THE COFACE ECONOMIC PUBLICATION

panorama

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coface

Panorama sectors

CONTENTS

We close the year in our series of economic publications with our third Panorama sector.

You will find in it our usual barometer, which assesses the risks to which companies in fourteen key industrial sectors in emerging Asia, North America and Western Europe are exposed. On top of these evaluations, we provide for each of these major regions a comprehensive overview of developments in distribution, electronics, metals, automotives, pharmaceuticals and services.

What are the significant developments for the last quarter of 2013? In North America we have reclassified automotives and distribution, for which risk has become moderate thanks to robust household consumption. In emerging Asia, the risks linked to services are now moderate too, with business turnover and profitability in this sector rising quite sharply. In contrast, we are maintaining our ratings for all sectors in Western Europe, because, although the overall trend is towards stabilisation, this region remains difficult and highly uncertain.

We have also included an analytical focus on European textiles. This traditional industry was affected very early by globalisation, and, in particular, competition from developing countries. How has it responded? By developing an effective strategy of innovation (in technical textiles) and capitalising on its reputation for know-how and quality. A strategy that has undeniably borne fruit, but can we really talk of sustainable stabilisation? What are the main issues in the years ahead? What risks do businesses face?

SECTOR BAROMETER

Khalid AIT YAHIA, Jennifer FOREST and Emmanuelle HIRSCH,
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Household consumption in North America supports the distribution and automotive sectors, for which risk levels are improving. Emerging Asia, where the services sector has a lower risk profile, is not lagging behind. The situation of these sectors in Western Europe, though difficult, is stabilising.

Credit risk index*			
Sectors	Emerging Asia	North America	Western Europe **
Agro-Food	Medium risk	Medium risk	Medium risk
Retail	Moderate risk	Moderate risk	Low risk
Textile-clothing	Medium risk	Medium risk	Medium risk
Transportation	Medium risk	Medium risk	Medium risk
Electronics, IT ***	Medium risk	Medium risk	High risk

Sources : Datastream, Coface
* At end October 2013
** See credit risk index chart page 4
*** Electronics, information technology and telecoms

Moderate risk · Medium risk · High risk · Very high risk

RETAIL

This sector continues to perform well in terms of credit risk, but with regional contrasts. What the regions have in common is that households are closely watching their spending.

- **Western Europe**
  Credit risk is stabilising. It is linked to household consumption within the European Union, which is only growing very slightly, because although households are continuing to consume products other than food, they are reducing their purchases, especially in Southern Europe. In Germany, however, the sector is seeing sales growth, thanks to consumption stimulated by a fall in unemployment and recent wage rises.

- **Emerging Asia**
  Boosted by sustained growth in consumption, distribution sector risk remains moderate. In China, overall turnover in the sector was up by 14% and retail sales by 13% in October 2013 (compared with October 2012), due particularly to sales of furniture and jewellery. These sales are still being sustained by continuing wage rises and moderate inflation.
  Though consumers in China will continue to save, the sector benefits from favourable credit conditions, facilitating borrowing by households in the rest of Asia.

- **North America**
  Credit risk is improving and it is now moderate, because both in Canada and the United States, there has been a 3.9% year on year increase in the sales of traditional and online distributors. Turnover, for its part, was up by 5% at the end of October over the same period. American household spending is also growing at a rate of 2% thanks to a 1% growth in household disposable income in 2013.

ELECTRONICS

The sector is producing mixed results according to its different sub-sectors. Mid-range domestic appliances are under recessionary pressures, as illustrated by the difficulties of Fagor-Brandt and Indesit. Only the top brands are doing well. Haier is a significant example, having from the outset aimed to conquer Europe and the United States with products meeting the highest quality standards. As for electronic products, the surge in tablets calls into question some strategies of the major groups. The winners are Asia and North America.

- **Western Europe**
  In order to stop the decline of European electronic chip production, Europe has introduced a strategy aimed at preparing the way between now and 2020 to facilitate investment (about 100 billion euros), double chip production and create new jobs. The electronics sector is still buoyant for microelectromechanical systems (MEMS). This market, dominated by STMicroelectronics and Bosch, is expected to grow by 12-13% p.a. between 2012 and 2018 (Yole Developpment).

- **North America**
  Turnover for companies in the sector has grown by 3% year on year. The smartphone and tablet boom is benefitting companies such as Apple, and the company is taking advantage of this to bring production back in the US. However, the miniaturisation of components and the increasing size of plate are leading to higher investment spending in production facilities. This requires a strong financial base available only to big groups. Intel is one of them but is seeing its supremacy threatened by Samsung and Qualcomm, which invested earlier in chips for smartphones.

- **Emerging Asia**
  The sector is booming at the level of research and development (via flexible screens), MRAM memories and smartphone sales. Though this benefits brands such as Samsung, others, such as HTC are experiencing difficulties. Formation of groups in order to reach a critical size so as to compete with the sector's giants can therefore be expected. Moreover, the decline in PC sales to the general public in favour of tablets has resulted in a loss of market share for Lenovo and ASUS, which will lead them to develop new products.

Credit risk index *			
Sectors	Emerging Asia	North America	Western Europe **
Mechanicals	High risk	Medium risk	Medium risk
Metals	High risk	High risk	Very high risk
Automotives	Moderate risk	Moderate risk	Very high risk
Construction	Medium risk	Medium risk	High risk
Energy	Medium risk	Moderate risk	Medium risk

Sources : Datastream, Coface
* At end October 2013
** See credit risk index chart page 4

Moderate risk · Medium risk · High risk · Very high risk

METALS

Over the first 10 months of 2103, world steel production increased by 3.2% (+3.9% in the previous year over the same period) to 1.321 billion tonnes (source WSA). Production is continuing to increase in Asia and the United States. Europe, for its part, has seen a slight recovery. The major players such as Arcelormittal are beefing up their investments. However, the slow growth of the main metallurgical markets is affecting company results.

- **Western Europe**
  European steel production was up 4% between October 2013 and October 2012. This rise masks marked divergences between countries. Production is declining in Italy due to the closing of Ilva, while it is increasing in Spain where it has again returned to its 2011 level. In France, Arcelormittal is putting its efforts into the most profitable sites (Dunkerque) in order to boost its competitiveness.
  Though aeronautics is particularly dynamic with full order books over the next five years, automotives and construction are lagging behind and firms in these sectors are weakening. This has resulted in a 5% decline in the turnover of businesses in the metallurgical sector, while cash flow is down by 17%.
  European aluminium suffers particularly from high energy costs. The choice to produce with green energy contributes positively to the environment but could jeopardise the competitiveness of companies in the sector.

- **North America**
  The purchase by Arcelormittal and Nippon Steel of the ThyssenKrupp US plant will strengthen the position of these two steelmakers as suppliers to the automotive industry. Growth forecasts are particularly positive in metallurgy. Research and development efforts to produce steel tanks meeting the new environmental standards favour highly profitable production. However, Asian competition on low value-added products remains a significant risk for these players.

- **Emerging Asia**
  Whatever the metal, the risk is high because of over-capacity. In particular, the iron and steel sector has failed to consolidate and is seeing its margins collapse. China is said to be producing 20% more than its actual needs. The government is considering measures to cut production while going up-market.

