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## 10 Years of Catalytic Financing

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## WHO ARE WE?

Centre for Innovation Incubation and Entrepreneurship (CIIE) is an initiative by IIM Ahmedabad, with support from Government of India's Department of Science and Technology, and Gujarat Government.

CIIE commenced as an entrepreneurship centre in 2007 to **foster innovation-driven entrepreneurship in India**. Over the years, CIIE has undertaken various initiatives and partnerships to further its objectives.

- CIIE conducted India's first **accelerator program** in 2008, and has ever since run pioneering accelerator programs across sectors like healthcare, agriculture, energy, and information technology.
- CIIE runs and leads **sourcing and seeding partnerships** like Power of Ideas, India Innovation Growth Program, Innovate for Digital India, and many others, to source and seed ideas.
- CIIE also runs **incubators** in Ahmedabad and Jaipur, and also a **venture fund** focused on cleantech sector.

## WHY CATALYTIC FINANCING?

CIIE has been engaging intensively with startups and innovators across sectors. One common issue deeply affecting early-stage entrepreneurship has been the proverbial **valley of death** and the **missing risk-capital** in India.

Back in 2007-08, this gap was even wider for technology startups – as the angel investing and venture capital industry was just beginning to take shape. Today, this gap has narrowed tremendously for software and information-tech based startups, but continues to be reasonably large for **hard-ware** and **IP-based solutions**.

To bridge this gap, wearing its developmental hat, CIIE has been providing **soft catalytic financing** to entrepreneurs to help them get started. While the intent has been to catalyze the ecosystem, CIIE has avoided resorting to grants wherever possible to avoid market distortion, and has instead used equity or convertible instruments.

As a modus operandi, CIIE has operated in **underserved segments** and vacated spaces once market forces come in.

## IDEA STAGE

As a market-driver, we have worked hands-on with aspiring entrepreneurs (often referred to as **Entrepreneur-in-Residence** or **EIR**). These EIRs have engaged with us through either our accelerator programs, our EIR programs, or have decided to take the plunge upon graduating from IIMA.

The EIRs initially reached out to us for support – and eventually carried out **Idea Discovery and Prototype Development** through our financial and mentoring support.

We provided **high-risk capital** – which was otherwise not available.

## MVP STAGE

We have been pioneers of accelerator programs across different sectors. Through these accelerator programs we have come across some of the best entrepreneurs of India, who are passionate about solving real problems through use of technology.

Very often these entrepreneurs knew the problem they wanted to solve, but barely had an MVP ready.

We have provided **Seed Capital** to help them go out and explore **Product-Market fit** by finding their first pilot customers and hiring their first employees.

## PRODUCT STAGE

Through our accelerator programs and national initiatives like Power of Ideas, we often came across some outstanding teams who had already gone past the MVP-stage, and had obtained basic validation of their ideas.

However, they required support for converting it into a **Scalable Product** and finding the **Initial Traction**.

We provided soft-capital in the form of equity and convertible debt to help these products take shape, hit the market, and find external investors.

## SCALE-UP STAGE

While some sectors see a lot of investor interest, many others still don't.

For the Cleantech and Energy Sector, we set-up a unique Public-Private-Academia Fund named Infuse Ventures to support startups across the sustainability space. We manage India's only early-stage cleantech focused fund.

Through Infuse, we provide **seed and scale-up capital** enabling entrepreneurs to give wings to their sustainability-focused ideas.

The risk-capital gap has been tremendously large in the Indian context. Initially, this gap was pronounced across sectors (including internet and software product companies), lately this gap has been most pronounced in IP and hardware driven sectors. This gap has cut across stages – right from startups at idea to MVP to product commercialization stage, and even at growth stage. As a developmental organization and incubator, we have invested across the seed and early stage. Always, we have been the first institutional investor in these ideas! Most often, we have invested on soft-terms – frequently as convertible note at a discount to next round valuation.

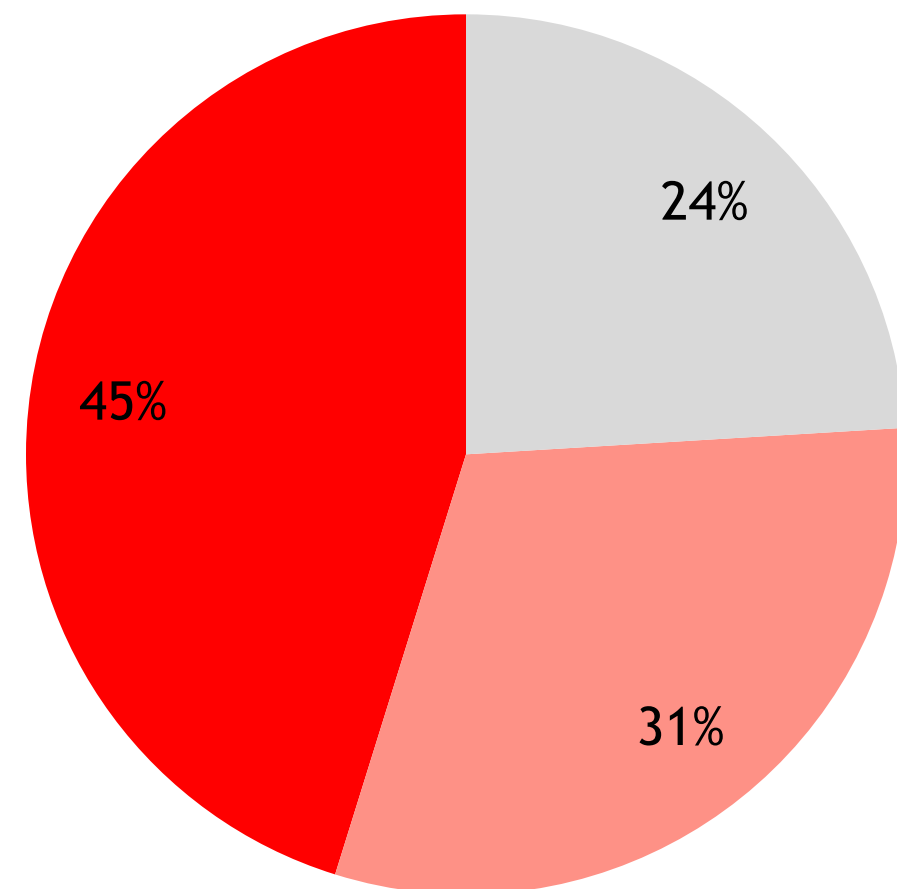
In addition to supporting over 200 startups through our accelerator and incubation programs, CIIE has supported around 100 startups through Catalytic Capital at Idea, MVP and Product Stages. This over and above the grants and scale-up capital provided by us to over a 150 other startups. Approximately, INR 15 crores (i.e. \$ 2.5 million) have been provided as risk-capital to these entrepreneurs.

Approximately, 24% startups supported by us through equity-linked financing engaged with us at an Idea Stage – together absorbing less than 12% of our total invested funds. Product Stage startups represented 45% of our total startups, and absorbed around 58% of our total funds. MVP-stage startups, which were typically closer to an Idea Stage startup, absorbed 30% of our capital.

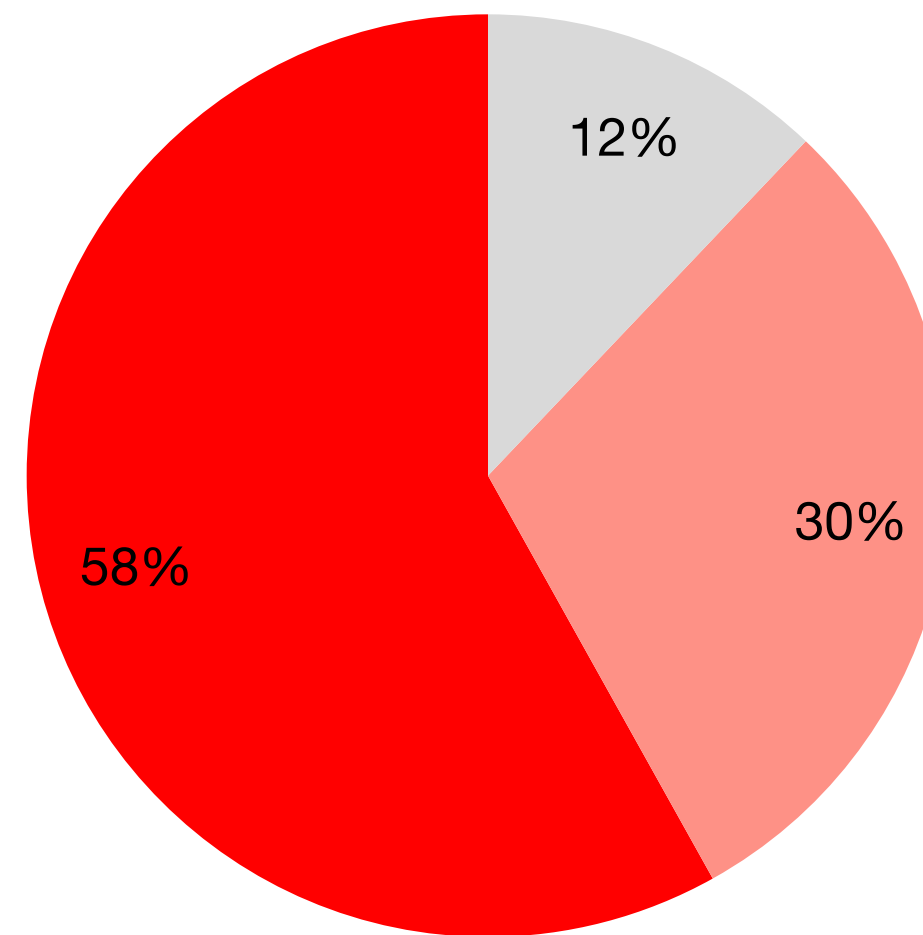
### Highlights:

- We were the first institutional investor and backer for almost all these Startups.
- While equity-linked instrument was being used, it was typically a replacement for unavailable prototyping grants for Idea Stage startups.

### # Startups Supported by Stage



### Capital Allocation by Stage



● Idea Stage    ● MVP Stage    ● Product Stage

● Idea Stage    ● MVP Stage    ● Product Stage

## IDEA STAGE

**Tookitaki** : a social media analytics platform – engaged with us through our mentoring program. The startup was created almost from the scratch with our support and subsequently it participated in our accelerator program as well. Eventually, it raised support from marquee investors like Blume Ventures, Jungle and Rebright.

**Visviva** : a biomass supply chain that was created by 3 entrepreneurs who came together as EIRs during one of our programs. They conceived the idea, built the first business-plan, and received their first round of capital through us – which they used to set-up their first biomass briquetting plant.

## MVP STAGE

**Framebench** : an online collaboration platform for visual files that participated in our accelerator programs -- when they had just an initial version of their product ready. They enabled 1000+ companies to annotate & communicate on visual files in real time. They received follow-on funding from Blume Ventures and later got acquired by Freshworks (earlier known as “Freshdesk”).

**Ecolibrium** : an IoT product that helps analyze the data to find & solve power inefficiencies. The founders came to us with an MVP through one of CIIE’s first scouting programs, Re-Search and after a pilot project with Torrent Power, they received seed funding & mentoring support from us. They now operate in 8+ cities across India and have received follow-on funding from Infuse Ventures and IFC.

## PRODUCT STAGE

**Greenway** : designed a Smart Stove that replaces traditional biomass fuels-based chullas. They came to us with their product and were a part of Power of Ideas. We provided seed capital and follow-on advisory support. Recently, they opened a biomass cook-stove factory, the largest in India and raised follow-on funding from Acumen, the Former CEO of Genpact and the Founder of Asha Impact.

**Flybird** : an affordable smart irrigation controller that helps farmers improve yields, and came to us through our agri-focused accelerator program. They already had a market ready product with on-going pilots with potential customers -- when they participated in the accelerator through which we co-invested along with two other agri-focused incubators.

