



STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR

Volume - 01 | Edition - 10 | October 2022

TECHकी बात

SIIC Startups: Desi engineering,
great innovation, global recognition



पिंपरी

Dr. Sandip Patil

MENTOR'S DESK



HOW DO I MARKET MY PRODUCT

Somesh Bhagat
Mentor, SIIC IITK

This question has come consistently from a variety of startups across diverse industries. An inconsistency in thinking has also been consistent across! In all the cases, the target audience was not clearly defined. In two of these, the product itself was not clearly articulated. Upon deeper probing, it was found that the approach needed deeper thinking. A business plan was missing in all the cases, and it was felt to be a prerequisite to the key question. As part of that, it was crucial to define clearly what to market and whom to market it to before how to market. Following steps were followed to answer the questions.

- define the business
- define the market
- validate that there is a compelling proposition to the market
- validate the ability to service the market effectively
- start with the largest segment(s) of the market where ability to service is superior
- then comes how to market.

It is important to define the business and the product lucidly in one-two short sentence. Remove the clutter of multiple customer segments or products, or services. Reduce to one simple product description serving one simple customer segment. What are the unbelievably compelling reasons that the product will transform the customer's business, as compared to a competitor? The test for being compelling is that there is a self-belief that if the customer does not buy, he does not survive.

For example, in the case of a software product-based solution for school education, where the product targeted was not clear whether it was the schools or the parents of school students; as both of them were beneficiaries of the product. In another case of a product for selling consumer goods, the articulated offering was a mix of service and product, while the promoters wanted to be in the product business. More clarity was needed to communicate about what was the core business.

The next step is to define the markets for the product more specifically. The target audience for a software product or consumer goods mentioned above was both potential investors and end customers. It is decided, based on current imperatives, to focus on the latter in the first phase. In the case of banking an industry product, the first phase of the target market is needed to be defined more precisely. It emerged that in the first phase, the product needed to be positioned to not more than 15 key prospect contacts in the entire country; which is followed by the development of a broad idea of the addressable market with break down into main segments. An in-depth analysis is carried out covering the product, company, competition, market and capability in each other's context, interplay, and relationships. SWOT is a good tool. This helps define the go-to-market approach more clearly. The big revenue areas are identified and matched to the proposition, and the capability of the company to address the same takes place. The latter is very important.

MENTOR'S DESK



HOW DO I MARKET MY PRODUCT

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Mentor, SIIC IITK

Often potential of the market is taken as a key go-to-market without regard to the ability to service. That is more critical - the ability to tap into the market. It does not help to go after the larger segments if the ability to address the segment is not strong enough with respect to competition. The limitations in ability may be the geographical reach, financial ability, the language of communication, management bandwidth, ease or difficulty of penetration versus the competition, partner ecosystem etc. A way to get insightful answers to these is by deploying the use of SWOT. This helps to decide who is the target audience and, where it is, and how it can be more profitably leveraged for advantage in a phased manner.

For banking, for example, most of the market is concentrated in a single metropolitan region for the first phase of the business. For educational software, the first phase was again the metropolitan region. For consumer goods products, the focus is on two different metropolitan regions with specifically stated coverage. Later, additional segments, including matters across the globe, are identified to target inside sales with automated sales tools, and in case of wider reach, with lower investments. These are further tuned by the language of communication. Specific segments where the ability to address is not strong, are relegated to later phases.

A timeframe for go-to-market is established in light of competition and technology evolution. For example, in the case of consumer products, it is decided to market to investors for funding. In phase two, a clearer product to go-to-market is established. Also, the time to market for gaining an edge over the competition is assessed to be only six months. Other plans are finalised simultaneously: the product roadmap, intellectual property, revenue and sales, marketing, capital, funding, financial, shareholding, hiring, partnering, distribution etc. This needed iterations regarding the real-life situation and constraints. A plan to measure all of them on an ongoing basis with metrics and methodology is also created. An output of the above was a marketing plan and a budget. And then, at last, we come to the question that was asked at the start - How do I market my product?

