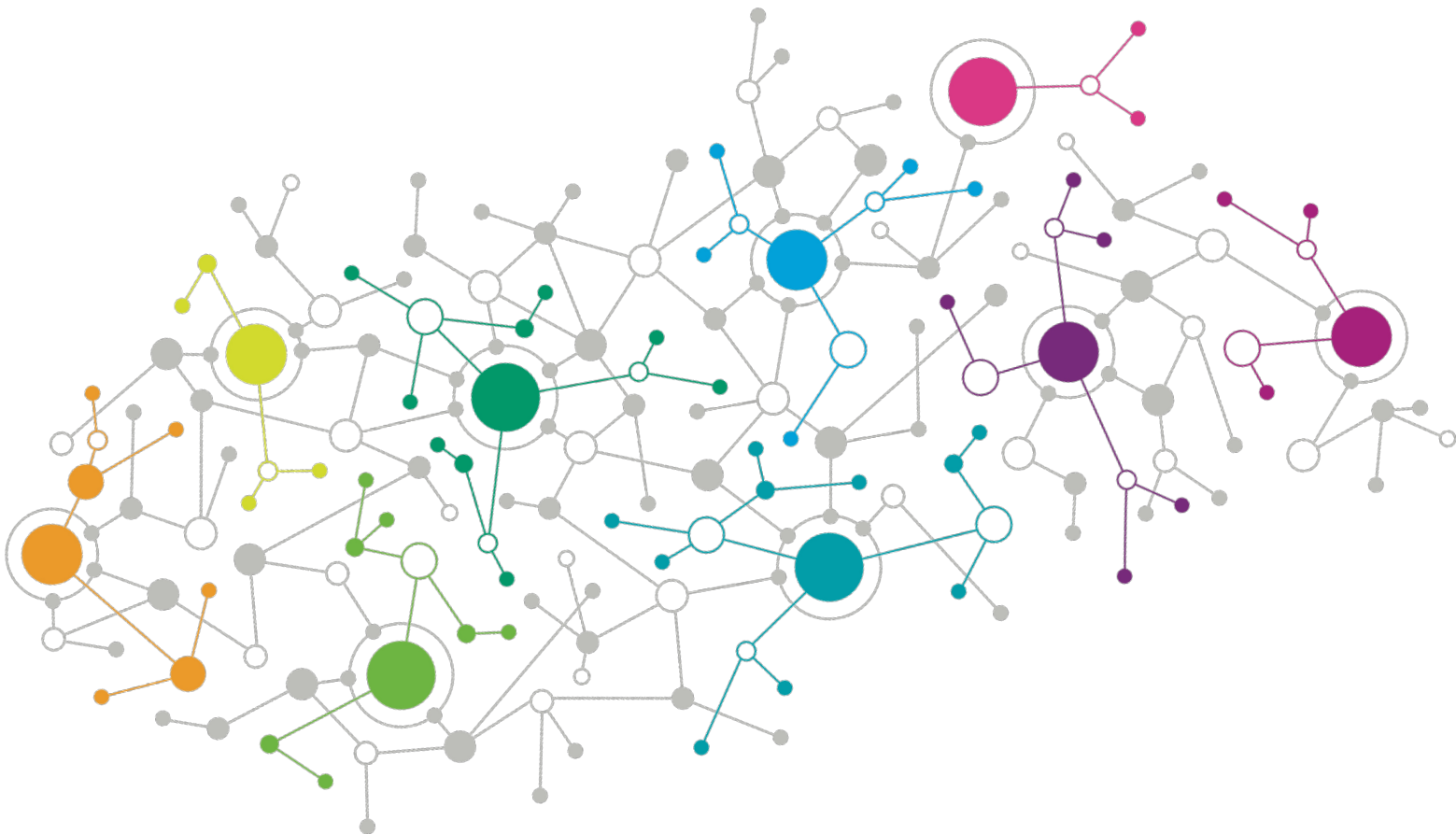


AGRI ENTREPRENEURSHIP ECOSYSTEM IN PAKISTAN

NETWORK ANALYSIS AND MAPPING OF
INSTITUTIONS SUPPORTING
ENTREPRENEURSHIP



FOREWORD

ITC is the joint agency of the World Trade Organization and the United Nations.

This Network Analysis and Ecosystem Mapping report has been conducted for Growth for Rural Advancement and Sustainable Progress (GRASP) project. GRASP is a European Union (EU) funded project for poverty reduction and sustainable inclusive economic growth in rural Pakistan. Focused on selected districts of Balochistan & Sindh, ITC and its implementing partners are providing technical assistance in horticulture, livestock and dairy sectors for improving commercial viability of MSMEs and for a conducive policy regime. The International Trade Centre (ITC) is the joint agency of the World Trade Organization (WTO) and the United Nations (UN). It is fully dedicated to supporting the competitiveness of, small and medium-sized enterprises (SMEs). To support and strengthen the Agri-entrepreneurship ecosystem Pakistan, ITC proposes the development of an Agri-Entrepreneurship Ecosystem Mapping using ITC's mapping methodology. The mapping analysis will contribute to the objectives of the overall development plans of the Agri entrepreneurship sector in Pakistan by strengthening the institutional environment in which young entrepreneurs operate and the level of assistance they receive, critical determinants of the success of youth-owned businesses.

Limitations of the analysis

The analysis provided in this report reflects the findings of desk research, interviews and focus group discussions. Some institutions, currently present in the ecosystem might not be represented in this analysis given their mandate in the network. In addition, the interview questions were based on ITC's Network Analysis methodology designed specifically to understand the interactions of support institutions. Therefore, questions were less focused on the assessment of the situation of Startups or entrepreneurs. The information gathered on the entrepreneur's perspective represents, via a focus group approach, a small subset of the ecosystem's entrepreneurs and therefore further analysis might be needed to provide a statistically significant assessment of the entrepreneur's journey. The report is a snapshot of the situation in Q4 2021 and therefore might not be representative of past or future interactions

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Acronyms

AP	Accelerator Prosperity
AKDN	Aga Khan Development Network
GRASP	Growth for Rural Advancement and Sustainable Progress
I2i	Invest to Innovate
ITC	International Trade Centre
IPS	Industrial Promotional Services
ICE	International Certification in Entrepreneurship
MoITT	Ministry of Information Technology and Telecommunication
NIC	National Incubation Centre
ORIC	Office of Research, Innovation and Commercialization
PARC	Pakistan Agriculture Research Council
PBS	Pakistan Bureau of Statistics
SEED	Social, Entrepreneurship, and Equity Development
SMEDA	Small Medium Enterprise Development Authority
SMEA	Small Medium Enterprise Authority-SMEA
TDAP	Trade Development Authority, Pakistan

1. EXECUTIVE SUMMARY

The GRASP project has the mandate to strengthen the competitiveness of SMEs and Startups in the agripreneurship arena. A key component of this mission is reinforcing and improving the institutional ecosystems that support small businesses. This report deploys ITC's Ecosystem Mapping methodology to present a foundational analysis of the entrepreneurship support ecosystem in Pakistan, with a particular focus on the Agricultural sector. ITC's Ecosystem Mapping identifies key stakeholder institutions and entrepreneurship support organizations active in the ecosystem, traces the connections and partnerships between them, and assesses their institutional capacity. Lastly, the Mapping assesses the "user-experience" of the ecosystem by surveying entrepreneurs, to understand how businesses interact with and benefit from the institutional ecosystem. The report's findings will inform and guide institutional capacity-building initiatives undertaken by the GRASP project.

The entrepreneurship ecosystem of Pakistan has been growing since 2012. From 2015-2020, Pakistani startups raised almost USD 180 million. 2021 showed even more rapid growth with approximately USD 300 million raised. Over the last decade, the entrepreneurship ecosystem has created job opportunities and mobilized foreign investment.

The entrepreneurship support ecosystem in Pakistan provides various services including incubation/acceleration, access to seed funding, training, mentoring, market linkages, and Business Development Services-BDS. However, technology-based startups

dominate the ecosystem, and non-tech startups face challenges accessing these services.

The key findings of the study are:

Funding: The continuity of significant startup-related initiatives depends on the regular and continuing flow of financing from the government.

Technology: Technology-based startup ventures are dominant, and very few non-tech startups play an active role in the ecosystem.

Entrepreneurial behavior: Current training and mentoring programmes on offer have limited focus on supporting entrepreneurs to innovate and improve upon existing ideas to market a product or service effectively. Replication of ideas and lack of scalability are common in the ecosystem.

Investment readiness: entrepreneurs struggle to access investment due to absence of solid, pitchable business plans, lack of industry-specific knowledge, and limited knowledge about investment terms, regulatory issues, and complexities in business valuations. Start-up growth support is scarce in the ecosystem.

Business Development Services: There is a lack of specific, customized trainings, mentoring programmes, and other specific BDS offerings that are tailored to address entrepreneurs in the Agricultural sector

Sector Specific research and big data analytics: Research and data are critical in refining the products/services. There are several active players in the ecosystem, but they do not collaborate.

Support Institutions: Support institutions (Incubators, accelerators, business development service providers etc.) do exist in the agriculture sector and have a significant role in promoting Agriculture specific entrepreneurship. However, they are not currently deeply connected and tend to work and operate in silos.

The agriculture sector, which represents around 19% of national GDP and accounts for more than 42% of the labor market, fails to generate interest and excitement from actors in the Startups ecosystem. Most players are focused on IT and technology. There is a dire need to set up an effective incubation service for agriculture entrepreneurs. The report identifies the key players who have a critical role in addressing this change.

The study recommends the following:

ORICs: Higher Education Institutions-HEIs, under the direction of the Higher Education Commission of Pakistan-HEC, have established Offices of Research, Innovation and Commercialization -ORIC. ORIC is providing a one-stop solution for research to the commercialization process. There is a need for solid collaboration of ecosystem actors with ORICs to promote or engage non-tech-based businesses/Startups.

