

# Future market trends in technical textiles in Europe

European markets for technical textiles and nonwovens continue to grow and the European industry is generally in a healthy state. New challenges are emerging from the switch to a "market-pull" industry dynamic from the previous "technology-push" which is leading to changes in the demands placed on the industry and the relative power and influence of participants at different levels in the supply chain.

Companies which recognise the strategic and tactical implications of this and take action appropriate to their situation have good chances of continuing to be successful.

## Market trends

As far as can be ascertained from the few published statistics, the consumption by volume of technical textiles in markets in Europe appears to have continued to grow

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sumption in all end-uses in Western and Eastern Europe combined between 1995 and 2000 of about 6%. The areas of most rapid consumption growth were forecast to be Geotech (geotex-

was forecast to be about three times that in Western Europe, but starting from a consumption level only about 15% of that in Western Europe.

In some areas, however, the forecasts were significantly lower than what has in the event happened. Nonwovens' consumption was forecast to grow at about 4.5% by volume per annum overall in Europe but recent EDANA statistics are reporting growth rates of more than 9% per annum across a wide range of end-uses.

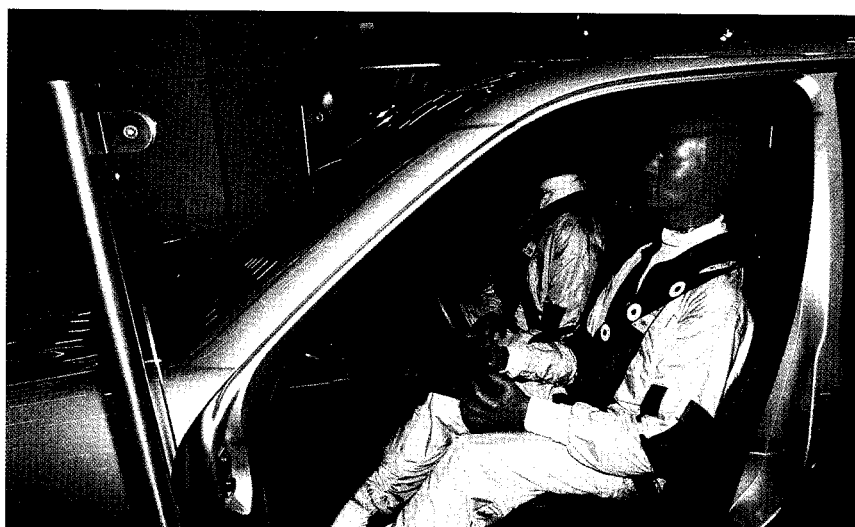
Consumption in the Mobiltech market segment (mainly in passenger car production) was forecast to grow at about 2.5% per annum, but this has probably been exceeded significantly due to the car industry recovering more quickly than expected and to the more rapid spread than envisaged of the use of airbags.

## Production trends

Technical textile producers in Europe are generally in good shape, particularly when compared with manufacturers of consumer textiles (*fig. 1*).

There are very few reports of technical textile or nonwovens companies going out of business for lack of profits. Noticeable trends include:

- simple woven fabrics of polypropylene and cotton are increasingly made in low-cost countries
- an increased number of mergers and acquisitions, as companies try to achieve greater economies of scale and a wider geographical presence
- increased exports, to capitalise on products which have been successful in the European home market



*Fig. 1:* Technical textile producers in Europe are generally in good shape, particularly when compared with manufacturers of consumer textiles. Picture: JR

over recent years at rates generally similar to those predicted in the DRA/Techtextil report published in 1997. This report forecast an overall annual growth rate of con-

tiles), Protech (protection textiles) and Packtech (packaging textiles). The overall growth rate in Eastern Europe, as its rate of industrial reform and expansion increased,

- attempts by consumer textile companies to enter the technical textiles industry, not all of which are successful.

### The onset of maturity

There are a number of clear signs, however, that the European technical textiles industry is maturing in some significant ways.