CIIE has backed startups across different sectors. When we created India's first accelerator program – iAccelerator – it attracted Consumer Internet and Enterprise Tech startups in large numbers. We were able to provide small MVP and Idea Stage support to a large number of these IT-driven ventures through the accelerator program. Their funding requirements were much lower, and hence ~50% of total number of Startups came from the sector, but absorbed just ~35% of capital put together, with ~10% capital getting invested in Consumer Internet ventures. Other challenging sectors like agri, energy, health, electronics etc. represent the remaining ~50% startups – and have absorbed ~65% of our invested capital.

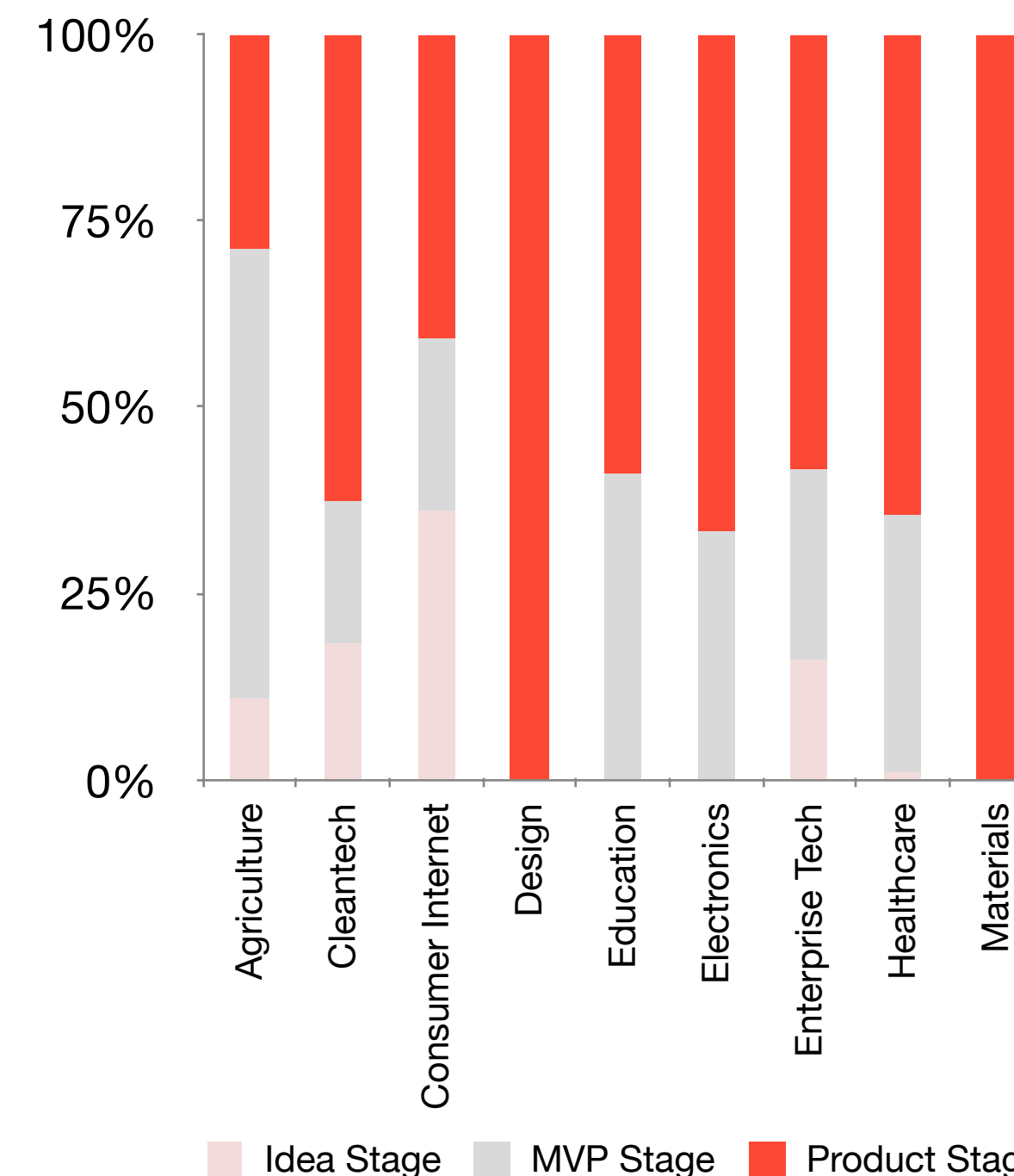
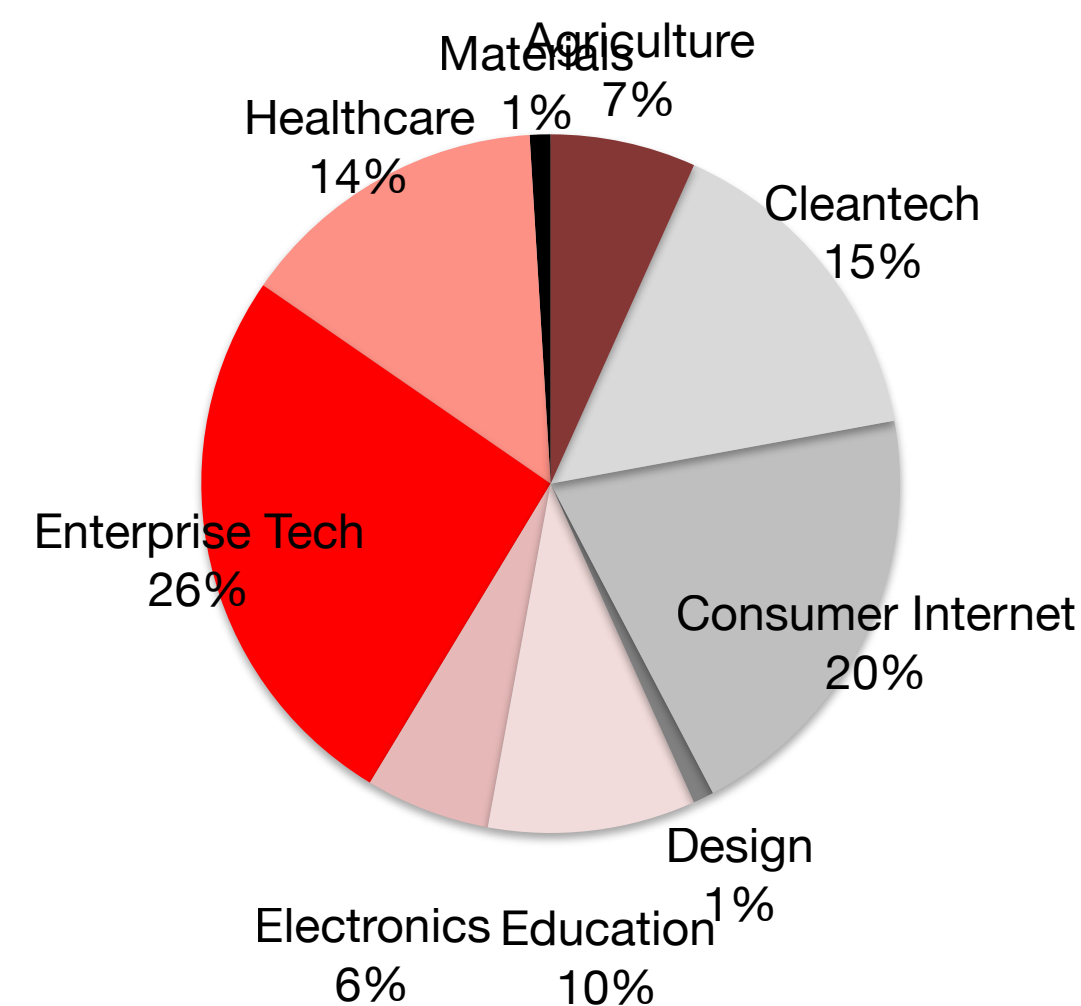
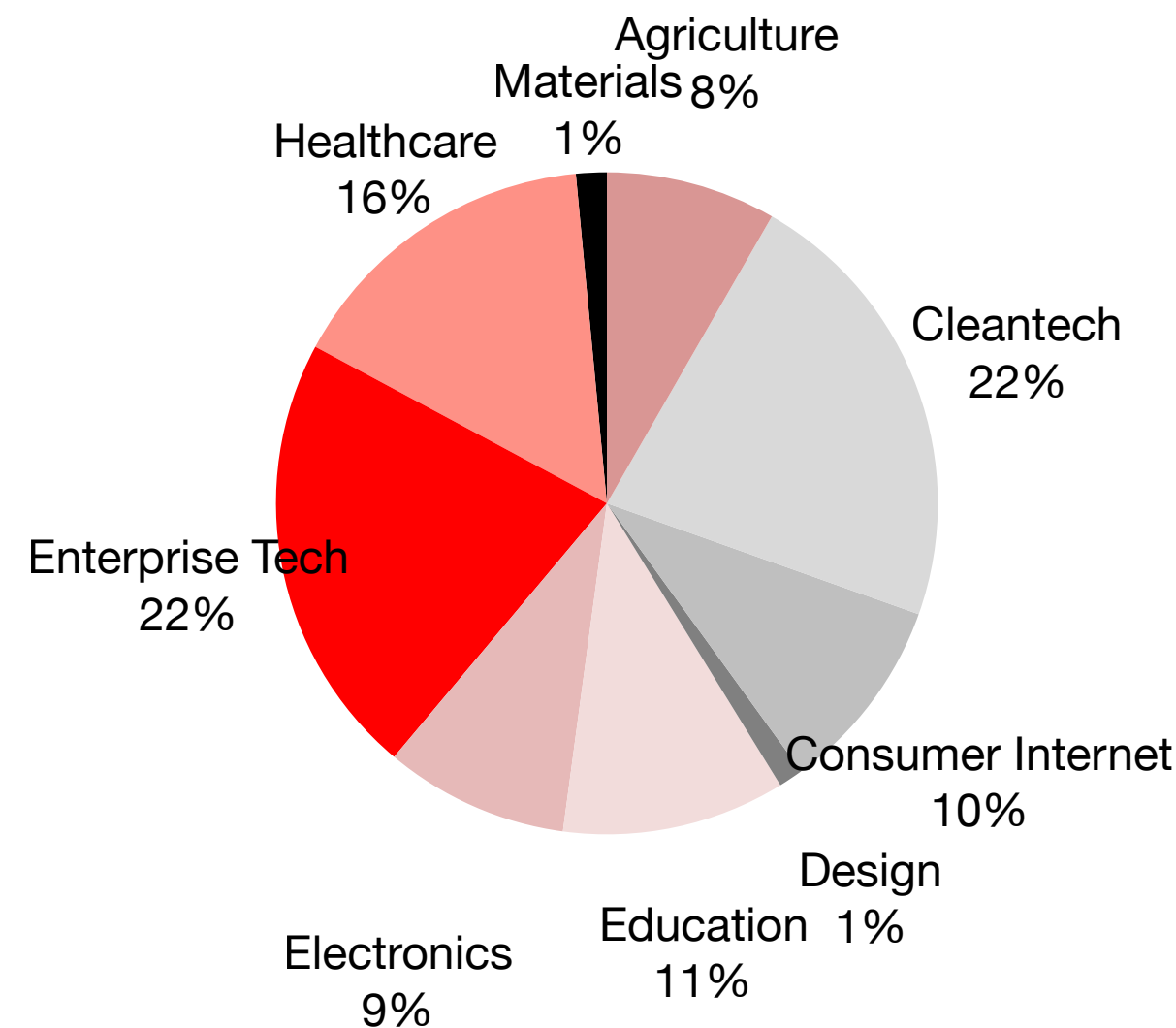
**Highlights:**

- The average investment in a Consumer Internet and Enterprise Tech startup was INR 7.5 lacs and INR 13.8 lacs respectively, while that for Electronics and Cleantech was over INR 21 lacs.
- We had an internal restriction of not supporting a startup with more than INR 25 lacs investment requirement – hence even capital intensive sectors like Electronics and Cleantech received sub-25 lacs support.
- Agriculture, education and healthcare were somewhere in the middle (in the 15-20 lac average investment range)

**Capital Allocation by Sectors**

**# Startups Supported by**

**Sectoral Allocation by Stage**



## AGRICULTURE

**Barrix** – an innovative agri-input company – engaged with us through our flagship program Power of Ideas. We first introduced them to Omnivore Partners with whom we had co-invested. They grew from a 10 member team to a 180 member team in a span of 4 years.

