5D Sustainable InfraTech Innovations (5D-SITI)

Shaping Tomorrows Infrastructure Solution....

Startup Dialogue 2025

Organized by

OVERVIEW OF THE COMPANY

VISION

- To be a global pioneer in sustainable infrastructure innovations. We aim to set new standards for speed, cost-effectiveness, and eco-consciousness in Indian construction Industry.
- Our goal is to contribute to a built environment that aligns with ecological balance and social responsibility, forging a path towards a greener future in India.

MISSION

Our mission is to transform the construction landscape through advanced prefabricated systems and 3D concrete printing. We're committed to sustainable practices that redefine the efficiency and environmental impact of infrastructure development.

Meet Our Team

Dr. Ramesh Nayaka Ph.D.
Founder, Chairman and Managing Director

Mrs. Sree Vidya MBA
Director and Chief Operating Officer

Ms. Anitha Nayak M.Tech
Director and Chief Technical Officer

Mr. Manjunathgouda M.Tech
Director and Chief Sustainability Officer

OUR SERVICES

5D Sustainable InfraTech Innovations (5D-SITI)

01 **Consultancy and Engineering**

Providing expert guidance in construction and sustainable engineering solutions.

02 **Empowerment/Training**

Offering workshops and resources to enhance industry knowledge and skills.

03 **Evaluation and Assessment**

Conducting material testing and structural analysis for optimized performance.

04 **Sustainability Audit**

Assessing environmental impact and cost efficiency for sustainable construction.

OUR INNOVATIVE AND SUSTAINABLE SOLUTION

Construction waste

Recycled aggregate

3D Printed Components

Material Solution

Recycled coarse aggregate

Recycled fine aggregate

Recycled fines

Fly ash

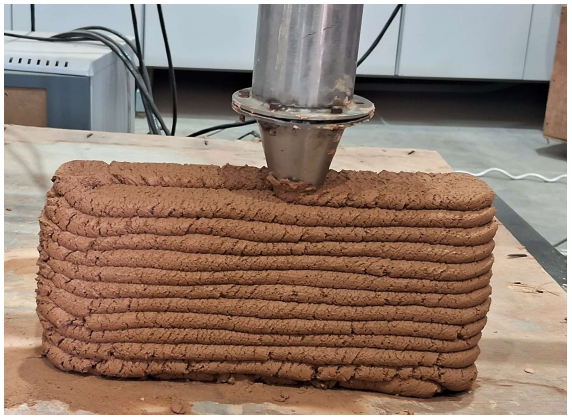
GGBS

OUR PRODUCTS

Shaping Tomorrows Infrastructure Solution....

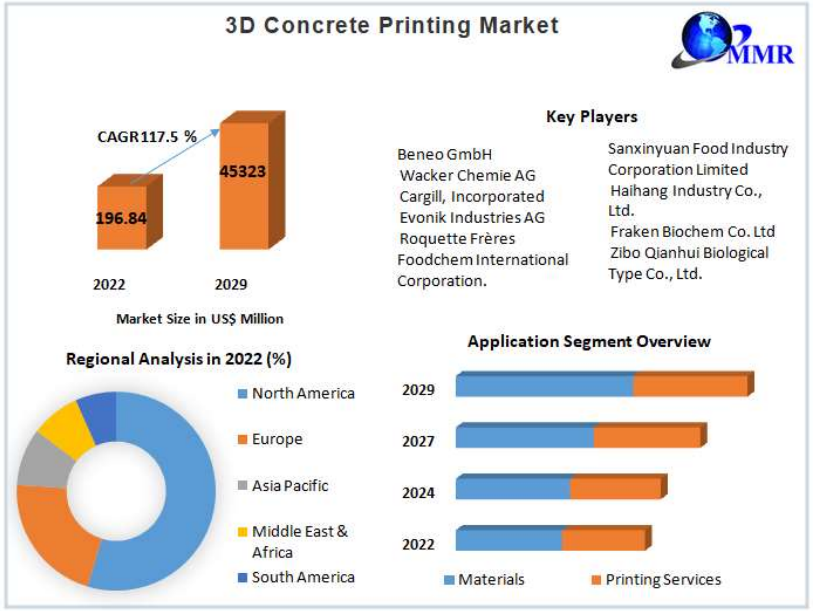
3D Concrete Printing using Recycled aggregates