AUTOMOTIVES

There seem to be some light at the end of the tunnel for the three markets that we follow. North America has rallied and offers good prospects. Emerging Asia remains quite solid. Western Europe is marked by the strength of the sector in the United Kingdom.

- **Western Europe**
  The sector still presents a very high risk. This particularly affects the players at the either end of the supply chain: the small component manufacturers as well as the distributors and the repairers. However, this gloomy picture is counterbalanced by the relative health of the large component manufacturers who have managed to establish themselves in the high-growth areas. Finally, we can point to the strength of the UK automotive industry, which can combine specialisation on the premium segment, strong export presence and technological innovation.

- **North America**
  New car sales have returned to their pre-crisis level. The sector is again classed as moderately risky. Cash flows are up by 19% year on year. This sector is attracting more and more European constructors and component manufacturers.

- **Emerging Asia**
  The automotive sector still presents a moderate risk. However, the implementation of measures to control the number of cars in the major cities on China's east coast, motivated by public infrastructure congestion and a weaker environment moderates our optimism. Moreover, new cars are in keen competition with used cars as the Chinese vehicle fleet increases in size.
  The prospects are favourable because Chinese consumers will take full advantage of the improvement in their standard of living. The Chinese middle class is expected to more than double by 2020 to reach 500 million.

Credit risk index *			
Sectors	Emerging Asia	North America	Western Europe **
Chemicals			
Pharmaceuticals			
Wood-Paper			
Services			

Sources : Datastream, Coface
* At end October 2013
** See credit risk index chart below

Moderate risk · Medium risk · High risk · Very high risk

SERVICES

This sector, dependent on household and business spending, is performing well in emerging Asia, and is proving resilient in North America. The situation is mixed in Western Europe, where Germany offers better prospects than the other countries.

- **Western Europe**
  In Europe, services are affected by a contraction in spending on the sector both by individuals and businesses and also by local authorities. Profitability has fallen by 2% year on year. In Germany, however, services to businesses remain dynamic.
- **Emerging Asia**
  Credit risk is now moderate. Turnover in this region is improving (+3%) and profitability is growing at 5% over a year. Services to businesses are highly valued, particularly those related to information technology and engineering. In China, the sector is strong with an SME index, which, at the end of the November, stabilised at 60, i.e. with a slight rise of 0.7 of a point compared with November 2012. Services, which have an important place in India, are showing satisfying performances.
- **North America**
  With turnover and cash flow up by 9% and 6% respectively year on year, services remain dynamic in this region. The sector presents a medium credit risk, with business, particularly in the United States, benefitting from the economic recovery. In Canada, tourism is weakened by the high level of the Canadian dollar against the US dollar.

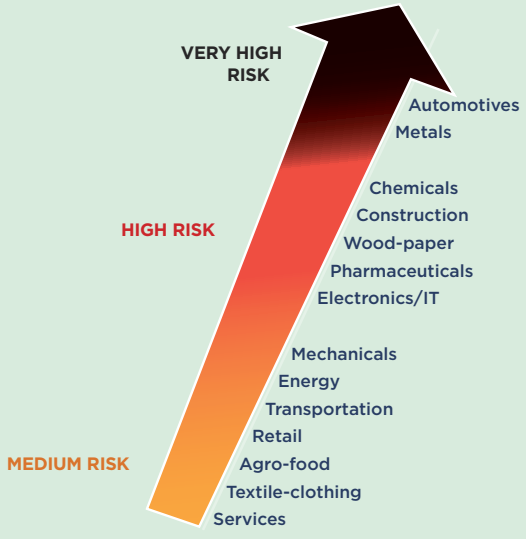
PHARMACEUTICALS

There are few changes from our previous assessment. The pharmaceutical sector is undergoing major upheaval and its traditional markets are slowing down.

- **Western Europe**
  Pricing pressure for prescription drugs exerted on the pharmaceutical companies is reducing their margins. Profitability is down 6% year on year. The major firms are reducing their presence on many segments and are selling assets in order to finance their development internationally, and their biotech purchases. This has resulted in a 3% decline in cash flow year on year. The risk remains high.
- **Emerging Asia**
  The sector's turnover is still growing steadily (+12% year on year) and its average profitability, although slightly lower, remains strong at over 14%. The risk therefore remains moderate.
- **North America**
  Turnover momentum and profitability are stable, the latter rising by only 1% year on year. Despite technical problems, the mandatory electronic health care platform in the United States will be well established in 2014. However, it is too early to predict its effects on company results in the sector.

CREDIT RISK INDEX

Hierarchy sectors in Western Europe



CREDIT RISK INDEX METHODOLOGY:

Coface's assessments are based on the financial data published by over 6,000 listed companies in three major geographic regions: Emerging Asia, North America and Western Europe.

Our statistical credit risk indicator simultaneously summarises changes in four financial indicators (turnover, profitability, net indebtedness, and cash flow) completed by the claims recorded through our network.

UPMARKET POSITIONING AND INNOVATION: Key to the success for the French and European textile industry?

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In the context of globalisation, the textile industry underwent far-reaching structural changes early on: the process of globalisation led to internationalisation of production processes - very advanced in this sector - and competition from developing countries, which affected European and French businesses. Moreover, successive crises have reduced the demand for textile products. To counter these demand shocks, manufacturers in the sector reviewed their supply strategy in order to emphasise their product differentiation capacity. Innovation was at the core of this reorientation as demonstrated by the investment in technical textiles, which has opened up new markets and shaken up the industry's traditional image. The textile industry is growing strongly both in volume and employment by shifting firmly towards high tech segmentation and by becoming a leading supplier to the automotive and medical industries.

Next, French manufacturers capitalised on their reputation for know-how and quality, targeting high-end niche markets, as did the Italians. Finally new horizons are opening in the emerging countries whose consumers have growing purchasing power and have developed a thirst for quality, an image which French and European products maintain.

In this context, the main theme of this study is the following: faced with the threat from low-cost products, some of the sector's European manufacturers have been able to capitalise on their know-how, competence and image to recapture the markets affected by economic crises and social upheavals. But will this innovation effort enable the sector to achieve lasting stability? Are the emerging countries themselves not innovating and becoming potential competitors?

We have chosen to analyse this specific feature of the textile industry in order to highlight the key issues. We deal only marginally with the clothing segment.

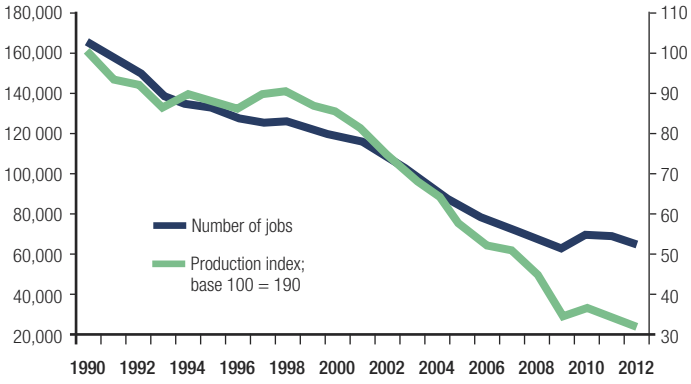
A «HISTORIC» DECLINE

A - THE GRADUAL DECLINE IN FRENCH TEXTILE PRODUCTION TO THE ADVANTAGE OF EMERGING COUNTRIES

The French textile industry has gradually languished in the last two decades. Marked by strong labour intensity, it has long been protected from the international competition to which it is now heavily exposed.