So, it is wise to get into this only when the aforesaid steps are undertaken. A marketing plan is very closely linked to the business strategy. There are no shortcuts. For the banking product, it was recommended to shelve the marketing plan and focus on the limited budget dollars on business development. The target audience was 15 high-value prospects, in a single geography, instead of an (expensive) national launch. For the consumer industry product, it is recommended to develop a business and market plan for three key high-synergy segments. This thinking process and approach can be applied to any business go-to-market.

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SNAPSHOTS OCT'22

In the month of October, startups with new visionary ideas joined the growing incubation ecosystem at SIIC. Head to the section to find out!



SUCCESS STORIES

Read on to know about the new achievements from the SIIC innovation ecosystem for the month of October.



Sandip Patil

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INNOVATORS' KI BAAT

This section introduces our readers to one of the many revolutionary, innovative technologies currently under incubation at SIIC IIT Kanpur. Read on to know more about our transformative ecosystem.



INITIATIVES AT SIIC

In October, SIIC IIT Kanpur added another feather to its cap with the successful execution of a prestigious international program in collaboration with our prominent government stakeholders. Read on!

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PROGRAM HIGHLIGHTS

This section is about the major highlights across the multiple program verticals currently active at SIIC IIT Kanpur. Refer to the section to know more about our grantees and their achievements for this month!



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FROM THE IPR CELL

This section highlights the major events in the IPR domain to enable an understanding of technology licensing facilitated by the IPR and Tech Transfer Cell at SIIC.



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CYBER SECURITY X SIIC

In the view of Cyber Security Awareness Month, this section highlights the cyber security innovation ecosystem at IIT Kanpur.



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FUNTECH

Work up your mind with an interesting mask related/COVID-19 crossword at the end!

SNAPSHOTS OCTOBER 2022



276

Applications
received

8000+

Audience reached
through digital
platforms

3

Startups incubated



1. Regenmedica: A team of experts in the domain of bone tissue engineering is working to develop polymeric and ceramic materials as regenerative therapies for tissue damage for the treatment of bone tuberculosis. The innovation will cater to industrial, clinical and societal purposes by providing an affordable, easy-to-operate and indigenous product.

Founders: Irfan Qayoom, Dr. Ashok Kumar, Amar Nath Koul, Aklesh Kumar Jain

2. Jatayu Healthcare Technologies: Jatayu Healthcare is creating a pocket-friendly, speech-based technology platform using AI, ML, and NLP technologies to transform the healthcare documentation report landscape and make it completely hand-free.

Founder: Dr. Aparna Das



3. Phraction Scientific: Phraction Scientific is developing a platelet concentrator and segregator device indigenously in collaboration with clinicians from SCTIMST Kerala

Founder: Asok Sreedhar



SIIC innovators share their insights at RAILTECH-2022 organized by ASSOCHAM

Two of SIIC incubated startup founders, Mr. Hardik Tarpara - Arishti Info Labs and Mr. Ravi Kaushik - AiRTH Research, participated in RAILTECH-2022, Futuristic Technologies for Indian Railways organized by The Associated Chambers of Commerce and Industry of India (ASSOCHAM). Both the innovators participated in the session "Policy Perspective & Challenges of Transformative Technologies in Modernization of Railway Operations", which was chaired by Mr. R K Mangla, Additional Member, Production Units, Ministry of Railways, and moderated by Sajal Gupta, Secretary - Charge Point Operators Society of India.

ASSOCHAM organized the International Conference 'RAILTECH – 2022: Futuristic Technologies for Indian Railways' in New Delhi with a view to discuss the various challenges and opportunities in deploying new-age technologies in Railways. The Conference brought together a diverse range of stakeholders including government officials, corporate partners, and talented young innovators to a common platform to provide impetus towards technology solutions for Railways apart from sharing their valuable experience from an international perspective.



Hardik Tarpara, founder Arishti Info Labs and Ravi Kaushik, AiRTH Research at RAILTECH-2022 organized by ASSOCHAM

JalSevak Solutions unique sustainable solution is among the top 10 finalists of the "Swachhata Startup Conclave"

The innovative on-site and affordable greywater recycling solution developed by SIIC incubated startup JalSevak Solutions, which is fit for residential and commercial infrastructure, has been successfully shortlisted among the top ten startups of the "Swachhata Startup Conclave". Co-founder Dr. Abhijit Sathe was felicitated at the Swachhata Startup Conclave 2022 organized in Dr. Ambedkar International Centre, New Delhi with the other nine startups.

