Talisman FMA

“Built to Bond. Engineered to Endure.”

By Talisman Ventures Pvt Ltd for Elevate 2025

1. Introduction about the Company

Talisman is an emerging player in advanced bonding technologies, currently piloting its flagship adhesive system **Talisman-FMA (Fastsetting Metal Adhesive)** through targeted R&D deployments. Designed as a fast-setting, two-component thermosetting resin, Talisman-FMA is engineered to deliver high-strength, multi-substrate bonding for structural applications. The formulation is being refined to meet the demands of sectors like construction, OEM assembly, and civic-tech infrastructure, where conventional joining methods like welding or riveting often fall short in flexibility, speed, or material compatibility.

- Company Name: Talisman Ventures Private Limited
- Company Website: www.talismanventures.in
- Contact details : Bengaluru, aleem1408@gmail.com, 9972512348
- Date of Incorporation: 23/12/2015 : CIN:U72200KA2015PTC084898

#	Name of Directors / Partners (As per the RoC or Partnership Deed)	DIN Number (In case of RoC Company)	No of Shares
1	Mohammed Sheikh Aleem	03156062	95%
2	Irfana Akther	07146774	5%

2. Problem Statement

Challenges with Conventional Joining Techniques

- **Welding**
  - Requires high heat, specialized equipment, and skilled labor
  - Can distort substrates, especially thin metals or composites
  - Not ideal for bonding dissimilar materials (e.g., metal to plastic)
  - Generates fumes and sparks—raising safety and compliance concerns
  - Post-weld finishing (grinding, sanding) adds time and cost
- **Riveting / Mechanical Fastening**
  - Demands drilling holes, which weakens substrate integrity
  - Creates stress concentration points that reduce fatigue resistance
  - Adds weight and bulk due to fastener hardware
  - Limits design flexibility—especially in tight or inaccessible areas
  - Prone to loosening under vibration or thermal cycling

3. Product/ Solution - Innovation

The Solution: Talisman-FMA

- Eliminates need for heat or hardware by offering a room-temperature curing adhesive
- Simplifies bonding of dissimilar materials, including metals to engineered plastics
- Reduces labor intensity and skill dependency—no welding rigs or drilling required
- Distributes stress evenly across joints, improving fatigue resistance and durability
- Supports multiple joint types (lap, butt, corner, T-joint, edge) with high shear strength
- Minimizes surface damage and distortion, especially in thin or sensitive substrates
- Accelerates assembly and repair workflows, with tack-free handling in 20 minutes
- Enables clean, scalable deployment in field conditions without specialized tools
- Improves safety and compliance by avoiding fumes, sparks, and thermal hazards
- Enhances design flexibility, especially in tight, complex, or inaccessible area

4. Product/ Solution - Readiness Level

- Technology Readiness Level (TRL): Talisman-FMA

Current Stage:

- Talisman-FMA is at TRL 5–6, indicating that the adhesive has successfully passed lab-scale validation and is undergoing pilot-scale testing in relevant environments.

Key Milestones Achieved:

- Formulation stabilized for multi-substrate bonding (metals to engineered plastics)
- Tack-free and full cure benchmarks validated under ambient conditions
- Early pilot runs conducted in controlled industrial settings
- Performance metrics (shear strength, vibration resistance) benchmarked against conventional joining methods

Next Steps Toward TRL 7+:

- Expand pilot deployments across construction, OEM, and civic-tech use cases
- Collect long-term durability data under operational stress and temperature cycles
- Finalize packaging, compliance documentation, and distributor onboarding
- Prepare for scaled manufacturing and commercial rollout

5. Socio-Economic Impact of the Project

Socio-Economic Impact of Talisman-FMA

- **Industrial Efficiency & Cost Reduction**
- Reduces reliance on skilled labor and expensive welding infrastructure
- Enables faster assembly and repair cycles, lowering operational downtime
- **Infrastructure Resilience**
- Enhances durability of bonded joints in civic-tech and public infrastructure
- Reduces long-term repair frequency through vibration- and stress-resistant bonding
- **Workforce Safety & Accessibility**
- Eliminates heat, fumes, and sparks improving workplace safety
- Enables non-specialist technicians to perform structural bonding

- **Environmental & ESG Alignment**
- Low-energy application process (room temperature curing)
- Reduces carbon footprint compared to welding and mechanical fastening
- **Economic Multiplier Effect**
- Opens new markets in DIY, OEM, and civic-tech sectors
- Stimulates local manufacturing and distributor ecosystems

6. Team Size, Background, Strength /Capability and Resources

FOUNDER

DR. ALEEM SHEIKH IS THE FOUNDER AND CEO OF A NANOCOATING SOLUTIONS COMPANY THAT SERVES THE CONSTRUCTION AND AUTOMOBILE INDUSTRIES. HE IS A HIGHLY EXPERIENCED ENTREPRENEUR WITH OVER 15 YEARS OF EXPERIENCE IN THE FIELD OF NANOTECHNOLOGY.

