed to allow ecosystem players, albeit with a moderator, to contribute to this living and evolving platform.

A good example of such a service is the ITC's, Ye! Community Country Guides. Therefore, the ITC can support or host such a site to initiate its launch and this could later be handed over to a local partner at a later stage or maintained by a local partner and hosted on the ITC's platform supporting youth entrepreneurship globally – www.yecommunity.com.

An example of the type of information that can be found under each tab is shown in Annex III. The example provided is from the legal tab.

3. Coordinate and communicate on a clear vision

Driving the ecosystem forward under a unified vision, with shared goals and objectives becomes more difficult as the ecosystem becomes more developed and complex. Currently, there is no one go-to organization that is driving the development of the ecosystem. The National Innovation Council (NIC), chaired by the President of the Philippines, composed of 16 Department Secretaries, and 7 Executive Members from the private sector, provides an important platform for the leaders within the ecosystem to agree on a clear and inspiring vision for what they want to achieve. This vision should serve as a guiding light, helping to align the efforts of various stakeholders towards a common goal.

It is important to enhance ecosystem coordination to ensure that the various roles within the ecosystem are clearly defined and well communicated. The NIC should be strengthened as a platform to ensure coordination between key ecosystem actors around a common vision, as well as monitor and evaluate progress made on a yearly basis.

More specifically, the NIC should be a platform to identify institutional leads that will take up the following responsibilities:

a. Identify key areas for program design that would enhance the existing service architecture
b. Lead the creation of a national entrepreneurship development plan in collaboration with regional consortiums
c. Establish a startup roadmap and drive action on its milestones

d. Be the face of Philippine entrepreneurship to attract foreign investors and connect them with ecosystem players
e. Identify potential areas for intervention to enhance the credibility of local entrepreneurs
f. Drive the creation and use of the Philippines entrepreneurship country guide
g. Connect and convene ecosystem players through sharing of best practices during annual meetups
h. Monitor and evaluate the health of the ecosystem
i. Feed this data back to government to facilitate the creation of policy

Particularly in the innovative startup ecosystem, the trio of DTI, DOST, and DICT are currently leading the way and driving new concerted efforts to spur innovation. However, as indicated through the FGDs with entrepreneurs, while DTI, DOST, and DICT are perceived as the go-to places for support, it is not sufficiently clear to entrepreneurs what are the specific roles and responsibilities of each agency. There is a mismatch between the vision for the ecosystem that is set at the high level, and how much it trickles down to the entrepreneurs in search of support.

This may be addressed by identifying a permanent lead for the Innovative Startup Act Steering Committee (ISA SC) to provide a clear and uniform direction for providing support to startups. This will help minimize the confusion among stakeholders and provide clarity in the long-term vision for the ecosystem.

An alternative to this is to form a dedicated office or body mandated with this role. This setup is applied similarly in other countries such as Enterprise Singapore, Israel Innovation Authority, South Korea Ministry of SME and Startups, and more.

4. Make support for youth non-negotiable

Developing and encouraging the next generation of young entrepreneurs is essential to fostering greater innovation and enhancing the development of the Philippines. This ensures that there is a constant source of young, innovative, and enterprising ventures that can make an impact on society. Unfortunately, the number of young individuals and students pursuing this path is dwindling especially with the challenges brought about by the COVID-19 pandemic. As such, developing young entrepreneurs should be prioritized.

Several suggestions were given throughout this research to help support this:

a. **Foster an entrepreneurial mindset amongst youth**: Fostering innovation and a desire to address challenges by identifying business solutions must start with the youth. While entrepreneurship programs are a part of the curriculum in both secondary and tertiary education, there is a need to further strengthen these programs and possibly integrate such programs into earlier stages of the curriculum.
Government should institutionalize entrepreneurship programs and align this with the entrepreneurship ecosystem roadmap. This can be done in collaboration and alignment with the DEPED, CHED, and the DOST, which is currently creating a standardized entrepreneurship development program for TBIs. However, this requires that school management embrace entrepreneurship development programs like those conducted by DOST supported TBIs. A school need not have a TBI to encourage entrepreneurship development in their institution. These schools can participate and even co-host/develop programs in alignment with other schools in their localities.

   DTI's Youth Entrepreneurship Program (YEP) provides one such example of a program that aims to evangelize and encourage the youth to take the leap into entrepreneurship. This offering can be further strengthened by connecting YEP trained youth to other programs under the Innovative Startup Act as well as other initiatives taking part under the RIICs, ReSEED and various incubation programs of ecosystem support organizations.

b. **Celebrate youth success stories:** The Philippines has many young success stories who are driving change. With young ventures getting more funding and investments from local families and international players, these success stories need to be shared and celebrated. While funding should not be the main focus or determinant of success, these successful startup founders can be a source of inspiration for the next generation of entrepreneurs. These founders can serve as "Role Models" for the next generation to look up to and emulate. These success stories can be made accessible on the Philippine ecosystem guide, regular info sharing mechanisms like newsletters, and through publications.

Ecosystem actors can shine a spotlight on young entrepreneurs and provide opportunities to network and learn from local successes. This will also provide an opportunity for these young entrepreneurs to increase their credibility and gain additional exposure. Regional entrepreneurship events can be organized to highlight such youth role models and provide opportunities for networking. As the Philippines Startup Week is an annual, national event focused on entrepreneurship, this event can serve as a venue for highlighting youth success stories and promoting their innovations.

c. **Develop technical and market-driven skills in youth**: Young innovators must have the skills required to compete in the 21st century economy. A challenge raised by a variety of institutions mapped stresses the need to ensure youth have the skills in-demand by the market, specifically those in technical areas or STEM. One institution highlighted that, "the Philippines does not lack youth, it lacks skilled youth". To address this challenge, ecosystem actors can connect with small businesses, corporates, startups, and chambers of commerce, to better understand existing skills gaps and technical skills in-demand by the market. Institutions can then adapt their programs accordingly.

This can be further aligned with the Philippines Skills Framework of the DTI, which aims to address and establish a framework for skills youth need to compete in a modern economy. This initiative maps specific industries and the skills and competencies needed by employers from employees. It also helps job seekers or youth plan out their career paths, based on the needs of certain industries. For educational institutions, the framework helps to adjust and develop their curricula based on the actual needs and trends of industry. Currently, the Philippines Skills Framework looks at the areas of Game Development, Digital Animation, IT-BPM, and Logistics sectors.

By enhancing connections between ecosystem actors and the private sector, entrepreneurship support organizations can better understand what skills gaps exist, identify market trends and the skills required to take advantage of them, and adapt their programs accordingly. Additionally, young entrepreneurs looking to scale up operations must be able to identify the skills needed to grow their companies and tap into youth talent. Strengthening linkages between entrepreneurship support organizations and the business community will benefit youth entrepreneurs and youth generally and will enhance the economic development of the country by ensuring local businesses can tap into local talent.

5. Create a skills manual for incubators and accelerators supporting youth entrepreneurship

Critical in the development of youth entrepreneurs is the understanding of the different facets of starting and operating a business. Understanding the processes related to business registration, IP Protection, fundraising, understanding investors, corporate structuring, business operations, and internationalization, are important elements that should be incorporated and standardized in either incubation or acceleration programs. However, as indicated in this report, coverage of these topics is often left out or not standardized and only incorporated on a need's basis.

A skills manual for serving young entrepreneurs can cover which topics and modules should fall within a standardized incubation program and which can be covered by accelerators. Baseline skills and competencies covered in the manual should be aligned to the Philippine Skills Framework under the PTTC. The manual should address how to cover certain topics and at which stage of the program, to ensure that youth are receiving a standardized set of skills critical to market success and necessary when establishing a business. The manual can help to address knowledge gaps identified by young entrepreneurs through the focus group discussions and can provide critical information to incubators and accelerators on what topics to cover to ensure the entrepreneurs in their programs are receiving information on all skills required to succeed.

6. Diversify funding sources

Entrepreneurship ecosystem actors, particularly public institutions, must strengthen the sustainability of their programs by aligning and diversifying their funding sources and adapting existing public funding schemes. These institutions are critical to the development of local and regional ecosystems that contribute to the Philippine entrepreneurship ecosystem. The limited support these organizations receive does not follow the lifecycle of developing start-ups and entrepreneurs. These organizations need more time and resources to develop young entrepreneurs and to provide comprehensive year-to-year support. At present, many of these TBIs are too focused on applying for the next funding cycle with a small team, that they do not dedicate the proper time and attention to developing their programs and identifying network partners who can support them.

Extending the period for financial support for TBIs helps prepare them for future success, especially as host universities are feeling the financial crunch of the pandemic. It also ensures the sustainability of the TBI and provides consistent support to budding young talent. At this point, as shared in the mapping, a good number of TBIs are at the crossroads.

Similarly, private incubators and accelerators are also feeling the crunch and could benefit from greater public support. While this is part of the Innovative Startup Act, the execution of this Act needs to be fast tracked as these organizations continue to face the challenges brought about by the pandemic. Details of the coverage of this funding is not clear and the government should put additional attention in terms of providing adequate financial resources to fund the development and overall growth of startups. However, this can include co-incubation and technology transfer to help fast track the development of provincial ecosystem supporters.

Both public and private ecosystem actors should identify key international actors or regional actors that provide funding to entrepreneurship support organizations and ensure a fundraising lead. This includes identifying and approaching conglomerates and corporations. Ecosystem actors should not be afraid to apply for grants or opportunities with international companies to expand their funding sources. It is essential to the success of the ecosystem that the source of funds for an entrepreneurship support organization is not solely provided by one entity to ensure greater resilience to market shocks.

Finally, institutions can offer paid support and activities such as advisory, co-working, and events. Institutions can collaborate to offer high-level paid events with sponsorship packages offered to local firms to stimulate other revenue streams. If available, institutions could also consider offering paid co-working and advisory services for those entrepreneurs who are renting space. Institutions renting out their space for events or providing paid services can, where possible, generate supplementary revenue for the institution. This may not be possible in all instances, however, a review of potential areas to generate revenue and diversify funding sources by institutions can help to identify where changes can be made.

7. Build accelerators outside Metro Manila

To increase the success rate of entrepreneurs, the current service offering of the ecosystem needs to be expanded with more emphasis put on accelerating existing youth-led start-ups with more technical and needs-targeted training, especially regarding general business and management skills, as well as investment readiness. It is clear from the focus group discussions and network analysis that almost all acceleration programs are found in Manila. Enhancing the ecosystem by ensuring acceleration programs target provinces and are accessible outside Manila will enhance the scale up of start-ups outside the capital.