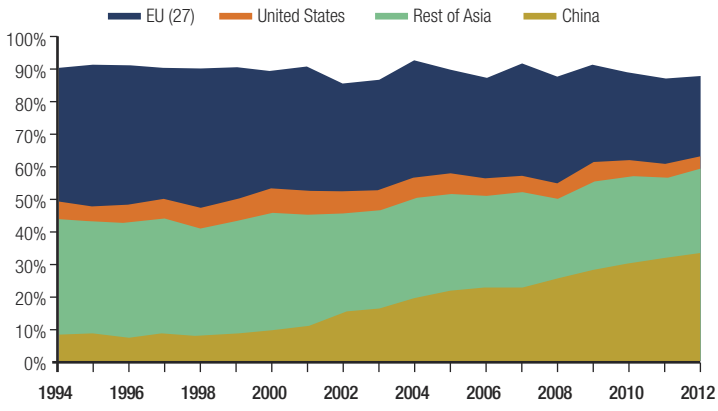
In 1973 import quotas for textiles from low-wage countries were introduced under the multi-fibre agreement (MFA). From 1995 these trade barriers were dismantled little by little, under pressure from the WTO, until the establishment of quota-free trade in the sector on 1 January 2005. In parallel, manufacturers of apparel and home textiles, the sector's main outlets, moved their production to the emerging countries, especially to low-cost Asian countries, such as China. As a result, French textile industry output shrank by nearly 70% between 1990 and 2012, and the number of workers fell by nearly 165,000 to just over 65,000 over the same period *(chart 1)*. As textile imports have remained relatively stable, the penetration [1] of foreign production has risen sharply. This development reflects the reorganisation of global production, and the decline in European textile exports to the benefit of the Chinese breakthrough. The Chinese share in this sector, which was below 10% until the beginning of the last decade, today accounts for more than a third of world exports *(chart 2)*. This lightening growth is due especially to the removal of trade barriers in the sector and China's entry into the WTO in December 2001, enabling it to benefit from the most favoured nation (MFN) clause and thus to apply the same customs tariffs as the other members of the organisation.

CHART 1:
Change in production and employment in the textile sector in France



Source : INSEE

CHART 2:
Distribution of world textile exports

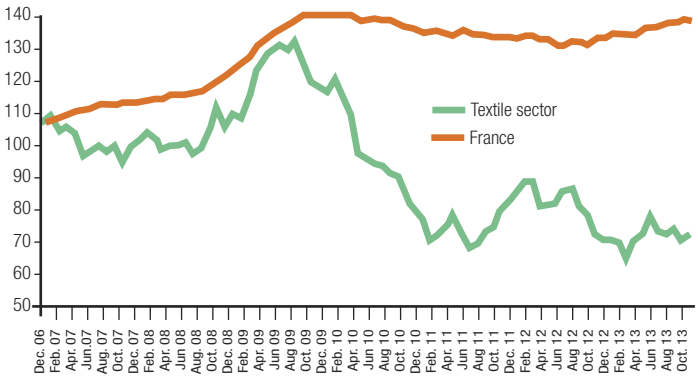


Source : WTO

(1) Penetration: the penetration rate calculated for an economy, a sector or a sub-sector indicates the share of the domestic market which is covered by imports. Penetration rate= imports/domestic market x 100

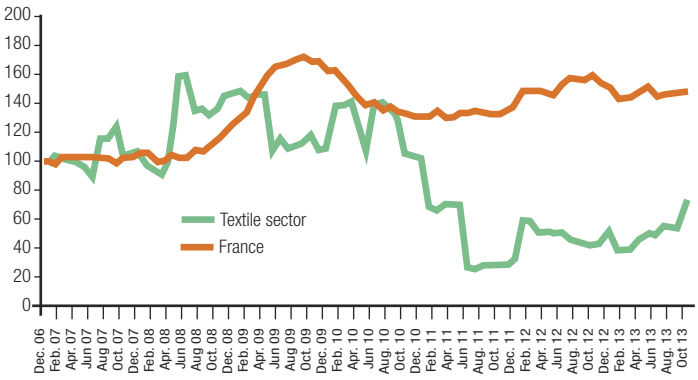
In France the sector's activity seems to be stabilising. Since the end of 2009, the number of company insolvencies in the textile industry has fallen sharply - development that is all the more positive since it contrasts with bankruptcies in the economy as a whole, the number of which has remained at roughly the same level over the period *(chart 3)*. While the textile sector's curve followed the trend of the economy until the 2009 peak, since then the two curves have diverged. The number of bankruptcies in the textile sector has almost halved since that date, while it has remained close to this historic peak for French businesses as a whole. The sharp reduction in bankruptcy costs [2] confirms the textile industry's renewed dynamism *(chart 4)*. These good performances can be interpreted as resulting from a gradual stabilisation of the sector, whose members are now more competitive. So, having been in a long crisis since the nineties, the textile industry is now in relatively better health than the other sectors of the French economy.

CHART 3:
Change in the number of bankruptcies in the textile sector (excl. clothing) and in France (index 100 = December 2006)



Sources : Coface, Scores & Decisions

CHART 4:
Change in bankruptcy costs p.a. in the textile sector (excl. clothing) and in France (index 100 = December 2006)

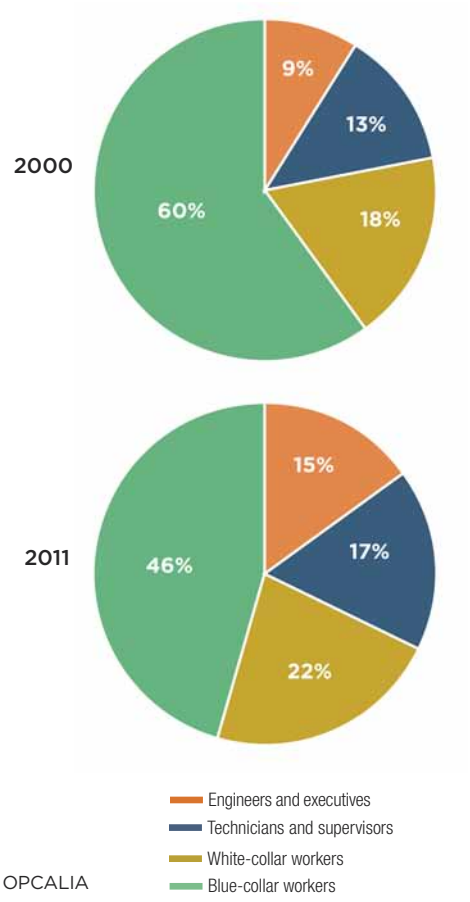


Sources : Coface, Scores & Decisions

B - THE FRENCH TEXTILE INDUSTRY RETAINS AN IMPORTANT PLACE IN EUROPE

In 2011, there were 4,540 businesses in the French textile industry but only 570 of them (12.5% of the economic fabric) had more than 20 employees. Workers in the sector numbered 65,279 in 2012, relatively concentrated in two regional hubs: Nord Pas-de-Calais (15% of jobs), and the Rhône-Alpes region (22% of jobs). The structure of these jobs has changed distinctly over the last ten years under pressure from the upgrading of qualifications. Thus the proportion of engineers has risen considerably, to the detriment of manual workers *(chart 5)*. This change reflects greater complexity in the production processes, due to the growing importance of technical textiles, necessitating an increasingly skilled work force. Turnover for the sector was €12.5 billion in 2012, slightly down (-2%) on the previous year. With regard to the balance of trade, the industry reported a clear deficit with exports of €7.7 billion in 2012 and imports of €14.1 billion. Over 60% of textile exports are to other countries in the European Union.

