



Research Unit
Press Information Bureau
Government of India

5 Years of National Technical Textiles Mission

Weaving the Fabric of Innovation

(Ministry of Textile)

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“Technical textiles will become the economic backbone of India”

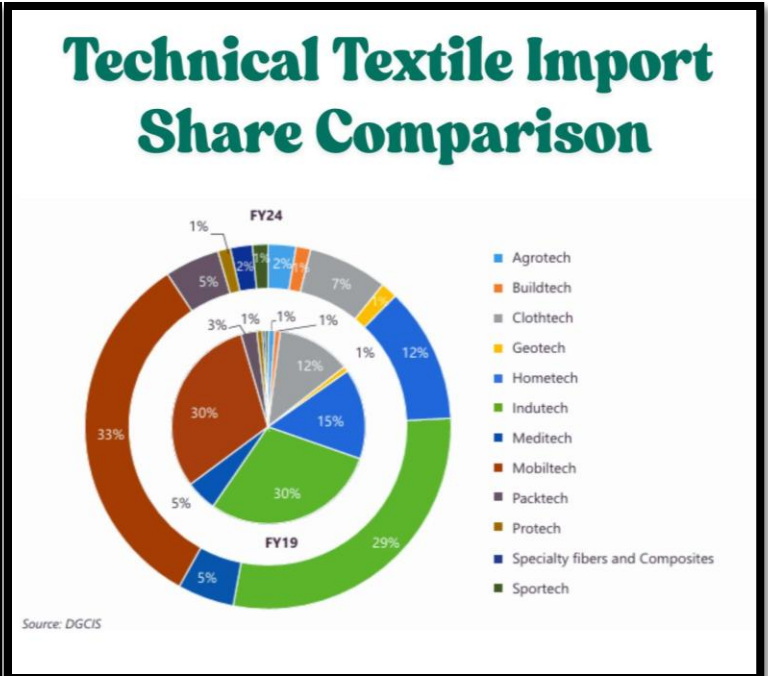
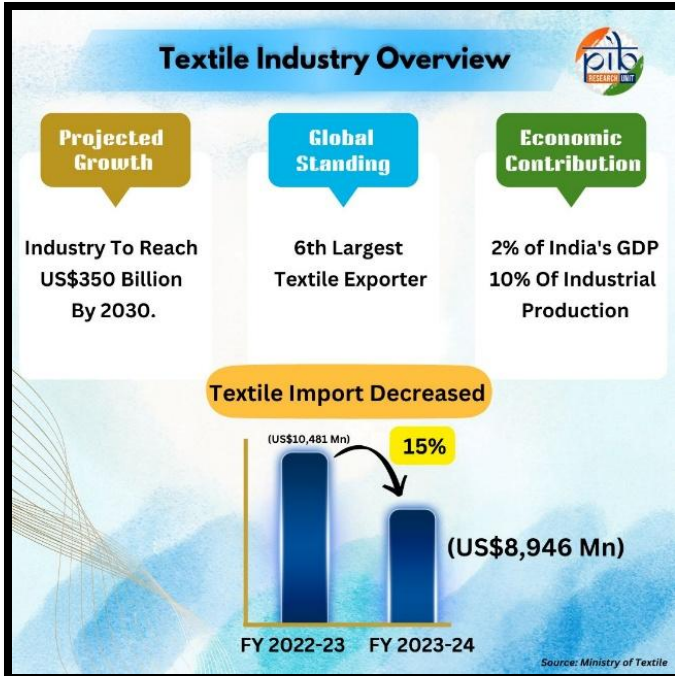
~ Union Minister of Textiles Shri Giriraj Singh

Summary

- National Technical Textiles Mission (NTTM) launched in 2020 by the Ministry of Textiles to boost technical textiles in India.
- Focuses on research, market growth, exports and skill development.
- Promotes innovation, startups and use in agriculture, infrastructure and healthcare.
- Aims to make India a global leader in Technical Textiles with a budget of Rs. 1,480 crore till 2025-26.
- Supports 168 research projects worth Rs. 509 crore.
- NTTM aims to train 50,000 individuals in technical textiles.

Introduction

India's textile industry is important to the economy and makes some of the most innovative fabrics globally. India is the 6th largest exporter of textiles globally, with a 3.9% share in world textile exports. It contributes nearly 2% to the country's GDP. The sector is set to grow to **US\$350 billion** by 2030 further strengthening India's position in the global market. This growth is expected to create **3.5 crore jobs**.



While traditional textiles remain crucial, the rise of technical textiles is reshaping the industry. These are specialized fabrics designed for specific uses, focusing on function over appearance. They are divided into 12 categories, each serving a different purpose.