However, developing such programs requires different skills sets from the program management team. There are many possibilities to increase the technical expertise of teams. Partnering with experts from other institutions, reaching out to local firms, engaging partners in Manila, could ensure that the right experts are engaged to support such programs. Additionally, institutions can engage independent consultants who can deliver quality training to the entrepreneurs.

While building accelerator programs takes more time and understanding of the unique needs of each entrepreneur and his/her team, building such programs outside Manila will reduce brain drain and flight to the capital, enhance the quality of local programs and the teams managing them, and provide opportunities for job creation locally. Thus, the knock-on effects of investing in creating more tailored services to entrepreneurs at the startup to growth stages are plenty. When an institution invests in diversifying its services to provide acceleration programs, it can also carve out a unique niche for itself and drive more entrepreneurs to its programs, thus also enhancing its sustainability.

Providing acceleration programs outside Manila does not have to be the task of just one institution acting alone. Such acceleration programs could also be co-designed and co-created, possibly even co-implemented to facilitate cost sharing with other ecosystem actors. This could happen regionally or between the provincial actors and those based in Manila to foster greater knowledge transfer and exchange. Tapping into and maximizing regional programs such as RIICs and ReSEED can help fast track the process. Ensuring more entrepreneurs can take their idea to a startup with market traction can also lead to greater credibility for the institution running the program and attract potential investment activity. Finally, this can also lead to creating more local success stories, which can then inspire younger innovators to take up entrepreneurship from the provinces.

8. Provide funding for early-stage businesses

Funding is always a concern for entrepreneurs, no matter what age or stage. However, the biggest challenge for funding comes at the earlier stages when a company is starting up and still trying to figure out and develop a sustainable business model. These organizations generally begin with personal savings combined with funds from family and friends. Young entrepreneurs rely on the limited funds and many 'bootstrap' or invest their savings into the company to facilitate their growth.

While there is a growing interest for VCs and family funds to begin investing in Philippine companies, there is still a gap in funding options for early-stage start-ups. Supporting start-ups at this stage is critical to helping them reach scale. There is a clear need to provide access to finance at this stage. Here are a few recommendations:

a. **Provide a list of funding sources in the country guide:** Entrepreneurs and start-ups in general do not know where to go or who to reach out to for information on funding. Providing a list of funding sources could alleviate this info gap. Funding sources can also include grant giving opportunities and international programs where fundi
b. **Develop the investor ecosystem:** Connecting local angel investors networks is important to providing access to early-stage capital. Programs to help organize and educate local investors can be developed with the help of international organizations such as the World Business Angel Investment Forum (WBAF). The Manila Angel Investors Network (MAIN) must also be encouraged to connect with accelerators and the government to invest in start-ups. Angel Investor Networks should also play a role in training young entrepreneurs about the investment process, including due diligence, term sheets, exits, and financing options to ensure that when the time is right, they are equipped with the information needed to close the deal. Angel Investors can collaborate under a national umbrella organization such as Philippine Angel Investor Network (PAIN), to ensure a cohesive national approach to angel investing. MAIN could play a role in establishing such a network as it is already established for Manila.

c. **Incentivize investing in early-stage companies:** Coming up with incentives that remove or lessen the risk for VCs or angel investors can help jumpstart the investing behavior needed to further grow the ecosystem. Tax holidays and incentives offered like those given by Philippine Economic Zone Authority (PEZA) can be offered to future investors. DTI and the DTI Board of Investments (BOI) in collaboration with the Department of Finance (DOF), National Economic Development Authority (NEDA) and the Bureau of Internal Revenue (BIR) could lead such an initiative.

d. **Make grants available:** Developing an idea- to early-stage funding program where grants are offered to high potential young entrepreneurs could also make capital more available at the earlier stages of the business lifecycle. Providing grants to qualified entrepreneurs, through a starter fund, could cover daily living allowances or equivalent for minimum wages for 6 months. This is augmented by a small amount to cover other expenses related to product development or prototyping and validation.

   Such a program could easily align with DICT's mandate and can be an extension of the existing DICT Startup Grant Fund that gives grants amounting to between PHP 500,000 - PHP 1,000,000 or USD 10,000 to USD 20,000 for young entrepreneurs with Minimum Viable Products and Prototypes.

A starter fund grant could cover amounts ranging from PHP 250,000 – 350,000 or USD 5,000 – 7,000 for the 6-month period. Guidance and mentorship could be provided throughout the duration of the program to ensure compliance and accomplishment of certain milestones. If at any point the grantee fails to comply with the rules or expectations, the grant can be suspended. Just the same, this approach gives young entrepreneurs the chance to test and pursue their innovations. This can also help appease families who rely on these young graduates for their daily living needs.

e. **Fast-track the investment readiness of youth entrepreneurs:** Ecosystem actors need to expand existing programming to ensure more focus on financial management and investment readiness as this area is often lacking in youth entrepreneurs and startups. Local entrepreneurship support organizations must bring this focus into their programs with the aim to create Minimum Viable Companies (MVCs) and not just minimum viable products (MVPs). This includes putting a greater focus on corporate governance and establishing business structures to align companies with international best practices and standards so they can scale faster and attract capital.

9. Embrace a global mindset: Align programs with international standards and best practices and provide linkages to international opportunities

Although it is important for young entrepreneurs to capture local markets first, youth today engage with global tools, trends, and services when doing business. Young entrepreneurs must bring their business solution to life in an increasingly globalized economy. Therefore, it is essential that programs supporting youth entrepreneurs contextualize the business fundamentals through an international economic lens. This means aligning programs with international standards and best practices and thinking about the challenges and advantages of cross-border business and trade. Ensuring that youth have a global mindset from day one will allow them to scale up faster and be more competitive in national and international markets. Local organizations can partner with government and other trade promotion entities or associations supporting larger companies, which have more experience in cross-border business, in order to co-create and co-fund such an initiative targeting youth.

Additionally, Philippine accelerators should identify international partners to collaborate with. Local entrepreneurship support organizations can partner with international companies and organizations to incorporate internationalization components into their service offering or create linked programs that build upon one another and where youth looking to scale internationally have a clear path to follow for national support into international support. By working with international programs or accelerators in other countries, local institutions can partner with on joint programming or follow-up support, to link Filipino firms to other ecosystems and provide direct access to international investors, markets, and opportunities for exposure. Strong examples of accelerator programs that focus on internationalization that can serve as examples to local accelerators are:

a. Westerwelle Young Founders Program**:** The Young Founders Programme is a 6-month fellowship for young entrepreneurs from emerging markets. The Programme is virtual and creates cross-border networks between entrepreneurs and with mentors and EU based founders. The programme closes with a 5-day conference in Berlin for select founders from the cohort and links them to Berlin based investors, ecosystem actors, and opportunities.

b. Enpact Asia Berlin Launchpad Program: Berlin Landing Pad program is an 8-week intensive program designed to equip startup founders with the right tools and skills to establish as founders in Berlin. The program brings founders from Asia to Berlin to participate in the program. The launchpad program is a mix of individual coaching, group training, personal mentorships sessions, and networking sessions catering to founders with a solid track record of managing businesses with a proven local customer base. During the program, the focus is on three core pillars in order to get the founders ready to land in Berlin, 1. Product Market Fit; 2. Investor Readiness and Networking; 3. Core Business Skills and Cultural integration.

c. International Trade Centre (ITC) Arise Plus YE! Boost Accelerator: **The Arise Plus YE! Boost** Accelerator is a 3-month program for young entrepreneurs in the Philippines with a proven track record who are looking to scale internationally. The program is operated in collaboration with QBO-Ideaspace and connects young entrepreneurs to local and international experts with knowledge on internationalization, the EU market, investment readiness and IP protection. The program also connects founders to a variety of mentors and closes in a demo day with investors and a financial prize for the winner of the Ye! Boost pitch contest.

d. DTI Global Acceleration Program (GAP): Although this public-private partnership program does not specifically target youth, it serves as a prime example of a program that is focused on DTI's core offering – trade. DTI in partnership with QBO Innovation Hub have launched a market expansion program aimed at Filipino startups looking to pursue business opportunities in Southeast Asia. The DTI GAP is an acceleration and soft-landing program that helps mature Filipino startups enter Southeast Asian markets and support various needs such as business development, fundraising, and other strategic opportunities. The program is composed of two phases: a 12-session acceleration phase which would help startups develop a feasible market expansion plan and strategy through a series of learning sessions; and a three-month post-acceleration phase which will focus on its execution. This program will be implemented in partnership with international accelerators and trade missions in ASEAN.

Local accelerators can build partnerships with international competitions or accelerator programs to provide avenues for the young entrepreneurs they support to access international opportunities to increase their exposure and access to networks. Furthermore, such exposure can bring added credibility to these young entrepreneurs and drive interest in the ecosystem.

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ANNEX I: INSTITUTIONS MAPPED

Incubators, Accelerators and other Capacity Development Institutions

Government/Trade Associations

Department of Trade and Industry (DTI) (www.dti.gov.ph)
The Department of Trade and Industry (DTI) is the executive department of the Philippine government responsible for realizing the country's goal of globally competitive and innovative industry and services sector that contribute to inclusive growth and employment generation. In line with the Philippine Development Plan (PDP) 2017-2022, DTI endeavors to reduce inequality and poverty by expanding economic opportunities in industry and services, and by increasing the access particularly of micro, small and medium enterprises (MSMEs), cooperatives and overseas Filipinos (OFs) to these opportunities. As far as support to MSMEs is concerned, the DTI is tasked to streamline the registration process and related levy fees that comes with forming a startup business. It is also tasked to establish a one-stop shop, end-to-end registration called the Startup Business One-Stop Shop or Startup BOSS in accordance with Republic Act 11032 otherwise known as the Ease of Doing Business and Efficient Government Service Delivery Act of 2018, and other similar laws.