The Ministry of Housing and Urban Affairs, in collaboration with Agence Française de Développement (French Development Agency), launched the Swachhata Startup Challenge to nurture the evolving ecosystem of the Indian waste sector. The goal is to support 10 startups working at the nexus of technology and social innovation to solve India's waste management challenges.



Dr. Abhijit Sathe, Co-founder, with Mr. Sharad Gupta - Joint Director, JalSevak Solutions after being felicitated at the Swachhata Startup Conclave 2022.

INNOVATORS' KI BAAT



In 2020 when COVID 19 was at its peak, the one and only commodity that was in the highest demand was face masks.

Face masks had become an absolute necessity in shielding people from this deadly virus. People were extremely scared and were in need of protection for themselves and for their near and dear ones. The need for a mask that would be antibacterial and antiviral was essential. During this time of crisis, Dr. Sandip Patil stepped up to the challenge by working continuously for the benefit of society to provide the citizens with safe and tested Swasa N95 and N99 masks. The masks were capable of providing protection upto 95% and 99% respectively. The startup E-Spin Nanotech Private Limited, incubated in SIIC, IIT Kanpur and in collaboration with Indeema Fibres produced this premium healthcare product.

In an interview with Dr. Sandip Patil, we learnt about his struggle in life. He comes from a lower middle-class family where education was secondary to farming. Moreover, the poor economic condition never gave him an opportunity to take up his studies seriously. This failure gave him an opportunity to have a complete insight into his mission and vision for the future. Though late, he started his education and after facing many ups and downs and completed B.Tech in Chemical Engineering from ICT, Jalgaon. He was motivated by his own success which helped him in completing MS from Baroda. Later on, in 2006 he joined IIT Kanpur as a PhD student. Along with getting success one after the other, he was also getting acquainted with some renowned members of SIIC. In 2008 he started developing his own machine by the name of Nano Fibres Spinning Technology to make masks for daily use.

SWASA N95....BREATHE CLEAN AIR

The production increased in 2017-18 when masks that were 99% effective against bacteria and viruses came to the market. But the COVID 19 surge gave him an opportunity to work for the cause of humanity by providing masks to the general public at an affordable rate. In April 2020 when the pandemic was in its worst form, Dr. Sandip Patil received permission to manufacture the masks within the IIT Kanpur Campus. Prof. Abhay Karandikar, Director, IIT Kanpur, Prof. Amitabha Bandopadhyay, the then Professor-in-charge, Innovation & Incubation, IIT Kanpur, and the other members at the incubation centre took up the initiative to increase the production during the hour of crisis. Dr. Patil even hired ladies from the suburbs of Kanpur, who had lost their jobs during the pandemic, for the production of the masks. Along with taking care of the healthcare sector, he also cared for the welfare of many families on humanitarian grounds. The production line was completely automated to prevent contamination during the manufacturing process.



INNOVATORS' KI BAAT



Dr. Sandip Patil, realising the immense need for face masks and countering an impending shortage began the production of masks in IIT Kanpur premises. Some of the IIT faculties – Prof. Sri Shiva Kumar, Prof. Ramkumar, Prof. Gopakumar, Prof. Raja Angamuthu and some senior scientific officers - Dr. Manish Kulkarni and Dr. Prabhat Dwivedi along with SIIC, took up the task of mask production. In doing so, IIT Kanpur became the first institute in the country to take such an initiative. Realising the requirement, the institute set a target to manufacture twenty-five thousand masks per day. Later on, the production was increased to seventy-five thousand masks as per the need. Though there were many other products flooding the market, the trust of the customers in the product made it the number-one brand. "We have been continuously working for the social benefit by providing safe and tested products", said Dr. Patil. The proudest moment for the team was the time when our Hon'ble Prime Minister Mr. Narendra Modi was seen wearing an N95 mask during the Ram Mandir Bhoomi Pujan ceremony in Ayodhya. It was proof of the quality and potential of Indian startups and innovations.