Sustainable Housing Solution



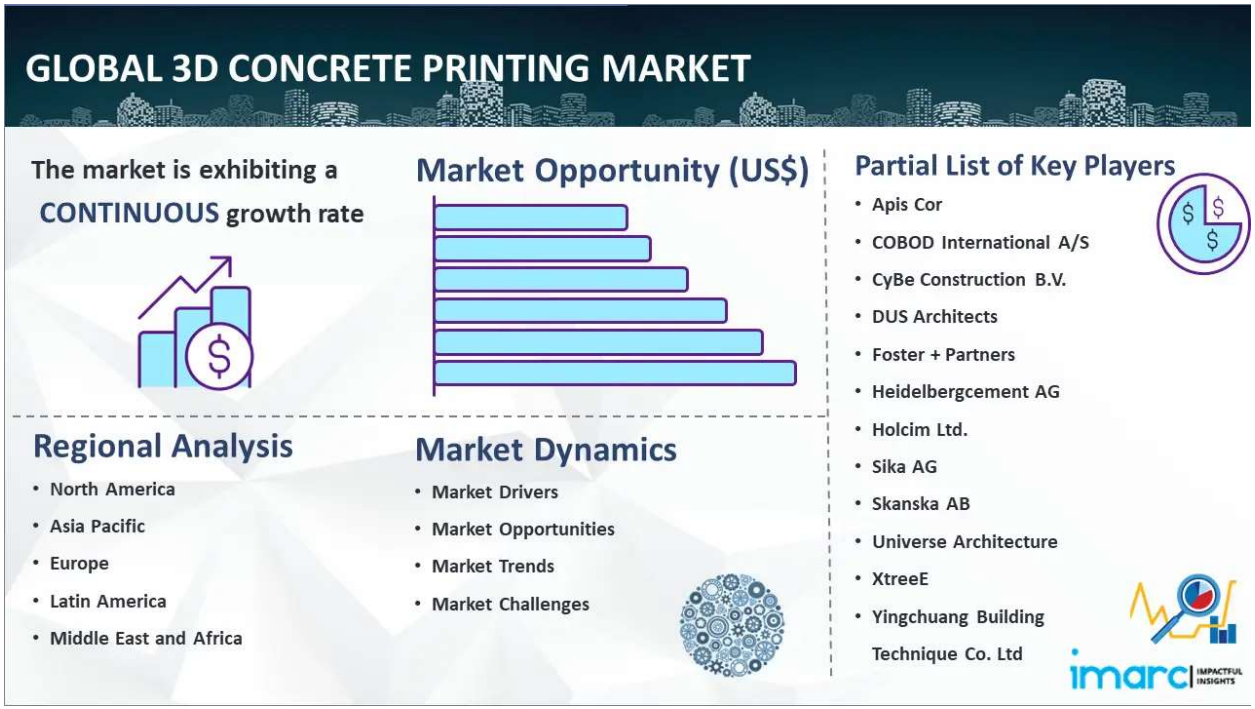
Prefabricated Panels

MARKET OPPORTUNITY AND COMPETITIVE LANDSCAPE



1). M/s Larsen & Toubro Limited
L&T Construction - Buildings & Factories, TC2 Building, PB No.: 979,
Mount Poonamallee Road, Manapakkam, Chennai, Tamil Nadu, 600089
Tel: +91-44-22526000/ 22528000
E-MAIL : sln-pm@lntecc.com, &

