



Ministry of Information Technology
& Telecommunication

DIGITAL PAKISTAN



Startup Ecosystem in Pakistan



This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

Mr. Arif Sargana

Director General, Pakistan Telecom Authority (PTA)

Mr. Fasieh Mehta

Global Partnerships Director, EPIC Games

Mr. Imran Jattala

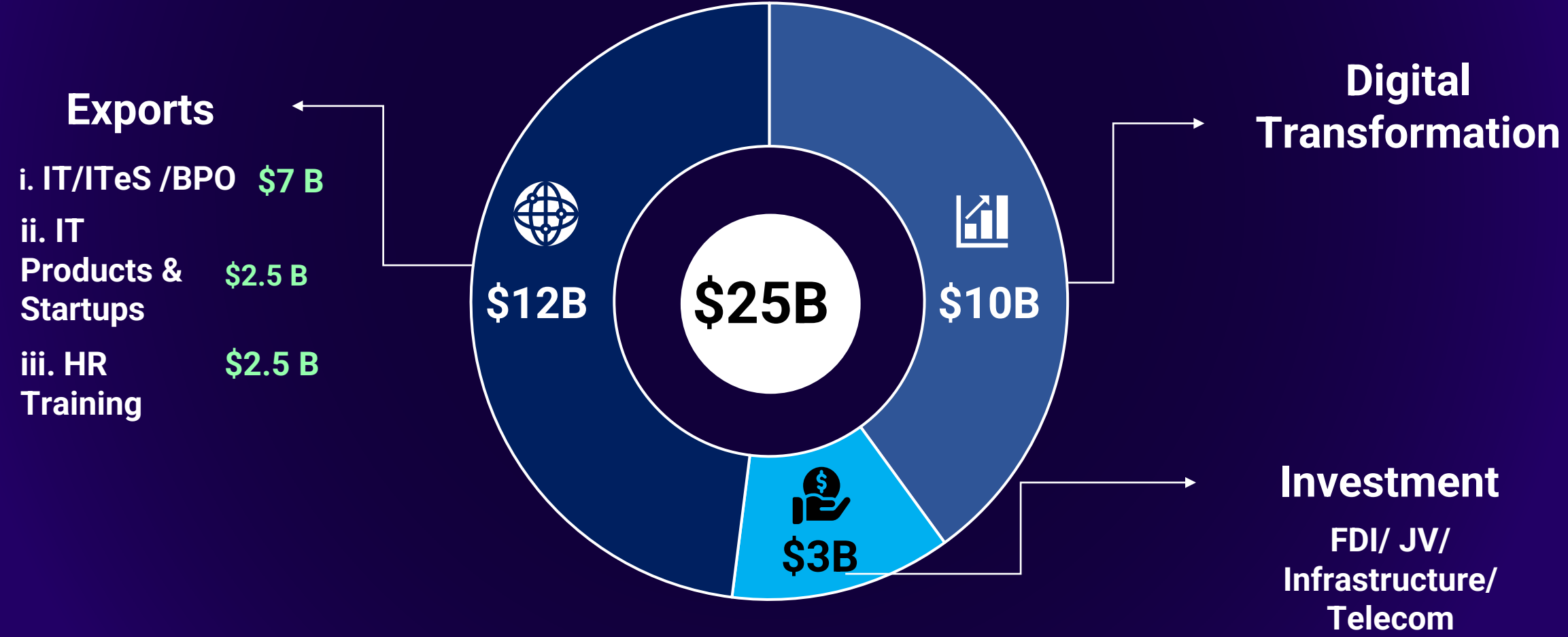
Project Director, NICAT



Prime Minister of Pakistan's IT Vision 2030: \$25B / YR

Ministry of Information Technology & Telecommunication

DIGITAL PAKISTAN



	Programs	Existing Govt Programs	Case Study
Incentivize Product IP Development	Intellectual Property Rights (IPR) Sign Patent Cooperation Treaty (PCT) Non-Tech Corporate Investment Sector	\$5.6M: Accelerator \$0.7M: Challenge Driven Innovation Fund \$0.5M: Technology Transition Program	Ireland Tax rationalization for R&D
Global Quality & Standards	Cyber Security, ISO/CMMI, Cloud Badges Agile, DevOps, GDPR compliance	\$.05M: Technology Transition Program	India Govt mandated ISO & CMMI
Expand Global Markets Access	5 New Global Trade Offices Business KPIs for Global Trade Offices	\$3.5M: Marketing and Outreach, International Events, National Events	Korea Trade offices worldwide
Strengthen Startup Ecosystem	Public Procurement from Startups (20%) Startup Investment Amnesty Scheme	\$16M: NIC Programs \$2.73 BridgeStart Pakistan \$10M: Civic Innovation (DEEP) \$14M: CEQA, VPS \$9.8M: Digiskills, Codiskills	France 25 tech unicorns by 2025
Investor-Friendly Environment	Extend VC exemptions 2035 Operationalize STZA VC Exemptions	\$7M: Pakistan Startup Fund \$0.2M: Investor Awareness	UK Tax incentives for investors

Pakistan - Fifth Largest Nation at a Glance



Pakistan Workforce

Annual Working Age 4M	Annual Enrollment 1.5M	Annual TEVT Enrollment 0.3M	Annual Labor Force 1.4M
--------------------------	---------------------------	--------------------------------	----------------------------



24K PhDs	120K MPhil	2.3M Post Grads	5.4M Undergrads
----------	------------	-----------------	-----------------

Pakistan Educated Workforce



Global Population Rank – 250M – 5th

Global Young Population Rank – 60M – 5th

Global Labor Force Rank – 75M – 6th

Global Economy Rank (GDP) – 42nd

Total fiber optic cable: 158,000 km

Local mobile phone production: 105M (36% smartphones)

Mobile data usage: 13,045 Petabytes (July'24)

