

nasscom  
insights

zinnov

# WEATHERING THE CHALLENGES

## THE INDIAN TECH START-UP LANDSCAPE REPORT 2023

EDITION 2023



# TABLE OF CONTENTS

<b>Executive Summary</b>	<b>04</b>
<b>The Age of Tech Start-ups: Accelerating Technology-led Transformation</b>	<b>08</b>
<b>India's Start-up Ecosystem in 2023</b>	<b>12</b>
A. Key Trends and Highlights	<b>13</b>
B. Breakout Sectors of 2023: Sectors that demonstrated resiliency	<b>22</b>
<b>Global Tech Start-up Ecosystems: A Comparative Analysis</b>	<b>29</b>
<b>2023 Tech Start-up Survey: Performance in 2023 and Outlook for 2024</b>	<b>35</b>
<b>Unlocking Future Growth: Recommendations</b>	<b>43</b>
<b>Traversing a Decade of Indian Tech Start-up Ecosystem</b>	<b>45</b>
<b>Note for the Reader</b>	<b>54</b>

# FOREWORD



**Sangeeta Gupta**  
SVP & Chief Strategy Officer  
nasscom



**Pari Natarajan**  
CEO  
Zinnov

India has seen a massive 15X surge in the number of tech start-ups over the last decade. However, 2023 proved to be a challenging year, primarily attributable to dystopian valuations, rushed IPO races, and regulatory shifts. Despite these headwinds, India had over 950 tech start-ups founded in 2023, taking the total tally in the last 10 years to over 31000 tech start-ups and cumulative funding between 2019 to 2023 to more than USD 70 Bn. While domestic consumption created the biggest opportunity for tech start-ups, we also witnessed business model innovations in core sectors.

DeepTech, the key pillar of innovation, is becoming increasingly prominent and mainstream within the tech start-up ecosystem, contributing around 14% to the cumulative funding over the last 5 years. At the same time, it promises to be one of the main differentiators for the future technology landscape.

The democratization of technology has led to the emergence of tier-II and tier-III locations as innovation hubs. With targeted government interventions around innovation labs, technology and business mentorship opportunities, access to market, capital, and infrastructure, we believe that the next wave of disruptive innovation will emerge from tier-II and tier-III hubs.

On the global stage, the Indian start-up ecosystem proudly claims its place – ranking second in start-up activity, fourth-largest in enabling ecosystem players, and the third-largest ecosystem overall. Weathering macro-economic uncertainties and heightened investor caution, the ecosystem continues its ascent to unparalleled heights, fortified by a reservoir of STEM talent, supportive government policies, and the support of incubators and accelerators.

As the Indian start-up story unfolds, we will see its relentless evolution against all odds propelling it towards a future defined by burgeoning funding, impending IPOs, and unlocking of value in transformative sectors and disruptive technologies. In 2024 and beyond, the Indian start-up ecosystem promises to transcend boundaries, creating a narrative that resonates far beyond the subcontinent.

We hope that insights from this report are of value to you and we welcome your feedback and comments at [research@nasscom.in](mailto:research@nasscom.in)



# EXECUTIVE SUMMARY

## INDIAN TECH START-UPS: THE JOURNEY SO FAR

3<sup>rd</sup>

Largest Ecosystem

31,000+

Tech Start-ups<sup>1</sup>

USD 70 Bn

Cumulative Equity  
Funding Raised<sup>#</sup>

91

Active Unicorns<sup>3</sup>

USD 9.6 Bn

Cumulative DeepTech  
Funding Raised<sup>#</sup>

# SINCE 2019

## INDIAN TECH START-UPS: 2023 HIGHLIGHTS

950+

Tech Start-ups Added

USD 6+ Bn

Equity Funding Raised<sup>2</sup>

USD 500+ Mn

DeepTech Funding<sup>2</sup>

40%

Tech Start-ups from  
Emerging Locations

39%

Share of Tech Start-ups  
Raising First Round of Funding

4

Tech IPOs<sup>4</sup>INDIAN TECH START-UPS: 2024 OUTLOOK<sup>##</sup>

67%

Tech Start-ups expect to  
increase revenues

46%

Tech Start-ups are optimistic  
about the funding environment

56%

Funded Tech Start-ups  
looking to collaborate with  
stakeholders

70%

Tech Start-ups have leveraged  
AI in their business

65%

Tech Start-ups are pursuing  
Generative AI

30%

Tech Start-ups have identified  
Generative AI use cases<sup>##</sup> 2024 outlook is based on nasscom-Zinnov Tech Start-up Survey 2023

Note: (1) This report only covers start-ups founded in 2013-23 (2) For each calendar year, funding rounds of start-ups founded in their 10-year timeline are taken for Analysis (3) Unicorns are private entities with valuation more than USD 1 Bn as on 20th December 2023. Holding companies such as Mensa Brands and Global Bees have been excluded from the unicorn club. Please refer to the note for readers for the detailed list of exclusions from the unicorn club. (4) IPO data only includes mainboard Initial Public Offerings (IPOs). Tech IPOs specifically cover companies that have gone public within two decades of their establishment.

## 1) GLOBAL SLOWDOWN HITS THE INDIAN TECH START-UP ECOSYSTEM IN 2023

- Mirroring global trends, Indian tech start-ups witnessed substantial drops in
  - a) Funding value that reached a total of ~USD 6 Bn, down 67% over the last year.
  - b) Deal volumes at 824, down by 48% over the last year.
- While this funding value drop was holistic across all start-up stages, late-stage investments bore the brunt with a 71% drop.
- New start-up creation also dropped to ~30% of last year's level.
- With a 2X decline over last year, M&As in the Indian tech start-up ecosystem dropped to pre-COVID levels due to muted participation by both global and Indian enterprises.
- Tech start-up founders reaffirm the challenging market environment - Cash flow issues, funding availability and low customer demand were cited as top challenges in 2023. Moreover, 82% of start-ups stated that the sales cycle is much longer and 46% witnessed shifts in technology priorities in their key segments.

## 2) THOUGH 2023 WAS A DIFFICULT YEAR, THERE ARE SOME SILVER LININGS VISIBLE

- Tech start-up increased focus on business fundamentals, ~60% start-up founders reported an increase in revenue and profitability in 2023.
- New start-ups are increasingly focused on DeepTech. 25% of the tech start-up founded in 2023 were leveraging DeepTech, compared to ~12% in the last 2 years.
- Over 100+ Generative AI start-ups are now active in India's start-up ecosystem, building horizontal and vertical applications.
- With Generative AI acceleration, 70% of start-up founders are intending to embed Artificial Intelligence in their solutions.
- Despite the news on layoffs dominating in the start-up sector in 2023, >65% of the tech start-up founders have been hiring in 2023.
- Share of tech start-ups established in emerging hubs rose to 40% in 2023, reaffirming the depth of India's start-up proliferation.
- B2B sectors such as Automotive, Industrial and Manufacturing were more stable and witnessed an increase in share of funding.

### 3) THE INDIAN TECH START-UP ECOSYSTEM HAS ROBUST FUNDAMENTALS AND RETAINS ITS POSITION AS THE 3RD LARGEST TECHNOLOGY START-UP HUB GLOBALLY.

- When compared to other countries, India scores well on talent, policy, and new start-up creation.
- Indian tech start-ups witness over 30% conversion rate of scaled start-ups post Series B funding, which is amongst the highest globally. This reflects the maturity of the scaled-up start-up ecosystem in the country.
- However, India has one of the lowest conversion rates in early-stage funding from Seed-stage to Series A, driving the need for greater access to domestic capital.

### 4) THE INDIAN TECH START-UP ECOSYSTEM EXPECTS IMPROVED PERFORMANCE IN 2024

- Focus on business fundamentals to become stronger. Over 60% of tech start-up founders expect to increase revenues next year.
- While the global environment is uncertain, 46% of tech start-up founders expect a better funding environment in 2024. Late-stage investments may continue to lag.
- Investments in DeepTech likely to continue with over two-thirds of the start-ups investing in AI to enhance their product capabilities and internal efficiencies.
- The jobs environment is likely to improve but almost 50% of start-ups will continue taking a cautious approach to hiring.



**THE AGE OF  
TECH START-UPS  
ACCELERATING  
TECHNOLOGY-LED  
TRANSFORMATION**

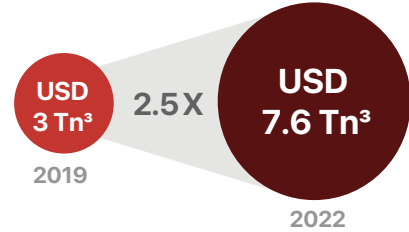
## Globally, start-ups have driven massive economic value creation in excess of USD 7.6 Tn

Tech start-ups across the globe are generating substantial economic value, surpassing the individual GDP of leading economies such as Canada, Germany, and France

**450K+**

Total number of tech start-ups globally as of 2023

Economic value generated by start-ups globally<sup>1</sup>

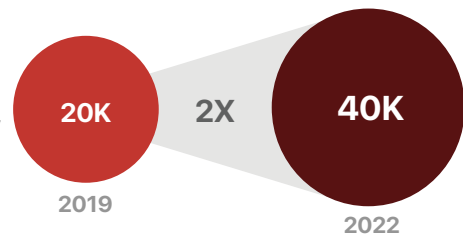


There is a notable increase in investor interest in the ecosystem, signaling growing confidence

**USD 540 Bn<sup>3</sup>**

Total amount invested in tech start-ups globally in 2022

Number of active investors globally



This is driving job creation and increasing value for corporates through their collaborations with innovative start-ups

**34%**

Increase in jobs created by global unicorns<sup>2</sup> between 2021-2023

**>80%**

% of corporates that have reported benefits from start-up collaborations in 2023

Source: Crunchbase, The Global Startup Ecosystem Report (GSER) 2020, The Global Start-up Ecosystem Report (GSER) 2023, Dealroom, nasscom Avasant Open innovation Report 2023  
 Note: (1) Data in this section covers the entire start-up ecosystem, unlike other sections specifically focused on tech start-ups. However, the inclusive data does not compromise the overall assessment. Technology start-ups remain central to the ecosystem, as they are major influencers in the studied metrics for digital transformation and overall start-up ecosystem growth.  
 (2) Countries considered for the unicorn sample set are India, USA, UK, Germany, France, Canada, and Israel. (3) Tn= Trillion, Bn= Billion

# GROWING DIGITAL CONSUMER BASE AND INCREASING SPENDING ON DIGITAL TECHNOLOGIES IS ACCELERATING THE GROWTH OF TECH START-UPS

A growing global population of digital consumers has been a pivotal force behind the flourishing digital economy

**5.4+ Bn**

World population that has access to the Internet in 2023

**>15%**

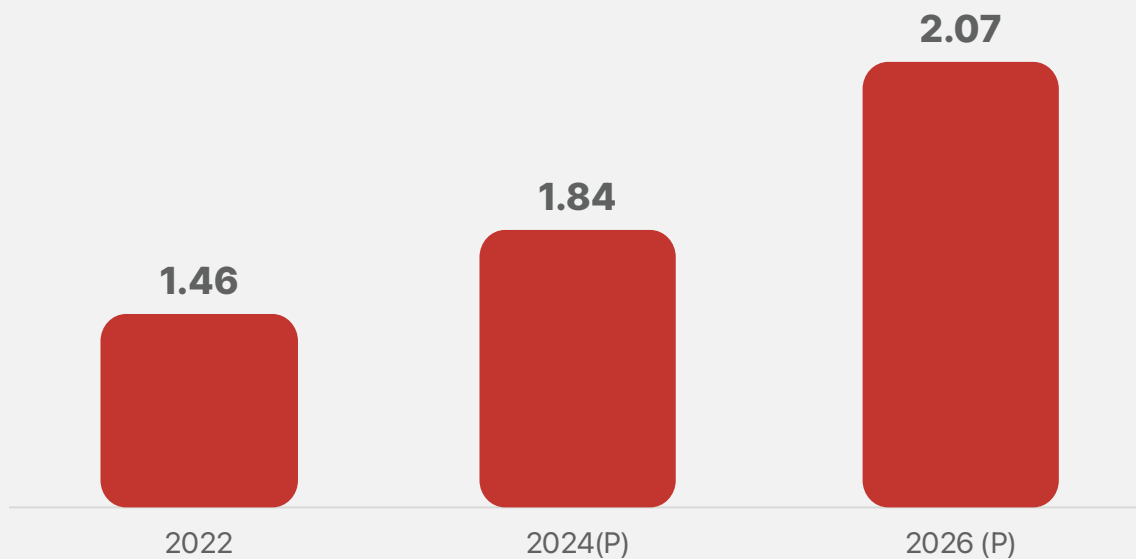
Current share of the digital economy<sup>1</sup> to the global GDP

**2.5X**

Faster growth of digital economy compared to physical world GDP<sup>2</sup>, in the last decade

This has triggered a huge wave of investments in digital transformation, which is expected to continue in the future

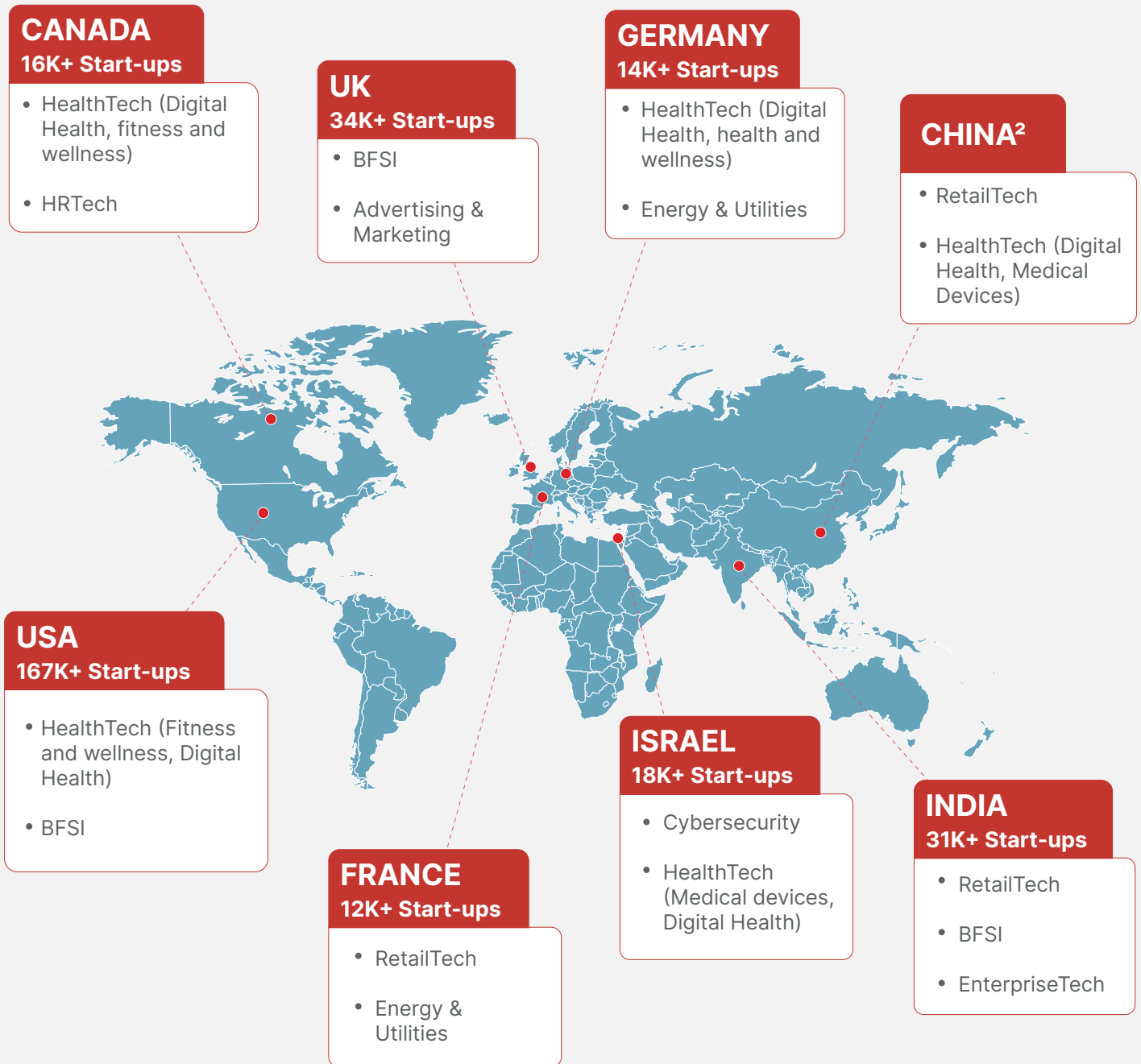
Global digital transformation market size (in USD Tn)



Source: Zinnov Digital Transformation 2.0 Report, ITU database, Crunchbase, CBInsights, GSER (2019-2023 reports), World Economic Forum, World Bank database;  
 Note: (1) The digital economy refers to an economic system characterized by the widespread use of digital technologies, such as the internet and digital platforms, to facilitate and optimize economic activities, transactions, and interactions. (2) The physical world GDP refers to the traditional economic activities involving tangible goods and services, such as manufacturing, agriculture, construction, and other physical products and industries.

# LEADING START-UP ECOSYSTEMS ACROSS THE GLOBE ARE CONTRIBUTING SIGNIFICANTLY TO THIS INTENSIFYING WAVE OF DIGITAL TRANSFORMATION

Leading<sup>1</sup> Tech Start-up Ecosystems in the World



Leading ecosystems

Key sectors

Source: CBInsights, Startupblink's Global Start-up Ecosystem Report 2023; Zinnov Research & Analysis  
 Note: (1) Leading tech start-up ecosystems have been selected based on the start-up output (ie the size, value of the start-up activity, and the potential in an ecosystem) as mentioned in the Startupblink's Global Startup Ecosystem Report 2023. (2) Number of tech start-ups in China is not mentioned as the same is not publicly available.



# **INDIA'S TECH START-UP ECOSYSTEM IN 2023**

A person is seen from behind, sitting at a desk in a high-rise office. The desk has a computer monitor and keyboard. The person is looking out a large window at a city skyline at night, with many lights visible. The overall scene is dimly lit, with the primary light source being the city lights outside.

**A**

**KEY TRENDS AND  
HIGHLIGHTS**

SNAPSHOT OF THE START-UP ECOSYSTEM IN 2023<sup>1</sup>**950+**Number of tech start-ups  
founded in 2023**>50%**Share of tech start-ups  
founded in mature sectors<sup>2</sup>**750+**Number of unique  
tech start-ups funded**40%**Share of tech start-ups  
in emerging hubs**12**Number of  
mega deals<sup>3</sup>**290+**Number of tech start-ups that  
raised first round of funding**100+**Number of M&A deals in the  
Indian tech start-up ecosystem**47%**Share of M&A by  
Indian tech start-ups

Source: Zinnov Research &amp; Analysis

Note: (1) All data points up to December 20, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (2) Mature sectors include: Edtech, EnterpriseTech, RetailTech, BFSI, HealthTech, and FoodTech. (3) Mega deals are deals with over USD 100 Mn funding.