2) M/s Tvasta Manufacturing Solutions Private Limited,
Bala Complex, Old No.345, New No. 172,
Rajiv Gandhi Salai (OMR), Sholinganallur,
Chennai, Tamil Nadu - 600119 E-mail: info@tvastagroup.in



Business Model and Future Plan (Short and Long Term)

Value Proposition	
Innovative Construction Solutions	Offer cutting-edge 3D concrete printing and prefabricated systems as sustainable alternatives to traditional construction methods.
Efficiency and Cost-Effectiveness:	Provide faster construction timelines, reduced labor costs, and minimal material wastage through efficient technologies.

Key Activities	
Research and Development :	Continuous innovation to improve 3D printing techniques and prefabrication processes.
Project Management	Efficient management of construction projects utilizing 3D printing and prefabricated systems.
Create a spirit of Entrepreneurship in IIT Dharwad	To foster an entrepreneurial culture within IIT Dharwad, promoting innovation, startup initiatives, and a mindset of proactive problem-solving.
Training	Offering workshops and resources to enhance industry knowledge and skills.

Customer Segments	
Government and Infrastructure Projects:	Focus on public projects looking for sustainable and efficient construction solutions.
Architects and Designers:	Collaborate with professionals seeking design flexibility and innovative construction methods.

Key Resources	
Skilled Workforce	Engineers, architects, and technicians proficient in 3D printing and prefabrication.
Technology Infrastructure	State-of-the-art 3D concrete printers and prefabrication facilities.

Business Model – long Term

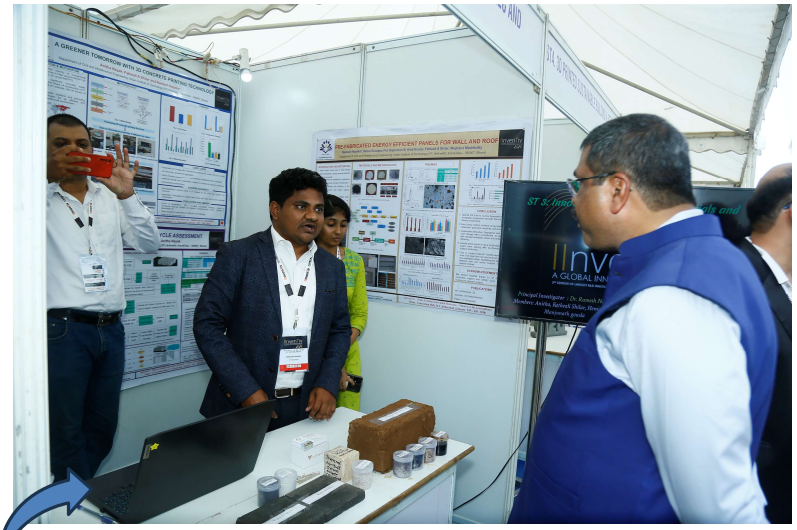
Cost Structure	
Technology and Equipment:	Investment in 3D printing machinery and prefabrication facilities.
Research and Development:	Ongoing expenses for innovation and process improvement.

Customer Relationship	
Consultative Selling	Provide guidance on the adoption of 3D printing and prefabricated solutions.
After sale Support	Offer maintenance and support for constructed projects.

Unique Selling Points	
Sustainability	Charge for 3D printing and prefabrication services based on project scope and size..
Speed and Efficiency	Provide technical consultation w.r.t. project management of 3D printing and prefab services
Design Flexibility	Customizable solutions for architects and developers.

Milestones	
Market Penetration	Secure contracts with key developers and government projects.
Technology Advancements	Continuous improvement in 3D printing techniques and prefabrication.
Brand Recognition	Establish the startup as a leader in innovative and sustainable construction solutions.
Training and Skill Development for local community	To empower and uplift the local community by providing training and skill development programs that enhance employability and foster sustainable economic growth.