Global Entrepreneurship Index (GEI) – 109th

Global Innovation Index – 88th

Global Financial Access Index – 136th

Global Competitiveness Index – 115th

Ease of Doing Business Index – 108th

Pakistan – Ready for Digital Disruption

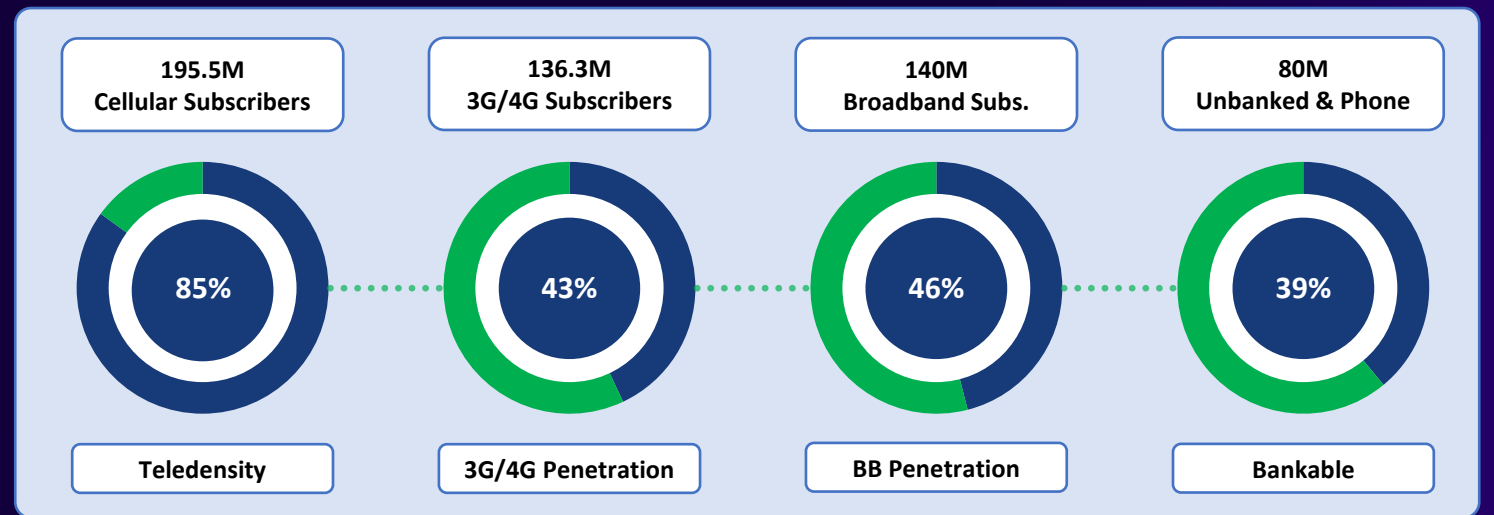
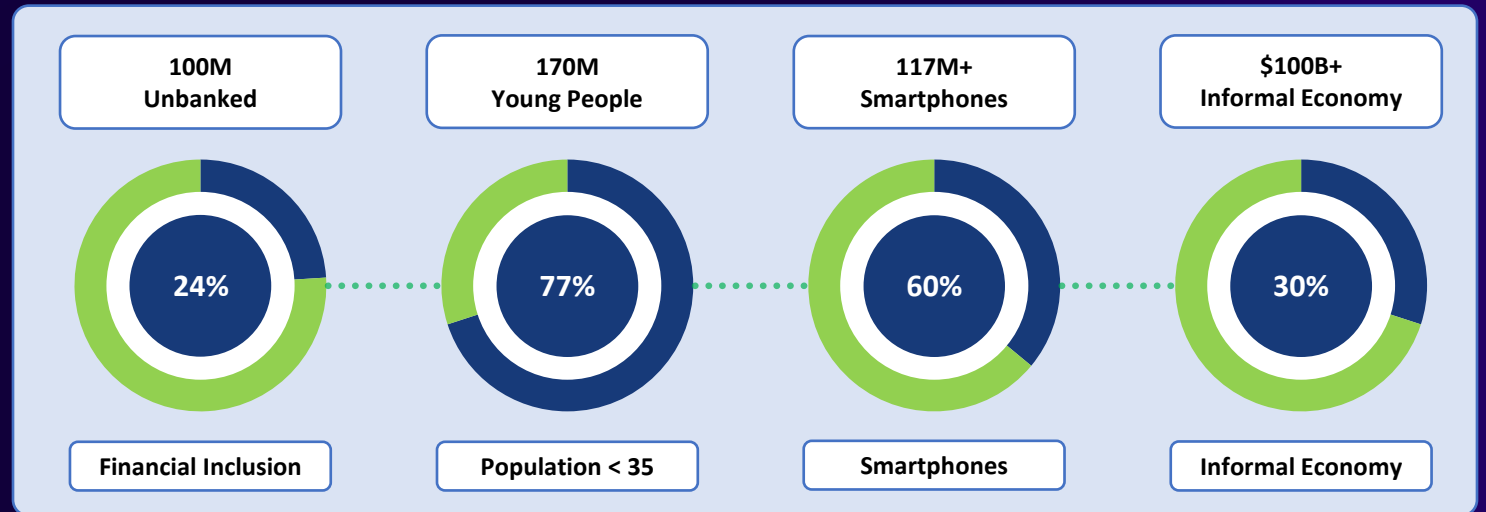
Consumer Market Rank –
\$280B – 29th

- Consumer Spending of \$280 Billion
- Multiple Unicorn Startups Potential

According to Boeing, there is demand for more than 43,500 new airplanes through 2040 valued at \$7.2 trillion.

- Pakistan, Aerospace & Defence market size is of \$8.7 billion

By 2025, 122M Strong Middle Class Will Create Several Multi-Billion Dollar Markets



Pakistan's IT & Freelancing Industry Landscape



Pakistan rapidly growing (78% annually)

Freelancing booms (\$500M in 1 year)

3 million freelancers estimated in Pakistan

Design & Web Dev top skills in demand

\$20/hour average freelancer rate estimated

Young freelancers dominate (under 30 years old)

