



FOOTWEAR DESIGN AND DEVELOPMENT INSTITUTE
Ministry of Commerce & Industry, Government of India
An Institution of National Importance

ONE FDDI
SOLUTIONS | STANDARDS | INNOVATION

**TESTING
LAB SERVICES**

**CENTER OF
EXCELLENCE**

**CONSULTANCY
SERVICES**

**CAPACITY BUILDING
PROGRAMME**

**DESIGN, DEVELOPMENT &
INCUBATION CENTER**



**INTERNATIONAL
PROJECT
MANAGEMENT**

**THE COMPLETE
SERVICE COMPENDIUM**



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www.fddiindia.com



Contents

	Page No.
1. Message From The Managing Director	03
2. FDDI : About Services	04
3. International Testing Center (ITC) Services	05
4. Centre of Excellence (CoE) Services	13
5. Capacity Building & Training Projects	19
6. Industry Consultancy & Support	21
7. Design, Development & Incubation Center	23
8. International Project Management	27

MESSAGE FROM THE MANAGING DIRECTOR

One FDDI – Solutions | Standards | Innovation

It gives me immense pleasure to present One FDDI: Solutions | Standards | Innovation - the complete service compendium of the Footwear Design & Development Institute (FDDI), designed to offer a comprehensive portfolio of our institutional capabilities for both domestic and international industry stakeholders.

As an Institution of National Importance dedicated to footwear, leather goods and allied sectors, FDDI stands committed to supporting India's growing stature as a global hub for the sectors. With a legacy rooted in excellence and a future driven by innovation, this compendium encapsulates our strategic offerings across key verticals that address end-to-end industry needs.

The services covered herein include:

- International Testing Center (ITC) Services, ensuring global compliance and quality assurance.
- Centre of Excellence (CoE) Services, fostering cutting-edge research, design, and innovation.
- Capacity Building & Training Projects, aligned with national skilling missions and global talent demands.
- Industry Consultancy & Support, delivering practical, tech-driven, and scalable solutions.
- Design, Development & Incubation Center, nurturing product innovation and MSME competitiveness.
- International Project Management, extending FDDI's expertise to developing economies through impactful collaborations.

Through this unified platform, we reaffirm our role as an integrated solution provider and knowledge partner to the industry, promoting standards, sustainability, and strategic advancement. We invite our partners - from manufacturers to policymakers, entrepreneurs to educators - to leverage the One FDDI framework and collaborate with us in shaping the future of this vital sector.



Vivek Sharma, IRS

Warm regards,
Vivek Sharma, IRS
Managing Director, FDDI

FOOTWEAR DESIGN & DEVELOPMENT INSTITUTE

“Footwear Design & Development Institute, “An Institution of National Importance” under the FDDI Act 2017 is a premier academic and training institution dedicated to the development and growth of the Footwear & Product, Leather Products, Retail and Fashion Merchandise and Fashion Design sectors. FDDI has Pan India Presence with 12 state-of art campuses at Noida, Fursatganj, Chennai, Kolkata, Rohtak, Chhindwara, Guna, Jodhpur Ankleshwar, Banur, Patna and Hyderabad.”



38⁺
YEARS OF
EXPERIENCE

02
INTERNATIONAL
LAB.

07
CENTER OF
EXCELLENCE

12
CAMPUSES

SERVICES

1. International Testing Center (ITC) Services
2. Centre of Excellence (CoE) Services
3. Industry Consultancy & Support
4. Capacity Building & Training Projects
5. Design, Development & Incubation Center
6. International Project Management



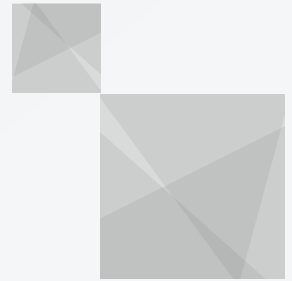


ITC

INTERNATIONAL TESTING CENTRES

INTERNATIONAL TESTING CENTRES

FDDI currently operates two International Testing Centres located in Noida and Chennai, with additional labs coming up in Jodhpur and Rohtak. These facilities specialize in testing leather, leather products, footwear (including safety, fashion, and sports categories), footwear components, textile products, and plastics.



Noida Lab

The ITC has full-fledged Chemical and Physical Laboratories, where all kinds of chemical like AZO, PCP; Formaldehyde etc. and physical tests like slip resistances for Safety & Fashion footwear, Climate chamber (-70°C to +220°C), weather-O-meter ATLAS make CI 3000 series are performed within strict time schedules. It has a complement of state of art testing equipment, all calibrated to the most demanding industry standards.

The lab has sophisticated latest equipments like GCECD, GCMS, ICPMS, FTIR, UV Visible, Computerized tensile testing, climate chamber, Ozone chamber, weatherometer etc.

The tests at the laboratory are conducted as per various standards depending on the customer's requirement. Reliability and authenticity is the watchword at this center of excellence.

Chennai Lab

ITC Chennai is helping the leather & footwear industries by providing its testing services (both physical & chemical) and delivering accurate, consistent and reliable results with minimum possible time at the doorstep of one of the major clusters of India in the State of Tamil Nadu.

Upcoming Labs

Two new FDDI testing laboratories are coming up in Jodhpur and Rohtak.

Physical and Chemical Lab

FDDI's International Testing Centres are located in Noida and Chennai, both internationally accredited by SATRA, U.K. The Noida facility is approved by the Bureau of Indian Standards (BIS) for testing safety footwear in accordance with IS: 15298, IS: 5557, IS: 3976, and IS: 12254.