# KEY TRENDS IN INDIA'S TECH START-UP ECOSYSTEM FOR 2023

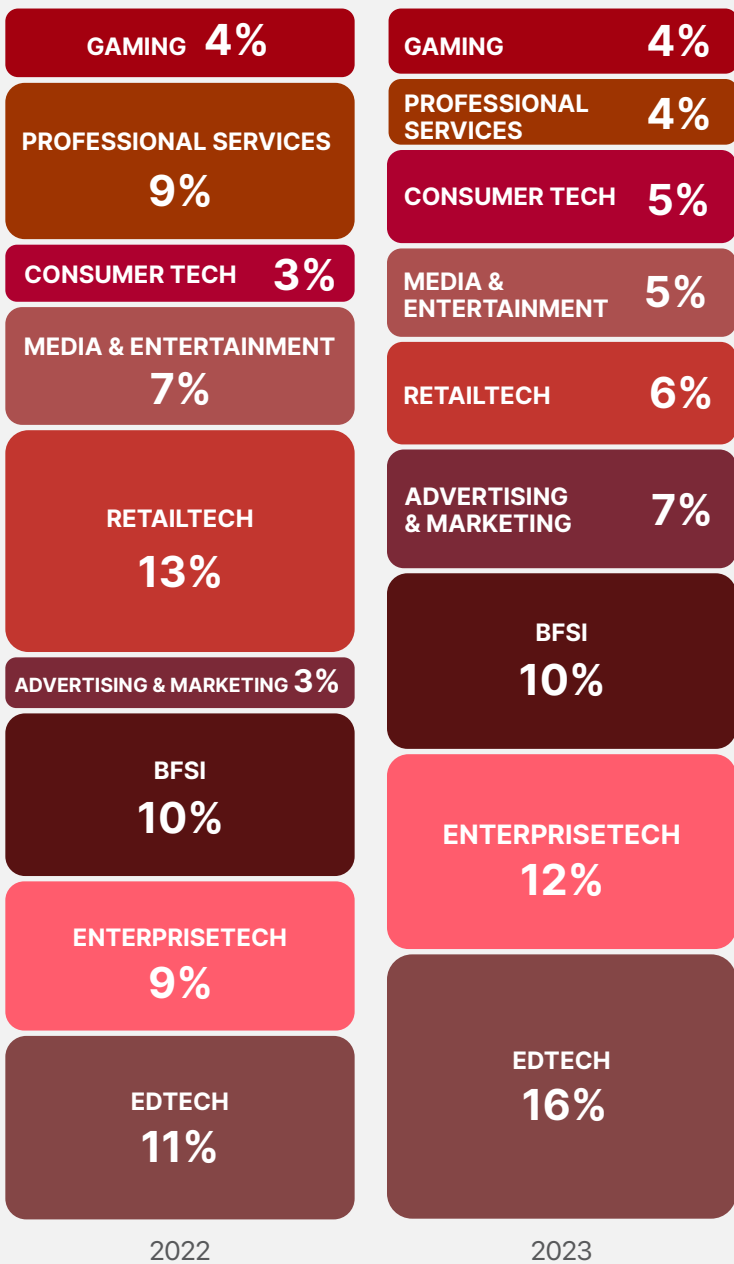
(1/7)

**#1** Indian tech start-up base continues to expand despite difficult market conditions- ~1000 new tech start-ups incepted in 2023<sup>1</sup>

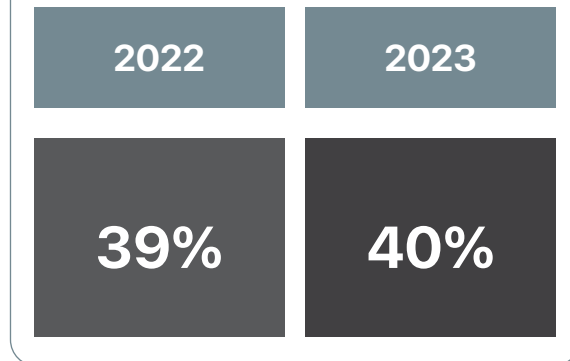
**950+**

Number of tech start-ups founded in 2023<sup>1</sup>

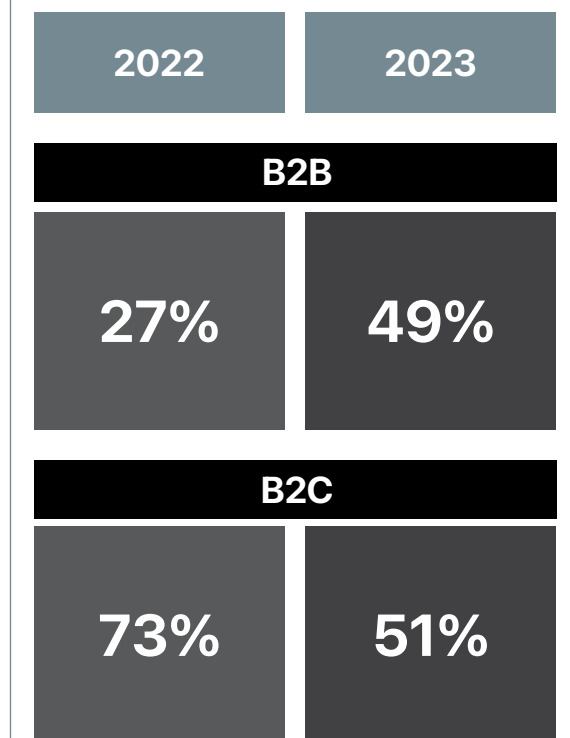
## 2022 Vs 2023 comparison for top sectors<sup>2</sup>



## Share of tech start-ups from emerging hubs



## Business model split for tech start-ups



Source: Zinnov research & Analysis

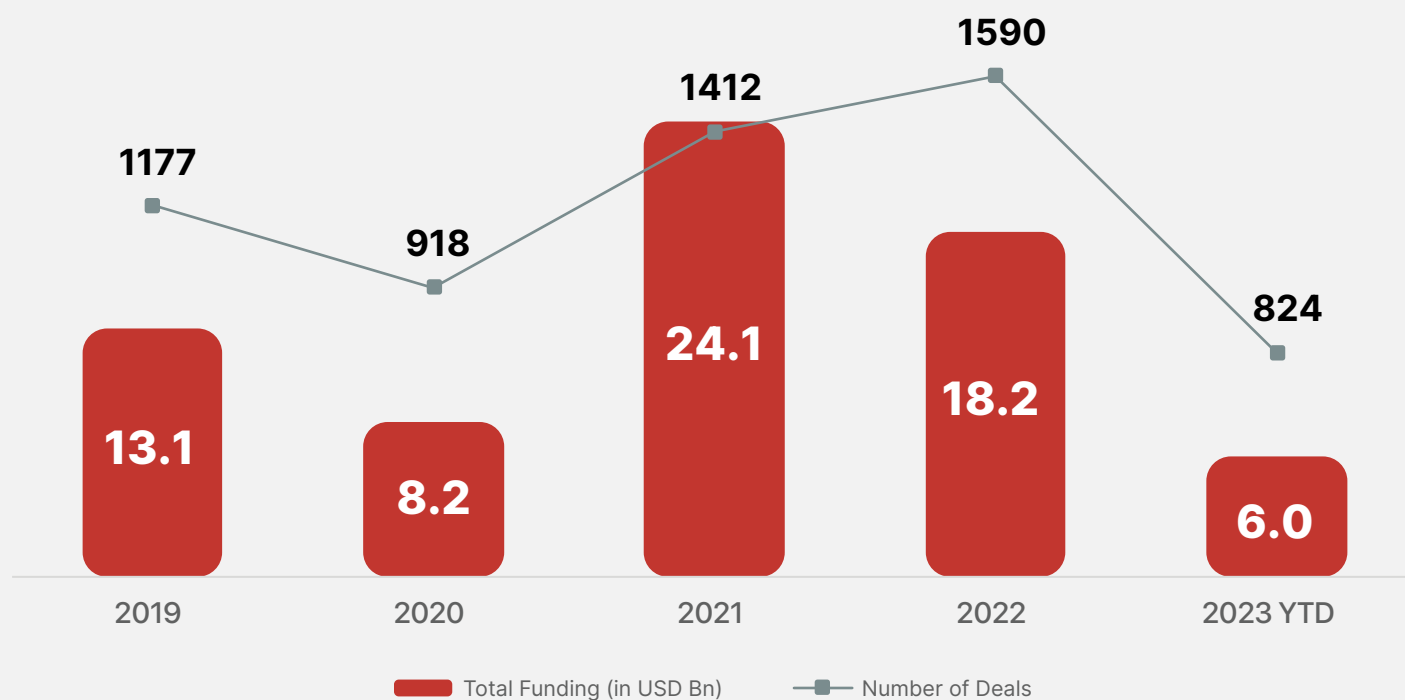
Note: (1) The data includes start-ups founded until December 20, 2023. Many are in stealth mode, with limited social presence and thus not represented in the provided data. (2) Sectors which contributed roughly 70% of start-ups founded in the respective years have been taken for comparison.

## #2 Amidst global turbulence, Indian start-ups also underwent a funding downturn in 2023

- Global funding experienced a substantial decline due to various macro-economic factors such as increased federal interest rates, geopolitical uncertainties, and rising inflation.
- Investors globally re-evaluated start-up valuations and inclined more towards efficiency and profitability, thus resulting in a cautious investment climate and consequent funding slowdown.
- Indian start-ups mirrored the global trend and suffered a 67% decline in funding over 2022 levels as investors became too cautious.

The total equity investments in 2023 plummeted as the deal volume declined by 48%

Funding in Indian tech start-ups, by calendar year<sup>1</sup>



India  
investments  
overview

**750+ unique funded start-ups-**  
46% lower than 2022

**Non-unicorns<sup>2</sup> dominated in  
2023**, raising 72% of the total  
funding compared to 66% in 2022

Source: Zinnov Research & Analysis

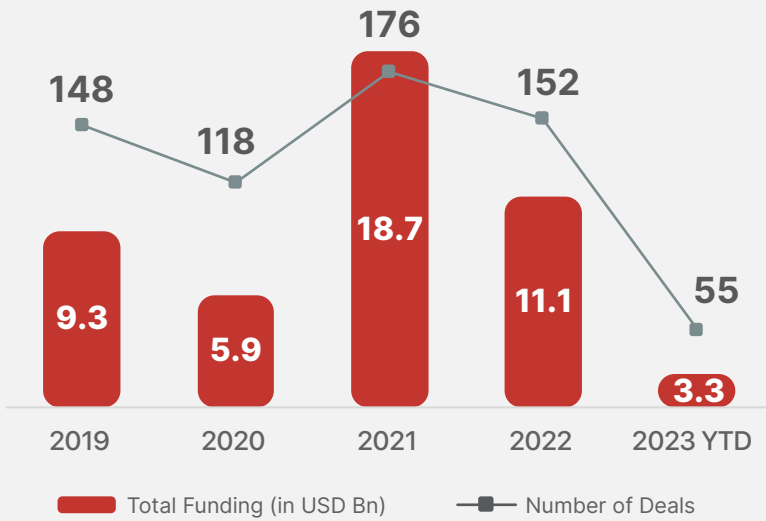
Note: (1) For each calendar year, investment rounds of start-ups founded in a 10-year timeline are considered for analysis. For instance, for CY 2023, investment rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to December 20, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (2) Unicorns are private entities with more than USD 1 Bn valuation. Non-unicorns are all other tech start-ups that have valuations lesser than USD 1 Bn.

# KEY TRENDS IN INDIA'S TECH START-UP ECOSYSTEM FOR 2023

(3/7)

Late-stage investments faced a substantial downturn, marked by decline in both total investment volume and mega-round deals<sup>1</sup>

Late-stage<sup>2</sup> funding, by calendar year<sup>3</sup>



### Late-stage investments overview

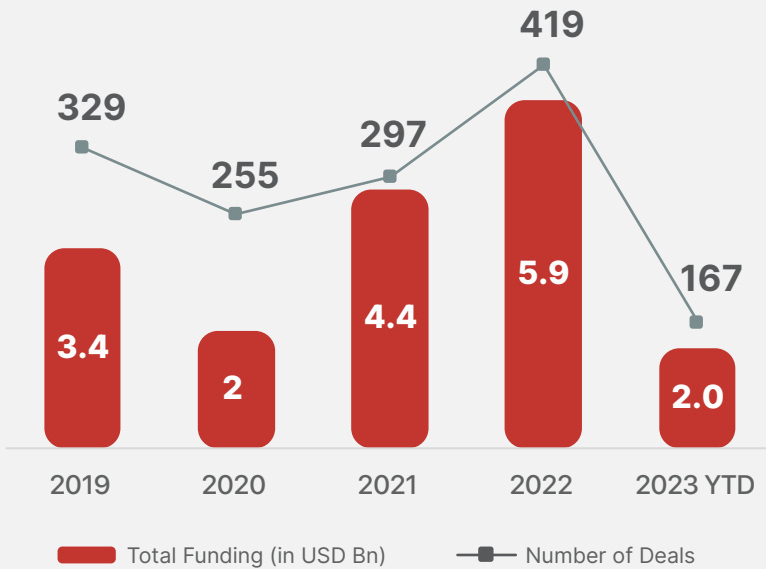
Late-stage investments in India have **plunged significantly** and are now at only 29% of the 2022 levels

Late-stage investments' decline is primarily due to valuation cuts and investors' focus shift towards profitability

Significant decline in mega-deal rounds<sup>1</sup> from 42 in 2022 to 12 in 2023

Investor caution was evident in 2023 as early-stage investments also dropped by 65%

Early-stage<sup>4</sup> funding, by calendar year<sup>3</sup>



### Early-stage investments overview

2023 was one of the worst years for early-stage start-ups, with investments plummeting to COVID-19-hit 2020 levels

65% drop in the number of deals in 2023, compared to 41% increase in 2022

Source: Zinnov Research & Analysis

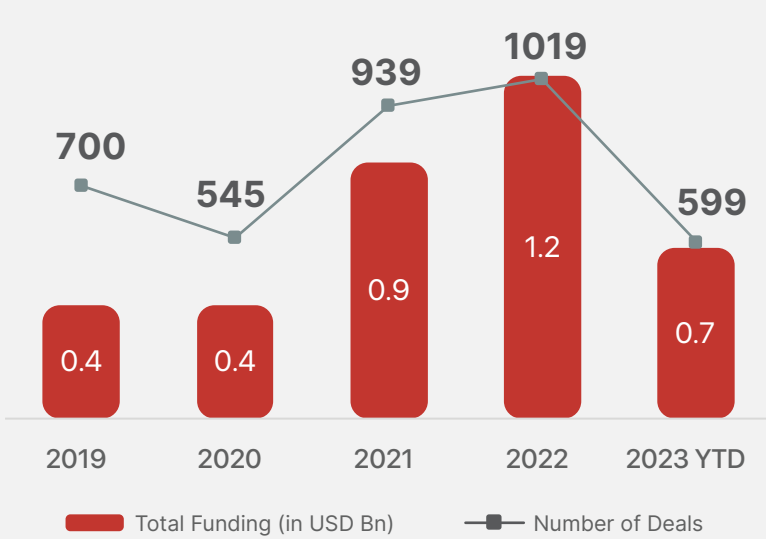
Note: (1) Mega deals are deals with over USD 100 Mn funding. (2) Late-stage includes Series C and above funding rounds (3) For each calendar year, funding rounds of start-ups founded in a 10-year timeline are considered for analysis. For instance, for CY 2023, funding rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to December 20, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (4) Early-stage includes Series A and Series B funding rounds.

# KEY TRENDS IN INDIA'S TECH START-UP ECOSYSTEM FOR 2023

(4/7)

Seed-stage investments dropped by 43%, but remain higher than pre-pandemic levels

Seed-stage<sup>1</sup> equity investments, by calendar year<sup>2</sup>



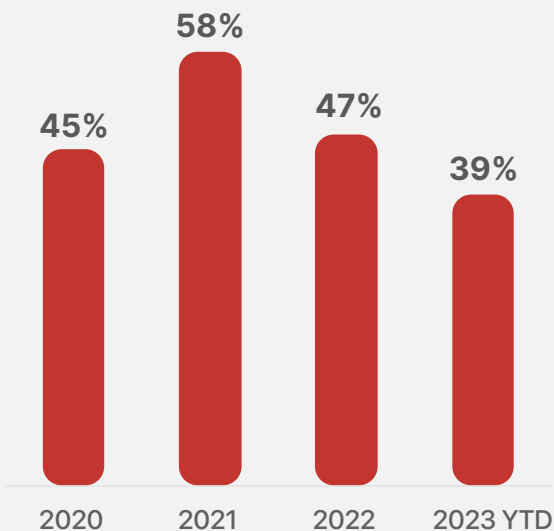
**Seed-stage investments overview**

**Seed-stage funding also struggled in 2023** despite massive influx and announcement of several funds in 2022

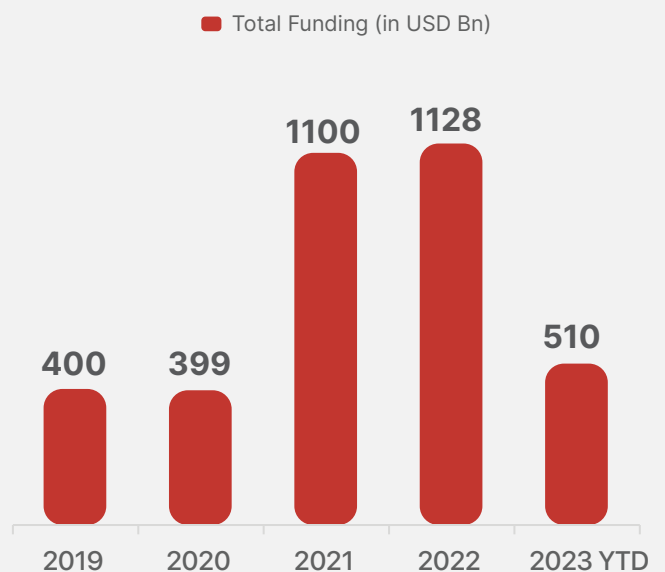
**72% of all funding deals in 2023 were seed-stage deals** compared to 64% in 2022

Given the market sentiments, start-ups raising their first round<sup>3</sup> also encountered challenges

% share of all unique funded start-ups raising their first round, by calendar year



Total equity investments raised by start-ups raising their first round, by calendar year



Source: Zinnov Research & Analysis

Note: (1) Seed-stage include Seed and Angel-stage funding (2) For each calendar year, funding rounds of start-ups founded in a 10-year timeline are considered for analysis. For instance, for CY 2023, funding rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to December 20, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (3) First round refers to the first equity funding round.

**#3** Despite the overall slowdown, median deal value remained consistent for seed-stage and increased for early-stage tech start-ups

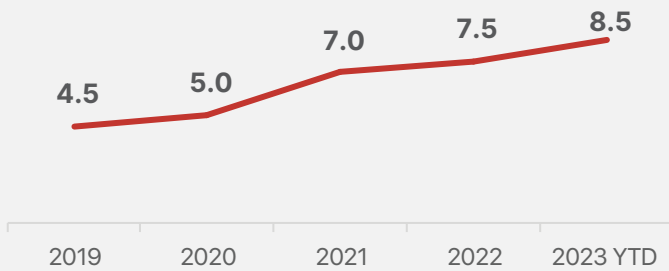
Median ticket size of the funding for seed-stage, by calendar year<sup>1</sup> (in USD Mn)



**Seed-stage view**

Despite a 50% drop in overall funding amount raised by seed-stage tech start-ups, as compared to 2022, the impact on seed-stage funding ticket sizes was marginal

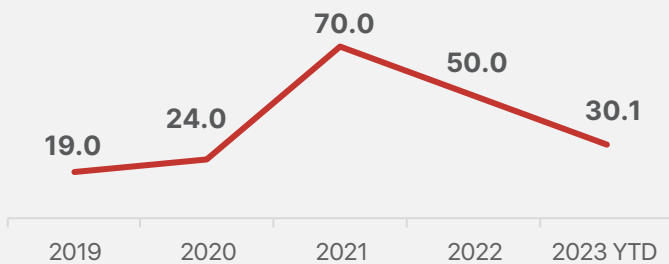
Median ticket size of the funding for early-stage, by calendar year<sup>1</sup> (in USD Mn)



**Early-stage view**

The early-stage ticket size has shown a consistent upward trend, nearly doubling since 2019

Median ticket size of the funding for late-stage, by calendar year<sup>1</sup> (in USD Mn)



**Late-stage view**

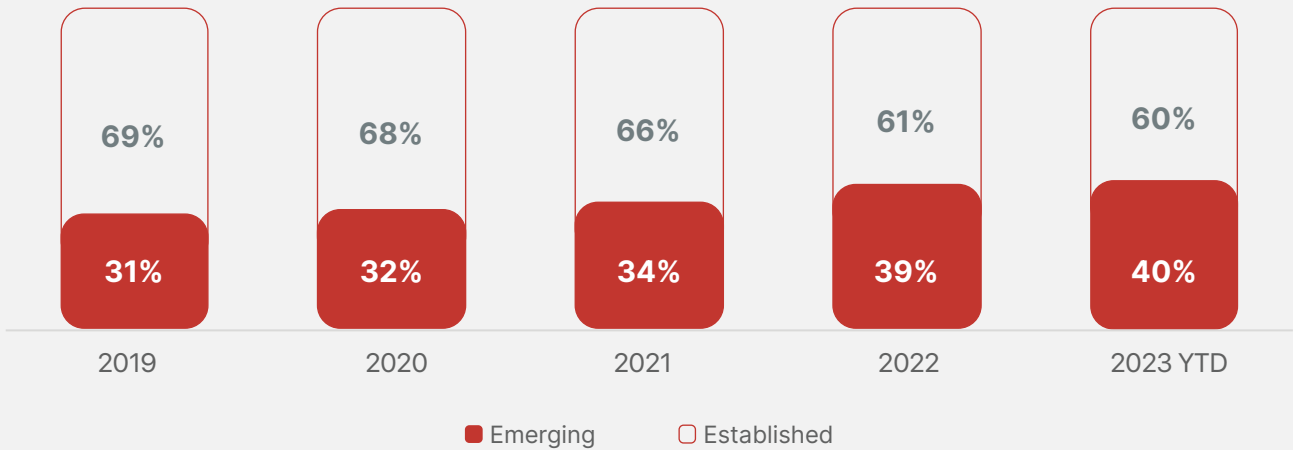
The 40% decline in the median ticket size for late-stage rounds in 2023 is attributed to down rounds and a cautious investor approach

Source: Zinnov Research & Analysis

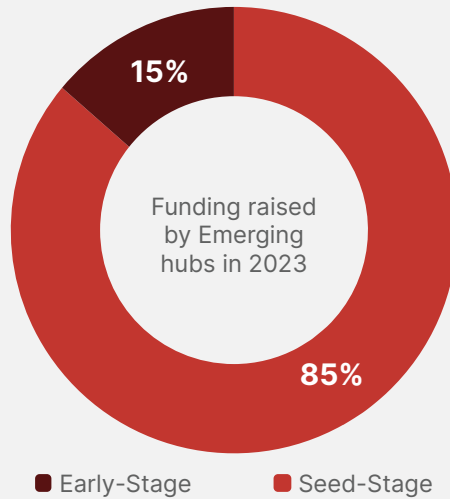
Note: (1) For each calendar year, funding rounds of start-ups founded in a 10-year timeline are considered for analysis. For instance, for CY 2023, funding rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to December 20, 2023, are incorporated into the year-to-date (YTD) figures for 2023.