Payoneer: Top payment method for freelancers

Most Popular Freelancing Skills in Pakistan

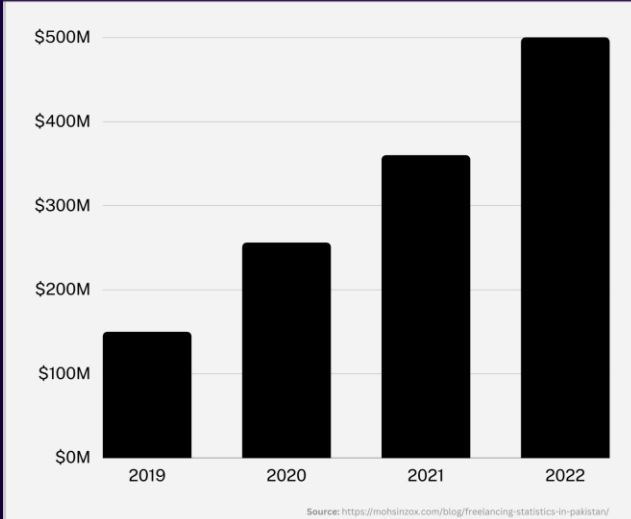


Pakistan's IT Exports Growth

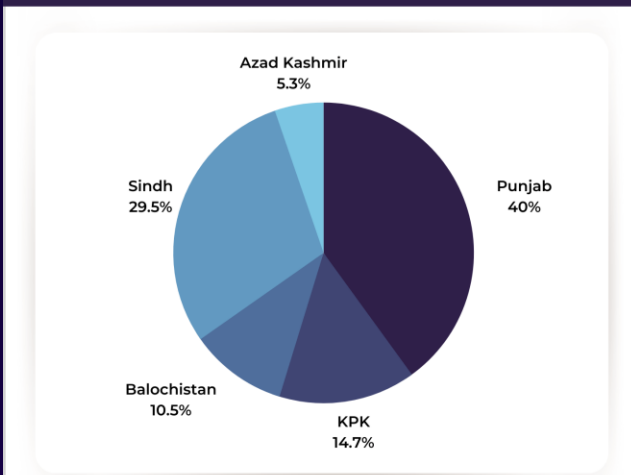


Source: State Bank of Pakistan

Pakistan Freelance Market Growth

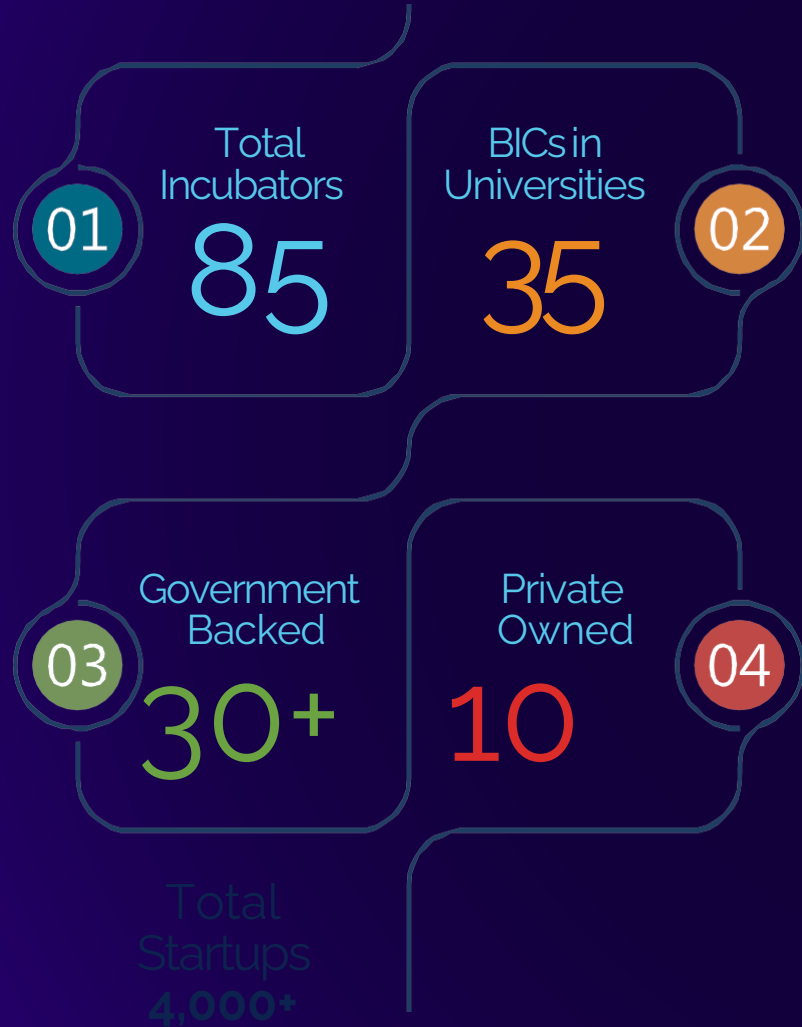


Regional Freelancing Stats in Pakistan

