



FIVE MEGA TRENDS SHAPING INDUSTRY

With worldwide membership of scientists and engineers, The Tire Society reaches a global technical audience through its annual conference and authoritative journal *Tire Science and Technology* for over a quarter century. Its members present, discuss, and publish the latest advances in transportation technology as it pertains to tyres and gain a global perspective on tyre technology trends, says Society President Hans Dorfi. Excerpts from the interview to *Tyre Asia*

Tyre Asia News Bureau

As you have a global view of the tyre industry, in your perspective what are the trends that will have the greatest impact on the industry in the coming five years?

The Tire Society sees five main drivers that impact the industry going forward for the next five years: Raw material prices, energy costs, manufacturing and distribution quality and costs, government regulations and changing consumer preferences. The first two drivers, material prices and energy costs, are likely to remain high due to global demand. Companies that can manage these costs most effectively will have a significant competitive advantage.

Manufacturing and distribution quality and costs are driven by the need to provide a quality product at competitive cost that meets local market demands. Automation technology, plant flexibility and effective human labour relations are critical to achieving optimal quality

and cost while distribution systems will have to be adapted to support global

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sourcing while remaining competitive on cost. Government regulations focus on socio-economic factors with safety, environmental concerns and fuel economy in the forefront. Companies that can quickly respond to these regulations will find themselves at a competitive advantage. Consumer preference is a moving target as also regional differences, but it is likely that in the long run high energy prices and government regulations will drive consumers to fuel efficient vehicles and tyres.

With prices of oil and NR/SR spiralling, the tyre industry has become very vulnerable to layoffs, closure etc. What steps can be taken to keep the industry rolling profitably?

The tyre industry is made up of many individual companies. As a whole the industry is growing, meeting the demands of the transportation industry. Individually,

some companies have had to cut back on employment as a means of cutting costs, yet for others growth of sales, productivity and profits have offset the need to cut back on employment. Significant risks to the industry remain but these risks may provide significant opportunities to individual companies to capitalise on the changes needed to adapt to higher raw material prices. We expect that in order to stay competitive in the tyre industry, global sourcing and vertical integration of the entire product life cycle will become even more important. Companies which manage their resources globally can be more effective in rebalancing their products and reallocating their resources (both in R&D and manufacturing) based on economic and regional requirements. Plant flexibility and automation are clearly the key to remain competitive and viable in regions of high labour costs. But moving to so called "low cost" manufacturing is not without its risks in terms of logistical and regulatory hurdles to bring these products to market.

The US/Europe have the most regulated tyre markets in the world, which are hurting company bottom lines and competitiveness. How can the 'assault' from low cost countries be tackled?

The premise that the US/Europe regulations hurt company bottom lines and competitiveness is not necessarily true. Regulations have and will always present business and technological challenges to our industry's products. Regulations are part of doing business and don't necessarily hurt the company bottom line, but provide opportunities for competitiveness as well as lead to improvement in the quality and safety of tyres. The Society has throughout its history witnessed significant R&D efforts that were associated with pending regulatory proposals. These efforts ultimately strengthened the companies that were able to capitalise on the developed technology. We don't necessarily agree with use of the terms 'assault' from, and tackling of low cost countries. Again, this presents opportunities for companies within our industry. Companies go into business to make money and provide a desirable product to the consumer. Entering the



Tyre heavy weights: The Tire Society's annual gathering brings together experts who set the direction of tyre technology development

global market provides an expanded base to choose from for both manufacturers and consumers. Ultimately it is an optimisation process for both the business and technical aspects in which more



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variables are provided from which a better product can be developed.

Also, consumer needs, road conditions and government regulations require significant regional customisation of tyres and continued development to keep up with changing requirements. The cases in point are the proposed stringent requirements for rolling resistance, wet grip and rolling noise in the EU region, which would have a considerable impact on the tyre industry. Successful companies have strong R&D and flexible manufacturing to adapt and prosper under these circumstances.

It is innovation and enterprise that have always put America ahead, but with rising R&D budget, better engineering education and freer markets in China and India, the two countries are set to overtake America's tyre manufacturing capabilities. Please comment.

Tyres are already highly engineered products but competitive pressures, regulatory requirements and changing consumer expectations are demanding significant and ongoing efforts in R&D. Like many other high-tech products, tyres are now being manufactured and developed globally. While there is likely to be a shift of resources, both in manufacturing and R&D, to growing economies with lower cost structures, we believe that the United States and Western European countries will continue to play a significant role in the development of tyre technology and also in tyre manufacturing. This is primarily due to the aforementioned points - the need for significant regional customisation of tyre designs, increased manufacturing automation, challenges of logistics and distribution and vertical integration of the product life cycle in regional markets ▲

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