Swasa N95 and Swasa N99 masks by E-Spin Nanotech Private Limited were just the commodities to meet the demand of the public during the pandemic. The masks were water absorbent from the inside, and water repellent from the outside providing 99.9% protection from viruses, bacteria, pollens, dust particles and other pollutants. The masks had a set of filter testing rigs equipped with an aerosol laser spectrometer and non-woven polypropylene based on three to four layers of material. It was made of an ultra-soft fabric which allowed easy breathing, provided adjustable ear loops and was effective for hundred hours of usage. The masks were also leak proof and designed to fit all Asian faces.

Dr. Patil has clearly mentioned about the guidance and help he had received from SIIC in making significant strides towards Atmanirbhar Bharat. DST, a Government of India project had approved the funding to this IIT incubated startup – E-Spin Nanotech Private Limited for the development of this advanced, affordable and reusable mask to fight against COVID-19. Dr. Patil is extremely thankful to SIIC, IIT Kanpur to become first-of-its kind to convert an academic institution to a business incubator in times of need.



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INITIATIVES AT SIIC

After establishing a relationship with ASEAN in 1992, ASEAN and India became strategic partners in 2012. ASEAN-India cooperation continues in various sectors, including science and technology. To celebrate the 30th anniversary of the ASEAN-India partnership, the ASEAN Committee on Science, Technology and Innovation (COSTI), in partnership with the Department of Science and Technology (DST), Government of India, through the National Research and Innovation Agency (BRIN) and Startup Incubation and Innovation Centre (SIIC) IIT Kanpur co-organized the 1st ASEAN-India Startup Festival 2022 at the Innovation Convention Centre, Cibinong Bogor, Indonesia.



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ASEAN-INDIA START UP Festival 2022



Following are the ASEAN Members States' Startups who marked their presence in the festival.

Super Squad Sports, Greenie, Netra Technologies, PT Elevasi Teknologi Aeronautika Nusantara, Spaceln Sdn Bhd, NEUON AI SDN BHD, Safari Techs Holdings Sdn Bhd, TERRA DRONE TECHNOLOGY MALAYSIA SDN BHD, Shwe Zee Kwat Food, Citrus, Vera Bella Enterprises Limited Company, Hava Lab, TICTAG, Commerchulk, Reality Detector Pte. Ltd., Environman, Vulcan, SPIKE ARCHITECTONICS CO.,LTD., SACHI-Group Inc., CAWIL AI, AGGA LINN CO.,LTD, Commerchulk, ELSA Corp, PT Kokikit Indonesia Teknologi

Bio Programs

1

Cherries Engineering and Innovation India, a startup working to make manual scavenging accessible, has won the MoHUA-AFD Swachhata Startup Challenge for their product Jalodbust. The startup, led by Mr. Rakesh Kasba and Ms Erica Kasba, has manufactured a product which breaks, liquifies, and pumps out the settled and hardened sludge from septic tanks, leach pits, sewer manholes, etc.

JALODBUST™
- Eradicating 'Manual Scavenging'



2

WeRehab Technologies Private Limited were selected for the SAMRIDH AcceleratHER program. The two women entrepreneurs - Dr. Vishwal Padole and Ms Sukanya Dikshit are working on an innovative product called 'smart insole' fitted with electronic sensors. To better comprehend various diseases in the human body, the product tracks the body's movement patterns.

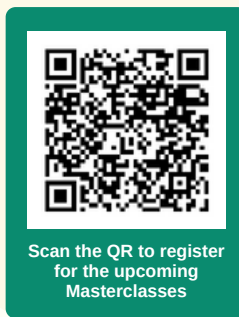
3

Embright Infotech Pvt Ltd., a startup designing Metaverse, AR, VR, MR based content for different sectors, was selected in the finals of Meet the Drapers season 5 under the east coast region for their product Auticare. Auticare is an XR-AI-based Assistive Technology learning platform for Autism Spectrum Disorder (ASD) and special education. It is an affordable, progressive diagnostic and multilevel therapy kit developed in virtual reality for highly functional autistic patients.