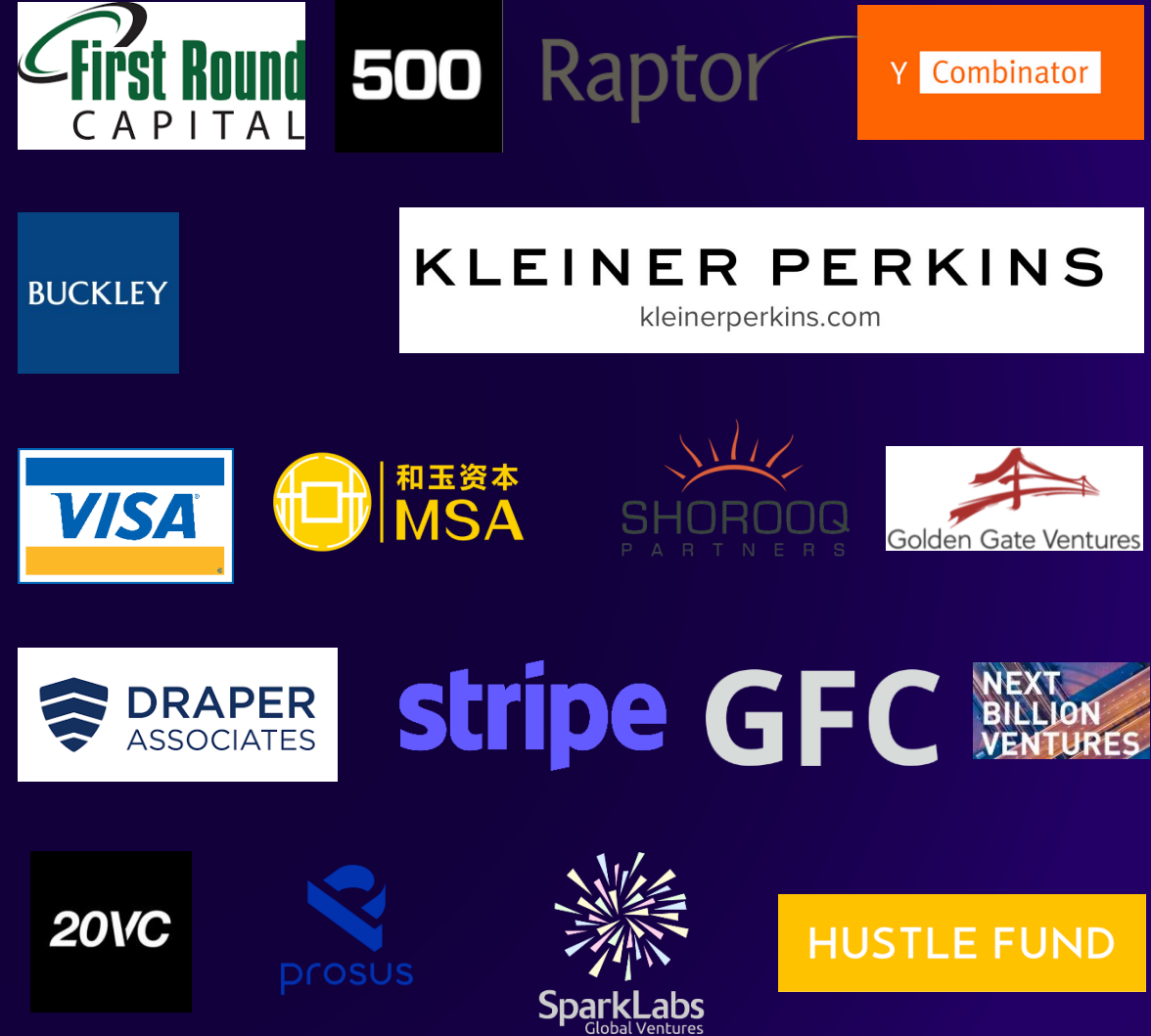


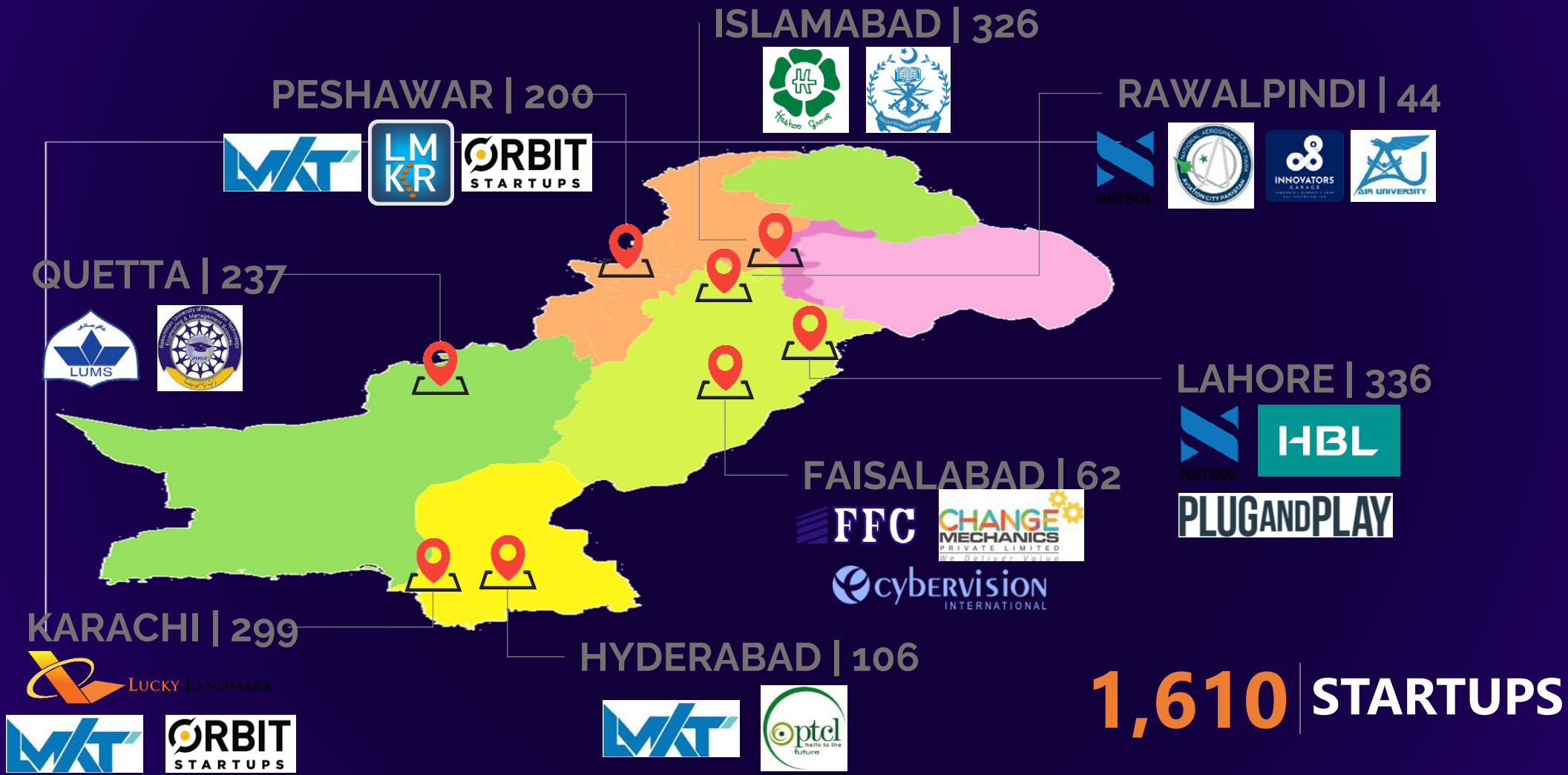
Source: <https://mohsincoz.com/blog/freelancing-statistics-in-pakistan/>

