



Karnataka Digital
Economy Mission

FinTech Task Group

REPORT 2022



FinTech Task Group

REPORT 2022

Report towards creating a projected roadmap for growth of the FinTech industry, identifying the opportunities and challenges faced by the FinTech ecosystem in the state.

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From Chairman of KDEM

India is one of the fastest growing economies across the world. Pandemic in particular, has fueled the technology adoption and acceleration across sectors and the fintech space is no exception. This is one sector that has had a deep impact on the global financial services industry. Today, India has emerged one of the fastest growing technology innovation hubs in the world and a global hotspot for fintech. Our nation's digitization success story has been possible by the concerted actions of the government and the best minds in the industry that have paved the way for disruption through innovation. These efforts have made India's fintech the third largest ecosystem in the world that is expected to reach \$1 trillion in throughput by 2030.

With the Prime Minister's vision of making India a \$ 5 trillion economy has been welcomed with a rousing response. I am proud to state that Karnataka is strategizing to contribute significantly to realise this objective. With these objectives in mind, we at Karnataka Digital Economy Mission (KDEM) launched the first Karnataka Fintech Task Group that unites industry leaders to create a roadmap for future innovations, contributing significantly to India's fintech success story.

With Karnataka already home to some of the most prolific start-ups and fintech companies that are already addressing a range of issues, we are confident of leveraging this competitive advantage the state has to offer as we unlock newer territories of innovation and growth in the Fintech space.

This Fintech Task Group Report presents a detailed roadmap to build Karnataka as the Fintech hub of the world through conducive policy measures, strategic industry partnerships and bridging all the stakeholders for a formidable fintech ecosystem. Further we also focusing in increasing the contribution from Beyond Bangalore Clusters and we expect Mangalore cluster to play significant role as backend of fintech in the coming years.

B V Naidu



From Chairman of Startup Vision Group

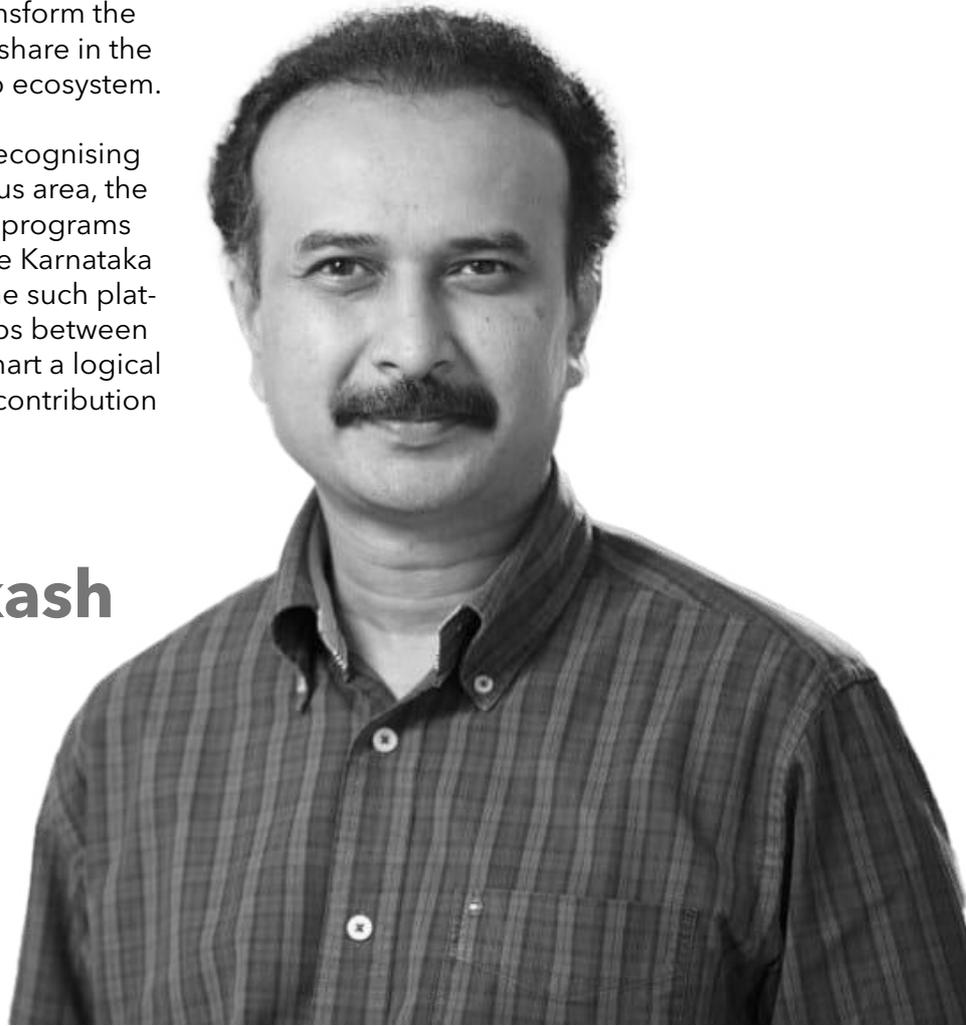
Recently, DPIIT reported that about 73,205 Indian startups have created over 7.5 lakh employment opportunities for India's youth. Of all the states, Maharashtra, Karnataka and Delhi created the highest number of jobs. Karnataka is home to more than 5500 IT/ITeS companies with a lion's share of India's software exports. The state is emerging as the FinTech capital of India with the largest number of FinTech unicorns. As the FinTech wave disrupts the BFSI industry, it is redefining India's growth trajectory.

Today, the government has built various mechanisms of supporting the FinTech narrative in India given that we are in pole position to achieve a sector valuation of ~ \$150-160 billion by 2025 (BCG Group and FICCI Report). The sector is playing a significant role in addressing the unsolved challenges of the financial landscape in India with technology and innovation to transform the BFSI sector. Karnataka has the largest share in the FinTech space given its strong start-up ecosystem.

With the Industrial Policy 2020-2025 recognising the finance sector as an important focus area, the state has built conducive policies and programs to establish its leadership position. The Karnataka Digital Economy Mission (KDEM) is one such platform that has successfully bridged gaps between the government and the industry to chart a logical roadmap for the state's progress and contribution to India's \$5 trillion vision.

I congratulate KDEM and the Government of Karnataka for setting up this dedicated FinTech Task Group to draw a clear roadmap to cement Karnataka's position in the global FinTech space. In doing so, I am confident we shall build an ecosystem by understanding the sector's needs, learn from the best practices of comparable international and national hubs, and catalyse the next steps in the evolution of FinTech in India, with a particular focus on Karnataka as a hub. With these objectives, we welcome this first FinTech Task Group Report.

Prashanth Prakash



From CEO of KDEM

At the start of the year, the state of Karnataka was in the news for winning around 30% of the total start-up awards instituted by the Indian Government. It puts into perspective the state's nurturing environment that enables it to build a conducive ecosystem that contributes to economic progress and an innovation-led mindset. Karnataka has always been recognised as the nation's tech capital and has a huge role to play in the Digital India narrative. When we conceptualised KDEM, our intention was to support this narrative while strengthening this already robust ecosystem to be able to add more value to the nation's digital economy.

FinTech is one important sector that has tremendous potential to rewrite this growth story through its disruptive and innovation-led technological solutions. At KDEM, we have taken it upon us to bridge the gap between the government and industry & academia to strengthen the state's FinTech and innovation ecosystem with an effort to rebuild, reskill and reinvent growth with a purpose of contributing to the nation's aim of becoming a \$5 trillion economy while becoming the world's FinTech capital.

Today, KDEM is harbouring the FinTech ecosystem at the grassroots level as we believe this is the future of economic growth. We are already spearheading several programmes with the aim of attracting more technology companies into Karnataka while creating a conducive job environment in clusters beyond Bengaluru and accelerate the development of the state. Initiatives such as the FinTech Task Group and The FinTech Task Group Report is an important milestone that will bring about substantial change in the outlook of the industry and create necessary economic and social impact in India's digital growth.

Sanjeev Gupta



From Chairman of FinTech Task Group

At the outset, I'd like to congratulate and thank the Government of Karnataka and the Karnataka Digital Economy Mission (KDEM) on behalf of the entire FinTech Task Group on the successful launch of the FinTech Ecosystem Report. Proactive collaboration between government and industry is critical and I'm confident that the Karnataka government's vision for the state as a global FinTech hub will be achieved. The FinTech industry in India has seen exponential growth over the last few years, with startups in Karnataka at the forefront of this charge. The key objective of this report was to create a roadmap for industry and government collaboration to further nurture and develop the FinTech ecosystem in Karnataka and take the sector to even greater heights.

As we set out to envision the scope of this report, we realised it was critical for the industry to join hands and create a cohesive list of opportunities and challenges before the FinTech industry in Karnataka. This exercise was significant for our common goal of unlocking new areas of innovation and growth for the FinTech industry in the state. We identified a few key focus areas for action, which broadly touch upon themes like physical infrastructure, human resources, financial support, and mentorship. We are proud to present a roadmap that offers a comprehensive list of recommendations for the Government. From setting up a government-led mentorship program for early-stage FinTech startups for early guidance to establishing a Centre of Excellence with world-class infrastructure to serve as a hothouse for FinTech startups, the report covers a wide array of initiatives that will collectively give the ecosystem a much-needed boost. The report also recognizes the significance of human infrastructure and how

it will be one of the most vital factors in the success of our mission. Talent identification and skill development are essential to the industry in today's environment and the report offers a comprehensive roadmap for the same. Along similar lines, setting up a Centre of Excellence and an early stage FinTech Innovation Corpus will also be at the top of the agenda for the Task Group. It is only through effective collaboration between government, industry, academia, and investors, that our collective vision would be achieved. Karnataka's digital economy is a global success story and I am convinced that the FinTech industry will truly be a trailblazer in the next chapter of this growth story. It is truly heartening to note the interest and initiative the Government of Karnataka has shown in collaborating with the industry and working towards the development of the FinTech sector in the state. With our collective efforts, I am certain that we can turn FinTech in Karnataka into a shining example for the rest of the world

Harshil Mathur



Executive Summary

India aspires to become a \$5 trillion economy by 2025. In the past decade, India's economy has experienced some of the fastest growth across economies around the world. India's Startup success and Innovation first spirit has played a vital and formative role in ensuring this growth. These start-ups and innovators are solving pressing issues, as well as generating livelihood opportunities and their critical role in India's growth trajectory has been acknowledged by the government. The Government of India has been a steadfast supporter of the start-up ecosystem and taken a number of steps to create a strong foundation to allow tech-driven start-ups to flourish in India. To create a robust start-up environment, the government has passed and revised numerous laws, held competitive events, and implemented a large number of initiatives and schemes.

Startup India is one shining example. It is an important government initiative encouraging innovation and entrepreneurship in India while also fostering an enabling startup environment. The project, introduced in 2016, consists of a number of micro-schemes and opportunities that fall into the following three categories: compliance and legal support; funding and tax grants; incubation and industrial alliances.

India has emerged as a major player in the global start-up ecosystem, alongside the US, China, the UK, and others on the back of strong government policies to encourage entrepreneurship and innovation and significant funding from premier venture capital and private equity firms.

According to the States' Startup Ranking 2022, announced by Startup India, Karnataka was awarded as Best Performers in a category of

States. Karnataka has a formidable industrial ecosystem hosting startups from various sectors. It is the first state to introduce an engineering research and development policy in an effort to draw in sector-heavy investments. Karnataka was the first state to come out with the Startup Policy 2015-2020 to leverage the vibrant innovation climate in the state and develop a world-class startup ecosystem through strategic investments and policy interventions. The Karnataka Government launched the Startup Karnataka programme with the goal of expanding the number of startups in the state through smart investments and policy interventions that take advantage of the favourable environment for innovation.

With the prime objective to increase the share of Digital Economy in the state, the Government of Karnataka established the Karnataka Digital Economy Mission (KDEM). To meet the objectives, KDEM has been working towards the five focus areas, viz. IT Products & Services, BPM & GCC promotion; Innovations & Start-ups; Electronics System Design & Manufacturing; Beyond Bengaluru; and Talent Accelerator. KDEM is designed to function as the knowledge bridge between the Government of Karnataka and industry with a view of accelerating the growth and investments of the IT, BT and S&T sectors in the state.

For each vertical, an advocacy council led by industry anchors is established to help achieve its objectives. The execution of both short-term and long-term initiatives will be facilitated by KDEM. The emphasis will be on achieving annual objectives, increasing

investment flow, and coordinating current operations with the broader KDEM Goals.

One such initiative made by KDEM is the creation of the FinTech Task Group to increase innovation and investment as well as to encourage talent to choose Karnataka as their preferred site to develop the next great FinTech innovation. To take advantage of every opportunity, the state must foster an enabling policy environment.

Therefore, the Karnataka FinTech Task Group is a much needed step in the right direction that encourages business and government participation and may be a key stakeholder in Karnataka's ascent to a recognized FinTech Hub on a global scale. The FinTech Task Group's goal has been to work towards creating a projected roadmap for growth of the industry, identifying the opportunities and challenges faced by the FinTech ecosystem in the state, and leveraging the partnering institutions and government to solve for them.