Notably, ITC Noida is conducting safety footwear tests as per ISO standards 20344, 20345, 20346, and 20347. The lab also holds ISO 9001 and ISO 14001 certifications, ensuring quality and environmental management compliance.



AZO DYE TEST

The azo dye test is to determine the values of amines, especially which are carcinogen. Different colourants including dyes and pigments are used for the colouration of fashion articles such as apparel, textile, footwear and accessories

CHROMIUM

Chromium is a naturally-occurring element found in rocks, animals, plants, and soil. It is widely used in manufacturing processes and can be found in many consumer products such as wood treated with copper dichromate, leather tanned with chromic sulfate, and stainless steel cookware. Chromium can be found in air, soil, and water after release from the manufacture, use, and disposal of chromium-based products, and during the manufacturing process. Chromium(VI) compounds are more toxic than chromium(III) compounds. The most common health problem resulting from exposure to chromium involves the respiratory tract; these health effects include irritation of the lining of the nose, runny nose, and breathing problems such as asthma, cough, shortness of breath, wheezing.

PENTACHLOROPHENOL (PCP)

Pentachlorophenol (PCP) can be used to prevent fungal growth and decay by bacteria. In textile and leather industry, PCP is mostly used for preservation finishing; in ligneous products PCP can be used in conservation paints. PCP can also be used in wooden toys and handicrafts.

FORMALDEHYDE

Although formaldehyde is an incredibly useful chemical, there are known ecological and toxicological risks associated with exposure and handling, particularly in industrial and laboratory-based environments. In concentrated forms formaldehyde is an irritant, and a highly reactive, flammable and toxic substance that should be handled in controlled manner. Therefore, formaldehyde testing is necessary for product compliance due to the chemical being restricted globally according to the material type, product and end consumer (i.e. adult or child, in skin contact etc.) with the acceptable limits for children being significantly lower than those for adults.



OUR ACCREDITATION

FDDI is the first footwear testing lab in the area of core competencies to be awarded various prestigious certifications from leading international organizations.

Certificates for FDDI International Testing Centre

- ISO 17025 : 2017 Accreditation by NABL
- Membership from SATRA Technology Center, U.K.
- Accreditation from SATRA (For Noida & Chennai Lab)
- BIS Recognized lab (Noida)
- RITES approved lab (Noida)

Standards & Norms

The tests at the laboratory are conducted as per various standards and guidelines laid down by,

- Shoes and Allied Trades Research Association (SATRA)
- Deutsche Institute fur Normung (DIN Norms)
- International Organization for Standardization (ISO Norms)
- Bureau of Indian Standards (BIS)
- Australian and Canadian Norms for Safety Shoes Testing
- American Society for Testing and Materials (ASTM)
- American Association of Textile Chemists & Colorists (AATCC)
- European Norms

OUR TESTING RANGE

At ITC, we offer a comprehensive range of physical and chemical tests on :

- Leather for footwear & garments
- Textile and fabrics for clothing
- Complete Footwear, Components & Allied materials
- Ageing and weathering tests
- Banned and restricted chemicals
- Automobile parts
- Sports Goods
- Dyes & Pigments
- Upholstery

State of the Art Laboratory



PHYSICAL LABORATORY

- The Physical Laboratory was set up in collaboration with PFI Germany for testing of safety footwear.
- The lab is well equipped with latest equipments for performing test like metal insert flexing, SATRA slip resistance for Safety and Fashion footwear etc.

01

FDDI, ITC NOIDA IS ENGAGED IN MAKING THE SPECIFICATION / QRS FOR PARAMILITARY FORCES, DEFENCE PERSONNEL, STATE POLICE, PSU's ETC. BASED ON THEIR REQUIREMENTS.

02

THE LAB IS PROVIDING SERVICES TO ALMOST ALL THE LEADING EUROPEAN BUYING HOUSES WHO ARE OPERATING FROM INDIA. ALL THE LEADING BRANDS LIKE REEBOK, ADIDAS, SKECHERS, FILA, PUMA, ASICS, CROCS, RED TAPE, WOODLAND, RED CHIEF, BATA, UVEX, LIBERTY, ALLEN COOPER ETC. UTILIZING OUR LAB SERVICES ON REGULAR BASIS.

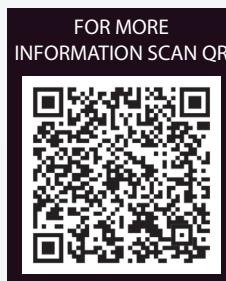
- It also provides test for testing of safety footwear as per national and international norms like ISO 20344, 20345, 20346, 20347 and IS: 15298 (part 1 to 4)
- The lab also provide its inspection services to Government organization, paramilitary forces and foreign buyers.
- The laboratory maintains the highest standards of quality control.



TEST FACILITY

(Physical Testing)