## ELECTRONICS

**Grasp.io** – a hardware and software based drag & drop tool to program electronics using smart-phones to make projects easy, fun and accessible. They partnered with Element14 (makers of RaspberryPi boards). We engaged with them through Power of Ideas and provided seed investment.

## CLEANTECH

**Boond** – affordable energy engineering solutions provider for underserved communities in the Northern states of India. They engaged with us through Power of Ideas and raised funding from us. Later they raised follow-on funding from overseas foundations.

## ENTERPRISE TECH

**RecruiterBox** – an enterprise tech platform that provides effective recruitment APIs and solutions to 2000+ companies across the globe. We engaged with them and provided a seed investment through our accelerator program. They serve marquee customers like CouchSurfing, Wolfram, Swift Capital etc.

## CONSUMER TECH

**MechMocha** – a gaming tech startup that makes games with “*desi taste with videshi aim*”. They have 4+ million downloads and made it to #1 on Google Play. We funded them through our accelerator program and went on to raise funds from Accel, Blume, Shunwei & Flipkart founders.

## HEALTHCARE

**Forus** – builds medical devices to eradicate preventable blindness. They have installed 1200+ screening devices in 25+ countries. We provided them seed investment at an early stage post which they raised follow-on funding from Accel Partners, IDG Ventures and Asian Healthcare Fund.

## EDUCATION

**iStar** – an edutech venture – engaged with us through Power of Ideas. They are pioneers in skill building, employability training, and placement services. Post our investment, they raised funding from Michael Susan & Dell Foundation and Unitus Seed Fund.

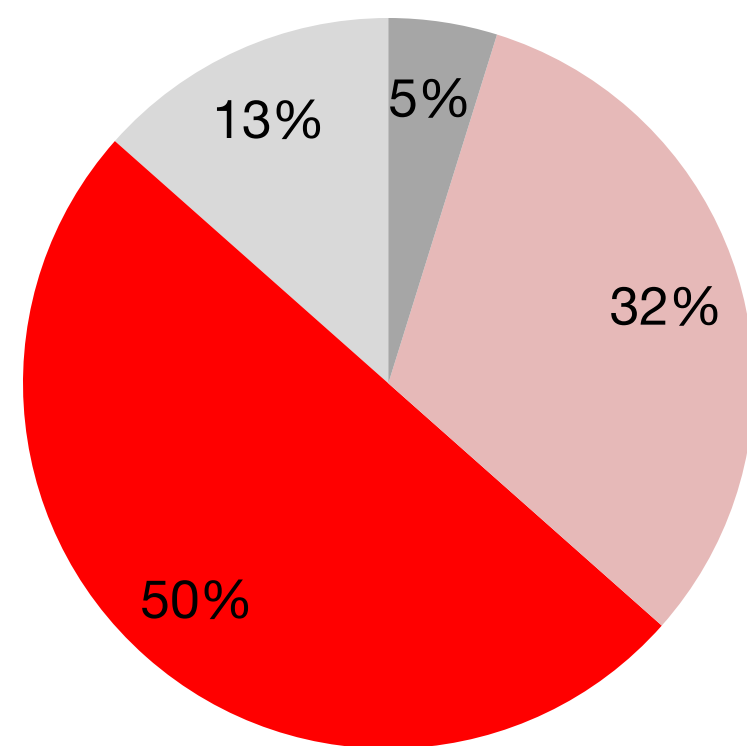
## MATERIALS / DESIGN

**Ants Ceramics** – India’s first Advanced Materials Company that has developed one of the world’s widest and finest range of Ceramic Laboratory Wares. They engaged with us through Power of Ideas and received seed investment from us.

# ALLOCATION BY INNOVATION TYPE

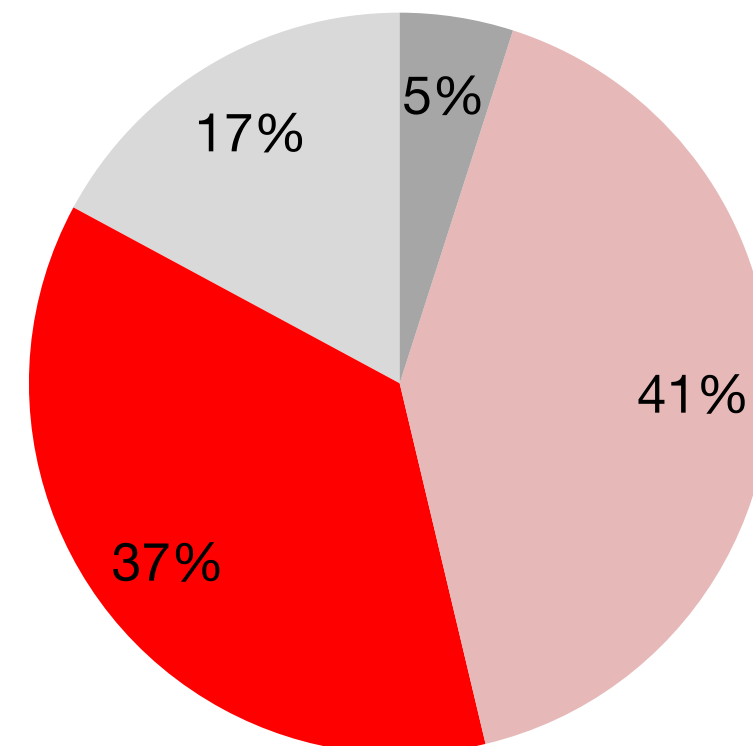
CIIE typically backed innovation driven enterprises. We have achieved this by scouting hard-core tech and IP driven innovations across sectors of our interest. In sectors like agriculture, education, cleantech and healthcare we have also supported ventures that were providing affordable services (without necessarily creating a technology differentiation) – e.g. skill-training, solar home system etc.

# Startups Supported by Innovation Type



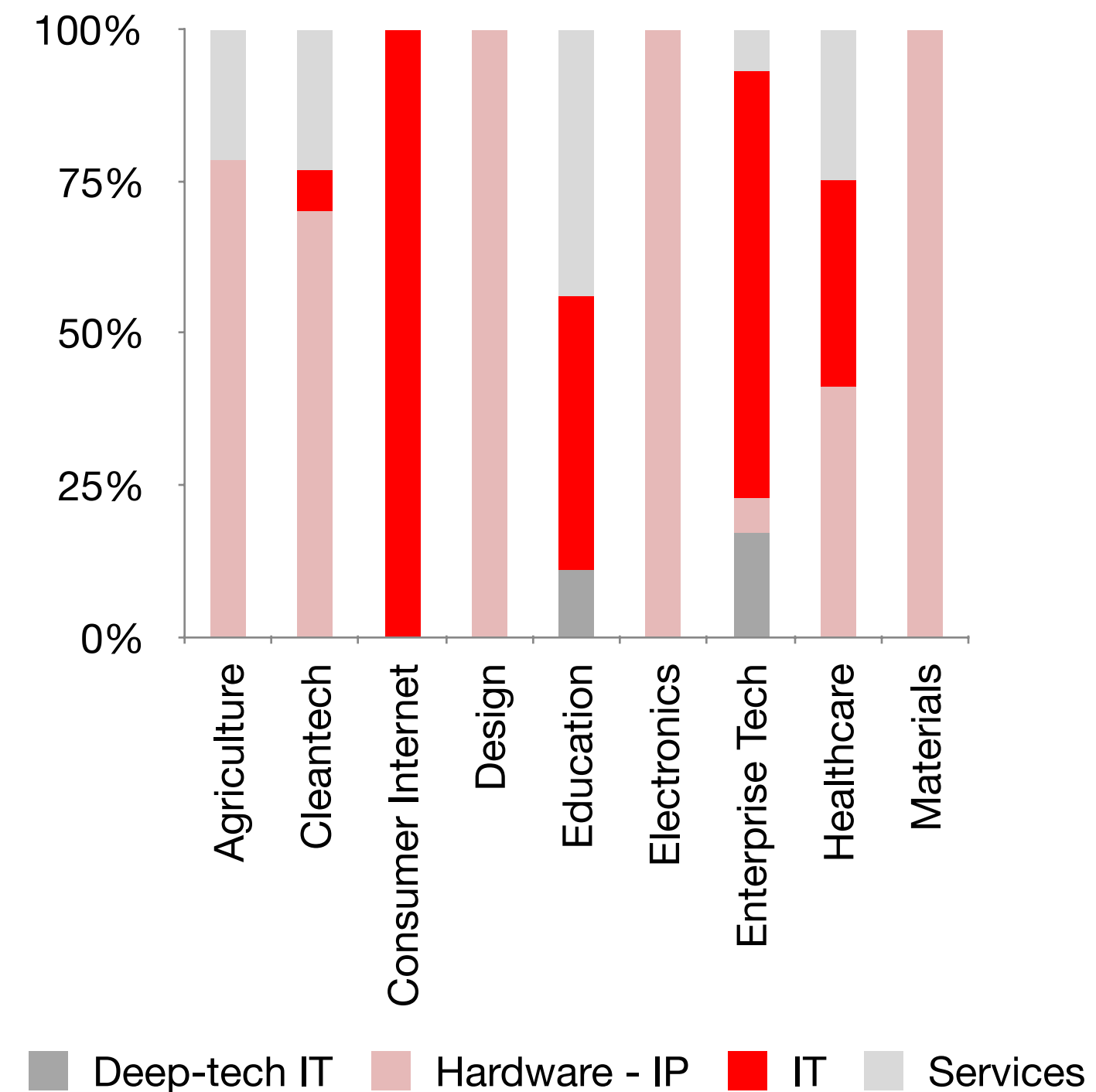
- Deep-tech IT
- Hardware - IP
- IT
- Services

Capital Allocation by Innovation Type



- Deep-tech IT
- Hardware - IP
- IT
- Services

Sectoral Allocation by Innovation Type



**Highlights:**

- Sectors like Electronics, Cleantech, and Agriculture had a significant proportion of Hardware-IP while sectors like Consumer Internet, Enterprise Tech and Education were driven largely by IT innovations.
- While IT Startups were provided on an average INR 11 lacs per startup, the Hardware-IP driven ventures received over INR 21 lacs of support on an average.



## HARDWARE IP

**IdeaForge** – Developing class-leading, indigenous UAVs for surveillance, reconnaissance, and imagery. We scouted them at product stage and their current clients include BSF, CRPF, NDRF, and their UAV was also used in the famous “3 idiots” movie. Infosys, Uday Kotak and IndusAge have provided follow-on funding.

**Sickle** – Provides farming solutions with core focus on improving conventional farming practices through design intervention. The founders came to us directly and further participated in our accelerator. We helped them in setting-up the company, building the team and funded them through Mahindra Finance’s CSR contribution.

## DEEPTECH IT

**vPhrase** – a platform that gathers data, structures the facts, and in the end applies language to present the reader with humanized, targeted narratives. We engaged with them through Power of Ideas and have co-invested at the end of the program along with angel investors.

**Formcept** – Unified Data Analysis platform that helps get actionable insights from their data faster, thereby significantly reducing the time taken to convert data into decisions. Customers include ESPN, Monster.com, etc. We provided them seed funding and have helped them to raise follow-on funding from GVFL.

## INFORMATION-TECH

**Almaconnect** – a platform developed to connect, leverage and manage alumni networks. Their client base includes institutes like IIT Delhi, St. Stephen’s, and NALSAR in India. They were a part of our accelerator program and received funding from angels. They raised follow-on funding from Mohandas Pai, and Ixora Ventures.

**Travelyaari** – a marketplace for booking bus tickets conveniently. They approached us directly while they were at their MVP stage and we supported them by providing seed support. Since then, they have received follow-on investments from Bennett & Coleman, and GVFL.

## SERVICES

**Mobident** – Transforming dental hygiene in India by delivering world-class dental care at at patient’s home. They engaged with us at product stage and currently have 40+ dentists working with them full-time. They received follow-on funding from US based DanGold Investment Corporation.