Capacity building of Ecosystem

actors: Capacity building programmes to strengthen the entrepreneurship-support ecosystem need to focus on the following:

- Developing a diverse pool of service providers to expand incubators outreach outside of major cities.
- There is a need for customized training and mentoring programmes specifically for Agri Startups.
- Developing the capacity of ecosystem actors around innovative agriculture

initiatives like climate-smart agriculture etc.

- Provide orientation on sector-specific industry issues, challenges, and opportunities for investors/startups and incubators/accelerators.
- Developing a specialized Entrepreneurship training program, particularly entrepreneurial behaviour, for startups and graduates of academia.

Funding: There are various donors /public sector grant programmes available where startups can access funds. There is a need to coordinate these mechanisms among multiple stakeholders and provide clearer information and guidance to agripreneurs to access those funds.

Startups tracking: There is a need to institutionalize the startups track and trace system. That will help assess the performance of startups and identify critical areas for technical aid to boost entrepreneurial outcomes.

Engaging current SMEs: Many SMEs, particularly in agriculture, have numerous opportunities or areas of potential collaboration and synergy with other businesses or Business Support Organizations (BSOs). Partnerships across the ecosystem could help SMEs improve their supply chain management, outreach to customers, business productivity, and forward-backward linkages. These partnerships could potentially help SMEs continue to grow and expand, while creating business opportunities for startups and other, smaller, B2B enterprises.

Data portal and services: There is a need to create a central data repository. This data warehouse would serve as a one-stop-shop for data/information on industry insights, trends, and market statistics. This database could be made customizable and searchable to tailor to the needs of different stakeholders in the entrepreneurship ecosystem.

2. BACKGROUND, INTRODUCTION AND METHODOLOGY

In contributing to the output of the GRASP initiative to enhance the agri-entrepreneurship skills of new startups, FMCs, and SMEs, ITC conducted the present study using ITC's Ecosystem Mapping methodology. The report will provide data, analysis, and recommendations for the development of the Agri-entrepreneurship ecosystem in Pakistan.

The Agri-entrepreneurship Ecosystem Mapping study intends to inform ecosystem stakeholders on the current agri-entrepreneurship support landscape and identify gaps and duplications in the services provided to entrepreneurs.

This analysis is focused on:

- a) An overview and mapping of primary actors/key players in the current ecosystem
- b) Key findings regarding the services offered by those actors based on interviews conducted with relevant local institutions.
- c) A Network analysis which assesses and analyses the partnerships, collaborations and connections between ecosystem actors. Recommendations and identification of key actors/players that can effectively contribute to the overall strengthening of the agri-entrepreneurship support ecosystem.

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 three 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-ups development in the country. Research to validate findings.



Entrepreneurship support institutions

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



Entrepreneurs

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, the report provides qualitative and quantitative insights supported by a network analysis software.

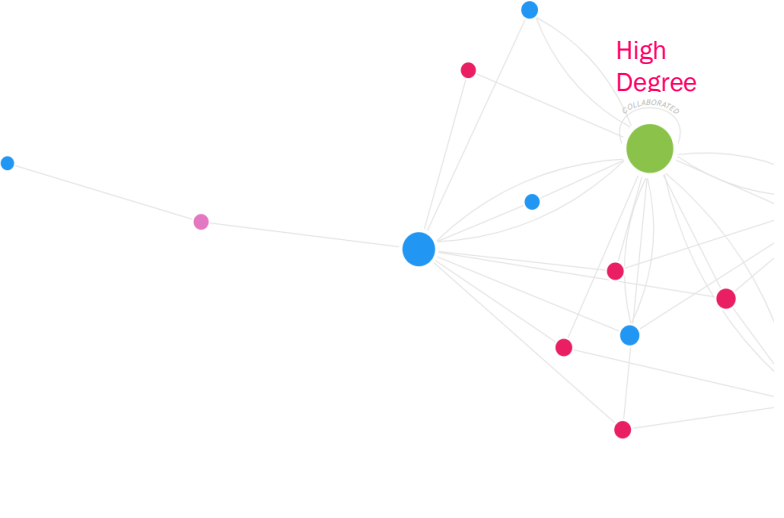
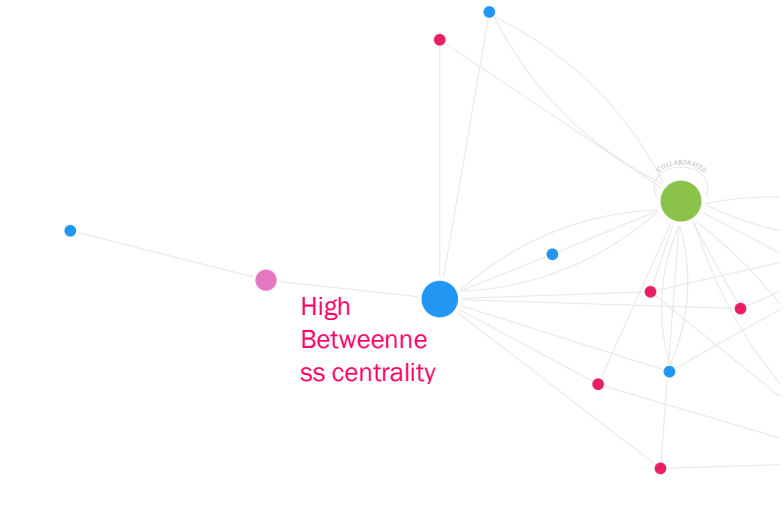
The network analysis in this report provides answers to two key questions:

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 who are they connecting and why are they connecting. The aim of this analysis is to understand what

stimulates 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?** 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 database 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 and training staff and collaboration for the organization of events and competitions.

Key Network Analysis Definitions:

<p>Degree centrality</p> <p>The degree centrality identifies actors (institutions) with the highest number of links to other institutions in the network.</p> <p>Institutions with a high degree centrality have the best connections to those around them – they might be influential, or just strategically well-placed.</p>	
<p>Betweenness centrality</p> <p>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.</p> <p>Usually this would indicate important gatekeepers of information between groups.</p>	

They key definition of entrepreneurship ecosystem and institutions in the ecosystem is given in the ensuing paragraphs.

2.1 Defining entrepreneurship support ecosystems

In the context of this report, an entrepreneurship support ecosystem is a collaborative arrangement through which institutions that support entrepreneurs combine their resources, capabilities, and products to offer a coherent, entrepreneur-oriented solution.

When they function well, 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 benefits and/or reduce costs.

2.2 Defining the institutions within the entrepreneurship ecosystem

Incubators

- Primarily focuses on helping early-stage Startups become viable and scalable
- Provides an array of support services and infrastructure through a systematic process
- Quality controlled intake of Startups with regular, time-bound exits
- Programme duration generally between 1 year and 3 years

Accelerators

- Can support early and growth stage Startups
- Often invests financially in the Startups
- Fixed-term, cohort-based programme that catalyses Startups' growth through intensive mentoring, networking, and educational services
- Quality controlled, often highly competitive, intake of Startups with regular, time-bound exits
- Programme duration generally between 1 week and 6 months

Young entrepreneur 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

Youth chambers of commerce

- Membership organization for young entrepreneurs to have a voice and address specific concerns of youth-owned enterprises
- Often provides business development services to young entrepreneurs

Co-working spaces

- A business services 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 Startup 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 Startups in exchange for ownership equity or convertible debt.

Events and business competition organizers

- Pitching competition, boot camps, 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 Startups Weekends.

2.3 Defining the stages of entrepreneurship

Idea Stage

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

Startup Stage

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

3. ECOSYSTEM MAPPING

The Pakistan Entrepreneurship Ecosystem has been growing since 2012 and according to the Alpha Beta report on “Unlocking Pakistan’s Digital Potential¹”. Another recent article published in Bloomberg highlights that from 2015-2020, Pakistani startups raised USD 178 million. This has since swelled to USD 300 million raised in 2021 alone. Indicators show that the entrepreneurship ecosystem in Pakistan is creating job opportunities and mobilizing foreign investment.²

The ecosystem comprises Incubators, Accelerators, Investment/Venture Capital, Research Institutions, Business Development Service Providers, Business associations/networks, Government/donor programs, co-working spaces etc.

The Key features of the ecosystem³ are given below:

Business Incubators/Accelerators	As of 2019, there are 24 Incubators in Pakistan. Most are funded by IGNITE, the Ministry of Information Technology-IT. IGNITE provides support in establishing National Incubation Center-NICs in each province as well as Islamabad.
Investors	20 key investors and investment agencies were identified in the ecosystem. These include Sarmyarcar, Fatima Gobi ventures, and Lakson investment. Fatima Gobi specifically was involved in 40% of all startup fundraising in Pakistan.
Co-working Spaces	80 co-working spaces were identified.
Number of Startups	All National Incubation Centres have so far enrolled 801 Startups. Out of that 801, 317 have since graduated which represents 39.5% startup success rate. Note: Startups engaging with NICs are a good representative sample but might not fully cover all startups in the country.
Major Sectors	E-commerce, fintech and health tech are the major entrepreneurship sectors. E-commerce startups alone raised USD 76 million in investment from 2015-2020, representing more than 40% of all investment during that period. Out of 141 investment deals tracked during that period, only 2 deals were related to agriculture.
Agriculture Specific Vertical	At present there is no agriculture specific incubator or accelerator. However, IGNITE, Accelerator AP, and Acumen are planning to launch agriculture-specific services

The following section of this report provides an overview of the range of institutions active in the Pakistan entrepreneurship support ecosystem at various stages of the lifecycle of a business. The table below shows how the ecosystem is particularly focusing on the support at idea, Startup and early stages and is lagging at later, growth and mature stages. Most startups are in the initial stage of their business life cycles, which is the main reason for focusing on early-stage support.

¹ Report on “Unlocking Pakistan’s Digital Potential” by Alpha Beta <https://alphabeta.com/our-research/unlocking-pakistans-pkr97-trillion-digital-potential-by-2030/>, October 2021.

² Invest to Innovate-i2i report : “Pakistan Eco System Report 2019”

³ Invest to Innovate-i2i report: “Pakistan Eco System Report 2019” and Deal flow analysis 2015-2020. IGNITE impact data <https://ignite.org.pk/nic/>

TABLE 1: CATEGORY WISE ECOSYSTEM ACTORS

See section 1 on methodology for a list of definitions of entrepreneurship support institutions.

