Global markets for technical textiles

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Brand Management Technical Textiles & Textile Processing
Messe Frankfurt Exhibition GmbH, Germany
Messe Frankfurt corporate group 2013*: A global player in the trade fair sector

- Organiser of 114 trade fairs worldwide
- Shareholders: City of Frankfurt (60%), State of Hesse (40%)
- 28 subsidiaries worldwide and approx. 50 international Sales Partners covering more than 150 countries
- Turnover: about 543 EUR million
- About 78,500 exhibitors and about 3.56 million visitors
- Total area: 578,000 m²
  - available hall space: 355,535 m²
  - available open space: 96,000 m²

*preliminary figures as of December 2013
Success through concentration on business segments (I)

Technology & Production:
- IFFA, Intersec, ISH, Light+Building, Texcare

Consumer Goods & Leisure:
- Ambiente, Beautyworld, Christmasworld, Creativeworld, Hair and Beauty, Paperworld, Tendence

Textiles & Textile Technologies:
- Apparel Fabrics & Fashion (e.g. Intertextile, Interstoff, Texworld)
- Interior & Contract Textiles (e.g. Heimtextil)
- Technical Textiles & Textile Processing (e.g. Techtextil, Texprocess)
Success through concentration on business segments (II)

Mobility & Infrastructure:
- Automechanika

Entertainment, Media & Creation:
- Musikmesse, Prolight + Sound

Development of core competencies through Independent Brands
- e.g. Eco Expo Asia, Water Expo China
Building on international top position with strong event brands
Messe Frankfurt is the leading organizer of „Textiles & Textile Technologies“ trade fairs with growing presence in all key markets

40 fairs in 8 countries* cover the whole textile value chain:

– Apparel Fabrics & Fashion
– Interior & Contract Textiles
– Technical Textiles & Textile Processing
– Textile Care

*as of November 2013
Launch of new trades fair of Messe Frankfurt: Techtextil Middle East Symposium and Heimtextil India
Techtextil trade fairs around the world - taking the lead with innovations

The high presence of the Techtextil brand in markets with high growth potential creates synergy effects as well as an international network for the sector

Leading trade fair: Techtextil in Frankfurt

– Cinte Techtextil China in Shanghai
– Techtextil India in Mumbai
– Techtextil North America in Atlanta
– Techtextil North America in Anaheim
– Techtextil Russia in Moscow
# Product groups

| Research, development, planning, consulting |
| Technology, processes, accessories |
| Fibres and yarns |
| Woven fabrics, laid webs, braidings, knitted fabrics, ... |
| Nonwovens |
| Coated textiles |
| Composites |
| Bondtec (Surface treatment and bonding technologies) |
| Functional apparel textiles |
| Associations |
| Publishers |
Product group Research, Development, Planning, Consulting

Non-Woven made of Melamine (Thüringisches Institut für Textil- und Kunststoff-Forschung e.V.)

luminiscent yarns (ITV Denkendorf)
Product group Technology, processes, accessories

Computer controlled cutting systems

Direct Cabling Machine (Verdol)
Product group Fibres and yarns

Metal products (Fuesers Garne GmbH)

Polyester Fibres (Fiber Partner)

(PD Group)

(Thrace Group)
Product group Woven fabrics, laid webs, braidings, knitted fabrics

Nets (Sächsische Netzwerke Huck GmbH)

(Artefita)
Product group Nonwovens

High efficient absorbing products (Ecotextil)
Techtextil Middle East Symposium 2014, Michael Jänecke

Technical felts (Vereinigte Filzfabriken AG / FFF GROUP)
**Product group** Coated textiles

From Space into the Suit: Smart Phase-Change-Materials (Outlast)

Cotting: (Gorvi, Grifine, Mercapol, Plastibert)

High Performance Textiles (Vetex)
Product group Composites

Composites for Racing
(Siltex Holzmüller GmbH)
Product group Bondtec

Bonding with Water Based Acrylic Resin (BASF)
Product group Functional apparel textiles

Cloth with integrated warming function

(E-Broider) - a new dimension in textile design

(Fibretronic) Heating Jacket
The most important application areas for technical textiles (in alphabetical order) - part 1 -

**Agrotech**
e.g., gardening and landscaping, agriculture and forestry, animal farming

*Trade visitors*: agricultural engineers, landscape architects, horticultural engineers, agricultural institutes and large-scale enterprises, etc.