**Onergy** – Deploys solar based energy solutions to the undeserved households and local businesses across East India. They came to us directly and have received two rounds of funding – one of which was CSR contribution from Bajaj Electricals. They also raised follow-on investments from overseas foundations.

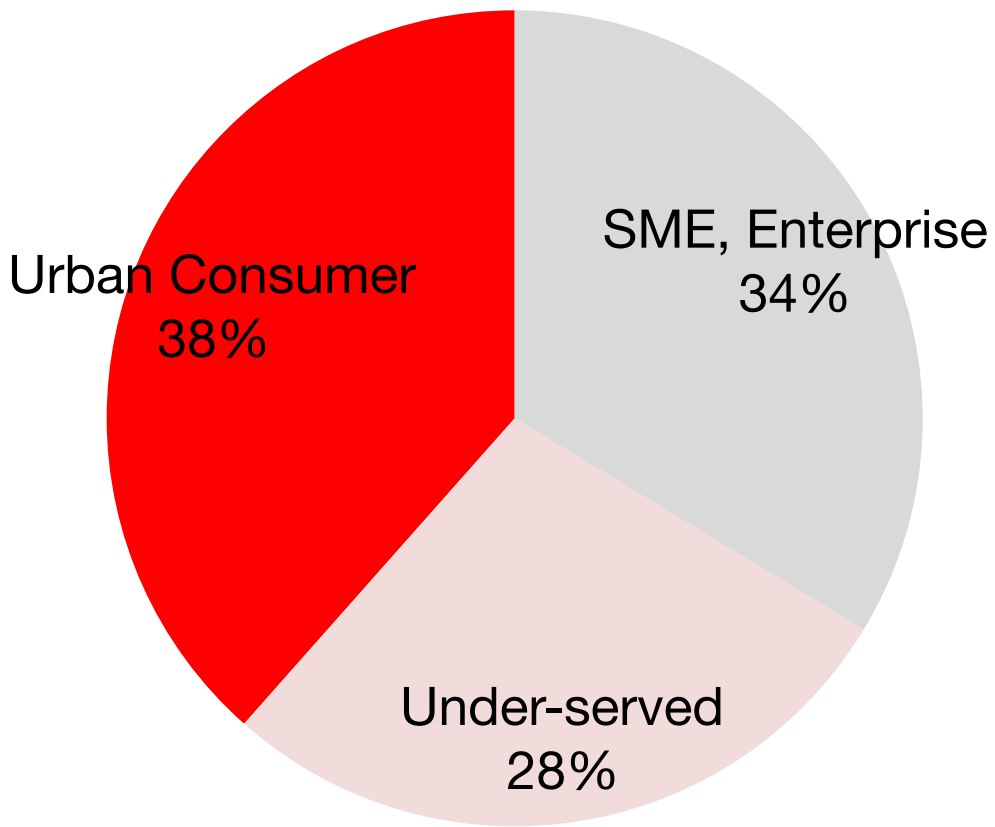
# ALLOCATION BY CUSTOMER TYPE

While our Consumer Internet and Education portfolio was largely focused on Urban Consumer, our portfolio across agriculture, healthcare and cleantech largely served the under-served across rural and urban India – and was aimed at making health, energy and agriculture more accessible and efficient. Electronics and Enterprise Tech startups were largely targeting the urban SMEs and Enterprises.

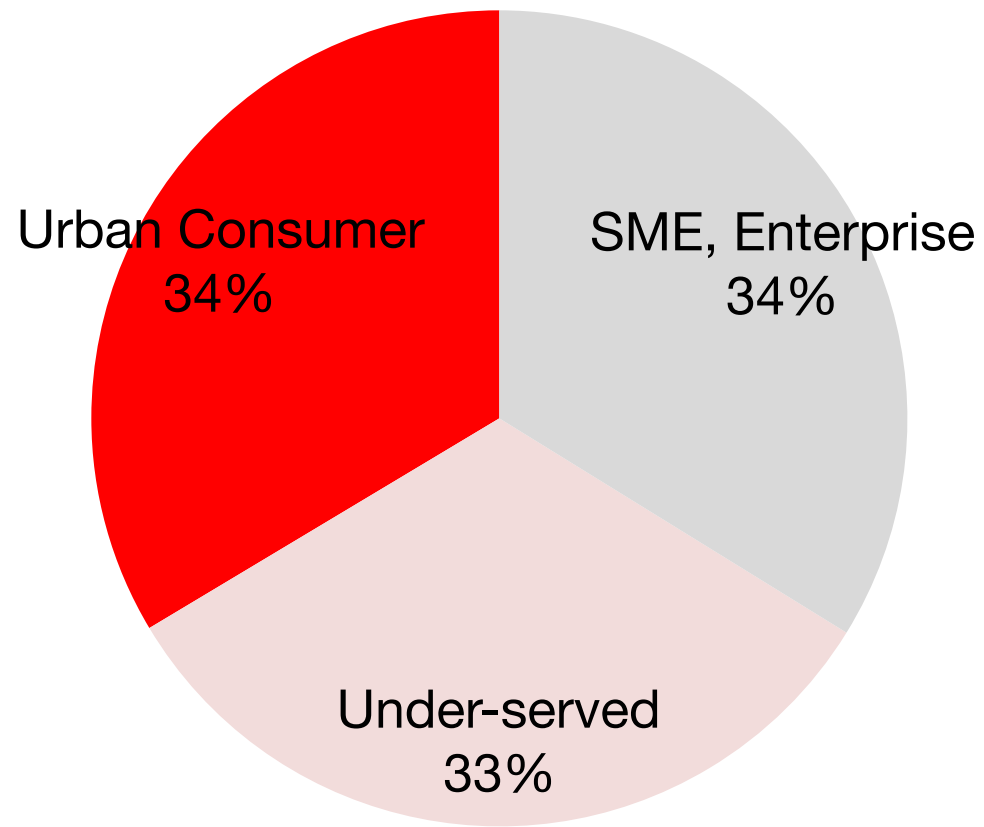
**Highlights:**

- Startups serving the Urban Consumer segment were provided on an average INR 13.15 lacs, while those focused on SME and Enterprise were provided INR 15 lacs on an average. Ventures focused on Under-served segment received the highest average support of INR 18.5 lacs.
- Under-served segment required deeper financial support due to overall missing risk-capital for the sector. Urban consumer driven solutions were beginning to pick-up and hence smaller seed-capital could also attract decent follow-on quickly.

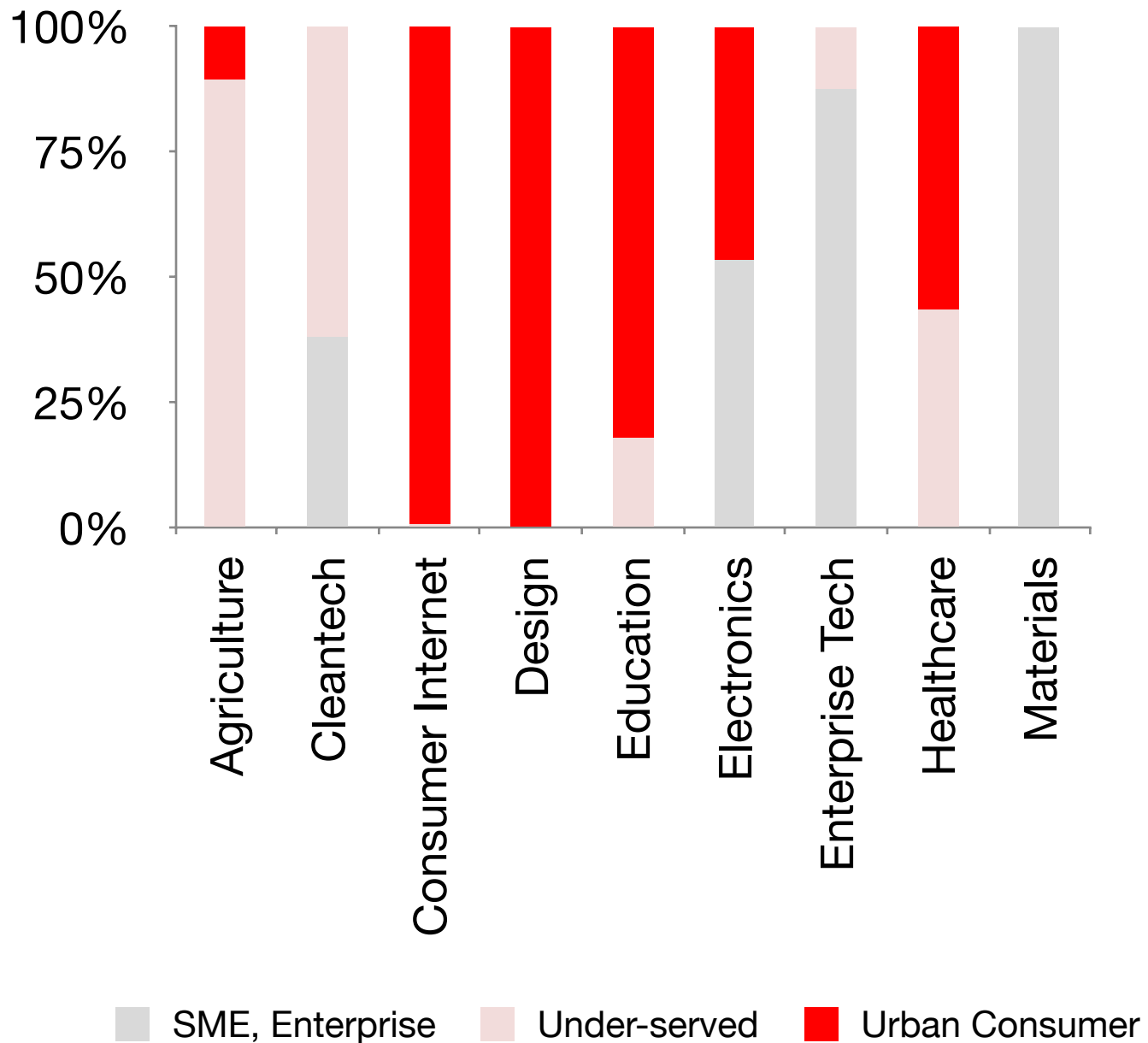
# Startups Supported by Customer Type



Capital Allocation by Customer Type



Sectoral Split by Customer Type



## UNDERSERVED

**iKure** – a last-mile healthcare provider that is on a mission to provide health care services to remote areas by leveraging technology and have touched 3.5+ Mn lives across 1500+ villages in 6+ states in India. We scouted them through one of our accelerator programs and have co-invested with Village Capital along with various angels.

**Bodhi** – leverages low cost mobile technology at health facilities to provide scalable, high quality, standardized, eLearning solutions for the primary health workers. Till date, they've trained 13K+ primary health workers and have AIIMS Delhi as their marquee client. We co-invested along with Village Capital and few other angels. We've connected them with hospitals to conduct their pilots.

## ENTERPRISE / SMEs

**Awaaz.de** – develops inclusive mobile solutions (with capabilities in IVR, SMS, mobile apps, and web) that enable organizations to achieve last-mile connectivity for social impact. They've 230+ clients and partners across 12+ countries with 600,000+ unique listeners. Since our engagement, we have helped them in raising follow-on capital.

**Transerve** - developed an hyper-local information platform for better decision making for sustainable planning. We scouted the startup at an early stage. With our support, they have been able to productize their offering. Now, they have combined their offerings with companies like Trimble to make India-centric products. We helped them in receiving infrastructure support and follow-on capital from our partner incubator.

