FICCI Suggestions for the R & D Policy of Indian Textiles Sector

FEDERATION OF INDIAN CHAMBERS OF COMMERCE & INDUSTRY

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Introduction

Currently, Indian Textiles sector contributes about 14% to industrial production, 4% to the GDP, and 17% to the country's export earnings. It provides direct employment to over 35 million people. The Textiles sector is the second largest provider of employment after agriculture. However, the Indian textiles industry has only a small fraction of revenue derived from innovative, technology intensive or emerging products. Our strength has very much been in commodity products susceptible to intense competition and few entry barriers. FICCI believes to make the textiles sector fundamentally strong and foray in emerging areas, there is a need to develop a comprehensive R & D policy for Indian Textiles sector. FICCI has suggested below some of the outlines of R & D policy for Indian Textiles Sector.

Objectives

- To achieve significant share of Indian textiles in global markets of advance technology based products and high value added items and strengthening the capacity of domestic stakeholders in the area of environmental friendly textiles.
- Research to be need based & industry focused.
- To develop new processes and innovation for productivity improvement and cost reduction
- To facilitate adoption of new materials. Competitive edge for Indian textiles industry will come not only from improvement in processes but also by adoption of new materials.
- Give special attention to emerging areas such as nano technology, plasma technology, bio-technology, membrane technology and energy management etc

- To explore and apprise industry about environment management, eco-friendly processing, carbon credit etc
- Special focus on materials that reduce carbon footprint and are obtained from renewable sources.
- Encourage adoption of advance synthetic fibers and understand the applications of genetic engineering, bio-technology, and cellular biology in both natural and synthetic fibre-base
- Deepening efforts for Innovations in design & development
- To encourage IPR adoption in Industry.
- Focus R&D initiatives on high-end product development in apparel, home and technical textile areas
- Encourage Indigenization of imported machines and equipments
- Spread knowledge on state of the art products and processes

Government Support

- Formation of a "National Textile Research Council" with participation of Government, institutions, academia and industry which will act as a steering committee to initiate and monitor R&D in the country.
- Government could create a National Consortium which should bring together various stakeholders in the Textile value chain to quickly adopt new technologies.
- Financial support in the form of Grants for State-of-the-art machines and equipment (spinning to garment processing) at each TRA and leading Government/Government-Aided Engineering colleges/institutes to carry out research on latest and emerging technologies.
- Special incentives for easy adoption of those technologies that reduce carbon footprint.

- There should be ongoing review and evaluation of research work to ensure benefits from R&D to the industry.
- Awareness on practices and on intellectual property to encourage innovation
- National R&D Awards to industry for development of new products & processes in textiles.

Industry-Academia Linkages

- PPP Models for the projects undertaken by Educational Institutes and the TRAs on applied research and need based and industry focused research.
- Frequent Industry-Academia interaction to include industry requirements and update course curriculum of different colleges and research institutes
- Incentives could be given to Academia based on industrial relevance of their research and development work and matching funding from Industry.
- Empanelment of industry experts on Academic Advisory committees of the colleges/institutes of textiles
- The research work should be applied in nature and relevant to the needs of the industry

International Linkages

- International experts should be at the board/ advisor level in Indian Research Institutes
- Sign MoUs with leading international research institutions for conducting joint research projects

- Sign MoUs with leading universities/institutes/colleges for conducting joint academic programmes at Under Graduate and Post Graduate levels

Measures to promote technology development and innovation

- Government can adopt innovative technology either locally or internationally developed into their own program to serve as role models for the industry
- Create Incubation centres for technology transfer and acceptability by the industry
- Benchmarking domestic R&D spend with other countries both at national level and firm level.

Future Areas to Concentrate

- Sustainable solutions in the textiles industry are the need of the hour.
- There should be increasing research on developing practical recycling technologies that can take existing Synthetic fibers back into the textile supply chain.
- Development of specific and multi functional textiles
- Development of eco-friendly & sustainable linkages is key to competitiveness
- Research on making the existing processes more energy efficient
- Development of coated textiles for various sports and multifunctional applications
- IT integration of the industry
- Development of protective textiles (bacteria protective, ballistic resistance textiles etc.)
- Development of composites for automotive, aerospace and architectural application
- Development of non-wovens for apparel, medical and specialty applications.
- Development of electro-textiles for communication and health monitoring.

- Design & Development of Indigenous textile production machinery, instrumentation and automation
- Development of new medical devices based on textiles materials

Allocation of funds

- **National Textile Research Council : Rs. 30 crore (Seed Money) + Rs. 10 crore (Annual Grant)**

- **TRAs (Textile Research Associations) :**

(Rs. crore)

Purpose	***Funds per TRA***		***Total Funds For 8 TRAs for 5 years***
	For 1 year	***For 5 years***	
Machine and Equipment	4	20	160
Grant for research projects	2	10	80
Non-Plan Grant	2	10	80
Total (A)	**8**	**40**	**320**

- **Government/Government aided Engineering Colleges :**

(Rs. crore)

Purpose	***Funds per College***		***Total Funds For 19 colleges for 5 years***
	For 1 year	***For 5 years***	
Machine and Equipment	1	5	95
Total (B)	**1**	**5**	**95**

Total Funds needed for 5 years: Rs. 495 crores