**Buildtech**
e.g., membrane, lightweight and solid constructions, civil and industrial engineering, temporary buildings, interior fitting, earth, water and transport constructions, agricultural building

*Trade visitors*: architects, civil engineers, building authorities, property developers, building-material manufacturers, construction companies, etc.

**Clothtech**
e.g., shoes, garments

*Trade visitors*: shoe and garment manufacturers, designers, developers, etc.

**Geotech**
e.g., geo-textile applications, underground constructions

*Trade visitors*: road and underground construction engineers and companies, building authorities, municipalities, etc.

**Hometech**
e.g., furniture, upholstery, interior furnishing, carpets, floor coverings

*Trade visitors*: furniture manufacturers, designers, interior designers, architects and planners from the contract business, etc.

**Indutech**
e.g., filtration, cleaning, mechanical engineering, chemical industry, electrical industry

*Trade visitors*: processing companies and users of products with textile materials for all industrial applications, industrial designers, development engineers, etc.
The most important application areas for technical textiles (in alphabetical order) - part 2 -

**Medtech**  
e.g., hygiene; medicine  
Trade visitors: producers and processing companies of articles for the medical and hygiene sectors, research institutes, etc.

**Mobiltech**  
e.g., automobiles, ships, aircraft, trains, space travel  
Trade visitors: designers, engineers, components suppliers, etc.

**Oekotech**  
e.g., environmental protection  
Trade visitors: environmental-protection engineers and technicians, safety engineers and technicians, environmental authorities, special companies, etc.

**Packtech**  
e.g., packaging  
Trade visitors: packaging industry, developers, buyers from major trading and industrial companies, etc.

**Protech**  
e.g., person and object protection  
Trade visitors: safety engineers and technicians, protective-clothing manufacturers, safety officers, social insurance funds, etc.

**Sporttech**  
e.g., sport, leisure  
Trade visitors: designers and manufacturers of sports articles and equipment, etc.
1. Agrotexiles made of Polyethylene (Alphatex)
2. (Toray)
1 Metal textile for use in Facades (GKD)
2 Heated Coating based on Carbon Nanomaterials (Future Carbon)
3 Reinforcing Products (Vitrulan)
Fiber from milkweed (Encore 3)
Techtextil Middle East Symposium 2014, Michael Jänecke
1 Geo Grid (Hyosung)
2 Geotextile made of polypropylene (S. iA. Pietrucha)
1 Geotextiles made of Polyethylene (Kordarna)
1 (Rahmig & Partner)
2 Textile fabrics for decoration (Tex ClubTec)
1. Complex knitting with synthetic and natural yarns (Kobleder)
2. When the sun shines directly into the room, special Cool Color pigments filter out up to 80% of infrared radiation. (Hornschuch AG)
1 New applications of polyimide (Evonik Fibres GmbH)
2 Coats
1 (Odetka a.s.)
2 Intelligent textiles for usage in Measuring and Diagnostic – Special Fitting Socks for Diabetic Patients (Alphafit Textile Sensoric)
Polyester bondage: soft, stretchable and self adhesive
1 Knitted Fabrics for the Automotive Industrie (Rökona Textilwerk GmbH)
2 Rubber reinforcing (Mep-Olbo GmbH)
3 Non-woven (Sandler AG)
4 Innovative Webs (Hyosung)
Recycled Fibres (Minot Recyclage Textile)

New fibres made of beechwood (Lenzing Textile)

Patented System for flexible vegetalisation (vertical ecosystem with Sioen Industries)

Techtextil Middle East Symposium 2014, Michael Jänecke
Recycling with PET
(Greenfiber International SA)
Nets (Sächsische Netzwerke Huck GmbH)

