



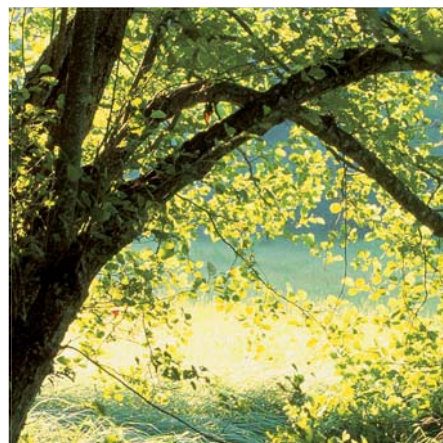
## The Lenzing Group – A Sustainable Company

**Sustainability for Lenzing is a living reality.**

**The effort and performance of our staff members is the basis of our economic success.**

**We set high standards for ecologically sound production at all our sites.**





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# Introduction

# by the Management

**The Lenzing Group has been living sustainability for years now. We are convinced that responsible ecological and social action is a precondition for our success. Improvement of our economic, ecological and social performance is a result of our corporate strategy which is consistent with the concept of sustainability.**

We are a global company and we implement our high environmental standards in all our production processes at all locations. Careful utilization of resources, reduction of emissions and careful management of energy sources are some of our principles for ensuring ecological sustainability.

Our most valuable asset, however, are our staff members. Without their effort and

performance our enormous success of the recent years would certainly not have been possible. Our social responsibility not only means continual training and further education, the organizational and creative setting of opportunities for personal growth and development, but also the steady improvement of safety standards in the working environment.

It is our goal to maintain our dialog with all interest groups and to take their needs into consideration. That is why the Lenzing Group is a responsible partner for the local communities at its sites and supports non-profit projects there.

Well targeted measures allowed us to reach our sustainability goals. As part of capacity expansion at Lenzing we set

Thomas Fahnemann

Christian Reisinger



## Lenzing Group: Business Unit Organisation



**Business Unit Textile Fibers**  
Friedrich Weninger

# ent Board

new industrial standards: The successful introduction of a new technology for sulfate reduction as part of an anaerobic waste water treatment plant. Moreover, an additional air purification plant was put into service.

It is our future goal to continually improve our economic, ecological and social performance and to thereby prove ourselves as a company group committed to the principles of sustainability.



**Business Unit Nonwoven Fibers**  
David Hoyland



**Business Unit Pulp**  
Johann Huber



**Business Unit Energy**  
Gottfried Rosenauer



**Business Unit Engineering**  
Helmut Aigner  
Johann Weber



**Business Unit Plastics**  
Wolfgang Plasser



**Business Unit Paper**  
Sonja Probst  
Franz Gstettenhofer

Peter Untersperger

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# A Brief Portrait

# Lenzing Group

**The Lenzing Group, an international corporate group with headquarters in Upper Austria, is present on world markets. With quality and innovation, the company sets standards in the field of man-made cellulose fibers. Lenzing fibers, made of wood, a renewable raw material, are used by the textile industry – for garments, home textiles and technical textiles – as well as by the nonwovens industry.**

With its more than 65 years of experience in the production of fibers, the Lenzing Group is the only manufacturer that unites all three generations of man-made cellulose fibers – from viscose to modal and lyocell fibers.

The success of the Lenzing Group is based on a consistent focus on its customers, combined with its leadership in technology and quality. Its economic strength is secured both

by focusing on special fibers and by its good position with respect to costs.

In addition to its core business fibers the Lenzing Group also operates in the business sectors paper, engineering and systems construction, and plastics.