Category	Organization	Idea	Startups	Early	Later	Growth	Mature
Incubators	National Incubation Center-Islamabad						
	National Incubation Center-Karachi						
	National Incubation Center-Quetta						
	Plan 9						
	IBA-Karachi						
Accelerators	Invest to Innovate-I2I						
	Telenor Velocity						
	JazzXlr8						
	Acumen-Pakistan Agriculture Accelerator						
	Accelerator Prosperity-AP						
Venture Capital	Planet N						
	Sarmayakaar						
	47 Ventures						
	Acumen						
	Fatima Ventures						
	Dot Zero						
	Lakson Investment						
Entrepreneurship Support Organizations	Seed Ventures						
	Small Medium Enterprise Authority-SMEDA						
	Ejaad Labs						
	Research and Agri Extension department						
	Operational Research and Innovation Centers-ORIC						
	Trade Development Authority-TDAP						
	Jump Start						
	Tech Juice						
Co-Working Spaces	The Hive						
	We create						
	Kick Start						
Government and Donor Program	Karandaz						
	Small Medium Enterprise Activity-SMEA						
	IGNITE						
	Kamyab Jawan						
	Project for Agro-Food and Agro-Industry Development in Pakistan - UNIDO						

The Horticulture Advancement Activity (THAZA) - FAO-USAID						
EU BRACE Project - BRSP						
Agricultural Census Organization, PBS						
Applied Economic Research Center,						
Agriculture research institute						
Balochistan Agriculture Research and Development Center(PARC - BARDC)						
Pakistan Agriculture Research Council-PARC						
Federation of Pakistan Chamber and Commerce						

Based on the data above, the report collected information on the services provided by each actor to identify key gaps and overlaps in services offered by the ecosystem actors. This information is presented in the graph and tables below.

As per the information captured, the ecosystem currently provides funding, mentoring and business training at an early-stage level. However, specific services to take Startups to growth and maturity stages are currently missing. This aligns with the findings from table 1 and reflects the need to cover existing gaps in market research, product positioning, and technical advisory. The graph below summarizes the total number of institutions in the ecosystem providing each service.

Services Provided in the ecosystem - Total of institutions



TABLE 2: SERVICES AND GAPS

Institutions	INCUBATION						ACCELERATION								
	Business Training	Mentoring	Vertical Focus (agriculture)	Soft Skills (i.e.: communication, leadership)	Co-working	Sector Specific research and data	Funding	Entrepreneurship Event/Talks	Big data and Analytics including leveraging digital assets	Market Research	Market Information	Linkages to Investors	Post Investment technical assistance	Business Support	Trade Fairs / B2B
National Incubation Center-Islamabad	✓	✓		✓	✓			✓			✓	✓		✓	
National Incubation Center-Karachi	✓	✓		✓	✓			✓			✓	✓		✓	
National Incubation Center- Quetta	✓	✓		✓	✓			✓			✓	✓		✓	
Plan 9	✓	✓		✓	✓			✓			✓	✓		✓	
IBA-Karachi	✓	✓		✓	✓			✓			✓	✓		✓	
Invest to Innovate-I2I	✓	✓		✓	✓		✓	✓		✓	✓	✓		✓	
Telenor Velocity	✓	✓	✓						✓		✓				
JazzXlr8	✓	✓							✓		✓	✓			
Acumen	✓	✓	✓				✓								
Accelerator Prosperity-AP	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓
Planet N		✓					✓								
Sarmayakaar		✓					✓								

Institutions	INCUBATION						ACCELERATION								
	Business Training	Mentoring	Vertical Focus (agriculture)	Soft Skills (i.e.: communication, leadership)	Co-working	Sector Specific research and data	Funding	Entrepreneurship Event/Talks	Big data and Analytics including leveraging digital assets	Market Research	Market Information	Linkages to Investors	Post Investment technical assistance	Business Support	Trade Fairs / B2B
47 Ventures		✓					✓								
Acumen		✓					✓								
Fatima Ventures		✓					✓								
Dot Zero		✓					✓								
Lakson Investment		✓					✓								
Seed Ventures	✓	✓		✓			✓					✓			
Small Medium Enterprise Authority-SMEDA	✓						✓								
Ejaad Labs								✓	✓	✓	✓				
Research and Agri Extension department						✓									
Operational Research and Innovation Centers-ORIC						✓									
Trade Development Authority-TDAP															✓
Jump Start										✓					
Tech Juice															
The Hive					✓										

Institutions	INCUBATION						ACCELERATION								
	Business Training	Mentoring	Vertical Focus (agriculture)	Soft Skills (i.e.: communication, leadership)	Co-working	Sector Specific research and data	Funding	Entrepreneurship Event/Talks	Big data and Analytics including leveraging digital assets	Market Research	Market Information	Linkages to Investors	Post Investment technical assistance	Business Support	Trade Fairs / B2B
We create					✓										
Kick Start					✓										
Karandaz	✓						✓								
Small Medium Enterprise Activity-SMEA	✓						✓								
IGNITE							✓								
Kamyab Jawan							✓								
Project for Agro-Food and Agro-Industry Development in Pakistan - UNIDO	✓						✓							✓	
The Horticulture Advancement Activity (THAZA) - FAO-USAID	✓						✓							✓	
EU BRACE Project - BRSP	✓						✓							✓	
Agricultural Census Organization, PBS										✓	✓				

Institutions	INCUBATION						ACCELERATION								
	Business Training	Mentoring	Vertical Focus (agriculture)	Soft Skills (i.e.: communication, leadership)	Co-working	Sector Specific research and data	Funding	Entrepreneurship Event/Talks	Big data and Analytics including leveraging digital assets	Market Research	Market Information	Linkages to Investors	Post Investment technical assistance	Business Support	Trade Fairs / B2B
Applied Economic Research Center,						√									
Agriculture research institute						√									
Balochistan Agriculture Research and Development Center(PARC - BARDC)						√									
Pakistan Agriculture Research Council-PARC						√									
PASHA														√	
Federation of Pakistan Chamber and Commerce														√	√

4. NETWORK ANALYSIS

Section 4 of this report provides detailed information about the ecosystem network and the role of leading stakeholders. The network analysis summarized in this section provides insights on density and centrality.

4.1 Institutions Connecting in the Network

This Network analysis has mapped Thirty-nine institutions, including 12 incubators/accelerators, 7 investment ventures, 9 research and innovation centres, 6 government programme, 3 Trade association/Trade authorities, 1 business development service provider and 1 other. The analysis has identified the following institutions as the ones entirely focused on promoting entrepreneurship:

- IGNITE, Ministry of Information Technology and Telecommunication (MoIT)
- National Incubation Centers-NICs (Federal and Provincial Chapters)
- Invest to Innovate-i2i
- Accelerator Prosperity-AP
- Seed Ventures

Small Medium Enterprise Development Authority

4.2 Connections in the Network

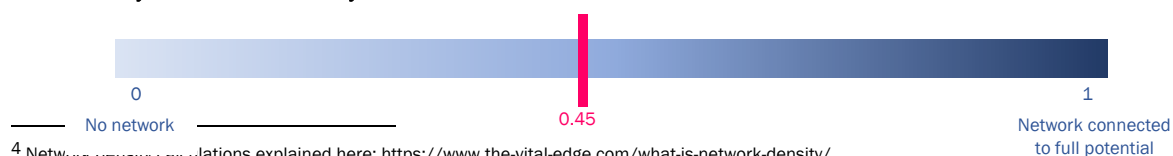
Incubators and accelerators in the network are generally well connected among themselves and investors/VC firms, but less connected with various service providers like research, statistical data related to commodity and various SMEs in agriculture value chain.

4.3 Network Density

Measured using the ties between actors, which represent interactions within the ecosystem, the study establishes that connections within the ecosystem are not at their full potential. Such ties between actors include information sharing, collaborations to deliver services and financial collaborations.

The density of the network, which describes the portion of the *potential* connections in the network that have actually been established, shows opportunities for growth. In this case, calculated from the number of institutions active in the ecosystem, the number of *potential* connections is 231. The *actual* number of reported connections is 105. When comparing the number of actual connections to the number of potential connections, Pakistan is almost half-way to meeting its potential, scoring a total density figure of 0.45⁴ (`1` being the highest possible density number, and `0` the lowest). Looking at comparatively well connected actors (defined as those actors with established links to more than five other organizations), the network still has significant potential for expansion and reinforcement. This figure can serve as a baseline for the ecosystem to increase connectedness. Specific connections are examined later on in this section.