- Primary performance requirements such as strength, fire retardancy, temperature resistance, conductance etc are now relatively easily achievable using the wide range of already available materials and processes.
- Focus is now switching to the achievement of secondary product and performance characteristics such as low cost/price, lightness, recyclability, long life, ease of replacement, comfort, ease of aftercare etc.

and impregnating are increasingly important.

Observation of these trends in a number of situations has led one to consider what underlying mechanisms are at work.

### "Market-pull" replaces "technology push"

Until recent times the major driver of innovation in the growth of technical textile consumption was "technology-push". This has now been replaced in many market sectors by "market-pull".

Fig. 2 shows what has happened. In "technology-push", new materials and textile processes lead to new or extended performance capabilities and product possibilities. These in turn lead to new or extended end-use ideas which can be compared with the actual

about what technical textiles are and how they might be applied. They are then able to pose challenges such as "I have this problem, how can you solve it using technical textiles, and other technologies as necessary, in the most cost-effective way?"

Final end-use customers thereby ultimately reverse the way that the wheel of innovation turns, as shown in fig. 2. The main spur for product innovation becomes the customer's problem rather than the available technologies.

### Consequent change in the industry

The move from "technology-push" to "market-pull" is causing some important changes in the technical textiles and nonwovens industry. End-use customers are increasingly confining their major commercial relationships to their "first tier" suppliers, whose job is then to create and organise a supply chain to produce the required cost-effective innovation.

Thus, Johnson Controls, a designer and supplier of car seats, organises the supply of seat fabrics, metal frames, foam fillers, electronic controls etc needed to construct the seat. Its ultimate role is to supply car seats on a just-in-time basis to the car production line.

### End-use customers are dictating increasingly demanding targets

End-use customers are dictating increasingly demanding targets for the cost-effectiveness of the products supplied to them. The challenge is then for the supply chain continually to innovate products in terms of both performance and cost. "Cost plus" price targeting is therefore being replaced by "target price minus" cost targeting.

In this respect, the industry is becoming more like the consumer textile industry in which "target price minus (or divided by)" is in many areas the normal way of calculating the maximum production cost for a product.

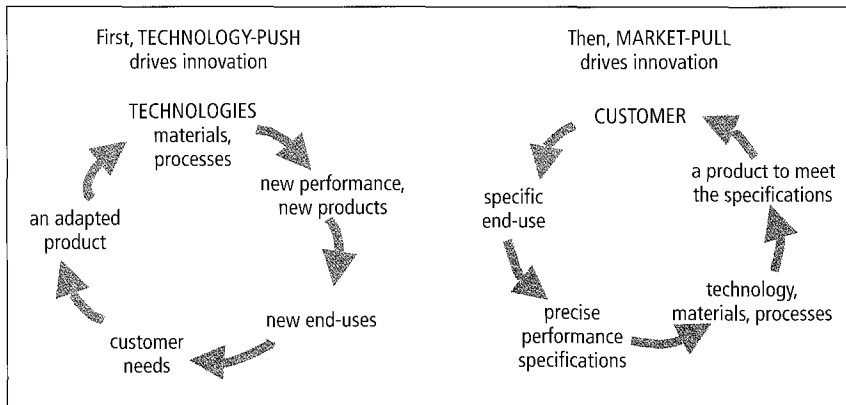


Fig. 2: The wheel of innovation changes direction.

Picture: DRA

- The rate of innovation in primary materials, especially fibres, is now low and declining. The focus is instead on innovating new fabrics (eg braids, Evolon) and more functional end-use products using existing technologies.
- Technical textiles and nonwovens are increasingly being seen as just one part of a wider discipline of the "engineering of flexible materials" in which foams, films, powders, resins, plastics, metals etc also have an important role to play and the processes of coating, laminating

needs of customers, leading to specific products to meet them as nearly as possible. Because detailed customer need is not considered until rather late in this process, and then often only in terms of a technology which may or may not be suitable, it often produces solutions not precisely matched to customers' actual problems.