Department of Science and Technology (DOST) (www.dost.gov.ph)
The Department of Science and Technology (DOST), through Executive Order No. 128 mandates the Department to "provide central direction, leadership and coordination of scientific and technological efforts and ensure that the results therefrom are geared and utilized in areas of maximum economic and social benefits for the people." DOST is among the government agencies that helps start-ups realize their full commercial potential through various initiatives like the Science for Change Program with its four sub-programs such as the Collaborative Research and Development to Leverage Philippine Economy or CRADLE, Niche Centers in the Regions for Research and Development, R&D Leadership, and Business Innovation through Science and Technology; Technology Business Incubation Program; Technology Innovation for Commercialization Program (TECHNICOM); the Startup Nation Program; and the Young Innovators Program; among others.

Department of Information and Communications Technology (DICT) (https://dict.gov.ph)
The Department of Information and Communications Technology (DICT) shall be the primary policy, planning, coordinating, implementing, and administrative entity of the Executive Branch of the government that will plan, develop, and promote the national ICT development agenda pursuant to Republic Act 10844 otherwise known as the "Department of Information and Communications Technology Act of 2015." The DICT shall focus on its Digital Startup Development and Acceleration Program in supporting ICT-related budding technology entrepreneurs with ground-breaking innovations and transform these into successful businesses

Philippine Trade Training Center (PTTC) (https://pttc.gov.ph)
The Philippine Trade Training Center, one of the agencies under the Department of Trade and Industry, provides comprehensive training and capacity building programs for the development, growth, and innovation of MSMEs including exporters. It also caters to aspiring entrepreneurs and tech Startups.

PTT''s training activities are along the areas of business and management such as marketing, production and operations, HR and organizational development, and financial management. Its priority sectors include the food processing, creative/IT-BPM, and Tourism.

Philippine Chamber of Commerce and Industry (PCCI) (www.philippinechamber.com)
The Philippine Chamber of Commerce and Industry (PCCI) is the result of the merger between Chamber of Commerce of the Philippines and the Philippine Chamber of Industry back in July 1, 1978. PCCI is a non-stock, non-profit, non-government business organization comprised of small, medium, and large enterprises, local chambers and industry associations that represent various sectors of business with the primary goal of fostering a healthier economy and improving the viability of business in the community.

Philippine Young Entrepreneurs Association (PYEA) (www.facebook.com/pyea.ph/)
The Philippine Young Entrepreneurs Association (PYEA) is a national association for young entrepreneurs initially established through the initiative of the Philippine Chamber of Commerce and Industry (PCCI) Youth Affairs Committee. Its mission is to engage and connect young entrepreneurs across the Philippines to prepare them to deepen and sustain the integration process of the ASEAN Economic Community through active participation in ASEAN regional activities. Since its establishment, PYEA members actively participated in the following ACYEF events: 2011 in Jakarta and Vietnam, 2013 in Brunei Darussalam, 2014 in Myanmar, 2015 in the Lao People's Democratic Republic.

DOST Technology Business Incubators (TBI)

QBO Innovation Hub (www.qbo.com.ph)
QBO, formed in 2016, is a modern space for Filipino start-ups and other players in the startup ecosystem to come together and unite under the same vision of Filipino start-ups changing the world. Just like the "bahay kubo," QBO took inspiration from the Filipino digital transformation, where alongside the advent of cellphones and the internet also came the tendency to shorten or abbreviate words. It has been QBO's mission to help start-ups succeed while developing the ecosystem and forwarding tech and innovation by unleashing the potential of an entrepreneurship-driven economy which is as a path to nation building, sustainable development, and inclusive growth
.

Adamson University NEST (AdUNEST) (www.facebook.com/adunestinc)
The Adamson University Technology Business Incubator for Neo-Environmental Science and Technology (AdUNEST) incorporates modern and free-working space made available to students and researchers to help turn their innovative minds and ideas into tangible outputs. It provides a comprehensive program to help in commercialization and enable start-ups and spinoffs to overcome problems usually encountered by the latter. AdUNEST hopes to advocate for the promotion and development of innovation and start-up companies and communities within the University and eventually, later, the National Capital Region (NCR). Its establishment essentially recaps Technology Business Incubators' (TBI) value especially in nations with developing economies, and less-developed countries, encouraging researchers and inventors to pursue innovation with entrepreneurship. It hopes to try to curb the sustainability of incubated businesses by focusing on its purpose and outcomes, funding, and sufficiency of the qualified manpower beyond DOST's assistance duration.

Bulacan State University Business Assistance for Research Acceleration and Sustainability Technology Business Incubator (DOST-BulSU BARAS TBI) (www.facebook.com/barastbi/)
Department of Science and Technology – Bulacan State University Business Assistance for Research Acceleration and Sustainability Technology Business Incubator (DOST-BulSU BARAS TBI) is an enabling facility that aims to galvanize awareness and interest towards technopreneurship which is significant in encouraging collaboration and mutual growth among stakeholders (Academe, Government, and Industry) in the community. It aims to establish a community of innovative minds with the desire to create disruptive solutions that will foster collaboration among the academe, government, and industries, offering an enabling environment for start-ups to accelerate their ideas to commercialization producing wealth and employment in the country.

Iloilo Science and Technology – KWADRA (www.facebook.com/KwadraTBI/)
The Iloilo Science and Technology University launched the Kwadra TBI, a technology business incubator (TBI) aimed at commercializing university research into start-ups and nurturing deep technology start-ups. Deep technology refers to classification of technologies such as artificial intelligence, robotics, blockchain, advanced material science, photonics and electronics, biotech and quantum computing and other scientific and technology solutions generated through substantial scientific or engineering research and development. The TBI was established through the Department of Science and Technology – Philippine Council for Industry, Energy and Emerging Technology Research & Development (DOST-PCIEERD)'s Higher Education Institution Readiness for Innovation and Technopreneurship (HEIRIT).

Mapua University – Mapua Think and Tinker Laboratory (https://m.facebook.com/ThinkandTinkerLab/)
Launched in January 2022, the Mapúa University's DOST-Mapúa Think and Tinker Laboratory, a Technology Business Incubator (TBI), is designed to provide support to spin-off projects, start-up businesses, and entrepreneurs — incubatees — in the form of training courses, and access to its laboratories and experts. In tandem with Digital Pilipinas, Mapúa and Digital Pilipinas will carry out activities in the TBI, from faculty and student immersions to collaborative research and development projects, including the co-creation of micro-certification courses with Mapúa School of Graduate Studies, and the co-creation and co-incubation of innovation and technology projects, among others. Part of the university's commitment is to share its equipment and facilities in the Yuchengco Innovation Center and its other laboratories. Its schools and departments will be involved in identifying or supporting technologies for licensing or commercialization via the spin-off or start-up route, while its researchers and faculty members will serve as mentors, advisers, or consultants to incubatees and the TBI itself. The Mapúa University will also mobilize its graduate and undergraduate students to support the incubation activities.

Miriam College – UNBOX (https://www.mc.edu.ph/innovation-center)
UNBOX is the Miriam College – Henry Sy, Sr. Innovation Center (MC-HSSIC) ideation and prototyping workshop, which integrates the essentials of several innovation models. No matter what your background, join in to jumpstart your passion to innovate. Miriam College - Technology Business Incubator (MC-TBI) applies the teaching pedagogy called "UNBOX" with more exclusive entrepreneurial mindset training to "The Nursery," MC-TBI's very own two-year incubation program. The MC-TBI is a government-academe partnership under the Department of Science and Technology – Philippine Council for Industry, Energy and Emerging Technology Research & Development (DOST-PCIEERD)'s Higher Education Institution Readiness for Innovation and Technopreneurship (HEIRIT). The program aims to support the government's call for #Roadto1000 start-ups by year 2023. MC-TBI supports inclusive economic growth through developing women as co-founders in addressing the country's growing entrepreneurial and innovative ecosystem. Through the various programs of MC-TBI, aspiring entrepreneurs and start-ups are provided with an enabling ecosystem of support in technology, business, and innovation management.

St. Louis University – Baguio (SIRIB Center) (www.facebook.com/siribcenter/)
The SLU Incubator for Research, Innovation, and Business Center (SIRIB) Center started in 2017 through a grant from the Commission on Higher Education (CHED) to set up a technology hub and co-working space to introduce and implement Technopreneurship 101, a new engineering course. With the establishment of the SIRIB Center, the SLU TechHub was born. The TechHub, or technology hub cannot function without ties to local businesses and soon the SIRIB Center was expanded by a Fabrication Laboratory, or FabLab, where local businesses could cooperate with students and academe on their prototyping and engineering projects. This amazing laboratory with state-of-the-art equipment was only made possible through a grant from the Department of Trade and Industry. The third building block is the Technology Business Incubator (TBI), where promising ideas, innovations and prototypes will be guided and supported when searching for funding, incorporating as a business or filing for patents. This indispensable arm of the SIRIB Center is supported by the Department of Science and Technology (DOST).

Technological University of the Philippines – Visayas (DOST-TUPV HIVE)
(https://m.facebook.com/DOSTTUPVHIVE)
The DOST-TUPV HIVE or Hub for Innovation and Value Engineering was launched last December 5, 2019, at the Antonio Chan Memorial Technical Training Center in Brgy. Bata, Bacolod City. HIVE is TUPV's TBI facility. It is fully equipped with locator startup offices, a conference/ training area, common equipment room and co-working spaces. In addition, all available facilities and services at the TUPV Campus will also be accessible to the start-ups in the program. This will include laboratories and shops for product research and prototyping, legal counselling and Intellectual Property management, mentoring from TUPV faculty and alumni, networking events, investor pitching, business development and marketing. The services of HIVE are open to all technopreneurs in the province.

University of Sto. Tomas – TOMASInno Center (https://tomasinnocenter.ust.edu.ph/)
TOMAS*Inno* Center is the official technology business incubator (TBI) of the University of Santo Tomas, under the Department of Science and Technology – Philippine Council for Industry, Energy and Emerging Technology Research & Development (DOST-PCIEERD)'s Higher Education Institution Readiness for Innovation and Technopreneurship (HEIRIT). The center provides activities that will spark Thomasian students' innovative entrepreneurial minds, regardless of their chosen academic program, and provides custom-tailored incubation and mentoring programs. It commits itself to the pursuit of truth and formation of technically competent innovators and technopreneurs imbued with Christian values needed for the service of the Church, the country, and the world.