Incubators/Accelerators



Leading international VCs invested in Pakistani Startups





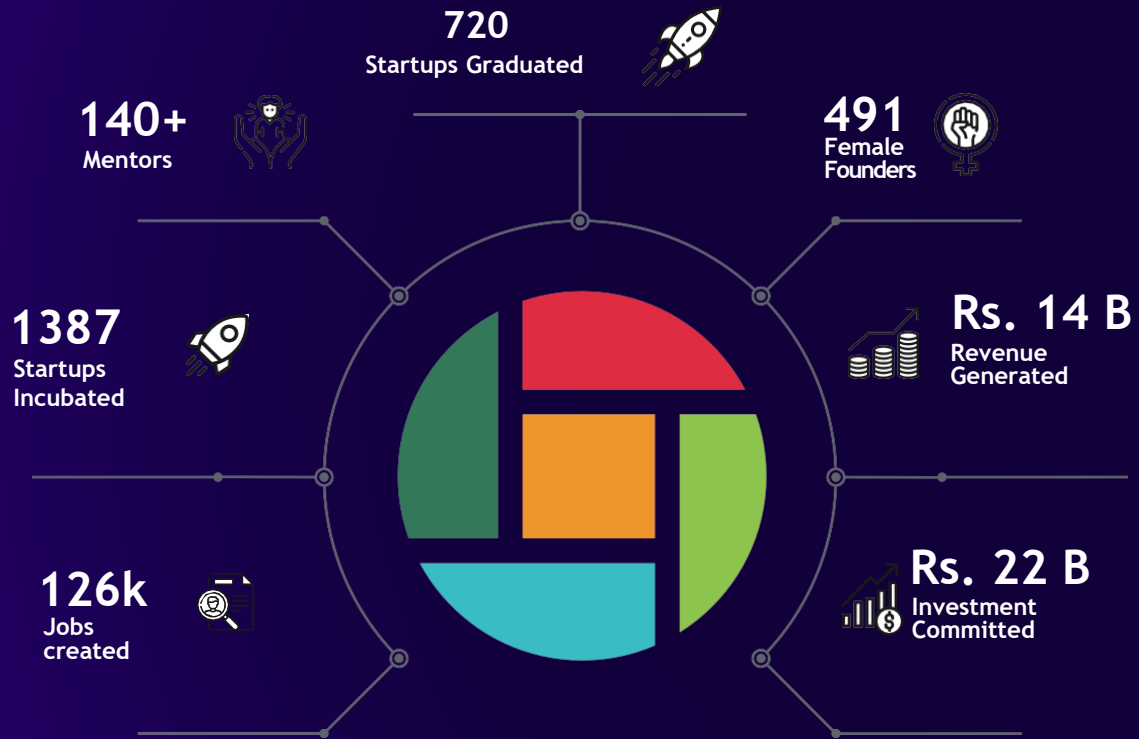
1,610 | STARTUPS



9 InnoVista Tech Parks across Pakistan to facilitate Freelancers, SMEs, and Startups.

5 NASTP Science & Technology Parks across Pakistan to facilitate Freelancers, SMEs, and Startups.





Some Successful NIC Startups

BYKEA

INVESTMENT

\$30M

PakVitae
Purity for Humanity

INVESTMENT

\$17M

EyeSmarty

INVESTMENT

\$17M

MY TM

INVESTMENT

\$7M

***Integry**

INVESTMENT

\$4M

Digi Khata
Pakistan ka digital khata

INVESTMENT

\$2M

USD **373M** IN 2021

USD **1B+** IN Last 5 Years



FINTECH

27%



E-COMMERCE

26%



RETAILTECH

19%



HEALTHTECH

4%



TRANSPORTATION/
LOGISTICS

4%



EDTECH

4%

USD **360M** IN 2022



RETAILTECH

47%



FINTECH

24%



HEALTHTECH

6%



E-COMMERCE

4%



GAMING

4%



SERVICES

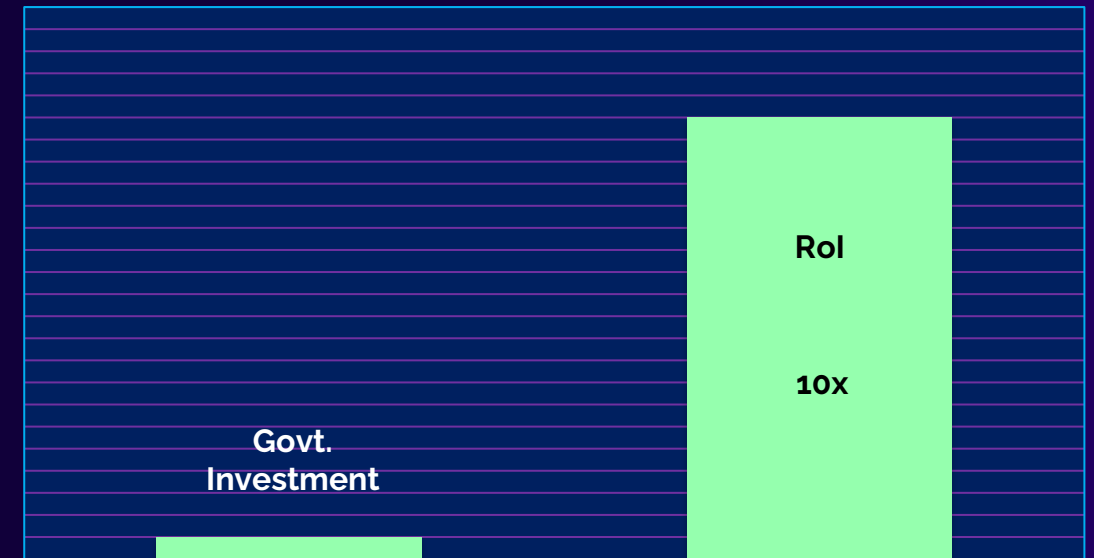
4%

TOP SECTORS IN WHICH PAKISTANI STARTUPS RAISED INVESTMENT DURING 2021 & 2022

Five Government Organizations: Ignite NTF / MoIT, Planning Ministry, HEC, PITB & KPITB invested in Pakistani Startup Ecosystem in last decade.



Pakistani Startups Investment (2018-2023)
(\$ Millions)



Government of Pakistan invested in under **PKR 20B** or approx. **US\$ 70M-100M**.
The **RoI** of Govt Investment in **Pakistani Startup Ecosystem** is **~10X**.

Challenges faced – Opportunities for all to solve

Absence of a comprehensive legal framework: *Regulatory gaps hinder the growth and scaling of tech startups.*

Opportunity: Development of startup-friendly policies and clear regulations for fintech, e-commerce, and digital services.

Underdeveloped digital payment systems; *Lack of widespread access to secure, modern payment platforms limits digital commerce.*

Opportunity: Public-private partnerships can lead to the rapid expansion of payment solutions.

Inefficient taxation system: *Complicated tax processes and inconsistent policies create barriers for businesses.*

Opportunity: Simplifying and digitizing the tax system will ease compliance for startups and attract international investors.

Limited formal knowledge transfer mechanisms: *Gaps in education and industry collaboration restrict innovation.*

Opportunity: Establishing industry-academia linkages through knowledge hubs and incubators can foster a robust innovation culture.