The FinTech Task Group has identified five thematic areas to strategically nurture the FinTech ecosystem in the state: Formulation of Karnataka Fintech Policy and Regulatory Support. The Task Group will make recommendations towards the final policy through a detailed FinTech Ecosystem Report, that will help in the evolution of the policy and state support. Setting up the 'Karnataka Centre of FinTech Excellence' & 'Innovation Corpus', to serve as a hub for creating a best-in-class COE for FinTech.

Training and Talent Support, to identify and support the upcoming FinTech startups. Mentorship, to provide a platform and host events & webinars to create a shared-knowledge ecosystem. Financial and Banking Literacy, to increase financial literacy in the state.

The multiple Task Group meetings were convened over the last 6 to 8 months and the team subsequently came together and developed the roadmap for FinTech in the state. This FinTech Task Group Report focuses on the above-mentioned thematic areas and includes the roadmap, execution plan and timeline for execution of the same. The report recommends initiatives and policy changes to nurture the FinTech ecosystem in the state while also bringing together all stakeholders to grow as a whole.

KDEM A Snapshot

Karnataka Digital Economy Mission (KDEM) is a Section 8 company, promoted by Government of Karnataka in association with NASSCOM, IESA and ASSOCHAM, led by Industry anchors with a core objective of 'By the Industry and For the Industry'.

KDEM HAS A FOCUSED OBJECTIVE OF **MAKING KARNATAKA A MAJOR CONTRIBUTOR TO INDIA'S:**

1 Trillion Dollar
DIGITAL ECONOMY BY 2026



Karnataka Digital Economy Mission is designed to function as the knowledge bridge between the Government of Karnataka and industry with a view of accelerating the growth and investments of the IT, BT and S&T sectors in the state. With the prime objective to increase the shares of Digital economy in the state, the Government of Karnataka established the Karnataka Digital Economy Mission (KDEM), a Section-8 organisation. To meet the objectives, KDEM has been working towards the five focus areas, viz. IT Products & Services, BPM & GCC Promotion, Innovations & Start-ups, Electronics System Design & Manufacturing, Beyond Bengaluru, and Talent Accelerator.

KDEM 5 Focus Verticals



IT Products
& Services,
BPM, and GCC
Promotion



Start-ups &
Innovation



Electronics
System Design &
Manufacturing



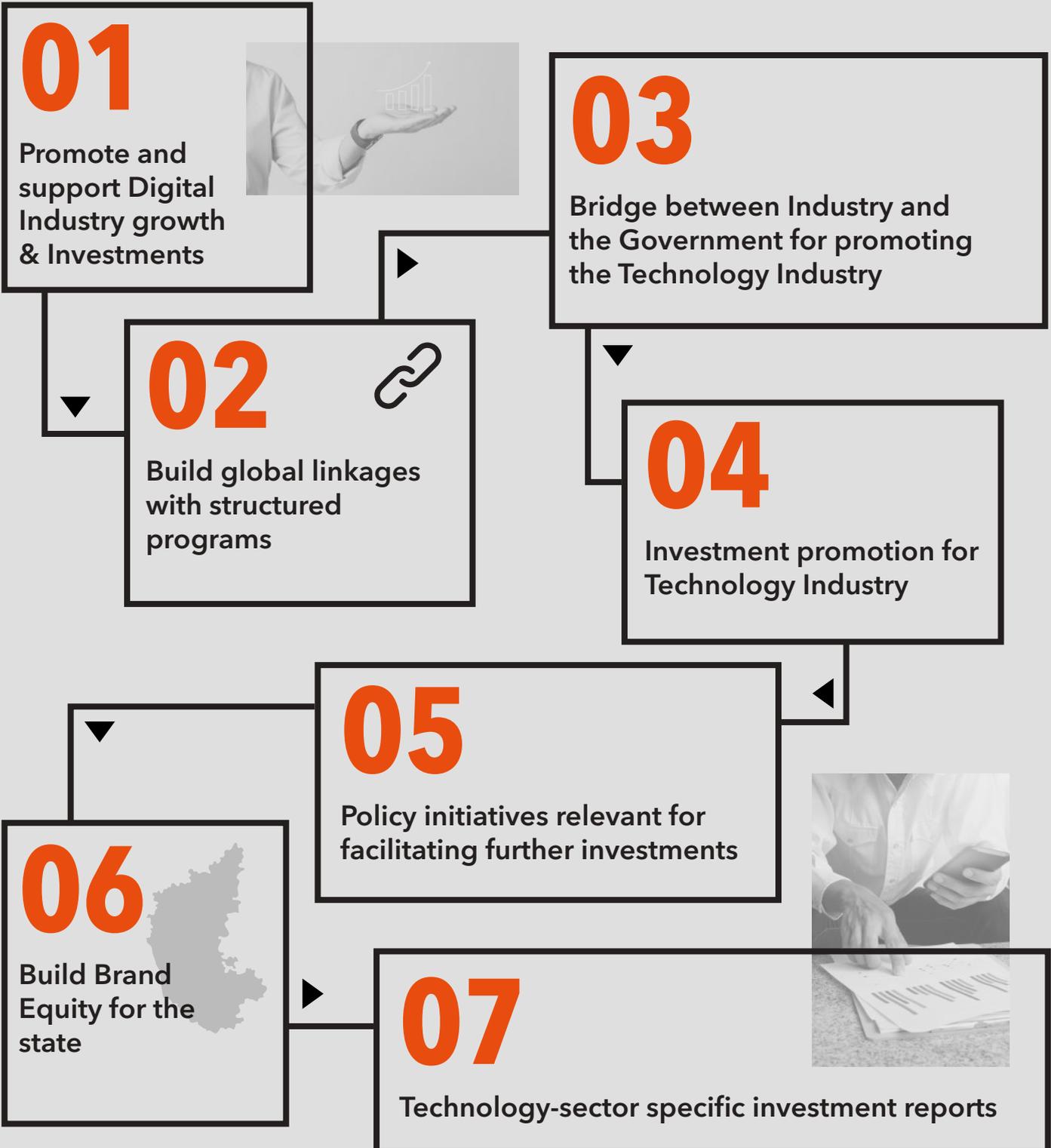
Talent
Accelerator



Beyond
Bengaluru

Karnataka in general and Bengaluru in particular has witnessed steady growth in the IT and BT sectors from the early 2000s. The coming decade promises even more growth, with the maturity of the IT and Start-up ecosystems in Bengaluru City, which is consistently ranked among the Top 30 Global Start-up Ecosystems in the World. The Karnataka Digital Economy Mission promises to harness the unlimited potential of the digital economy of Karnataka to transform the lives of the people in the state. The digital economy ecosystem not only uplifts the lives of professionals in the industry, but also powers millions of other ancillary jobs across other industries.

Objectives



India FinTech Landscape

India has the highest FinTech adoption rate globally.

India is amongst the fastest growing FinTech markets in the world. Currently there are 2,000+ DPIIT-recognised Financial Technology (FinTech) startups in India with this number growing fast.

The Indian FinTech industry's market size is \$50 Bn in 2021 and is estimated at ~\$150 Bn by 2025.

The FinTech sector in India is expected to be \$1 Tn in Assets Under Management (AUM) and \$200 Bn in revenue by 2023. Payments, Lending & InsurTech stood as the most preferred sectors (2021).

The Indian FinTech industry ecosystem sees a wide range of subsegments, including Payments, Lending, Wealth Technology (WealthTech), Personal Finance Management, Insurance Technology (InsurTech), Regulation Technology (RegTech), etc.

The Indian FinTech market has received \$29 bn in funding across 2,084 deals to date (January 2017-July 2022), gaining 14% share of the global funding and Ranked #2 on the deal volume.



The FinTech sector in India has seen a funding of \$8.53 Bn (in 278 deals) in FY22.

As of July 2022, India has 23 FinTech companies, which have gained 'Unicorn Status' with a valuation of over \$1 Bn.

As of September 2022, India's Unified Payments Interface (UPI) has seen participation of 358 banks and has recorded ~6.8 Bn transactions worth over \$135 Bn.

Raise of Fintech - Karnataka

1.3K

Active startups

224

Funded startups

942

Active startup investors

\$9 Bn

raised across 467 funding deals

\$337 Mn

raised at seed stage

\$3.1 Bn

raised at growth stage

35

M&As recorded

10

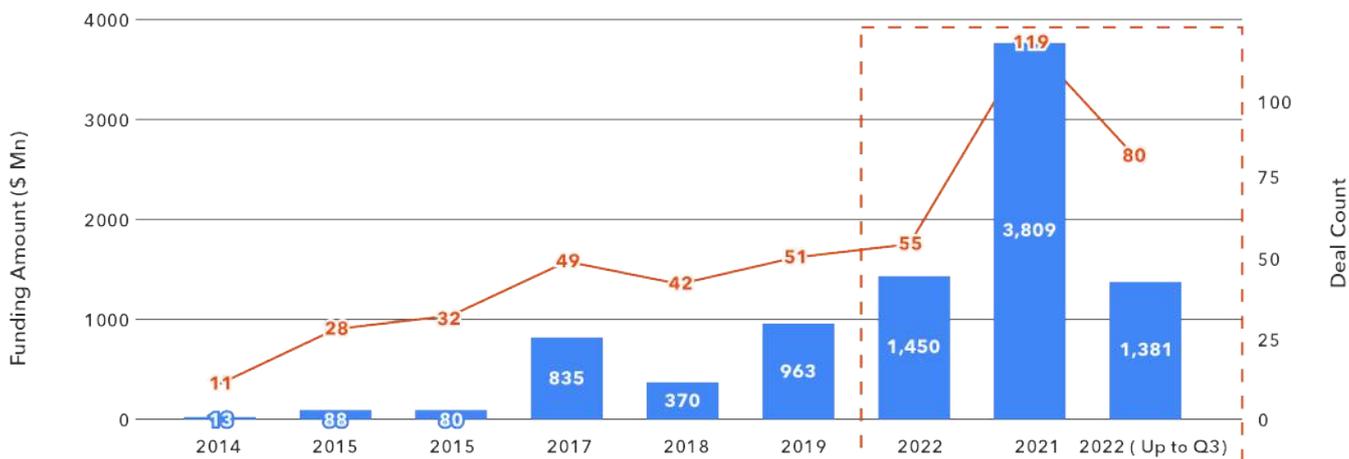
Unicorns

30+

Soonicorn

Karnataka Leadership in FinTech

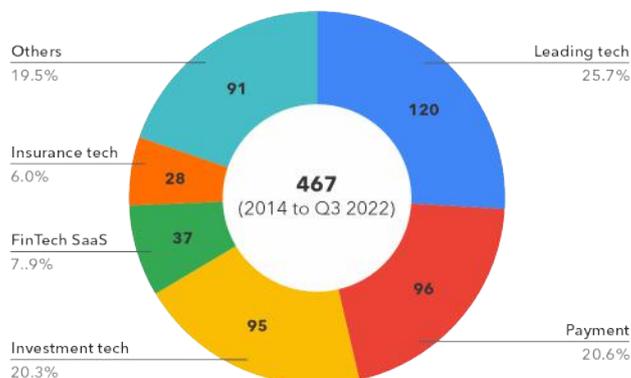
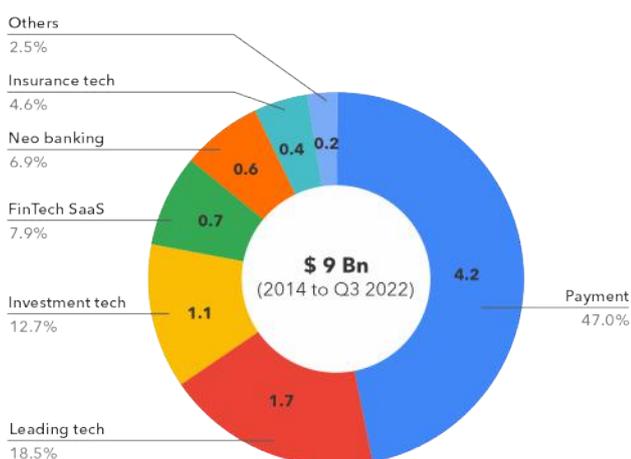
About 73% of the total capital in Karnataka-based FinTech startups came since the year 2020. The FinTech startups in the state raised a total of \$6.5 Bn (INR 53631 Cr) funding across 254 deals between 2020 to Q3 2022. Towards the end of year 2022, we may see the number of deals reaching the peak of 119 deals in 2021, the same cannot be said about the funding amount that reached \$3.8 Bn (INR 31353 Cr) in that landmark year.



Source : Inc42, Invest India

Note: All venture capital funding-related information is based on the sample set of startup investment deals recorded in Inc42’s internal database between 2014 and September 2022.