#4 Share of tech start-ups from emerging hubs continued to grow in 2023

% share of tech start-ups founded in emerging hubs<sup>1</sup>, by year of inception



Stage-wise breakdown of funding raised by emerging hubs



Major deals in emerging hubs-

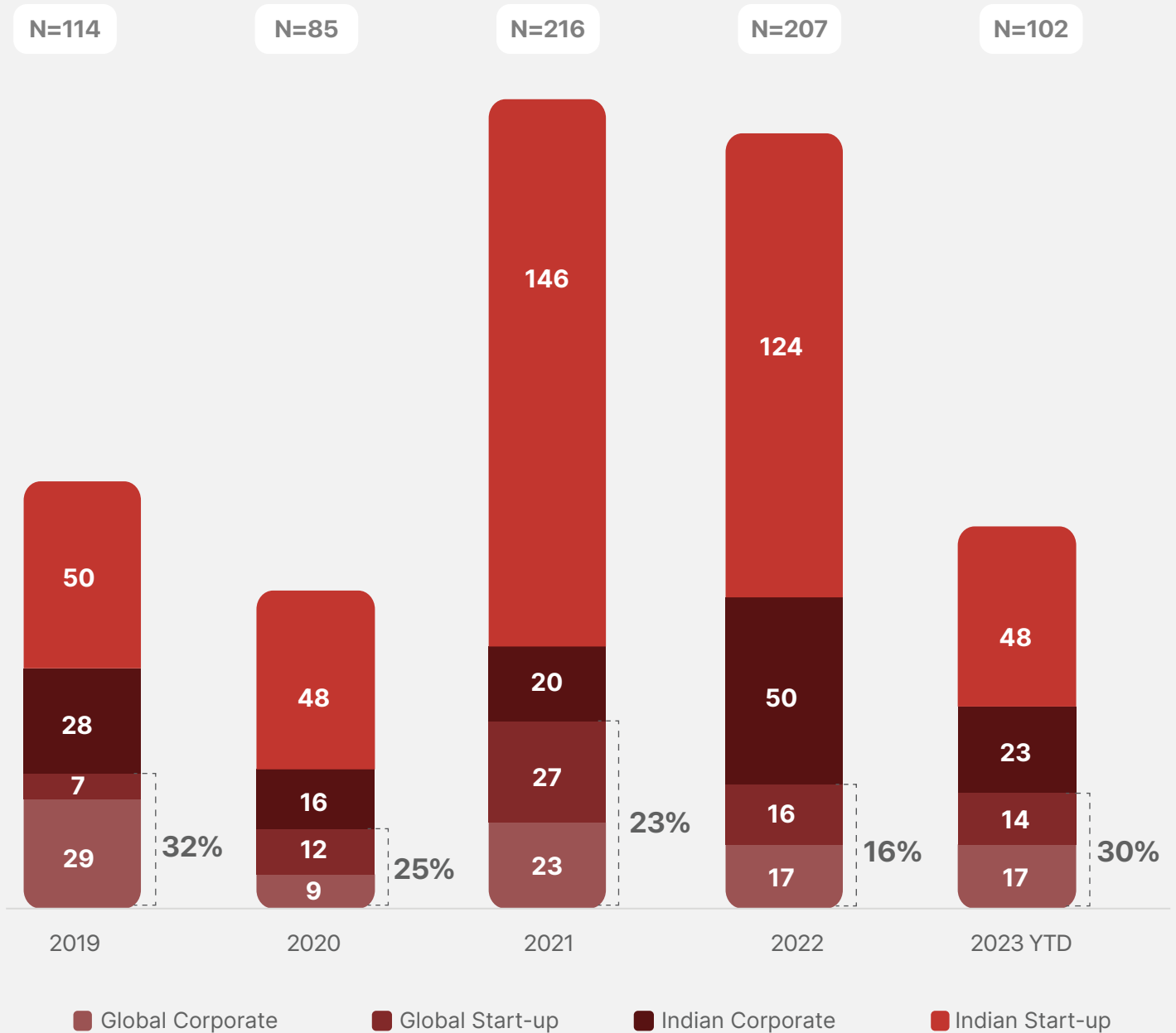
- **Vadodara** - Charge Zone raised USD 162 Mn in two early-stage rounds.
- **Goa**- Kabira Mobility raised USD 50 Mn in an early-stage round.
- **Kochi** - I Hub Robotics raised USD 20 Mn in a seed-stage round.

Source-Zinnov Research & Analysis

Note: (1) Established hubs are cities with at least 1000 start-ups founded between 2013-23. Emerging hubs are Indian cities with less than 1000 tech start-ups founded between 2013-23 excluding established hubs. The split analysis has been done on a sample set and may not account for 100% of the start-ups founded in the year.

#5 M&A activity in Indian tech start-up ecosystem declined by 50% over last year

M&A in the Indian tech start-ups, by acquirer type<sup>1</sup>



- The share of global participation in M&A deals (combined for start-ups and corporates) is similar to 2019 levels.
- In 2023, 14 global start-ups acquired their Indian counterparts, marking a 2X increase from 2019 and aligning with 2022 figures.

Source-Zinnov Research & Analysis  
 Note: (1) All data points up to November 21, 2023, are incorporated into the year-to-date (YTD) figures for 2023.

A person is seen from behind, sitting at a desk in a high-rise office. They are looking out a large window at a city skyline at night. The city lights are visible through the window, and the interior of the office is dimly lit. The person is wearing a dark jacket. The overall mood is contemplative and professional.

**B**

**BREAKOUT SECTORS OF 2023\***  
SECTORS THAT  
DEMONSTRATED RESILIENCY

\*Sectors that witnessed a rise in share of overall funding in 2023

**SECTOR SPOTLIGHT: SUPPLY CHAIN MANAGEMENT & LOGISTICS**

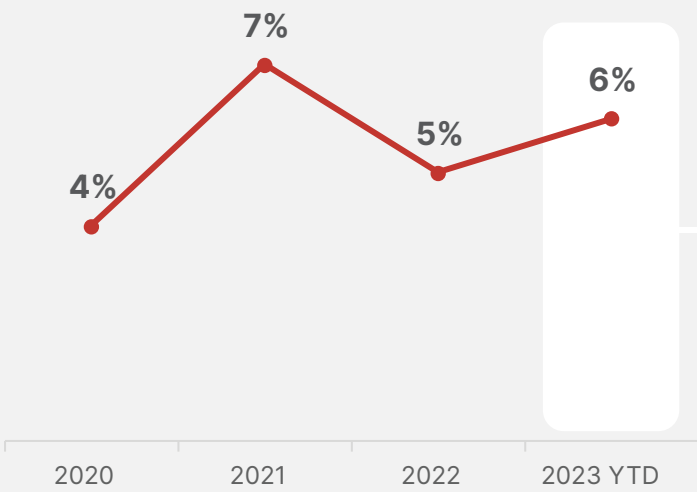
(1/2)

SCM & Logistics experienced a rise in deal value driven by funding raised by mature start-ups<sup>1</sup>

**150+** Unique start-ups raised funding between 2019 and 2023 (YTD)

**61%** Share of funding raised by mature start-ups

% share of SCM & Logistics in total funding amount<sup>2</sup>



USD **274 Mn**

Funding received by start-ups in 2023 (YTD)

**43**

Number of start-ups that raised funding

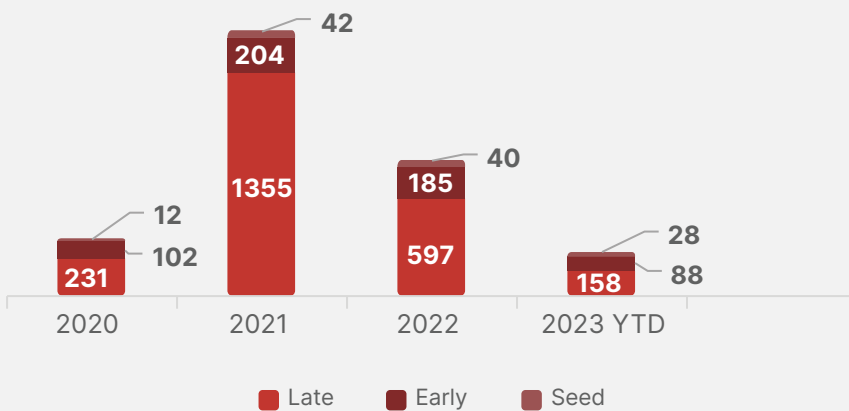
Key investors in the sector



alteria capital



Stage-wise deals in SCM & Logistics sector, by value (in USD Mn)<sup>2</sup>



**37%**

of the funding deals in 2023 are first rounds<sup>3</sup>

**19%**

increase in the median ticket size of early-stage deals in 2023

Source: Zinnov research & Analysis

Note: (1) Unicorns and Potential Unicorns are collectively referred as the pool of Mature Start-ups. (2) For each calendar year, funding rounds of start-ups founded in a 10-year timeline are considered. For instance, for CY 2023, funding rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to November 21, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (3) First round refers to the first equity funding round.

# SECTOR SPOTLIGHT: SUPPLY CHAIN MANAGEMENT & LOGISTICS

(2/2)

With the promise of ONDC in the e-Commerce and Retail verticals, the SCM & Logistics sector is poised to reap the benefits

## Drivers enabling growth in the SCM & Logistics sector



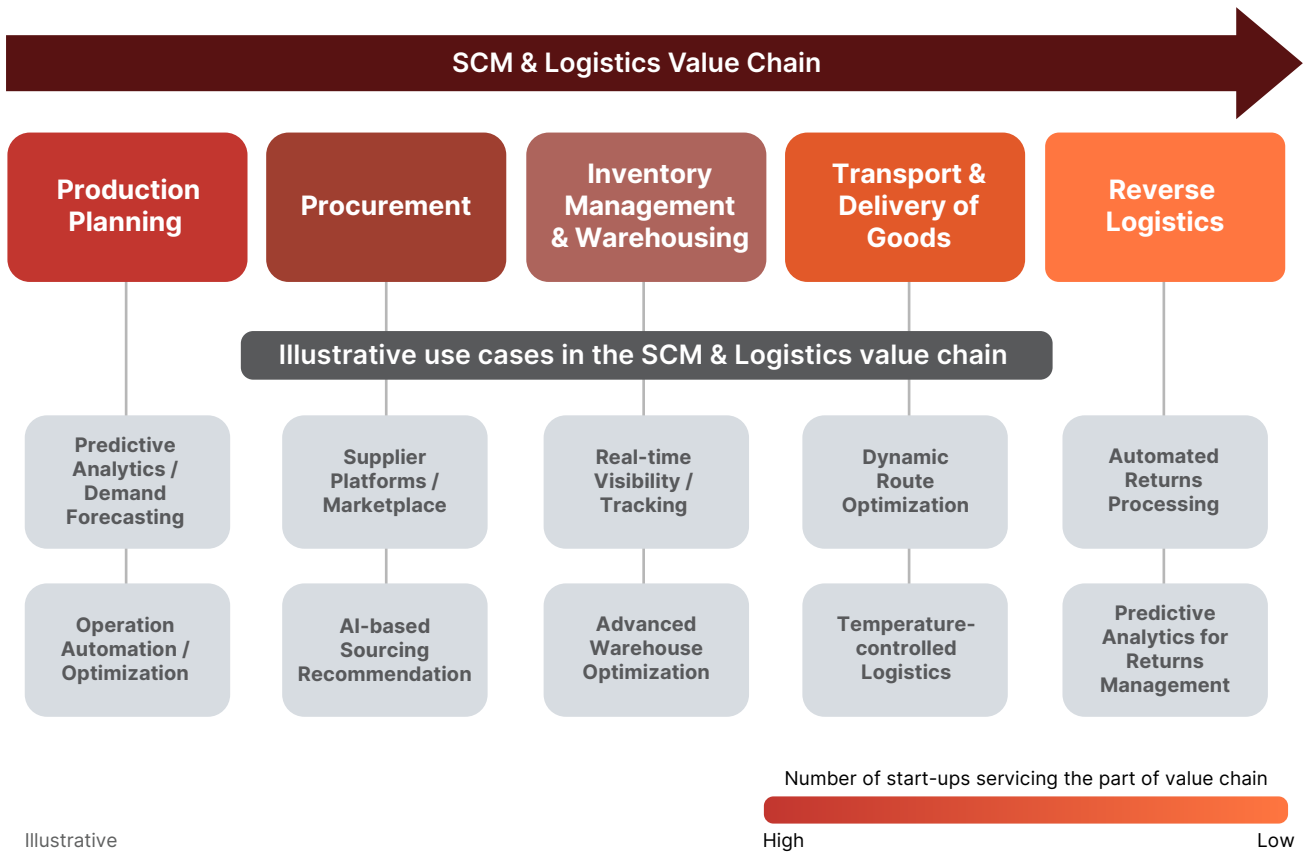
**National Logistics Policy** has introduced platforms such as **Unified Logistics Interface Platform** that provides opportunities to private sector to develop use cases



**The Gati Shakti National Master Plan** aims to enhance logistics efficiency in India by leveraging advanced technologies and relevant IT tools to overcome project challenges



ONDC will be a key driver amplifying the impact of India's growing e-Commerce sector, projected to reach USD 350 Bn by 2030. This directly contributes to boost the SCM & Logistics sector



## Illustrative start-ups delivering the use cases



## SECTOR SPOTLIGHT: AUTOMOTIVE

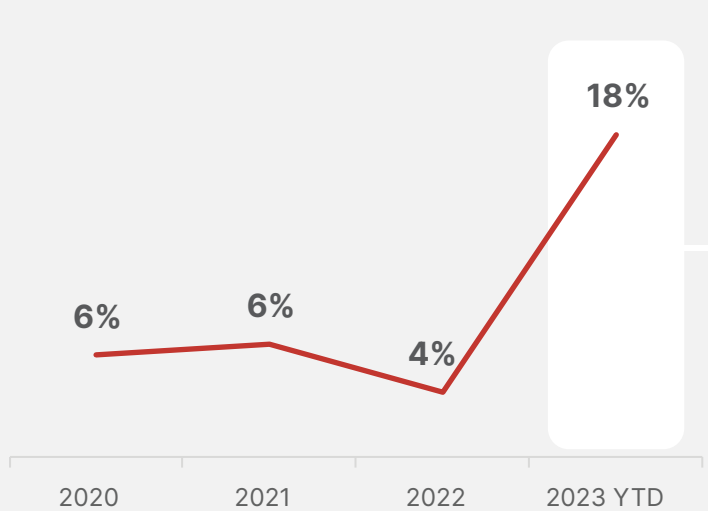
(1/2)

Funding in the Indian Automotive tech start-ups grew by 16% in 2023, resulting in a 4.5X increase in the sector's share of total funding as compared to 2022

**57%** Increase in mega-deal value<sup>1</sup> in 2023 from that in 2020; the deals primarily involve funding raised by EV manufacturers

**25%** Increase in early and late-stage funding, indicating a gradual shift towards maturity

Share of Automotive sector in the total funding amount<sup>2</sup>



**USD 757 Mn**

Funding received by tech start-ups in 2023 (YTD)

Key investors in the sector

TEMASEK

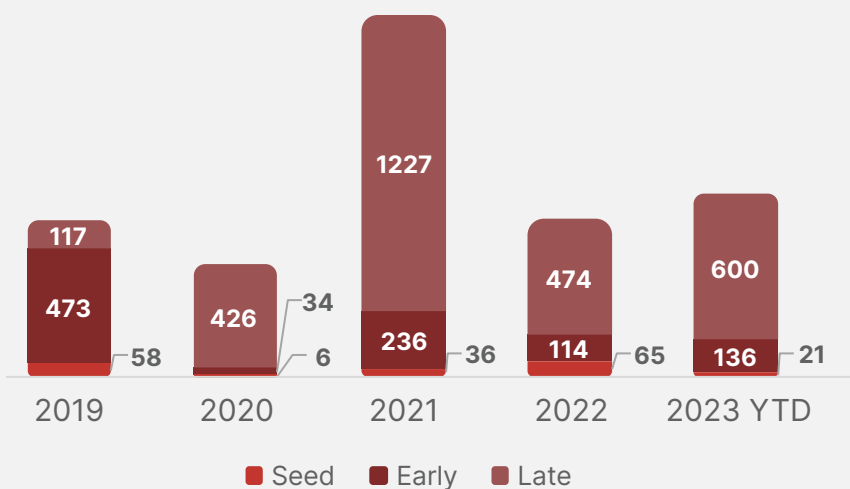
GIC

peak xv PARTNERS

**32**

Number of start-ups that raised funding

Stage-wise deals in the Automotive sector, by value (In USD Mn)<sup>2</sup>



**41%**

Of total deals in 2023 (YTD) are first funded<sup>3</sup>

**USD 550 Mn**

Invested across three mega deals<sup>1</sup> in 2023 (YTD)

**3.4X**

Increase in the median ticket size of early-stage deals in 2023 compared to 2022

Source: Zinnov research & Analysis

Note: (1) Mega deals are deals with over USD 100 Mn funding. (2) For each calendar year funding rounds of start-ups founded in 10-year timeline are taken for analysis. For instance, for CY 2023, funding rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to November 21, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (3) First round refers to the first equity funding round.

## SECTOR SPOTLIGHT: AUTOMOTIVE

(2/2)

Policies supporting sustainability are progressively catalyzing the emergence of diverse use cases within the Electric Vehicle segment of the sector

### Drivers enabling growth in the Automotive sector

Policies such as **Income tax exemption, GST reduction, PLI Scheme, State EV policies** are driving the adoption of sustainable mobility

**3X**

Increase in the number of EVs registered from 2020 to 2023 (YTD)

**45%**

Projected growth of EV sales by 2030

### Illustrative use cases for EV & related solutions that gained funding traction

Electric Vehicle Design & Manufacturing

Smart-battery Management

Commercial Mobility

Vehicle Tracking

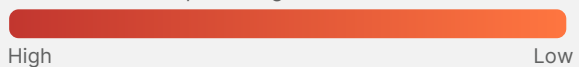
Solar Car Charging

3P Charging Networks

Battery Swapping Networks

Navigation Assistance

Number of start-ups solving for the use cases mentioned



Illustrative

High

Low

### Illustrative tech start-ups delivering the use cases



# SECTOR SPOTLIGHT: INDUSTRIAL & MANUFACTURING

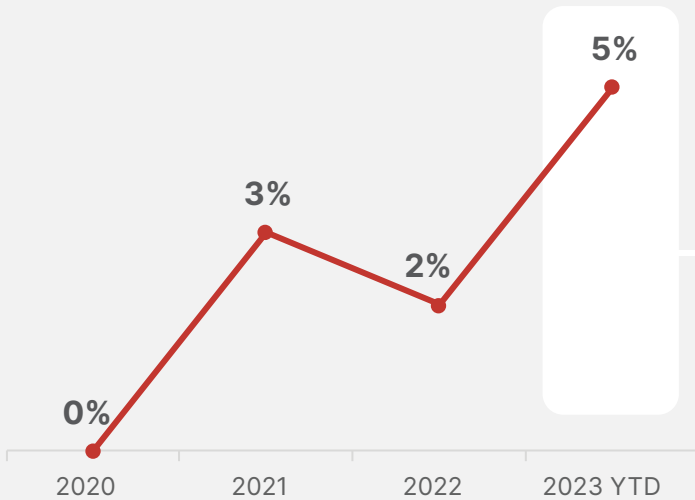
(1/2)

Industrial & Manufacturing sector witnessed a 2.5X increase in funding share led by DeepTech-infused solutions

**73%** Share of funding raised by DeepTech start-ups

**44%** Of total deals in 2023 (YTD) are first funded<sup>2</sup>

Share of Industrial & Manufacturing sector, by value<sup>1</sup>



**USD 201 Mn**

Funding received by tech start-ups in 2023 (YTD)

Key investors in the sector

Avenir

peak xv PARTNERS

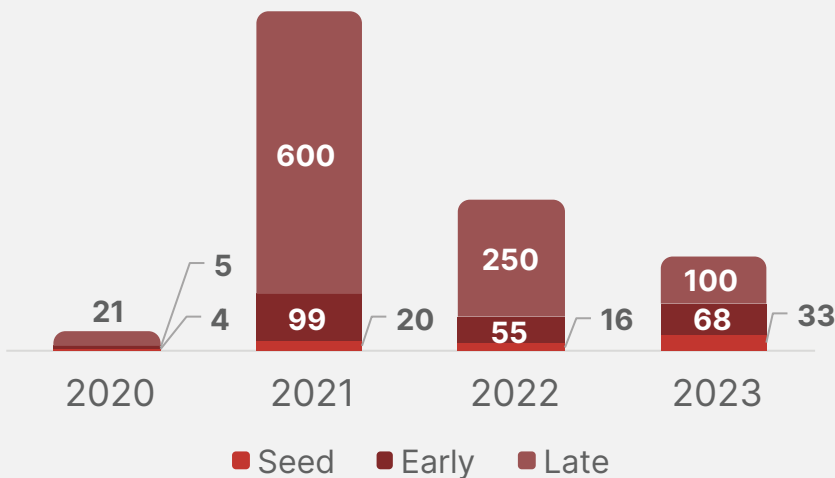
CORNERSTONE VENTURE PARTNERS

SiriusOne

**15**

Number of start-ups that raised funding

Stage-wise deals in the Industrial & Manufacturing sector, by value (in USD Mn)<sup>1</sup>



**56%**

Share of micro-deals<sup>3</sup> in the sector

**>3.5X**

Growth in median ticket size of early-stage and late-stage deals in 2023, compared to 2020

Source: Zinnov Research & Analysis

Note: (1) For each calendar year, funding rounds of start-ups founded in a 10-year timeline are considered for analysis. For instance, for CY 2023, funding rounds of start-ups founded between 2013-23 are considered for analysis. All data points up to November 21, 2023, are incorporated into the year-to-date (YTD) figures for 2023. (2) First round refers to the first equity funding round. (3) Micro-deals are deals of value less than or equal to USD 10 Mn funding.