CHART 5:
Changing job structure in the textile sector



Source : OPCALIA

By way of comparison, the Italian textile industry, the main competitor on the luxury textiles market, currently has 150,000 employees and four times as many businesses as France. Its turnover reached €21.9 billion in 2012, or a relatively low level of activity per unit compared with France *(table 1, page 7)*. Italy suffered a decline similar to that of France in this area, in that, in the early 1990s it had about 35,000 manufacturers. In Spain the textile sector employed 40,000 people in 2011, spread over 6,500 businesses, which also underwent a prolonged crisis during the previous decade, resulting in a sharp reduction in their number and size.

(2) The cost of bankruptcies corresponds to the amount of suppliers' debts at the time of bankruptcy

In 2000 Spain's textile industry had 10,764 operators and 110,096 jobs. Despite a larger number of businesses, turnover was well below that of France. In Germany nearly 53,000 employees worked in the sector in September 2013, with annual turnover in excess of €11 billion or an activity level comparable to that of French operators. The strength of the sector in Germany is chiefly explained by the dynamism of the technical textiles segment, in which the country is the world leader (45% of the market).

TABLE 1:
Turnover, businesses and jobs in the textile industry in Europe

	Turnover (billions of euros)	Firms	Average turnover (millions of euros)	Jobs	Average number of employees
France	12.5	4,540	2,753	65,279	14.38
Italy	21.9	17,660	1,240	150,000	8.49
Germany	11.7	387*	nd	52,948	nd
Spain	5.8	6,437	0,901	39,644	6.16

* Businesses with at least one employee having filed their accounts

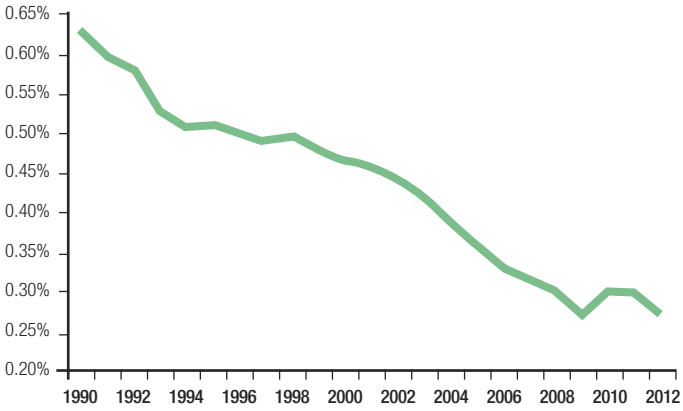
Source : National statistics bodies

C - A SECTOR IN THE PROCESS OF REDEPLOYMENT INTO TECHNICAL TEXTILES

The crisis revealed but did not cause a certain mismatch between the French textile sector and the new world order, which has gradually established itself. The weight of the sector in the employment market has been falling since 1990, indeed well before the emergence of Chinese competition *(Chart 6)*. Textile exports have also seen their share of total exports diminish gradually since the mid-nineties *(chart 7)*, so the sector has been in slow decline now for several decades. One of its main weaknesses is that it is less structured in France than in India or China, where it operates from downstream to upstream (i.e. from the preparation of fibres to cloth production and garment manufacture). The other main reason for this mismatch was the industry's positioning in labour-intensive segments, where the country suffers from an obvious cost-competitiveness deficit.

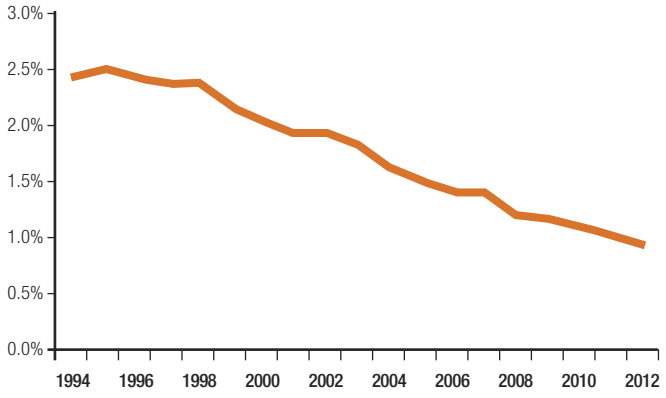
Besides the decline of its economic fabric, the French textile industry has had to undergo profound restructuring in recent years. Aware of the need to target the segments where the share of labour costs in the price is low, in other words, where there is more differentiation capacity, many operators have successfully shifted to the luxury industries and above all technical textiles. For example the Lyons silk manufacturers such as Marc Rosier, Tassinari and Chatel, have managed to thrive by working for the big French luxury brands such as Hermes, Vuitton and Chanel. However, other strong players in the sector are those specialised in technical textiles, such as Hexcel, Porcher Industries or Johnson controls (having bought the French firm, Michel Thierry, in 2010, the former world leader in textiles for the automotive industry). This segment seems to offer strong medium term prospects, since its applications are various: sport, automotives, aeronautics, construction and health. Moreover, needing big investments in R&D, this segment enables French and, more broadly, European businesses to keep a certain lead over their emerging country competitors, which is not the case on the other labour-intensive segments. Stimulated by the worldwide increase in the demand for environmental protection, energy efficiency and health services, the segment is now at the core of French and European operators' renewal strategies.

CHART 6:
Importance of the part of the textile sector in the French job market



Source : INSEE

CHART 7:
Change in the importance of the textile sector in French exports



Source : WTO

Three questions for Emmanuelle Butaud-Stubbs

Director General, Union des Industries Textiles

• After going through some very turbulent years, do you think that the European textile industry has taken the necessary measures to adapt to the new challenges?

At the European level, we are in a period of cyclical change. The elimination of textile and garment quotas in 2005 was accompanied by a strong surge in Chinese imports linked to price dumping (40-70% below the average prices of third country suppliers). This resulted in the loss of a million jobs, essentially in the clothing industry in Central and Southern Europe. In France, 2008 marked a turning point with a phase of redeployment due in part to increased activity in the three centres of textile competitiveness (Techtera, Uptex, Pôle Fibres). Then there was the arrival of new players with an engineering profile who brought new life into the centres of competitiveness and their awareness of the how important competitiveness really is. The product range is moving up-market. Businesses in the sector are positioning themselves on specialised high value-added segments. And finally there are R&D partnerships with other sectors such as biomedical, transport and construction.