University of the Cordilleras (UCIANS) (www.uc-bcf.edu.ph/research/tbi)
The University of the Cordilleras Innovation and Nurturing Space (UCIANS) was launched on May 3, 2019, at the University of the Cordilleras Legarda Campus where the UCIANS TBI is also located. The UCIANS is a Technology Business Incubator funded by the DOST PCIEERD HEIRIT Program to provide business and technology transfer opportunities among the academe and the community to aid in the development of the startup ecosystem of the Philippines. With its banner program focusing on the field of Criminal Justice including Public Safety and Security as well as Forensic Science, one the UCIANS TBI's main verticals is to bridge the technological gap to advance the field of Criminal Justice through innovative ideas and solutions.

University of the Philippines Mindanao (UPGRADE InnoLab)
(https://www.facebook.com/upgradeinnolabinc/)
The University of the Philippines Mindanao Growing and Developing Enterprises (UPGRADE) InnoLab is funded through a grant received by UP Mindanao under the Higher Education Institution Readiness for Innovation and Technopreneruship (HEIRIT) Program of DOST. Since its establishment, it has helped local talents, entrepreneurs and innovators build, launch, and accelerate impact-driven and profitable start-ups by providing free mentoring, business development training, and industry linkage to incubated start-ups. These programs aid early-stage startup teams from ideation, prototyping, testing, market validation, up to the business registration stages of their fledgling enterprise. Through a collaborative and systematic incubation program and support to startup founders, the university takes part in transforming their business-driven dreams into reality.

University of the Philippines Diliman (UPSCALE Innovation Hub)
(https://www.facebook.com/upscaleinnovationhub/)
In partnership with the Department of Science and Technology Philippine Council for Industry, Energy and Emerging Technology Research and Development (DOST-PCIEERD), the University of the Philippines launched the **DOST-UP Sustaining Collaboration in an Advanced Learning Environment (UPSCALE) Innovation Hub** at the Ground Floor of the National Engineering Center, UP Diliman Campus, Quezon City on January 2018. To accelerate the launch of innovative technologies through industry collaborations and start-ups, UPSCALE houses three programs wherein customer discovery principles are applied to progress the technology cases and startup ventures.

Batangas State University - BatStateU Center for Technopreneurship and Innovation
(https://www.facebook.com/batstateucti/)
Established on August 2014 as a university - based Technology Business Incubator of Batangas State University through BOR Resolution No. 937, Series 2014, the BatStateU Center for Technopreneurship and Innovation hopes to spearhead technopreneurship and innovation in Region IV-A. It has for its goal of bringing R&D results of the university to real world and building a sustainable entrepreneurial ecosystem among faculty members, staff, and students that will add fresh impetus to the innovation ecosystem by delivering a support system to local entrepreneurs who bear great ideas that exhibit potential as a solid investment and foundation for nation-building. The center cultivates culture of innovation amongst students, professionals and aspiring technopreneurs by encouraging and assisting them to turn R&D output into scalable business that will contribute to socio-economic development of the region and country as a whole.

De La Salle University (DLSU) Animo Labs (www.dlsuanimolabs.com/)
Animo Labs is a technology business incubator formed from the partnership between De La Salle University (DLSU) and the Department of Science and Technology - Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD). Animo Labs aims to provide an easily accessible and democratized platform for prototyping and innovation. DLSU Animo Labs is be composed of two prototyping facilities. The first is located at the Manila Campus while the second is located at the Laguna Campus. The facility at the Manila Campus houses equipment for first level prototyping i.e., 90% of prototyping needs (e.g., 3D-printing, circuit fabrication, and woodworking). The Laguna Campus houses equipment for second level prototyping i.e., the remaining 10% of prototyping needs which include but are not limited to metalworking equipment, in addition to first level prototyping equipment.

University of the Philippines Los Banos (SIBOL Labs) (www.facebook.com/uplbsibolinnovationhub)
UPLB's SIBOL Labs, which began in 2019, is the TBI arm of the UPLB Technology Transfer and Business Development Office, aimed at nurturing the UPLB start-up ecosystem. It focuses on agri-technology, food engineering, biotechnology and information and communications technology. Last April 2021, the "Best Incubator Community Program" of DOST-QBO Awards recognized SIBOL's "valuable impact through fostering innovation, advancing startup awareness, and cultivating collaboration among key stakeholders to develop the local and national innovation ecosystem."

University of the Philippines Cebu (UP Cebu inIT) (https://www.facebook.com/UPCebuinIT/
The University of the Philippines Cebu Business Incubator for IT, or UP Cebu inIT, was part of the 2nd generation of TBIs started back in 2009. The UP Cebu inIT was officially established in 2010 and started what can be described as an aggressive marketing campaign to encourage possible locators from Cebu City and even through region 7. UP Cebu inIT was focused mainly on helping start-ups in the field on information and communication technologies. Since then, UP Cebu InIT has nurtured at least 60 technology start-ups, half of which have already graduated. In TBI language, being a graduate means having the capacity to locate elsewhere on commercial rates and to pay their employees. UP Cebu inIT has managed to be self-sustaining and covers its operating expenses using its revenue. In fact, since it was set-up and going all the way to the present, UP Cebu inIT has never had to rely on UP Cebu for its budget. Aside being a self-sustaining TBI, UP Cebu inIT was the only one in the 2nd generation to develop an operations manual, one that it continues to improve even today. UP Cebu inIT helps its technology start-ups get access to student talents not only from UP Cebu but even other education institutions going as far as Cotabato, Sultan Kudarat, and even Surigao.

Caraga State University – NAVIGATU (www.facebook.com/navigatu/)
Navigatu is a Technology Business Incubator (TBI) of Caraga State University funded by DOST-PCIEERD through Innovation and Technopreneurship Hub (ITECH) Project that aims to promote and establish technology-based start-ups by young entrepreneurs in the university and in the Caraga Region. The brand Navigatú was coined from the word navigation and is inspired by the rich history of Butuan's Balangay Boats as the oldest wooden watercraft excavated in the region that showed evidence of the country's trading relationships all throughout Southeast Asia in as early as 700 AD. Butuan's early establishment of trading in the harbor became an inspiration of the TBI branding — Navigatú with its promise to embark aspiring entrepreneurs to a voyage of innovations that will come to its success in no time.

Incubators/Accelerators

StartUp Village (www.startupvillage.ph)
StartUp Village or SUV is a one-stop startup incubator and accelerator that enables start-ups to bring their unique ideas to reality. Its end-in-mind is to prepare and provide a platform for Filipino start-ups to carve its niche and to compete in the global stage. SUV helps start-ups introduce disruptive technology that displaces an established technology and shakes up the industry. It also helps start-ups launch a groundbreaking product that could create a completely new industry. StartUp Village provides start-ups with all the support it needs to grow and succeed. StartUp Village executes different programs including training and mentoring as they traverse the entrepreneurial path.

Launch Garage (www.launchgarage.com/)
Launchgarage is a tech innovation hub that provides a venue for open collaboration, knowledge sharing, events, acceleration. Started in 2012 as a startup acceleration program by local early- stage investment player Kickstart, and local applications engineering firm Proudcloud, Launchgarage produced a total of 8 graduates from its program, most of whom have gone on to raise succeeding rounds of investments and are in their various phases of growth. After a failed call for a third batch of candidates, the need to significantly improve the innovation DNA from which local start-ups were being born had become apparent. With this in mind, Launchgarage has evolved from the Kickstart + Proudcloud partnership into a space centric initiative that promotes an open co-working environment, critical making, and the spirit of collaboration as it strives to produce truly innovative ventures with meaningful impact.

Brainsparks (www.brainsparks.ph)
Brainsparks is an Innovation and Startup Hub, established by First Asia Institute of Technology and the Humanities, run in close partnership with First Asia Venture Capital Inc. Its headquarters located in Tanauan, Batangas aims to be a hub that brings together talent, founders, start-ups, technology, innovation centers, companies, investors and government, to turn ideas and skills into value, find solutions to problems, and create jobs and progress for the community. Brainsparks is for start-ups of all shapes and sizes: from idea-stage start-ups to those that are already looking to take off. It teams up with other startup ecosystem players to help companies build solutions that work and are scalable.

New Energy Nexus (www.newenergynexus.com/programs/philippines/)
Started in Silicon Valley and now operates an ecosystem of programs and partners across 10 countries identified as most strategic for clean energy development, New Energy Nexus is the world's leading ecosystem of funds and accelerators supporting diverse clean energy entrepreneurs, from emerging tech through to clean energy deployment and adoption. Since 2019, New Energy Nexus Philippines has been working to strengthen and raise awareness about our clean energy innovation ecosystem. It aims to create opportunities for energy businesses, startup founders, enthusiasts and other stakeholders to take an active role in Philippines's energy transition through entrepreneurship and innovation.

Leave a Nest (https://global.lne.st/offices/ph/)
Leave a Nest is founded by 15 graduate students in the field of science and engineering in Japan in 2002. It works with various researchers and companies that are driven by the same passion to achieve the vision of "Advancing Science and Technology for Global Happiness." Its headquarters is located in Japan and has been expanded globally with subsidiaries in Singapore, Malaysia, UK and America. When Leave a Nest Philippines, Inc. was established, it became its third subsidiary in Southeast Asia, following Leave a Nest Singapore, established in 2010, and Leave a Nest Malaysia, established in 2013. Leave a Nest launched TECH PLANTER in the Philippines in 2017 and has been supporting local start-ups and entrepreneurs in collaboration with local government agencies and Japanese companies. In 2019, it launched the Hyper Interdisciplinary Conference in the Philippines and has been supporting young researchers in the Philippines. Over the past five years, Leave a Nest has built up a track record of education, human resource development, research support, and business start-up support activities in the Philippines.

Villgro (https://villgrophilippines.org/)
Villgro is an early-stage social enterprise incubator and investor. Villgro funds and mentors innovative social enterprises that are building solutions to improve the lives of the poor. Through its intensive hands-on model, Villgro works closely with entrepreneurs at the early stages, helping them navigate the challenges of getting to market faster and cheaper. Villgro in the Philippines aims to create successful, innovative, impactful enterprises in the country. Our hands-on incubation model will provide funding, mentoring, knowledge and networks to early- stage entrepreneurs, who are building innovative solutions to impact the lives of the poor. Its unique incubation model will help entrepreneurs strengthen their problem solution fit, validate business models and build and implement a strong go-to-market strategy that will be sustainable and impactful.