Sl. No.	Test Parameters	Sl. No.	Test Parameters
1.	Whole Shoe Flexing	31.	Sole Flexing (Ross / Bennewart/Belt Flex)
2.	Heel Attachment Strength Test	32.	Oil Swelling
3.	Strap Attachment	33.	Compression Set
4.	Strength Of Attachment Of Bows & Trims	34.	Split Tear Strength
5.	SATRA Sole Adhesion Test	35.	Die C" Tear Test"
6.	16 Point Bondability Test	36.	Heat Shrinkage
7.	Leakage Resistance	37.	% Volatile Loss
8.	Slip Resistance	38.	Abrasion
9.	High Voltage	39.	Tear Strength (Synthetic/Fabric/ Plastic/Rubber/Leather)
10.	Top Piece Attachment	40.	Blooming Test
11.	Peel Strength	41.	Elasticity Test (Repeated extension On Elastic)
12.	Visual Observation	42.	Testing of Zipper Fasteners
13.	Flexing Resistance of Shoe upper	43.	Testing of Velcro Fasteners
14.	Tensile Strength & Extension At Break	44.	Corrosion Resistance (For Metal Components)
15.	Seam Strength/Stitch Tear	45.	Abrasion Resistance (Outsole)
16.	Induced Tear Strength	46.	Impact Strength Of Steel Toe Caps
17.	Adhesion Of Coating (synthetics)	47.	Electrical Resistance Test – Hight Voltage /Antistatic/Conductive/ ESD
18.	Dynamic Water Resistance	48.	Resistance To Hot Contact
19.	Water Vapour Permeability	49.	Compression Resistance
20.	Water Vapour Coefficient	50.	Metal Insert Flexing
21.	Colour fastness to - Rubbing / Perspiration/ Water/ Washing/ Light	51.	Cold Insulation Test
22.	Shrinkage Test	52.	Floor Marking
23.	Fungus Growth	53.	Heat Insulation
24.	Cold Crack Temperature	54.	Energy Absorption
25.	Martindale Abrasion	55.	Crocking Test
26.	Identification Of Leather	56.	Ageing Test (Heat / Humidity)
27.	Finish Adhesion Test		
28.	Specific Gravity/density		
29.	Tensile Strength & Elongation At Break		
30.	Hardness		



CHEMICAL LABORATORY

- The Chemical Lab in FDDI's International Testing Center is well equipped with all the modern instruments/techniques of chemical analysis and highly trained technical manpower that have undergone extensive training at Prüf-und Forschungsinstitut Pirmasens e.V. (PFI), Germany.
- We have the capability for the testing of all the banned chemicals as per EN and ISO standards like AZO Dyes, PCP, formaldehyde, Cr – VI, Dimethyl Fumerate, Allergenic and Carcinogenic Disperse dyes, Cadmium, Nickle free etc.
- The laboratory maintains the highest standards of quality control.

(Chemical Testing)

Sl. No.	Test Parameters
1.	Ash Test
2.	PH
3.	Water Soluble
4.	AZO Dyes
5.	Pentachlorophenol (PCP)
6.	Chromium-VI
7.	Formaldehyde
8.	Moisture Content
9.	Solvent Extractable Matter
10.	Chrome Content
11.	Water Soluble Matter
12.	Heavy Metals
13.	Lead Content as per IS 12254
14.	Free Fatty Acid Content
15.	Nickle Free
16.	Organo Tin Compounds (Two Only)
17.	Organotin Compounds (One Only)
18.	Disperse Dyes Allergenic
19.	Disperse Dyes Carcinogenic
20.	Phthalates
21.	Dimethyl Formamide
22.	Dimethyl Fumerate
23.	Nickle Release

TEST FACILITY AS PER BIS SPECIFICATION:

Sl. No.	Test Parameters
1.	Testing of Sandal /Slipper as per BIS IS 6721
2.	Testing of Hawaii Chappal as per BIS IS 10702
3.	Testing of Sports Shoes as per BIS IS 15844: Part 1, Part 2, Part 3
4.	Testing of General Shoes as per BIS IS 17043: Part 2
5.	Testing of Professional Service Shoes as per BIS IS 17043: Part 1
6.	Testing of Jungle Boot as per BIS (IS 17861 -2022)
7.	Testing of Anti-Riot Boot as per BIS IS 17037
8.	Testing of Tactical Boots as per BIS IS 17012
9.	Testing of Leather Shoes with Rubber Sole as per BIS IS 11226
10.	Testing of Canvas Shoes as per BIS IS 3736, IS 3735
11.	Testing of Safety Footwear as per BIS IS 15298: Part 1 2, 3, & 4
12.	Testing of Safety Footwear as per ISO 20344, 20345, 20346 & 20347
13.	Testing of All Rubber Gum Boot & Ankle Boot as per BIS IS 5557: Part 2 (2018)
14.	Testing of Protective Steel Toe cap as per BIS IS 5852: Part 1
15.	Testing of Rubber Sole as per BIS IS 5676



The background of the slide is a grayscale photograph of a large industrial workshop. In the foreground, a man in a light-colored shirt and safety gloves is working on a machine. In the background, other workers are visible, and the workshop is filled with various industrial equipment, including what appears to be a large lathe or milling machine. The ceiling has several industrial fans and lights. The overall scene depicts a professional manufacturing or engineering environment.

CoE

CENTRE OF EXCELLENCE

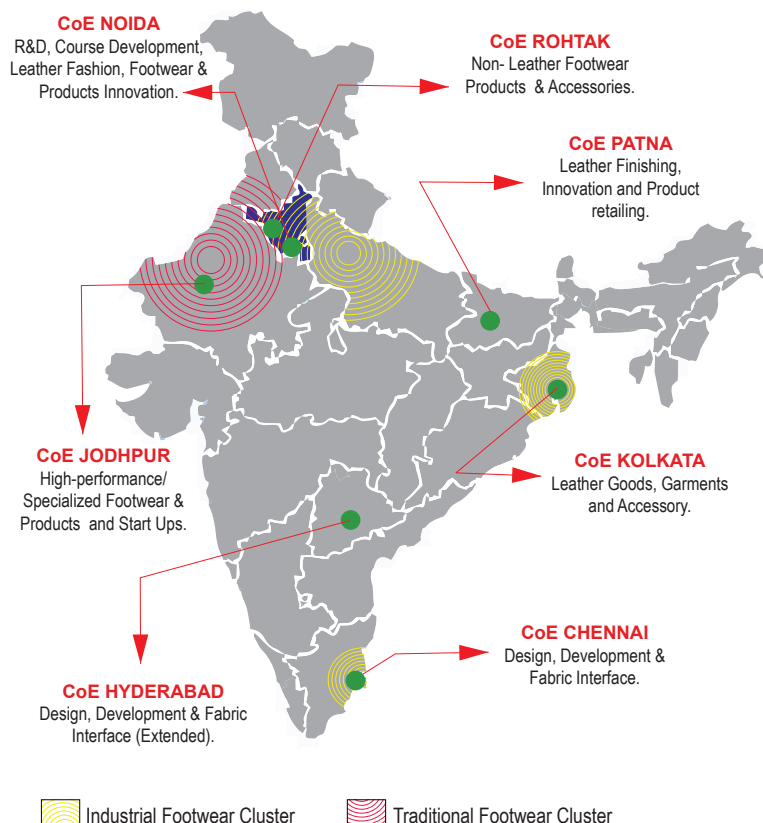
CENTRE OF EXCELLENCE (COE)