Pakistan ecosystem – Network density:



⁴ Network density calculations explained here: <https://www.the-vital-edge.com/what-is-network-density/>

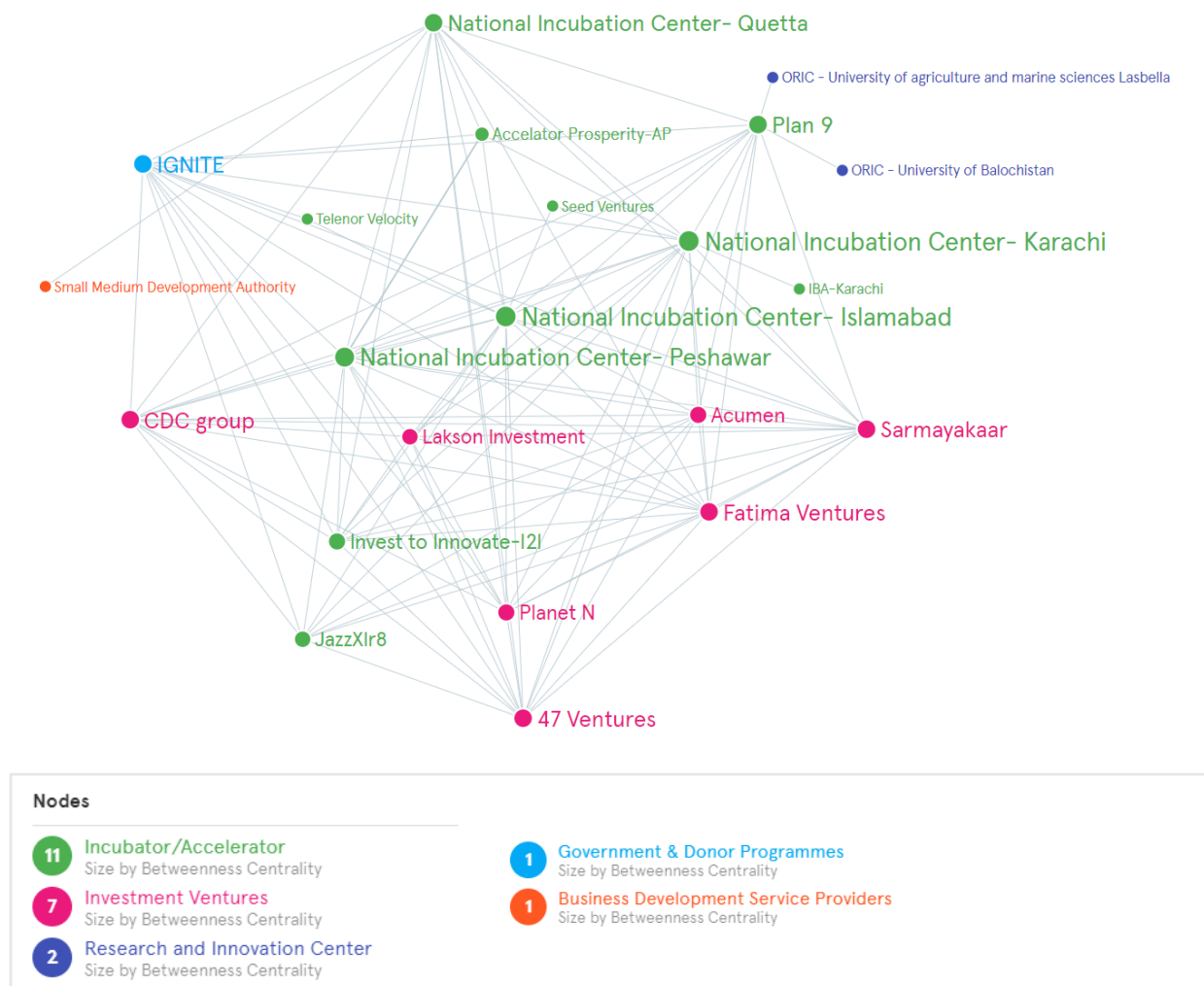
4.4 INSTITUTION CENTRALITY

About the measures:

Institution nodes are ranked according to betweenness centrality. Betweenness 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 node is a key bridge or facilitator between different actors.

Overall, it measures how often an institution appears on the 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.

Figure 1: Overall network of institutions supporting entrepreneurs in Pakistan.



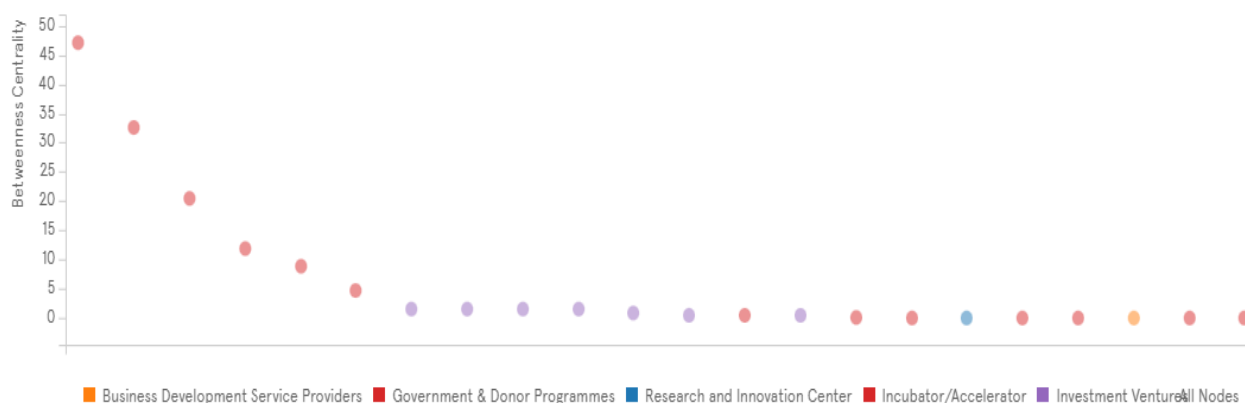
Based on the network analysis, the table below presents the top 5 ranked institutions with regards to betweenness centrality. The institutions listed below are therefore the ones who are able to reach less connected actors in the ecosystem and therefore have a bridging power between actors.

Table 1: Raking by betweenness centrality

Overview of Actors by Betweenness Centrality	(Strong individual network)
Plan 9	39.69
NIC Karachi	33.49
NIC Islamabad	24.49
NIC Quetta	22.44
IGNITE	11.49

When looking at the distribution of data, results show the specific leadership of top-ranking actors when compared to others. This represents the opportunity for other actors to step up and be more strategic about their connections with less connected actors.

Figure 9 provides an overview of institutions acting as bridges to expand and strengthen the ecosystem network (analysed by betweenness centrality).



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 or bridges between other institutions.

Institutions with a high degree centrality have an extensive network as a result of successful positioning. When connecting with them, actors might increase visibility and access new opportunities.

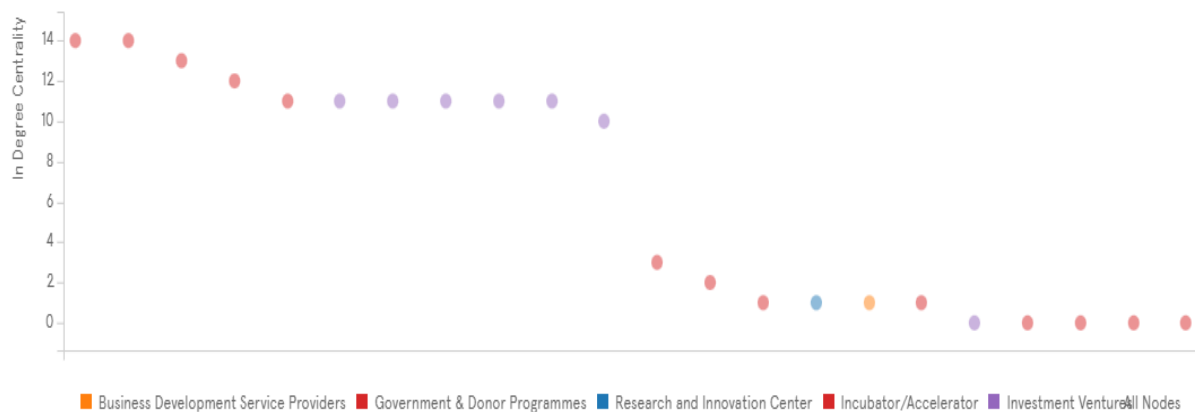
Table 2: Raking by degree centrality

Overview of Actors by Degree Centrality	(High bridging capabilities)
NIC Islamabad	17
NIC Karachi	17
NIC Peshawar	15
IGNITE	14
47 Ventures	14

In this case, the distribution of data indicates that, when compared to the bridging capabilities analysed before, a higher number of actors have a large set of connections. This means that there is a cluster of highly connected institutions among each other but only a few of this subset are reaching out to less connected actors.

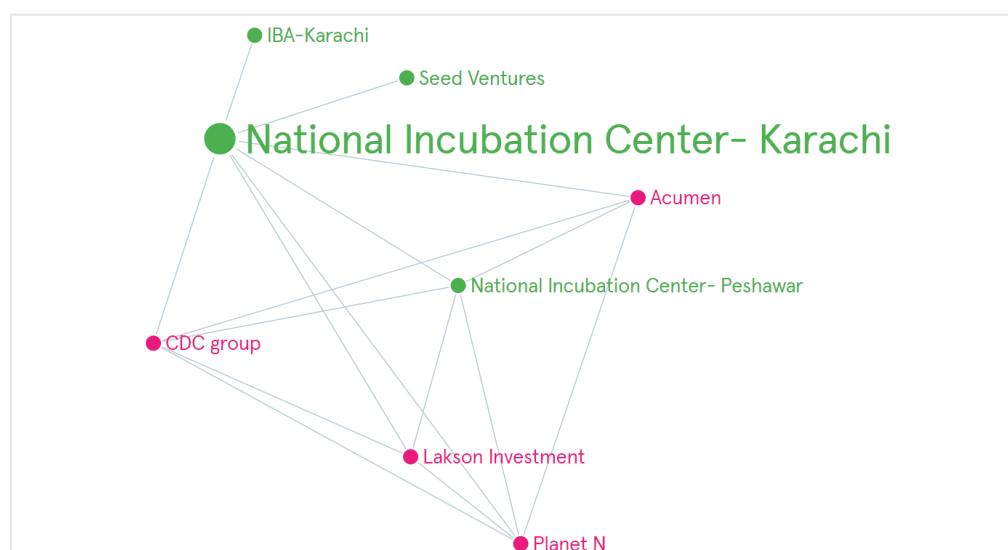
For example, NIC Peshawar or 47 Ventures could benefit from interacting with less connected actors such as universities and research centres. As another example, Plan 9 has an excellent positioning as an ecosystem builder since it has managed to rank at the top in terms of its bridging capabilities with, comparatively, less connections than other actors such as NIC chapters.

Figure 2: provides a list of the type of institutions with a solid individual network (degree centrality).