Utopia Manila Urban Pre-Accelerator (https://utopia.so/mnaccelerator)
Utopia Manila Urban is an urban pre-accelerator that treats emerging urban entrepreneurs in emerging cities as partners. Aside from Manila, it is also located in Lagos, Kathmandu, and Rio de Janeiro. Over a period of four months, Utopia will handhold these emerging urban entrepreneurs based on the latter's top three aims including establishment of connection to global network as well as introduction to potential investors. These emerging urban entrepreneurs must have at least a prototype to start with. From there, Utopia will help the startup get better fundraising potion and help build ethical companies that can shape the cities mentioned. It also aligns its initiatives towards the building of network of CITYLABS in emerging cities with growing communities focused on building urban innovation ecosystem across Asia, Africa, and Latin America.

PhilDev Foundation (www.phildev.org)
PhilDev was founded by Diosdado "Dado" Banatao in 2011 as a registered nonstock, nonprofit organization that accelerates science and technology for national development through initiatives, programs and partnerships. This is Banatao's way of giving back to the Philippines after his successful stint in Silicon Valley together with like-minded Filipinos who were committed to make a difference. Through their combined efforts and influence, they have been able to initiate programs in education, start-ups and mentorship through PhilDev Foundation. PhilDev brings together government organizations, the academe and private industry in harnessing science and technology for sustainable and inclusive economic growth in the Philippines.

Investors/Venture Capitalists

917Ventures (https://917ventures.com/)
917Ventures is Globe's corporate venture builder that ideates, launches, accelerates, and scales new business ideas that have the potential to grow. It acts like a startup factory and have teams, frameworks, infrastructures, and strategies already in place, proven, tested, and backed by Globe, Ayala, and other partner networks, to accelerate the growth of ventures. It creates solutions that can deliver indelible value to the Philippines and the APAC region, leveraging on the rich asset base of Globe, the largest telecommunications company in the Philippines. Although 917Ventures is wholly owned by Globe, it possesses a separate, independent legal entity with its own ways of working where it aims to put a genuine start-up mindset along with best business-building practices in place.

ADB Ventures (https://ventures.adb.org/)
ADB Ventures is a new venture platform that will support and invest in start-ups offering impact technology solutions that contribute to achievement of the Sustainable Development Goals in Asia and the Pacific. ADB Ventures Investment Fund 1, the facility's anchor trust fund, has a target size of $50 million which will be invested in companies with solutions that can address climate change and empower women. The fund has a 17-year fund life, allowing ADB to invest patient capital into cleantech, fintech, agricultural technology, and health technology solutions. Unlike traditional venture capital funds, ADB Ventures investment fund 1 is augmented by a three-year, $12 million technical assistance program that will support impact technology start-ups through two main activities. ADB Ventures SEED is a grant program to validate and de-risk technology pilots and promote expansion into emerging markets that startup companies might otherwise not prioritize. ADB Venture Lab is a suite of corporate innovation programs implemented in partnership with industry and leading accelerators for start-ups. ADB Ventures will leverage ADB's operational networks and industry expertise to generate technology pilot opportunities and support ADB Ventures Investment Fund 1 portfolio companies. It provides seed, early and early-growth stage capital to start-ups with solutions for emerging Asia.

Gentree Fund (www.gentree.asia/)
Gentree Fund is a private investment vehicle of the Sy family, the family behind the SM Group, a leading retail, banking, and property development group in the Philippines. Gentree represents the third-generation members of the Sy family and their commitment towards supporting the Philippines's growing digital ecosystem. Gentree provides companies across early and growth stages with the unique opportunity to

connect with the Sy family principals who share deep consumer knowledge and operational experience across retail, financial services, groceries, property development, and logistics, amongst other sectors. The fund has a mandate to invest in founders with a clear vision and to support them by providing strong financial backing and practical advice, complemented by mutually beneficial relationships with the SM group where appropriate. Gentree works closely with its portfolio founders to chart their continued growth and provide follow-on support to cement their market leadership potential.

Gobi-Core Capital (https://corevc.ph/)
The Gobi-Core PH Fund is a joint-venture partnership between Gobi Partners and Core Capital. Through its first fund, Gobi-Core PH fund, it aims to invest in the next wave of entrepreneurs in the Philippines – for Filipinos, by Filipinos. **Gobi Partners** is the most interconnected Pan-Asian venture capital firm with US$1.2 billion in assets under management (AUM) across North Asia, South Asia, and ASEAN. Headquartered in Kuala Lumpur and Shanghai, the firm supports entrepreneurs from the early to growth stages and focuses on emerging and underserved markets. Founded in 2002, Gobi has raised 13 funds to date, invested in over 270 start-ups and nurtured 9 unicorns. Gobi has grown to 13 locations across key markets in Bangkok, Beijing, Dubai, Ho Chi Minh City, Hong Kong, Jakarta, Karachi, Kuala Lumpur, Lahore, Manila, Riyadh, Shanghai, and Singapore. On the other hand, founded in 2018, **Core Capital** is a local and independent venture capital firm in Manila, Philippines. Core Capital provides early-stage financing for technology companies with a focus on the Philippines.

Manila Angel Investors Network (MAIN) (www.main.ph/)
In 2016, a group of investors came together to help each other vet deals relating to local, Filipino companies and formed the Manila Angel Investors Network Inc. (MAIN), a non-stock, non-profit corporation registered with the Securities and Exchange Commission (SEC) under the Corporation Code of the Philippines. MAIN is the largest committed private investors network in the Philippines that was formed to support the country's startup ecosystem by connecting investors with promising early-stage companies. Apart from providing capital funding, it also mentors entrepreneurs, provides expertise support, and opens networking opportunities. This innovative startup ecosystem will benefit both MAIN members' portfolio and overall growth of Filipino start-ups. MAIN is the largest committed group of angel investors in the Philippines to date.

Talino Ventures (www.talinolabs.com/)
Founded in 2019, Talino Venture Labs is on mission to bridge the financial inclusion gap for 1.7 billion people around the world. Through the successful venture studio model, we build repeatable, scalable, and profitable fintech that empower underserved, underrepresented groups across the globe with financial access and mobility. Financial Inclusion Technology (FIT) Stack, its proprietary tech stack gives us the capability to build, deploy, and scale new technologies and businesses with greater agility and efficiency. Talino FIT™ is already being used by financial institutions across Asia and the United States. Since its establishment, Talino has been recognized by the global startup community, the private sector, and the government for its impact-driven work.

Co-Working Space/Support

Business World (www.bworldonline.com/)
BusinessWorld, the country's leading business newspaper represents five decades of professional economic journalism. This tradition of excellence began when BusinessDay first came off the press on February 27, 1967. In its maiden issue, the paper pledged "competent and responsible reporting of the news." The paper expanded its operations in the years that followed to keep in step with the growing business community, eventually making BusinessDay Southeast Asia's first business daily. BusinessDay was considered a standard of fairness, credibility and integrity in the journalistic world. The principles behind the paper's existence were closely guarded by its publisher/president and editor-in-chief Raul L. Locsin. BusinessWorld is now under the Philippine Star Printing Company, Inc (PhilStar) after the group acquired 76.63% shares from Hastings Holdings, Inc. in 2015. Despite change, BusinessWorld's success over the years has constantly been anchored on a firm belief that a newspaper is a public trust.

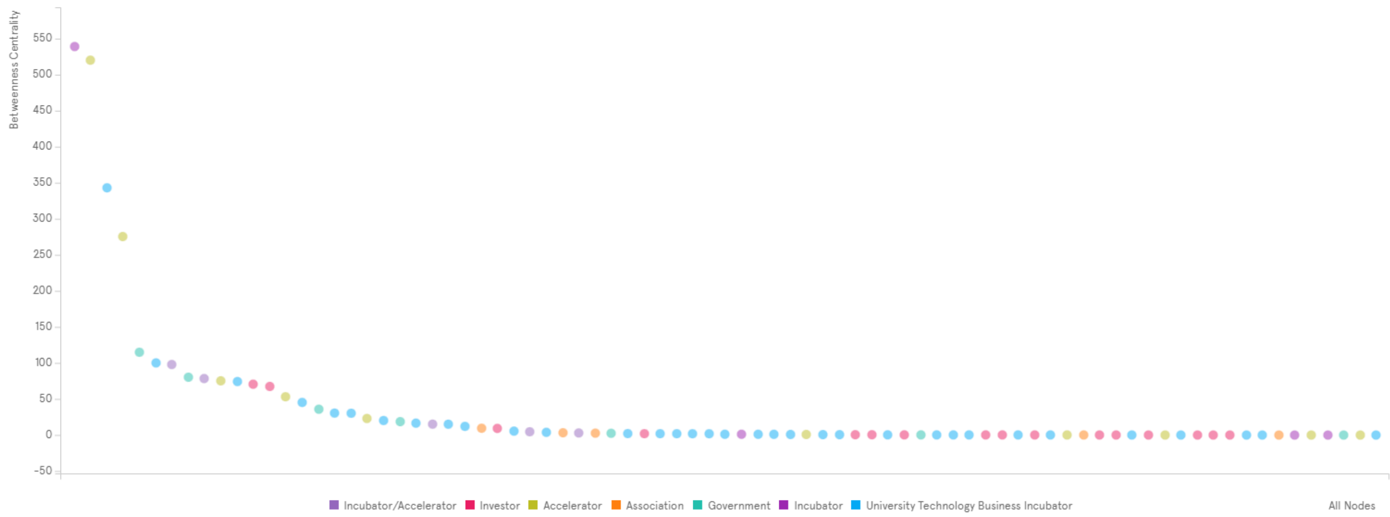
Devcon (https://devcon.ph)
DEVCON (Developers Connect) is a non-profit organization that empowers Filipino developers and future geeks founded in 2009. It is the Philippines' largest community of technology experts, developers and IT enthusiasts with the aim to promote collaborative growth and global competence of Filipino developers in the academe, government and IT industry by providing a unique avenue for everyone to **Sync, Support,** and **Succeed.** DEVCON started out as a pioneering project of the Philippine Software Industry Association (PSIA) with its pilot event DEVCON Visayas, which was held at the TechBar in Cebu City. The project eventually spanned a ten-city nationwide tour as part of the Next Wave Cities roadshow which was ran by the then Commission on Information and Communications Technology (CICT) and Business Processing Association of the Philippines (BPA/P) in 2009. To improve its reach, the project eventually partnered with the Philippine Society of IT Educators (PSITE) to make the DevCon events accessible to IT students nationwide. Eventually, DEVCON registered under the Securities and Exchange Commission becoming the non-profit organization we have come to know today.