Service Offered

- Research Ideation.
- Institution-Industry-Collaboration.
- Product Development.
- Product Testing.
- Human Performance Evaluation and Enhancement.
- Incubation and Start-up Support.
- Education and Training Services.
- On Demand Services (Customized)

Unique Facilities

- Biomechanics Lab (Rohtak)
- Polymer Lab (Jodhpur and Rohtak)
- Physical Lab (Jodhpur and Rohtak)
- Pattern making Lab (Rohtak and Jodhpur)
- Prosthetics and Orthotics Lab (Jodhpur)
- Last milling and modelling Lab (Chennai)
- Upper knitting Lab (Rohtak and Chennai)
- Design Lab and Product development studio (Jodhpur, Hyderabad and Chennai)



Research Areas	Outcomes
Research Ideation. Material Testing and Innovation (Leather, Textile and Polymer).	Evaluation of physical, mechanical and rheological properties of materials according to application, performance, and durability; supporting quality control research complying with standards along with testing of newly developed prototype. Compounding and processing of polymers, knitting of textiles and generating novel fabric.
Design Innovation and Validation.	Design and development of footwear and related components to serve special requirements (i.e. activity - specific design, design for discomfort mitigation). Post production design validation using standard physical testing methods and human trials
Product Development.	Product range building, prototype fabrication and other related activities.
Performance Evaluation and ameliorative intervention.	Evaluation of human activity and postures that intervene with principles of ergonomics and accidents and biomechanics aiming to reduce thereby enhancing performance.
Rehabilitation support, Clinical validation, and integration.	Assistive device design and digital fabrication, rehabilitation and clinical trials, customization and personalisation.

Genesis:

Under the scheme of Indian Footwear, Leather and Accessories Development Program (IFLADP) by Department for Promotion of Industries and Internal Trade (DPIIT), Ministry of Commerce & Government of India, Footwear Design & Development Institute (FDDI) has Centres of Excellence or COEs.

Expertise:

- Developing methodological approaches for evaluation.
- Creating new standards and validating suitability for old ones.
- Constructing databases.
- Upskilling and knowledge dissemination.
- Ideating an innovative indigenous product.
- Industrial translation of technology.

Center of Excellence – Jodhpur

Advancing High-Performance Footwear & Human-Centric Innovation

FDDI Jodhpur's Center of Excellence is a dedicated hub for innovation, research, and industry collaboration in the domain of high-performance specialized footwear and allied products. Established in 2023, this CoE is built to serve the evolving needs of India's safety, rehabilitation, and performance footwear ecosystem.

Core Theme

The CoE – Jodhpur specializes in:

- Occupational and Safety Footwear
- Biomechanical & Rehabilitation Solutions
- Traditional Indian Footwear (Revival & Modernization)
- Performance Enhancement in Human Movement
- Design & Material Innovation
- Technology Transfer & Indigenous Product Development

Key Services Offered for Industry

Empowering industry and healthcare with tailored services:

- Workplace Ergonomic Assessment & Productivity Enhancement
- Rehabilitation Product Design & Support
- Accident Analysis & Preventive Footwear Strategies
- Material Testing & Quality Assurance (as per global standards)
- Technical & Design Consultancy
- Material Innovation Lab Services
- Training Workshops for Industry & Academia
- Design, Prototyping & Custom Development



Cutting-Edge Facilities

State-of-the-art tools and labs to push the boundaries of design and performance:

- 3D Foot Scanning & Printing
- Plantar Pressure Analysis (Static & Dynamic)
- Physical, Mechanical & Rheological Testing Labs
- Polymer Processing for PVC, TPR, Elastomers (Rubber calendaring, compression moulding, PU pouring, DMS processing & more)

Future Roadmap

CoE aims to evolve into a startup enabler and entrepreneurial hub focused on product innovation, with planned initiatives under FDDI's national incubation mission.

Center of Excellence – Chennai

Empowering Innovation in Footwear Design & Fabric Interface

Located at the FDDI Chennai Campus and established in 2023, the Center of Excellence for Design, Development & Fabric Interface stands as a beacon of innovation in India's southern design ecosystem. This specialized CoE is dedicated to cutting-edge developments in footwear design, shoe-last prototyping, and knitted upper development, combining traditional craftsmanship with futuristic technologies.

Core Vision

To be a pioneering hub in footwear, fashion, and leather goods design and development—driving basic and applied research, enhancing product innovation, and strengthening industry-academia collaboration through testing, consultancy, and co-development models.