Synthetic Fibres for Knitted Nets (Lenzing)
1 Dyed Meta-Aramid Fibres (Huvis)
2 Anti-flame-Textiles (Clariant International Ltd)
3 Novoloid Fasern (Kynol Europa)
Anti-flame-Textiles: Pyroshell, and Protection with Wearing Comfort: Synergo (Schoeller AG)

Polyester with IR-Invisibility (Silk & Progress spol. s r.o.)
1 Polyamide Fibres in Fabrics for the Sport (Nylstar SA)
2 Magnetic locks (Fidlock)
3 Racing suits (Spintech)
4 Coating for Sport Shoes (Stahl)
Technical sport usage (Tex ClubTec)

High Compression Woven Fabrics (Kinetech)

Synthetic Fibres for Sport (Filtex International)

Adhesive Silicone Coating (Cilander)
Market opportunities

• Thanks to their versatility, technical textiles rank among the most innovative sectors

• Analyses show that, in terms of growth potential, technical textiles rank among the leading five high-tech industries

• Besides apparel and home textiles, more and more textiles are being used in other fields, such as construction, medicine, safety and environmental protection
Consequence: Business transformation

Strategy:

• Linking material development, user demands and cooperating companies from the textile production chain
• Textiles with better or new properties
• Increasing service
• New applications

Product range:

• diversification - textiles for garments and/or home textiles and/or technical textiles - or
• concentration on technical textiles only
General situation in the textile industry

Usage:

• Innovative / functional apparel textiles with better or new properties, new appliances

• Technical textiles used in
  - combination with traditional materials (e.g. textile-reinforced concrete)

  or as

  - substitution (e.g. composite instead of aluminium = formula-1 monocoque)
2010 World Technical Textiles Markets Breakdown

Tech. textile Structure Bill. USD *

World T&C Markets Bill. USD

Tech. textile Applications Tons *

- Home textiles
- Garments
- Technical Textiles
- Non woven
- Composites
- Agrotech
- Buildtech
- Clohtech
- Geotech
- Hometech
- Indutech
- Medtech
- Mobiltech
- Packtech
- Protech
- Sporttech
- Ecotech

Source: Gherzi

Techtextil Middle East Symposium 2014, Michael Jänecke
The Technical Textile Consumption Globally

East Asia contributes 1/5 consumption of the world

Source: China Nonwovens & Industrial Textiles Association
Market situation: European Union

- Within the textile industry, technical textiles continue to be a growth market:
  - 2011: double-digit turnover increases
  - 2012: exports remain at a high level

- Increasing export especially to countries outside the EU: Russia, China and the USA

- Many EU companies are already leaders in numerous niches of the international market for technical textiles

- Besides the EU debt crisis, rising energy and raw-material costs are causing ever greater difficulties for European textile manufacturers, especially in the field of man-made fibres

Source: Euratex
## Technical textiles: Market share in Germany

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Apparel</td>
<td></td>
<td>45%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Home textiles</td>
<td></td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Technical Textiles</td>
<td>5-8%</td>
<td>25%</td>
<td>40%</td>
<td>50%</td>
</tr>
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THE TEXTILE INDUSTRY LIKES TO INNOVATE

<table>
<thead>
<tr>
<th>Industry</th>
<th>Share of turnover from new products in %</th>
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<tbody>
<tr>
<td>Motor vehicle manufacture</td>
<td>49</td>
</tr>
<tr>
<td>Electrical industry</td>
<td>38</td>
</tr>
<tr>
<td>Machine construction</td>
<td>28</td>
</tr>
<tr>
<td>EDP/Telecommunication</td>
<td>24</td>
</tr>
<tr>
<td>Textile / clothing / leather</td>
<td>19</td>
</tr>
<tr>
<td>Glass/ ceramics / stoneware</td>
<td>17</td>
</tr>
<tr>
<td>Rubber / plastics conversion</td>
<td>16</td>
</tr>
<tr>
<td>Chemical / pharmaceutical</td>
<td>15</td>
</tr>
<tr>
<td>Technical / R&amp;D services</td>
<td>14</td>
</tr>
<tr>
<td>Metal production / processing</td>
<td>12</td>
</tr>
<tr>
<td>Media services</td>
<td>11</td>
</tr>
</tbody>
</table>