Spark Project (www.thesparkproject.com/)
The Spark Project is a platform and community for those who see entrepreneurship differently. It's for founders, creatives, and changemakers who are passionate about using their creative talents to build sustainable businesses. It's for everyone who believes that making conscious choices, no matter how small, when done together can change the world. As a pioneering crowdfunding player in the region, it continuously pushes for innovation in terms of products and services. By combining Crowdsourcing, FinTech, and EduTech, Spark Project aims to advance impact-driven enterprises and initiatives.

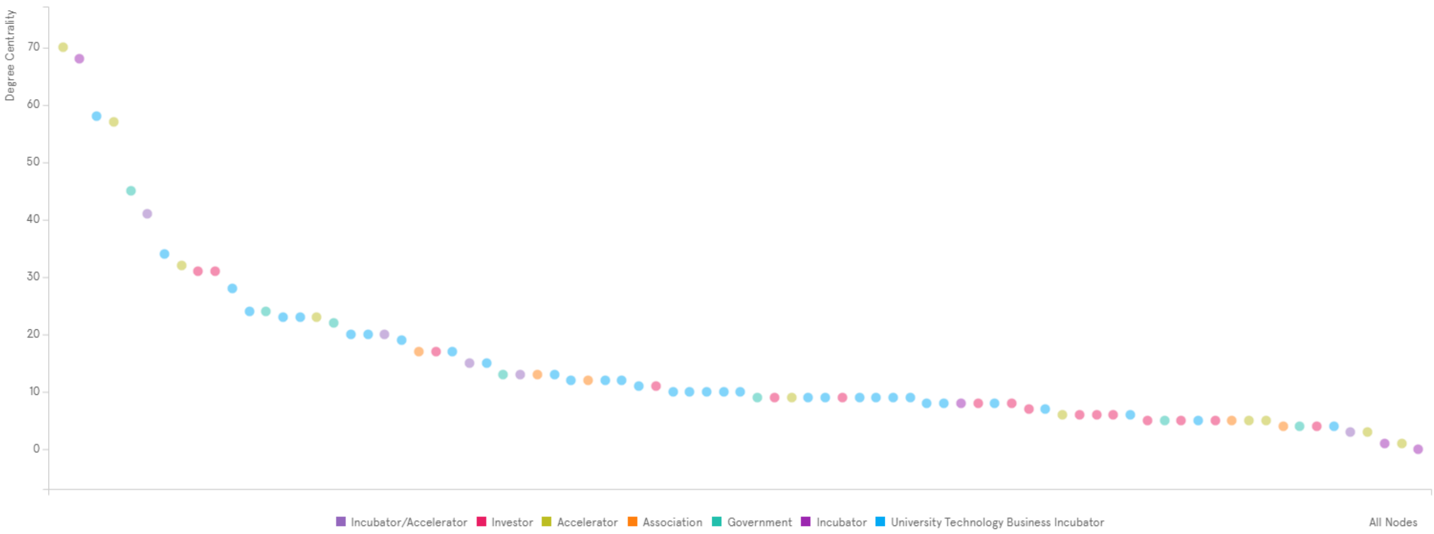
USAID Stride (https://www.facebook.com/usaidstride/)
The STRIDE (Science, Technology, Research and Innovation for Development) program is a USAID/Philippines initiative that seeks to improve the Philippines' STI capacity to help spur inclusive growth, create jobs, and improve lives. A USAID/ Philippines initiative, STRIDE builds upon the Philippine Government's 2017 – 2022 Development Plan, which states that self-sustaining, inclusive development can be achieved by "promoting science, technology, and creative arts to enhance innovation and creative capacity." Consistent with USAID's Journey to Self-Reliance Framework, the program supports key Philippine institutions in the implementation of their own innovative solutions to achieve the country's development goals. STRIDE has been working closely with Philippine academic institutions, industries, and the government to boost their capacity for innovation. It provides technical assistance in the design, implementation, and assessment of R&D-impacting policies and programs. It works to strengthen linkages between and among innovation stakeholders and to institutionalize STRIDE's capacity-building programs with partner universities. Through this, STRIDE looks forward to helping the Philippines effectively address the challenges blocking its development journey not just in the short term, but also in years to come.

ANNEX II: ADDITIONAL NETWORK DATA

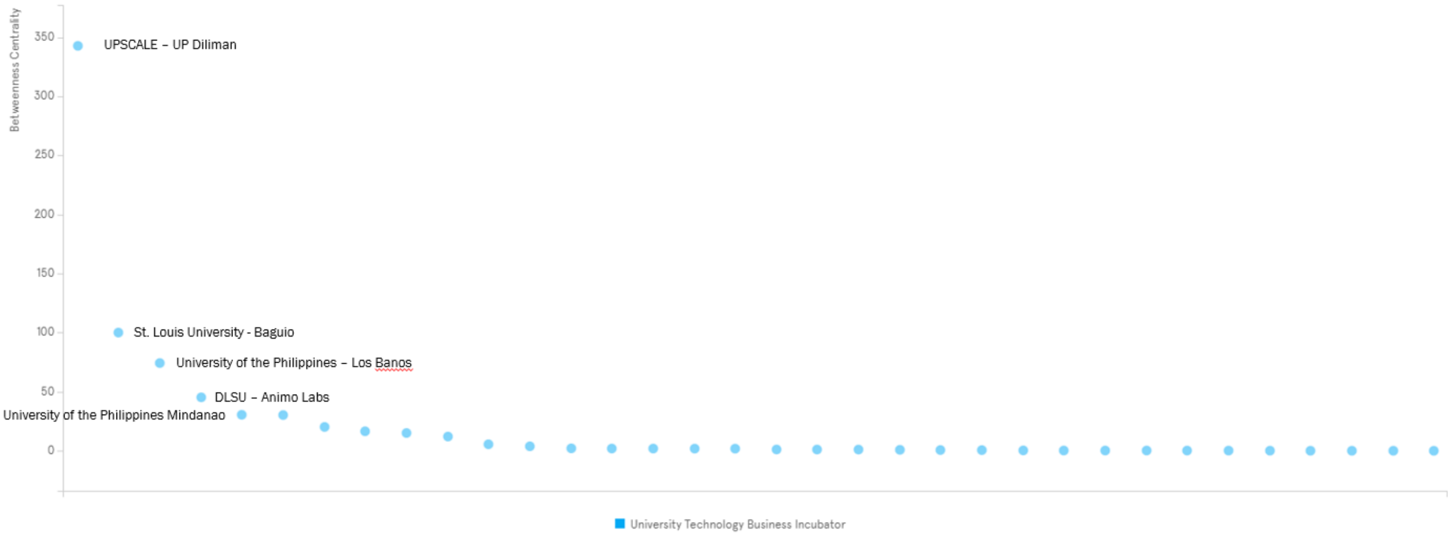
Distribution of nodes by Betweenness Centrality:



Distribution of nodes by Degree Centrality:



Distribution of University Technology Business Incubator nodes by betweenness centrality:



ANNEX III: TECHNICAL ANNEX

ITC Network Analysis Method

Questions to Institutions

General

1. What is your organization's role in the entrepreneurial ecosystem? Can you share milestones or achievements in supporting entrepreneurship?

Ecosystem roles and linkages

2. What kind of support do you provide to entrepreneurs? What kind of services, needs and expectations do they have? Do you monitor or track the progress of the entrepreneurs that have received support from you? Any key findings or noticeable trends?
3. If you provide training, how did you design the training content? How much do you focus on technical vs soft skills? Do you evaluate the satisfaction of entrepreneurs after the trainings?
4. Do you also organize events for entrepreneurs? If so, who do you partner with? How do you follow-up after the events? Do you participate in events organized by other organizations? If yes, which key institutions (both public and private) usually organize these events you participate in?
5. Who provides for your funding? Do entrepreneurs/clients need to pay a fee for their services?
6. Do you also cover or offer services to international markets? If yes, what are your target markets and/or products/sectors)? Who do you partner with for delivery? If they do not directly provide services to overseas markets, you may also ask if they are providing support to companies that exports products and/or services or invest in overseas markets.

Ecosystem actors

7. Are there other institutions providing services similar to yours? Why do you consider them as competitors?
8. Do you have links with other key players in the ecosystem (e.g., Academia)? If so, with who and what is the nature of the partnership?
9. What trends have been noticed from the entrepreneurs / graduates of the as they navigate the different entrepreneurial stages in terms of challenges, gaps etc. what major factors influence the growth of entrepreneurs
10. Considering the network as a whole, do you sense any overall trends in the way it operates? (e.g., more or less silos with groups of institutions becoming more or less apparent, more or less concentration of power in a single institution etc.) What are the challenges/issues facing key actors in the entire network/ecosystem?
11. From your point of view, what can be done to mitigate the challenges / further bridge the gap?
12. What are the main positive attributes of the Ecosystem? What has worked? What could be improved?
13. In which way are you actively contributing to the strengthening of the ecosystem? What are some of the success factors/challenges that you can point to within your role in the ecosystem as an ecosystem builder? Do you think there are important players or services missing in the entrepreneurial ecosystem?
14. Funding is usually a challenge for many youth-led start-ups. What funding models do you think could be most effective in supporting young entrepreneurs? If yes, what support services would you like to also provide for entrepreneurs?
15. Are there other topics/areas/issues that they want to discuss or tackle in relation to strengthening the entrepreneur ecosystem in the Philippines?

Questions to Entrepreneurs

1. Out of the following institutions (entrepreneurship support organizations in the sample):
   a. Which ones have you heard of?
   b. Which ones do you contact weekly / several times per year / annually?
   c. What is the nature of the connection? What do you receive from them? What do you give in return?
   d. Which 2 have the most impact on the success of your business? Why?
   e. Which 3 would you consider the most trustworthy and efficient? Why?