Key Focus Areas

- Footwear Design & Prototyping
- Shoe-last Modelling and Development
- Knitted Upper Design and Development

Services Offered to Industry

- Knitted Upper Design & Development
- Component Cutting & Material Scanning
- Product Development Support
- Last Modelling and Foot Scanning
- Industry-focused Training Workshops



Infrastructure & Technology

Equipped with state-of-the-art machinery and digital infrastructure, the CoE houses:

- CAD/CAM Labs
- Reverse Engineering Units
- Die-less Plotter Cutters
- Laser Cutting Machines
- Last Modelling and Milling Facility

Collaborations and Impact

- Co-development with Stanley Safety Shoes on sample prototyping

Fostering Startup's & Incubation

With its strong technical base and experienced mentorship, the CoE Chennai also supports emerging brands and young innovators, facilitating a growth-driven environment for product-based startups in design and footwear technology.

Chennai CoE at a Glance

A strategic powerhouse blending technology, design, and industry collaboration, the Center of Excellence – Chennai continues to redefine standards in modern-day footwear and material innovation

Center of Excellence – Hyderabad

Theme/Core Focus

Non-conventional / Technical / Smart Textiles, Pattern Making, and Design for Leather/Non-Leather Products

Core Vision

Bridge academia and industry to foster innovation in futuristic fashion, footwear, and accessories.

Key Services Offered to Industry

- Design & pattern making (fashion/accessories)
- Product development support
- Industry training workshops
- Digital design lab access

Cutting-Edge Facilities

- Direct-to-fabric digital printing
- Computerized embroidery & knitting machines
- Laser cutting & engraving
- Computerized flat-bed knitting and pattern seamer
- Design and plotting/cutting equipment



Center of Excellence – Kolkata

Theme/Core Focus

Leather Goods, Garments, and Accessories – Design, Prototyping, Research, and Academia-Industry Interface

Core Vision

Promote design innovation, skill advancement, and collaborative research to enhance industry competitiveness.

Key Services Offered to Industry

- Design & prototyping
- Product development and trend research
- Industry training workshops
- Product certification, labeling, and technology transfer
- Hosting seminars/workshops for knowledge exchange

Cutting-Edge Facilities

- CAD/CAM lab with digital pattern cutter & 360° sewing machine
- Prototype development, preparation, stitching labs
- Video conferencing & e-learning setup
- Digital printing and plotting systems



Center of Excellence – Rohtak

Theme/Core Focus

Non-Leather Footwear, Products & Accessories with a Biomechanical & Polymer Design Approach

Core Vision

Foster innovation in sustainable non-leather footwear and accessories with advanced biomechanics and testing.

Key Services Offered to Industry

- Biomechanics-based product testing
- Gait and motion analysis
- Non-leather footwear design and prototyping
- Polymer sole development and manufacturing
- Physical testing and quality analysis for materials

Cutting-Edge Facilities

- **Biomechanics Lab:** Gait analysis with 8 markerless video cameras, 2 KISTLER force platforms, and 16-channel EMG electrodes
- **3D Foot Scanning System**
- **Polymer Sole Manufacturing Lab**
- **Design Lab and Physical Testing Lab**

Industry Collaborations: Not explicitly listed in the document

Incubation/Startup Support: Not available



Center of Excellence – Patna

Theme / Core Focus

Retail Management & Leather Finishing Techniques

Core Vision

To build regional capacity through specialized training in retail operations and leather finishing to serve emerging industry and MSME needs in eastern India.

Key Services Offered to Industry

- Short-term Retail Management Training Programs
- Specialized training support in leather finishing units
- Advisory support for the development of finishing infrastructure

Cutting-Edge Facilities

- Functional setup for retail simulation and leather finishing (as part of short-term program delivery)
- Industry-relevant training infrastructure

Center of Excellence – Noida

Theme / Core Focus

Footwear & Product Design, Manufacturing, Management, and Academic R&D

Core Vision

To emerge as a national-level academic and industry-integrated excellence hub for advanced knowledge creation, skill innovation, and sectoral research in footwear and allied domains.

Key Services Offered to Industry

- Industry-aligned academic curriculum development
- Technology transfer and domain expertise dissemination
- Product testing support in collaboration with ITC, Noida
- Development of quality training modules and trainer support
- Academic research, publications, and innovation-led knowledge creation
- Incubation and mentoring support for sectoral CoE candidates

Cutting-Edge Facilities

- Access to product testing laboratories (via ITC, Noida)
- R&D knowledge base and learning ecosystem
- Institutional capability-building infrastructure



CAPACITY BUILDING & TRAINING PROJECTS & INDUSTRY CONSULTANCY & SUPPORT

CAPACITY BUILDING & TRAINING PROJECTS

EMPOWERING INDIA'S FOOTWEAR ECOSYSTEM: **SKILL. INNOVATE. COMPETE.**

1. Design, Innovation & Product Development

What FDDI Offers:

- **CAD/CAM-Based Digital Pattern Engineering**

FDDI provides training on software-driven design and grading systems, enabling faster prototyping and precision in pattern development. This includes CAD courses integrated with footwear-specific modules for cutting, stitching, and upper design.

- **Market-Led Design Boot Camps**

FDDI organizes seasonal design boot camps involving consumer research, global trend forecasting, and merchandising strategy. These help MSMEs and designers align with buyer expectations and fashion cycles.

- **3D Prototyping & Footwear Tech Packs**

FDDI enables hands-on exposure to 3D digital prototyping, rendering, and virtual fit tools. Participants learn to prepare comprehensive tech packs (specifications, bill of materials, stitching details) critical for sampling and production.

- **Orthopedic & Sustainable Footwear Labs**

Specialized training in ergonomic footwear for medical, senior, and orthotic markets. Sustainability-focused labs also introduce low-carbon and recycled materials with design thinking integration.