Angel Investment Masterclasses

BioAngels – India's first sector-focused angel investor group in biotech, healthtech, medtech, pharma, cleantech and agritech is organizing an exclusive series of ANGEL INVESTMENT MASTERCLASSES from 24th September 2022 onwards. SIIC is a supporting partner for the series of lectures.



The lecture promotes interaction with industry pioneers and thought leaders across 6 different sessions for a deep understanding of the industry and to enable a 360-degree perspective of how startup investment works across these prominent sectors. The first session on “Angel Investment in Biotech/Healthtech – Identifying the Next Big Opportunity” hosted Dr. Manish Diwan and Mr. Srikant Sastri as the speakers. They shared insights and fresh perspectives on the understanding of angel investing in the biotech and healthtech sectors.

TIDE 2.0

The 'IDEATE & CREATE' Workshop, organized under the TIDE 2.0 program supported by MeitY, aimed to educate young innovators about initiating their entrepreneurial journeys. The workshop highlighted the opportunities for entrepreneurship across domains and strategies for sustainable business models. A pool of selected students from Krishna Institute of Engineering and Technology, ABES Engineering College, Ghaziabad and Thapar Institute of Engineering and Technology (TIET), Patiala, attended this workshop.

A phenomenal panel of innovators currently incubated at SIIC conducted meaningful sessions during this two-day workshop at IIT Kanpur's outreach centre in Noida. Day 1 of the workshop was power-packed with a fantastic line of mentors, including sessions from Mr. Nishant Agarwal, founder, Life and Limb, Mr. Praseon Sharma, founder, Pradivya Software (WUS), Mr. Subodh Kaushik, Co-founder and Director with Mr. Biswanath Sen Gupta, Co-founder and CEO, Artha Vedika Tech. The second day of the workshop kick-started with sessions from Ms Sukanya Dikshit co-founder WeRehab Technologies followed by Mr. Manish Chaudhary, CEO MLIT-18 Technologies, which marked the successful conclusion of the workshop.

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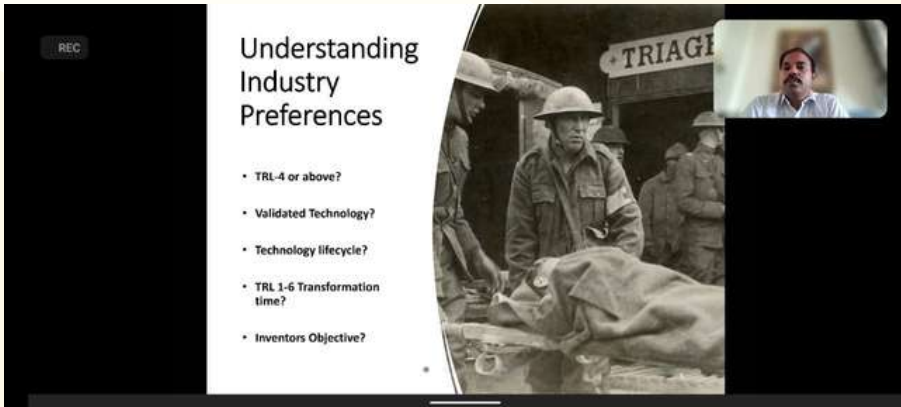
6



1. Workshop attendees with the Mentors on the final day of the workshop. 2. Attendees receive participation certificates after the workshop. 3. Paper-prototyping exercise during the workshop. 4. Workshop flyer. 5. Attendees during the mentor session. 6. Mentors for two-day workshop.

FROM THE IPR CELL

IPR knowledge session was organized for SHInE fellows at SIIC



A knowledge session was organized for SHInE Fellows to enable a better understanding of IPR among the fellows. The seminar unpacked aspects like the inventions and filing IPRs, filing of patents, copyright, trademark, designs and further modality in commercializing it by reaching out to industry partners through technology transfer.