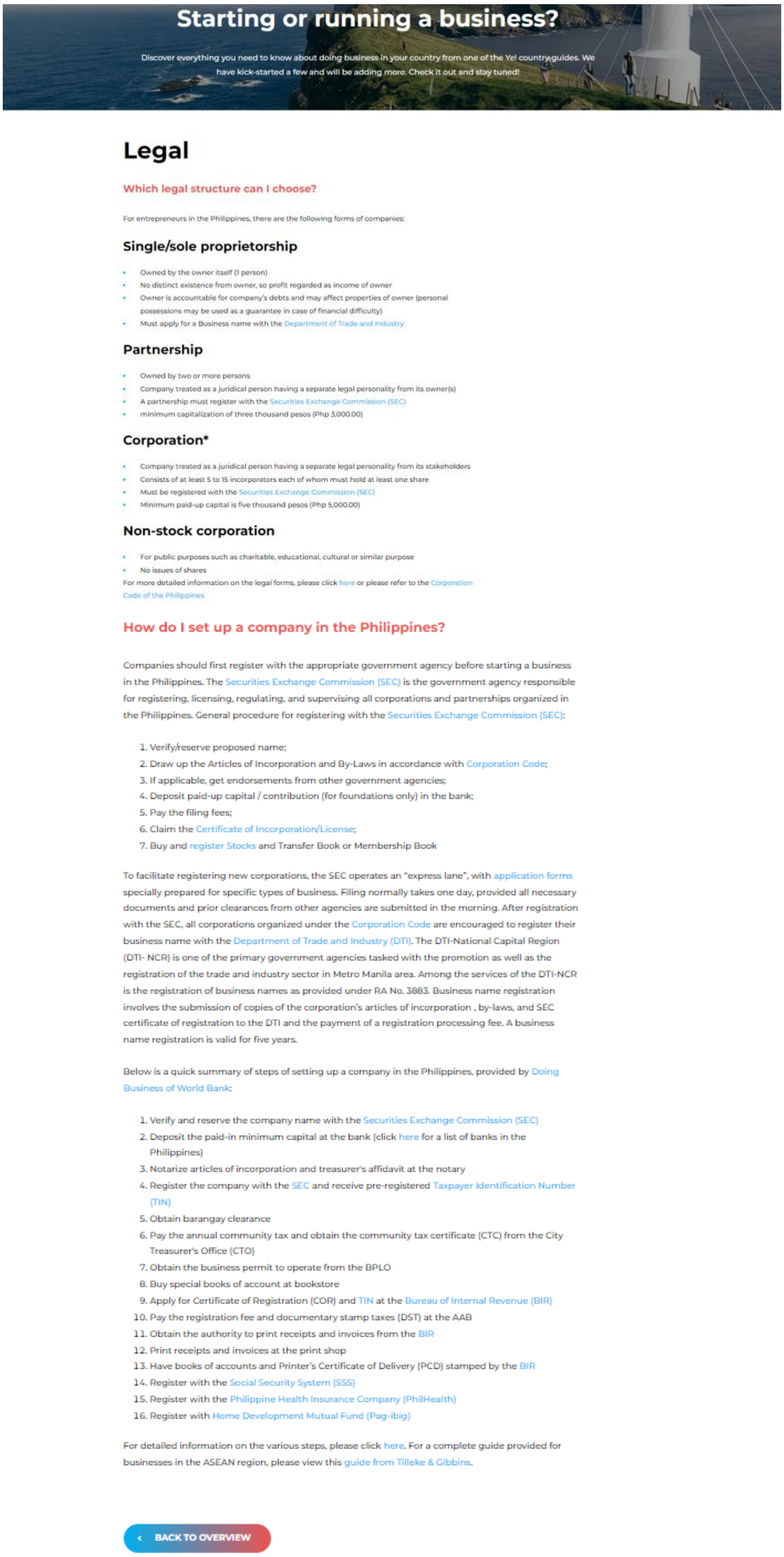
2. You have a new business idea and want to test its viability. You need help to understand the steps to get it started and test the viability of your business idea. You will need to find funding to make your idea into reality. Who would you approach for help and why?

3. What would be useful to have in order to receive help from the existing stakeholders?

4. Are there other things that the ecosystem still needs to have or needs more of to help entrepreneurs?

ANNEX IV: SAMPLE OF YE! COUNTRY GUIDE INFORMATION

The below image demonstrates the type of information that shown in a country guide on Ye! Community and that ecosystem actors could replicate to give relevant information to young entrepreneurs.



Starting or running a business?

Discover everything you need to know about doing business in your country from one of the Ye! country guides. We have kick-started a few and will be adding more. Check it out and stay tuned!

Legal

Which legal structure can I choose?

For entrepreneurs in the Philippines, there are the following forms of companies:

Single/sole proprietorship

- Owned by the owner itself (1 person)
- No distinct existence from owner, so profit regarded as income of owner
- Owner is accountable for company's debts and may affect properties of owner (personal possessions may be used as a guarantee in case of financial difficulty)
- Must apply for a Business name with the Department of Trade and Industry

Partnership

- Owned by two or more persons
- Company treated as a juridical person having a separate legal personality from its owner(s)
- A partnership must register with the Securities Exchange Commission (SEC)
- minimum capitalization of three thousand pesos (Php 3,000.00)

Corporation*

- Company treated as a juridical person having a separate legal personality from its stakeholders
- Consists of at least 5 to 15 incorporators each of whom must hold at least one share
- Must be registered with the Securities Exchange Commission (SEC)
- Minimum paid-up capital is five thousand pesos (Php 5,000.00)

Non-stock corporation

- For public purposes such as charitable, educational, cultural or similar purpose
- No issues of shares

For more detailed information on the legal forms, please click here or please refer to the Corporation Code of the Philippines

How do I set up a company in the Philippines?

Companies should first register with the appropriate government agency before starting a business in the Philippines. The Securities Exchange Commission (SEC) is the government agency responsible for registering, licensing, regulating, and supervising all corporations and partnerships organized in the Philippines. General procedure for registering with the Securities Exchange Commission (SEC):

1. Verify/reserve proposed name;
2. Draw up the Articles of Incorporation and By-Laws in accordance with Corporation Code;
3. If applicable, get endorsements from other government agencies;
4. Deposit paid-up capital / contribution (for foundations only) in the bank;
5. Pay the filing fees;
6. Claim the Certificate of Incorporation/License;
7. Buy and register Stocks and Transfer Book or Membership Book

To facilitate registering new corporations, the SEC operates an "express lane", with application forms specially prepared for specific types of business. Filing normally takes one day, provided all necessary documents and prior clearances from other agencies are submitted in the morning. After registration with the SEC, all corporations organized under the Corporation Code are encouraged to register their business name with the Department of Trade and Industry (DTI). The DTI-National Capital Region (DTI- NCR) is one of the primary government agencies tasked with the promotion as well as the registration of the trade and industry sector in Metro Manila area. Among the services of the DTI-NCR is the registration of business names as provided under RA No. 3883. Business name registration involves the submission of copies of the corporation's articles of incorporation , by-laws, and SEC certificate of registration to the DTI and the payment of a registration processing fee. A business name registration is valid for five years.

Below is a quick summary of steps of setting up a company in the Philippines, provided by Doing Business of World Bank:

1. Verify and reserve the company name with the Securities Exchange Commission (SEC)
2. Deposit the paid-in minimum capital at the bank (click here for a list of banks in the Philippines)
3. Notarize articles of incorporation and treasurer's affidavit at the notary
4. Register the company with the SEC and receive pre-registered Taxpayer Identification Number (TIN)
5. Obtain barangay clearance
6. Pay the annual community tax and obtain the community tax certificate (CTC) from the City Treasurer's Office (CTO)
7. Obtain the business permit to operate from the BPLO
8. Buy special books of account at bookstore
9. Apply for Certificate of Registration (COR) and TIN at the Bureau of Internal Revenue (BIR)
10. Pay the registration fee and documentary stamp taxes (DST) at the AAB
11. Obtain the authority to print receipts and invoices from the BIR
12. Print receipts and invoices at the print shop
13. Have books of accounts and Printer's Certificate of Delivery (PCD) stamped by the BIR
14. Register with the Social Security System (SSS)
15. Register with the Philippine Health Insurance Company (PhilHealth)
16. Register with Home Development Mutual Fund (Pag-ibig)

For detailed information on the various steps, please click here. For a complete guide provided for businesses in the ASEAN region, please view this guide from Tilleke & Gibbins.

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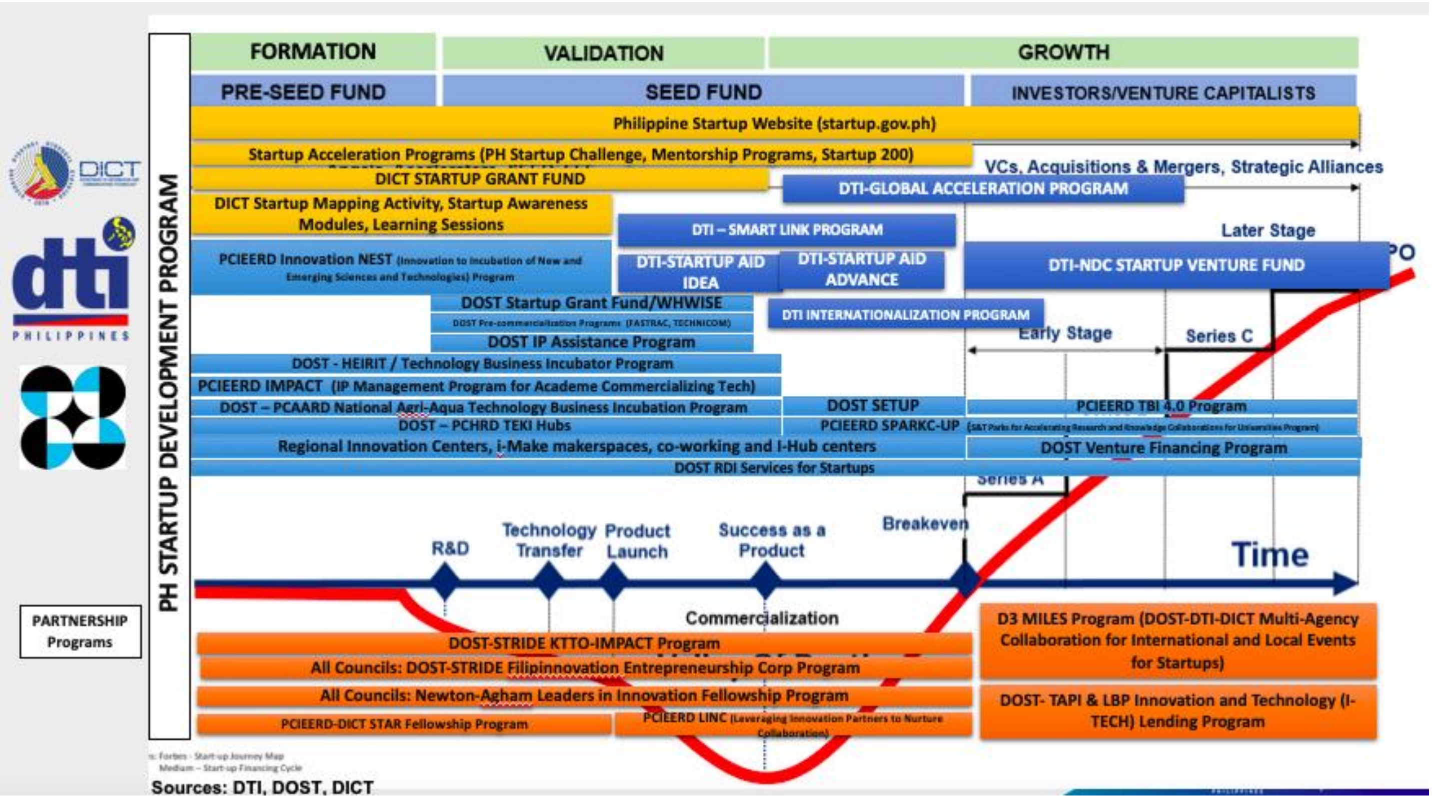
ANNEX V: PH STARTUP DEVELOPMENT PROGRAM FRAMEWORK