# SECTOR SPOTLIGHT: INDUSTRIAL & MANUFACTURING

(2/2)

Industrial & Manufacturing tech start-ups are flourishing, driven by the opportunities presented by Industry 4.0

## Drivers enabling growth in the Industrial & Manufacturing sector



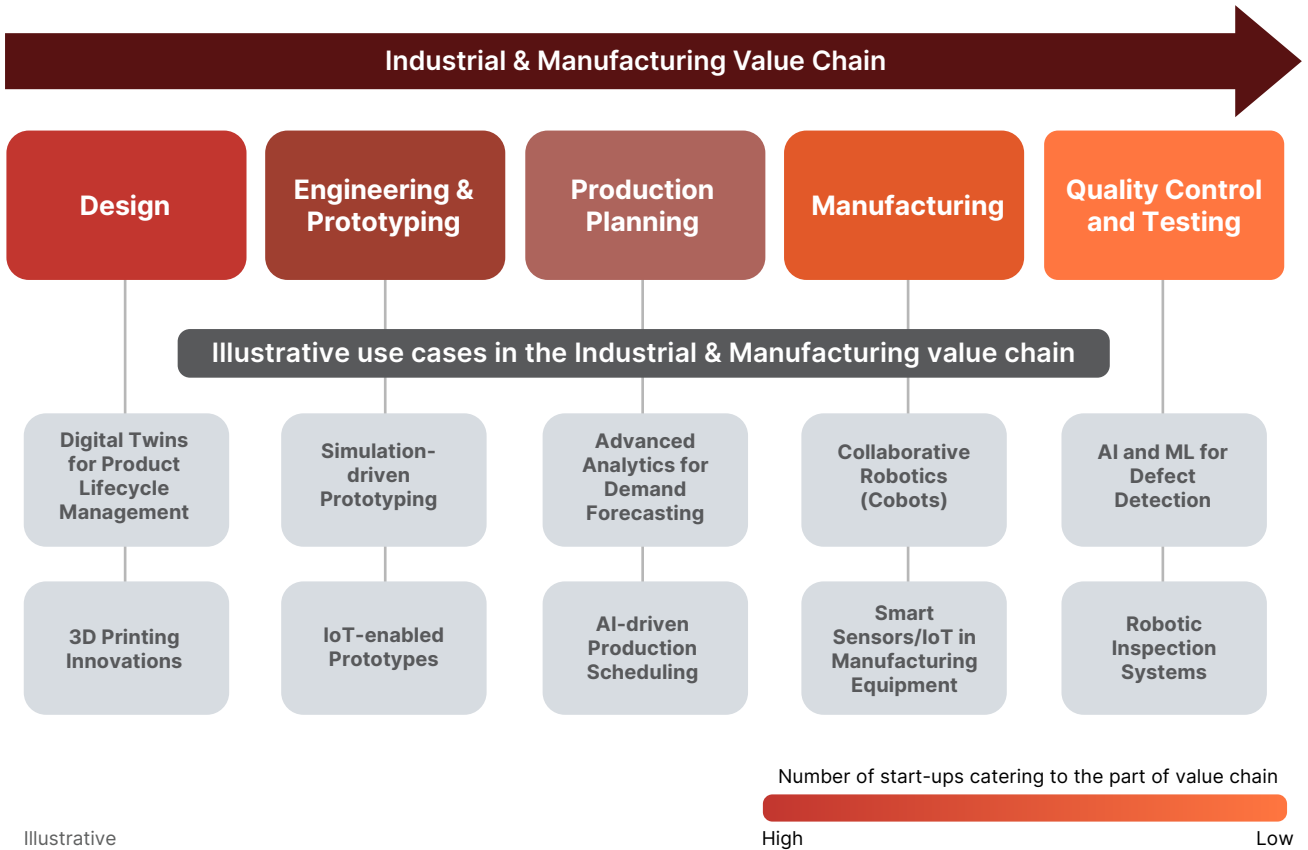
**National Manufacturing Policy (NMP)** aims at improving the Indian Manufacturing sector to contribute 25% to India's GDP by 2025



Initiatives such as Make in India and Aatmanirbhar Bharat are catalysts to the NMP target for the Manufacturing sector



**SAMARTH Udyog Bharat 4.0** has been launched by the government to leverage Industry 4.0 to enhance the competitiveness of the Indian capital goods sector



## Illustrative tech start-ups delivering the use cases





**GLOBAL TECH START-UP  
ECOSYSTEMS**  
A COMPARATIVE ANALYSIS

# TODAY, INDIA'S TECH START-UP ECOSYSTEM RANKS 3RD GLOBALLY IN TERMS OF START-UP PERFORMANCE

## Maturity mapping of leading global tech start-up ecosystems

### Methodology

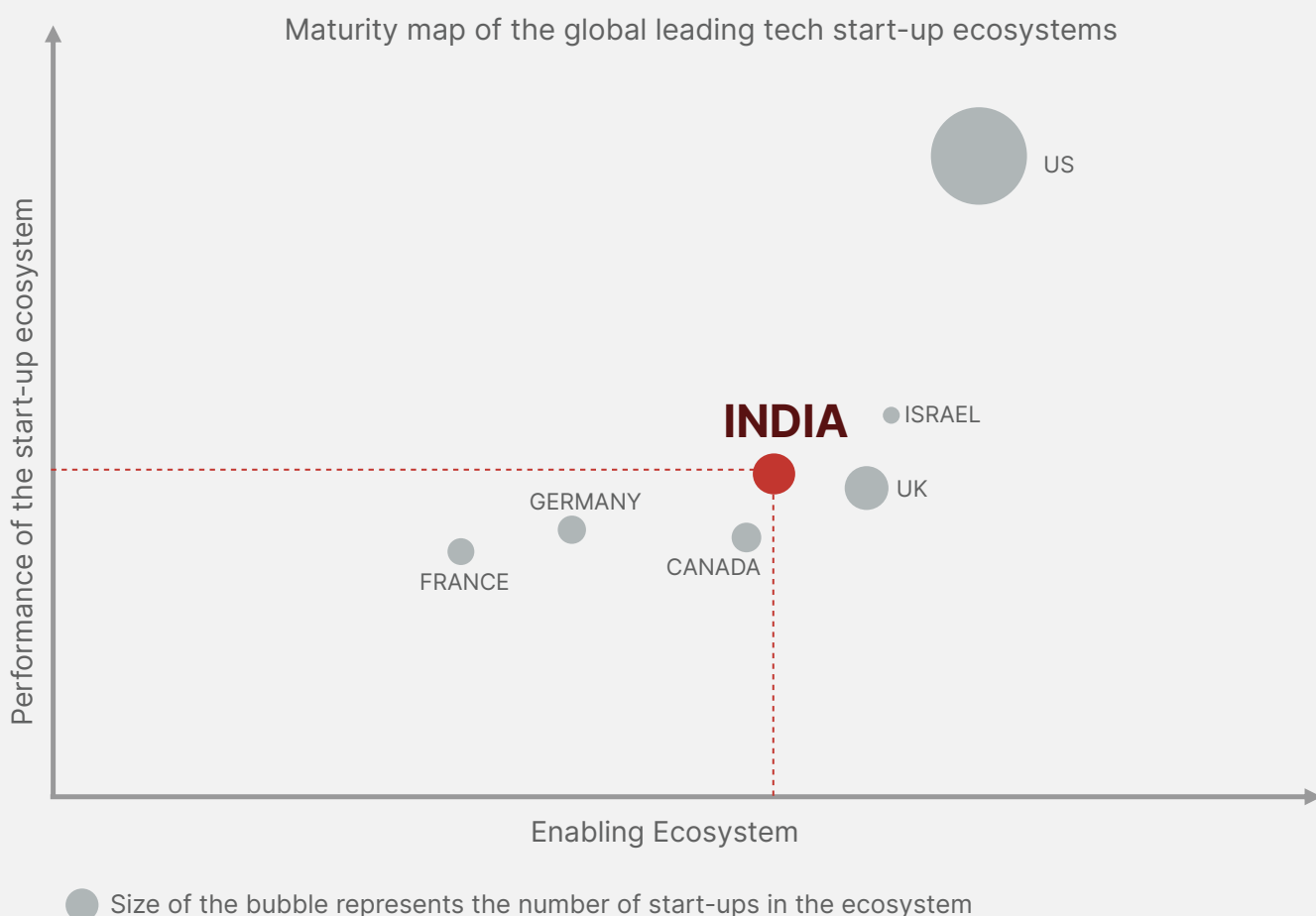
We conducted a comparative assessment of the top 7 global start-up ecosystems<sup>1</sup> (India, USA, UK, Canada, Germany, France, and Israel) across key parameters (outlined below) to evaluate their tech maturity:

#### 1. Performance of the Tech Start-up Ecosystem

Number of start-ups, share of start-ups that raised funding, odds of success from seed-stage to Series C+, unicorn count, employee growth generated by unicorns

#### 2. Enabling Ecosystem Strength

Incubator/accelerator presence per 1000 start-ups, availability of STEM talent, regulatory environment for tech entrepreneurs, entrepreneurship focus on academia, industry collaboration, tech market maturity, availability and access to capital



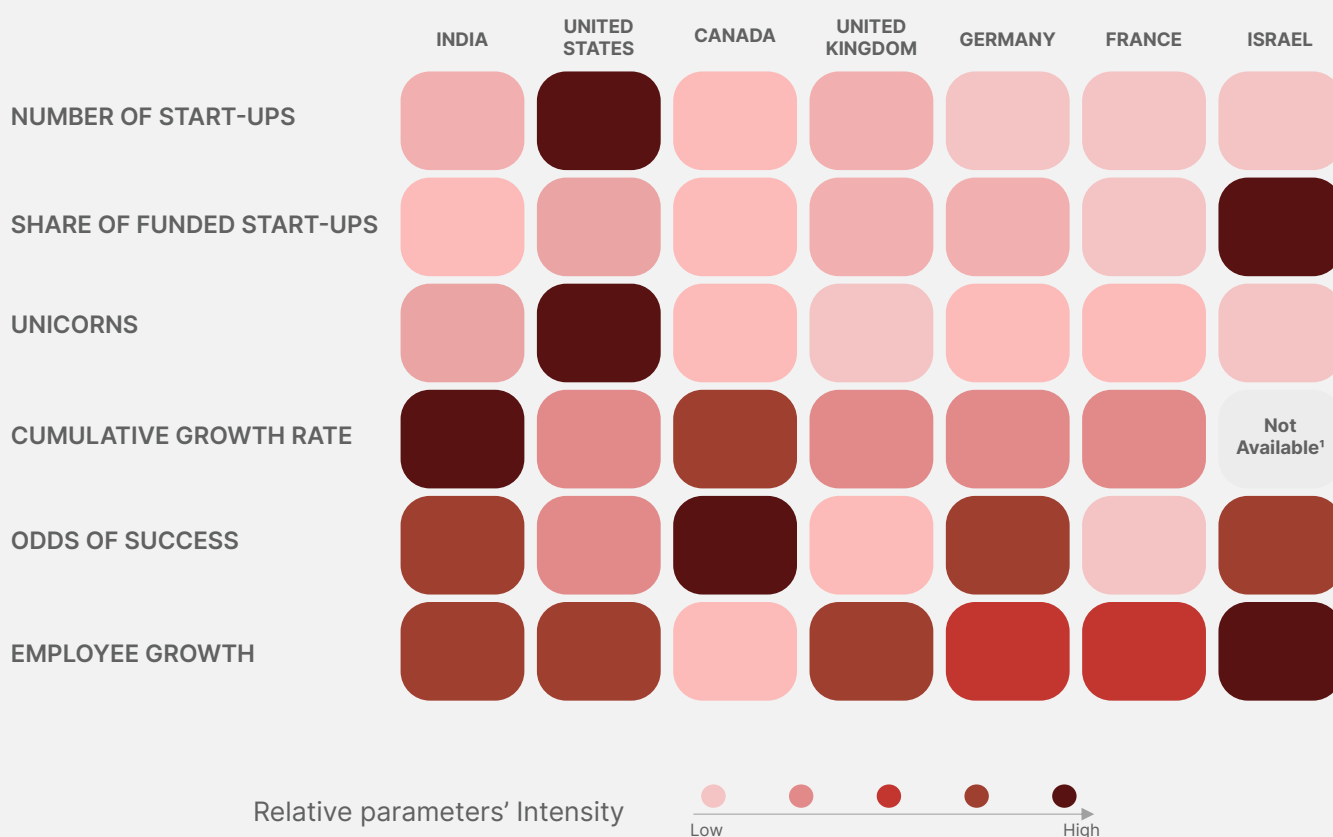
India secures 3rd place based on the evaluation of enabling ecosystem strength and tech start-up performance. These standings are a result of impressive growth rates, scalability to late stages, and the ability to achieve unicorn valuations.

Note: (1) The ecosystems considered have been picked based on the absolute ranking by the Global Startuplink report 2023; China has not been considered in the evaluation in this section on account of limited availability of data.

## WHEN COMPARED TO OTHER COUNTRIES, INDIA SCORES WELL ON THE SIZE OF THE LANDSCAPE, UNICORN-CREATING ABILITY, AND EMPLOYMENT GROWTH, BUT FALLS BEHIND IN ATTRACTING EARLY-STAGE FUNDING

Home to over 31,000 tech start-ups and 91 unicorns, India’s tech start-up ecosystem ranks third globally and has performed considerably well in comparison to that of developed economies like the USA and the UK.

### Performance of Indian tech start-up ecosystems vis-à-vis other leading tech start-up ecosystems



The strength of the Indian tech start-up ecosystem lies in its large pool of start-ups, unicorns, and ability to scale. However, assessing the percentage of funded tech start-ups to the overall start-up base reveals a more moderate figure of 18%. In contrast, Israel takes the global lead with an impressive 34% share.

This difference underscores a key observation: while Indian tech start-ups demonstrate significant scalability, they face the critical challenge of insufficient financial support in their early stages.

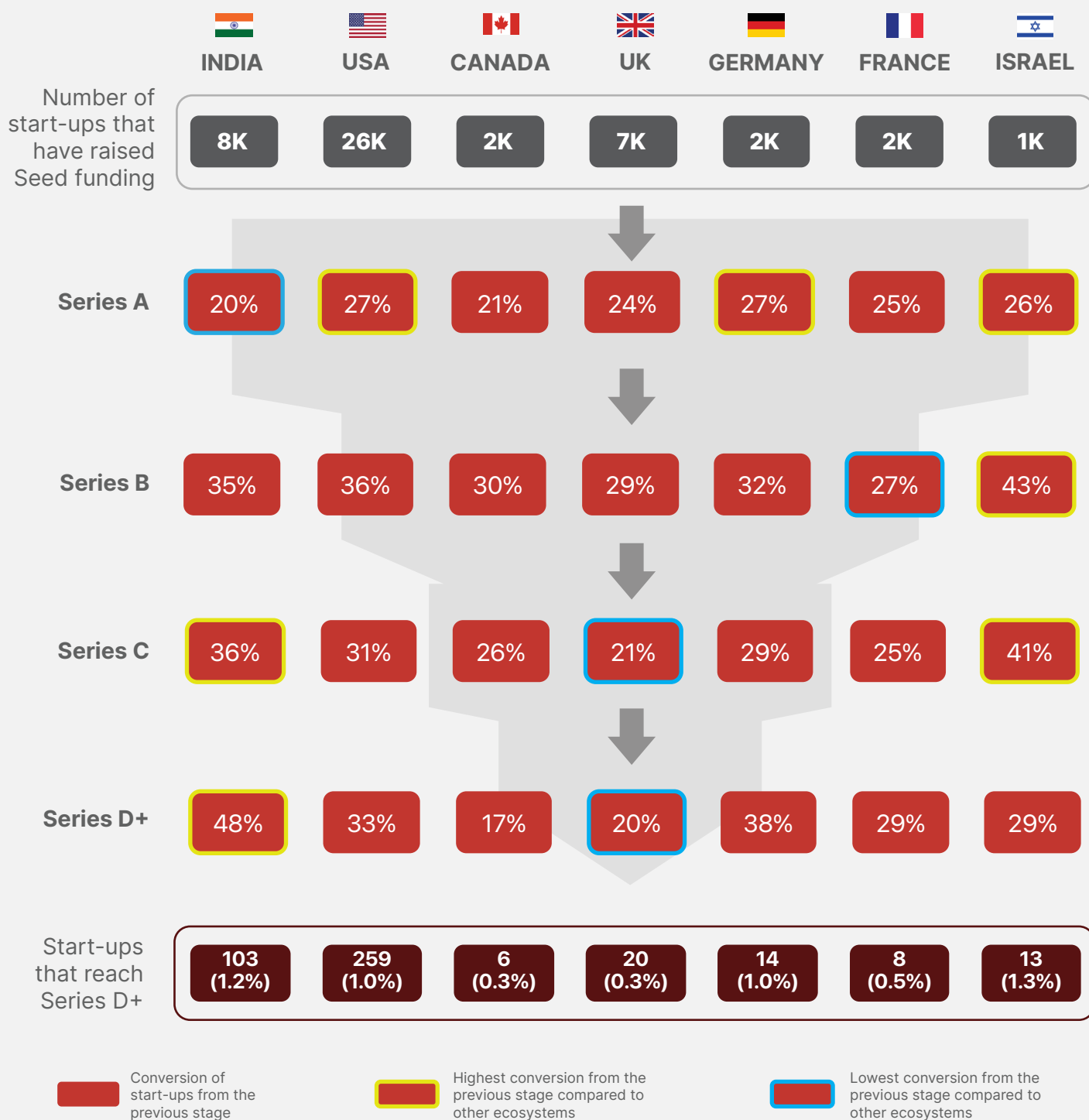
Source: WIPO, GEM Consortium Report 22-23, LinkedIn

Note: (1) Inadequate supporting data hampers the calculation of the growth rate for Israeli start-ups. Many of these start-ups, particularly in Cybersecurity, operate in stealth mode for extended periods, making it challenging to obtain a comparable growth rate for the ecosystem. (2) The present calculations do not factor in the impact of the ongoing war and the prevailing macro-economic situation in Israel; China has not been considered in this evaluation on account of limited availability of data

## HOWEVER, INDIAN TECH START-UPS EXHIBIT OVER 30% CONVERSION RATE<sup>1</sup> POST SERIES B STAGE - AMONG THE HIGHEST IN THE WORLD

Conversion rate<sup>1</sup> from seed funding to Series A for Indian tech start-ups is 20%, which is the lowest among all ecosystems. However, as they advance, conversion rates improve. 36 out of 100 Series B Indian tech start-ups secure Series C funding, ranking second to Israel. Notably, at Series D and beyond, Indian tech start-ups exhibit the highest conversion, with 48 out of 100 Series C start-ups reaching series D and beyond.

Progression of tech start-ups (in %) from Seed to Series D+ across top ecosystems



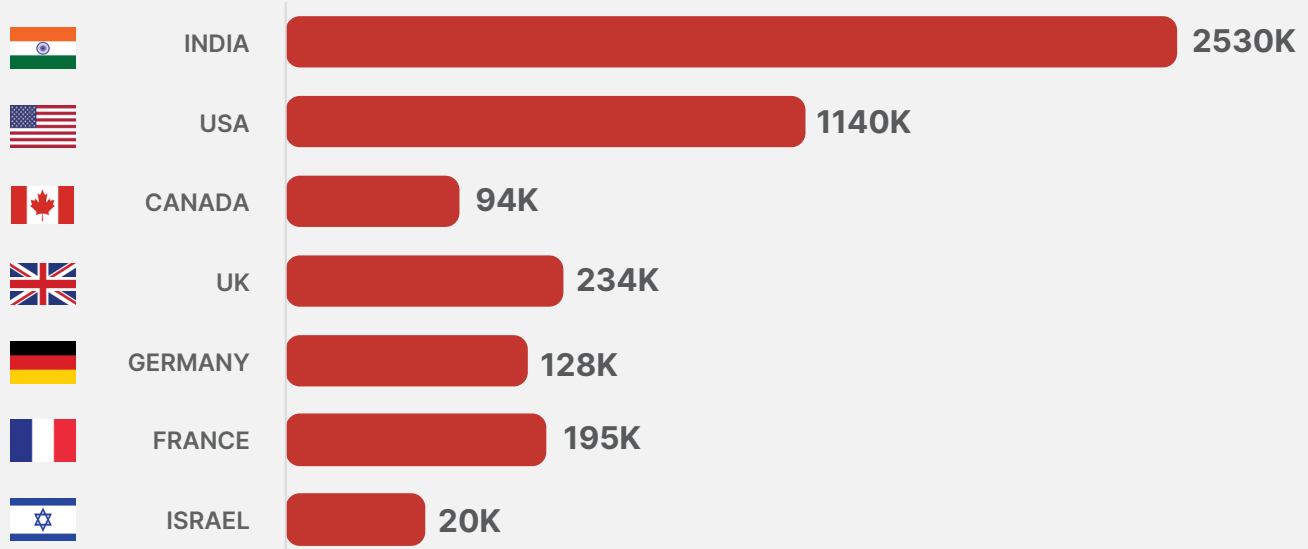
Source: Crunchbase, Zinnov Research & Analysis

Note: (1) The conversion rate denotes the percentage of start-ups progressing from one stage to another. For example, if there are 100 start-ups at the Seed stage and 30 successfully advance to Series A, the conversion rate would be 30%; China has not been considered in this evaluation on account of limited availability of data

# THE INDIAN TECH START-UP ECOSYSTEM HAS TWO STRONG PILLARS: THE HIGHEST NUMBER OF STEM GRADUATES AND THE SECOND-HIGHEST NUMBER OF INCUBATORS AND ACCELERATORS

India's tech start-up strength: Abundant STEM talent driving innovation

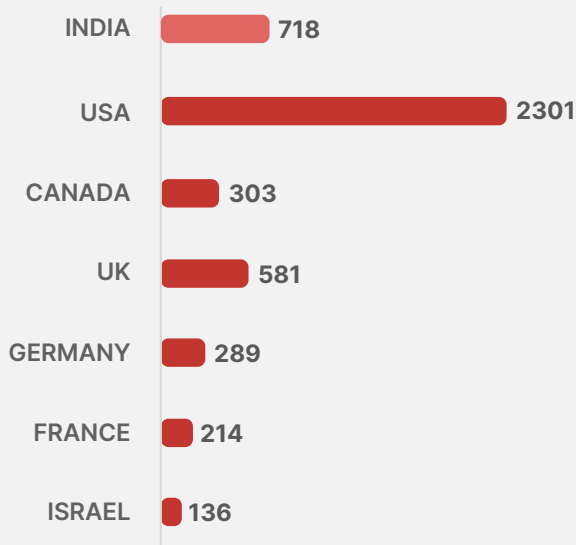
STEM graduates across leading tech start-up ecosystems in 2022



With 16% of the world's AI talent, India positions itself as an innovation hub, showcasing rapid adoption of AI skills.