UNDER DR. SHEIKH'S LEADERSHIP, HIS COMPANY HAS BECOME A LEADING PROVIDER OF NANOCOATING SOLUTIONS, OFFERING A WIDE RANGE OF PRODUCTS THAT ARE DESIGNED TO PROTECT SURFACES FROM WEAR AND TEAR, CORROSION, AND OTHER FORMS OF DAMAGE. THE COMPANY'S NANOCOATINGS ARE USED IN A VARIETY OF APPLICATIONS, INCLUDING ROADS, FLOORS, GLASS, WALLS, FABRIC, CERAMIC, SOLAR, METAL, IRON, WOOD OR PLASTIC

DR. SHEIKH IS WIDELY RECOGNIZED AS AN EXPERT IN THE FIELD OF NANOTECHNOLOGY AND HAS RECEIVED NUMEROUS AWARDS AND HONORS FOR HIS CONTRIBUTIONS TO THE INDUSTRY. DESPITE HIS BUSY SCHEDULE AS CEO OF HIS COMPANY, DR. SHEIKH REMAINS COMMITTED TO PROMOTING SCIENTIFIC RESEARCH AND IN HEALTHCARE.

WITH HIS PASSION FOR INNOVATION AND HIS EXPERTISE IN NANOTECHNOLOGY, DR. ALEEM SHEIKH IS A TRUE LEADER IN THE FIELD OF NANOCOATING SOLUTIONS AND HIS COMPANY IS POISED FOR CONTINUED SUCCESS UNDER HIS GUIDANCE.

DR. ALEEM SHEIKH
FOUNDER & MD

6. Team Size, Background, Strength /Capability and Resources

Dr. Irfana Akther MBBS, MAHM (UK)

Co-founder of Talisman Ventures is a medical doctor and an entrepreneur. Dr. Irfana Akther is also founder of ICAM Wellcare, is a pioneer in integrative medicine and regenerative therapies. Her clinical expertise and ESG-aligned healthcare leadership make her an ideal strategic partner to amplify the credibility, safety, and cross-sector adoption of Talisman-FMA. Co-validation of Talisman-FMA for assistive device assembly, clinical infrastructure, or sanitation-grade bonding

Market Landscape - Market Potential, Competitors

Target Sectors

- **Construction & Infrastructure**: Adhesives account for over 38% of global consumption in this sector
- **OEM & Equipment Assembly**: Shift toward lightweight, multi-material, Adhesives replacing welding/riveting for speed, flexibility, and cost efficiency
- **Civic-Tech & Public Sector**: Need for field-ready bonding solutions in sanitation, furniture, and smart infrastructure. Adhesives enable low-skill deployment.
- **DIY & Maintenance**: Rising consumer preference for non-toxic, easy-to-use adhesives

Market Growth Indicators

- Global adhesive market valued at USD 60.2B in 2024, projected to reach USD 89.4B by 2033
- Formaldehyde-free adhesives segment growing at 5.2% CAGR, driven by ESG and VOC regulations
- Asia-Pacific (India, China, Japan) is the fastest-growing region, fueled by infrastructure and manufacturing demand

7. Market Landscape - Market Potential, Competitors

Manufacturer / Product	Key Features / Limitations	Talisman-FMA Advantage
IKOpro Sprayfast FMA	PU-based spray adhesive for roofing membranes; fast application but limited substrate scope	Broader substrate compatibility (metals + plastics)
3M Scotch-Weld DP420	High-strength epoxy; excellent durability but long cure time (up to 24–48 hrs)	Faster tack-free time (20 mins) with full cure in 24 hrs
Loctite EA 9460	Toughened epoxy for metal bonding; requires extensive surface prep	Moderate surface prep with strong lap joint performance
Permabond ET500	General-purpose epoxy; limited vibration resistance	High resistance to stress, vibration, and impact
Devcon Plastic Steel Epoxy	Metal repair epoxy; rigid and brittle under dynamic load	Flexible bonding with stress-dissipating properties
Araldite 2015	Marine-grade adhesive; excellent durability but expensive and over-engineered for general use	Cost-effective alternative for civic-tech and OEM
Henkel Teroson PU 9225	PU-based structural adhesive; good for automotive but limited shelf life	Longer shelf stability and field-ready packaging
JB Weld Original	Widely used DIY epoxy; strong but slow curing and limited industrial use	Industrial-grade bonding with faster deployment readiness
SikaPower-4720	OEM-grade adhesive; requires primer and controlled environment	Primer-free application with ambient curing
Bostik ISR 70-03	Elastic adhesive; good flexibility but low shear strength	High shear strength with flexible joint options