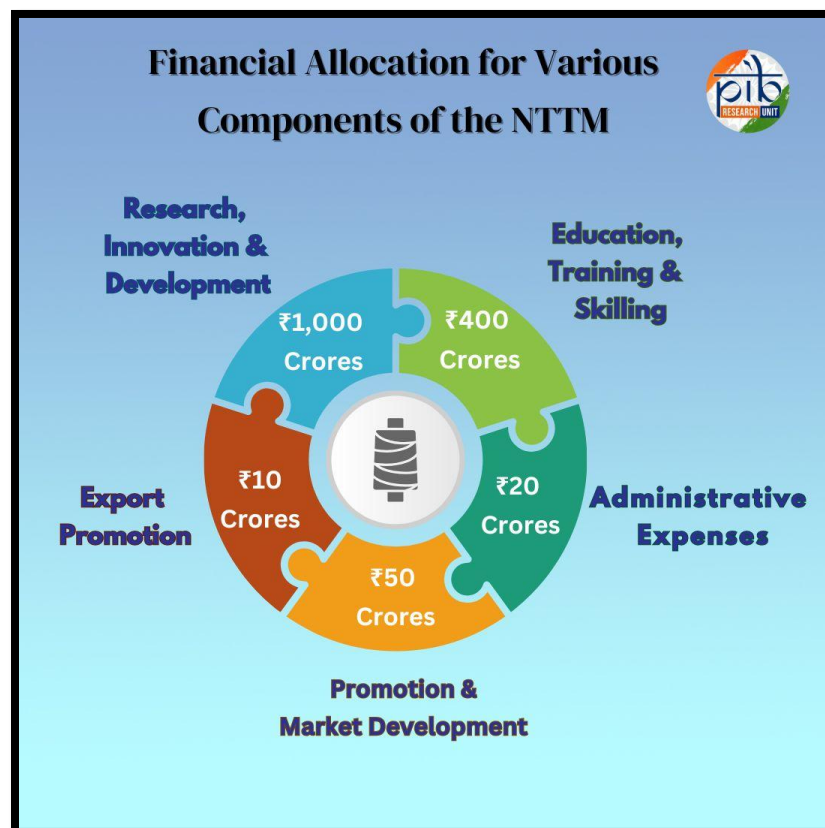
Technical textiles are fabrics made for specific functions and performance, rather than for looks. These textiles are designed to meet the needs of various industries like cars, construction, farming, healthcare, and safety. They are used in products that help protect people, improve machinery, and solve practical problems, such as in car parts, building materials, medical equipment, and safety gear.



Framework for the National Technical Textiles Mission

With a view to boost technical textiles sector in the country, National Technical Textiles Mission (NTTM) was launched for a period from **2020-21 to 2025-26 with an outlay of Rs.1,480 crores.** The National Technical Textiles Mission (NTTM) focuses on using textiles in key areas. The National Technical Textiles Mission (NTTM) has four key components aimed at boosting the sector's growth:

- **Component I – Research, Innovation and Development:** Supports R&D in technical textiles, inviting proposals to develop new materials and processes.
- **Component II – Promotion and Market Development:** Aims to increase technical textile adoption in India through market promotion and international collaborations.
- **Component III – Export Promotion:** Focuses on boosting exports of technical textiles with a dedicated export council. Outlay
- **Component IV – Education, Training, and Skill Development:** Promotes technical textiles education, skill training, and internships in top institutes and industries.



₹517 crore has been allocated for the National Technical Textiles Mission (NTTM) since its launch. So far, ₹393.39 crore has been used for various activities such as research, innovation, market development, export promotion and skill development in technical textiles. A total of 168 research projects, valued at around ₹509 crore, have been approved under NTTM.

NTTM Key Highlights

Research Areas Supported: Carbon fiber, aramid fiber, nylon fiber, composites, geotextiles, agro-textiles, medical textiles, mobile textiles, sports textiles, and biodegradable textiles.

Quality Control Orders (QCOs): 68 QCOs issued across various segments (20 Geotech, 12 Protective Textiles, 20 Agro Textiles, 6 Medical Textiles, 9 Ropes & Cordages, 1 Indutech textiles).

Export Promotion: The Synthetic & Rayon Textiles Export Promotion Council (SRTEPC) (now MATEXIL) assigned to promote technical textiles exports.

BIS Standards: Over 600 standards developed for technical textiles, including 200+ since NTTM's launch.

Academic Support: 38 proposals approved worth ₹191 crore for lab upgrades and faculty training in technical textiles.

NTTM Strengthening the Textile Industry with Other Initiatives

The National Technical Textiles Mission (NTTM) is driving the transformation of India's textile sector with a range of initiatives focused on innovation, skill development and promoting indigenous production.

- ❖ **Grant for Internship Support for Technical Textiles (GIST 2.0):** Launched under NTTM, GIST 2.0 bridges the gap between industry and academia by offering hands-on learning opportunities in technical textiles. It fosters local innovation, supports the Make in India initiative and helps empower young talent to drive growth in the textile sector.