2. Quality, Compliance & Testing Support

What FDDI Offers:

- **Defect Detection & Prevention Training**

Programs on quality checkpoints from raw materials to finished goods. Training includes live defect analysis, grading systems, and rejection minimization techniques.

- **Footwear QA/QC Audit Training (BIS & SATRA Models)**

FDDI trains factory professionals on internal audits using global models like SATRA and Indian standards (BIS), enhancing consistency, safety, and export quality assurance.

- **Testing Lab Access & Demonstrations**

Stakeholders get guided access to FDDI's advanced labs, equipped for testing adhesion, flexing, slip resistance, abrasion, etc. Demonstration sessions familiarize MSMEs with compliance metrics.

- **Compliance Training (REACH, CPCB, ISO)**

Exporters and manufacturers are trained on EU (REACH), Indian environmental norms (CPCB), and ISO standards for chemicals, adhesives, labeling, and sustainability audits.

3. Mobile Training & Industry Outreach

What FDDI Offers:

- **On-Site Mobile Training Centers**

FDDI offers to establish temporary Mobile Training Centers directly at the premises of interested industry partners. These setups are equipped with the necessary machinery and infrastructure aligned with the approved training modules, enabling seamless execution of skill development programs on-site.

These mobile units allow industry clusters, MSMEs, or remote units to train their workforce without relocation or productivity loss. The training modules are customized based on the segment of workers—including operators, supervisors, technicians, and quality staff—ensuring scalable and context-specific skilling solutions.

4. Sustainability & Workplace Safety

• Chemical & Adhesive Handling Training

Specialized modules on material storage, PPE, ventilation systems, and fire safety ensure safe operations, particularly around PU, rubber, and solvent-based adhesives.

• Workplace Ergonomics Training

FDDI addresses occupational health by training line managers and operators on workstation design, tool usage, and postural best practices reducing repetitive strain injuries.

• Material Innovation Boot camps

FDDI hosts sessions introducing sustainable materials like mushroom leather, recycled EVA, and cork. Designers and factory owners are trained on how to integrate these into product lines.

5. Entrepreneurship & Market Access

What FDDI Offers:

• Start-up Incubation & Retail Launch Guidance

FDDI mentors early-stage entrepreneurs in designing collections, pricing, branding, and packaging. It supports business modeling and connects them to domestic and export buyers.

• Small-Scale Footwear Manufacturing Support

Training for micro-units in segments like school shoes, sandals, and basic sports footwear. It includes sourcing plans, layout design, cost-effective equipment use, and workforce planning.

• E-Commerce Enablement & Digital Retailing

Programs on D2C selling, digital marketing, product photography, and online platform onboarding (Amazon, Flipkart, etc.) equip artisans and small brands for modern commerce.

• Cluster Branding & Export Readiness Toolkit

FDDI supports MSME clusters in developing shared brand identities, collective packaging, and basic compliance readiness for exporting footwear under a regional label.

6. Voluntary Certifications by FDDI

What FDDI Offers:

• Green Label

The Green Label certification focuses on environmental compliance and sustainability. It covers critical aspects such as the use of restricted substances, adoption of eco-friendly manufacturing processes, and incorporation of sustainable materials. This label holds significant market value by enhancing product acceptance in environmentally conscious global markets such as the EU, USA, and Japan.

• FDDI Mark of Excellence

The FDDI Mark of Excellence emphasizes superior product quality, performance, and innovation—excluding environmental factors. It covers attributes like durability, comfort, fit, safety, and aesthetic craftsmanship. This mark adds market value by distinguishing premium products in competitive retail and export sectors. It also serves as a mark of recognition for quality that exceeds basic statutory requirements like QCO and BIS. Currently, we are conducting a market analysis to evaluate industry demand, recognition needs, and the practical impact of implementing these certifications.

INDUSTRY CONSULTANCY & SUPPORT



ENHANCING COMPETITIVENESS. DRIVING GROWTH. DELIVERING IMPACT.

1. Factory & Operations Support

What FDDI Offers:

• Factory Establishment & Layout Planning

End-to-end consultancy for setting up new footwear or leather goods manufacturing units, including workflow layout, space utilization, machine alignment, and material movement plans.

• Productivity Audits & Lean Manufacturing

On-ground audits to identify bottlenecks, wastage, and labor inefficiencies. Implementation of lean tools like 5S, Kaizen, and Kanban for optimized resource use and output.

• SOP Development for Core Units

Tailor-made Standard Operating Procedures (SOPs) for cutting, stitching, assembling, and finishing - ensuring consistency, reduced rejection, and training benchmarks.

• Efficiency Tools Implementation

Guidance on setting up digital dashboards and real-time production tracking systems to monitor efficiency, line balancing, and downtime.

2. Quality & Compliance Consultancy

What FDDI Offers:

- **Quality Management Systems (QMS)**

Support in developing and integrating QMS protocols customized for footwear and leather goods sectors—aligned with ISO 9001, BIS, and buyer-specific requirements.

- **Certification & Compliance Readiness**

Guidance and documentation for achieving BIS standards, REACH compliance (EU), and ISO certifications including worker safety and environmental standards.

- **Defect Analysis & Zero-Defect Initiatives**

Implementation of quality circles, root cause analysis (RCA), and problem-solving frameworks to reduce defects and rework.

- **Pre-Certification Lab Testing**

Access to FDDI's accredited testing labs to pre-check product performance (adhesion, flexing, abrasion) before certification or exports—plus reporting and corrective support.