Karnataka Leadership in FinTech



Source : Inc42, Invest India

Karnataka Unicorn List			
			
			
			

Karnataka Soonicorn List			
			
			
			
			



01

The FinTech Task Group

The FinTech Task Group

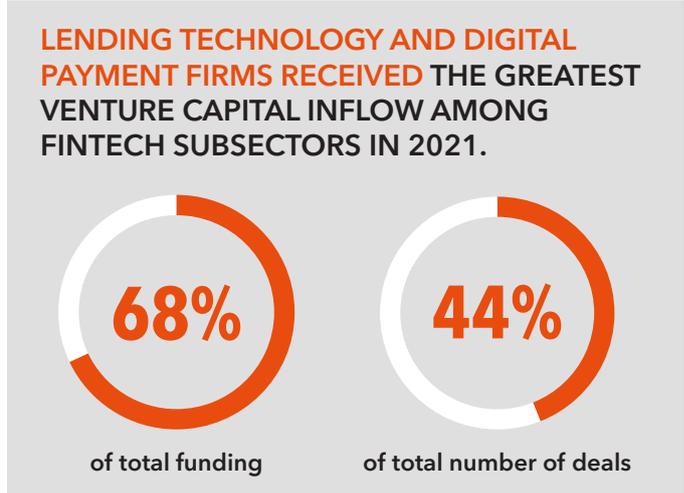
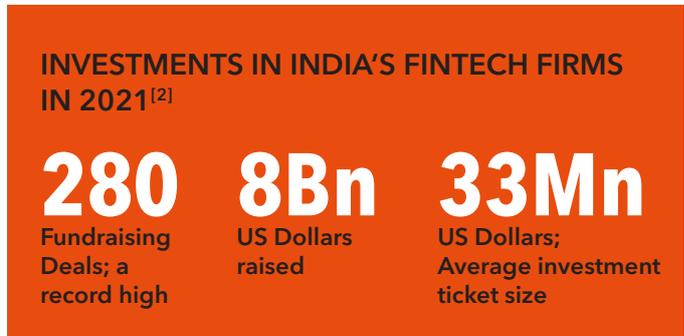
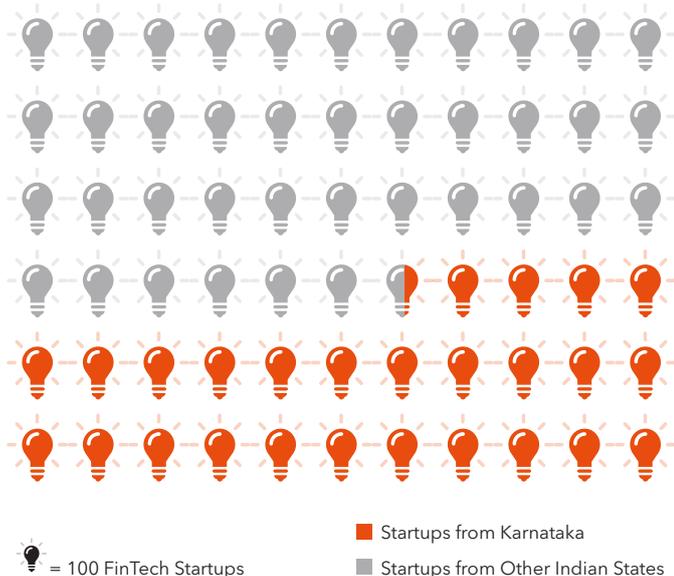
INTRODUCTION

Financial Technology - FinTech - is known to be a combination of technology and innovation aimed at competing with traditional financial methods in the delivery of financial services. It is a new industry that employs technology to improve financial activities. FinTech is defined by the RBI as "an industry that uses technology to improve the efficiency of financial systems and financial service delivery" (RBI Bulletin November 2020). Although there is no commonly accepted definition of FinTech, the Reserve Bank of India believes that its scope is well understood.

India is in the midst of a FinTech revolution of epic proportions. India currently has over 6,600+ FinTech startups^[1]. In the last five years, unlike any other sector, FinTech has piqued the interest of venture capitalists looking to invest in Indian businesses. The key rationale for continuous investor trust in FinTech firms over the years has been expanding demand for technology-enabled FinTech products across a rapidly growing addressable market.

Furthermore, while the COVID-19 epidemic spread across the globe, transforming our lives in new ways, technology has been our ally, keeping us connected. India has achieved considerable success in the financial and digital services sectors, establishing a robust FinTech sector that includes not only rising start-ups but also major innovation by our more traditional institutions.

INDIA VS. KARNATAKA FINTECH STARTUPS



¹ <https://www.investindia.gov.in/sector/bfsi-fintech-financial-services#:~:text=India%20is%20amongst%20the%20fastest,6%2C636%20FinTech%20startups%20in%20India>
² <https://inc42.com/datalab/decoding-1-3-tn-fintech-market-opportunity-for-indian-startups/>

The length and breadth of competence in both finance and technology in India's start-up sector, along with a progressive movement in policy and regulation, has cemented India's position as a global leader in FinTech. Nevertheless, it is crucial to keep this momentum up, especially as the industry reaches critical mass and begins to pay off in terms of jobs, innovation and growth.

The thriving startup ecosystem in Karnataka has nurtured India's leading FinTech players contributing to over 40% of the FinTech startups in the country. In this decade, the growth of FinTech as a sector is going to accelerate multi-fold, resulting in many more entrepreneurs and startups working in FinTech.

We've arrived at a critical juncture in the evolution of Indian FinTech. As the drivers of India's digital economy, we must ensure that entrepreneurs can scale up, receive enough government and state-level support, expand worldwide, and deliver on FinTech's transformative promises to bring prosperity to all sections of the country if this activity is to continue to translate into economic growth.

Therefore, Karnataka Digital Economy Mission (KDEM) in partnership with the FinTech industry leaders, entrepreneurs, state and central government stakeholders and ancillary bodies, formed a FinTech Task Group to fulfil this need and support in nurturing the ecosystem in Karnataka.

The focus of the Task Group is to create a projected roadmap and uplift the current FinTech ecosystem in the state. This report focuses on benchmarking the FinTech sector in the state and suggests a set of recommendations to enable the state as a leader in the sector.

Bengaluru having successfully established itself as the preferred destination for start-ups across sectors to come and set up base in the state, Karnataka in the last two decades has emerged as the most preferred destination for investments by leading Indian and global multinationals. The city has also emerged as the capital of IT, biotech, startups and deeptech companies. Inspired by the growth of Bengaluru, other cities in Karnataka are also gearing up to become the next best destinations.

FinTech innovation and startups are an integral part of it. Fostering an enabling policy environment in the state is critical to not only attract more innovation and investment but to also encourage more and more talent to consider Karnataka as their preferred location.

Bangalore-Karnataka ranks eighth among cities globally in the amount of VC investment attracted by its FinTech sub-sector, according to an analysis by research firm London & Partners and Dealroom.

The Karnataka FinTech Task Group is a much needed step in the direction that enables industry and government engagement and can be an industry voice and critical stakeholder in Karnataka's ascension to a globally recognised FinTech Hub.

The Chief Economic Advisor of India has said India is among the fastest growing FinTech markets in the world with a market size of \$31 billion in 2021 that is expected to reach \$1 trillion by 2030.^[3]

Karnataka based Fintech companies aim to service 50% i.e. \$500Bn of the overall \$1Trillion market size by 2030

Following are the areas to focus on that can stimulate and support the exponential growth required to support Karnataka's aspiration to become a Global FinTech Hub.

³ Source: The Hindu, September 2022

1. Karnataka's FinTech ecosystem is scaling exponential heights and has been one of the biggest drivers of innovation and incoming investment in the state. Hence, a dedicated regulatory support and ecosystem is necessary to allow FinTech innovations to grow from strength to strength.
2. FinTech startups operate in a unique regulatory environment with Federal oversight that can be aptly complimented by states creating enabling regulatory and infrastructural policies that encourage startups to set up base in a particular state.
3. FinTech startups need a holistic ecosystem with channels for engagement with Central regulators, sandboxing facilities, supportive State infrastructure and regulations, association and advocacy support organisations etc. Getting a clear focus through a robust state policy is intricately aligned with the needs of the sector.
4. States like Maharashtra are actively recognising the potential of growth that FinTech startups present to the state economy and are formalising their FinTech regulatory and infrastructural support through a formal State FinTech Policy. Karnataka should take the lead from this development and further enhance an already rich FinTech startup ecosystem in Karnataka.
5. Given the rapid growth in number of FinTech startups, and their spread across geographies, it would require a dedicated attempt to establish Karnataka as a FinTech hub. A dedicated FinTech Policy shall be a critical instrument to achieve the same.

VISION



To build a thriving ecosystem that encourages, supports, empowers and accelerates startups from the FinTech and BFSI sector to collectively contribute to a \$1 trillion economy by 2025.

OBJECTIVES



The Task Group has been working towards creating a projected roadmap for growth of the industry, identifying the opportunities and challenges faced by the FinTech ecosystem in the state, and leveraging the partnering institutions and the government to solve them.

AIM: FINTECH



Karnataka based Fintech companies aim to service 50% i.e.

**\$500Bn of
\$1 Trillion**

overall market size by 2030

By 2030 Karnataka to have

50 & 100

FinTech
Unicorns

FinTech
Soonicorns

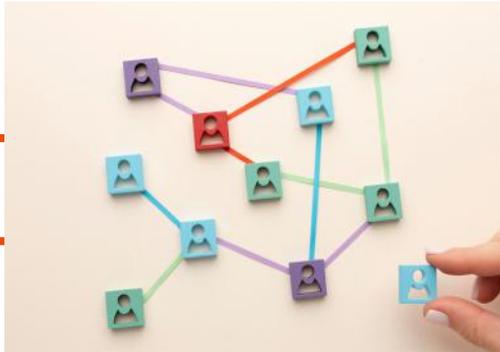
Fintech	2022	2030	
India Market Size	\$50Bn	\$1Tn [#]	
Karnataka Market Size	\$20Bn [*]	\$500Bn	
Karnataka - Unicorn	10	50	
Karnataka - Soonicorn	14	100	

* Of the 50 billion dollars FinTech market size in India, ~40% of it is capitalised by the 10 unicorns and 14 Soonicorns based out of Karnataka (as on early 2022).

[#] As per Chief Economic Advisor of India, September 2022

KRAS FOR 2023

The following result areas are crucial for the aspirations set for the Task Group:

<p>1 A hybrid (physical and virtual) Centre of Excellence that provides necessary IPs and talent for creating deeper value differentiating our FinTech startups.</p> 	<p>2 Access to about \$100 billion capital through the network of some of the best VCs globally.</p> 
<p>3 Virtual seamless regulatory sandboxes with a network of all regulatory bodies within India as well as emerging FinTech hubs globally to help home-grown startups scale and export.</p>	<p>4 Creating a network of Unicorn Startups set up in Karnataka to extend their ecosystems to support and nurture emerging FinTech startups.</p>

SCOPE OF THE TASK GROUP

The Task Group is working on the following three aspects:



Roadmapping

Creating a projected roadmap for the growth of the industry.



Identifying Challenges

Identifying the opportunities and challenges faced by the FinTech ecosystem in the state.



Launching Targeted Programs

Launching targeted programs by leveraging partnering institutions and the government to solve the challenges.

Thematic Areas Identified

The Task Group members carried out detailed deliberations and have identified 5 thematic or focus areas to strategise, identify challenges and launch targeted programs.

01 Formulation of Karnataka FinTech Policy and Regulatory Support. FinTech Ecosystem Report.

To evolve and support the state for a robust FinTech policy.



02

Setting up the 'Karnataka Centre of FinTech Excellence' & 'Innovation Corpus'

To serve as a hub for creating a best-in-class COE for FinTech.



03 Training & Talent Support

To identify talent and support upcoming FinTech startups.



04 Mentorship

To provide a platform and host events and webinars to create a share-knowledge ecosystem.