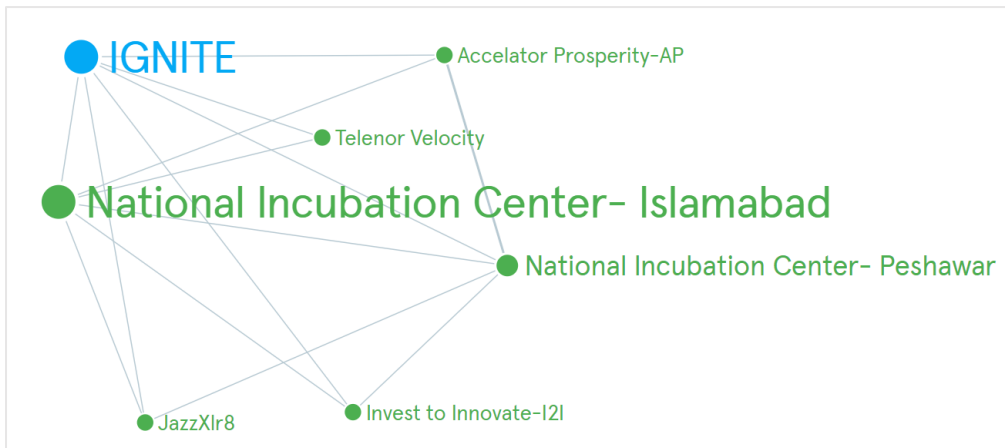


The following graphs provide a zoomed-in look at the ecosystem by regions. It is important to note that only connected institutions are being represented here. Any existing actor not represented is therefore working in isolation.

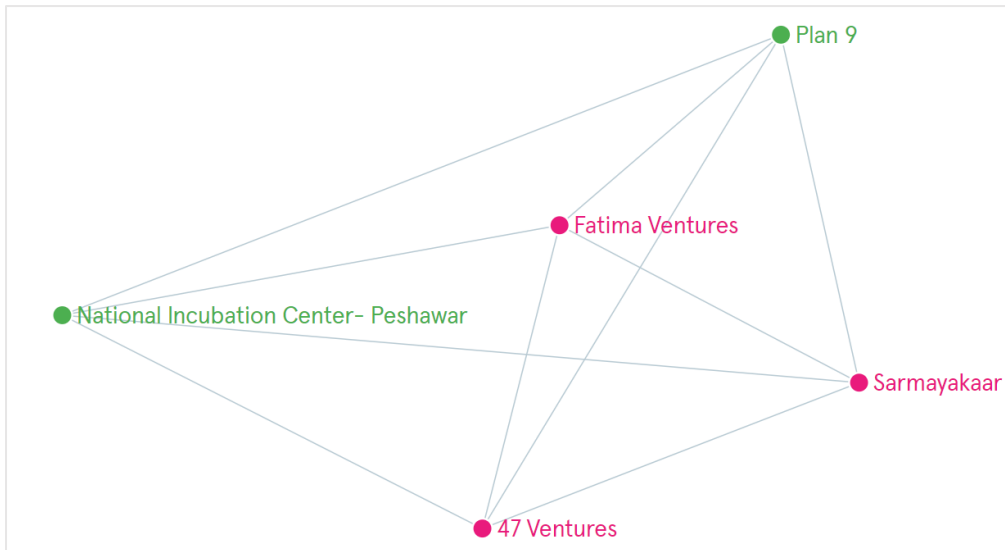
Karachi



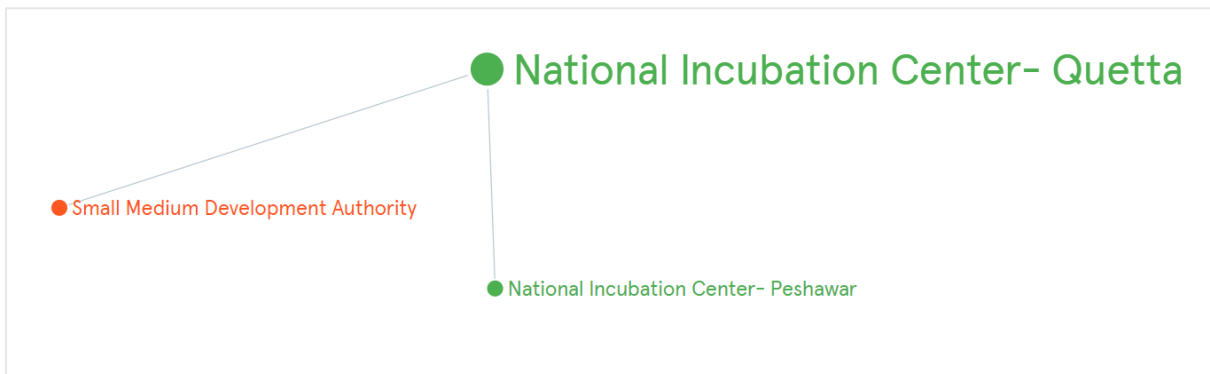
Islamabad



Lahore



Quetta



Institutions have the potential to increase their presence in the ecosystem by:

- Increasing their overall number of connections by sharing information with other actors, proposing collaborations to deliver joint services and supporting other institutions to deliver on their mandate. Connecting to highly connected institutions, such as the INGNITE/NICs would immediately boost connectivity and density in the ecosystem.
- Identifying key partnerships to play a bigger role in the ecosystem. Look for actors not yet included in the network (national and international) and bring them in through collaborations and information sharing. When additional institutions are included in the network, institutions connected to new actors increase their bridging capabilities and therefore their relevance within the ecosystem.

Academia/Industry linkages are essential in promoting entrepreneurship, particularly in the agriculture sector. This report identifies that the Office of Research, Innovation and Commercialization (ORICs) was established, but there is a notable lack of connection between ORICs and entrepreneurship support institutions. ORICs could improve their connectedness to the ecosystem by engaging institutions for market/industry research, using the ORIC premises for establishing incubators, or using ORICs facilities for product prototyping, testing etc. Information sharing sessions among all support institutions, including ORICs, will help identify potential areas for collaboration.

The following sections provide critical findings/recommendations respectively based on gaps identified through the network analysis.

5. KEY ACTORS

Following the information provided in previous sections of this report, this section provides additional details on the key ecosystem actors who have proven presence and connections in the ecosystem due to their outreach, product/service offerings, funding opportunities, innovation, and government support.

In particular, the actors below are highlighted as well-placed candidates to add Agri-entrepreneurship programmes to their service offering.

- 1) IGNITE/National Incubation Centers-NICs
- 2) Invest to Innovate-i2i
- 3) Accelerate Prosperity-AP
- 4) Seed Ventures
- 5) Telenor Velocity
- 6) Jazz xlr8
- 7) Office of Research, Innovation and Commercialization-ORIC
- 8) Investment/Venture Capital firms
- 9) Support Institutions

5.1 IGNITE/NICs

IGNITE (formerly known as National ICT R&D Fund) is a company formed under Section 42 of the company's ordinance and is part of the Ministry of Information Technology and Telecommunication. IGNITE supports all 5 National Incubation Centers (NICs) in Islamabad, Peshawar, Lahore, Karachi, and Quetta. These NICs provide the following services:

- Co-working Space
- Mentorship and Coaching
- Startups Training
- Custom Designed Curriculum
- Commercialization Support
- Networking Opportunities
- Access to Investor and Grants

Ignite has planned to launch the following initiatives in fiscal year 2021-2:

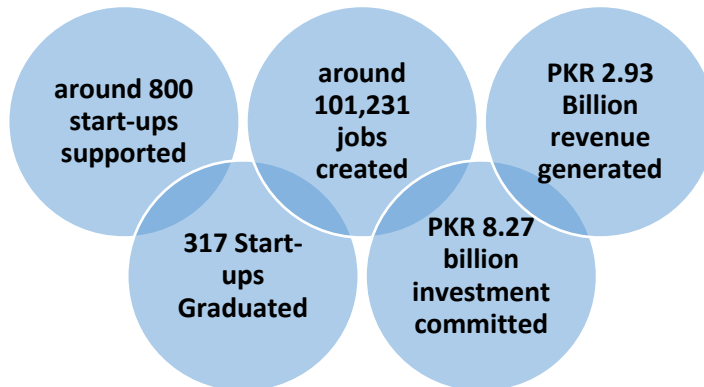
- a) Pre seed grant up to PKR 1 million
- b) Matching Grant up to PKR 10 million
- c) Agriculture Specific Vertical Incubator at University of Agriculture Faisalabad
- d) Regional Incubators at Hyderabad, Mardan and Faisalabad

IGNITE launched the online investment platform called PAKImpactInvest. It is an initiative of the Federal Ministry of Information Technology and Telecommunications (MoITT) with support from Accelerate Prosperity (AP) which is a joint initiative of the Industrial Promotion Services (IPS) of the Aga Khan Fund for Economic Development. It is the first national investment platform to bridge the gap between entrepreneurs and investment opportunities by connecting them with all types of national and international investors, commercial, impact investors, donors, and philanthropists.

IGNITE proposed collaboration with Agriculture University Faisalabad and could play a pivotal role in

promoting agri-entrepreneurship by connecting non-tech Startups with tech Startups and accessing funds and other support services.

Figure 3: IGNITE Impact ⁵



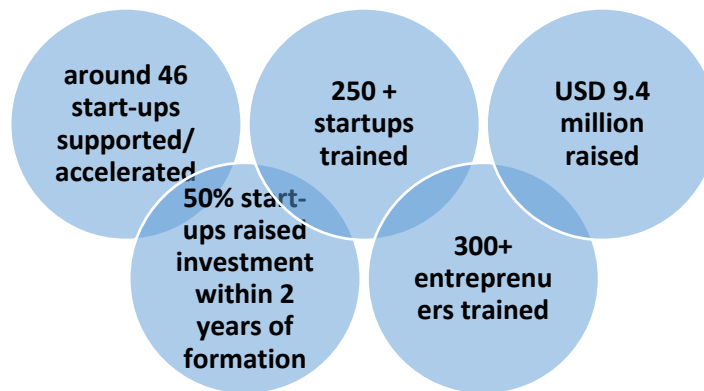
5.2 Invest to Innovate-i2i

Since 2011, Invest2Innovate (i2i) has supported Startup communities in growth markets and provides the following services:

- **Accelerator:** i2i offers a 4-month intensive programme which focuses on growth stage Startups from across Pakistan that are seeking specialized help & support systems to get them to the next level of success.
- **Insight:** Regular programme for conducting cutting-edge data analysis and developing exciting market research to help stakeholders navigate and understand growth markets like Pakistan. It also has an open-source deal flow tracker.
- **Entrepreneurial Support:** i2i designs, develops and delivers training curricula to support startup programmes and young entrepreneurs across the region as well as offers access to experts and mentors from across the globe.
- **Investment:** Through its subsidiary, i2i Ventures, the organization provides seed funding to Startups. In the past i2i has also designed & launched programmes for entrepreneurs through partnerships with players like Facebook, Karandaz & the World Bank.