3. Design & Product Development Support

What FDDI Offers:

- **Trend Analysis & Styling Guidance**

Deep insights into global fashion, footwear, and accessory trends to help MSMEs align their collections with evolving buyer preferences.

- **Pattern Development & Prototyping**

Technical assistance for converting ideas into patterns and samples using FDDI's advanced CAD/CAM, prototyping labs, and skilled sampling professionals.

- **Material Selection & Sourcing Advice**

Helping industries choose right-fit materials for quality, durability, aesthetics, and sustainability—connecting them with certified vendors.

- **Brand Identity Through Design**

Support in developing brand language through product collections, color palettes, design DNA, and signature styles—especially for startups and niche brands.

4. Market & Brand Advisory

What FDDI Offers:

- **Retail & Go-To-Market Strategy**

Consultancy for entering domestic and international markets with product placement plans, pricing models, and competitive analysis.

- **Visual Merchandising & Store Setup**

Guidance on store layouts, lighting, product display, customer flow design, and seasonal visual themes for multi-brand or flagship stores.

- **Customer Experience & Omni-channel Strategy**

Building buyer journeys across physical stores, websites, and marketplaces with seamless branding, sizing consistency, and product discovery optimization.

- **Sustainable & Brand-Aligned Packaging**

Design consultation for packaging that reflects brand values—be it eco-conscious boxes, recycled tags, or premium unboxing experiences.

5. Cluster & MSME Advisory

What FDDI Offers:

- **Cluster Diagnostics & Modernization Plans**

Assessment studies to understand current capacities, technology gaps, and skill shortfalls. Customized action plans to modernize production clusters.

- **Common Facility Center (CFC) Support**

Technical design and feasibility reports for CFCs equipped with testing labs, cutting rooms, or shared marketing platforms—particularly under government schemes.

- **Raw Material Bank & Vendor Development**

Assistance in setting up community-based raw material banks, supported by vendor identification, price negotiation models, and supply assurance mechanisms.

- **Skill Mapping & Training Integration**

Identifying gaps in the existing workforce and linking the cluster to FDDI's training ecosystem—delivering on-site, short-term, or ToT programs.



A wide-angle photograph of a large industrial facility, likely a manufacturing or research center. The space is filled with various machines, equipment, and workers. The ceiling is high with exposed pipes and lighting fixtures. The floor is marked with white lines. The overall atmosphere is one of a busy, modern industrial environment.

DESIGN, DEVELOPMENT & INCUBATION CENTER



DESIGN, DEVELOPMENT & INCUBATION CENTER

From Concept to Market: Powering Creativity, Prototyping & Enterprise

FDDI's Design, Development & Incubation Centers act as the creative and entrepreneurial hubs for India's growing fashion and lifestyle ecosystem. Leveraging its rich infrastructure, expert design faculty, and market orientation, FDDI provides a full spectrum of support for startups, designers, and MSMEs in the footwear, leather goods, and fashion apparel sectors.

1. Design & Product Development Support

FDDI Empowers Industry by:

Providing Access to High-Tech Design Studios:

CAD/CAM-enabled workstations where entrepreneurs and MSMEs can design footwear, bags, and garments using global standard software for pattern engineering and product detailing.

- **Assisting with Technical Drawing & Trend-Led Concepts:**

Support in developing tech packs, mood boards, trend forecasting interpretations, and consumer-specific design concepts aligned with international and regional styles.

- **3D Design, Styling & Material Mapping:**

Use of digital rendering tools for shape development, material simulation, colorway generation, and aesthetic enhancements.

- **Prototyping of Diverse Product Categories:**

Facilities for sample development across footwear, leather accessories (handbags, belts, wallets), and fashion garments—translating creative ideas into physical samples ready for market validation.



2. Prototype-to-Market Infrastructure

FDDI Accelerates Commercialization Through:

- **State-of-the-Art Tool Rooms & Sampling Units:**

Equipped for short-run and one-off sample production, ideal for testing, exhibitions, or buyer presentations without high-volume investments.

- **Machinery Access Across Production Stages:**

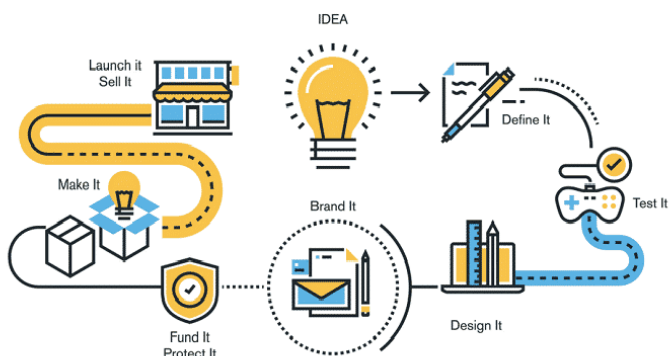
Industrial-grade equipment for cutting, stitching, upper making, sole attaching, molding, and finishing, enabling product teams to develop market-ready samples in-house.

- **3D Printing & Digital Fabrication:**

Advanced prototyping through 3D printing for form-fit evaluation, lightweight component design, and material experimentation in early product development.

- **Support for Exhibition-Oriented Sampling:**

Customized sample creation for industry showcases, buyer meets, and trade fairs—helping enterprises gain feedback and initial market traction.



PRODUCT DEVELOPMENT

An Overview: From Idea To Product

3. Startup Incubation & Mentorship

FDDI Nurtures Entrepreneurial Ventures with:

- **Dedicated Incubation Cells:**

Tailored spaces and structured support systems for startups in footwear, leather goods, and apparel—bridging the gap between idea and execution.

- **Business Strategy & Planning Mentorship:**

One-on-one mentoring in business planning, product pricing, costing analysis, and operational scalability.