## Pulp

- Lenzing fibers consist of 100% pulp (cellulose).  
 Lenzing produces its own pulp – primarily from beech – for the fiber production at the Lenzing site



## Textile Fibers

- Shirts/blouses
- Ladies' and men's wear
- Lingerie
- Home textiles



## Nonwovens Fibers

- Hygiene
- Cosmetics
- Household
- Medical



## Lenzing Group 2004

**Sales:**  
EUR 871.1 mill.

**Staff:** 4,845

**Production:**  
414,000 tons of fibers

### Chemicals

- Sodium sulfate
- Acetic acid
- Furfural

### Energy

- Electricity
- Heat
- Utilities
- Disposal

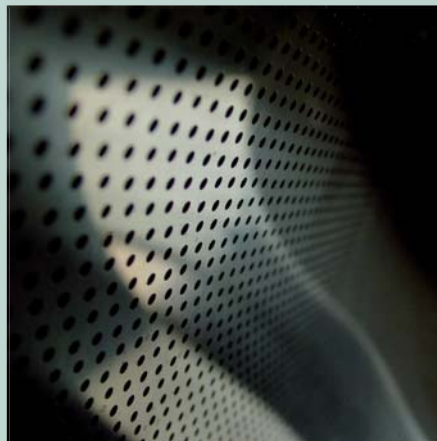


### Engineering

- Viscose technology
- Pulp and environmental technologies
- Separation technology
- Automation
- Systems construction and industrial services
- Marking systems
- Electronics

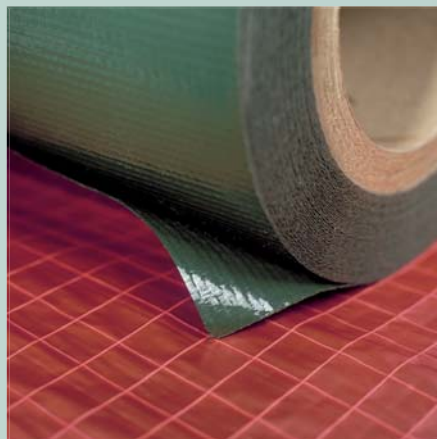
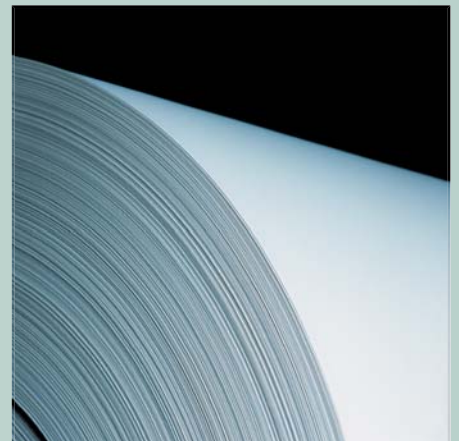
### Plastics

- Films, tapes, fabrics and laminates
- Fibers and yarns for filtration
- Yarns for braided packings