⁵ <https://ignite.org.pk/nic/>

Figure 4: i2i Impact ⁶



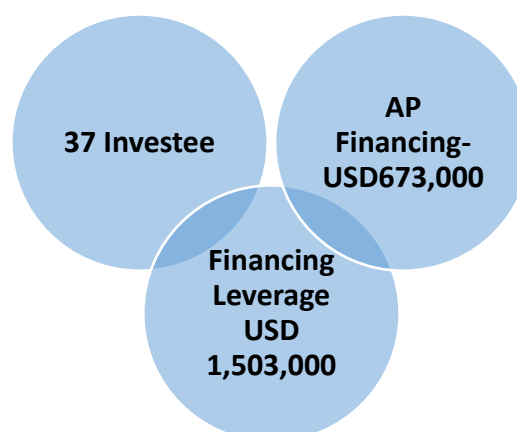
5.3 Accelerator Prosperity-AP

Accelerate Prosperity, Pakistan is an initiative of the Aga Khan Development Network (AKDN)/Industrial Promotion Services-IPS in Central and South Asia which provides technical expertise and creative financial solutions to high-growth, high-impact startups and small and growing businesses. AP offers following services:

- International Certification in Entrepreneurship-ICE: for startups and business with weak revenue streams
- Business Acceleration: for existing businesses with stable revenue streams
- Financing and Investment: Soft loans for Startups and existing businesses
- Co-Working Space
- Vertical Incubators in health and education

AP is unique in the ecosystem for a number of valuable behaviours. One major factor is the inclusion of services that tailor specifically to the needs of non-tech-based businesses. Another major advantage is the provision of funding directly to startups and young businesses. Lastly, and potentially most valuable to the ecosystem as a whole, is AP's notable outreach beyond population centres, even extending into the most remote regions of the country.

Figure 5: AP' Impact

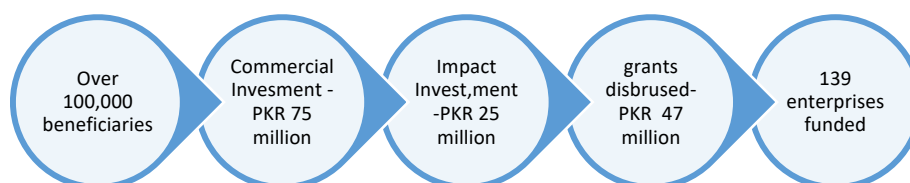


⁶ <https://invest2innovate.com/>

5.4 Seed Ventures

SEED Ventures (Social, Entrepreneurship, and Equity Development) is a social impact ecosystem developer and impact investor. SEED works with public, private, and development sector organizations and focuses on building nano-, micro-, small enterprises, Startups, and existing entrepreneurs. SEED creates enabling ecosystems through research, policy advocacy, developing entrepreneurial capacity, encouraging innovation, linking to markets, and creating access to finance through fund management and impact investment.

Figure 6: SEED's Impact

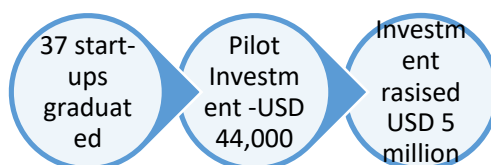


5.5 Telenor Velocity

Telenor Velocity is an initiative of Telenor Pakistan. It is a digital startups accelerator that enables Pakistani tech startups to co-create new products and services. It focuses on gaming, ED tech, and Agri tech-based interventions. Telenor Velocity's Agri-tech initiatives provide an opportunity to scale business by leveraging Telenor Pakistan's digital assets. Telenor Velocity is offering the following services:

- Access to 8 Million farmers
- Access to market data
- Access to Agri Experts and Mentors
- Payment and distribution solution.

Figure 7: Telenor's Impact

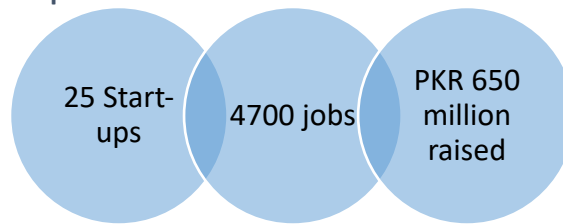


5.6 Jazz xlr8

Jazz xlr8 is a founding partner of the National Incubation Center-NIC Islamabad and an important actor in the ecosystem. It provides the following services to startups:

- Access to a network and distribution network of over 69 million subscribers
- Access to big data and analytics
- Mentoring
- Digital Financial services and training

Figure8: Jazz Xlr8 Impact



5.7 ORICs

The primary objective of Offices of Research, Innovation, and Commercialization (ORICs) is to support and organize research and commercialization activities at universities. ORICs are a pivot-point, encompassing all the research activities - from developing research proposals to commercialization - under a single umbrella.

Promoting entrepreneurship, technology transfer, and commercialization activities that improve and support the economy is one of the objectives of ORIC. There are 71 Higher Education Commission (HECs), and out of that, 21 are located in Sindh and Balochistan. The main challenge is the lack of industry linkages and almost negligible coordination with entrepreneurship ecosystem actors.

5.8 Investment and Venture Capital Firms

Fatima Ventures is an early-stage VC fund investing in scalable tech companies. Fatima Ventures' parent company, Fatima Group, is one of the largest conglomerates in Pakistan. Fatima venture and Gobi Partners are two of the most active multi-national venture capital firms in Asia. Fatima Gobi Ventures is combining local expertise with VC know-how.

5.9 Support Institutions

The following represent the support institutions related explicitly to agriculture other than incubators and accelerators

- TDAP
- SMEDA
- Pakistan Bureau of Statistics-PBS
- Pakistan Agriculture Research Council
- Agriculture Extension Department
- ORIC

These institutions provide following type of services:

- Trade data and statistics
- Market Information
- Commodity trading platform
- Market research
- Business Match Making
- Sector specific feasibility studies
- Value Chain Analysis and reports
- Outreach
- Business Development Services
- Access to funds
- Trade fair

6. ENTREPRENEURS PERSPECTIVE

As part of this report ITC conducted 2 Focus Group Discussions-FGDs (in Quetta and Karachi) with SMEs and entrepreneurs, including Startup founders.

The main objective of these FGDs was to get an insight into the entrepreneurial ecosystem and understand the user-experience of entrepreneurs seeking services.

The summarized findings of the FGDs are listed below:

- University graduates are aware of the NICs and very much satisfied by the services offered by NICs. However, participants have minimal information or knowledge about other similar programmes.
- Many SMEs (well established businesses) have ample opportunities to synergize with startups since they require improvement in their supply chain management, reaching out to customers, business productivity, and forward and backward linkages.
- Each actor in the ecosystem offers products and/or services that can be helpful for startups for accessing technical assistance, research data and funding. However, due to a lack of information and inadequate networking among the various actors, SMEs, including startups, have difficulty in accessing the services on offer in the ecosystem.
- NICs are currently the only institutions that connect startups to access training/mentoring and networking with potential investors/VC firms. However, startups are often unaware of sector-specific players like agriculture research departments, extension services departments, SMEDA and TDAP. The NICs should collaborate with such sector-specific organizations to increase access for entrepreneurs. This would facilitate startups in providing industry insights, connections to customers, and improving products/services. NICs/SMEDA is considered easier to access for various services the startups need. Specific startup-related programs/funding opportunities, regular events, effective communication strategies to reach out to large audiences and regional offices are the main factor for better access to these institutions..
- Established SMEs who have graduated out of the startup classification need to be encouraged to engage with the ecosystem. Many such SMEs see their own success in growing from startup to established business as evidence that they do not need to engage with the ecosystem, or it is not beneficial. However, while these companies may be larger than startups, many still face growth challenges and need to increase productivity, expand the business, innovate their designs, and improve market penetration. Many of these challenges could be overcome by partnering with ecosystem actors, or collaborating with startups.
- There is an enormous opportunity for corporate innovation. Corporate innovation is a method to incorporate new ideas or innovations into existing business models, processes, products or services that will enable companies to retain market share over an extended period. Such innovation can be achieved through collaboration with NICs and universities, or engaging innovative, agile-startups for partnership. The main challenges to fostering corporate innovation include a lack of coordination between businesses, inadequate industry insight, and poor entrepreneurial/ambitious thinking.

7. SUMMARY OF KEY FINDINGS

7.1 Incubator/Accelerator

a) Funding

Federal and provincial governments provide support, including funding to most incubators. The continuity of many ecosystem programmes depends upon the regular flow of financing from the government. So far, government funds have remained consistent, and there is no severe financing challenge. Other seed funding options are intermittent through some donors programmes but these are limited.

b) Service providers for management of Incubators/Accelerators

There are very few service providers like Teamup, Jazz XLr 8 and LMKR in the ecosystem who have the expertise in managing incubators/accelerators. The limited number of service providers is one of the critical challenges in expanding outreach.

c) Tech-savvy entrepreneurship

The Pakistani Startup ecosystem shows substantial growth, and technology-driven businesses dominate the Startup ecosystem. However, non-tech-based Startups face challenges in getting business support services and accessing funding.

d) Sector Specific Verticals

The entrepreneurship ecosystem is highly specialized to serve the needs of tech-oriented startups, largely due to the fact that most startup-support programmes are initiated and supported by IGNITE (Ministry of Information and Technology). However, there is significant space in the ecosystem for establishing sector-specific startup programmes, particularly in the agriculture sector. There is a need to promote agri-entrepreneurship and address the specific sector challenges of agriculture. Specifically, identified challenges include:

- Value addition
- Controlling post-harvest losses
- Improving agriculture practices and crop productivity
- Introducing agriculture technology in farming practices
- Using agriculture waste for energy generation and making fibre etc.