- **Raw Material & Vendor Ecosystem Support:**

Advisory for sourcing, vendor identification, supply chain setup, and procurement—ensuring consistency and compliance in early stages.

- **Grants & Funding Facilitation:**

Assistance in preparing DPRs, applying for government schemes (Startup India, SIDBI, etc.), and navigating venture capital or grant-based funding opportunities.



4. Market Linkage & Brand Support

FDDI Bridges Product to Buyer Through:

- **Visual Branding & Storytelling:**

Creative services including product styling, photography, visual storytelling, catalogue creation, and lookbook design—essential for both digital and physical retail platforms.

- **Branding & Packaging Guidance:**

Support in developing visual identity, logo systems, sustainable packaging concepts, and brand narratives to enhance product appeal.

- **Buyer & Exhibition Connections:**

Facilitation for participation in national/international trade fairs, buyer-seller meets, online marketplaces, and curated fashion shows.

- **Trend Intelligence & Forecasting Access:**

Access to WGSN, international trend books, design databases, material libraries, and color forecasting tools—helping brands stay ahead of the curve.

5. Trade Support Unit – FDDI

Enabling Global Market Access | Enhancing Export Readiness | Navigating Trade Pathways

• Trade Support Unit – FDDI

To empower the Indian footwear and allied sectors, a dedicated Trade Division will be set up at FDDI to help the industry fully leverage the benefits of FTA/CETA agreements, with special emphasis on the India-UK collaboration.

Through this initiative, FDDI aims to stand beside manufacturers and exporters as a trusted partner offering not just technical expertise, but real support in navigating global trade challenges. From guiding small businesses on export compliance to providing access to certified labs, international market insights, and hands-on training, FDDI is committed to helping the industry grow, compete, and succeed on the world stage.



Special Focus: The India–UK Opportunity

The India - UK Free Trade Agreement opens big doors for Indian footwear and fashion - zero duty exports, faster clearances, and more visibility. But only if we're ready.

FDDI's Trade Support Unit is actively mapping out this opportunity for you:

- What UK buyers expect.
- How to meet UK chemical and labor standards.
- How to brand and price your products for UK shelves.
- How to use labs and certifications to your advantage.

Impact Highlights:

- Ideal for startups, first-gen entrepreneurs, and small-scale designers.
- Fills key gaps in prototyping, styling, and sampling across the value chain.
- Enables “design-to-market” transition with minimal capital risk.
- Builds a supportive ecosystem for creative entrepreneurship in fashion, leather, and footwear sectors.

We're Not Just Advisors. We're Your Support System.

Let's take Indian products to global shelves - together.

FDDI – Trusted by Industry. Built for People.

INTERNATIONAL PROJECTS CONSULTANCY & MANAGEMENT

INTERNATIONAL PROJECTS CONSULTANCY & MANAGEMENT

Expanding Global Footprints through Expertise & Excellence

As an Institution of National Importance, FDDI has carved a niche globally by offering comprehensive consultancy and capacity-building services in the domains of leather, footwear, components, leather goods, and garments.

FDDI partners with top Indian exporters, multinational retail players, and government bodies, supporting their workforce development needs through customized training and industrial consultancy. Extending its impact internationally, FDDI has led several successful projects in countries such as Ethiopia, South Africa, Sri Lanka, Bangladesh, Botswana, Nepal, and the Philippines.

FLAGSHIP INTERNATIONAL ENGAGEMENTS

ETHIOPIA – Enhancing Capacity & Competency

In collaboration with Peacock Shoes, Addis Ababa and LIDI (Leather Industry Development Institute), FDDI implemented a multi-faceted intervention:

- Global Benchmarking Project across 8 factories to raise operational standards.
- Development of training resources, occupational standards, curriculum, and teaching-learning materials aligned with Ethiopia's National Technical Qualification Framework (NTQF).
- Curriculum design and delivery for institutional training with LIDI.
- Sectoral surveys for expanding the non-leather industry.
- Joint consultancy for institutional competency development.
- Establishment of Product Development Centers with design capability support.
- Industrial consultancy in setting up canvas footwear and leather goods units, and productivity enhancement for MSMEs.

SOUTH AFRICA – Curriculum & Capacity Building

Supporting the Vaal University of Technology (VUT) and National Footwear and Leather Cluster (NFLC), FDDI is helping build a world-class training ecosystem:

- Skill and knowledge transfer to FET colleges and VUT.
- Development of standardized curriculum aligned to SAQA's NQF Level 2 for critical manufacturing processes—cutting, closing, lasting, and finishing.
- Contribution of FDDI's existing modules and content for curriculum development.
- Ensuring exit flexibility in the learning structure and alignment with South African unit standards.
- Training of Trainers to support execution, evaluation, and certification.



BOTSWANA – Infrastructure & Incubation

- Comprehensive survey and planning for establishing a leather park.
- Development of an incubation center for footwear and leather product artisans.

BANGLADESH – Center of Excellence

- Design and delivery support for training programs at the Center of Excellence for Leather and Leather Products.

SRI LANKA – Capacity Augmentation

- Short-term training programs conducted in India and Sri Lanka.
- Capacity strengthening of the Sri Bhandarnayeke Leather Training Center, Mount Lavinia.

NEPAL – Industrial Consultancy

- Consultancy, design support, and training programs for senior executives of Nepal's footwear sector at FDDI campuses.

PHILIPPINES – Faculty Development

- A 1-year teacher training program conducted in India for scholars from the Philippines, supporting educational excellence in footwear and leather education.

GLOBAL INTERVENTIONS

IN DESIGN & TRAINING BY FDDI





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