### Paper

- Recycling paper
- Poster paper
- Envelope paper



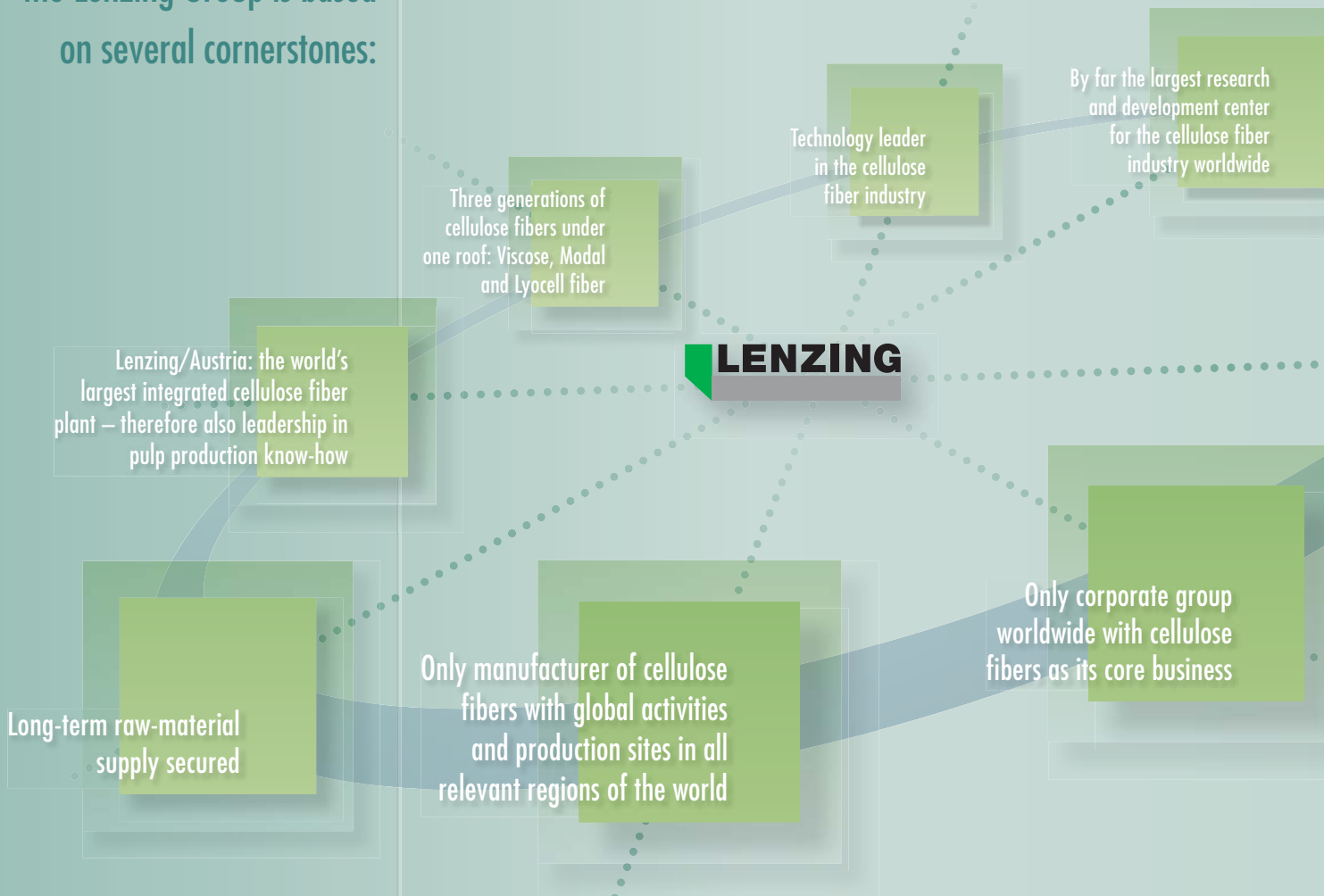


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# The Lenzing Group

# World Leader in C

The prominent position of the Lenzing Group is based on several cornerstones:





# Cellulose Fiber Technology

Within a period of 15 years the Lenzing Group has developed from a European textile fiber manufacturer into a global supplier. This success is based on a clear positioning in world markets:

01

Consistent expansion of the special-products segment.

02

Customer-orientation through applications support and services with a global reach, as well as a high reliability of deliveries.

03

A high rate of innovation through close involvement with the textile chain, all the way to the retail trade.

04

Absolute focus on quality for all Lenzing products.

05

Lenzing manufactures branded articles in the business-to-business sector.

Only supplier able to guarantee worldwide customer services

**Building on its market position, Lenzing pursues a globally oriented growth strategy with consistent development of its technology leadership.**



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# The Lenzing Group

# Milestones

Innovative technologies and major investments into environmental protection have made the Lenzing Group the quality and technology leader for man-made cellulose fibers. The milestones along this road are: Founding new companies and introducing new processes.

**1892**  
Industrialist Emil Hamburger operates a papermill in Lenzing.

**1938**  
Zellwolle Lenzing AG founded. Viscose fiber plant construction starts.

**1969**  
Acquisition of the Lenzing Pulp and Paper Factory. Magnesium bisulfite technology for pulp production developed at Lenzing allows for the recovery of wood cooking process chemicals and reduces pollution.



**1982**  
December: South Pacific Viscose (SPV) goes operational in Purwakarta, Indonesia.

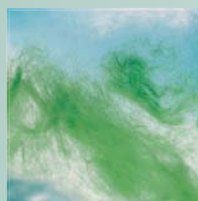
**1983**  
Vapors condensate extraction developed and implemented: Acetic acid and furfural are obtained from wood components, water pollution is further reduced.