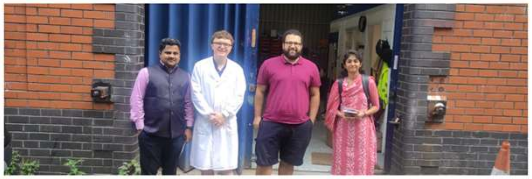
TRACTION DETAILS



Exhibited our Invention

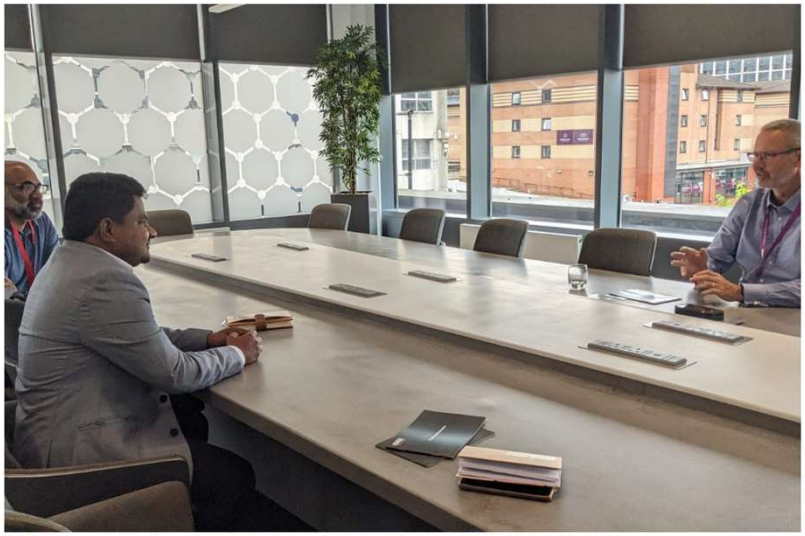
IInvenTiv – 2024 (A Global Innovation Showcase) at IIT Hyderabad

Appreciated by Shri Dharmendra Pradhan (Minister of Education, GoI)



Visit to University of Manchester, United Kingdom

A Start Up Competition Between The University ff Manchester's Masood Entrepreneurship Centre, UK and Deshpande Startups, Hubballi, India



Discussions with Prof. James Baker, CEO of the Graphene Engineering and Innovation Centre

TECHNOLOGY AND INTELLECTUAL PROPERTY

PERBADANAN HARTA INTELEK MALAYSIA
INTELLECTUAL PROPERTY CORPORATION OF MALAYSIA
(Agensi di bawah KPDN)
Aras LG, G, 2-5, 11-13 & 15-23,
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Lot 12, Persiaran Barat, Seksyen 52,
46200 Petaling Jaya, Selangor,
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APPLICATION NO.	: UI2020002945
GRANT NO.	: MY-198601-A
OWNER	: UNIVERSITI MALAYA
DATE OF GRANT AND PUBLICATION	: 07 SEPTEMBER 2023
APPLICANT'S/AGENT'S REF.	: 2020/PT/TMI/PTA11.10/APP/0233/ TBG

- **<u>Winner of Sustainathon – 2023</u>**

- Set up our innovation booth during the Start-Up Dialogues organized by Deshpande Foundations, Feb 2nd, 2024.

- Received positive networking outcomes and expressions of financial support and mentorship from funders and Deshpande Foundation (DFS).

FUNDING REQUIREMENTS

Heads	Amount (in Rs)
Raw Material & Consumables/Spares	10,00,000
Outsourcing charges for R&D/Design Engg./ Consultancy/ testing/ Expert cost	7,50,000
Fabrication charges of working model (rental charges)	15,00,000
Business Travel	7,50,000
Patenting cost	5,00,000
Contingency	5,00,000
Total Amount	Rs. 50,00,000/-

ROADMAP FOR THE NEXT YEAR

THANK YOU

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