India has a rich base of incubators and accelerators, mostly supporting early-stage tech start-ups

Total number of Incubators and Accelerators across tech start-up ecosystems



Number of Incubators and Accelerators per 1000 start-ups (2023)<sup>1</sup>

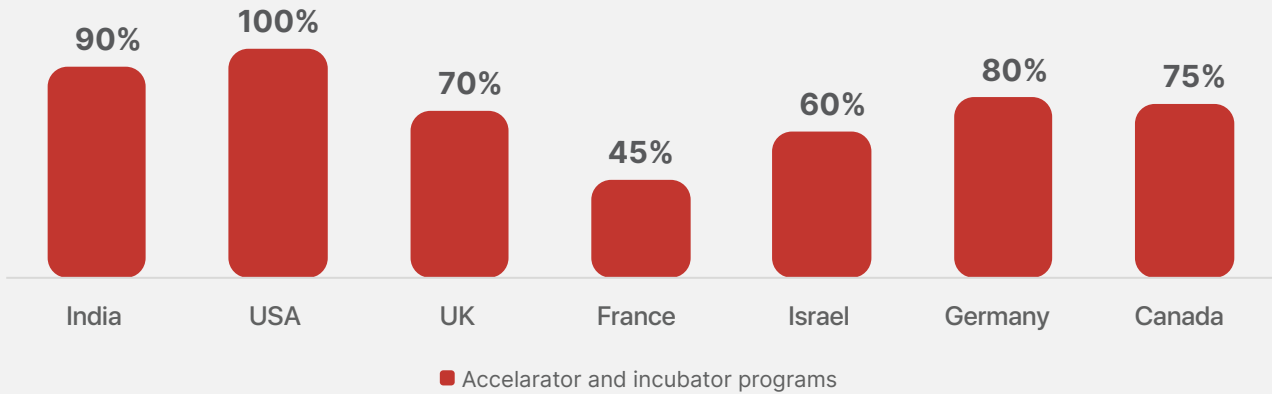


Source: UNESCO Institutes of Statistics, nasscom's State of Data Science and AI skills report, Future of Work: State of work @ AI; Draup (for STEM graduates), Zinnov Research & Analysis  
 Notes: (1) Number of incubators and accelerators data till June 2023; China has not been considered in this evaluation on account of limited availability of data.

# INDIA'S EXTERNAL INNOVATION ECOSYSTEM IS IMPROVING, CRUCIAL FOR FOSTERING TECH START-UP GROWTH

90% of the top Indian tech universities host accelerator/incubator programs helping foster a culture of entrepreneurship and innovation

Universities running their accelerator/incubator programs (for the top 20 tech universities<sup>1</sup> in each country)



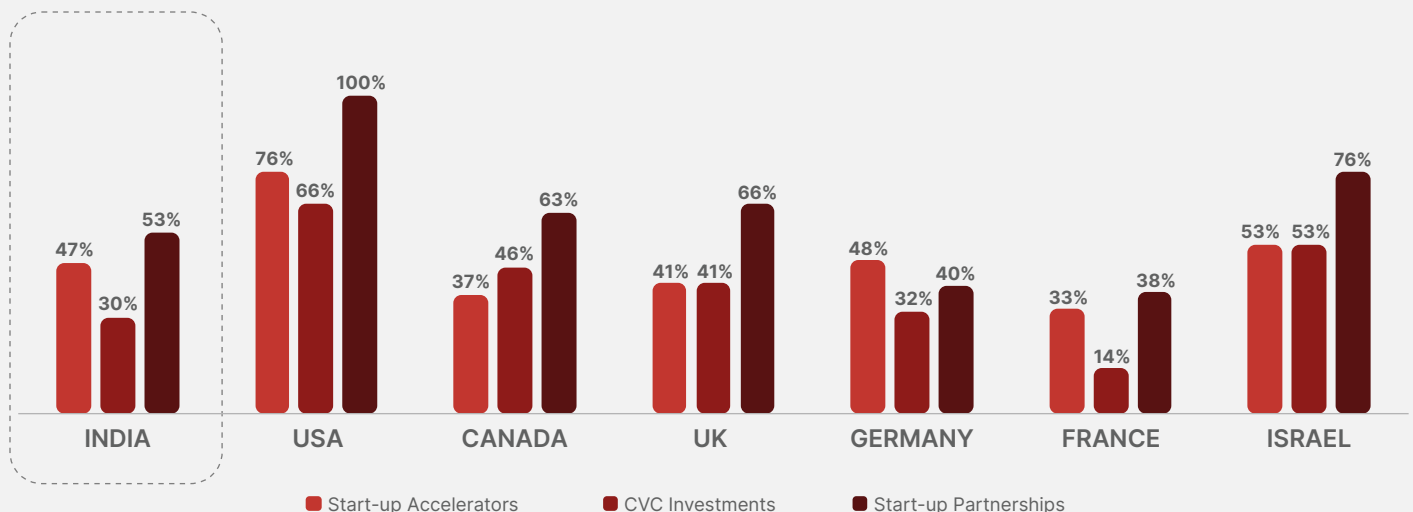
Note: The Israeli ecosystem has a distinct approach. Since they lack numerous university-sponsored incubators, state sponsorship, predominantly facilitated by the Israel Innovation Authority (IIA), plays a pivotal role in providing substantial funding and support. These programs typically function autonomously, although collaborative efforts with universities are not uncommon.

However, elevating corporate engagements with the Indian tech start-up ecosystem is imperative and needs acceleration

Corporate collaborations for the top 50 Fortune 500 companies<sup>2</sup>

**India rank #**

- 4<sup>th</sup> – Start-up accelerators**
- 6<sup>th</sup> – CVC<sup>3</sup> fundings**
- 5<sup>th</sup> – Start-up partnerships**



Source: Secondary news articles, University websites, QS Global Ranking.; Zinnov Research & Analysis

Notes: (1) QS Global Ranking (2) Corporate collaborations have been studied for all ecosystems for the top 50 Fortune 500 companies' data set. However, the base of each ecosystem only consists of those having a presence in that country (n for all countries: India = 30, USA = 50, UK = 32, France = 21, Germany = 21, Israel = 17, Canada = 35); China has not been considered in this evaluation on account of limited availability of data. (3) CVC: Corporate Venture Capital.



# 2023 TECH START-UP SURVEY PERFORMANCE IN 2023 AND OUTLOOK FOR 2024

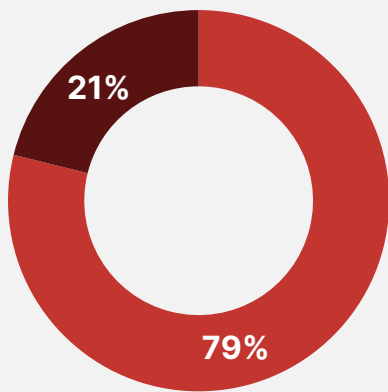
# nasscom-ZINNOV TECH START-UP SURVEY 2023

## Methodology

- Every year, nasscom and Zinnov conduct a detailed tech start-up founder survey. This year, the survey saw 100+ start-up founders participating in it. Insights in this section are derived from the 2023 tech start-up survey.
- For this survey, founders of tech start-ups at different stages of the tech start-up lifecycle, business model, and funding status were surveyed to provide an unbiased perspective on the state of the tech start-up ecosystem in India.

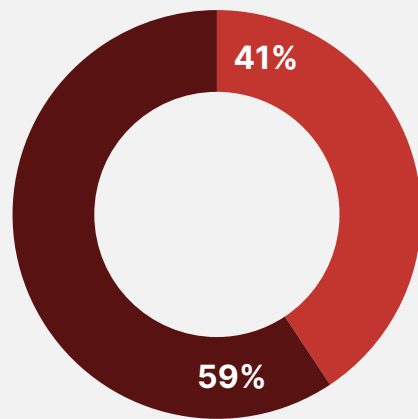
## Survey participant profile

Designation of respondents



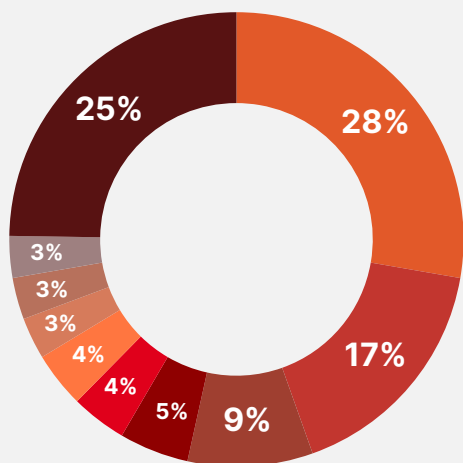
- C-Suite (Founder, CEO, COO, CTO, etc.)
- Other Senior roles (Board Members, Directors, Sr. Product Manager, etc.)

Funding status of tech start-ups



- Unfunded
- Funded

Sector-wise split of tech start-ups



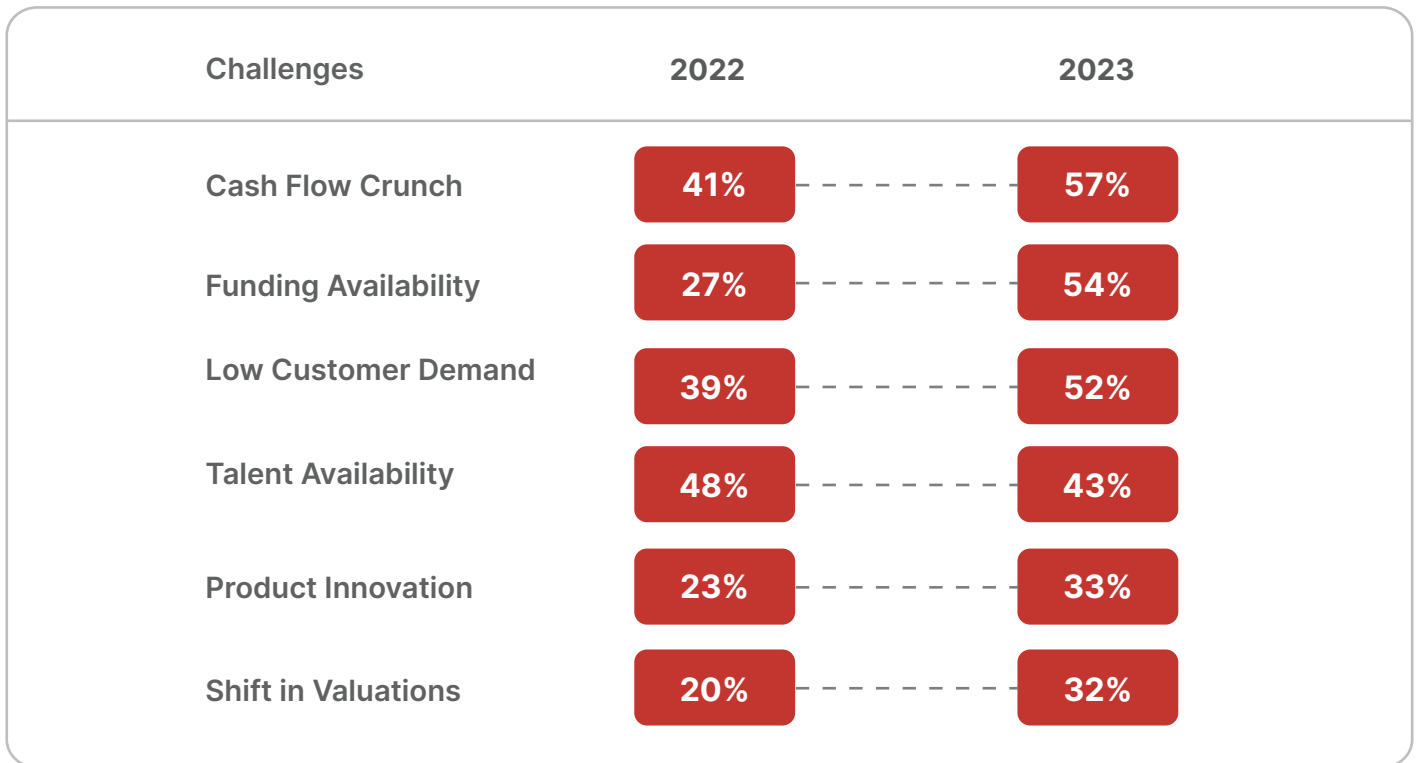
- EnterpriseTech
- HealthTech
- BFSI
- RetailTech
- Energy & Utilities
- Industrial & Manufacturing
- Cybersecurity
- Edtech
- HRTech
- Others<sup>1</sup>

Note: (1) Others include: Automotive, Aviation, Maritime & DefenceTech, Media & Entertainment, SCM & Logistics, Social Platforms, AgriTech, EnvironmentTech, Fitness and Wellness, Legal Tech, Mobility, Real Estate & Construction, etc.

## IN 2023, THE DOWNWARD FUNDING SPIRAL PUSHED FOUNDERS TO SHIFT FOCUS TOWARDS ESSENTIAL METRICS

Cash flow and availability of funding proved to be the biggest challenges

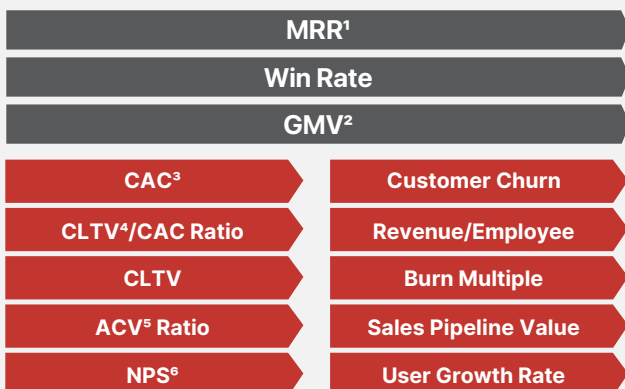
What business challenges have you faced in the last 12 months? Rate the significance of these challenges



- While funding availability was a significant challenge reported by funded tech start-ups, cash flow crunch and low customer demand also emerged as key challenges for the unfunded tech start-ups.

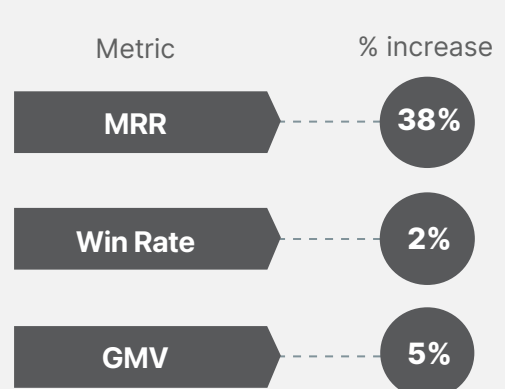
### Tech start-up founders monitored Monthly Recurring Revenue (MRR), Win Rate, and Gross Merchandise Volume (GMV) as the top metrics

What are the 3 most important metrics you track?



■ 3 most important metrics tracked (by % founders)

How have these metrics changed in the last 12 months?

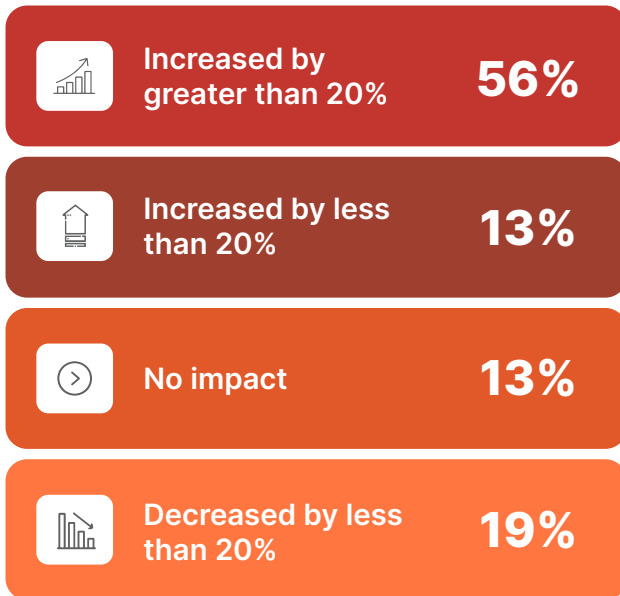


- With a challenging macro-economic environment, tech start-ups are focusing on improving short-term revenue through efficient sales strategies and efforts.

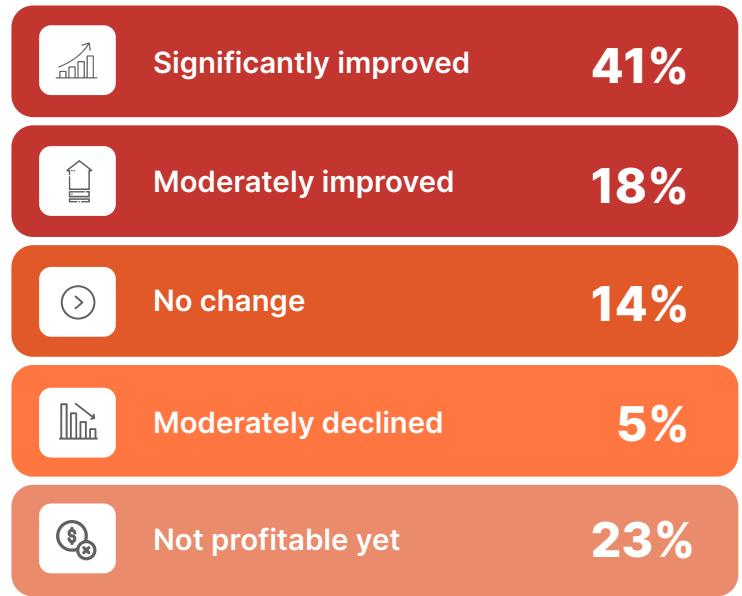
## DESPITE THE CHALLENGES, FOUNDERS HAVE BEEN ABLE TO CAPITALIZE ON THE MARKET CONDITIONS AND IMPROVE THE FUNDAMENTALS OF THEIR BUSINESS

A majority of tech start-up founders report an increase in revenue and profitability in 2023

How has your revenue changed in the last 12 months?



How has your profitability changed in the last 12 months?



- While a small share of tech start-up founders reported a decrease in their revenue, nearly 40% of the funded tech start-up founders reported an increase in their revenue over the last 12 months.
- 41% of tech start-up founders highlighted a significant improvement in profitability. This is primarily driven by unfunded start-ups with 70% of founders highlighting this improvement. However, only 25% of funded start-up founders reported the same.

While majority of the tech start-ups have been hiring in 2023, around a quarter of the founders indicated a cautious approach

How has the hiring scenario changed in the last 6 months?

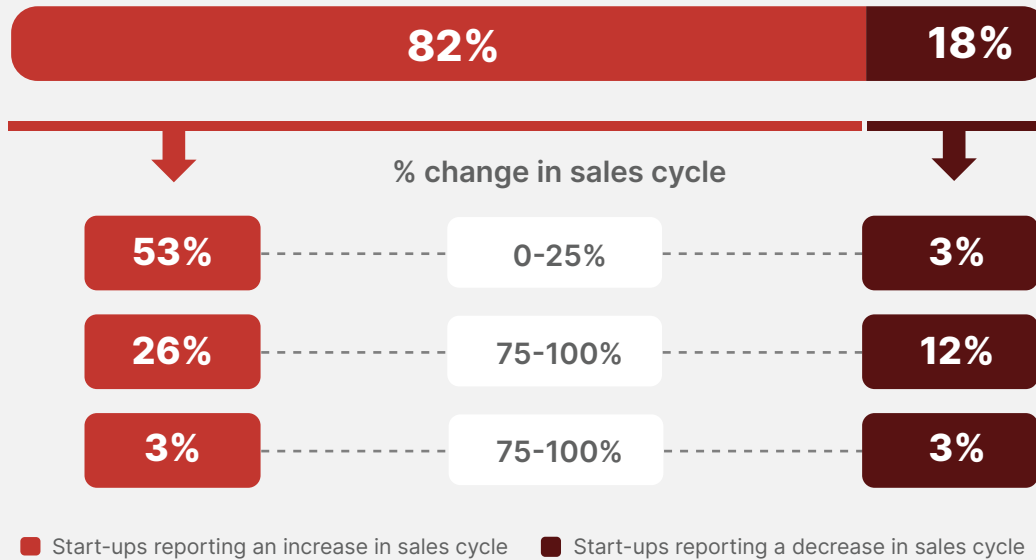


- Tech start-ups reporting hiring have increased by 20% in 2023 as compared to 2022.
- Tech start-ups reporting a reduction in their workforce decreased by ~7% in 2023 as compared to 2022.