CYBER SECURITY X SIIC



For Cyber Security Awareness Month, we're happy to highlight our cyber security innovation ecosystem:

The Cyber security ecosystem at IIT Kanpur, a joint venture by two Section 8 companies: C3i Hub: giving technical mentorship, and SIIC: providing all business-related mentorship, has been set up to address the issue of cyber security of cyber-physical systems. SIIC, along with C3i Innovation Hub, is working in close collaboration to analyse security vulnerabilities and develop tools that address these security threats at various system architecture levels to translate these tools to deployment-ready solutions.

The two incubated cohorts of startups at IIT Kanpur's cyber security incubation ecosystem are building critical technology solutions to enable the adoption of Cyber-Physical Systems (CPS) and related technologies as the experienced mentor pool, and the key government stakeholders support them in this endeavour.

The three focus areas of engagement for the ecosystem are:

1. Automotive

2. Critical Infrastructure

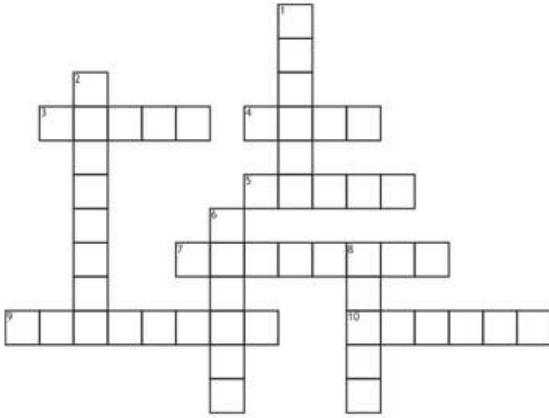
3. Unmanned Aerial Vehicle

SIIC X C3ihub



FUNTECH THEME - COVID-19

For the below crossword, answers will be given in the next edition of the newsletter.



ACROSS

- To expel air from the lungs suddenly with a harsh noise.
- A covering over part of the face, for protection.
- An abnormally high body temperature.
- An institution in which the sick or injured are given medical and surgical treatment.
- Unable to leave a place because of illness, imprisonment, etc.
- To distribute or be distributed over an area of space or time.

DOWN

- To change, to alter.
- A security measure in which people are required to remain confined inside for a time.
- Unhappy as a result of being without the companionship of others.
- The sense by which the flavor of things is felt or noticed.

Sept 2022 CROSSWORD Answers

ACROSS

6. Decent work and economic growth 9. Zero hunger 15. Quality education 16. No poverty 17. Sustainable cities 18. Industry 19. Responsible consumption 20. Peace and justice

DOWN

1. Clean water and sanitation 2. Good health and well being 3. Life below water 4. Affordable and clean energy 5. Reduced inequalities 7. Gender equality 8. What these are 10. Climate action 11. 2030 12. Partnership 13. 2015 14. Life on land

QUICK FACTS

Facts about Face Mask

Source : integrisok.com | fda.gov

The infographic illustrates four scenarios of COVID-19 transmission between a carrier and a healthy person:

- High Risk:** COVID-19 Carrier (without mask) to Healthy Person (without mask).
- Moderate Risk:** COVID-19 Carrier (without mask) to Healthy Person (with mask).
- Low Risk:** COVID-19 Carrier (with mask) to Healthy Person (without mask).
- Very Low Risk:** COVID-19 Carrier (with mask) to Healthy Person (with mask).

To stop the spread of COVID-19 in our community, practice physical distancing, wash your hands often and wear a mask in public

FACE MASK

A face mask is a product that covers the wearer's nose and mouth. Face masks are for use as source control by the general public and health care personnel (HCP) in accordance with CDC recommendations, and are not personal protective equipment.

BARRIER FACE

A barrier face covering, as described in ASTM F3502-21, is a product worn on the face specifically covering at least the wearer's nose and mouth, with the primary purpose of providing source control and to provide a degree of particulate filtration to reduce the amount of inhaled particulate material.

SURGICAL MASK

A surgical mask is a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment.

N95

An N95 respirator is a respiratory protective device designed to achieve a very close facial fit and very efficient filtration of airborne particles.

ECO-SYSTEM ENABLERS

CSR



FUNDING & MONITORING



KNOWLEDGE



INDUSTRY



SERVICE



AI ENABLEMENT



INTERNATIONAL



CLINICAL





CELEBRATING
100
INCUBATEES
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