**1985**  
First listing of Lenzing shares at the Vienna Stock Exchange.



## Tencel Joins Lenzing – A Milestone in Lenzing’s History

**1987**  
Lenzing and Courtaulds acquire basic patents for solvent-based cellulose fiber production.



**1988**  
**Tencel fiber pilot plant**  
After almost ten years of research Courtaulds plc, a British company, starts lyocell fiber production at a semi-commercial pilot plant at Grimsby/Great Britain.

**1992**  
**First large-scale plant in United States**  
Courtaulds starts up its first commercial plant in the USA in Mobile, Alabama. The fiber is marketed as TENCEL®.

**1998**  
Courtaulds starts its second production plant for TENCEL® at Grimsby/ Great Britain.





## Challenges

- Textile industry globalization
- Shift of customer base and textile processing chain to Asia
- Growing interfiber competition (cotton, polyester vs. viscose, lyocell, modal)

## Lenzing Group



**1986/89**

Construction of a multi-stage biological waste-water treatment plant.

**1987**

Construction of a fluidized-bed boiler for burning sludge, bark and other biogenic fuels.

**1992**

A global first: Commercial ozone bleach plant for pulp goes operational.



**1997**

A European first: The commercial lyocell plant at Heiligenkreuz goes operational.

**2004**

Acquisition of the Tencel Group.

**2005**

Construction work for the Nanjing viscose production plant in China starts.

1997

2004

2005

1995

2000

2010

1998

1995

1997

1998

1998/1999

2003

2004

## Lenzing Lyocell

**1990**

### Lyocell fiber pilot plant

After more than five years of preparation, pilot production of lyocell fibers begins at Lenzing. Key customers are integrated into the development process to optimize the production process of the new fiber.

**1995**

### Ground breaking ceremony at Heiligenkreuz in Burgenland

Construction work for Lenzing's first commercial lyocell fiber plant begins.

**1997**

### Production start at Heiligenkreuz

The plant goes operational with an annual capacity of 12,000 tons.



**1997/1998**

### End of patent litigation

After many years of litigation, Lenzing and Courtaulds mutually recognize their respective technological developments. The licensor of the basic patent is party to the agreement. Mutual exchange of know-how begins.

**2003**

### Heiligenkreuz expansion

Lenzing starts doubling capacity to 40,000 tons per year. Start up of the new plant scheduled for 2004.

**2004**

### Acquisition of Tencel

Lenzing takes over the Tencel group of companies. Lyocell production capacity is tripled to 120,000 tons per year.



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# The Lenzing Group 2004 and its Markets



## Worldwide fiber consumption:

**Nonwovens: +13%**  
**Textile fibers: +12%**

## Growth market Asia:

**Growth rate of nonwovens: +30%**  
**Growth rate of textile fibers: +15%**

Source: Lenzing AG





## Per-capita fiber consumption

International average:  
9.8 kg/year  
USA : 39 kg/year  
Western Europe: 22 kg/year  
China: 10 kg/year

Source: Lenzing AG

### Production Site Lenzing, Austria

The largest integrated pulp and viscose fiber production site worldwide

Staff: approximately 2,800

Capacity: 200,000 tons of fibers per year

Plastic products, systems construction and engineering, paper products

### Sales market China: Booming fiber market

- The world's most important sales market for Viscose and Modal fibers
- Consumption: approximately 800,000 tons of viscose staple fibers
- 40% share in world consumption of chemical fibers
- Emerging market for special fibers
- Important Lenzing Technik projects (1990s: pioneer in China)

#### Korea:

- Innovative market for special fibers

### Production Site Heiligenkreuz, Austria

Lyocell fibers (TENCEL®)

Staff: ca. 180

Capacity: 40,000 tons of fibers/year

### Lenzing Technik Representative Office Beijing

### Japan Representative Office, Tokyo

#### Japan:

- Innovative market for special fibers (textile and nonwoven fibers)
- Lenzing Plastics: PTFE (filtration)