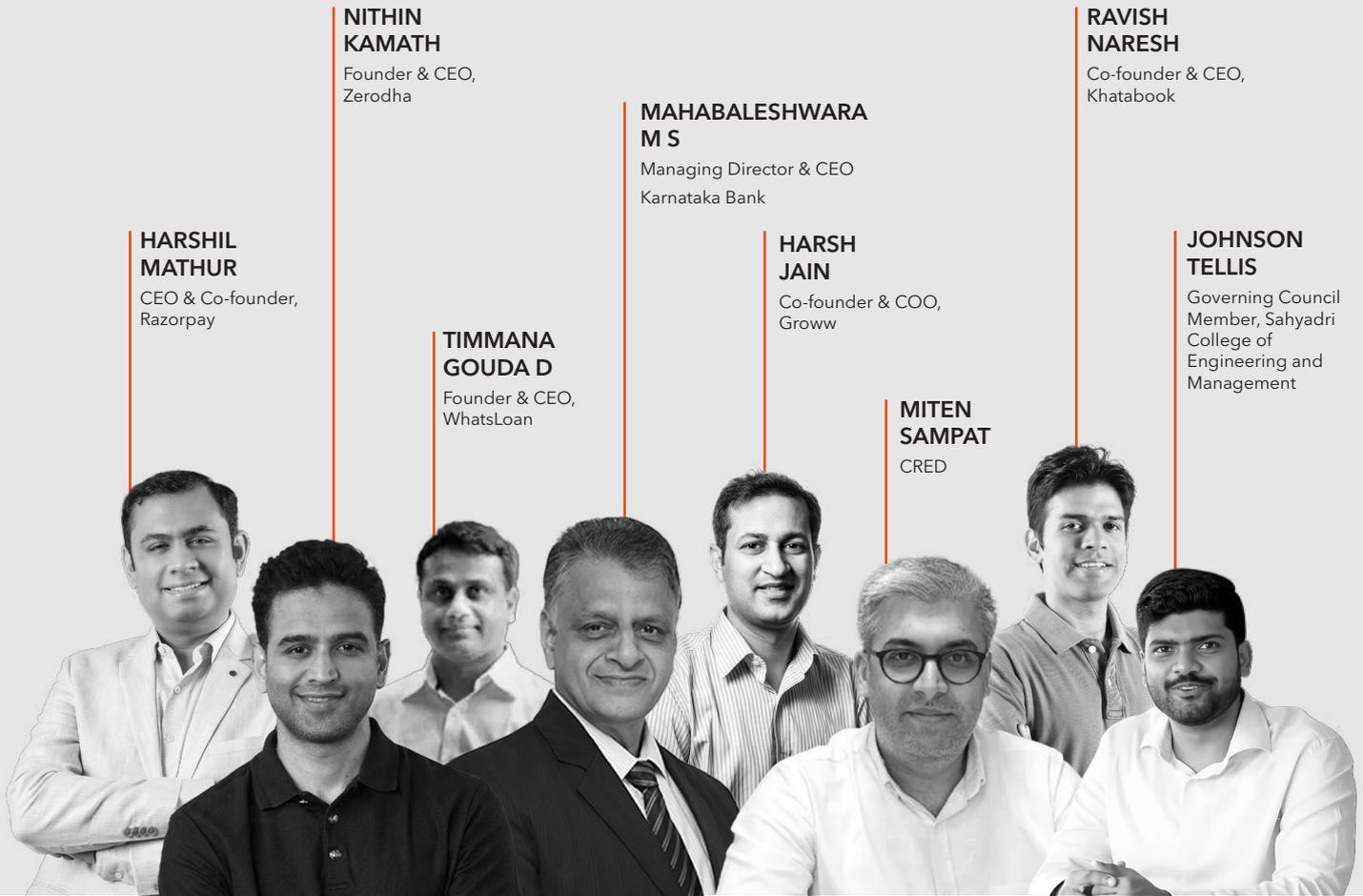


05 Financial and Banking Literacy

To increase financial literacy in Beyond Bengaluru clusters.



Task Group Members



ABOUT THE TASK GROUP

KDEM had announced the launch of its FinTech Task Group under the leadership of Mr. Harshil Mathur, Founder and CEO of Razorpay.

The Task Group has undertaken ambitious goals like mentoring new and upcoming innovations, offering knowledge repositories and training avenues on FinTech issues, financial and banking literacy for MSMEs and retail consumers, advocacy and regulatory support for extant and upcoming innovations as well as leading the charge in the creation of India's FinTech Roadmap through adequate hands-on insights and evidence-based advocacy.

The dedicated Task Group has aimed at creating a projected roadmap for the growth of the industry, identifying the opportunities and challenges faced by the FinTech ecosystem in the state, and leverage the government and partnering institutions to come together in stimulating growth of the ecosystem.



02

Karnataka FinTech Policy & Regulatory Support & FinTech Ecosystem Report

Karnataka FinTech Policy and Regulatory Support

INTRODUCTION

In the last five years, FinTech has piqued the interest of venture capitalists looking to invest in Indian businesses, unlike any other sector. The key rationale for continuous investor trust in FinTech firms over the last four years has been expanding demand for technology-enabled FinTech products across a rapidly growing addressable market.

The Karnataka Digital Economy Mission's FinTech Task Group aims to commission an ecosystem review report in order to better understand the sector's needs, learn from the best practices of comparable international and national hubs, and catalyse the next steps in the evolution of FinTech in India, with a particular focus on Karnataka as a hub.

The ecosystem review report shall also act as a guidance document in drafting an independent State FinTech Policy or augmentation of existing State Start-up policy from a FinTech standpoint. FinTech policy framework shall consist of and aim to cover various pillars like infrastructure, talent, market, incentives and enablement to FinTech companies to make Karnataka the global hub for FinTech companies. The report shall also take into consideration the evolution of FinTech in India and its prospects in the future, various good practices adopted by selected countries in the promotion of FinTech, review of supply-side and demand-side opportunities and challenges through data analysis, key initiatives by Government of India and Government of Karnataka. Within this context, the task group shall provide recommendations for

government interventions that can be made at the State level (including requiring collaboration with central government agencies) in the promotion of FinTech in the State of Karnataka.

MANDATE OVERVIEW

The commissioned research in this report aims to identify variables that contribute to India's overall leadership in cultivating and supporting a world-class and well-rounded FinTech ecosystem, as well as Karnataka's leadership in particular. Karnataka has set the global standard for policy-led innovation in technology and infrastructure, with significant initiatives including the state's Start-up policy, the talent pool it recruits, and the government's progressive-leaning to attract capital and innovation to the state. And, in terms of demand - consumers, SMEs, corporations, and the government in Karnataka are all customers and beneficiaries of the FinTech innovation underway in the state.

In December 2021, the research was envisioned to better understand global best practices from comparable foreign and Indian markets, as well as generate particular considerations for Karnataka's next stage of FinTech expansion. The goal of this report, on one hand, is to provide a concrete set of sector-specific recommendations to help drive the democratisation of access to financial services for consumers and SMEs, including those who are unbanked or underbanked, and to help innovators and entrepreneurs have access to a progressive and stable infra and policy environment on the other.

Expected Responsibilities



Need for formulation of the 'Karnataka FinTech Policy'



Creation of a state-hosted Regulatory Sandbox for FinTech innovations



Advocacy and representative support for sector specific issues



Regulatory mapping & sponsored research on global best practice and emulation in the Indian context



03

**Karnataka Centre of
FinTech Excellence**

Karnataka Centre of Excellence for FinTech

INTRODUCTION

In this decade, the growth of FinTech as a sector is going to accelerate multi-fold, resulting in many more entrepreneurs and startups working in FinTech. In order to facilitate this growth, there has to be a targeted approach towards solving key problems faced by the stakeholders of the FinTech sectors i.e. Government and Entrepreneurs. As the sector has been growing over the decade, many FinTech leaders have emerged across the world and have made advances across all segments of BFSI. These world leaders in FinTech include the UK, Germany, California, New York, Australia and Singapore among a few. These world leaders have been attributed to have a successful FinTech ecosystem with Government-backed solutions and policies that enable the industry to use data and technology infrastructure.

PROBLEM ANALYSIS

While India is at the forefront of this kind of engagement between the Indian Government and Industry through UPI, GSTN and Digi Locker, AA-Account Aggregator, DIL-RMP-Digital Land Records Program, Open Geospatial Data Policy etc., it is important to map the initiatives being carried out by Governments across the world to learn and adapt for the needs of the Indian BFSI Industry.

FinTech is part of the BFSI sector which is regulated by various regulatory bodies of the central government and as a result entrepreneurs have to understand the regulations and then interact with Regulatory Bodies (RBI, SEBI & IRDA, PFRDA and TRAI) to create their solution. The Regulatory framework is difficult to navigate for entrepreneurs with no 'Single Window' access to all regulators and their requirements. It is acting as a deterrent for entrepreneurs to start-up in the FinTech space.

Karnataka Government has already created many programs, schemes and policies to support innovation and entrepreneurship in the state (one of them being FRUITS for Farmers and Land Record Data in the State). More such programs and policies to support entrepreneurship will be created in the future as well. However, there is no central source of information for entrepreneurs to get acquainted with all State and Central Government initiatives that can help them build a venture in the FinTech space. Organisation and accessibility of information alone will encourage entrepreneurs to build from the state and create many Bengaluru-like hubs in Karnataka and take FinTech beyond Bangalore to cities clustered around designated clusters: Mangalore, Mysore and Hubli. An information platform can also become the primary entry point for Government-backed programs, schemes and policies.

PRIMARY REASONS BEHIND THE ADVENT OF FINTECH AS A SECTOR IN INDIA



Solving for identity in the form of Aadhaar for formalisation



Getting everyone a bank account or equivalents (PMJDY) to store money



Building scalable platform(s) to move money (IMPS, UPI, BBPS, etc.)



Allowing banks & FinTechs and wealth/insurance/lending players also to access platforms like UPI, GSTN and Digi Locker

OBJECTIVES OF THE COE

In order to address the aforementioned challenges faced by the stakeholders of the FinTech industry, the objective of the Centre of Excellence should be three-fold:

- 1 Become a Partnership Hub for information exchange on FinTech regulatory frameworks and technological developments between the state of Karnataka and the world.
- 2 Create a 'Single Window' access to Central Regulatory Bodies for entrepreneurs.
- 3 Become the centralised source for information, support and mentorship for entrepreneurs.

Achieving these objectives will encourage innovation and entrepreneurship across the state and will help realise the vision of making Karnataka: 'The FinTech Hub of the World'.

FRAMEWORK FOR ACHIEVING THE OBJECTIVES RESPECTIVELY

Objective 1: Innovation Labs

If the following four steps are executed repeatedly, it'll most likely achieve the objective of creating an up-to-date regulatory framework with the right technology infrastructure over a period of time.

1. **Partnering with FinTech CoEs of other states and countries:** Global partners like ADGM, Singapore, UK and local partners like STPI and others.
2. **Creating Information Exchange forums** amongst the partnered CoEs in India and the world.
3. **Continuous gap analysis** to identify areas of improvement from a State and Central Government policy standpoint.
4. **Recommendations to the State and Central Government and its regulatory bodies/affiliates** to improve identified areas through:
 - » Changes in existing policy and technology infrastructure.
 - » Creation of new policies and technology infrastructure.

Objective 2: Regulator Connect

As mentioned earlier, navigation of regulations around BFSI is difficult which ends up being a costly affair for emerging entrepreneurs which ultimately discourages them from starting-up in the FinTech space. In order to reduce the entry barrier for entrepreneurs, the following actions should help:

1. **Work with RBI, SEBI, IRDA, other BFSI Regulatory Authorities** in India and, Institutes, State and Central Government and consultants to create a single up-to-date information source explaining regulatory and legal requirements for various Regulated Financial Services.
2. **Create a program** under FinTech CoE which provides **consultative assistance with regulatory navigation** to FinTech and BFSI entrepreneurs.
3. **When the above two actions have been implemented and processes solidified, convert the program in Point 2 to an end-to-end service for entrepreneurs** at a subsidised cost to get inducted into various Sandboxes created by Regulatory Bodies based on their requirements (cohort - wise).

Objective 3: Incubation & Acceleration Program

Achieving the above objective can be divided into three parts with dedicated teams for each of them.

1. Information

Dedicated Content Development Team which compiles information in a structured format for entrepreneurs researching in the FinTech space. Information compilation should include:

- » Government Policies, Schemes and Programs
- » Regulatory Requirements
- » Information of consultants who can help with their Research Technology Development Team to create a user- friendly mobile and web portal to navigate the content created by the Content Development Team.

2. Support

A separate division should be set up to help entrepreneurs and early-stage startups in the initial journey. The Incubation Program can help with the following:

- » Subsidised Office Space in co-working spaces and co-working coupons for talent access offering work from Hometown.
- » Insurance Benefits for entrepreneurs and early employees under CoE Affiliated FinTech Groups.
- » Access to Hiring and Training Centres in collaboration with the Skill Development Program with Leading Management and Engineering Institutes/Universities.
- » Access to Domain experts in the FinTech space to get specialised advice.
- » Funding support for startups in the Idea stage or early traction.
- » Connecting to a larger VC network to additional fund raise.

3. Mentorship

There are five key stakeholders which have an impact on the innovation and entrepreneurship depth on the overall FinTech ecosystem:



Regulatory Bodies



Government



Investors



Banking, Financial Services, & Insurance (BFSI) Industry



FinTech Entrepreneurs from successful companies

FinTech Entrepreneurs will need mentorship from all of these stakeholders. FinTech CoE should create a forum to bring all of these stakeholders together and conduct events for emerging entrepreneurs with all the key stakeholders. These forums will act as:

Knowledge sharing sessions for emerging entrepreneurs helping them get an overall understanding of the FinTech landscape in India and the world.

Relationship building avenue to partner with these stakeholders and grow their ventures, Platform to list their services - like APIX Singapore.

Provide access to capital through investors at Angel, Seed to Series A Level.

STRATEGY - TO IDENTIFY THE BEST START-UP IDEAS

Talent Acceleration Program and pre-incubation opportunities focus on creating value for both industries and students, which are approached as follows.

Entrepreneurial Talent Reach

Focusing on reaching out to the wide entrepreneurial talents across different regions of the state through virtual and offline events. The initiative focuses on creating awareness and orienting the students in various tech and non-tech initiatives to focus on identifying the best entrepreneurial talent across Karnataka.