According to the latest Euratex estimates, the European textile and clothing industry had a turnover in 2011 of €171.2 billion with 187,000 firms and 1.8 million employees. Decisions may be taken at the European level in order to encourage development in this sector. In April, the European Economic and Social Committee adopted an opinion on the contribution to the 2020 technical textiles strategy.

• What are the characteristics of businesses in the technical textiles sector?

Companies in the technical textiles sector, apart from fashion, can be divided into 3 categories:

- The historically «pure players», such as Hexcel, Porcher Industries and Freudenberg for example, who have been present in the sector for a long time. These are often groups that are well established internationally.
- More traditional companies producing equipment for individual protection or for the home, which are gradually turning towards the higher value-added technical areas while sticking to their core business.
- Start-ups, which are new arrivals from outside the world of textiles and which are looking for development opportunities in very specialised segments such as cosmeto-textiles, or smart-textiles for example.

These firms, whose market is worldwide, serve customers in, among others the aeronautics and automotive sectors. In Europe, four countries dominate this market: Germany, Belgium, the Netherlands and France.

• In this competitive market, what constraints are French firms under?

While Germany dominates the technical textile market in the European Union, French companies are also important players. With a focus on fashion and luxury and a strong engineering culture, they provide a balanced model. What they need to do is strengthen their links with the manufacturers (e.g. Schlumberger) and talk to the fibre suppliers. The latter often come from third countries and the question of access to raw materials therefore arises. Another question concerns access to finance. The average size of businesses in the sector, i.e. forty employees, and the fact that they are often family firms, sometimes makes access to credit difficult or else they are reluctant to seek it. Moreover, disintermediation is not customary in France. Another factor to be considered is the age pyramid and the need for better-qualified workers. With an average age of about 48-49, there is an urgent need to anticipate recruitment needs. Moreover, with the move up-market and the technicality of the products more specialised staff need to be recruited. And this is what we are seeing in the textile engineering schools, where training more suited to the needs of businesses has been introduced.

THE PATHS OF RENEWAL: THE TECHNICAL TEXTILES PATH

The competitive price pressures exerted on European industrial countries by the emerging countries have forced firms in the textile sector to reinvent themselves. This struggle for survival has impelled a good many businesses, in addition to those already positioned on this market, to invest in the field of technical textiles. For others, the luxury sector provides an alternative, particularly in Italy and France. Technical textiles are defined by their properties (versatility, strength etc.) and their conformity to strict specifications to ensure their ability to meet technical challenges, mainly focused on industrial applications. It is primarily the product's end use that defines the technical nature of the textile and not its aesthetic or decorative characteristics. For example, the areas of application covered range from the automotive and aeronautical sectors to personal protection and health.

DIAGRAM 1:
The textile value chain

Source : DGCIS

The textile value chain, a new impetus

The traditional textile chain *(diagram 1, page 8)* is roughly divided into three stages: manufacturing, preparation and finally processing (printing, dyeing, finishing, etc.). In each of its subdivisions, technical textiles have their place and provide more added value than traditional textiles. And in order to be able to increase the differentiation capacity of the technical products, manufacturers must invest, emphasising their R&D efforts. The key word for this impetus is interdisciplinarity because technical textiles oil the wheels of several sectors of the economy and have multiple applications in extremely varied areas: speciality chemicals for polymer fibres, complex machinery or nanotechnologies for non-woven products. Technical textiles are now becoming a material like iron or plastics and are therefore involved in various production processes. An illustration of the main applications of technical textiles is given in diagram 2.

DIAGRAM 2:
The different applications of technical textiles

Source : DGCIS

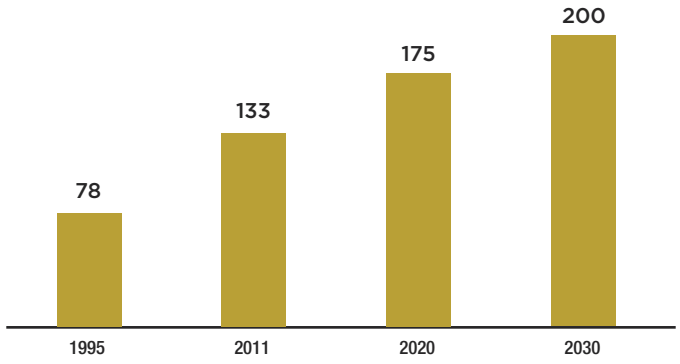
The European technical textiles industry represented 30% of turnover for the textile sector as a whole, or €30 billion in 2011, while it accounted for only 26% in 2003 (chart 8). This share fluctuates according to the country: it is higher in the Scandinavian countries and in Germany and Austria, while it is lower in Southern European countries. France is closer to the front-runners, with 40% of total textile production directed to technical textiles. The crucial boost given by the French government has favoured the constitution of different centres of competitiveness around textiles with a particular emphasis on innovation, smart textiles [3] and fibres research: UP-TEX, TECHTERA, Pôle FIBRES. These centres have a strong regional presence reflecting the historic location of the textile industries. These centres (or clusters) follow the Swedish example of combining businesses, research institutes and university centres *(see text box page 10)*.

CHART 8:
Technical textiles' share of total textiles market for several European countries

European Union	30%
Finland	70%
Germany	50%
Austria	45%
France	40%
Spain	16%

Source : Euratex 2011

CHART 9:
World technical textile consumption in $ billions



Source : *Journal du textile*

ACTE I OF THE RENEWAL: CONQUERING THE INTERNATIONAL MARKET

The export boom perfectly illustrates this renewal of the textile industry. Technical textiles are «oiling the wheels» of almost all industrial sectors and even beyond them. These same sectors are enjoying strong growth in their exports to several regions of the world and, in particular to Asia *(chart 9)*.
China is the number one consumer of technical textiles. Their use is strongly encouraged under the directives of the twelfth five-year plan. For example, the application of these textiles and polymer fibres in the automobile sector is an important market. It has actually become the biggest world market before the United States and Techtextile analysts predict a doubling of their consumption between 2010 and 2017 (rising from 755 metric tons to 1400 metric tons.

Elsewhere in emerging Asia, consumption of technical fibres is equally high in India, more particularly in the agricultural and seed protection sector through the establishment of centres of excellence (COE). These centres serve as catalysts by taking advantage of the concerted action of the manufacturers and the public authorities through he involvement of public research centres.

Finally, among the developed countries, the United States remains an important consumer of technical fibres and textiles in the automotive sector after the massive rescue of this industry by the Federal State in 2009. Moreover, in the United States, the leader in nanotechnology research, the applications of the fibres resulting from these technologies applied to medical research are opening new ways of treatment.

ACTE II : INNOVATION THE NECESSARY FIRST STEP IN SEEKING NICHE MARKETS

Fighting competition from low-cost countries directly by cutting costs is doomed to fail. However, there are alternative strategies and they have already been used by textile manufacturers to ensure their survival. Innovation, for example, helps give manufacturers that have invested in R&D a lead. This is reinforced by the fact that technical progress is inherent in technical textiles, which have to meet the requirements of big industrial customers. Moreover, particular attention needs to be given to the strong growth of non-woven products and composites [4], the positive results of the accumulation of efforts in technological research and necessary today to meet exacting demands while complying with

(3) Smart textiles: They enable electronic, IT and digital components to be included.