1) Source: Centre for European Economic Research 19, No. 2, 2012
Electronics in a yarn: the E-Thread technology

Avantex Innovation Prize – category: new materials

CEA-Leti / DSIS, France

Jean Brun
Dr. Dominique Vicard
Automated production of light-emitting textiles

Avantex Innovation Prize – category: new processes

Textilforschungsinstitut Thüringen-Vogtland e.V., Germany

Dr. Uwe Möhring
Kay Ullrich
Heiko Wolf
Dirk Zschenderlein
REFRESH: the textile waterbag

Techtextil Innovation Prize – category: new applications

D‘Appolonia S.P.A., Italy
Spanopoulos Group, Greece
Industrial Sedò SL, Spain
Safibra S.r.o., Czech Republic
Tecnodimension Hinchable SL, Spain
AIMPLAS, Spain
Ziplast S.r.l., Italy

Samuele Ambrosetti
Donato Zangani
Jesus Pallares
Nikos Alvanos

Theodora
Marousopoulou
Stratos Sarantavgas
Josep Lluis Curto i Also

Joan Maria Mercade
Roberto Romani
Vincent Martinez Sanz
Gianfranco Germani

Hana Pazoutova
Ladislav Sasek
Ökolys – the first woven biodegradable and compostable agro textile

_Ptechtextil Innovation Prize – category: new applications_

Beaulieu Technical Textiles
Groene Dreef 19
9770 Kruishoutem
Belgium
Energy-efficient textile structure for solar thermal use based on polar bear fur and seasonal storage

Techtextil Innovation Prize – category: new applications

Institut für Textil- und Verfahrenstechnik (ITV), Germany

TAO-Trans-Atmospheric Operations GmbH, Germany

Arnold Isolierungen, Germany

Tinnit GmbH, Germany

Labor Blum, Germany

Wagner Tragwerke, Germany

Markus Baumann
Prof. Dr. Heinrich Planck
Dr. Jamal Sarsour
Dr. Thomas Stegmaier
Wolfgang Arnold

Duro Tomsic
Peter Kungl
Manfred Kurz
Prof. Dr. Bernd Kröplin
Aron Kneer

Cornelius Weißhuhn
Dr. Rainer Blum
Prof. Dr. Heidrun Bögner-Balz
Jochen Köhnlein
Michael Karwath

Judith Sarsour
Prof. Dr. Rosemarie Wagner
schoeller® fitted decubitus sheet – a valuable contribution in the prevention of bed sores

Techtextil Innovation Prize – category: new applications

EMPA – Swiss Federal Laboratories for Materials Science and Technology, Switzerland
Swiss Paraplegic Centre, Switzerland
Schoeller Textil AG, Switzerland

Dr. Siegfried Derler
Dr. René Rossi
Hans-Jürgen Hübner
Paul Kellenberger
Dr. Anke Scheel-Sailer
New masterbatch formulation for dyeable and printable polypropylene

Techtextil Innovation Prize – category: new materials

Devan Chemicals, Belgium

Dr. Xavier Almeras
Dr. John Ellis
Dirk Luyckx
Silicone based warp knitted textiles for medical and composite applications

Techtextil Innovation Prize – category: new materials

Massebeuf Technical Textiles, France
Bluestar Silicones France S.A.S., France
MDB Texinov, France

Anne Bouchet
Pascal Nowak
Patrick Massebeuf
Dr. Bertrand Bordes
Karine Borecki
Dr. Damien Djian
Bernard Moulin

Dr. Nadège Boucard
Julia Brun
Christian Chapuis
Sébastien Léo
Eric Mignot
Anne Plat
Multi Compact Fabric