Talent Assessment

Focuses on selecting students based on their entrepreneurial mindset through various assessment tools. The initiative emphasises on helping students with the inclination/prerequisite skill sets to build enterprises to be shortlisted. The selection shall also be based on Hackathon/Ideation events at various institutions spread across Karnataka.

Entrepreneurial Mindset Program

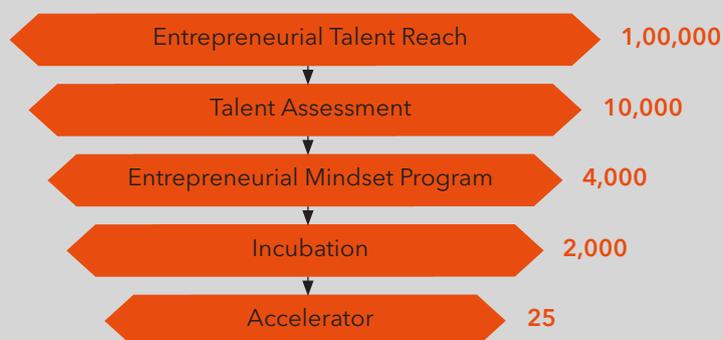
The 200 hours of industry designed program that will be developed both in pre-recorded and live format, shall focus on various stages of idea to prototype stage for shortlisted entrepreneurial candidates.

Incubation

This phase focuses on creating a platform for bringing the best solutions in BFSI industries and FinTech to be exposed to a larger existing ecosystem for mentoring and initial traction.

Acceleration

This phase emphasises on testing incubated ideas in the market with the actual use cases and sign ups from larger industries.



VALUE ADDITIONS TO THE MEMBERS OF FINTECH COE



Easy access of VC funding to start-up companies partnering with the FinTech Program.



Access to Intellectual Property rights of Governments and larger organisations to the member companies in a subsidised system.



Supply of fresh talent through Talent Acceleration Program.



Access to all global regulatory sandboxes for startups to expand to new regions and geographical locations within the country and abroad.



Huge networks among startups and larger organisations gain mutual benefits.



Availability of government subsidies and incentivising startups that are growing.



Larger ecosystem with access to information, resources, mentorships and industry experts.

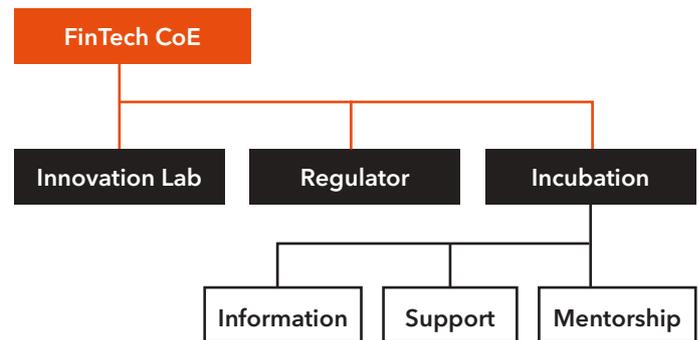
RECOMMENDATIONS

01.

Create a Team

We live in a connected world with remote working and the FinTech CoE should work in the same format. There is a need for a dedicated team to work on the FinTech CoE charter.

The team can be designed composition can look like the following:



02.

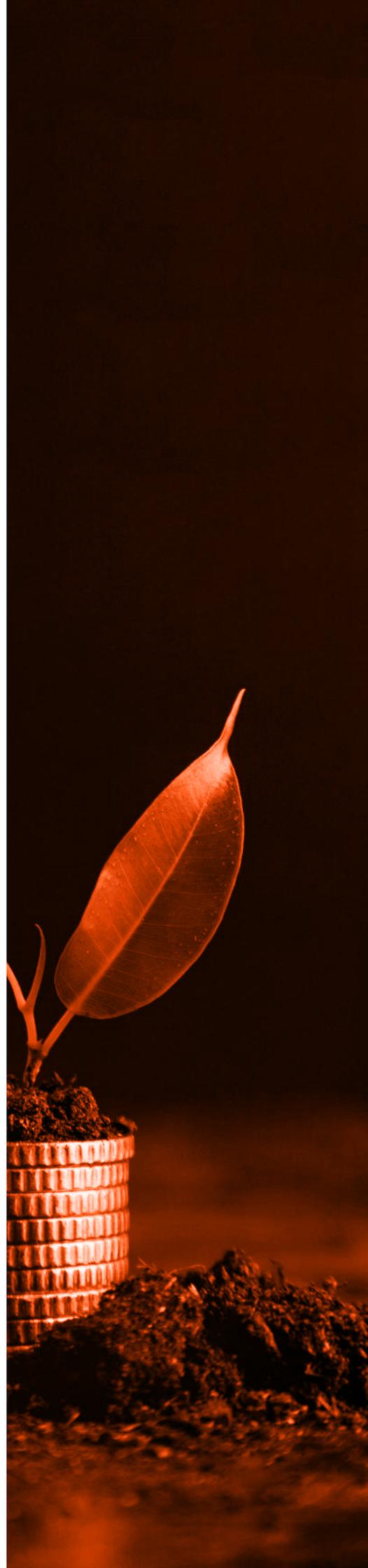
Incubation and Accelerator Program:

The creation of incubation and accelerator programs would mentor the startups to refine the ideas, create a business plan, build products according to the market fit and also assist in network with other startups.

Roadmap

FINTECH CENTRE OF EXCELLENCE

Key Activities		M1				M2				M3	
		W1	W2	W3	W4	W1	W2	W3	W4	W1	W2
Innovation Labs	Create a team dedicated to setting up Innovation Labs	█	█	█	█						
	Partnering with FinTech CoEs of other states and countries					█	█				
	Creating Information Exchange Forums amongst partnered CoEs in India and the world							█	█		
	Continuous gap analysis to identify areas of improvement from a state and central government policy standpoint									█	█
Regulator Connect	Program creation to run in the CoE that provides consultative assistance with regulatory navigation to FinTech and BFSI entrepreneurs	█	█								
	Create a single up-to-date information source approved by RBI, SEBI, IRDI and other BFSI Regulatory Authorities in the country			█	█						
	Get inducted into various Sandboxes created by regulatory bodies					█	█				
	Get licensing and other regulatory approvals to kick-start their ventures							█	█		
Incubation and Acceleration Programs	Create a dedicated content development team for entrepreneurs researching in the FinTech space	█	█								
	Create a support team for the Incubation Program			█	█	█					
	Roadmap creation for startups seeking incubation						█	█	█	█	



04

Karnataka FinTech Start-up Innovation Corpus

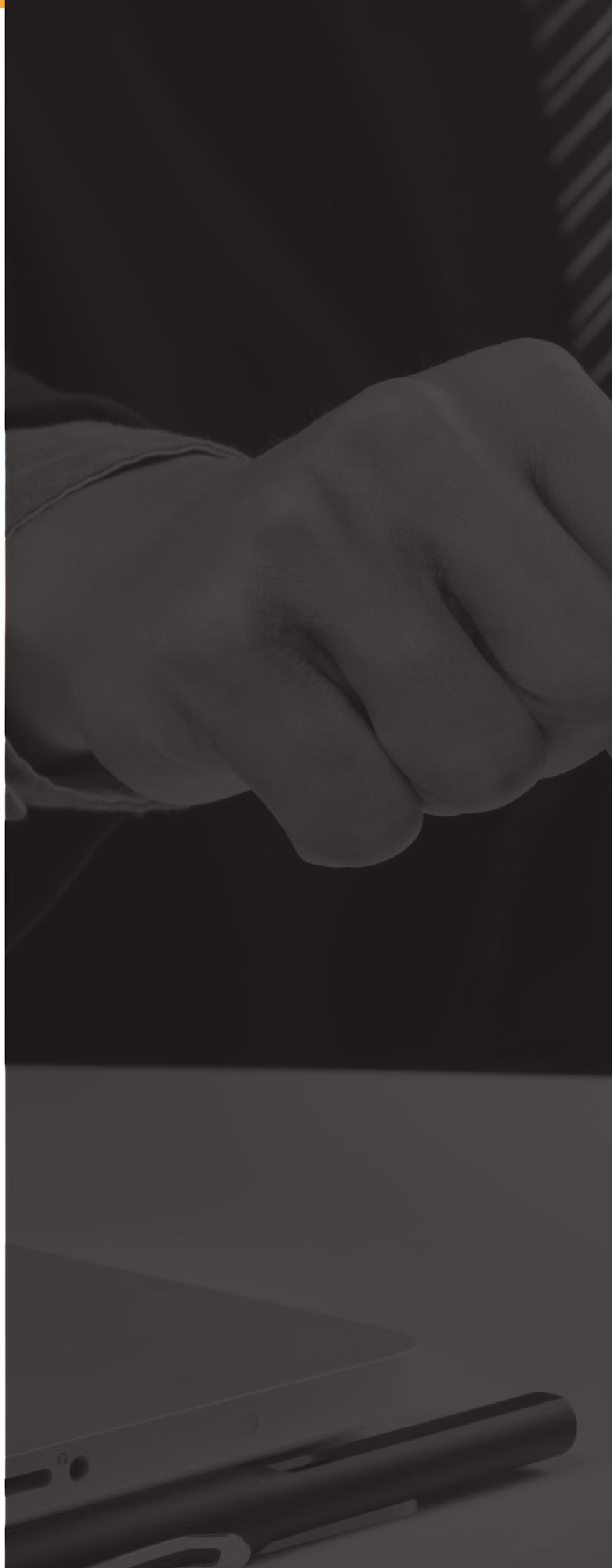
Karnataka FinTech Start-up Innovation Corpus

OBJECTIVES

1. Create a corpus fund for new start-ups in FinTech.
2. Bring together Industries, VCs, Angel Investors and Business incubators to set up the fund.

PROBLEM ANALYSIS

The majority of modern startups are cash-flow firms that provide services. Traditional bank loans are normally secured by a company's assets, but without considerable security, many large banks will reject these new service companies.



RECOMMENDATIONS

The initiatives to be undertaken by the Government of Karnataka to improve access to finance for FinTech firms include:



01. Setting up a new investment fund within clusters especially Mangalore.



02. Government shall provide financial support for tech companies through grants offered by the Idea 2 Poc policy (Elevate), which was thus created to provide a variety of practical tools and funding platforms aimed at effectively addressing the dynamic and changing needs of the local and international innovation ecosystem.



03. Collaborate with international agencies, regulators and authorities for creation of funds for Karnataka-based FinTech startups.



04. Investing in a series of large-scale private sector funds which shall enable the growth stage of bigger companies to expand and operate from the state.



05. Government-backed technology growth funds to selected FinTech startups with loss protection and governmental credit guarantees up to a limit.



05

Talent Identification & Training Support

Talent Identification and Training Support

INTRODUCTION

The FinTech sector has emerged as one of the most promising industries in India. Growing internet penetration, government push for digital transactions, rise in online commerce, and increased penetration of digital finance products, among other things, are driving growth. With over 400 companies seeking financing, the industry has received a lot of interest from investors. FinTech has been adopted across a wide range of financial services, including, agriculture, MSME consumer and MFI, P2P lending, BNPL, payment, insurance, investment advisory, online brokerage, and marketplaces, among others. The increase in the number of companies in this space, along with a scarcity of proven and experienced human capital in the sector, has posed a significant problem for companies in forming FinTech teams.

The FinTech Talent Identification and Training Support is proposed to be an initiative of the Karnataka Government that focuses on skilling, re-skilling or up-skilling the domicile employable engineering graduates and providing an opportunity to technology enthusiasts to switch their career. The program emphasises on bringing together various pillars such as Government, Industries and Educational/ Training Institutions to help students become competent and employable. The Talent Identification and Training Support serves as an enabler ensuring collaboration between various stakeholders and is designed to be self-sustainable with initial support from Karnataka Government, Central Government, BFSI, FinTechs, Technology Industry and Educational Institutions' support.

PROBLEM ANALYSIS

According to NASSCOM, the skills gap in niche sectors of cybersecurity, data science, cryptocurrencies/blockchain, and augmented/virtual reality might increase to as much as 70%. However, there is no module/credit-based learning in the curriculum for students to fill the gap in the present

form of language, social sciences, art, design, economics, commerce, business and engineering education.

With regards to hiring, hundreds of jobs are available across IT and tech companies, but they are struggling to find excellent people and are willing to pay a premium for it when they do. According to industry experts, the increase ranges from 20% to as much as 80%, which is more than double what they saw before the epidemic for specific talents. Another study shows that the dropout rates have also increased. Several employees who were made offers did not accept them, and even when they did, they left if a better offer came up.

OBJECTIVES



Target audience based on the structure of FinTech companies



Create and deliver skill development courses.



Create and deliver skill development courses.



Create and deliver skill development courses.

REASSESSING CURRENT APPROACHES

Recruitment processes that are more than a decade old aren't appropriate for the FinTech industry. Salary and perks are quite competitive in this young and quickly growing sector. Traditional recruitment partners may not be ready for the challenge, and one won't be able to succeed by just placing an advertisement in the trade press. Hiring through referrals has been one of the efforts in this sector.