(4) Non-woven textiles: fabric obtained by the mechanical, chemical or thermal bonding of textile fibres arranged in sheets without weaving or knitting (source: Larousse). Composite: fabric composed of one or two different materials the qualities of which combine to create a product with particular properties and meeting a specific need (source: industry)

certain technical standards and, above all, to tackle competition from countries, which have a comparative competitive advantage in the more traditional techniques. Moreover, according to INDA (Association of the Non-woven Fabrics Industry), non-woven fabrics are expected to achieve an annual output growth of 7.8% between 2011 and 2016 in the world and of 6% in Europe. The drivers of this growth will be the possible applications in personal hygiene and cleanliness products, but also in the geotextile sector (mainly construction and agriculture).

Technical textiles are therefore mainly directed to niche markets. Medical textiles used in certain vascular prostheses or innovative dressings delivering a dose of medication directly to the wound are another example. Innovation and the search for niche markets are thus linked.

THE SWEDISH CASE

The Scandinavian countries have succeeded in ensuring the survival of their textile industry by turning to innovation. Sweden, for example, has managed to produce more technical textiles than low value-added ones, while combining research, development on niche markets and multidisciplinarity.

Beginning in the 1970s Sweden restructured its textile industry early on, by downsizing and investing in high value-added areas. This did not happen by chance, because the country traditionally invests more in R&D than the rest of Europe: 3.4% of its 2011 GDP (against 2.25% in France and just over 1.5% in Spain or Italy). Moreover, nearly 1.1% of the private sector workforce held a post in R&D in 2010, against 0.8% in France and 0.4% in Spain *(table 2)*.

TABLE 2:
Strong demand over several years
Proportion of staff in R&D out of total employees, 2010

	Private firms	Public administration	Higher education
Finland	1.14	0.26	0.67
Denmark	1.16	0.05	0.59
Sweden	1.10	0.06	0.39
France	0.80	0.19	0.37
Germany	0.82	0.21	0.29
Spain	0.40	0.20	0.36
Italy	0.42	0.13	0.29

Source : Eurostat

For example the Swedish School of Textiles interacts strongly with Swedish textile and fibre manufacturers (in particular the IFP Research Centre), which determine the list of areas of interest. It is located in the University of Boras and keeps a constant watch on the textile markets in order to identify the strong trends. Moreover, it educates engineers and technicians, whose curriculum is designed to be in line with manufacturers' needs and also to favour technological developments. This collaboration has made it possible to confront Asian competition by reinforcing specialisation in finished products. As stated above, this would not have been the case without major R&D efforts.

ADAPTING AGAIN AND AGAIN...

Whatever happens, the textile industry sector must innovate constantly, particularly in European countries, where production costs are relatively high. Its survival and growth depend on technical textiles and exporting. But these opportunities should not obscure the sector's intrinsic risks. Weak European growth and high import levels could modify the scope of the European textile and clothing sector. Other risks related to the structure of the firms themselves and the degree of competition also affect the sector.

Three questions for Sophie Aubert-Vidal

Division Manager, Underwriting departement, Coface

- **Have you observed a development, a change in the nature of payment incidents in the textile/clothing sector?**
  Is there anything specific or any countries that seem particularly affected?

The economic fabric of the textile sector remains generally fragmented and under-capitalised. It is very largely composed of micro-businesses (less than 10 employees), depending on the strength of the main markets and acting as an adjustment variable: household purchasing power for clothing and cars on the one hand, and the capacity to invest in construction and public works on the other.

Clothing retail distribution is the segment that generates the least value but has the highest number of businesses. The vast majority of payment incidents are observed in this segment, because, in addition to the volume effect there has been a continuous sharp contraction in demand since 2009, with the economic crisis. Another basic trend, massification, which allows certain groups (H&M, Inditex), whose size enables them to cover all segments (clothing for women, men and children as well as accessories), to better amortise their fixed and variable costs. Finally there is the distribution model itself, which is moving towards e-commerce (Amazon, Zalando), taking business away from the traditional distribution outlets.

However, the textile industry itself is relatively resilient and the number of bankruptcies is almost unchanged. Characteristic for the period, the biggest bankruptcy, in terms of social and financial costs, was that of the woven-fabrics manufacturer, Roland Vlaeminck, an SME, which had specialised in textiles for outdoor furniture and which was hit hard by the fall in its domestic sales. It is significant that the business was bought by the market leader, Fermob, which is much more diversified internationally and which mixes public markets, sales to businesses and to the general public. Finally the geographic differences are striking. In Northern Europe, purchases remain pretty stable and payment incidents under control. Against this, in the South where there is a marked fashion effect, very long payment delays and declining purchasing power, we observe worsening payment behaviour, particularly in Italy together with payment failures (art 182a), whereas in Spain the peak seems to have been reached.

... Three questions for Sophie Aubert-Vidal

• What risks do businesses in the textiles sector currently face?

Apart from labour costs (1 hour worked in France represents a month's wages in Bangladesh) and the tax and regulatory constraints, which are more or less common to all industries in France, French businesses' declining sales on the domestic market highlight their inadequate diversification with regard to export regions and market typology.

For fashion-related businesses, payment delays are traditionally long, varied according to the season, with purchases made very much upstream between six and nine months in advance. Points of sale have to create added value through their design and marketing which differentiates them from e-commerce outlets. Disruptions in the weather system lead to mini-seasons of which the cost of creation, sourcing and logistics must be covered by critical mass.

With regard to the textile industries, adapting to electronic (smart textiles) or technical (aeronautic, geotextile, medical, professional...) applications can sometimes require major investment, when businesses are transferred through debt (LBO), which is happening more and more because of low generational renewal.

Finally the scarcity of skilled labour means firms in the industry have to get involved in providing high-quality apprenticeships that match their needs and ensuring the transmission of skills required for their survival.

• What prospects lie ahead for businesses in the textile sector?

The French textile industry is able to impose its standards and has always benefitted from the positive image of «Made in France». While luxury is a good driver of growth, technological innovations provide a sustainable mainspring for creating added value in the traditional regional labour markets such as the Rhône-Alpes, Nord-Pas-de-Calais, Champagne-Centre and Alsace-Lorraine regions. This is why the sector has organised itself to create incubators and specialised sectoral funds are buying stakes as a way of strengthening the equity capital of innovative businesses, thus enabling research and medium term investment.

The key to success is to seek premium quality and technical innovation, which are alone capable of securing a sufficient margin for maintaining a leading role in France.

So, whether it is for clothing (mass market, luxury or professional), aeronautical, geotextile or electronic applications, the textile world will be open or it will not be French. The search for markets must be planned well in advance, which presupposes targeting sometimes highly regulated markets. R&D in France and cheaper production elsewhere can be combined, as is done in other industries, making it possible also to open up markets that would otherwise be closed if one did not adopt such a strategy.