GIST 2.0: Shaping Tomorrow's Talent
Grant for Internship Support In Technical Textiles

Focus Areas:

- 8 fields: Textiles to Aeronautical Engineering

Financial Support:

- Up to ₹20,000 per student monthly
- 2-month internship funding
- 50 interns supported per academic year

Who Benefits?

- B.Tech (2nd-4th year) students
- Public & Eligible Private universities
- Technical Textile product/ Machinery industries
- TRAs/ CoEs under M/o Textiles
- National and State Industry Associations & Chambers

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NTTM's 'GREAT' Scheme
Empowering Startups in Technical Textiles

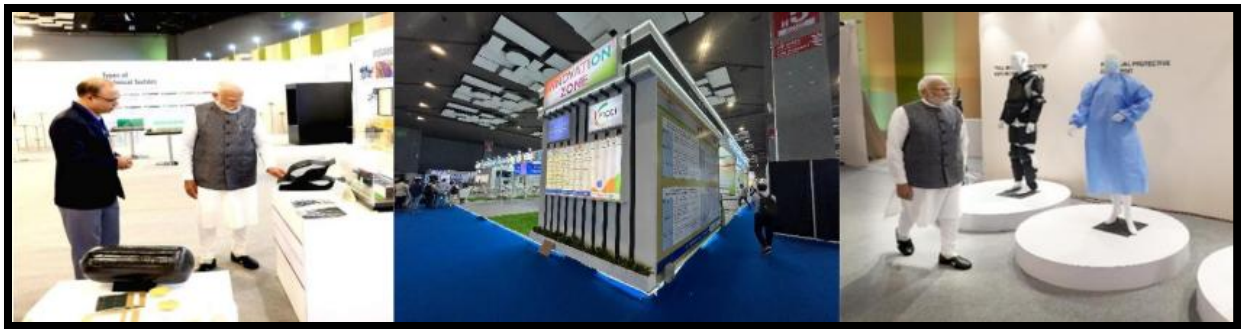
- GREAT Scheme:** Boosts startups under NTTM
- Startup Empowerment:** 8 startups approved, each receiving up to ₹ 50 Lakhs
- Military Innovation:** Braided composites & Radome Integrated IFF Antenna
- Healthcare Innovation:** Composite surgical simulation models for Doctor training
- Energy Innovation:** Nano-fiber infused textiles for Energy Generation & Sensing
- Self-Reliance:** Empowering Innovators to lead India in Technical Textiles

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- ❖ **Grant for Research & Entrepreneurship across Aspiring Innovators in Technical Textiles (GREAT) Scheme:** Launched in August 2023, the program provides funding to help translate prototypes into technologies and products for commercialization. So far, 8 startups were granted ₹50 lakh each for innovations in medical, industrial and protective textiles. Additionally, three educational institutes, including IIT Indore and NIT Patna, received ₹6.5 crore to introduce specialized courses in geotextiles, geosynthetics, and sports textiles.

- ❖ **Skill Development Programs:** To meet the growing demand in the technical textiles sector, NTTM aims to train 50,000 individuals, including undergraduate students, unskilled workers, and professionals. The initiative provides targeted skill development through 12 industry-focused courses developed by organizations like **SITRA** (South India Textiles Research Association), **NITRA** (Northern India Textile Research Association) and **SASMIRA** (South Ahmedabad Silk Mill and Industrial Research Association) in areas like medical, protective, mobile, and agricultural textiles.

❖ **Technotex 2024:** Held as part of Bharat Tex 2024, showcased the strength of India's technical textiles sector, offering a platform to explore global investment opportunities. A highlight of the event was the Innovation Zone under the National Technical Textiles Mission (NTTM), spanning 693 square meters. This dedicated pavilion featured 71 cutting-edge projects, with 48 presented as prototypes and 23 through informative posters.



Success Stories

In the rapidly evolving textile industry, innovation is driving major advancements in both comfort and functionality. One such example is **Eicher Goodearth's launch of Mahina, India's first bonded leak-proof period underwear.** Offering superior absorbency and leak protection for up to 12 hours, Mahina is made with natural materials, ensuring comfort and safety. It lasts for up to 100 washes without the need for pads or tampons.

States are increasingly focusing on strengthening the technical textiles industry. The Tamil Nadu Budget has prioritized its growth through key initiatives, including the establishment of the **PM MITRA Park in Virudhunagar and a textile park in Salem.** Additionally, the budget boosts capital subsidies for technical textiles investments, increasing the subsidy for spinning modernization from 2% to 6% to reduce costs and promote machinery upgrades.

Conclusion

India's journey to becoming a global leader in technical textiles is well underway. Initiatives like GIST 2.0, along with cutting-edge technology and research, are paving the way for this vision. With continued effort and innovation, India is set to lead the global technical textiles market, driving both economic growth and global competitiveness.

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Santosh Kumar/ Ritu Kataria/ Kamna Lakaria