### Production Site Nanjing, China

Under construction

Staff: ca. 500 (from 2006)

Capacity (as of 2006): 60,000 tons of viscose fibers/year

### Marketing and Sales Office Lenzing Fibers Shanghai

Logistics

### Marketing and Sales Office Lenzing Fibers Hong Kong

#### Indonesia:

- Largest viscose market for Lenzing

### Production Site Purwakarta, Indonesia

Viscose fiber production

Staff: approximately 1,500

Capacity: 150,000 tons of fibers per year

### Sales Of- fice Jakarta, Indonesia

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# Sustainability

# in the Lenzing Group

## The Three Dimensions of Sustainability

The fundamental goal of sustainability is simple: Entrepreneurial action must create a balance between environment and society – for today and for tomorrow.

Achieving sustainability is a long-term process. Ecological, social and economic concerns, occasionally conflicting, must be reconciled.

Long-term and competitive value addition in production, fair distribution of resources, social responsibility and appropriate working environments are the central issues.

### Sustainable corporate citizenship

- fosters the trust of customers and suppliers,
- deepens the relationships with all stakeholders,
- increases long-term economic growth,
- enhances social and ecological awareness.



## Management Philosophy

The Lenzing Group operates globally with a long-term profit perspective – a company close to the market in all fields of activity. This market flexibility is based on our organization into

**“Sustainable development is a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs and choose their own lifestyle. The requirement to make this development ‘sustainable’ applies to all countries and people.”**

Gro Harlem Brundtland: World Commission Report on Development, 1987

oup

seven business units. The demands of the individual markets are forever changing, this requires room for independent initiatives by these individual units. The ability to make their own commercial decisions is the key to their success.

**Corporate guidelines are provided for those areas that apply to all business units, such as:**

- Finance
- Information technology (IT)
- Human resources
- Communication.

**Moreover, the company sets standards that are now applied in a broad range of sectors. They will be fully implemented in a gradual process. Among these are:**

- Quality management (ISO 9001)
- Safety standards (safety and health philosophy, OHSAS 18001)
- Environmental standards (environmental policy, ISO 14001)

As the world's largest producer of cellulose fiber, continuous product innovation, process optimization and active market development are the basis of our future. Economic sustainability, environmental and social awareness, as well as respect for cultural diversity are the guiding principles of our corporate activities and of our management leadership.

The practical implementation of these aims is the responsibility of the individual business units. They decide on the means best suited to the unique demands of their tasks in order to achieve our common goals.