A - EUROPE WITH SEVERAL FACES

To assess the risks associated with company structures, we need to consider the size of the company, its share of turnover devoted to R&D and its specialisation.

In this context, a Europe with two faces seems to be taking shape. On the one hand, Northern and Western Europe has suitable conditions for pursuing its policy of research and innovation and the sector is in a concentration phase. This stage does not necessarily generate employment and there is more likely to be a move towards «subcontracting» to countries in Eastern and Southern Europe.

Italy, for its part occupies a particular place. Having gone through a serious crisis in the 1990s (competitive devaluation of the lira and restructuring of numerous companies), its textile industry, though handicapped by significant labour and energy costs, is now directed towards higher value-added markets such as the luxury market. Thus, Como remains the place for creation, style and aesthetic innovation with regard to textiles such as technical fabrics. Biella, a top location for this industry has a network of firms specialising in technical fabrics for the boat (yachts and cruising vessels) and automotive industries. As for Prato, in Tuscany, it has become a production hub, where low and medium range («fast fashion») clothing firms are now owned by Chinese entrepreneurs. These manufacture «Made in Italy» articles under «Made in China» conditions: the workers are Chinese and work in very difficult conditions (working hours, wages). For example, the cost of making a pair of trousers is €8.5, that of a woman's top €4. This sector generated income of about €2 billion in 2011 (NPR estimate).

Prato town (Tuscany):
China in Italy: examples of company road signs

Fabio Muzzi / AFP/Getty Images

Since 2011, the Spanish textile industry has relocated 15% of its production from China, where it had been for the last twenty years. The reduction of wage cost differentials between Spain and China, the appreciation of the yuan as well as various customs duties explain this trend. Moreover, these returns were accompanied by government aid. With attractive prices and efforts at innovation, Spanish textile production (other than clothing) increased by 2.3% in the first half of 2013.

As for France, one of the characteristics of firms in the textiles sector is that most are SMEs. In 2012, INSEE counted 570 firms with more than 20 employees. How is it possible to be both small and innovative?

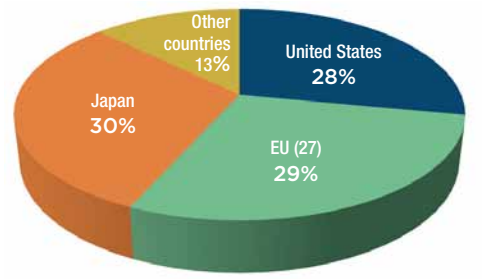
B - FINANCING INNOVATION

To fund innovation, French companies can finance themselves, have access to bank credit or benefit from French or European public aid. This means that the business plan must be sufficiently robust to be attractive. The structure of French firms differs from that of their German competitors. These, often family firms, can finance themselves because of their sizeable capitalisation, can finance themselves on the bond market (only hypothetically possible in France) or have a workforce sufficiently skilled to carry out the required work (because of the move upmarket of the product range) and/or carry out research, either internally or in partnership with other manufacturers.

One can point to Germany as an example of a country where companies creating new technical fibres work in cooperation with those that produce weaving machines so as to obtain the machine most suited to the final product. A French example confirms the effectiveness of this strategy: the Cédric Brochier start-up designed a machine which can weave optical fibres, process some 18,230 different threads in a single frame, under a patent lodged in 2004 on the basis of Jacquard technology. Finally, the firm's own role must be considered: is it a market leader or is it the sub-contractor, what is its standing and who is its client? If it is in a dominant position, the financial and creative risks are less than if it depends on a client who will make it responsible for profitability and part of the research process.

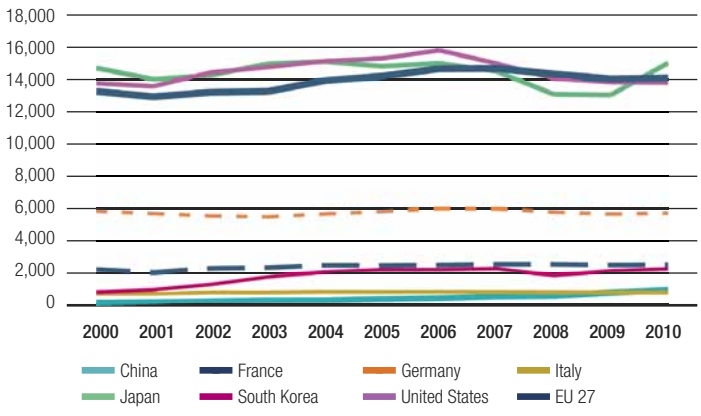
This innovation effort is measured by the number of patents lodged per inhabitant. The most significant indicator is the triadic patent family [5].

CHART 10:
Distribution of triadic patent families in 2010 (as%)



Source : OECD

CHART 11:
Triadic patent families lodged by country



Source : OECD

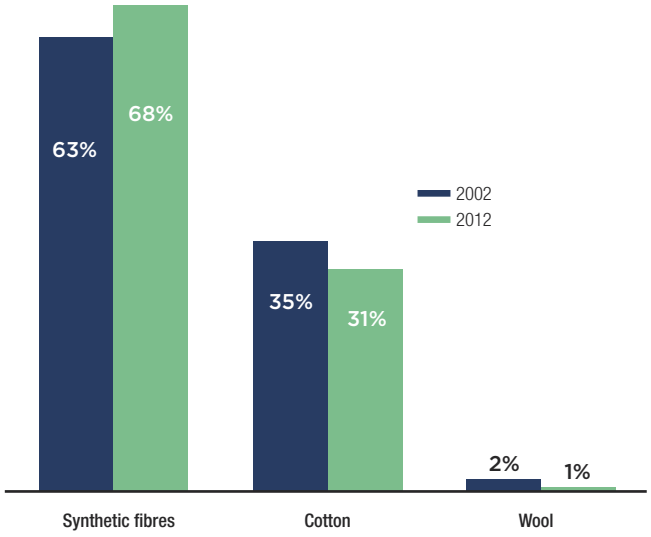
In 2010, according to the OECD, about 49,000 triadic patents were lodged. The United States accounts for 28.1% and the European Union 28.6%. A country-by-country examination reveals the strong progress of South Korea, where the number of patents lodged rose from 732 in 2000 to 2,182 in 2010. This trend is the same for China. But a country's creativity and innovation is revealed particularly when we relate the patent family lodged to the number of inhabitants. At the top of this list: Japan (118), Switzerland (109, Sweden (94) and Germany (69)... and France in twelfth place (39).

Europe is also addressing the issue of intellectual property and the existence of a European patent makes life easier for manufacturers and designers. This has the same effect in all the countries for which it has been delivered and is subject to the same rules as a domestic patent delivered in this State provided that the European Patent convention does not rule otherwise. It also reinforces intellectual property rights and helps to fight counterfeiting.