However, when customers have experienced this approach a few times, and particularly when several technologies are involved, they soon learn how to generalise

### The balance of power is moving away

The balance of power is moving away from the owners of particular technologies towards those who integrate several technologies to produce the required end-products.

### Profits are in danger

In particular, the profits of producers of intermediate technical textile products are in danger of being squeezed between the power of their big suppliers of fibres, polymers, chemicals, machinery etc and the power of ultimate end-users and their first-tier suppliers (who perform the integrating role). Again, this mirrors the situation in consumer textiles where many producers of unbranded textiles and clothing are treated as mere converters and allowed by retailers and fibre producers to make only enough profits to stay in business, but then only so long as they are a necessary part of the supply chain; the option of sourcing from lower cost countries is the constant threat.

These factors combine to make it increasingly difficult for technical textile companies to operate under a "Product Driving Force" as defined in *fig. 3*, where the large dots indicate the area of strategic focus.

### Difficult to maintain a secure position in a major supply chain

Companies will increasingly have to choose between concentrating on producing a small set of reasonably standard and stable products at lowest cost (Production Driving Force) or on meeting the broader needs of a particular market sector: by integrating their own technologies with others', by sourcing some products etc. Companies focusing on constant innovation in products and performance in a

particular specialist area (Product Driving Force) could find it increasingly difficult to maintain a secure position in a major supply chain since they will be judged by their abilities to produce a constant flow of successful innovation.

The acquisition of companies with a Product Driving Force by companies with a Market Driving Force can be expected to be more common in future as these latter companies seek to bring in-house

ket-pull to meet more closely the precise needs of their target customers and markets.

- Focus more on solving problems that someone is known to have and less on commercialising new product opportunities arising from advances in technology.
- Use whatever methods possible, including good relationships with suppliers and final customers, and the ownership of important intellectual property in the form of patents and know-

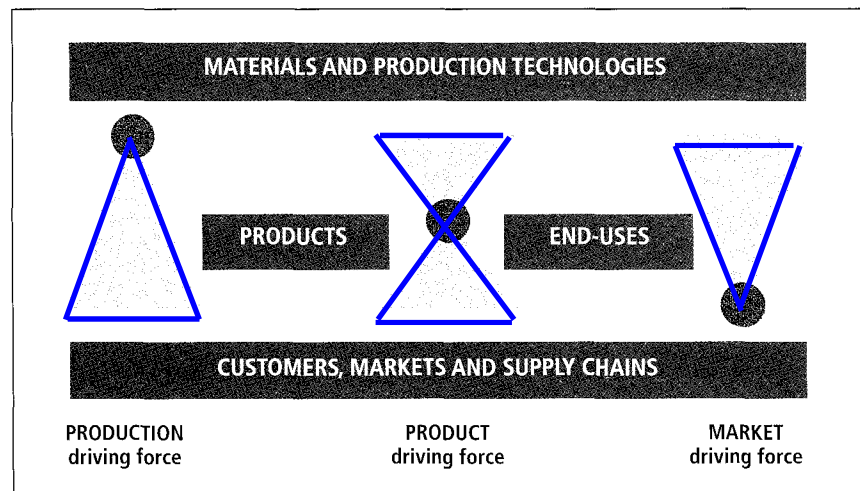


Fig. 3: Different company driving forces: The Rigby Triangles Model.

Picture: DRA

more of the key technologies needed to service their chosen market sectors.

### Action plans for companies

The new market conditions which are emerging in Europe (and probably also in North America) pose new challenges for companies in the technical textiles and nonwovens sector. The following are some suggested responses they could consider as part of their future strategies:

- Adjust the balance of their business approach away from technology-push and towards mar-

ket-pull to meet more closely the precise needs of their target customers and markets.

- Concentrate on innovation in all parts of the business and the way it operates to support its chosen product/market/customer strategy. This means innovating in such things as supply chain relationships, communications, internal culture, staff recruitment and training, business systems etc as well as in the more usual areas of technology and new product development.

References are available by quoting ONS-  
No. 1-1095. ■