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## In Dialog with our

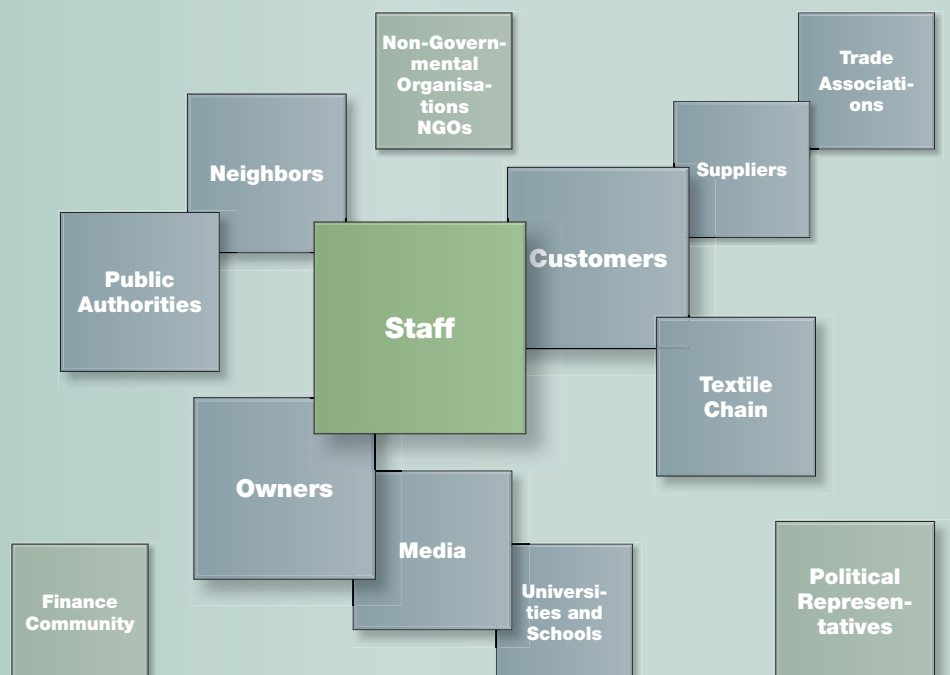
# Stakeholders

Enterprises do not exist in isolation, they are interconnected with many other companies, groups and individuals. All these stakeholders contribute to defining the success of a company. Therefore lasting success of an enterprise must consider the social, cultural and economic environment when taking commercial decisions.

Economic activity has become a matter of public concern, more and more dealing with the claims of diverse groups of society. Balancing these differing needs is a central task of corporate management. The social responsibility of enterprises includes the marketing of socially and environmentally sound products and their production processes. The degree of customer perception of these qualities is a decisive success factor, next to technological competence. The more fundamental an innovation, the more stakeholders must be considered in corporate decisions making.

### Stakeholders of the Lenzing Group

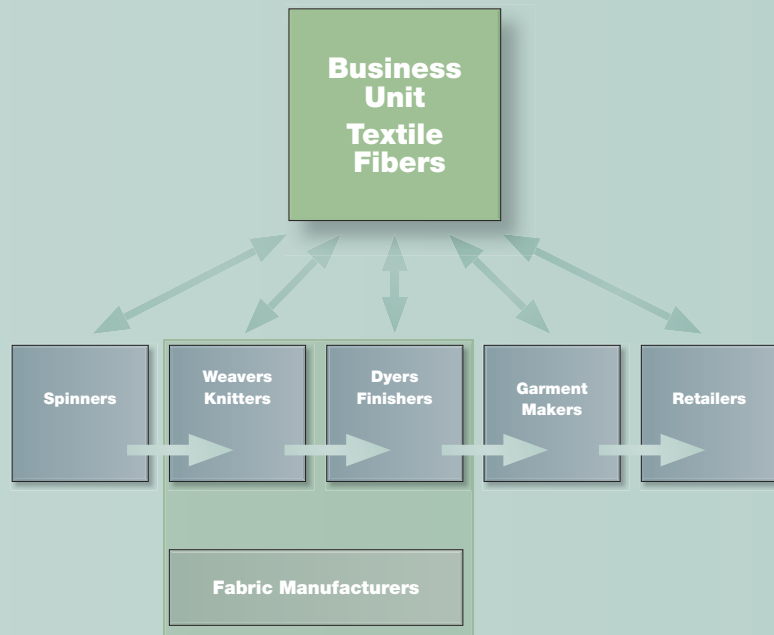
The integration of stakeholders and the development and maintenance of relationships with the different groups is an important element of the long-term success of the company.





## Business Unit Textile Fibers – In dialog with the textile processing chain

The complexity of communication with the diverse stakeholders becomes evident when looking at the lines of communication of the business unit Textile Fibers. The network of sites, offices and representatives of this business unit not only attends to direct clients (spinning mills), but also to the textile chain as a whole:



### Moreover, close contacts are maintained with:

- chemical industry (manufacturers of auxiliary materials and dyestuff)
- diverse textile associations
- independent textile institutes (for example the International Textile Research Institute in Hohenstein, Germany, or the Institute for Textile Chemistry and Chemical Fibers in Denkendorf, Germany)
- a series of academic partners (EU projects, joint research projects, as well as industrial projects up to market introduction)
- engineering (manufacturers of machines for spinning, knitting, weaving, as well as dyeing and finishing)
- public authorities: relationships here touch on a broad range of topics concerning patent rights, the environment and issues of certification
- press: communication with trade publications is another aspect of the network of business unit Textile Fibers