## THE MACRO-ECONOMIC CONDITIONS HAVE ALSO IMPACTED SALES CYCLES, WITH MANY FOUNDERS PIVOTING TO DIFFERENT CUSTOMER SEGMENTS

Founders report lengthening of the average sales cycle, signaling heightened challenges in customer acquisition

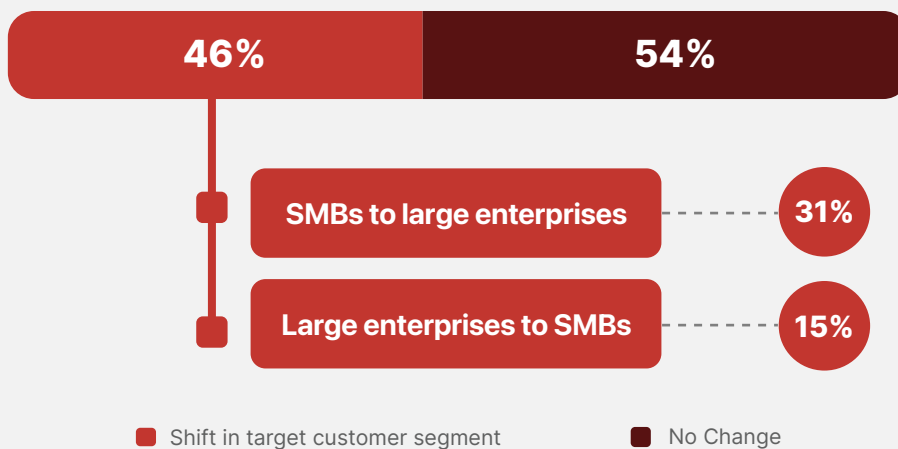
How has the average length of your sales cycles increased or decreased in the last 12 months?



~90% of the unfunded tech start-ups reported an increase in the average sales cycle, with ~60% reporting an increase of 0-25%.

### Adapting to market conditions is evident as many have pivoted

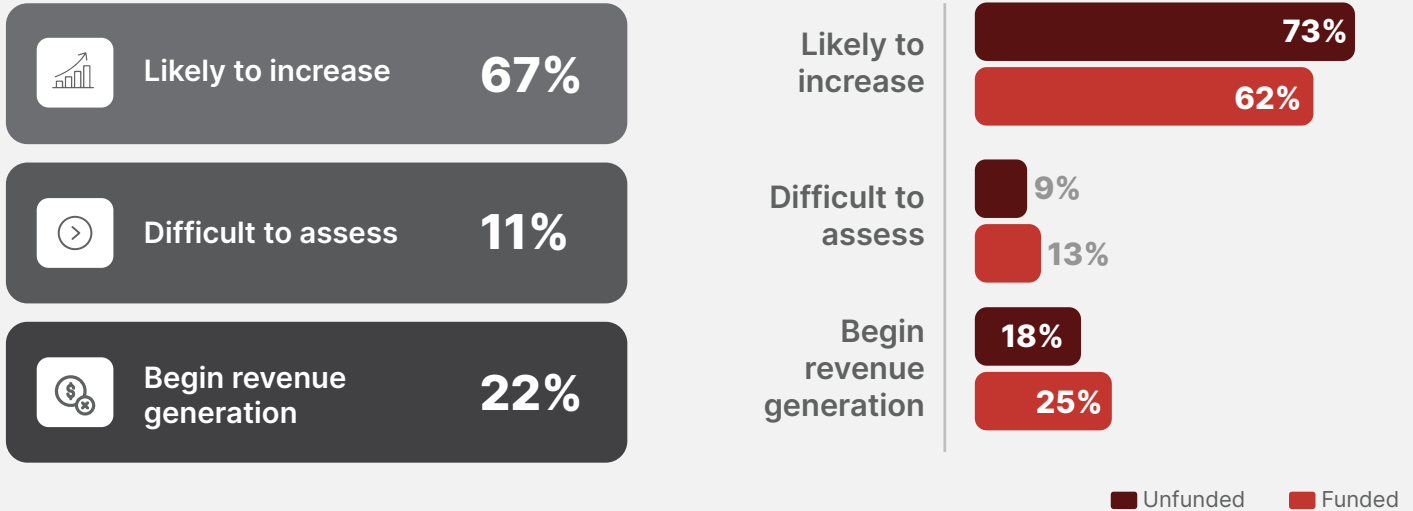
How has your target customer segment shifted in 2023?



While 31% of all tech start-ups reported a shift from SMBs to large enterprises, 43% of funded start-ups reported a shift to large enterprises.

Tech start-up founders expect to continue on the revenue growth path but feel that the funding environment may not be easy, especially for large ticket sizes

What is your revenue outlook for 2024?



- A large share of unfunded tech start-up founders expect revenues to increase in 2024 as compared to founders of funded tech start-ups who feel otherwise. Overall, majority of the tech start-up founders believe their revenues are likely to increase in 2024.
- The economic slowdown in 2023 resulted in many B2B tech consumers (corporates and start-ups alike) focusing on optimizing expenditure and maximizing profitability. However, in 2024, the B2B tech consumers will be seeking to accelerate and increase spending, resulting in increasing revenues for B2B tech start-ups.

What are your views on the funding scenario for 2024?

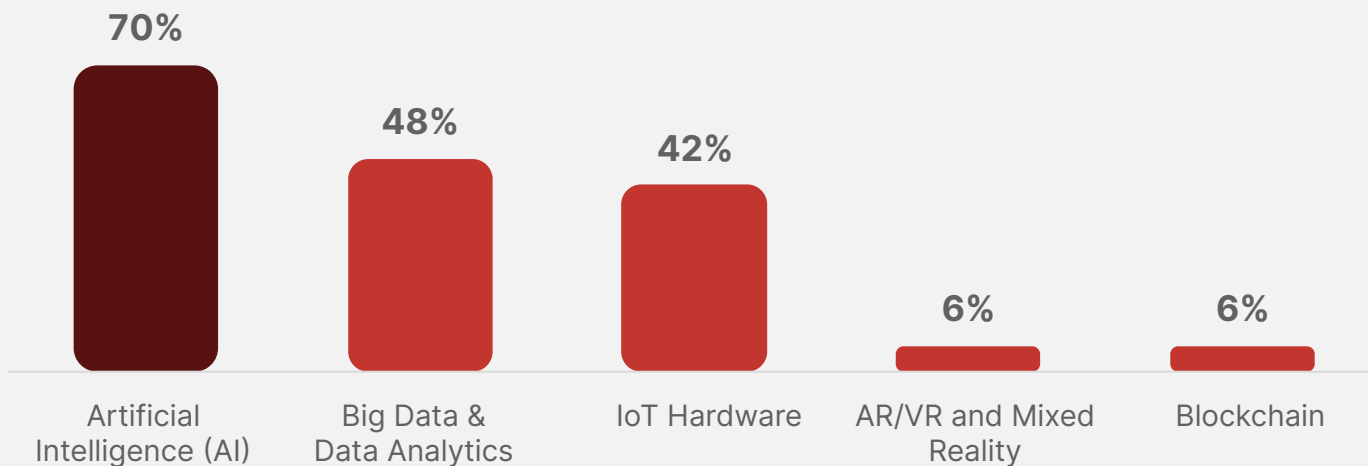


- A large share of the founders from unfunded tech start-ups express optimism about the funding outlook for 2024 compared to founders of funded tech start-ups. Founders of funded tech start-ups have more reserved expectations, with over 30% expressing pessimism about funding in 2024. Overall, 46% of founders are optimistic about the funding scenario in 2024.

## DEEPTECH USAGE IS INCREASINGLY BECOMING MAINSTREAM IN THE INDIAN TECH START-UP ECOSYSTEM

Tech start-ups have been increasingly implementing DeepTech in their solutions

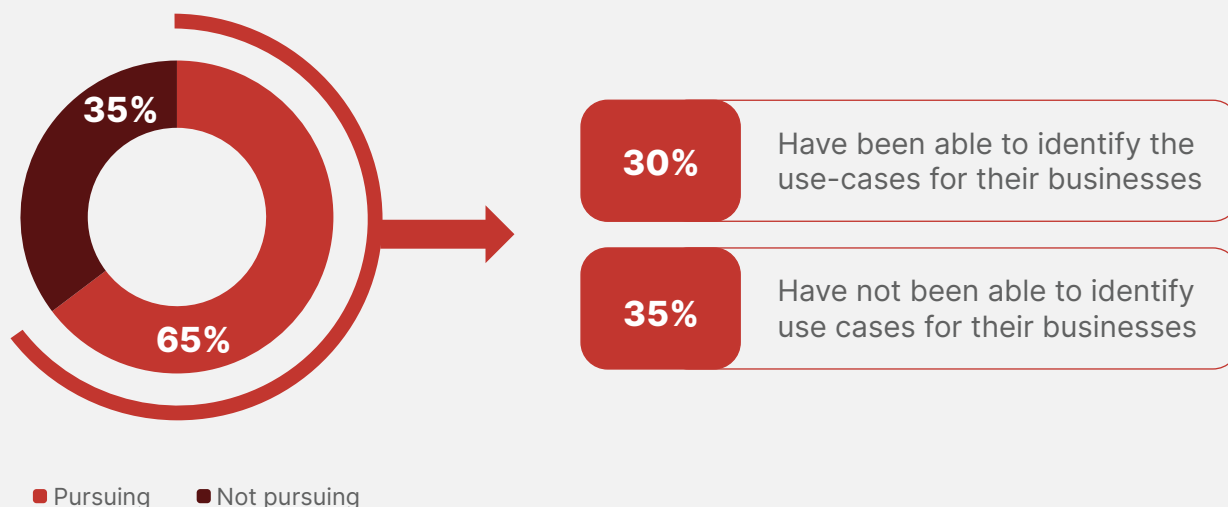
Which of these technology do you leverage in your business?



- 59% of the tech start-ups reported utilizing DeepTech to improve efficiency in the organization.
- 52% of the tech start-ups reported leveraging DeepTech to reduce operational costs.
- 41% of the tech start-ups reported automating internal processes using DeepTech.

### An increasing number of tech start-ups are leveraging Generative AI

Share of total tech start-ups pursuing Generative AI

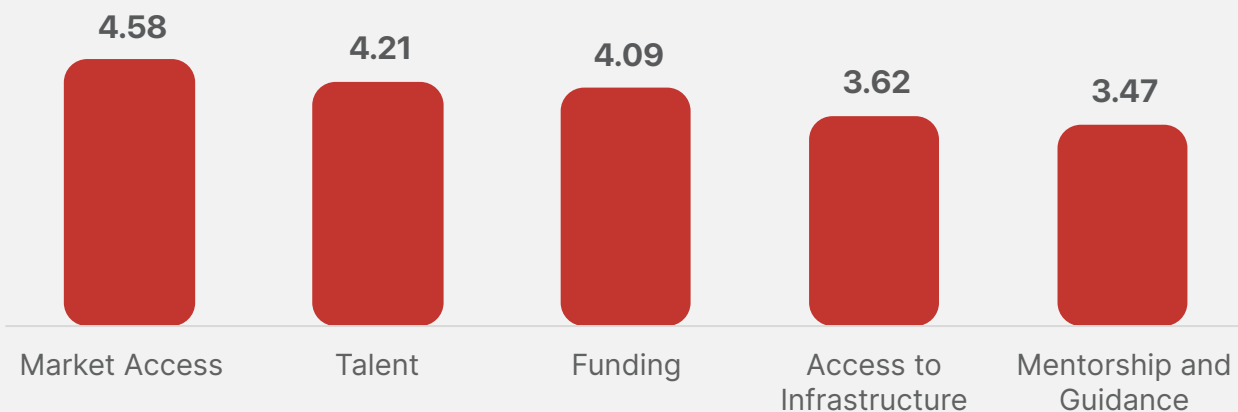


- ~70% of these tech start-ups reported pursuing Generative AI to embed it into their existing products.
- ~45% of these tech start-ups reported pursuing Generative AI for knowledge assistants (for internal operations).

## SINCE MARKET ACCESS WILL BE KEY FOR FOUNDERS, MANY ARE SEEKING TO COLLABORATE WITH STAKEHOLDERS SUCH AS GOVERNMENT AND CORPORATES

Tech start-up founders report market access as a key factor to their success moving forward

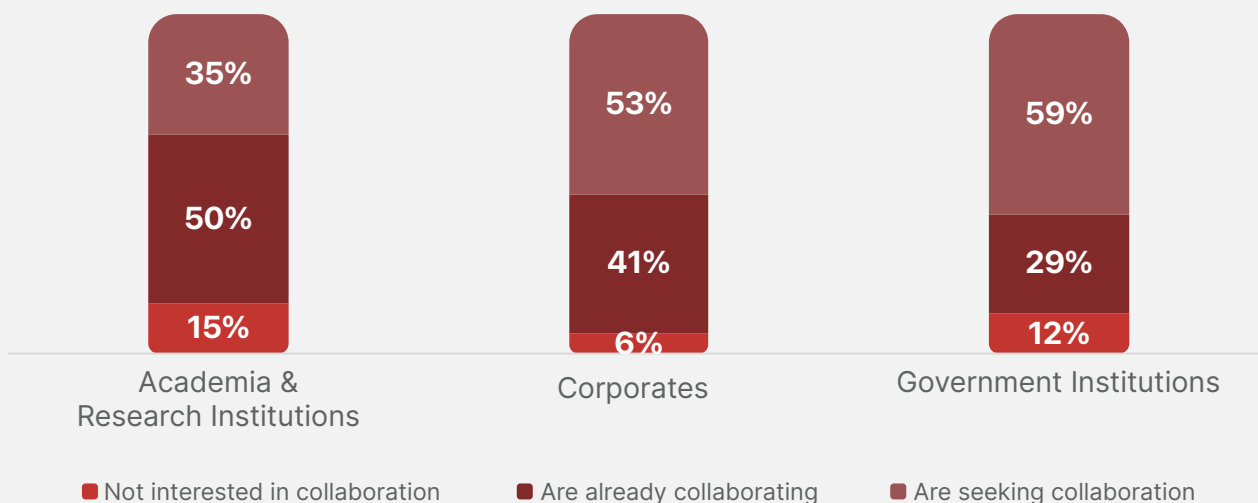
Rate the importance of the following parameters  
(Average score on a scale of 1-5, with 5 being most important)



- While market access remains the most important factor for funded and unfunded start-ups, funding takes the second rank for unfunded start-ups, while talent remains the second-most important for funded start-ups

## Majority of tech start-ups are looking to collaborate with the government and corporates

State of collaboration between tech start-ups and institutional bodies



- 56% of funded start-ups reported that they are seeking collaboration with corporates and government institutions, whereas 60% of unfunded start-ups reported seeking collaboration with corporates and 70% seeking collaboration with government institutions.



**UNLOCKING FUTURE GROWTH  
RECOMMENDATIONS**

## RECOMMENDATIONS

### 1) ACCELERATE AND STRENGTHEN DEEPTECH ECOSYSTEM

In 2023, the government issued its first DeepTech policy, which is comprehensive and contains many proposals. It is critical to implement it in a timely manner. The focus areas for DeepTech acceleration include:

- Access to patient capital through grant, government funding, and other sources.
- Identifying priority sectors for DeepTech and building an integrated sectoral approach to drive innovation, market connect and support for testing, patent filing, certifications, training, etc.
- Access to affordable AI infrastructure – compute and data.

### 2) PRIORITIZE AND STRENGTHEN DOMESTIC CAPITAL FLOW

- Advocate and enable the operation of micro-VCs through appropriate regulatory frameworks and simplified compliance procedures.
- Set up co-investment programs as a mechanism to promote domestic VCs.
- Establish initiatives aimed at cultivating an innovation ecosystem through collaborative efforts between Governments, Venture Capital (VC) firms, Angel investor networks, and the industry.

### 3) ENABLE IMPROVEMENT OF MARKET ACCESS FOR TECH START-UPS

- Creating platforms for technology start-ups to get visibility /market access across all government programs (both domestic and international).
- Ease norms and streamline the process for government procurement.
- Facilitate international exposure for start-ups through trade missions, and partnerships with foreign business chambers.

### 4) EASE OF REGULATORY COMPLIANCE

- Improve taxation policies for Angel and HNI (High Net Worth Individual) investors
- Handholding start-ups for the Digital Personal Data Protection Act, 2023
- A pro innovation approach to AI regulation that focuses on risk-based use cases
- A guide to help start-ups navigate corporate governance

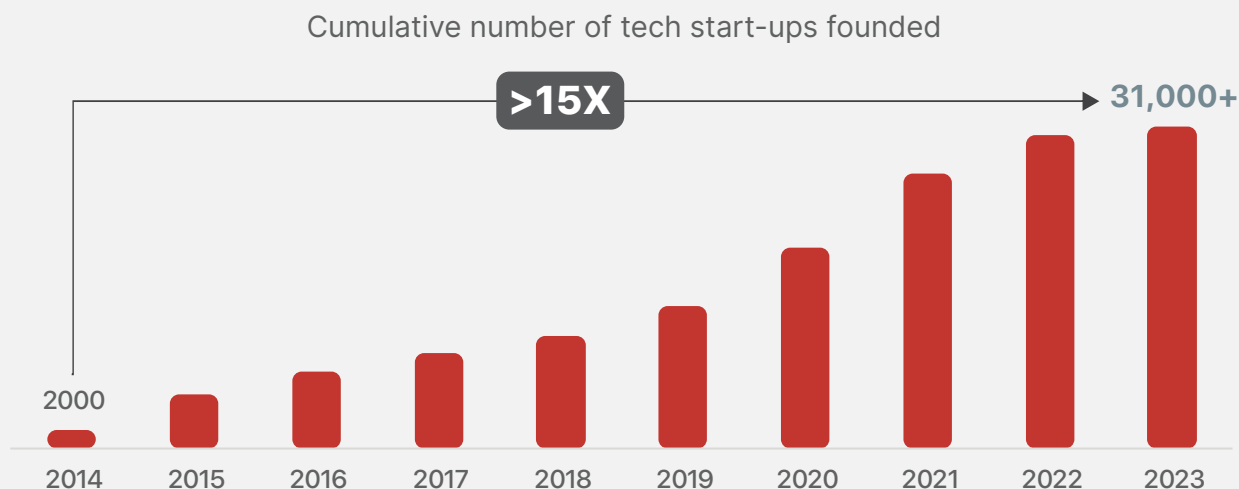


# **TRAVERSING A DECADE OF INDIAN TECH START-UP ECOSYSTEM**

## THE DECADE IN REVIEW

THE PAST DECADE HAS SEEN A >15X SURGE IN THE NUMBER OF TECH START-UPS IN INDIA

The growth of the ecosystem has remained fairly consistent over the years



**5.5K+**

Total number of active funded tech start-ups, founded between 2014-2023

**950+**

# of tech start-ups added in 2023 (YTD)<sup>1</sup>

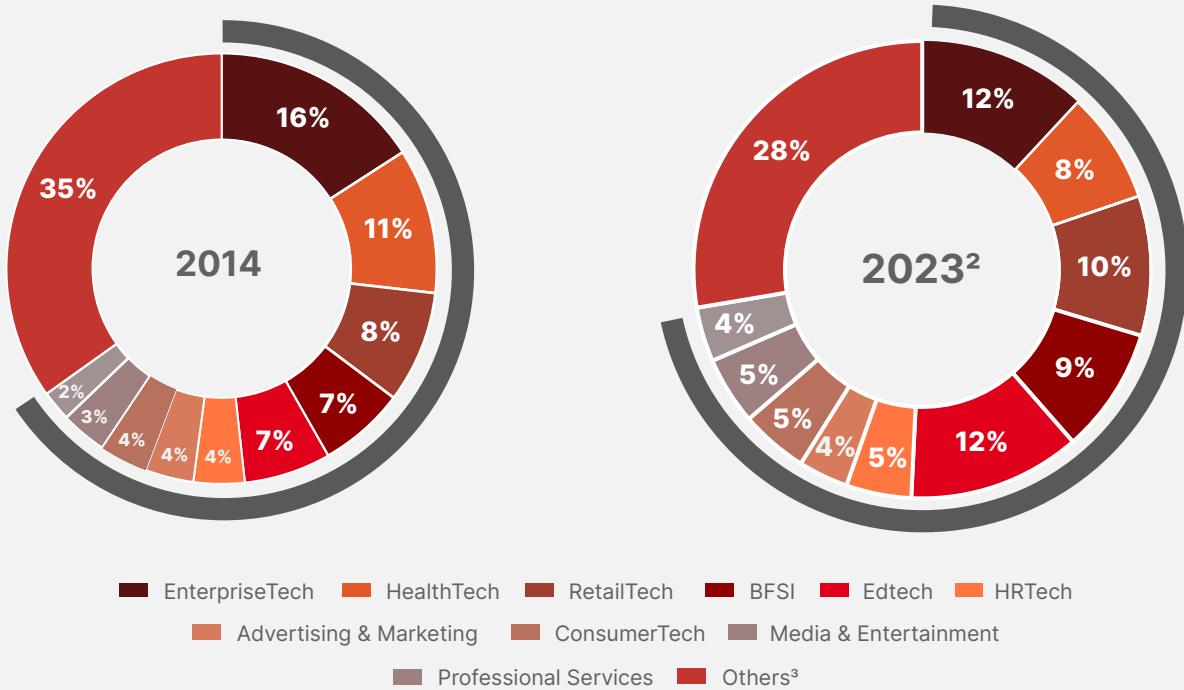
## WHAT HAS EVOLVED OVER THE YEARS?