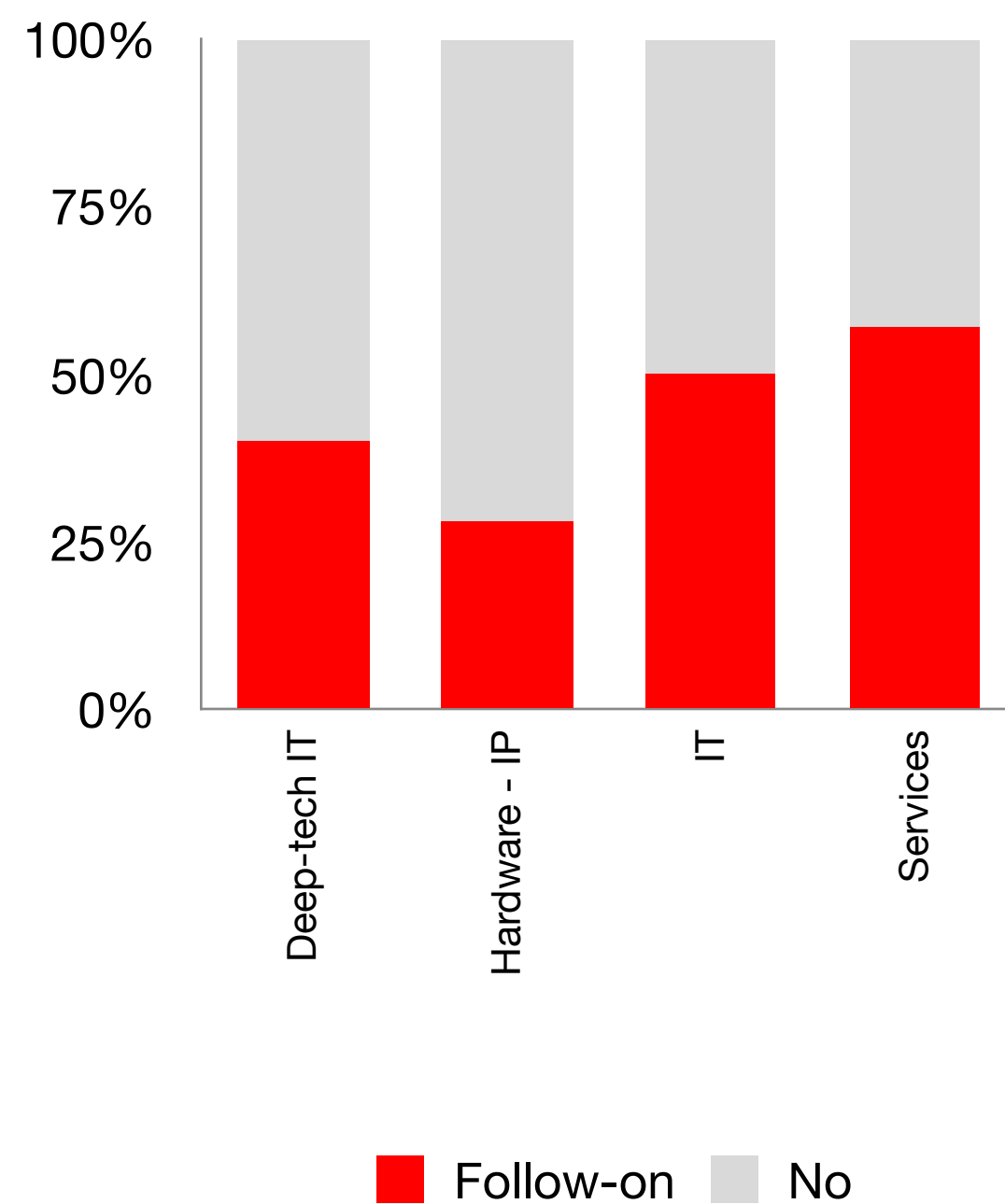
## URBAN CONSUMER

**Hashcube** – a game studio, building cross-platform social casual games. They've built the world's most monetizing Sudoku game, Sudoku Quest, that has been played by 2+ million users. They engaged with us at the MVP stage and have received follow-on investments from marquee investors like ah! Ventures, and Blume Ventures.

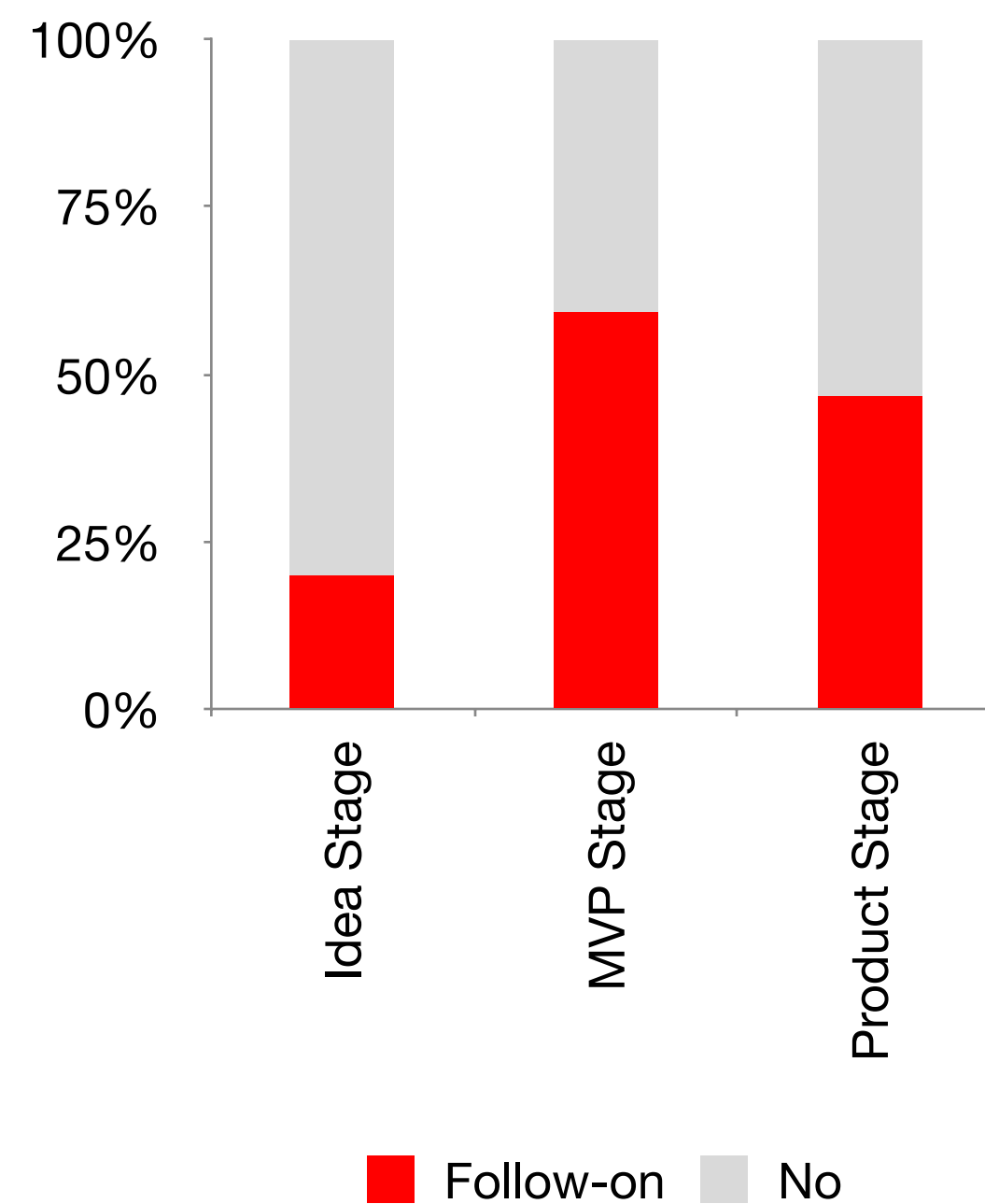
**Friip** - Powered by a user's friends and an advanced algorithm that recommends shops and services that is best suited for the user. We engaged with them at the product stage and provided them with seed capital through our accelerator program. They have been acquired by Freshworks (earlier "Freshdesk").

We have typically the first institutional investor in all startups that we have backed. While we have provided these startups with the initial capital and a short runway, these startups have often required significant support from other investors to continue to develop their products, go-to-market and scale. To enable this, we have actively sought out follow-on investors once the initial risk has been mitigated.

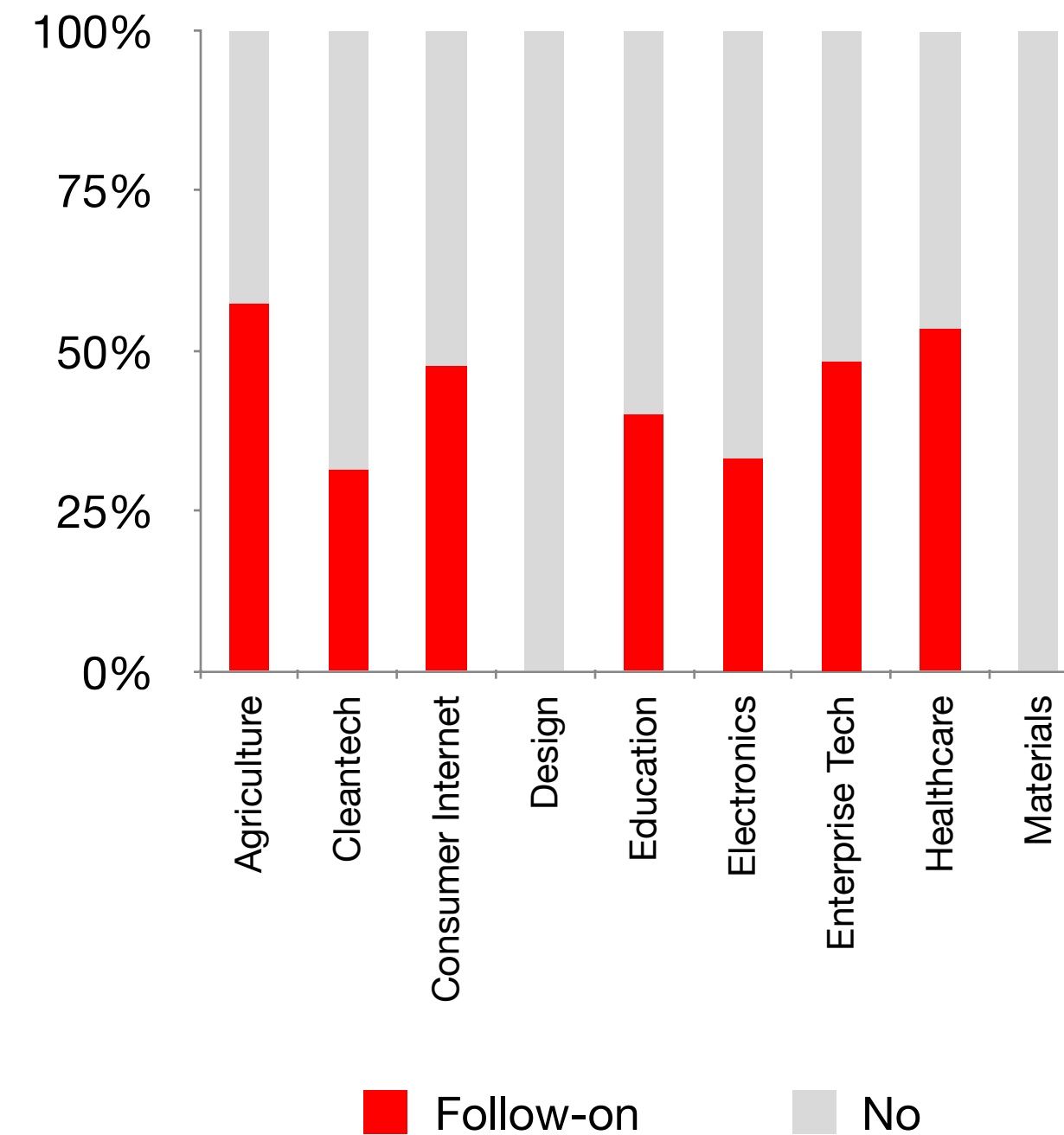
**% getting follow-ons by innovation type**