ANNEX VI: GOVERNMENT-LED ENTREPRENEURSHIP SUPPORT PROGRAMS

Department of Information and Communications Technology (DICT)

Digital Cities 2025 Program

This program implements a four-point Digital Cities scorecard as its evaluation system that assesses possible IT-BPM locations against factors that make a city attractive to investors and locators. These four factors are: talent availability, infrastructure, cost-effectiveness, and business environment.

The Department of Information and Communications Technology (DICT), together with the IT and Business Process Association of the Philippines (IBPAP) and Leechiu Property Consultants (LPC), has been advocating for inclusive growth and development around the Philippines through the Next Wave Cities™ program since its inception in 2009.

To learn more about this program, visit https://dict.gov.ph/wp-content/uploads/2021/11/Digital-Cities-2025-Primer.pdf.

CHIP (Connect, Harness, Innovate, Protect) Program

The DICT program to accelerate the digital readiness of the country in the new normal. The CHIP framework can be used to identify a country's priorities based on its context. Furthermore, countries can be classified into three categories based on their priorities for accelerating digital transformation, namely emerging, transitioning, and transforming. The framework is divided into four focus areas, as follows: "Connect," "Harness," "Innovate," and "Protect."

It aims to identify solutions to improve ICT reach within the Philippines, thereby improving the current state of its digital economy landscape. Given the country's challenges as a result of the COVID-19 pandemic, the Department proposes addressing the digital divide through the lens of the CHIP framework.

To learn more about this program, visit https://dict.gov.ph/wp-content/uploads/2022/05/CHIP-Implementation-Plan-May-4-2022.pdf.

Free WiFi for All Program

A Free Public Internet Access Program that aims to provide the Filipino people access to opportunities, education, and information, and the ability to participate in the growing digital economy through free Internet in public places nationwide.

To learn more about this program, visit https://freepublicwifi.gov.ph/ . .

Department of Science and Technology (DOST)

Business Innovation through Science and Technology for Industry (BIST)
Under the Science for Change Program provides financial assistance to Filipino private companies for the acquisition of strategic and relevant technologies for R&D. The financial assistance can only be used to purchase high-tech equipment, secure technology license and patent rights at zero percent interest.

Collaborative Research and Development to Leverage Philippine Economy (CRADLE)
Under the Science for Change Program aims to enable technological advancement and innovation of local companies and to support the growth of the Philippine Innovation Ecosystem.
- provides industry-academe linkage which can lead to spinoffs, startup formation or establishment of new corporations

The DOST Engineering R&D for Technology (ERDT)
The ERDT program provides scholarships under DOST-SEI for masters and doctorate in engineering. This meant to help those students who wish to commercialize their theses or dissertations. Thousands of scholars have taken this course.

The Small Enterprise Technology Upgrading Program (SETUP)
The SETUP program is implemented by DOST Regional Offices offers innovation assistance at 0% interest with a grace period of 1 year. SETUP has helped micro- and small- enterprises move up the value chain, improve their productivity and competitiveness through innovation.

Department of Trade and Industry (DTI)

Kapatid Mentor Me Project (KMME)

Kapatid is an initiative of the DTI and the Philippine Center for Entrepreneurship (PCE) to help the country's micro and small enterprises (MSEs) through three key components:

- The Mentor ME (micro entrepreneurs) program, a coaching and mentoring approach where large corporations teach MSEs on different aspects of business operations.
- The Adopt-an-SSF (Shared Service Facility) program, which aims to help micro entrepreneurs by providing them access to SSFs in their community.
- The Inclusive Business (IB) model where MSEs are linked into large companies' value chains.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/kapatid-mentor-me-project/.

Negosyo Center Program

The Negosyo program is responsible for promoting ease of doing business and facilitating access to services for Micro, Small, and Medium Enterprises (MSMEs). Republic Act No. 10644 otherwise known as the "Go Negosyo Act," seeks to strengthen MSMEs to create more job opportunities in the country.

The Program started in 2014, with 5 Centers established in the islands of Luzon, Visayas, and Mindanao. Since then, more Centers have been set up nationwide bringing ease of doing business closer to MSMEs in all regions. Negosyo Centers help stimulate entrepreneurship development as MSMEs contribute substantially in driving the Philippine economy.

Negosyo Centers are found in strategic areas convenient for the existing and would-be entrepreneurs, such as DTI offices, Local Government Units (LGU), academe, Non-Government Organizations (NGOs), and malls.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/negosyo-center/

Youth Ent
Entrepreneurship Ecosystem in the Philippines
repreneurship Program (YEP)

The Youth Entrepreneurship Program aims to address the young demographics of the country to become productive individuals through entrepreneurship. It will help young Filipinos develop their entrepreneurial skills by offering them a comprehensive package of interventions. Republic Act No. 10679 otherwise known as the Youth Entrepreneurship Act mandates the Micro, Small, and Medium Enterprise Development Council (MSMEDC) through the Department of Trade and Industry (DTI) to implement a national program to promote youth entrepreneurship development.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/yep/.

Regional Interactive Platform for Philippine Exporters (RIPPLES)

RIPPLES is jointly implemented by the Export Marketing Bureau (EMB), the DTI's Regional Operations Group (DTI-ROG), and the Philippine Trade Training Center (PTTC). It aims to expand the supply base of internationally-competitive Philippine export products and services by extending strategic company-level interventions such as capacity building trainings, product development, market information, global product trends to participating companies to make them export-ready, or to enhance their export capacity and competitiveness. The Program prepares these companies to compete in terms of volume, quality, price, packaging, compliance with market entry requirements, rules and regulations, and design leadership, or alignment with current design trends. When deemed export-ready, these companies are matched with prospective foreign buyers, and their products are promoted in the export market.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/ripples/.

One Town, One Product (OTOP) Philippines

One Town, One Product Philippines is a priority stimulus program for Micro, Small and Medium-scale enterprises (MSMEs) as government's customized intervention to drive inclusive local economic growth. The program enables localities and communities to determine, develop, support, and promote products or services that are rooted in its local culture, community resource, creativity, connection, and competitive advantage. As their own 'pride-of-place,' these are offerings where they can be the best at or best renowned for. It endeavors to capacitate our 'OTOPreneurs' to innovate and produce market-ready products and services.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/otop-ph/.

Go Lokal!

Go Loka is a market access platform for MSMEs introduced by the Department of Trade and Industry in collaboration with select retail partners for brand management and market acceleration realized through the Go Lokal! Concept Store @ DTI located at the Ground floor, Trade and Industry Building, 361 Sen. Gil Puyat Avenue, Makati City.

The program's primary goal is to help the country's MSMEs enter the mainstream market via the free services offered by DTI such as:

1. Merchandise development assistance to produce commercially viable products for the market.
2. Market access to stores/spaces provided by Retail Partners such as mall and retail operators.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/go-lokal/.

SME Roving Academy (SMERA)

The SME Roving Academy is a continuous learning program for the development of micro, small and medium enterprises (MSMEs) to become competitive in the domestic and international markets. Its main strategies contain:

- Integration of the business development services for small and medium enterprises (SMEs) at the national and local levels.
- Establishment of the Provincial, Regional, and National Entrepreneurship Development Networks.
- Management of an inclusive promotion program.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/sme-roving-academy/.

Shared Service Facilities (SSF) Project

This flagship project of the Department of Trade and Industry is aimed at improving MSME productivity and efficiency through better access to technology. It is meant to improve MSME competitiveness by providing machinery, equipment, tools, systems, accessories, and other auxiliary items, skills, and knowledge under a shared system. The facilities should help target beneficiaries increase their production capacities and improve product quality, resulting in increased markets, increased sales, and jobs generation. SSF is a public-private partnership initiative being implemented through co-operators who can house the machinery and equipment and make these accessible to MSMEs.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/shared-service-facilities/.

Livelihood Seeding Program – Negosyo Serbisyo Sa Barangay (LSP-NSB)

The Livelihood Seeding Program of DTI that allows a wider reach of business development assistance by bringing government services closer to the people through partnerships between relevant local government units and DTI officials. Through Barangay Development Councils (BDCs), the DTI shall help capacitate Barangay personnel to provide basic business advisory or information dissemination services to MSMEs in the locality.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/lsp-nsb/.

Tatak: Matatag na Negosyo (TMN)

Tatak is a coalition born out of the desire of government agencies, microfinance institutions, civil society organizations, and business corporations to help micro retailers thread through the challenges of the pandemic by ushering them transform into sustainable and resilient enterprises.

With the package of interventions, the TMN will offer, it aspires to enhance the capacities of micro-stores that will improve business operations and unleash their entrepreneurial skills, facilitate information on and access to formal financial channels that will address diverse financing needs in varying circumstances, and build strong market linkages that will optimize supply chain management. TMN targets to assist micro-stores, particularly sari-sari stores, carinderia (eateries), mini bakeries, and stalls.

To learn more about this program, visit https://www.dti.gov.ph/negosyo/tmn/.