Approaches that are currently sought for hiring talent:



Campus Placements

for new and returning alumni for re-skilling



Referrals

from employees or other employers - Referral Network - P2P Recruit



Partnering with Finishing Schools

in Technology, Management, Design, Data Science, Blockchain and Placement Platform Platforms such as Apna, Internshala for Campus Networks

The structure of FinTech companies is largely divided into three segments:

1 Technical & Analytical Team

The development team that works on the core product/service of the company with the skill sets of technologies like data science, analytics, platform development and so on. This pool of students largely includes engineering students with or without an MBA background.

2 Finance and FinOps

Seniors in the Finance field who handle Finance aspects of the product/service of the company. For FinOps, students with a background from B.Com, CA, CFA, MBA Finance, CFOs.

3 Operations and Sales

Data collection, entry and other operations that do not involve working on technology aspects of the product/service. The students working in this structure are usually degree graduates.

These segments give hope to a large pool of students from various backgrounds in the field of FinTech.

FRAMEWORK TO ACHIEVE THE OBJECTIVES

Objective 1: Target audience based on the structure of FinTech companies

The following audience is likely to be targeted for the skill development centre Core FinTech & Operations in FinTech Companies.

Engineering graduates
2019-2021

Non-Engineering graduates
2019-2021

Engineering graduates
2022

Student Demographics	% Distribution	Targeted	Assessed	Trained
Engineering graduates 2019-2021	10%	10,000	1,000	400
Non-engineering graduates 2019-2021	10%	10,000	1,000	400
Engineering graduates 2022	80%	80,000	8,000	3,200
	100%	1,00,00	10,000	4,000

Objective 2: Structure of Skill Development Courses

To ensure students have the relevant skill set, the following courses created by industry involving the following technology can be designed.



AI/ML/Data Science

(Data Visualization, Data Analytics)



Blockchain



Cyber Security

» Compliance
» Security Operations (SOC Operations)



Mobile App Development and SaaS



UI/UX frameworks



Devops

(Cloud Server Skills)



Testing Skills with analytics

(Black Box testing)



Web 3.0

Objective 3: Learning Pathway

The courses will be introduced to the shortlisted candidates in the following manner:

Program Delivery Model

Program Distribution

12 weeks, 8 hours per day, 5 days per week

First Evaluation

1 week during the Skill Development Program Kickoff

Second Evaluation

1 week after the end of one month of training

Third Evaluation

2 weeks of project work during the final phase of training

Learning Path

Career Counselling for shortlisted students (20 hours)

Phase 1

FinTech Explorer Program Core Skills (160 hours)

Phase 2

FinTech Advanced Program, Advanced Skills (320-480 hours)
» Project skills
» Project engineering competencies
» Soft skills

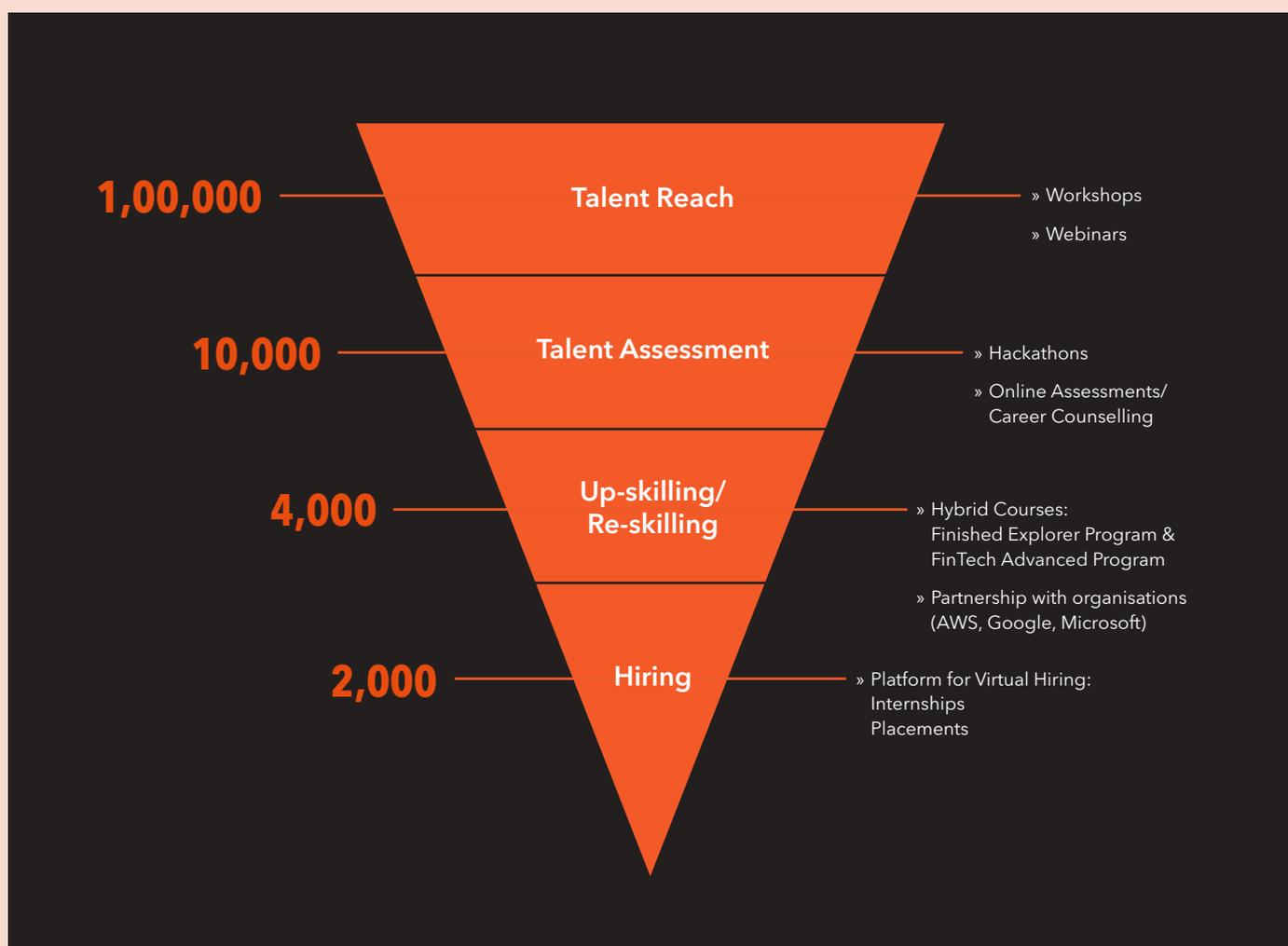
Project

Placement

Objective 4: Strategy - Creating a strong talent pool

Talent acceleration program and pre-incubation opportunities focuses on creating value for both industries and students, which are ensured by:

1. **Using a funnel model/flywheel model**
to hire top talents.
2. **Provision of equity or incentives to female students and women led startups.**
Exposure to opportunities like NASSCOM Women Training, 10K Women - Goldman Sachs, and so on.
3. **Flexible work environment**
with remote and hybrid working model, Work-from-anywhere and work-from-hometown for both men and women maintaining equal proportions for recruitments.
4. **Partnerships with organisations like AWS, Google, Microsoft, NSRCEL, Uipath, MongoDB, Oracle, etc.**
to train and up-skill students.
5. **Events like hackathons**
to connect talented students and companies where up to 3-5 levels of filtering will take place for up-skilling and hiring students.
6. **Recruitment incentives from the Government**
(incentives for companies hiring through CoE for at least one year) especially for recruitments Beyond Bengaluru, matching salaries of Bengaluru (work coupons/co-work space coupons etc.).
7. **Innovation labs**
for students to create and innovate and be a part of the gig workforce. Create modules for unitising work, pricing framework and protected IP shares for innovations.



The centre focuses on creating a talent pool that shall attract FinTech startups into the emerging clusters and at the same time help scale the startups faster. The proposal focuses on building a talent pool of 2,000 students every year to be enrolled into FinTech startups.



06

Mentorship

Mentorship

INTRODUCTION

Mentorship, at its core, is about developing talent and equipping professionals at all levels with the skills, insights, and sensibilities they need to create rewarding careers and better working environments. Mentors are both a source of assistance and individuals to aspire to for those just starting out. These ties provide mentors with the opportunity to learn about employees at various levels of the organisation, their experiences, and how the company operates on the ground.

According to an IBM Oxford study, venture capitalists believe that inexperienced leadership is the biggest cause of business failure. As per Harvard Business Review research, the majority of high-growth firms are formed by people aged 40 to 49. When you are 40 years old, your odds of launching a successful business double compared to when you are 25.

Starting up is not easy for the founders as they are constantly juggling to keep their ventures afloat. There are multiple decision-making stages that could prove to be pivotal in the journey of starting up and can put the future of the company into jeopardy.

Experienced mentors can be beneficial in such situations and hence it plays a significant role in starting up in any sector. The KDEM initiative to mentor and train upcoming founders and startups will help in bettering the ideas through guidance, handholding, discussion and advice. The sessions can also help the founders to hire the appropriate people, discover the right investors, establish the foundations of the company culture and so on.

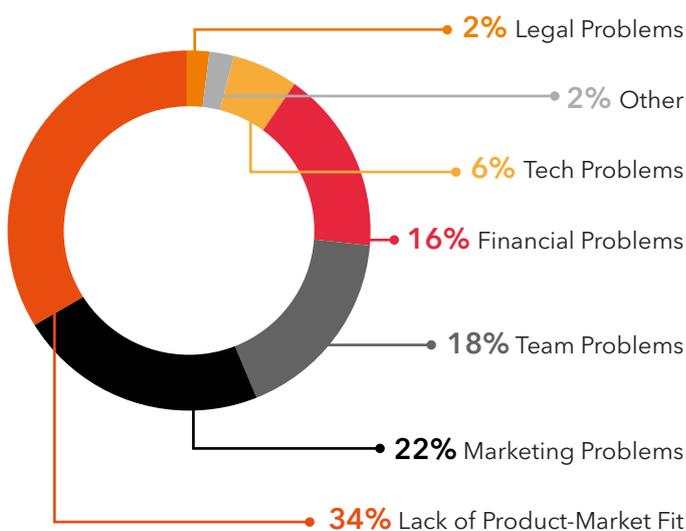
CHALLENGES IN THE CURRENT SCENARIO

According to a study, 90% of startups fail in the span of 3 years of starting up.^[1] Some of the reasons from the failed start-up owners are very common: lack of funds, wrong product for the market, flawed business model. Whereas, these factors are very crucial for entrepreneurs who have just ventured into starting up. Although the new founders are new to starting up, the lack of knowledge and exposure also leads to failure of their ventures.

Startups take 2-3 times longer to validate. Most entrepreneurs underestimate how long it takes for a start-up to prove its market. The cashflow/availability issues might kill the project before they have had a chance to thoroughly test the market. Before product-market fit, founders overestimate the value of intellectual property by 255%. Startups that pivot 1-2 times develop their user base 3.6 times faster and raise 2.5 times more money. Startups that pivot 0 or 2 times perform much worse. Enough time and resources must be set aside to try up to two pivots.^[2]

Hence, start-up mentoring has the advantage of providing direction and motivation. For a variety of reasons, start-up mentorship is critical. It has the potential to give startups and its founders long-term assistance. It can assist in seeing what they previously couldn't. Mentoring may both inspire and test the startups in their journeys and will definitely assist them in developing new talents and expanding their network. Finally, start-up mentorship also has the potential to enable startups to save money, time, and effort.

COMMON REASONS FOR START-UP FAILURE^[3]



¹ <https://www.investopedia.com/articles/personal-finance/040915/how-many-startups-fail-and-why.asp>

² <https://www.failory.com/blog/startup-failure-rate>

³ <https://www.failory.com/blog/startup-failure-rate>

OBJECTIVES

The current scenario mentioned in the previous section can be easily eliminated in the presence of the right mentors to guide founders through the hiccups of starting up.



Strategic Insight: How to start & grow a financial services company.



Access to a global FinTech network.



Networking with current and previous mentees.



Establish networking platform.



Conduct interactive sessions and activities.

FRAMEWORK TO ACHIEVE THE OBJECTIVES

KDEM Initiative to set up a mentorship channel which will comprise of mentors from the Industry and FinTech community within the KDEM Task Group, who are running initiatives for early-stage ventures. The above-mentioned objectives can be met in the following steps in partnership with the startups in the KDEM Task Group.

A common platform of interaction can be set up as a communication channel for the startups, entrepreneurs and FinTech enthusiasts to interact with the mentors and leaders of the FinTech ecosystem. The channel in plan is a tried and tested community building activity that can help founders and startups present their ideas, share inputs, suggest, discuss, debate and narrow down potential tweaks to initiatives we are running or planning.

The platform will also serve as an information dissemination and training platform, where KDEM can regularly update upcoming events and activities and also understand interest levels. A dedicated communication channel for KDEM will be set up with a few moderators to manage the conversations and answer any queries. The platform needs to nurture members to answer questions and share inputs, to encompass participation from all stakeholders. Activities and opportunities for the members of the community and the platform shall be used as a medium of communication amongst the community. As a result of these interactive sessions, Q&As, and other activities, connections will be built with peers, mentors, incubators and other FinTech leaders who shall bring more value to the community. All of which will help people access knowledge, guidance, funding, mentorship and much more.