**% getting Follow-ons by Stage**



**% getting Follow-ons by Sectors**



**Highlights:**

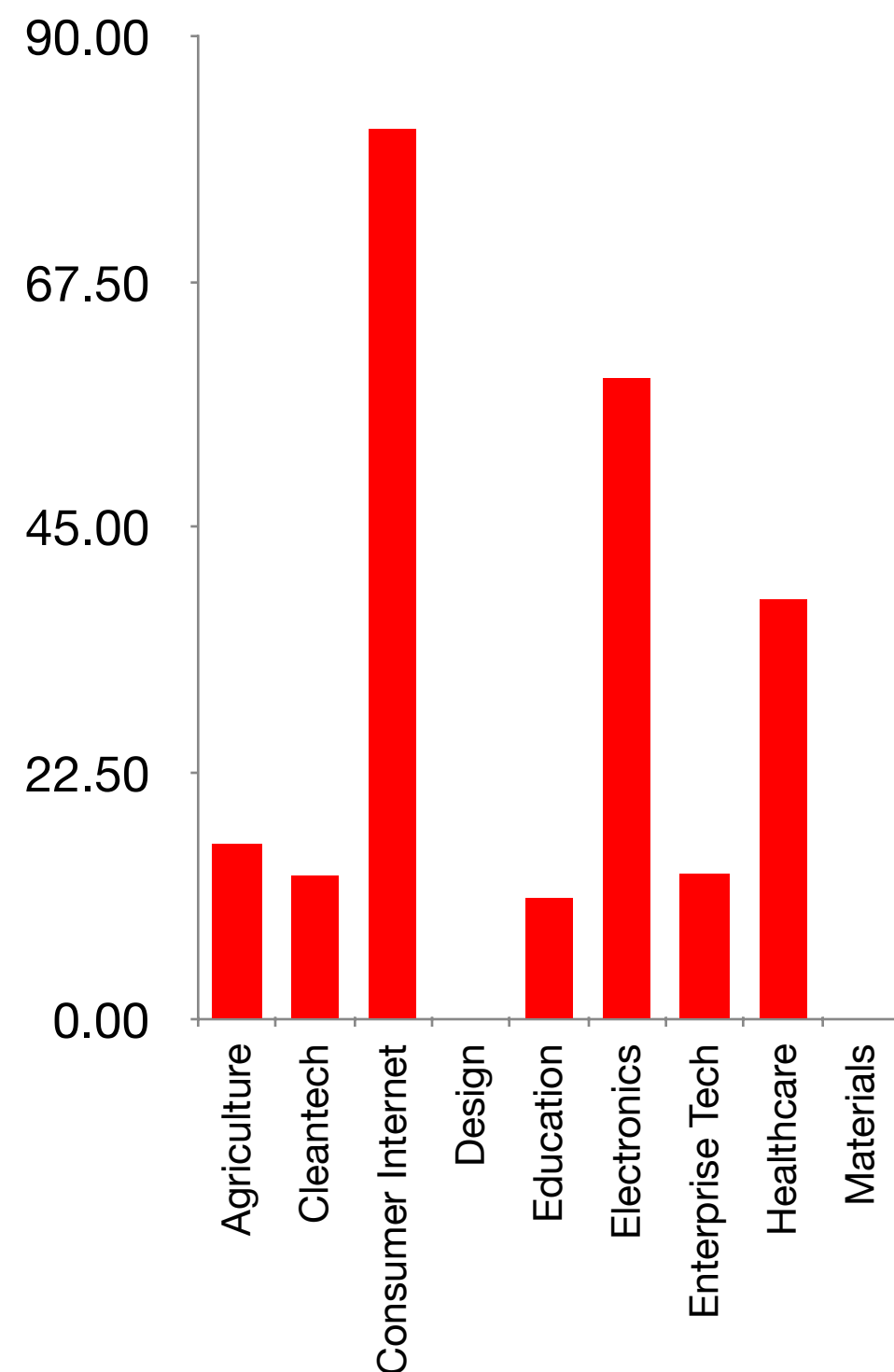
- Overall, ~50% of our startups were able to receive external validation. ~60% of MVP and ~50% Product Stage startups got follow-ons.
- Startups in Service spaces have found it much easier to attract follow-on capital vs. those building Hardware-IP ones.
- Converting an EIR or group of EIRs into an MVP stage venture has been very difficult. Very few of such ventures have been able to find an external validation through a follow-on investment. On the other hand, MVP and Product Stage ventures have found much easier follow-on capital.
- Cleantech was the toughest sector in terms of attracting follow-on investments. Food & Agri, Healthcare, Education and Consumer Internet ventures have found follow-on in almost 50% of cases.

The success of our incubation model has significantly depended on finding external backers for our portfolio companies quickly across rounds. For every Rupee invested by us, on an average our portfolio companies have been able to attract **Rs 26** from external investors across multiple rounds so far. These external investors have ranged from corporates, VCs, angel investors and DFIs.

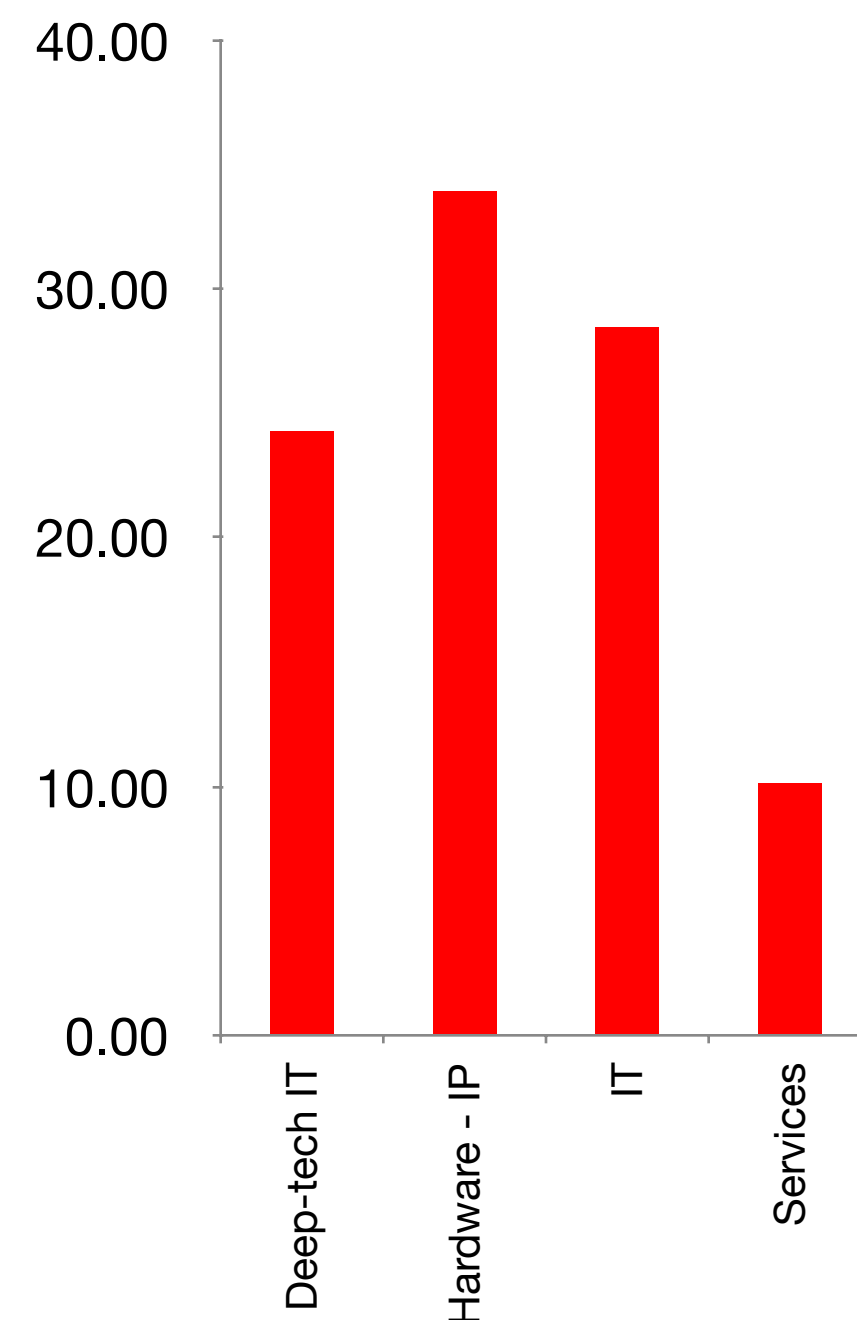
### Highlights:

- **26x** leverage received across the portfolio – close to **Rs 400 crores** have been raised by our startups from external investors.
- Consumer Internet-driven startups, where we invested merely 10% of our total capital, had around ~50% success in raising follow-on investments and were able to deliver the highest leverage. It was also the highest absolute % of total follow-ons received by our startups – amounting to ~29% of the total capital raised by our portfolio.
- Agriculture and Enterprise-tech that had high % follow-ons, actually produced relatively lower leverage per rupee invested by us.