Lack of Agri-specific business training, limited industry-specific research/data, limited sector-specific knowledge of service providers for Incubators/accelerators, and little networking among support institutions are the key challenges for creating an agri-entrepreneurship ecosystem.

e) Promoting Entrepreneurial Behaviour

Entrepreneurial behaviour is the main critical factor for any business. The strength of any entrepreneurial ecosystem relies on the entrepreneurial mind-sets of each actor/player in the ecosystem. However, the current training and mentoring programmes have limited focus on this significant aspect of entrepreneurship.

7.2 Investment/Venture Capital

The last few years' growths indicate the growing interest of local and international investor/Venture Capital firms in the Pakistani ecosystem. However, only 15 % of Startups raise investment. The main challenges faced by the Startups are:

- Lack of a solid business model.
- Lack of industry-specific knowledge/data.
- Limited knowledge about the investment terms.
- Complexities in business valuation/negotiation.
- Regulatory issues.

7.3 Business Development Services-BDS

Startups are mostly satisfied with the various BDS activities on offer, including business registration, taxation consultancy, and legal advice. However, these services are heavily subsidized either by incubators or Small, Medium Enterprise Development Authority-SMEDA.. There is a need for:

- Customised training and mentoring programs
- Carrying our Need Assessments to inform BDS design and development
- Build capacity of BDS providers to understand the startup ecosystem and design product offerings and pricing strategies specifically for the needs of startups.

7.4 Sector Specific research and big data analytics

There have been several studies on the agricultural value chain conducted by the academia, private research institutions, public sector planning departments, and research departments in recent years. These are significantly helpful for agri-startups to inform their business decisions, refine business models or develop new products. However, there is little/no collaboration among the ecosystem actors. Potential area of collaboration could be:

- Information and data sharing
- Linking startups with other support institutions to access funds, expand outreach, provide services to other institutions etc.
- Market research
- Value addition
- Piloting the innovation
- Commercialization the research

Telenor and Jazz are the two critical telecom operators who have significantly invested and created digital assets related to agriculture (approximately over 10 million subscribers). Similarly, the Pakistan Bureau of Statistics-PBS has a considerable volume of data on pricing, cropping pattern, trade, etc. However, agri-startups rarely access the data due to lack of information, lack of technical skills to analyse and make use of the data, and complexities in accessing that data.

7.5 Support Institutions

There are several support organizations like TDAP, SMEDA, research institutes, extension departments, donor/public sector-led programs, etc. that exist in the ecosystem, but due to lack of

information, customized product/services, and outreach, agri-startups do not collaborate with these support institutions in an effective manner.

7.6 Startup performance tracking

Most startup programmes have a system in place to track startups' performance, growth, and funding mobilized at various stages. However, few of these programmes share their data, and no centralized repository of startup performance tracking exists. Having such a database would provide invaluable insight into the entrepreneurship path in Pakistan as a whole ecosystem, rather than just the individual cohorts of specific institutions. Access to such data would help those same institutions provide more data-informed services and deliver greater value and impact to their startup clients.

8. RECOMMENDATIONS

8.1 Agri specific Incubators

Higher Education Institutions (HEIs), under the direction of the Higher Education Commission of Pakistan (HEC), has established Offices of Research, Innovation and Commercialization (ORIC). ORIC is providing a one-stop solution for research on the commercialization process. There is a need for solid collaboration of ecosystem actors with ORICs to promote or engage non-tech-based businesses/startups.

There is also a need to build the capacity of incubators/accelerators and improve their service offering for Agri Startups and ensure effective collaboration among various stakeholders through technical assistance, events, and capacity-building programmes. As Pakistan's economy still depends heavily on agriculture, establishing a pilot agri-incubator with support of Government financing institutions like IGNITE could be major boon for the sector. It would help spur innovation in agriculture and promote SME competitiveness in both national and international arenas. Accelerate Prosperity's collaboration with Aga Khan University for establishing a health incubator is one example of a successful sector-specific incubator that could be replicated for Agriculture.

8.2 Capacity building of Ecosystem actors and players

Capacity-building interventions should focus on the improvement of service delivery and collaboration among ecosystem actors. Potential capacity building areas include:

1. Develop a diverse pool of service providers to expand outreach beyond cities.
2. Develop the capacity of ecosystem actors around innovative agriculture initiatives like climate-smart agriculture.
3. Provide orientation on sector-specific industry issues, challenges, and opportunities for investors/Startups and incubators/accelerators
4. Specialized Entrepreneurship training program, particularly entrepreneurial behavior, for Startups and graduates of academia.

8.3 Funding

There are various donors/public sector grant programmes where Startups can access funds. There is, however, a need to coordinate mechanisms among multiple stakeholders to access these funds. Also, there are Government financing schemes for SMEs, and financing products from financial institutions. There is, however, a need for customized financial products tailored to the needs and contexts of agri-startups (for example, revenues are tied to harvest seasons, and so repayment of financing should be tailored to incorporate this unavoidable timeline). Financial institutions must be encouraged to embrace such financing products, and offer them to the agri-entrepreneurship community.

8.4 Startup performance tracking

There is a need to institutionalize the Startup track-and-trace system and provide technical assistance to ecosystem actors to maintain and make best-use of such a database. Access to wide-spread data on the success and failure of startups will help institutions assess the performance of startups, and identify critical areas for technical aid to assist the entrepreneurs and boost success rates.

8.5 Engaging current SMEs

Many SMEs, particularly in agriculture, were not a part of any incubation programme during their own formation and growth. These now see engagement with the entrepreneurship ecosystem as unnecessary, and not beneficial. Regardless, these businesses could see significant benefit from engaging with the ecosystem. Many of these SMEs do need support to improve their supply chain management, reach new customers, improve their productivity, and establish forward/backward linkages. There is a need to engage and encourage SMEs to collaborate with Startups. This would realize significant benefits for existing established SMEs, while providing new business opportunities for emerging enterprises. The collaboration with SMEs could be in the following areas:

- Supply Chain
- Trading platform
- Market research and trade statistics
- Sourcing, warehousing and distribution
- Value addition
- Industrial research and innovation

8.6 Data portal and services

Availability and accessibility of the correct data and customized information on trade and market intelligence is key to developing/improving the product/services offered by startups and help increase outreach to clients through informed data analytics. There is a need to make a central data repository where one-stop access to market data/information will be available for industry insights or customized by various stakeholders.

8.7 Central Information Management System

All the incubators/ accelerators, investors, financial institutions, Government agencies, and other support institutions manage and track information on their own Startups and SME clients. These actors only share knowledge in a limited way among each other. However, there is a need to develop an information management system to increase access and sharing of information throughout the entire network.

ANNEX II: INSTITUTIONS MAPPED

National Incubation Center- Islamabad

In 2016, the first National Incubation Center was launched in Islamabad. Developed to further the vision of a Digital Pakistan, and funded by IGNITE – National Technology Fund. NIC Pakistan is the first of its kind. A shared space providing state-of-the-art facilities, a bridge between entrepreneurs, innovators and investors, a hub for innovation. A place born to nurture and grow talent from across Pakistan, powered by Jazz and Team up, under the umbrella of the Ministry of IT and Telecom.

<https://nicpakistan.pk/>

National Incubation Center- Peshawar

National Incubation Center Peshawar is a joint initiative of LMKT and PTCL and is funded by Ignite (formerly known as ICT R&D Fund). With its state-of-the-art facility, NIC Peshawar offers a tailored incubation programme to aspiring entrepreneurs of the region. It aims to build a thriving entrepreneurial ecosystem in Khyber Pakhtunkhwa and support the creation of disruptive, innovative tech startups with a belief that with efficient utilization and allocation of resources these disruptors will change the way people live, work and engage.

<https://www.nicpeshawar.pk/>

National Incubation Center- Karachi

National Incubation Center Karachi is an Ignite-funded and LMKT-operated facility created to serve as a catalyst for Sindh and Pakistan’s economic development. National Incubation Karachi is part of the Ministry of IT & Telecom’s National Incubation Center Programme. Under the Program’s public-private partnerships, a string of incubation centers was established across Pakistan in a bid to promote youth-led entrepreneurship in the country.

<https://www.nickarachi.com/>

National Incubation Center- Quetta

The National Incubation Center (NIC) Quetta is a first of its kind Incubation & Acceleration platform, launched under the public – private partnership of Ministry of Information Technology & Telecom, IGNITE, Lahore University of Management Sciences (LUMS) and Balochistan University of Information Technology, Engineering and Management Sciences (BUIITEMS).

<https://nicquetta.com/>

Accelerate Prosperity-AP

Accelerate Prosperity is a new global initiative of the Aga Khan Development Network (AKDN) in Central and South Asia and provides technical expertise, creative financing solutions and market connections for small and growing businesses.

<https://accelerateprosperity.org/>

Invest to Innovate-i2i

Invest2Innovate-i2i supports startup communities in growth markets, and has been working in Pakistan since 2011 and provide support to entrepreneurs via our own flagship programme the i2i

Accelerator, i2i ventures, a VC firm and i2i also regularly publish comprehensive data & briefings on Pakistan's startup ecosystem.

<https://invest2innovate.com/>

Telenor Velocity

Digital Startup Accelerator of Telenor Pakistan, fostering an environment of innovation and collaboration; enabling Pakistan's tech-startups to co-create new digital products and services with us, which are scaled on Telenor's digital assets.

<https://telenorvelocity.com.pk/>

IBA-Karachi

IBA-Business Incubator is aimed to provide the physical, technical and soft assistance to the emerging ventures. Physical assistance consists of rooms, furniture, and IP Phone. Technical assistance is comprised of mentoring and consultancy tailored to the needs of the ventures. The soft assistance involves the facilitation for their fund-raising campaigns, and the capacity building activities i.e. organizing workshops and seminars etc.

https://ced.iba.edu.pk/incubation_center.php

Jazz Xlr8

Jazz xlr8's mission is to discover and support Pakistan's best startups, help them scale and build a thriving startup ecosystem in Pakistan and endeavor to find and empower entrepreneurs, through global partnerships, customized curriculum, mentor network & Jazz services.