OUTCOMES



1. A strong go-to FinTech community for any queries for FinTech enthusiasts, start-up founders and others.



2. Better clarity and information about the ecosystem for the ones wanting to enter the sector.



3. More startups to benefit from the industry experts which will lead to successful startups in the industry.

ACTION PLAN

01 SETTING UP A SINGLE COMMUNICATION CHANNEL FOR MENTORING ACTIVITIES SUCH AS:



Access to knowledge base and other reading materials.



References to resources and websites in the FinTech space and other details that the Task Group/ other members propose over time.



Conducting webinars and training sessions.



Receive feedback from existing FinTech teams and founders.



Details-sharing about activities and updates on FinTech.



Provision of information on FinTech facilities available to develop ideas and solutions.

02 MENTORSHIP COMMUNICATION PLATFORM

In order to connect experts and sector enthusiasts, an online platform shall be created by KDEM as a communication medium. The purpose of this platform will be to play the role of being a channel of communication, platform for discussion and medium for events and announcements. A team shall be formed to manage this platform. The following shall be some of the activities that can be carried out on the online platform:



Mentor-mentee sessions



Doubt clarification on sector-specific doubts



Discussions on the upcoming FinTech trends



Knowledge sharing via webinars and Q&A session by the experts



On request, pitching sessions by new entrepreneurs of the sector



Validation of ideas by FinTech experts

03 MENTORSHIP MODERATORS TEAM

A team of moderators to be set up from either KDEM, the Task Group or both in order to carry out the activities on the communication platform. This team shall moderate, plan and execute the activities on the platform. They will also be responsible for responding to queries, questions and other concerns raised on the platform. The moderators shall validate the mentoring requests raised by the community members and schedule the necessary team meetings with the mentors and startups accordingly.

04 MENTORSHIP COLLEGIUM

A mentorship collegium shall be formed that comprises a diverse group of experts from various fields like legal, banking, technology, human resources and so on. This collegium shall interact and guide the FinTech founders on the communication channel as and when required. Multiple categories and sub-channels will be made on the chosen communication platform for easy, relevant and segregated (based on topic) interactions between the experts and community members. Moderators also hold the responsibility of tagging the appropriate and relevant mentors to the questions posted on the channel.

Startups that look forward to pitching their ideas and for raising funds can also use the platform for the same. The Task Group members (including the startups involved in the Task Group) shall evaluate the startups and provide feedback on the platform with the startups individually.

05 MENTORSHIP WEBINARS

Mentoring and knowledge-sharing is proposed to happen via webinars and short training sessions. Webinars are an easy access to knowledge and will happen for a fixed duration. Moderators from the KDEM team shall conclude on the webinars and/or training areas based on the inputs provided by the community members on the Discourse platform. Based on these inputs, webinars and/or training will be set up accordingly. Some of the topics/areas of interests are listed below:



Banking



Non-Banking
Financial Company
(NBFC)



Investment
(Funding)



Technological



Legal



Security



Compliance



Intellectual
Property Rights



Human
Resources (HR)

06 MENTORSHIP WORKSHOPS (VIRTUAL & PHYSICAL)

A dedicated team of moderators shall conduct occasional workshops across the state to address the startups who require extensive training and access to experts. These workshops will act as an opportunity for the leaders of the industry to share their experiences and learnings with the rest. The workshops can work as online, offline and/or hybrid models to accommodate all the industry experts' interactions with the attendees. The topics and schedule of these workshops will be determined by the moderators based on the interactions and/or polls conducted on the communication platform.

07 ON DEMAND MENTORSHIP

Mentoring can be also made available to startups that request for exclusive mentoring by certain mentors. The moderators shall float a system where startups or founders can fill a form with their requirements and other details based on which mentoring sessions can be scheduled. The requirements will be thoroughly gone through before the sessions are scheduled with the mentors to avoid ambiguity and to utilise the mentors time more efficiently. The availability of the mentors shall also be pre-checked before the sessions are scheduled.

RECOMMENDATIONS

01.

Creating a communication platform

The creation of a communication platform would contribute to the creation of online mentoring programs. It can connect employees, entrepreneurs, and other industry beginners who are looking for guidance with seasoned experts, who have “been there” and “done that”.

The medium of interaction for the mentorship can be on the following platforms:



Discourse is the 100% open source discussion platform built for the next decade of the Internet. Use it as a mailing list, discussion forum, long-form chat room, and more.



Discord is a free voice, video, and text chat app that’s used by tens of millions of people ages 13+ to talk and hang out with their communities and friends.

02.

Creation of Moderators

With access to many mentors, it is possible that it can be overwhelming. So, an individualised support system might be needed. Therefore, a team of moderators will be set up who would actively take part in:



Answering queries/questions raised on the platform.



Create a calendar of events for the platform.



Conduct and schedule events and webinars for the community.

Roadmap MENTORSHIP

Key Activities	M1				M2				M3		
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3
Communication Platform	Technology Adaptation/Development										
	Creating Mentorship Pool										
	Campaign Strategy of Startups										
	Onboard Startups										
	Beta Version										
	Launch										
Creation of Moderators	Selection of Moderators										
	Create Platform Guidelines										
	Create Calendar of Events for the Platform										



07

Financial and Banking Literacy

Financial and Banking Literacy

INTRODUCTION

Despite having a population of 1.3 billion people, about 76% of the adult population in India are yet to improve upon their understanding about basic financial concepts. Only 27.6% of people between the age group 25-44 continue participating in the Financial Inclusion Program through financial education^[1].

Finances and banking is an essential life skill. Financial and banking literacy is one of the biggest assets of any country as it is directly proportional to economic growth. Based on an RBI study, 42.9% of the population borrowed money from informal sources and paid higher interests. A strong financial education can help small traders make informed decisions and make the best use of available resources.^[2]

The banking sector plays an important role in the development of a country. Financial and banking literacy increases the availability of economic resources and encourages the citizens of the country to save and be smart about their money. Financial and banking literacy is a critical step towards more equitable growth. It contributes to the population's overall economic growth.

CHALLENGES IN THE CURRENT SCENARIO

- 1 Lack of infrastructure
- 2 Technological disparity
- 3 Scaling financial inclusion
- 4 Data paralysis
- 5 Information overload

UNEMPLOYMENT-RELATED SUICIDES in 2018

7,711

UNEMPLOYMENT-RELATED SUICIDES in 2020

8,761

16,091

PERSONS DIED as a result of bankruptcy or debts between 2018 and 2020

9,140

PERSONS DIED as a result of unemployment between 2018 and 2020, with the number continuously increasing from 2,741 in 2018, 2,851 in 2019, and 3,548 in the pandemic year 2020.

5,213

PERSONS COMMITTED SUICIDE as a result of bankruptcy or indebtedness in 2020.

4,970

PERSONS FILED FOR BANKRUPTCY OR WERE IN DEBT in 2018

5,908

PERSONS FILED FOR BANKRUPTCY OR WERE IN DEBT in 2019

By 2020, it was expected to decrease by ~600 deaths

In our country, digital and physical connectivity is also a major concern. Apart from the fact that many rural areas lack both physical and Internet connectivity, there are areas in urban areas where Internet speed is extremely slow, resulting in glitches. With so much unprocessed data on everyone's screen, it's difficult, if not impossible, to separate the signal from the noise. The newer generation seeking knowledge widely on digital platforms encounter three problems: a lack of structure, a lack of legitimacy, and a lack of direction.

¹ <https://www.ibef.org/blogs/india-s-growing-financial-literacy#:~:text=India%20has%20the%20potential%20to,inclusion%20program%20through%20financial%20education>

² <https://www.ibef.org/blogs/india-s-growing-financial-literacy#:~:text=India%20has%20the%20potential%20to,inclusion%20program%20through%20financial%20education>

EXISTING PRACTICES

The Reserve Bank of India (RBI) has released the National Strategy of Financial Education (NSFE) for the years 2020-2025. The strategy attempts to instil financial literacy in regular people, encouraging them to save and increase their involvement in financial markets. The program provides material for financial education and builds competence among providers for a code of behaviour. Financial education should be included in school and college curricula, according to the Central Bank. People who are taught the notion at a young age are more likely to employ it later in life.

Securities & Exchange Board of India (SEBI) is also working towards improving fundamental financial education as well as sector-specific financial education. It also organises events like World Investor Week and public media campaigns as the Indian capital and securities market regulator. There are several schemes launched by the central government to increase financial inclusion such as Pradhan Mantri Jan Dhan Yojana, Jivan Jyoti Beema, Atal Pension Yojna and so on. These schemes also focus on the ease of banking services, awareness and general insurance awareness. Effective financial and banking literacy is required in India to raise the poor and disadvantaged by providing them with customised financial goods and services.

OBJECTIVES



Collaboration between all stakeholders for easy information sharing.



Building/accessing required infrastructure.



Curating educational modules based on requirements and audience.



Reduce deaths due to debts and bankruptcy.

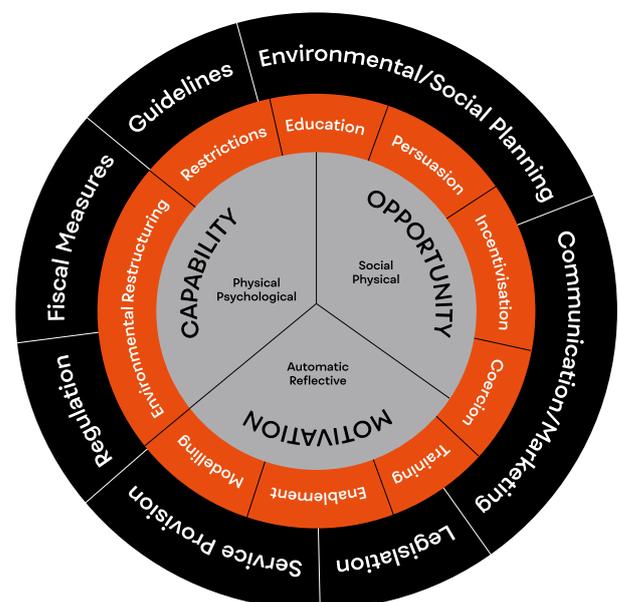
FRAMEWORK TO ACHIEVE THE OBJECTIVES

Objective 1: Behavioural Change Communication

To help further financial and banking literacy, we propose to implement the Behavioural Change Communication (BCC) module. Behavioural Change Communication (BCC) is a scientific process developed by social sciences aimed at injecting and managing a change of behaviour among the target group in a manner that would make it sustainable; in other words, BCC is a communication strategy that encourages individuals/communities to change their behaviour. It relies on several mental models, fig.1, MINDSPACE and others that can be applied to relevant use-cases (in our case, financial literacy) to bring about the intended change in user behaviour.

The concentric circles from the diagram, represent the following:

- Sources of Behaviour**
 depicts the behaviors/attributes/attitudes among the target group that we seek to change.
- Intervention Functions**
 are the several actions through which this change in behavior/ attributes/ attitudes are sought to be changed; and
- Policy Categories**
 is the "Policy Categories" through which actions (in the intermediate circle) gain credence (for example: coercion and incentives rely on legislation to be enforceable).



Illustratively, we can think about designing the investment literacy module in the following way.

1. Behavioural biases most central to investing

- » Impatience ("let's make a quick buck in IPO"; buying on stock tips)
- » Extreme risk-sensitivity (selling at the first sign of volatility)
- » Herd behaviour (buying at high PE multiples)

So, the investment literacy module would be optimised to empower (teach) the target groups with the respective mitigating behaviours.

2. Mitigants

- » Delayed gratification (hedge against impatience)
- » Imparting knowledge about notional loss/real loss (hedge extreme risk-sensitivity)
- » Imparting knowledge about investment basics (higher PEs are harder to sustain in most circumstances)

Other frameworks that financial regulators have globally implemented/relied on include "MINDSPACE" and its more elegant version, "EAST" (Easy, Attractive, Social and Timely).

Objective 2: Applications to Financial Literacy Modules

Four target areas have been identified and using the components of the framework, modules will be created according to the target areas. These modules can be published on a mobile application and will be tweaked to customise it as per the learners' requirements and/or behaviours and/or run in Digital Training cells. The process of curating the modules is as follows:

1. Identifying the behavioural biases most central to the target areas.

2. Using tools that these frameworks offer to attack/mitigate these behavioural biases.

Objective 3: Steps to design the modules on Investment literacy

In order to design a module on investment literacy, these steps will be followed:

1. Behavioural biases that are most central to investing are identified, the learner usually shows the following behaviours:

- » Impatient (eg.: let's make a quick buck in IPO; buying on stock tips)
- » Extreme risk-sensitivity (selling at the first sign of volatility)
- » Herd behaviour (buying at high PE multiples)

2. The investment literacy module would be optimised to empower and/or teach the target groups with the respective mitigating behaviours:

- » Delayed gratification (hedge against impatience)
- » Imparting knowledge about notional loss/real loss (hedge re extreme risk-sensitivity)
- » Imparting knowledge about investment basics (higher PEs are harder to sustain in most circumstances)

3. The teaching modules will be designed to include thumb rules that are common in investing to help the target groups/learners to perform quick mental maths before making any decisions, for example, the Rule of 72 is a quick, useful formula that is popularly used to estimate the number of years required to double the invested money at a given annual rate of return.