*Techtextil Innovation Prize – category: new technologies*

**LIBA Maschinenfabrik GmbH, Germany**

Rainer Ernstberger  
Stephan Fichtner  
Klaus Fuchs  
Martin Leidel  
Dr. Jan Mártin  
Rald Schramm  
Rainer Seuß
Circular woven fabric with variable cross section

honorable mention – category: new technologies

Sächsisches Textilforschungsinstitut e.V., Germany

Reinhard Helbig
Günther Thielemann
Techtextil in Frankfurt

• **Date:** 4 – 7 May 2015
  (Texprocess in parallel)

• **Symposium:** in parallel

• **Venue:** Messe Frankfurt, Germany

**Results 2013:**

• **Exhibitors:** 1,330 exhibitors from 48 countries
  including 13 joint stands from Belgium,
  Canada, China, France, Great Britain,
  Czech Republic, India, Italy, Portugal,
  Spain, Taiwan, Turkey and the USA.

• **Visitors:** 27,400 visitors from 97 countries
  plus 5,348 visitors from Texprocess
Techtextil: Exhibitor development 1986 – 2013

Abroad
2011: 780 (49)
2013: 887 (47)

Germany
2011: 419
2013: 443

Total
2011: 1,199 (50 countries)
2013: 1,330 (48 countries)

as of: 06/ 2013
source: Messe Frankfurt Corporate Research
Techtextil: Visitor development 1986 – 2013

Abroad
- 2011: 13,779 (95)
- 2013: 15,671 (96)

Germany
- 2011: 11,136
- 2013: 11,747

Total
- 2011: 24,915 (96 countries)
- 2013: 27,418 (97 countries) plus 5,348 visitors from Texprocess

as of: 06/ 2013
source: Messe Frankfurt Corporate Research
Texprocess in Frankfurt

New leading international trade fair for the garment and textile processing industry

• Date: 4 – 7 May 2015
  (Techtextil in parallel from 5 – 7 May 2015)

• Conceptual partner:
  VDMA Garment and Leather Technology

Results 2013:

• Exhibitors: 330 exhibitors from 38 countries
• Visitors: 12,100 visitors from 98 countries plus 8,100 visitors from Techtextil
Russian Textile and Clothing Industry

Total market volume textiles 31 bn $ (2010)

- Textile and clothing industry includes 653 large-scale enterprises and over 4 000 small companies
- Grey imports - 36.5%, Official import - 41.9%, Local production - 21.6%
- Production of nonwoven materials increased by 30% in 2011
- Protection clothing by 21%

Source: RF Ministry of Industry & Trade, Federal Customs Service
Technical Textiles Market in Russia (5 main segments)

1. BUILDTECH

- Vladivostok APEC Summit in 2012
- Sochi Olympic Games in 2014
- FIFA World Cup in 2018
- First half of 2012: according to the Federal state statistic service, the construction volume grew by 1.9% compared with the first half of 2011
- Profits in the future and higher number of workers in the industry
- The growth of the volume of works increased by 84% in III quarter 2012 compared to the II quarter (compared to an increase of 23% in the II quarter 2012 compared to the quarter)

Source: PMR, Knitting Industry News
Technical Textiles Market in Russia
(5 main segments)

2. GEOTECH

• High demand for geo-synthetic nonwovens: Estimated consumption volume of geosynthetics = 290 mn m²

• 53% road construction, 18% oil industry, 9% civil & landscape construction, 6% gas industry, 2% water constructional works

• 40% imported geotextiles

Source: Academy of Industrial Markets Conjuncture, BCH
Technical Textiles Market in Russia
(5 main segments)

3. MEDTECH

• Manufacturers of orthopedic products, bandages, compression knitwear and hosiery etc..