- Change in consumption patterns and rising Internet penetration have continued to pave the way for the emergence of RetailTech start-ups since 2010. Growing access to digital platforms is expanding the market for innovative retail solutions.
- The landscape started seeing a surge in BFSI start-ups from 2016, fueled by events such as UPI-moment and demonetization, creating opportunities for start-ups to address evolving needs of the financial sector.
- The need for scalable and efficient Cloud solutions have been fueling the rise of SaaS start-ups. SaaS start-ups have contributed significantly to the ecosystem, with the emergence of 21 unicorns since 2014. More than 60% of mature SaaS start-ups are developing global solutions.
- The COVID-19 pandemic further catalyzed the growth in sectors like HealthTech and Edtech, driven by tele-consulting and remote learning.
- Share of start-ups founded in emerging hubs increased from ~31% in 2019 to ~40% in 2023, highlighting the overall holistic growth of the ecosystem.

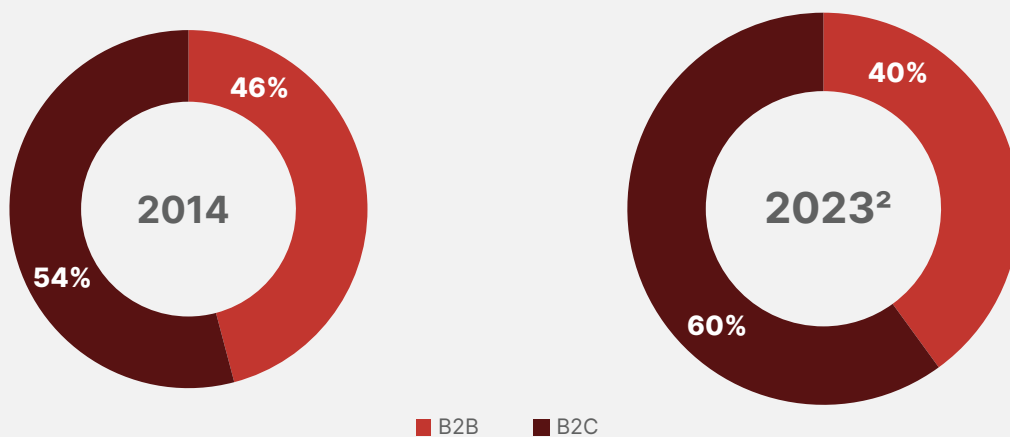
# THE COLLECTIVE SHARE OF NUMBER OF TECH START-UPS IN KEY SECTORS HAS SURGED OVER THE PAST 10 YEARS; SHARE OF B2C START-UPS CONTINUES TO GROW PRIMARILY DUE TO GROWING DIGITAL CONSUMER BASE

- Key sectors, including EnterpriseTech, HealthTech, etc., constituted over 60% of tech start-ups in 2014. This number has continued to grow and crossed the 70% mark in 2023.
- Moreover, growing Internet penetration, rising income levels, and expanding digital consumer base have all been fueling the adoption of the B2C start-up business model.

Growth in share of tech start-ups from key sectors<sup>1</sup>



Growth in the share of B2C tech start-ups



Source: Zinnov Research & Analysis ;

Note: (1) Chart numbers may not add up to 100% because of rounding off. (2) All data points up to December 20, 2023, are incorporated for the year 2023. (3) Others include: SCM & Logistics, Real Estate & Construction, Gaming, Social Platforms, Fitness & Wellness, FoodTech, Travel & Hospitality, Agritech, Automotive, Mobility, EventsTech, Industrial & Manufacturing, Energy & Utilities, Cybersecurity, SportsTech, LegalTech, EnvironmentTech, Security & Surveillance, Aviation, Maritime & Defence Tech, Life Sciences, Telecom, and GovtTech.

# 18X GROWTH IN THE NUMBER OF UNICORNS SINCE 2014; SPREAD ACROSS 5X MORE SECTORS AND 8X MORE LOCATIONS

**91**

# of active unicorns<sup>1</sup> in the Indian tech start-up ecosystem

**12**

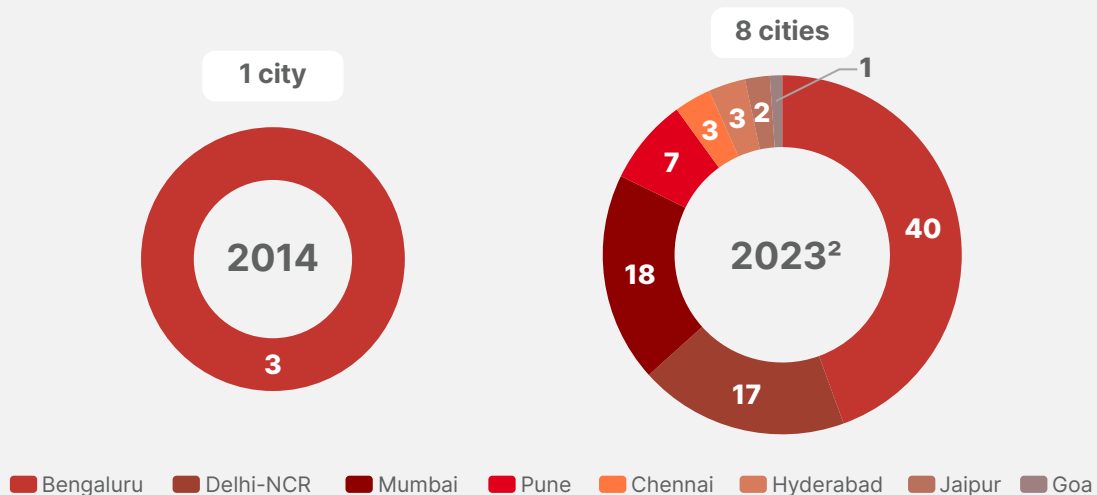
# of unicorns that exited via M&A/IPOs

## Distribution of unicorns across sectors



- BFSI, RetailTech, and EnterpriseTech collectively account for over 50% of the unicorn pool as of 2023, with a cumulative valuation of USD 125 Bn.
- Notably, 50 Indian unicorns are strategically positioned to cater to the global markets.

## Distribution of unicorns across locations

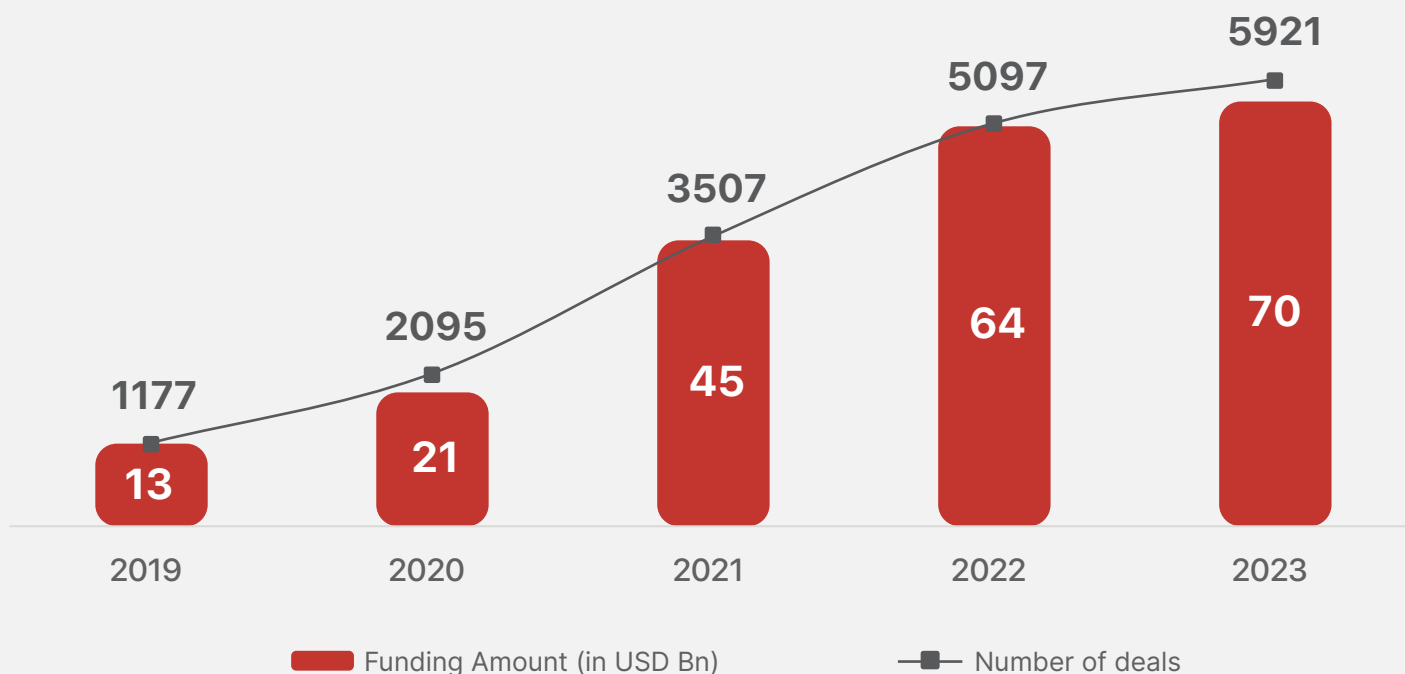


Source: Zinnov Research & Analysis

Note: (1) Please refer to notes to reader section for definition of active unicorns as mentioned throughout the report. (2) All data points up to December 20, 2023, are incorporated for the year 2023.

## 5 YEAR VIEW

## INDIAN TECH START-UPS HAVE RAISED OVER USD 70 BN IN FUNDING SINCE 2019

Cumulative equity investments in tech start-ups (2019-2023)<sup>1</sup>

40%

Growth in cumulative funding raised by tech start-ups since 2019

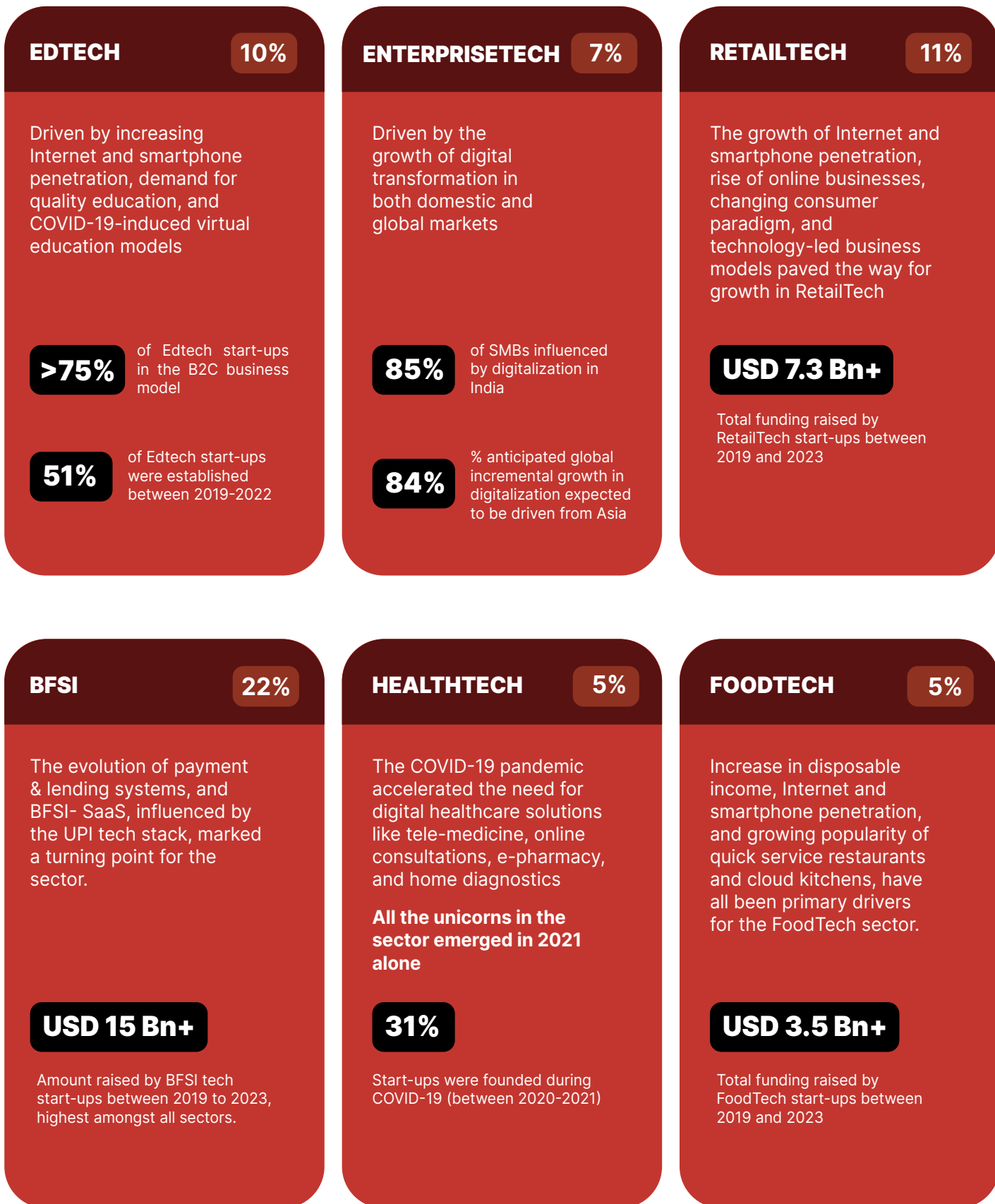
5X

Growth in the cumulative number of deals since 2019

- The last five years have tested the tech start-up ecosystem's resilience. Despite events like COVID-19 and global economic uncertainty, Indian tech start-ups have attracted investments.
- COVID-19 pandemic fueled the demand for technology-backed solutions, both among consumers and enterprises. This gave the impetus to the start-ups to innovate and build solutions for existing and novel use cases.
- BFSI, HealthTech, Edtech, RetailTech, EnterpriseTech, and FoodTech gained the most from this pandemic-triggered digital wave.
- Start-up investments peaked in 2021; however, the recent economic slowdown has made founders take a more cautious approach, and shift their focus from fundraising to cost optimization and profitability.

## SIX INDUSTRY SECTORS COLLECTIVELY ACCOUNT FOR ~60% OF THE TECH START-UP FUNDING SINCE 2019

Sector Share of sector in total funding between 2019 and 2023



### EDTECH

10%

Driven by increasing Internet and smartphone penetration, demand for quality education, and COVID-19-induced virtual education models

>75%

of Edtech start-ups in the B2C business model

51%

of Edtech start-ups were established between 2019-2022

### ENTERPRISETECH

7%

Driven by the growth of digital transformation in both domestic and global markets

85%

of SMBs influenced by digitalization in India

84%

% anticipated global incremental growth in digitalization expected to be driven from Asia

### RETAILTECH

11%

The growth of Internet and smartphone penetration, rise of online businesses, changing consumer paradigm, and technology-led business models paved the way for growth in RetailTech

USD 7.3 Bn+

Total funding raised by RetailTech start-ups between 2019 and 2023

### BFSI

22%

The evolution of payment & lending systems, and BFSI- SaaS, influenced by the UPI tech stack, marked a turning point for the sector.

USD 15 Bn+

Amount raised by BFSI tech start-ups between 2019 to 2023, highest amongst all sectors.

### HEALTHTECH

5%

The COVID-19 pandemic accelerated the need for digital healthcare solutions like tele-medicine, online consultations, e-pharmacy, and home diagnostics

All the unicorns in the sector emerged in 2021 alone

31%

Start-ups were founded during COVID-19 (between 2020-2021)

### FOODTECH

5%

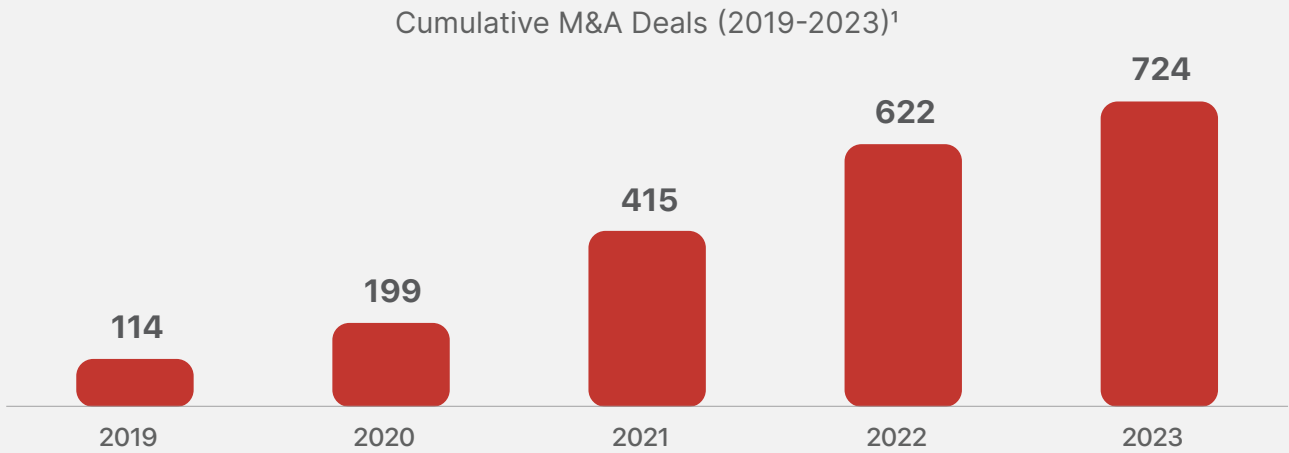
Increase in disposable income, Internet and smartphone penetration, and growing popularity of quick service restaurants and cloud kitchens, have all been primary drivers for the FoodTech sector.

USD 3.5 Bn+

Total funding raised by FoodTech start-ups between 2019 and 2023

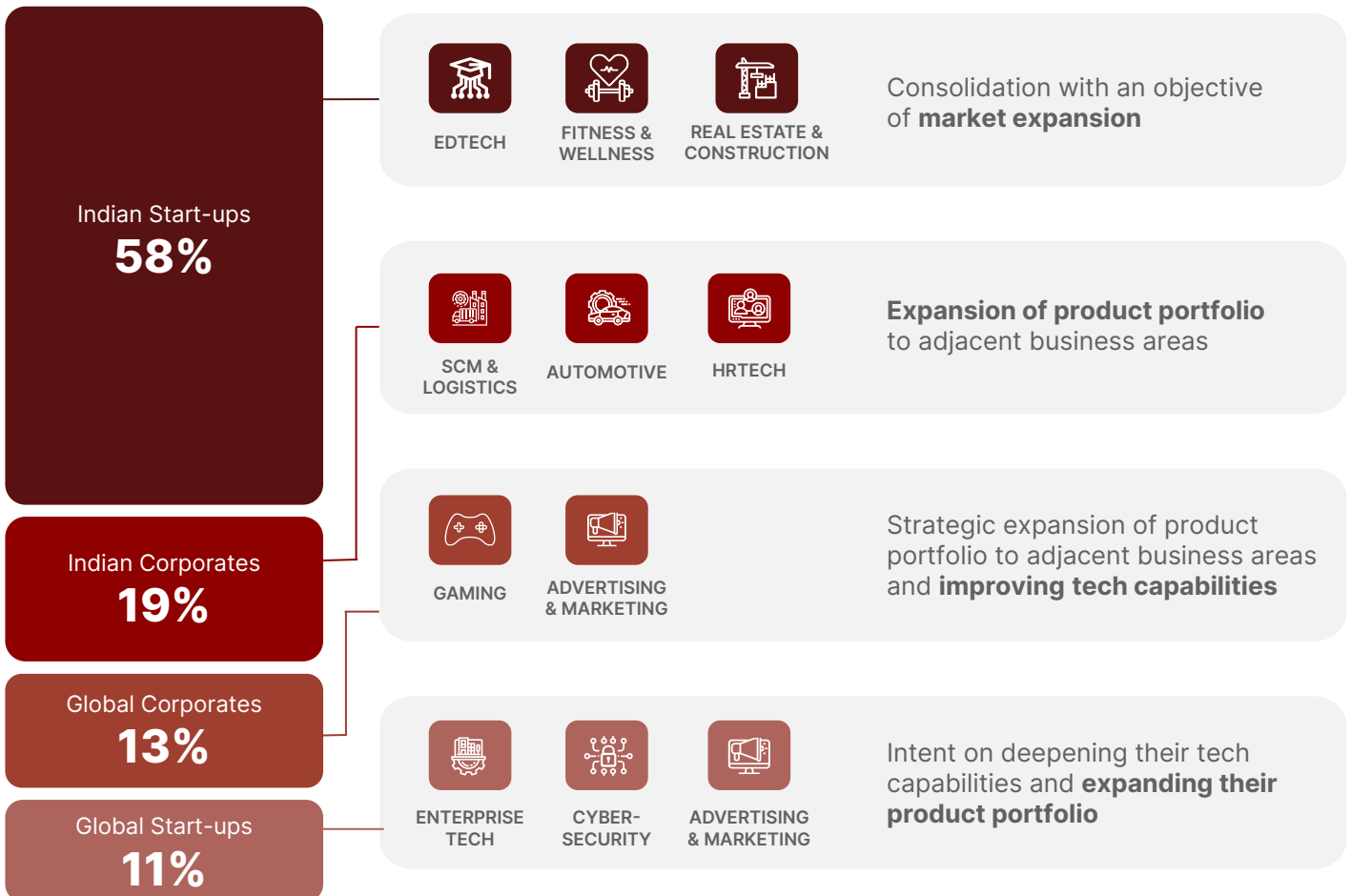
# 700+ INDIAN TECH START-UPS HAVE BEEN ACQUIRED IN THE PAST 5 YEARS, WITH INDIAN TECH START-UPS DRIVING 58% OF THE M&A ACTIVITY

Since 2019, Indian tech start-ups have been driving more than 50% of M&A activity



Share of deals by acquirer type (2019-2023)<sup>1</sup>

Sectors driving M&A activity for each acquirer type (along with core reasons)



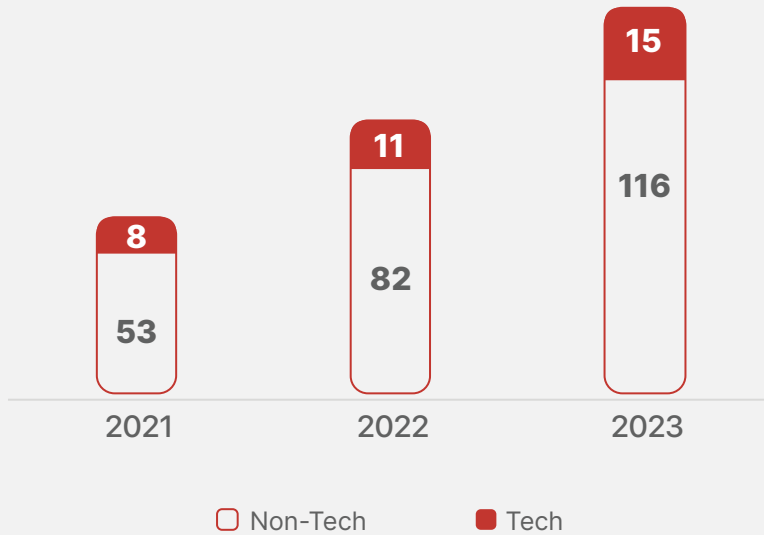
Source: Zinnov Research & Analysis

Note: (1) All data points up to December 20, 2023, are incorporated into the year-to-date (YTD) figures for 2023. For each calendar year, M&A of start-ups founded in the 10-year timeline have been considered for analysis.