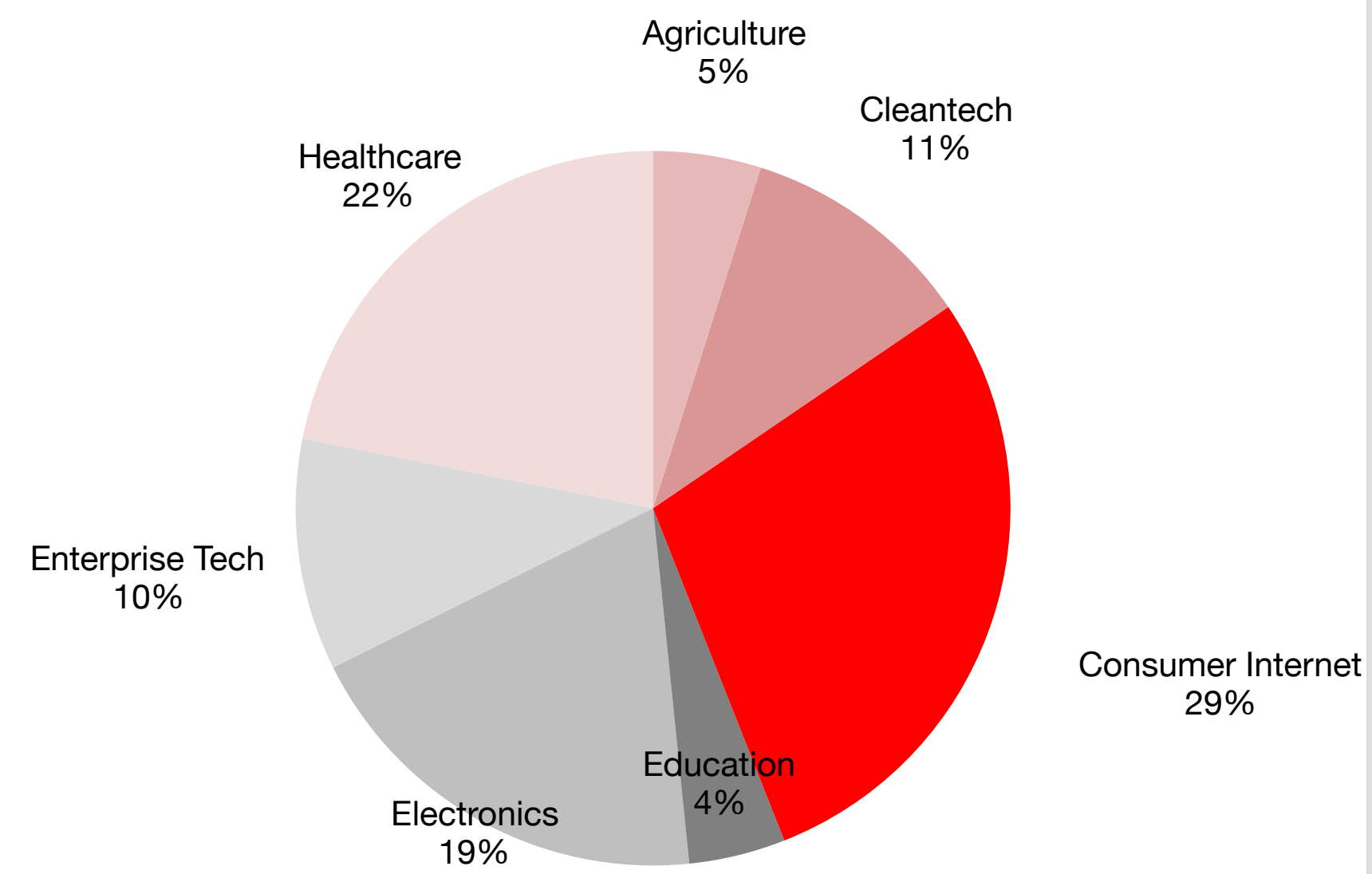
**Sector-wise Leverage**



**Innovation-type based Leverage**



**Follow-on amount by Sectors**



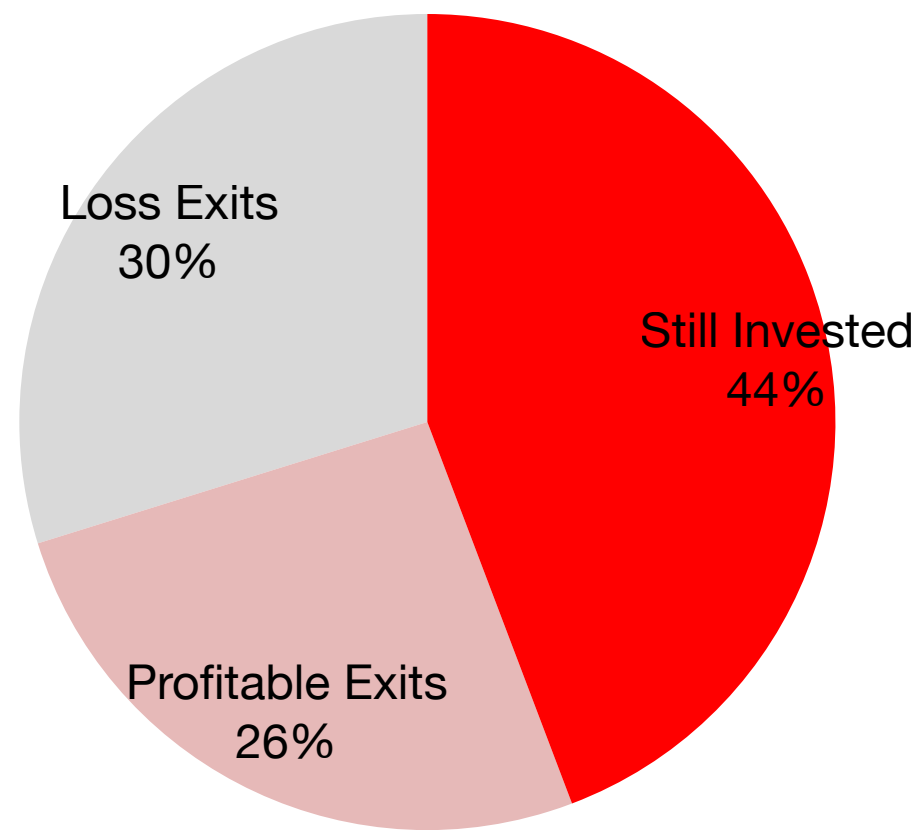
Company	Follow-on Investors	Company	Follow-on Investors
<b>Barrix</b>	Omnivore Partners	<b>Ideaforge</b>	Infosys, Uday Kotak, IndusAge
<b>Biosense</b>	GSF, Insitor, Menterra , Angels	<b>iStar</b>	Unitus Seed Fund, Michael & Susan Dell Foundation
<b>BirdsEye</b>	IAN, Matrix Partners, Qualcomm, Times Internet	<b>Mech Mocha</b>	Accel, Shunwei, Blume Ventures, Flipkart, Ravi Trivedi, Sujoy Mehta
<b>Bodhi</b>	Beyond Capital + Angels	<b>Mind Edutainment</b>	Accel Partners, Meena Ganesh
<b>Boond</b>	Artha, Opes Impact Fund	<b>Parvata</b>	Round Glass Partners
<b>DouxDentistry</b>	DanGold Investment	<b>Onergy</b>	Doen Foundation, Rianta Capital, Halloran Foundation
<b>Ecolibrium</b>	IFC, JLL, Infuse Ventures	<b>Rolocule Games</b>	Blume Ventures, Mumbai Angels
<b>Formcept</b>	GVFL	<b>Smart Cloud</b>	Venture East
<b>Forus</b>	Accel India, IDG Ventures, Asian Healthcare Fund	<b>Tookitaki</b>	Blume Ventures, HBS Alum Angels, India Internet Fund, Jungle Ventures, Rebright Partners, Spring Singapore
<b>Greenway</b>	Acumen Fund and the Former CEO of Genpact and the Founder of Asha Impact.	<b>Thrillophilia</b>	Hyderabad Angels, iLabs Venture Capital, Navlog Ventures
<b>Hashcube</b>	ah! Ventures, Blume Ventures, IAN, Nazara Technologies, Perry LaForge	<b>Vanamo Care</b>	Acquara Investment

As a Catalytic Financing effort and a developmental agency, our goal had been to attract more capital into these emerging areas and startups – vs. making profits. Therefore, exits have not been our primary driver. However, we have not shied away from exiting wherever the situation demanded. But exit decisions have not been driven by profit-maximization motive. Follow-on investor’s requirement for consolidating shareholding, startup’s decision to flip to a foreign structure, or an acqui-hire by a larger corporation have been the primary reasons for us exiting usually.

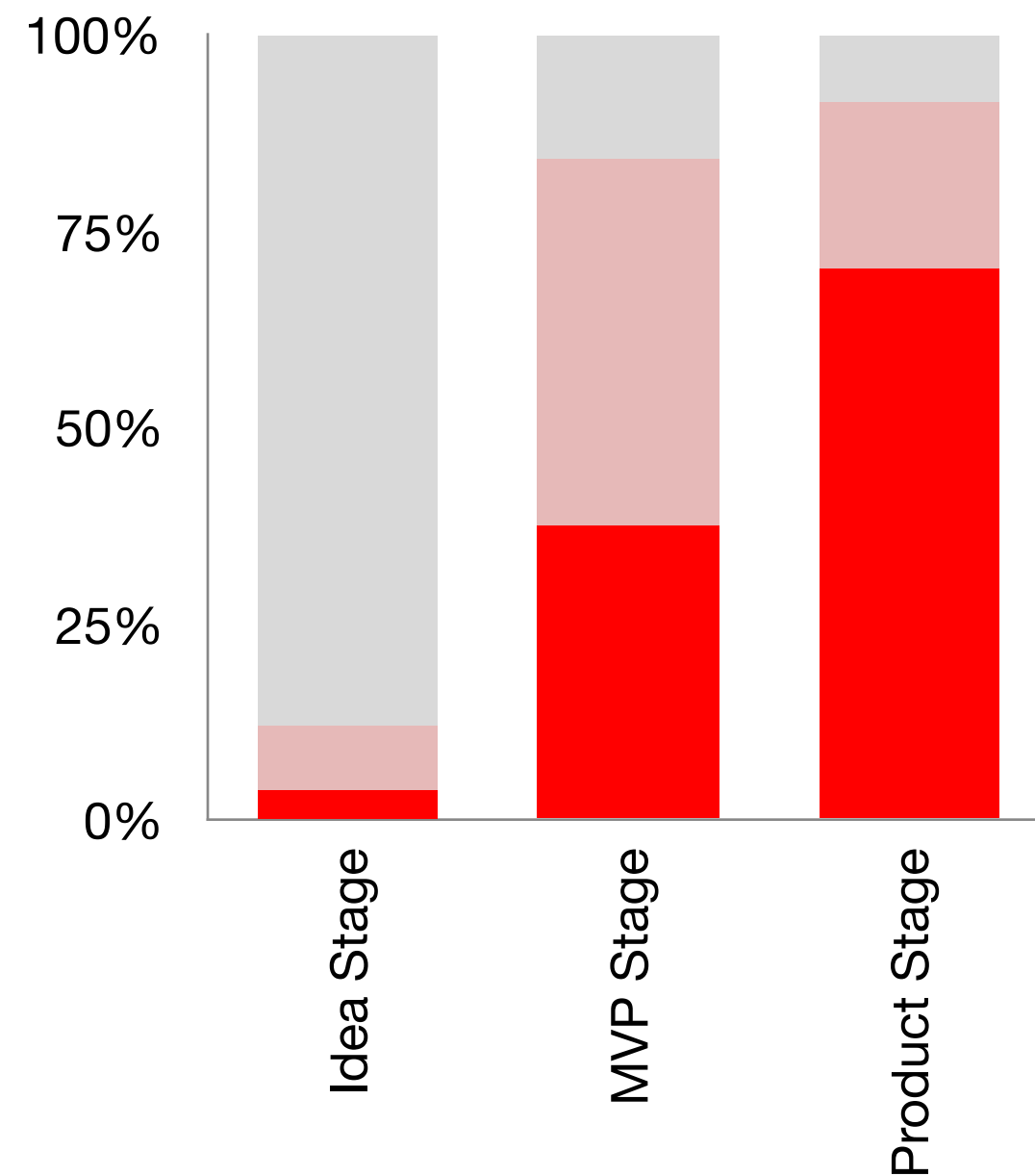
**Highlights:**

- We have received profitable exits in ~26% of our total investments so far. 44% of the ventures we are still invested in which are operational. In 31% ventures, we have exited at a loss. 70% of these loss exits were in cases when we backed an EIR/team at an Idea Stage, which was risky. Idea Stage investments had a ~90% failure rate.
- Cleantech, especially ventures backed at an idea stage, had the highest failure rate. Interestingly, Consumer Internet startups and Education also had a high failure rate – resulting into us exiting at a loss. Healthcare and Agriculture have had good success rates in terms of startups continuing to operate well.

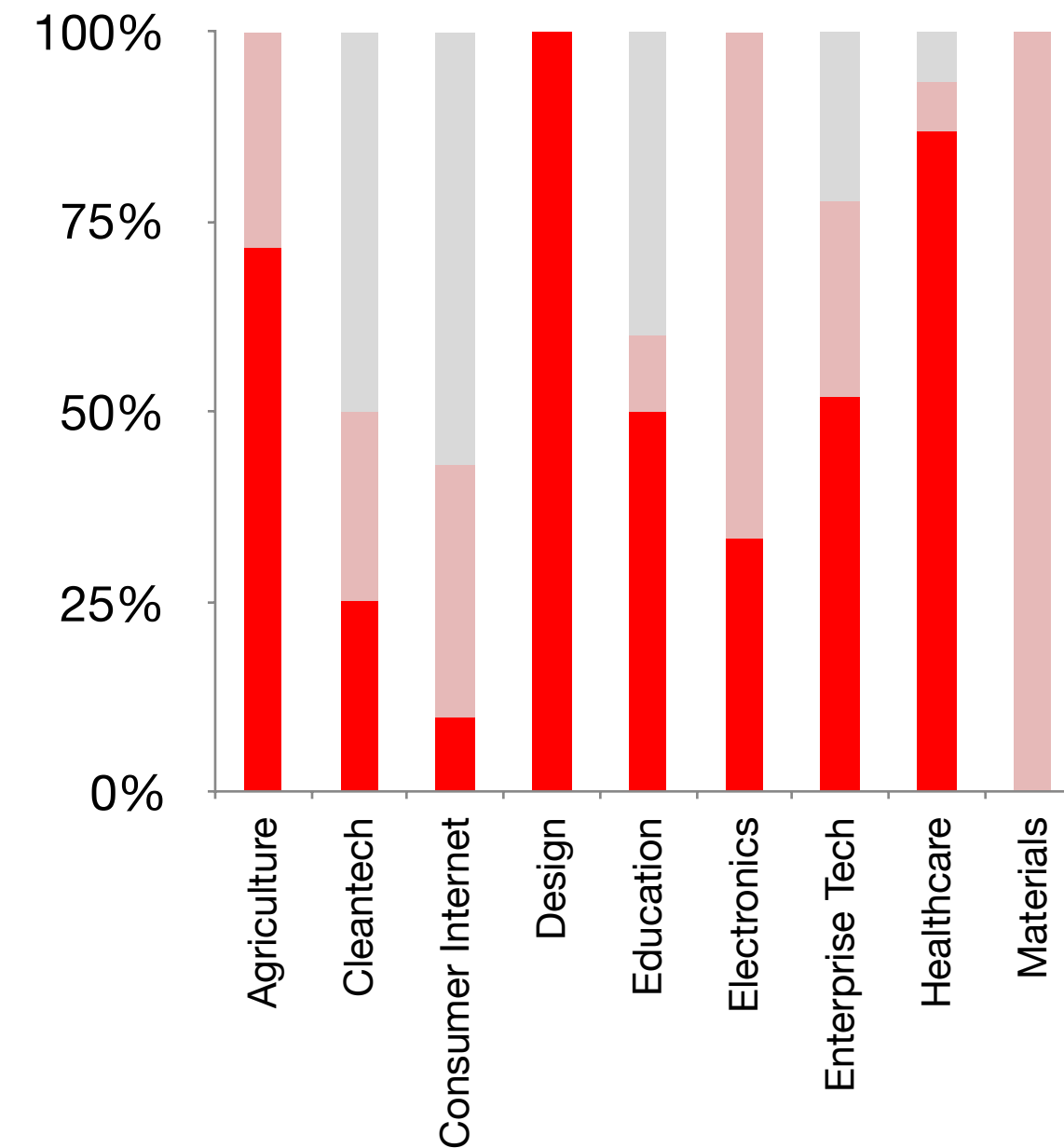
**Current Status of Supported Startups**