• Great demand for elastic fabrics, ribbons, laces, yarns and other medical textiles

Source: Academy of Industrial Markets Conjuncture, BCH
4. MOBILTECH

• The Russian automotive industry currently accounts for about 7% of the worldwide car production
• First half of 2011 car production grew by 76%
• 93,5% growth: 1,4 mn cars and light vehicles in 2010
• Eleven foreign carmakers have production operations or are constructing plants in Russia
• The Russian Government plans to amend the industrial assembly scheme to stimulate large scale projects (more than 300 000 cars per year) and increase the level of localisation required to 60% (based on added value) over the first 5 years of the project.
• In 2011 sales increase 50% in the first 7 months; among the top 10 bestselling models so far, nine are locally produced.

Technical Textiles Market in Russia
(5 main segments)

5. PROTECH

- Gas & oil industry (Gazprom, Rosneft, Lukoil etc.),
- metallurgy, fire protection, welding, electric utility industry etc.
- Market growth in 2008 +15%, 2009 +20%, 2010 +22%, 2011 +22%
- Total market volume 2,6 bn$
- Main manufacturers: Tchaikovsky Textile, Kadotex, Energocontract, Textil M, etc.

Quelle: Step by Step, BCH
Techtextil Russia in Moscow

• Date: 11 – 13 March 2014
• Organizer: Messe Frankfurt RUS, Moscow
• Venue: Expocentre Fairgrounds, Moscow

Results in 2012:

• Exhibiters: 192 from 22 countries incl. joint stands from Belgium, China, France, Germany plus EU pavilion
• Visitors: 4,510 from 29 countries including visitors of Inlegmash
Indian government plans to raise outlay on technical textiles

• To promote the technical textiles sector, the Indian government plans to increase the fund outlay for various schemes to cover RS 700 crores / 82 mill. € during the 12th Five Year Plan.

• The market size of technical textiles in India is estimated to have grown to Rs 91,236 crores / 10 bn € in 2013-14 from about Rs 42,000 crores / 5 bn € in 2007-08 at an annual growth rate of 11%.
India’s Technical Textiles Industry to double by 2014-15

• India’s domestic technical textiles market is estimated to grow at an average annual rate of over 10-12 % in the next four to five years.

• The sector is said to be ready to double from its estimated current value of US $10 billion today because of high consumption of technical textiles by India’s growing middle classes.

• The sector's major driving applications are medical textiles, automotive textiles, geo textiles and hygiene products.

• Assocham has recommended that the Indian textile industry should have a multi-prong strategy to ensure development of agro shade net fabrics, chemical protective fabrics and multi-layer sportswear fabrics.

Source: Assocham 2012
Analysis of the Indian Market

Initiative of the Textile Ministry to promote technical textiles

• 5 percent preferential duty on most technical-textile machines

• Lower consumption tax on man-made fibres and filament yarns

• Inclusion of technical-textiles in the TUFS promotional activities (Technology Upgradation Fund Scheme).

• As part of TUFS, a capital grant of 10 percent will be given for special machines in the textile sector, as in the case of processing machines

• The budget of the 12th five-year plan includes Rs 500 crore for a pilot programme to promote manufacture and use of geo-textiles

• There is an announcement of 91,933,100 $ worth of India opportunity venture fund, which will help the fast-paced development of the small and medium companies in technical textile sector
Scheme for setting up Center of Excellence

In line with U.K. System, Centers of Excellence for 6 segments have been launched by the Govt for identify the latent consumer needs and convert them into a product idea which will be readily accepted by the market.

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Segment</th>
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<tbody>
<tr>
<td>BTRA and ATIRA (Mumbai, Ahmadabad)</td>
<td>Geotech</td>
</tr>
<tr>
<td>SITRA with A.C. College of Technology (Coimbatore)</td>
<td>Medtech</td>
</tr>
<tr>
<td>NITRA &amp; IIT, Delhi (Ghaziabad)</td>
<td>Protech</td>
</tr>
<tr>
<td>SASMIRA &amp; MANTRA &amp; Navsari Agricultural University &amp; IIT, Delhi (Mumbai)</td>
<td>Agrotech</td>
</tr>
<tr>
<td>DKTE Textile &amp; Engineering Institute</td>
<td>Nonwoven</td>
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</tbody>
</table>