C - CONTROLLING RAW MATERIALS AND SUPPLY COSTS

The fibres used by the industry may have several origins *(chart 12)*. The quantities produced increase with the growth of the population and improvement in the standard of living. We note the decline in so-called natural fibres in favour of synthetic ones. In 2012 world fibre production was 85.9 million metric tons of which 68% were synthetic fibres One of the major problems for the textile industry is the price volatility and output volume. Cotton prices depend on the yield and the capacity of certain countries to accumulate stocks (China). World production exceeds consumption. So, during the 2012/20113 season 26.3 million metric tons of cotton were produced for consumption estimated at 23.5 million metric tons. In the 2013/2014 season, production is expected to be around 117.2 million bales. Since October 2013, cotton prices have been falling. Moreover, certain countries, such as India or Pakistan, themselves having an integrated textile industry, may affect the cotton price by increasing customs duties or by imposing production quotas.

CHART 12:
Origin of world fibre production (as %)



Source : CIRFS

(5) A patent family means a group of patents registered in different countries. Triadic because the group of patents is lodged with three main intellectual property offices: The European Patents Office, The Japan Patent Office and the United States Patent and Trademark Office in order to protect the same invention

With regard to synthetic fibres, derived from oil and the chemical industry, the price varies according to the oil price. Moreover, the European chemicals industry is penalised by high energy costs while the American industry benefits from the shale gas bonanza. Polymer and polyamide production declined by 46% and 44% between 2000 and 2009 in Europe. Europe can stabilise the impact of high energy costs, which represent a large part of the production and finishing costs of chemical fibres and of non-wovens, by securitising firms' gas, fuel and electricity supplies. At the same time China is continuing to increase output and exports. The Asian region has become both the biggest producer and the biggest consumer of synthetic fibres. Since these are the basic products for technical fabrics, a growing dependence is to be feared with regard to both quality and quantity.

D - THE NEW COMPETITION FROM EMERGING COUNTRIES AND ASIA

R&D investments are enabling the industry to go up-market and to conquer new markets. Though the developed countries are present on the technical fabrics market, the emerging countries are also targeting this niche. Wage rises in this industry are prompting them to look for new outlets. This is particularly true for China, the biggest consumer of technical fibres, which is in the process of transferring some of its textile production to Bangladesh, the Philippines and Vietnam where wage costs are still low.

Moreover, the increasing purchasing power of the middle classes in the emerging countries has created new needs, in clothing in particular. This thirst for higher value-added products has led them to turn to the technical textiles segment. Typical outdoor clothes based on technical fibres (Gore Tex, breathable, etc.) are becoming more widespread and part of everyday life. For example, the Taiwanese firm, Singtex, has lodged 34 patent applications, of which one in particular is for a polyester made from coffee grounds, S.Café, a fabric which absorbs bad odours. Other companies have, for example decided to work with spinners to create new products but do not possess their own factories. Thus, the Hyperbola company has over a hundred technical fabrics in its catalogue and supplies big brands such as Patagonia and Canada Goose.

E - WHICH WAY TO GO?

A huge research domain

The possible uses for technical fabrics are immense. Many of them are only at an experimental stage. The biggest market is the textile industry. Clothes made from technical fabrics offer the wearer protection against external hazards (fire, strong temperature variation, corrosive liquids, radiation, etc.), like the range of clothes for work or sports. There are also niche markets such as those including an electronic element (sensors for measuring temperature, recording cardiac rhythm...).

Furnishing and household fabrics, other possible markets, enable the manufacture of external blinds resistant both to water and sun (use of nanoparticles) and the inclusion of anti-stain and anti-bacterial treatments.

The industrial domain is another outlet for technical fabrics. They bring safety, lightness and comfort to vehicles and reduce their energy consumption (airbags, safety belts, roofs for convertibles, tyres and seats with integrated heating). But it is in aeronautics where the outlets seem most promising for businesses: carbon fibre reduces the weight of the aircraft and therefore its kerosene consumption. Among the dominant businesses in this sector are Hexcel and Chomarrat. Technical textiles are also found in the construction sector. The inclusion of technical fibre in concrete instead of steel, for example, makes it possible to construct lighter bridges without risk of corrosion over time. Waterproofing of facades, reinforcement of embankments or riverbanks using mesh are other areas of application.

Technical fabrics are also found in agriculture and the environment, where they are used for filtering, purifying and desalinating and for collecting dew or moisture from clouds.

Their use in the medical field is also promising. It extends from compresses with anti-bacterial properties, bandages with absorbable fibres to synthetic fibre implants and in the near future to medicines diffused by the garment worn.

These examples illustrate the immense possibilities offered to the textile industry thanks particularly to technical textiles. The development of partnerships between manufacturers and universities is the key to ensuring that the lead possessed by French firms will endure. The growth potential of technical textiles is estimated at between 3 and 5% p.a. according to Deutsche Bank Research analysts.

Nevertheless, if the market share of technical textiles is to increase, partnerships between developers of technical fabrics and manufacturers must be developed upstream. These will serve to perpetuate innovation. But it is also necessary to cut costs. Technical textiles are more expensive today than the products that they can or must replace (for example, carbon fibre instead of steel or aluminium). If the price supplement to be paid for technical clothing is judged to be too great in relation to the benefit derived from it, the consumer may decide not to make the purchase (the usefulness of a Gore Tex jacket compared with a standard raincoat). This required cost reduction would come from technical innovation and economies of scale at the production level.

This constant striving for innovation is also holding firms back since those with sufficient financial resources and an international foothold will be the best prepared.

What public policies are needed to support the sector?

In France, the creation of centres of competitiveness like Techtera (soft textiles and materials, Rhône Alpes Region), Up-TEX (textiles, Nord-Pas-de-Calais), Pôlefibres (400 firms), will give firms the means to innovate. With 16 textile research institutes, Germany also has the resources to beef up its research.

This race for innovation, in which each European country has its cards to play, fits into a much larger European framework. Antonio Tajani, the European Commissioner in charge of industry and entrepreneurship has launched an industrial policy to support the fashion and luxury sector, while developing a new modern, competitive industry – an initiative which targets quality over quantity.

The budget available for R&D through the Horizon 2020 programme is €72 billion and €2.5 billion have also been provided for the COSEM programme running from 2014 to 2020 (EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs)). There is also a plan to develop a work experience training programme as well as continuous training for young Europeans, inspired by the Erasmus programme.

The textile industry sector is also facing an aging population pyramid, whence the need to facilitate the handover from old to new managers. Moreover, the new jobs are more technical and require the adaptation of training programmes. Job qualifications are increasing and salaries too. It must therefore become potentially more attractive for new recruits, at a time when other sectors of industry such as automobiles and aeronautics have a more positive and dynamic image.

Horizon 2020 also foresees the internationalisation of firms in the textile industry. Only the design studios will be kept in Europe, the production centres will be outside the Union's borders.

In this context, Europe as well as each Member State is trying to support businesses. The aid, for example, consists of providing managers with training on key subjects (product range, marketing strategy) by means of subsidised mentoring, a system of repayable advances from a European guaranteed support fund and credit insurance at European level.

In the near future, innovation must take even more account of environmental constraints and the recycling sector in order to keep pace with development.

CONCLUSION

In order to keep its technological lead and face the increased number of competitors determined to profit from the growth potential of technical fabrics, the European textile industry, established at the cost of considerable restructuring, must perpetuate its numerous advantages. This ranges from the need for efficient and innovative businesses, well placed on the world market, to the measures taken by the European Union to support the sector and includes control of the cost of raw materials.