## INDIAN TECH START-UPS ARE INCREASINGLY TURNING TO PUBLIC MARKETS, WITH 15 TECH IPOs ANNOUNCED IN 3 YEARS

In the last 3 years, 15 tech IPOs with an issue size exceeding USD 6.4 Bn were successfully listed on Indian stock exchanges

Cumulative of IPO Listings (2021-2023)<sup>1</sup>



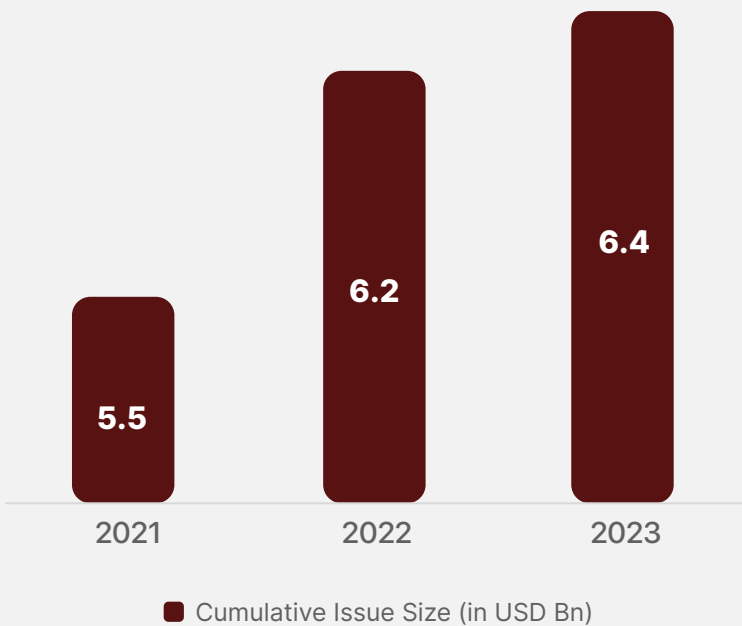
**7+**

### # of sectors with tech IPOs

The diversification of tech IPOs across sectors mirrors the evolving landscape within India's tech start-up ecosystem

Note: This data only includes mainboard Initial Public Offerings (IPOs). Tech IPOs specifically cover companies that have gone public within two decades of their establishment.

Cumulative issue size of the tech IPOs (2021-2023)<sup>1</sup>



- The substantial growth in cumulative issue size signals a significant influx of capital into the tech IPO market
- Despite global economic uncertainties, India's market resilience and favorable conditions are evident in the positive listing gains

**8.4%**

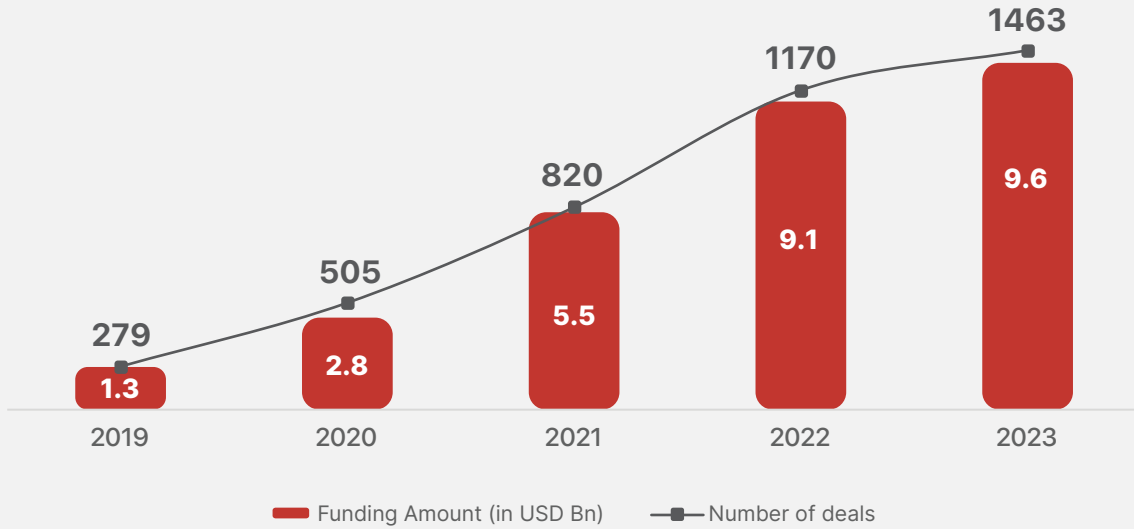
### Average listing gains from tech IPO issues

Source: Zinnov Research & Analysis  
 Note: (1) All data points up to December 20, 2023, are incorporated for the year 2023.

# DEEPTech START-UPS IN INDIA HAVE INCREASINGLY ATTRACTED INVESTOR INTEREST OVER THE LAST 5 YEARS

DeepTech start-ups account for 14% of the total cumulative funding

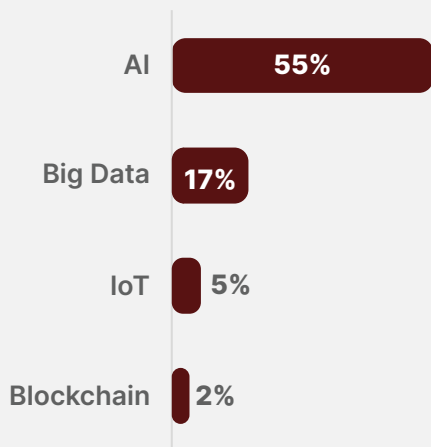
Cumulative funding in DeepTech start-ups (2019-2023)<sup>1</sup>



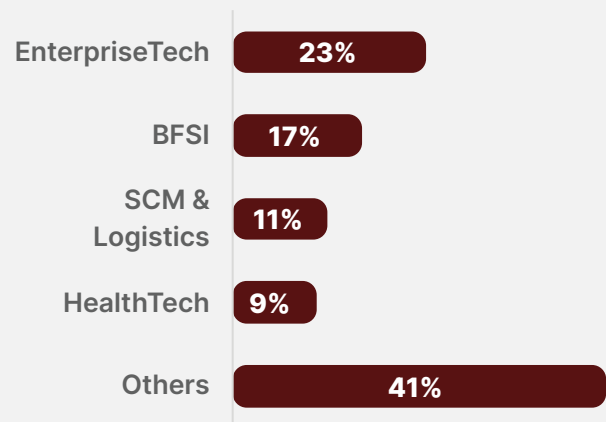
**14%** Share of funding raised by DeepTech start-ups since 2019.

Accounting for over 55% of the cumulative funding in the DeepTech landscape, AI start-ups dominate the space

% share of dominant technologies in cumulative funding deals<sup>2</sup>



Top sectors with DeepTech adoption



Source: Zinnov Research & Analysis

Note: (1) All data points up to December 20, 2023, are incorporated for the year 2023. (2) Percentages add up to more than 100 as some DeepTech start-ups are leveraging multiple technologies.



**NOTE FOR THE  
READER**

## METHODOLOGY

This report has been co-developed by nasscom and Zinnov through a comprehensive study to understand the Technology Start-up Landscape in India

This report analyzes the following –

- Current scenario and emerging trends that define the Indian tech start-up ecosystem
- India's position as a global start-up hub that is becoming attractive for investors, start-ups, and corporates
- The role played by ecosystem enablers like Incubators/Accelerators, Government Policies in nurturing the start-up ecosystem

## DATA AGGREGATION

Zinnov Data

nasscom Data

## INTERVIEWS / DISCUSSIONS

100+ Surveys and Interviews with industry participants (founders, investors, enablers, policymakers)

## SECONDARY RESEARCH

- Start-up Indiahub
- Crunchbase
- LinkedIn
- The Start-up Genome Report
- Inc42
- CBInsights
- Fortune500
- Financial Express
- Forbes
- Business Standard
- Livemint
- Times of India
- Economic Times
- Dealroom
- Factor Daily
- Yourstory
- Startupblink

## RESEARCH TEAM

**nasscom**

- Sangeeta Gupta
- Achyuta Ghosh
- Nirmala Balakrishnan
- Ashish Gupta
- Dhiraj Sharma

**zinnov**

- Archita Sarmah
- Pooja Jain
- Akanshi Sharma
- Kala Devarapalli
- Gaurav Sanjeev Kumar
- Shashank Singhal
- Divya Tandon
- Vikalp Sharma
- Mohammed Faraz Khan

## DEFINITION OF A TECH START-UP

**START-UP:** An entity working towards innovation, development, deployment, and commercialization of new products, processes, or services driven by technology or intellectual property

### 01

#### AGE: 10 YEARS

Active technology product / platform companies incepted in the last 10 years (in 2014 or later)

### 02

#### ORIGIN: INDIA

Founders of Indian origin, with HQ or core product development in India



### 03

#### DIFFERENTIATOR: INNOVATION

Innovation in technology, business process or business model being executed at speed

### 04

#### STAGE: PROTOTYPE +

The start-up must have at least a prototype or an MVP; idea stage start-ups not considered

## DEFINITIONS

**EnterpriseTech**

B2B product companies targeting horizontal solutions for Large Enterprises / SMBs  
E.g. Data Analytics/AI/ML Platforms, Development Platforms, Collaboration Tools, Productivity Applications, Customer Services, Big Data/Cloud/Security Infrastructure, etc.

**BFSI**

Enables financial services, banking and insurance through technology  
E.g. Online Banks, Financial Management Apps, Payment Management Platforms, Alternative Lending Platforms, Money Transfer Platforms, Expense Management, Investment Platforms, Cryptocurrency & Trading Platforms, etc.

**HealthTech**

Provides a technology platform for solving HealthTech problems  
E.g. Medical Solutions, Marketplace for Health Services, Health Lab Aggregators, Online Pharmacies, e-Diagnostics, Ambulance Aggregator, etc.

**Edtech**

Provides learning solutions & services through technology  
E.g. Learning Apps, Test Preparation Tech, Education Advisory Platform, K-12/Higher Education Platforms, Language Learning Platforms, etc.

**HRTech**

Tech-enabled companies supporting Human Resources Activities  
E.g. Applicant Tracking Systems, HR Management Systems, Candidate Assistance & Sourcing, Recruitment Marketplaces, etc.

**Travel & Hospitality**

Tech companies engaged in supporting the Travel & Hospitality industry  
E.g. Hotel Booking Services, Travel Planning, Travel Packages Portal, Travel Collaboration Community, etc.

**Automotive**

Companies involved in production, manufacturing, sales, and services of motorized vehicles  
E.g. Electronic Engineering, System Integration, Automotive Maintenance, Electric Vehicles, Automotive Marketplaces, etc.

**Mobility**

Tech-enabled companies providing simplified Transportation services to users  
E.g. Carpooling, Self Drive Rentals, Two-wheeler Taxi Aggregators, Mass Transit, Tech Enablers.

**Real Estate & Construction**

Tech-enabled companies supporting the Real Estate, Property Management, and Construction industry  
E.g. Construction Design Tools, Building Technology, Real Estate Management, Security, Smart Home & Cities Enablers.

**RetailTech**

Companies enabling the sale of goods and products online or integration of tech in offline markets  
E.g. Products/Services cutting across several verticals – Fashion & Lifestyle Marketplaces, Online Grocery & Home Essentials Platforms. Also includes Retail Enablers, B2B Marketplaces, Social Commerce Platforms, etc.

## DEFINITIONS

**Industrial & Manufacturing**

Engaged in manufacturing of tech-enabled devices or machines; Construction/Mining sector, etc.

E.g. IoT-based Predictive Maintenance of Machines, 3D Printing (Manufacturing)

**FoodTech**

Tech-enabled companies supporting the FoodTech industry

E.g. Online Food Ordering, Restaurant Management Cloud Solutions, Food Discovery Platforms

**Media & Entertainment**

Provides a technology platform for solving HealthTech problems

E.g. Medical Solutions, Marketplace for Health Services, Health Lab Aggregators, Online Pharmacies, e-Diagnostics, Ambulance Aggregator, etc.

**SCM & Logistics**

Enabling tech in logistics services and supply chain management

E.g. Logistics and Distribution Platforms, Fleet Management, Warehousing, IoT Platforms for Logistics, IoT Platforms for Transportation Marketplace, etc.

**Agritech**

Start-ups engaged in tech enablement in the Agricultural industry

E.g. Field Surveillance, Precision Agritech, Farm Infrastructure, Soil Testing, Farm Input e-Commerce, etc.

**Gaming**

Tech innovation and facilitation in the Gaming industry

E.g. AR/VR Gaming, Community Platform Games, Fantasy Gaming Platforms, etc.

**Aviation, Maritime & Defense**

Companies involved in production, manufacturing, sales, and services of motorized vehicles

E.g. Electronic Engineering, System Integration, Automotive Maintenance, Electric Vehicles, Automotive Marketplaces, etc.

**LegalTech**

Tech-based companies for Legal help to Individuals/Corporates

E.g. Contract Management, Brand Protection and Anti-counterfeit, Legal Services Discovery/Booking Marketplaces, etc.

**Energy & Utilities**

Tech enablement for Natural Resource Management and Utilization

E.g. Renewable Energy Products, Recycling of Resources, Energy Production and Distribution, EV Charging Infrastructure etc.

**Advertising & Marketing**

Provides direct advertising and marketing assistance through technology

E.g. Content Marketing, Influencer Marketing, Push Notifications, etc

## DEFINITIONS

**Professional Services**

Tech-enabled companies providing concierge services  
E.g. Home Repairs, Auto Servicing, On-demand Laundry, Matchmaking Platforms, etc.

**Security & Surveillance**

Includes Hardware, Software solutions for security and surveillance applications in Home, Enterprise and Government institutions  
E.g. Video Surveillance Software/Platforms, Biometric Systems, Home Security Products, etc.

**SportsTech**

Includes solutions for the Sports industry  
E.g. Offline Sports Booking of Sports Arenas, Sports Content Platforms, Player Management, and Performance Analysis.

**EventsTech**

Solutions for assisting the Events industry  
E.g. Event Discovery, Booking Platforms, Event Management Solutions.

**Fitness & Wellness**

Start-ups associated with physical and mental wellness  
E.g. Emotional and Mental Wellness Solutions, Apps for Physical Fitness (bookings, home fitness assistance), Marketplaces for Nutrition Supplements, Wellness Products – Women's hygiene, etc.

**Life Sciences**

Tech-based Solutions in Life Sciences  
E.g. Genomics, DNA/Protein Sequencing, etc.

**Telecom**

Companies providing products/services to assist the Telecom sector  
E.g. Infrastructure enabling the Delivery and Transmission of Telecom Services, Cloud Telephony, etc.

**Cybersecurity**

On premise or Cloud-based products & solutions which detect, prevent, and respond to cyberthreats to organizations or consumers  
E.g. Network Incident Response/Intrusion Detection Solutions, Identity Access Management Solutions, VPNs, etc.

**EnvironmentTech**

Technology for environment preservation or green technology  
E.g. Tech Solutions for Air Pollution, Solid/Water Waste Management, Recycling Solutions, Climate Monitoring, etc.

**Social Platforms**

Online platforms that provide a medium for individuals or businesses to connect, network, interact, share multimedia content, or seek collaboration opportunities with other individuals or businesses  
E.g. Social Networking sites, Professional Networking sites, Online communities, Blogging Platforms, etc.

## Other key definitions

### Active Unicorns

Unicorns are privately-held entities with a valuation of over USD 1 Bn. Start-ups that have not been included in the unicorn analysis:

- Holding companies like Globalbees and Mensa Brands.
- Unicorns that have raised IPOs: Freshworks, Nykaa, Paytm, PolicyBazaar, Zomato, Delhivery
- Unicorns that have been acquired or merged: BigBasket, Billdesk, Grofers, Shopclues, RenewPower, Flipkart
- Unicorns that have either devalued or shutdown: Snapdeal, Hike, Quikr, Paytm Mall

### Institutional Investors

Institutional investors include Venture Capital firms, Private Equity firms, and Corporate Investors

### Seed-stage

Seed and Angel funding rounds raised by an Indian tech company

### Early-stage

Series A & B funding rounds raised by an Indian tech company

### Late-stage

Series C and beyond funding rounds raised by an Indian tech company

### Corporate Incubator

A fixed term, 6-24-months-long, cohort-based program for pre-seed start-ups, typically focused on Horizon 2 and Horizon 3 opportunities. Invariably, these are equity-based programs for corporates to get early access to a large pool of ideas/solutions.

### Corporate Accelerator

A fixed term, 3-6-months-long, cohort-based program for pre-growth and growth stage start-ups. During the program, the emphasis is on building proofs-of-concept and/or on integrations to determine on long-term engagement.

### Partner Program

A requirement-based program, where corporate business units define problem statements that they are looking to solve, and partner with growing, mid, or late-stage start-ups to build complementary solutions in exchange for a financial commitment

# DISCLAIMER

The information contained herein has been obtained from sources believed to be reliable. nasscom and its advisors & service providers disclaims all warranties as to the accuracy, completeness or adequacy of such information. nasscom and its advisors & service providers shall have no liability for errors, omissions or inadequacies in the information contained herein, or for interpretations thereof. The material or information is not intended to be relied upon as the sole basis for any decision which may affect any business. Before making any decision or taking any action that might affect anybody's personal finances or business, they should consult a qualified professional adviser

Use or reference of companies/third parties in the report is merely for the purpose of exemplifying the trends in the industry and that no bias is intended towards any company. This report does not purport to represent the views of the companies mentioned in the report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by nasscom or any agency thereof or its contractors or subcontractors

The material in this publication is copyrighted. No part of this report can be reproduced either on paper or electronic media without permission in writing from nasscom. Request for permission to reproduce any part of the report may be sent to nasscom

## Usage of Information

Forwarding/copy/using in publications without approval from nasscom will be considered as infringement of intellectual property rights

## Copyright © 2023

nasscom

Plot No 7 to 10, Sector 126, Noida, Uttar Pradesh 201301, India

Phone: 91-120-4990111

E-mail: [research@nasscom.in](mailto:research@nasscom.in)

# ABOUT THE AUTHORS

## nasscom

nasscom is the industry association for the technology sector in India. A not-for-profit organization funded by the industry, its objective is to build a growth-led and sustainable technology and business services sector in the country with over 3,000 members. nasscom Insights is the in-house research and analytics arm of nasscom generating insights and driving thought leadership for today's business leaders and entrepreneurs to strengthen India's position as a hub for digital technologies and innovation

nasscom is focused on the development of the technology sector through policy advocacy and setting up the strategic direction to dominate new frontiers.

## zinnov

Founded in 2002, Zinnov is a global management and strategy consulting firm, with presence in New York, Santa Clara, Houston, Seattle, Bangalore, Gurgaon, Pune, Hyderabad, and Paris. Over the past 21 years, Zinnov has successfully consulted with over 250+ Fortune 500 enterprises to develop actionable insights to help them accelerate their technology journeys to create value – across dimensions of revenue, transformation, and optimization. With core expertise in Digital Engineering Talent, Digital Transformation, Innovation, and Outsourcing Advisory, Zinnov assists clients by:

- Enabling global companies to develop and optimize a global engineering talent footprint through center setups and accelerators - in an as-a-service model, as well as optimizing their global portfolios, to achieve higher R&D efficiencies, innovation, and productivity;
- Advising global PE firms in asset shortlisting and target evaluation, commercial due diligence, and value creation;
- Growing revenue for companies' products and services in newer markets through account intelligence, market entry, and market expansion advisory;
- Helping global companies outline and drive their open innovation programs, design and operate accelerator programs, and enable collaboration with start-ups across specific use cases and predefined outcomes;
- Structuring and implementing Digital Transformation levers enabled by technologies like AI/ML, Intelligent Automation, Cloud, IOT, etc.

With their team of experienced consultants, subject matter experts, and research professionals, Zinnov serves clients from across multiple industry verticals including Enterprise Software, BFSI, Healthcare, Automotive, Retail, and Telecom in the US, Europe, Japan, and India. For more information, visit <http://www.zinnov.com>

nasscom

zinno