**Future Center of excellence:**

- Guru Gobind Singhji Institute of Engineering and Technology, Nanded and Garware Wall Ropes, Ltd. Pune will establish the **center for sportech**
- Coimbatore based PSG College of Technology will create **center for industrial textiles** Ahmedabad Textile Industry’s Research Association will focus on **composites**
Techtextil India in Mumbai

• Date: 24 - 26 September 2015
• Symposium: in parallel
• Venue: Bombay Exhibition Centre, India
• Supporters:  

Results in 2013:

• Exhibitors: 180 from 16 countries & regions incl. joint stands from Belgium, China, France, Germany and Italy
• Visitors: 5,575 from 36 countries & regions
In 2012, China’s imports of industrial textiles values US$3.37 billion, mainly in plastic coated fabric and nonwoven, industrial fiberglass products, medical and health care textile, from Taiwan, Korea, USA and Germany, etc.

Source: China Nonwovens & Industrial Textiles Association
China’s major growing Technical Textile Sector

**Average annual growth rate (AAGR)**

- Structural Modification: 11%
- Protection: 9%
- Transport: 12%
- Civil Engineering: 12.5%
- Filtration and Separation: 13%
- Medical and Healthcare Sector: 12%

Source: China Nonwovens & Industrial Textiles Association
Total output of fabric processing in key application field of China nonwovens & industrial textiles

A. Textiles for medical and health use
1. Research and development of medical organ materials.
2. Develop efficient medical protection product.
3. Promote new-type, ultrathin, non-irritating and degradable hygienic products.

-> The annual average growth rate is estimated to be 12% in the future, the output to reach 1,240,000t by 2015.

B. Textiles for filtration and separation
1. Develop thermostable and corrosion resisting filter materials.
2. Improve the performance of hollow fiber liquid filtration material.
3. Develop filter materials of medical, chemical, food and paper processing industry.

-> The annual average growth rate is estimated to be 13% in the next five years, the output to reach 1,030,000t by 2015.

Source: China Nonwovens & Industrial Textiles Association
Total output of fabric processing in key application field of China nonwovens & industrial textiles

C. Textiles for civil engineering and construction
1. Accelerate the development and application of functional weaving or warp knitting of geotextiles and geomembrane (grilling).
2. Emphasize on eco-development of new-type textiles for civil engineering.
4. Develop new and high-tech processing technology of geosynthetics.

-> The annual average growth rate is estimated to be 12.5% in the next five years, the output to reach 730,000t by 2015.

D. Textiles for transportation
1. Develop high-performance materials for interior motor decoration.
2. Develop multi-functional covering or awning materials.
3. Develop imitation leather material of ecotype and superfine fiber.
4. Focus on ecological performance and irretrievability of automotive textiles.

-> The annual average growth rate is estimated to be 12% in the next five years, the output to reach 74,000t by 2015.

Source: China Nonwovens & Industrial Textiles Association
E. Textiles for security and protection
1. Develop anti-nuclear radiation, bullet proof and stab resistant, and biochemical textiles.
2. Develop inflaming retarding, anti-fusion protection material and clothing.
3. Develop textiles for protection that contains multiple protecting functions.

-> The annual average growth rate is estimated to be 9% in the next five years, the output to reach 350,000t by 2015.

F. Textiles for structural enhancement
• Develop substitute product of traditional structural materials.
• Develop new-type textiles for structural enhancement.

-> The annual average growth rate is estimated to be 11% in the next five years, the output to reach 1.03 million tons by 2015.

Source: China Nonwovens & Industrial Textiles Association
Business Opportunities in China

The development

- The annual growth in railway and road construction will exceed 10% by 2015.

- The population of 60+ will reach 170,000,000, which indicate the vast demand in adult hygiene, estimate a 15% growth in Medical textile.

- The producing capacity of technical textile in China is only 20% of its capacity in textile fibre producing. However, consumption increases over 9.9% annually, which is more than producing capability of China.