Restricted access to capital and financing: *Startups face challenges in securing early-stage funding and venture capital.*

Opportunity: Introducing a Government-backed VC fund or Fund of Funds can provide much-needed capital to scale tech startups.

Weak global networking opportunities: *Limited connections with international accelerators and tech hubs slow growth and restrict global expansion.*

Opportunity: Developing more international collaborations with leading tech ecosystems (e.g., Silicon Valley, London, Indonesia, Singapore, Germany and Sweden) can provide access to global markets and also enable startups to access capital from structured funds and angels.

Talent retention and visa support: *Brain drain and limited visa support reduce the availability of high-quality talent for startups.*

Opportunity: Offering incentives for talent retention and improving immigration policies for tech talent will help retain skilled individuals.

The Next Steps: Accelerating Pakistan's Tech Ecosystem

Upgrading Digital Infrastructure:

Expand 5G coverage, increase fiber optic penetration, and improve rural connectivity to ensure nationwide digital access. This will position Pakistan as a global leader in digital connectivity with high teledensity and low data costs.

Business Opportunities:

Leverage the growth of mobile-based startups, **fintech**, **e-commerce**, and **digital marketplaces**. Foster cross-sector partnerships and innovation hubs to drive growth in both local and global markets.

Tech Hubs:

Expand Technology Parks and Science & Technology Zones in key urban centers to attract talent, foster innovation, and secure global investments, creating sustainable economic clusters.

Policy and Regulatory Support:

Implement startup-friendly policies that streamline taxation, support digital payments, and create a conducive environment for local and international investment.

Talent Development and Retention:

Invest in advanced tech education and industry partnerships. Develop policies to retain skilled workers and attract global talent to meet the growing demands of the tech ecosystem.

Access to Funding:

Enhance access to capital through government-backed VC funds, private investment incentives, and public-private partnerships to help startups scale and thrive.