8. Business Model & Strategy

Component	Description
Value Proposition	High-performance, fast-setting adhesive for multi-substrate bonding—offering a clean, scalable alternative to welding and fastening
Customer Segments	OEMs, infrastructure contractors, civic-tech integrators, DIY distributors, and public sector maintenance teams
Revenue Streams	Product sales (adhesive kits), licensing to OEMs, distributor margins, and future AMC/service bundles
Channels	Direct B2B sales, channel partners, pilot-led onboarding, and digital outreach for DIY and civic-tech markets
Cost Structure	R&D, pilot manufacturing, packaging, compliance, distributor onboarding, and technical support
Key Partnerships	Civic-tech deployment agencies, OEM integrators, infrastructure contractors, and ESG-aligned grant bodies
Customer Relationships	Pilot-led engagement, technical support, and milestone-driven onboarding for long-term retention

8. Business Model & Strategy

Phase	Strategic Focus
R&D & Pilot Phase	Finalize formulation, validate performance across sectors, and collect field data
Go-to-Market (GTMP)	Target civic-tech and OEM sectors with pilot-backed case studies and distributor onboarding
Scale-Up Strategy	Expand manufacturing, build regional distributor networks, and launch digital presence for DIY and public sector
ESG Positioning	Align with low-VOC, low-energy bonding trends; pursue grants and certifications for infrastructure deployment
IP & Defensibility	File patents around formulation and application methods; build defensible moat in multi-substrate bonding
Commercialization	Bundle adhesives with training, AMC, and servicing models for recurring revenue and operational stickiness

9. Revenue Model

Product Sales (Core Revenue)

- **Adhesive Kits**: Direct sales of Talisman-FMA in various packaging formats (cartridges, dual syringes, bulk packs)
- **Sector-Specific SKUs**: Custom formulations or packaging for OEMs, civic-tech, and DIY markets
- **Pilot Deployment Bundles**: Adhesive + training + technical support for early adopters

Channel & Distributor Margins

- **B2B Distributor Partnerships:** Margin-based revenue through regional and sector-specific distributors
- **Retail & E-commerce**: Future expansion into DIY and maintenance markets via online platforms

Licensing & OEM Integration

- **Technology Licensing:** For OEMs seeking to integrate Talisman-FMA into their assembly lines or product kits

Services & AMC (Post-Scale)

- **Application Training:** Paid workshops or certifications for field technicians and contractors
- **Annual Maintenance Contracts (AMC):** Adhesive supply + servicing for civic-tech and infrastructure clients
- **Technical Consulting:** Custom bonding solutions for complex substrates or environments

10. Financial Projections

Year	Revenue (INR Cr)	COGS (INR Cr)	Operating Expenses (INR Cr)	EBITDA (INR Cr)	Net Profit (INR Cr)	Strategic Notes
Y1	₹0.50	₹0.23	₹0.25	₹0.02	₹0.01	Pilot runs, lean ops, early B2B traction
Y2	₹2.50	₹1.13	₹1.00	₹0.37	₹0.25	Distributor onboarding, civic-tech pilots
Y3	₹6.00	₹2.70	₹2.00	₹1.30	₹0.90	OEM adoption, breakeven crossed solidly
Y4	₹10.00	₹4.50	₹2.80	₹2.70	₹2.00	AMC/service bundles, scaled manufacturing
Y5	₹15.00	₹6.75	₹3.50	₹4.75	₹3.50	Full commercial rollout, multi-sector traction

11. Project Milestones

Milestone 1: Pilot Validation & Market Entry (0–3 Months)
Objective: Establish product credibility and prepare for scaled deployment

- Finalize adhesive formulation and packaging formats (cartridges, dual syringes, bulk kits)
- Conduct pilot runs across 2–3 sectors (civic-tech, OEM, infrastructure)
- Collect performance data: cure time, shear strength, substrate compatibility
- Initiate ISO certification process (ISO 9001, ISO 14001, ISO 45001) for adhesive manufacturing
- Build digital presence: product microsite, technical datasheets, and explainer content
- Launch targeted B2B outreach for early distributor onboarding
- Prepare ESG documentation and compliance roadmap

Milestone 2: Commercial Scale-Up & Revenue Activation (4–9 Months)
Objective: Transition from pilot to revenue-generating operations

- Expand manufacturing capacity to support 10,000+ units/month
- Finalize packaging compliance and labeling standards for pan-India distribution
- Launch marketing campaigns across OEM, civic-tech, and DIY channels
- Onboard 5+ channel partners with training and incentive structures
- Close first institutional sale or public sector deployment contract
- File provisional IP/patent for formulation and application method

12. Total Budget

Category	Allocation (₹ Lakh)	% of Total	Strategic Purpose
R&D & Formulation Refinement	₹30.00	60%	Finalizing adhesive chemistry, substrate testing, cure optimization
Certifications & Compliance	₹5.00	10%	ISO 9001, ISO 14001, ESG documentation, safety labeling
Core Team Salaries	₹5.00	10%	Technical staff, pilot coordination, distributor onboarding
Packaging Development	₹4.00	8%	Cartridge design, labeling, shelf-stability testing
Marketing & Outreach	₹3.00	6%	Microsite, datasheets, explainer videos, pilot partner campaigns
Contingency & Working Capital	₹3.00	6%	Buffer for raw material volatility, pilot overruns, or urgent ops

THANK YOU