<https://jazzxlr8.com.pk/>

Plan 9

Plan9 is Punjab Information Technology Board's tech incubator established with the vision of creating entrepreneurial ecosystem in Pakistan. Founded in August 2012 and are the pioneer of incubation in Pakistan, striving every day to ensure sustainable growth of early stage, tech-product based startups.

<https://plan9.pitb.gov.pk/>

P@SHA Fund

Pakistan Software Houses Association for IT and ITES (P@SHA) was initiated by a number of software houses in an attempt to create a functional trade association for the IT industry in Pakistan. Aiming to protect the rights of its members; P@SHA lobbied with the government to initiate policies and create an environment that would attract more firms to join the industry.

<https://www.pasha.org.pk/>

Seed Ventures

SEED Ventures (Social, Entrepreneurship, and Equity Development) was established in 2009 and are social impact ecosystem developers and impact investors. SEED work is dedicated to nurturing an ecosystem where social entrepreneurs can thrive and where the social impact of traditional entrepreneurship can be enhanced and scaled.

<https://seedventures.org/>

Planet N

Planet N mission is to support entrepreneurs across emerging markets to build successful, scalable, international and socially impactful businesses which harness the best of global technology to solve market problems and propel their societies along the path of development through digitization.

<https://www.planetngroup.com/>

Sarmayacar

Sarmayacar backs daring entrepreneurs building market-transforming technology startups in Pakistan and one of the leading Venture Capital Firm.

<https://www.sarmayacar.com/>

47 Ventures

47 ventures invest in startups primarily based in Pakistan that have a high growth potential and that leverage technology for scale.

<http://47.ventures/>

Acumen

ACUMEN invest in early-stage companies whose products and services enable the poor to transform their lives and support companies with the tools, networks, technical assistance and strategic guidance needed to succeed and scale into long-term solutions to poverty. Acumen Capital Partners-ACP supports established, high-potential companies to catalyze scalable solutions that deliver social and financial returns. Acumen Academy serves a community of social innovators and builders who are willing to embrace the challenge of solving the world's toughest problems and provides the practical tools, practices and resources needed to create new solutions for an interdependent world.

<https://acumen.org/>

Lakson Investment

Lakson Investments is Pakistan's largest independent asset manager. We manage Private Equity and Venture Capital Funds, Fixed Income and Equities (Conventional, Shariah, SRI/ESG, Tactical). In addition, we manage Segregated Mandates in Equities and Fixed Income.

<https://li.com.pk/>

Fatima Gobi Ventures

By bringing together one of the largest conglomerates in Pakistan, Fatima Group and one of the most active multi-national venture capital firms in Asia, Gobi Partners, Fatima Gobi Ventures is fusing local expertise with VC know-how. We invest intelligently, using data collated from the flourishing entrepreneurial ecosystems of Northeast and Southeast Asia to find companies locally that have the edge and drive to go beyond Pakistan's borders. Simultaneously, we accelerate the growth of founders by bench-marking their businesses and linking them to the developed markets in Asia.

<https://fatimagobi.vc/>

ORIC - University of Balochistan

ORIC are committed to play an active role in facilitating the University's research and encourage the faculty to contribute and share in promoting goal-oriented research activities and are aimed to act as a catalyst for the transformation of knowledge towards invention and innovation and its subsequent commercialization leading to a positive impact on the welfare and well-being of nation.

<http://oriac.uob.edu.pk/>

Lasbela University of Agriculture, Water & Marine Sciences (LUAWMS)

Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS), located in the historic and magnificent district Lasbela in Balochistan province of Pakistan, is truly a comprehensive institution of higher education with enduring commitment to achieve excellence in higher education, innovative technology, cutting-edge research, and superior public service. LUAWMS is dedicated to prepare its graduates for successful careers and enable them to play a constructive role in progressing social inclusion, economic prosperity, and environmental quality.

<https://www.luawms.edu.pk/>

EjaadTech

EjaadTech is an engineering and technology research and development services firm, focused on hardware products and STEM/STEAM Education, based in Karachi, Pakistan.

<https://ejaadtech.com/>

We create PAKISTAN

WECREATE | PAKISTAN serves as an entrepreneurial community center for women interested in starting or expanding an existing business. The Center provides mentoring, business connections, specialized training, connections to the community, media attention, access to markets and capital along with the technical tools and resources necessary for taking any business to the next level.

<http://pakistan.wecreatecenter.com/>

Karandaaz

KARANDAAZ PAKISTAN is a not-for-profit special purpose vehicle set up under Section 42 in August 2014. Karandaaz is the implementation partner of the Enterprise and Asset Growth Programme (EAGR) of UK's Foreign, Commonwealth & Development Office (FCDO). Karandaaz promotes access to finance for micro, small and medium-sized businesses through a double bottom line investment platform and financial inclusion for individuals by employing technology enabled solutions. The company has four verticals: Karandaaz Capital, Karandaaz Digital, Karandaaz knowledge and Karandaaz Innovation.

<https://karandaaz.com.pk/>

Small Medium Enterprise Activity-SMEA

The USAID Small and Medium Size Enterprise Activity (SMEA) is helping Pakistani SMEs become more competitive by reforming policies and creating a stronger financial and operational framework for these enterprises to grow. The activity supports SMEs in the information and communications technology, light engineering, textile, hospitality, minerals, logistics and packaging, and leather

sectors. These efforts will create jobs, cultivate entrepreneurship across the country, and reduce poverty.

<https://chemonics.com/projects/elevating-pakistans-enterprises/>

IGNITE

IGNITE (formerly known as National ICT R&D Fund) is a company formed under Section 42 of the company's ordinance and is part of the Ministry of Information Technology and Telecommunication. IGNITE supported all 5 National Incubation Centers-NICs at Islamabad, Peshawar, Lahore, Karachi, and Quetta.

<https://ignite.org.pk/>

Project for Agro-Food and Agro-Industry Development in Pakistan – UNIDO

The United Nations Industrial Development Organization (UNIDO) received a US\$5.2 million grant from the Government of Japan to support agri-food and agro-industry development in the Pakistani provinces

<https://www.unido.org/news/japan-and-unido-support-agro-industry-development-pakistan>

The Horticulture Advancement Activity (THAZA) - FAO-USAID

The Horticulture Advancement Activity (THAZA) is a five-year, \$16.45 million Public International Organization grant to the United Nations Food and Agriculture Organization (FAO). THAZA is implemented in the Afghanistan-Pakistan border region in Balochistan and Khyber Pakhtunkhwa provinces to strengthen commercial horticulture value chains to create sustainable livelihoods for farmers.

<http://d-portal.org/q.html?aid=US-GOV-1-72039118IO00004>

EU BRACE Project – BRSP

The Balochistan Rural Development and Community Empowerment (BRACE) is a European Union (EU) funded Programme and is being implemented in nine districts of Balochistan by five Implementing Partners. The BRSP component is a five-year (2017-2022) €26 million implemented in the eight districts (Zhob, Loralai, Duki, Pishin, Killa Abdullah, Washuk, Khuzdar and Jhal Magsi) in close collaboration with the Government of Balochistan and the National Rural Support Programme (NRSP) is implementing in Kech district.

<https://www.brsp.org.pk/projects/balochistan-rural-development-and-community-empowerment-brace/>

Agricultural Census Organization, PBS

Agriculture Census Organization (ACO) was established in 1958 and is part of Pakistan Bureau of Statistics-PBS and responsible of agriculture and livestock census.

<https://www.pbs.gov.pk/content/agriculture-census-wing>

Applied Economic Research Center

The Applied Economics Research Centre (AERC), University of Karachi, was established in 1973. The Centre undertakes research on issues in applied economics with a focus on urban and regional

economics, agriculture economics, human resource development, public finance, poverty, health and nutrition, industrial economics, trade, environment and gender issues.

<http://www.aerc.edu.pk/>

Balochistan Agriculture Research and Development Center (PARC - BARDC)

Balochistan Agricultural Research & Development Center (BARDC), have five institutes namely, Horticultural Research Institute Khuzdar, Coastal Agricultural Research Institute Lasbella, Agricultural Research Institute Turbat, Agricultural Research Institute Jafferabad and Agricultural Research Institute Barkhan at Rakhni are working with the aim to enhance agricultural productivity through efficient management of natural resources (water, land, range lands, livestock, medicinal herbs and fisheries etc.)

<http://www.parc.gov.pk/index.php/en/balochistan-agricultural-research-centre-quetta>

Pakistan Agriculture Research Council-PARC

Pakistan Agricultural Research Council (PARC) is the apex national organization working in close collaboration with other federal and provincial institutions in the country to provide science-based solutions to agriculture of Pakistan through its statutory functions.

<http://www.parc.gov.pk/>

FPCCI – The Federation of Pakistan Chambers of Commerce & Industry

Since its inception in 1950, the FPCCI has advocated and voiced the collective opinion, concern and aspiration of the private sector and offered helpful advice and solid assistance to the Government in its efforts to promote exports, encourage foreign investment and stimulate economic activities in the country. The FPCCI has its fingers on the pulse of the economy and serves as a bridge between the private sector and the Government.

<https://fpcci.org.pk/>

Trade Development Authority

The Trade Development Authority of Pakistan (TDAP) is mandated to have a holistic view of global trade development rather than only the ‘export promotion’ perspective. TDAP will also help improve market access through advising the Government on matters of trade diplomacy and promoting the “business” image of Pakistan in the key export markets for Pakistani products and services, the world over.

<https://tdap.gov.pk/>

Small Medium Development Authority

Premier institution of the Government of Pakistan under Ministry of Industries & Production. SMEDA was established in October 1998 to take on the challenge of developing Small & Medium Enterprises (SMEs) in Pakistan. With a futuristic approach and professional management structure it has focus on providing an enabling environment and business development services to small and medium enterprises. SMEDA is not only an SME policy-advisory body for the government of Pakistan but also facilitates other stakeholders in addressing their SME development agendas.

<https://smeda.org/>



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