**% Exits and Operational by Stage**



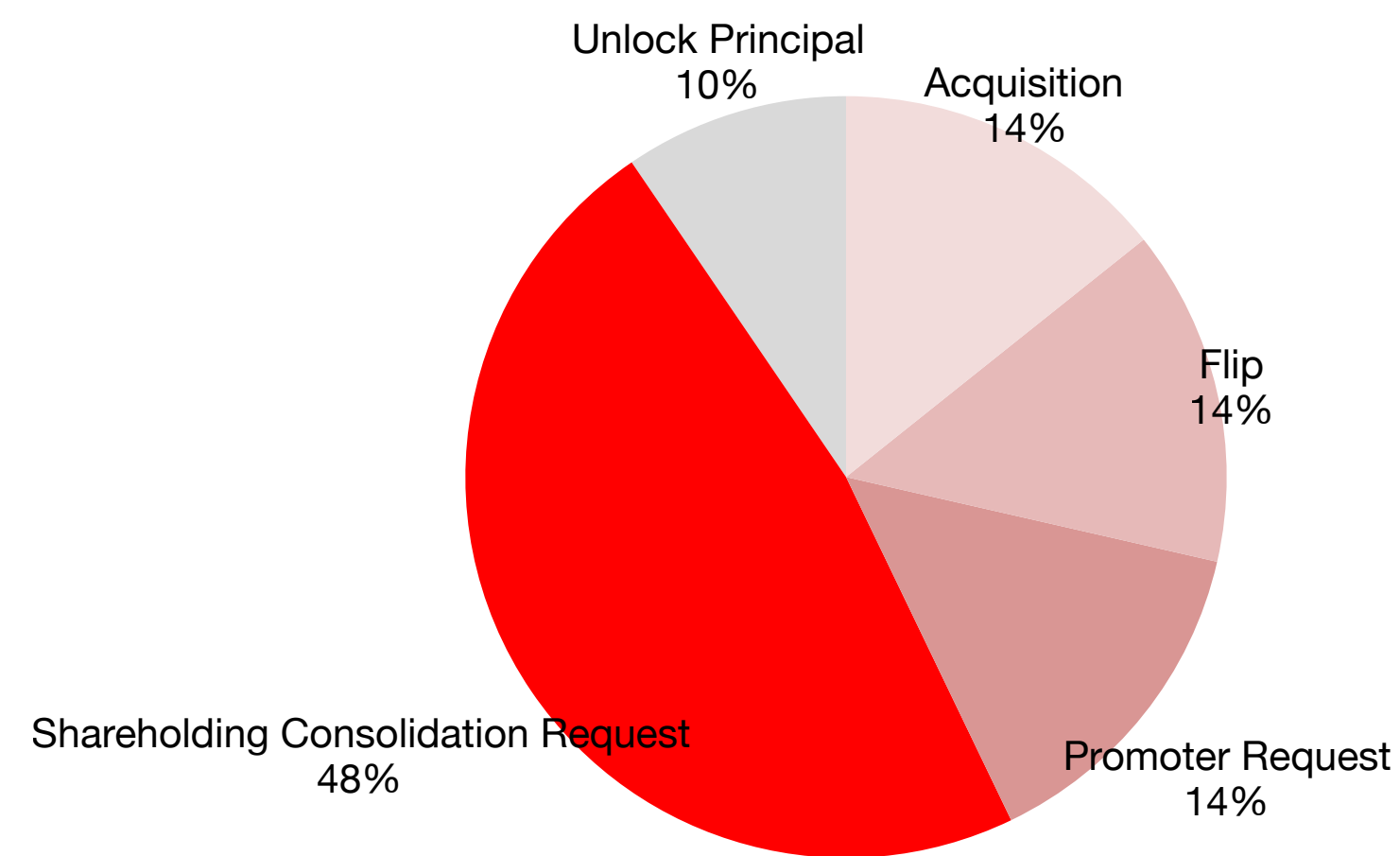
**% Exit by Sectors**



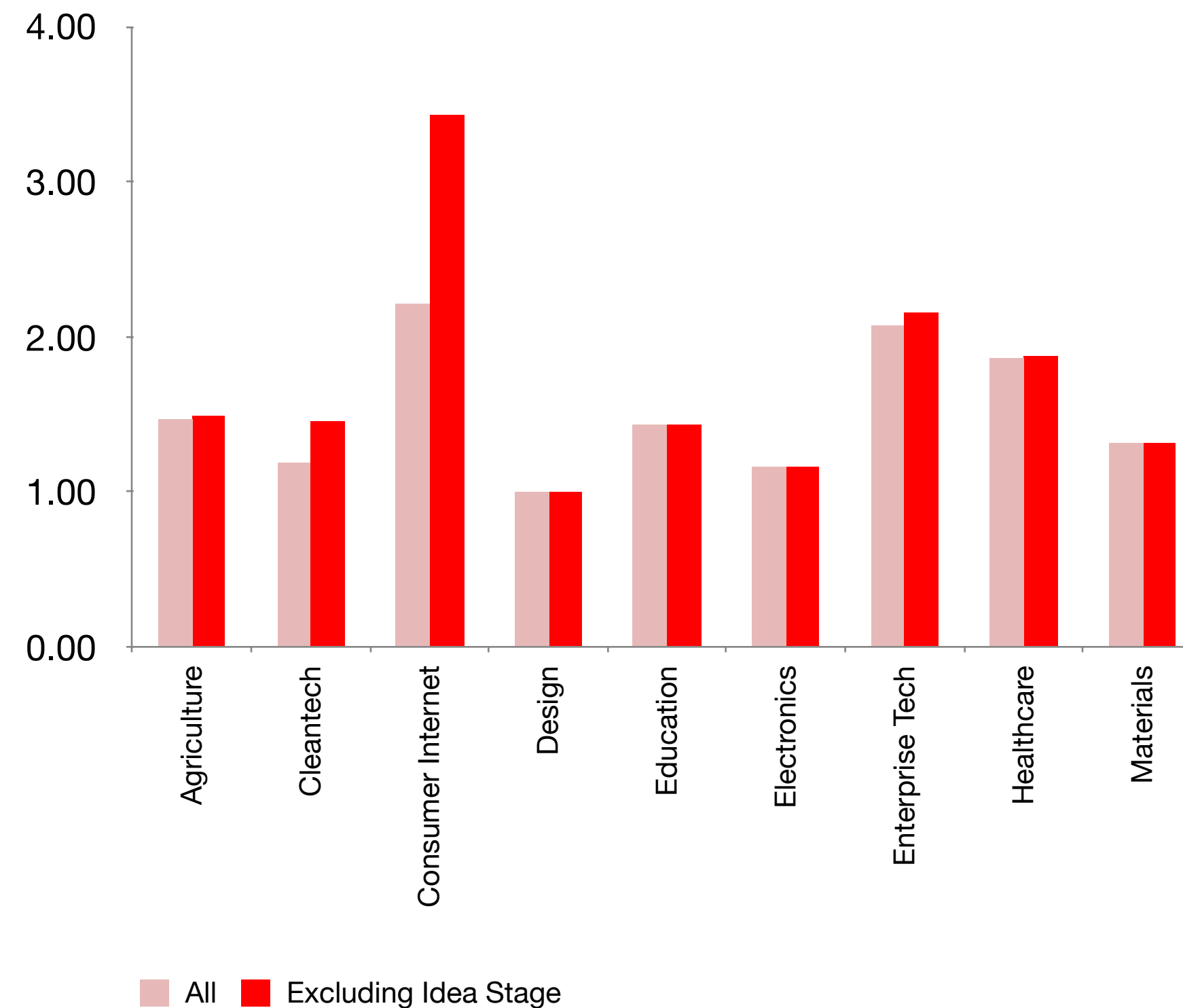
■ Still Invested ■ Profitable Exits ■ Loss Exits

The Realized & Unrealized Multiple or NAV has been calculated by dividing the sum of Exit Proceeds (in case of all exits), Price of Recent Investment (in cases there has been a recent round), and at Cost (in case there has been no recent round) by Total Invested Amount.

**Reasons for Exiting**



**Unrealized + Realized Multiples / NAV**



**Highlights:**

- Request from follow-on investors to consolidate shareholding has been the primary reason for exiting.
- The NAV (realized and unrealized) across the portfolio is 1.52 i.e. for every Rupee invested the current value is 1.52 Rs. If one removes Idea Stage startups (which were provided almost as a substitute for grant), the NAV becomes Rs 1.70.
- In Electronics sector, the NAV is barely 1. In all other sectors (where we supported multiple startups), the NAV is over 1.
- For MVP and Product Stage startups, the realized IRR (calculated on exited ventures only) is over 10%. The realized + unrealized IRR across all MVP and Product Stage startups is around 16%.



# LIST OF VENTURES THAT RECEIVED EXIT\*

COMPANY	FULL/PARTIAL	EXIT TYPE	SECTOR	COMPANY	FULL/PARTIAL	EXIT TYPE	SECTOR
<b>Ace Micromatic</b>	Partial	Buy-back	Enterprise Tech	<b>Flick2Know</b>	Full	Buy-back	Enterprise Tech
<b>Alma Connect</b>	Partial	Secondary	Enterprise Tech	<b>Hashcube</b>	Full	Secondary	Consumer Internet
<b>Ants Ceramics</b>	Full	Loan Repayment	Materials	<b>Ideaforge</b>	Full	Secondary	Electronics
<b>Aplopio</b>	Full	Buy-back	Enterprise Tech	<b>Innovese</b>	Full	Acqui-hire	Enterprise Tech
<b>Aspiration Energy</b>	Full	Buy-back	Cleantech	<b>Innoz</b>	Full	Secondary	Consumer Internet
<b>Azoi</b>	Full	Loan Repayment	Electronics	<b>Mech Mocha</b>	Full	Secondary	Consumer Internet
<b>Biosense</b>	Partial	Loan Repayment	Healthcare	<b>Mobiotics</b>	Full	Buy-back	Consumer Internet
<b>Birds Eye</b>	Partial	Secondary	Consumer Internet	<b>Parvata</b>	Full	Secondary	Agriculture
<b>E Travelvalue</b>	Full	Buy-back	Enterprise Tech	<b>Tookitaki</b>	Partial	Secondary	Enterprise Tech
<b>Ecolibrium</b>	Partial	Secondary	Cleantech	<b>Frilp</b>	Full	Acqui-hire	Enterprise Tech
<b>Edsix</b>	Partial	Secondary	Education	<b>VMukti</b>	Full	Loan Repayment	Enterprise Tech
<b>Framebench</b>	Full	Acqui-hire	Enterprise Tech	<b>Whirlybird</b>	Full	Loan Repayment	Electronics
<b>Greenway</b>	Partial	Secondary	Cleantech	<b>WIMWI</b>	Full	Secondary	Agriculture
<b>Gridbots</b>	Partial	Buy-back	Electronics	<b>Zuvvu</b>	Full	Buy-back	Consumer Internet

\*profitable exits

# THANK YOU

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