Explore
Insight



Evaluate
Evidence-based Innovation

1. Enable

Infrastructure
Facilities
Design
Resources

2. Encourage

Legislation
Regulation
Incentives
Information

3. Engage

Deliberation
Permission
Co-production

4. Exemplify

Leading by Example
Policy Consistency
Organisational learning

4. The modules can be designed in a way that uses conventional and unconventional wrappers to reach the defined mitigating behaviours, such as:

- » Games/quizzes/stories/leaderboards delivered through applications.
- » Classroom teaching/social media/simulated investing.

5. As effective as these tools might be, there is going to be transmission-loss given attention spans are shorter and consumers are time-poor. App-level default settings can be set in a manner as to align with consumer interest. Default settings at app-level/opportunistic nudges at the app-level (eg, the ones that pop-up during user journey) are a protection against this transmission loss.

Objective 4: Outcomes Measure of Investment Literacy

The module for investment literacy can measure the yield on each of the wrappers described above and embed appropriate app-level defaults/nudges where the retention of knowledge imparted is lower to see if the consumers benefit from it.

In order to design a module on banking literacy, the following steps will be followed:

1. The behavioural biases most common in the banking (context: credit discipline) module are:

- » Instant gratification/extreme urgency (consumption loans/emergency loans)

2. The banking literacy module would be optimised to empower and/or teach the target groups with the respective mitigating behaviours:

- » Imparting knowledge about credit scores and how they punish/reward (consumption loans).
- » Imparting knowledge about card-level controls that can protect against spending binges.
- » Imparting knowledge about insurance products (emergency loans for medical purposes for example; empirically, a significant driver of indebtedness in India).

3. Similar to the investment modules, numerous wrappers might be used to create a banking literacy module.

Furthermore, much like with investments, testing and measuring retention will generate a feedback loop that might affect the app's default design as well as any nudges/prompts.

RECOMMENDATIONS

The strategy calls for the creation of Digital Training cells in Karnataka’s designated districts. This section of the program can be implemented in the following ways:



Setting up of Digital Training Cells

- » Determine a set of “aspirational districts” based on financial literacy levels ranging from low to moderate. (The NCFE poll from 2019 is one example of a data source) Other data from the state government can be used to estimate literacy in a certain district.
- » Create a team of staff and trainers for the centres, who will be responsible for content curation and delivery of the modules to the learners.



Partner with potential organisations like the Local Kannadiga development sector, they can contribute in the following ways:

- » Personnel from these organisations could be included in the planned Digital Cells.
- » They will give the above-mentioned courses to groups of participants in aspirational districts.

Roadmap FINANCIAL & BANKING LITERACY

Key Activities	M1				M2			
	W1	W2	W3	W4	W1	W2	W3	W4
Digital Learning Cells	Identify Potential Districts							
			Propose to set up Digital Learning Cells in these Districts					
				Propose to set up Digital Learning Cells in these Districts				
Partner with Potential Organisations				Identify Potential Partners				
				Reach out to the Potential Partners				
				Run the Courses				



08

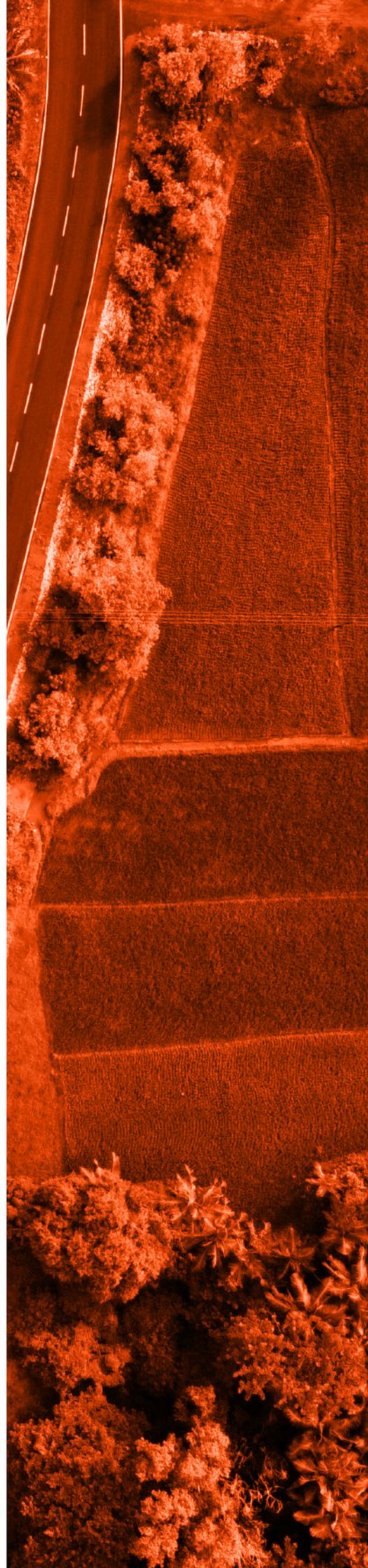
Recommendations

Recommendations

The recommendations, taken holistically, will enable the state of Karnataka to create an achievable and pragmatic Roadmap for relevant stakeholders to successfully embark on positioning Karnataka as a clear leader and home state for FinTech innovation in India.

- 1 To accelerate infrastructure, policy transformations and growth as the country recovers from COVID-19.
- 2 To focus on key sectoral priorities as identified in the proceedings of the Task Group over the last year:
 - I. **Talent Support and Identification:** A policy to support a state-level talent strategy that increases and diversifies the domestic supply of talent, addresses skills gaps, and works more closely with academia to attract talent to the sector.
 - II. **Beyond Bengaluru:** Address the opportunity across the state - not just in Bengaluru, but in vibrant regional clusters, as we look to make Karnataka, as a whole, the destination of choice for FinTechs.
 - III. **Building World-Class Infra:** Creating an integrated national digital agenda, linked to building world-leading infrastructures like a Centre of Excellence that provides comprehensive, safe, and secure access to innovators and FinTech entrepreneurs alike.
 - IV. **Accelerating Financial and Banking Literacy:** Creating state-led and funded BCC modules to enhance adoption and literacy around technology-driven financial services to further bolster India's stellar digital and financial inclusion trajectory.
 - V. **Mentorship & Ecosystem Support for Budding Innovators and Entrepreneurs:** Creating enabling platforms across portals to support early-stage innovators to have access to guidance, handholding, discussion, and advice from government and FinTech industry leaders alike.
- 3 Formulation of a Sandbox by collaborating with RBI, SEBI, etc. e.g., API Sandbox of Maharashtra.
- 4 Curriculum revision and targeted skilling as being done across selected geographies. Replicate the TechSkills Accelerator launched by the Singapore Government in partnership with industry to up-skill the workforce.
- 5 Establishment of 'FinTech Bridges' with Australia, Singapore, South Korea, Japan and Hong Kong to collaborate with the governments and regulatory bodies of these countries.
- 6 Develop a marketplace for FinTechs and their potential investors through FinTech festivals, exhibitions, etc.
- 7 Providing grants to FinTechs to take their business overseas.
- 8 Business Growth Grant for FinTechs for their first PoC with financial institutions.

- 9 Create awareness sessions for SMEs on the application of FinTech in their businesses.
- 10 Organise regular workshops to help policymakers up-skill and keep pace with rapidly changing FinTech space.
- 11 Using existing communication channels to promote knowledge sharing between Centre-State governments to achieve consistency in the regulation of financial products.
- 12 To set up Karnataka State Investment Fund that invests as LP in SEBI Cat-I, Cat-II AIFs.
- 13 State universities could partner with Funds/Regulator to create a “Thiel Fellowship” equivalents (a funded gap year for promising start-up ideas/ ideators out of college campuses).



09

Suggestions & Roadmap Summary

Roadmap

Focus Areas

Challenges & Suggestions

Stakeholders

■ Short
■ Medium
■ Long

Priority

Karnataka FinTech Policy' & Ecosystem Study

Need for Formulation of the 'Karnataka FinTech Policy'

- » Government of Karnataka to commission and initiate action for creation of dedicated FinTech policy for the state.
- » Regulatory mapping and sponsored research on global best practices and emulation in the Indian context.

Understanding and compliance with regulatory requirements

- The State Government may establish a dedicated Regulatory Help Desk to offer services to FinTech firms such as:
- » Understand the regulatory framework and how it applies to them across the FinTech Lifecycle.
 - » Prepare an easy-to-read rulebook consisting of various laws and regulations that FinTech firms need to comply with.

Given the evolving nature of FinTech services/products, there may be opportunities to generate value in an alternative regulatory environment

- The State Government may anchor the formation and institutionalisation of a regulatory Sandbox, in collaboration with sector regulators such as RBI, SEBI, IRDAI, PFRDA.

Infrastructure & Incentives

- To frame a policy to develop a conducive environment w.r.t secured infrastructure and incentives for FinTech startups/companies.

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» KDEM
» Dept. of IT, BT, S&T, GoK

» KDEM
» Dept. of IT, BT, S&T, GoK
» Partner Organisations

» KDEM
» Dept. of IT, BT, S&T, GoK

» High

» Medium

» High

» High

Karnataka Centre of FinTech Excellence

Challenges faced by the stakeholders of the FinTech industry are dynamic in nature and fast-changing

Create Innovation Labs:

- Partnering with FinTech CoEs of other states and countries - State of Maharashtra, Tamil Nadu and ADGM, Singapore, UK and more.

Create platform for regular connect:

- Work with RBI, SEBI, IRDA, other BFSI Regulatory Authorities in India and Institutes, State & Central Government and consultants to create a single up-to-date information source explaining regulatory and legal requirements for various FinTech Models.

Incubation & Acceleration Programs:

- The creation of Incubation & Accelerator Programs would mentor the startups to refine the ideas, create a business plan, build products according to the market fit and also assist in network with other startups.

Create a strong talent pool:

- Talent Acceleration Program and pre-incubation opportunities focuses on creating value for both industries and students.

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» KDEM
» Industry Partners

» KDEM
» Dept. of IT, BT, S&T, GoK

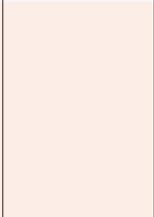
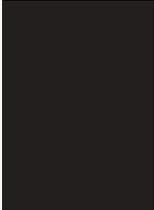
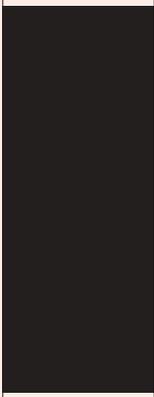
» KDEM

» High

» Medium

» High

» Medium

Focus Areas	Challenges & Suggestions	Stakeholders	■ Short ■ Medium ■ Long	Priority
Karnataka FinTech Start-up Innovation Corpus	<p>The challenge of obtaining capital from FIs by MSMEs and Startups. Access to capital is a challenge to FinTech firms.</p> <p>An investment fund/corpus to be established to fund high growth FinTech startups in the first years of their operations.</p>	» KDEM » Dept. of IT, BT, S&T, GoK		» High
Talent Identification & Training Support	<p>Challenges faced w.r.t skill set requirements of the FinTech industry include new age technologies like product management, UI/UX expertise on Cybersecurity, Machine Learning, AI.</p> <p>Establishment of Centre of Excellence within existing well-established academic institutions in the state.</p> <p>Structure of the Skill Development Courses: Involve the industry leaders to design the courses for the skill development courses. Technologies like AI/ ML, Blockchain and Web 3.0 could be the focus.</p> <p>Creating a strong talent pool: by Talent Acceleration and pre-incubation programs.</p>	» KDEM » Dept. of IT, BT, S&T, GoK » KDEM » Dept. of IT, BT, S&T, GoK » Skill Department » KDEM » Dept. of IT, BT, S&T, GoK » Academic Institutions	   	» High » High » High » Medium
Mentorship	<p>New founders are new to starting up, the lack of the founders knowledge and the lack of exposure leads to failure of the ventures.</p> <p>» Setting up a Single Communication Channel for Mentoring Activities. » Creation of an Expert Team for mentorship.</p>	» KDEM		» High
Financial & Banking Literacy	<p>Challenges faced in Financial Literacy are lack of infrastructure, technological disparity, scaling financial inclusion, data paralysis and information overload.</p> <p>» Collaboration between all stakeholders for easy information sharing. » Curating educational modules based on the requirements and the audience. » Behavioural Change Communication: A communication strategy that encourages individuals/ communities to change their behaviour.</p>	» KDEM » Dept. of IT, BT, S&T, GoK » Other Partners (like RBI, Ministry of Finance, GoI)		» High



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- 5 Foreign, Commonwealth & Development Office and Office of British Deputy
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