- The gap between ever-growing demand and productivity in China has brought tremendous business opportunities to overseas producers.
South Korea and Taiwan

South Korea
• is increasingly banking on products with a higher value added. One of the focuses in this connection is on technical textiles.
• Countermeasures for textiles in South Korea:
  • Convergence of textiles and IT, bio and nano technology
  • Secure core technology using industrial textiles including auto, aerospace, construction & medical

Taiwan’s
• textile industry consists of large-scale enterprises and many SME’s employing over 162,000 people. They divide up as follows:
  65% Textiles
  29% Clothing and accessories
  6% Chemical fibres
• Re-orientation of the Taiwanese textile industry: away from solely mass production to products with a high value added or a high R&D share
• Relative to all man-made fibre applications, an increasing proportion to be used in future for industrial textiles: 10 to 40% from 2002 to 2015*

*) expected.
Source: Taiwan Textile Research Institute (TTRI), 2010
Cinte Techtextil China in Shanghai

Date: 24 - 26 September 2014

• Symposium: in parallel

• Venue: Shanghai New International Exhibition Centre, Shanghai

• Supported by:  

Results in 2012:

• Exhibitors: 437 from 22 countries & regions incl. pavilions from Belgium, Germany, India, Italy, Taiwan

• Visitors: 19,066 from 62 countries & regions
General

• Mills surviving in the U.S. specialty fabrics industry continue to invest in new plants and new material-producing equipment.

• This mentality has led to an increase in the capacity utilization rate 2 for specialty fabric mills operating in the U.S. from a 56 percent rate in 2009 to 73.4 percent in 2011.

Source: IFAI, USA
End product manufacturer market segments in 2011 and projection 2012

<table>
<thead>
<tr>
<th>The most important market segments</th>
<th>2011</th>
<th>Forecast 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car / transporter (Mobiltech)</td>
<td>+10 %</td>
<td>+13 %</td>
</tr>
<tr>
<td>Safety and technology (Protech)</td>
<td>+5 %</td>
<td>+6 %</td>
</tr>
<tr>
<td>Trucks and tarpaulins (Mobiltech)</td>
<td>+4.5 %</td>
<td>+5 %</td>
</tr>
<tr>
<td>Shipping (Indutech)</td>
<td>+4 %</td>
<td>+4.5 %</td>
</tr>
<tr>
<td>Tent hire (Indutech)</td>
<td>+1 %</td>
<td>+3 %</td>
</tr>
<tr>
<td>Fabric printing (Hometech)</td>
<td>+1 %</td>
<td>+2 %</td>
</tr>
<tr>
<td>Awnings / roofing (Buildtech)</td>
<td>0 %</td>
<td>+1.5 %</td>
</tr>
<tr>
<td>Geo-plastics (Geotech)</td>
<td>-4 %</td>
<td>+1.5 %</td>
</tr>
<tr>
<td>Textile constructions (Buildtech)</td>
<td>-5 %</td>
<td>+2 %</td>
</tr>
<tr>
<td>Military (Protech)</td>
<td>-10 %</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Source: IFAI, USA
Techtextil North America in Atlanta (East Coast)

• **Date:** 13 – 15 May 2014
  (incorporating ATME-I supported by ATMA + co-located with Texprocess Americas in cooperation with SPESA -Sewn Products Equipment & Suppliers of the Americas-)

• **Venue:** Georgia World Congress Center, Atlanta, GA, USA

• **Results in 2012:**
  • Exhibitors: 314 from 22 countries
  • joint stands: Belgium / France, Canada, China, Germany, Italy, Portugal, Taiwan
  • Visitors: 4,275 from 45 countries plus 2,463 visitors from Texprocess Americas
Texprocess Americas in Atlanta

• Date: 13 - 15 May 2014
  in cooperation with SPESA -Sewn Products Equipment & Suppliers of the Americas- and in parallel with Techtextil North America

• Venue: Georgia World Congress Center, Atlanta, GA, USA

Results in 2012:

• Exhibitors: 161 from 12 countries

• Visitors: 2,463 from 43 countries plus 4,275 from Techtextil North America
Thank you for your attention

www.texpertise-network.com/