



# EXECUTION & DISCIPLINE DRIVE RESULTS

Tenneco Automotive Inc. 2004 Annual Report

FIVE YEARS OF PROGRESS

Increased Revenues by \$953 Million

29%

Increased Revenue Per Employee from \$136,000 to \$229,000

68%

Reduced Debt Net of Cash by \$344 Million

22%

Increased Market Capitalization by \$439 Million

145%

# Tenneco Automotive

## ORIGINAL EQUIPMENT

Operations	2004 Sales	Markets Served	Products	Brands
Emission Control	\$2,287 million	<ul style="list-style-type: none"> <li>Passenger cars</li> <li>Light trucks</li> <li>Commercial vehicles</li> <li>Industrial applications</li> <li>Motorbikes</li> </ul>	<ul style="list-style-type: none"> <li>Complete exhaust systems</li> <li>Fabricated manifolds</li> <li>Manifold-converter modules</li> <li>Catalytic converters</li> <li>Mufflers and resonators</li> <li>Diesel particulate filter systems</li> <li>NOx abatement systems</li> <li>Exhaust heat exchangers</li> <li>Exhaust isolators &amp; hanging systems</li> </ul>	 Gillet®  WIMETAL  WALKER EXHAUST SYSTEMS
Ride Control	\$931 million	<ul style="list-style-type: none"> <li>Passenger cars</li> <li>Light trucks</li> <li>Commercial vehicles</li> <li>Golf carts</li> <li>Off-road recreational</li> <li>Rail cars</li> </ul>	<ul style="list-style-type: none"> <li>Shocks &amp; struts</li> <li>Suspension bushings</li> <li>Coil, air &amp; leaf springs</li> <li>Torque rods</li> <li>Engine/body mounts</li> <li>Suspension modules/systems</li> <li>Control arms/bars/links</li> <li>Cabin dampers</li> <li>Computerized electronic suspension</li> <li>Anti-roll system</li> </ul>	 MONROE  AXIOS CLEVITE Elastomers  Kinetic SUSPENSION SYSTEMS  Fric-Rot

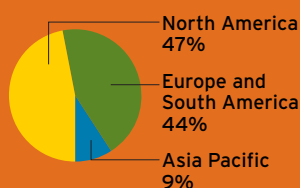
## AFTERMARKET

Operations	2004 Sales	Markets Served	Products	Brands
Emission Control	\$365 million	<ul style="list-style-type: none"> <li>Passenger cars</li> <li>Light trucks</li> <li>Commercial vehicles</li> <li>Performance vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Manifolds</li> <li>Mufflers</li> <li>Pipes</li> <li>Tubing</li> <li>Mounting components</li> <li>Catalytic converters</li> <li>Performance mufflers</li> </ul>	 WALKER EXHAUST SYSTEMS  DNX  Fonos  LUKEY PERFORMANCE EXHAUST  DYNOMAX Performance Exhaust  Thrush Turbo
Ride Control	\$630 million	<ul style="list-style-type: none"> <li>Passenger cars</li> <li>Light trucks</li> <li>Commercial vehicles</li> <li>Performance vehicles</li> <li>Trailers</li> </ul>	<ul style="list-style-type: none"> <li>Shocks</li> <li>Struts</li> <li>Cartridges</li> <li>Mounting kits</li> <li>Performance shocks, struts, filters and brakes</li> <li>Torque rods</li> <li>Suspension bushings</li> <li>Engine mounts</li> <li>Coil springs</li> <li>Car-appearance products</li> </ul>	 MONROE  AXIOS  RANCHO  Kinetic SUSPENSION SYSTEMS  DNX  ARMSTRONG

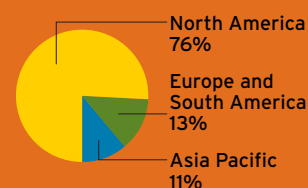
	2004	2003
Revenues (millions)	\$4,213	\$3,766
Emission Control/ Ride Control Balance†	63/37	63/37
Original Equipment/ Aftermarket Balance†	76/24	75/25

†percentage of sales

### 2004 Sales



### 2004 EBIT\*



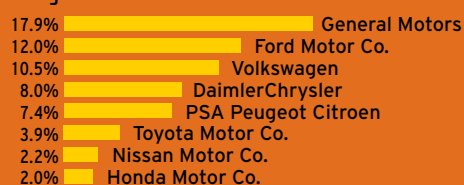
\*EBIT is earnings before interest expense, taxes, and minority interest.

Competitors	Key Advantages	Top Five Customers	Top Five Platforms 2004	Market Opportunities
<ul style="list-style-type: none"> <li>ArvinMeritor</li> <li>Faurecia</li> <li>Eberspächer</li> <li>Bosal</li> <li>Delphi</li> </ul>	<b>Emission &amp; Ride Control</b> <ul style="list-style-type: none"> <li>Advanced technologies</li> <li>Experienced team</li> <li>Product/process quality</li> <li>Global program management</li> <li>Japanese alliances</li> <li>Joint ventures in China, India, Thailand, and U.K.</li> </ul>	<ul style="list-style-type: none"> <li>General Motors</li> <li>Ford</li> <li>Volkswagen</li> <li>PSA Peugeot/Citroen</li> <li>DaimlerChrysler</li> </ul>	<ul style="list-style-type: none"> <li>GM Bravada, Envoy, Trailblazer</li> <li>GM Escalade, Silverado, Suburban, Avalanche, Tahoe, Sierra, Yukon</li> <li>Dodge Ram Pickup</li> <li>PSA Citroen C5, Peugeot 407, Peugeot 608</li> <li>GM Opel Vectra, Saab 9-3, Chevy Malibu, Pontiac G6</li> </ul>	<ul style="list-style-type: none"> <li>Additional content due to emission regulations</li> <li>Diesel aftertreatment</li> <li>Customized sound attenuation</li> <li>Demand for diesel/hybrid/fuel cell</li> <li>Emerging markets</li> <li>Commercial vehicle segment</li> </ul>
<ul style="list-style-type: none"> <li>ZF Sachs</li> <li>Delphi</li> <li>ArvinMeritor</li> <li>Kayaba</li> <li>Magneti Marelli</li> </ul>	<ul style="list-style-type: none"> <li>Customer relationships</li> <li>Broad product range</li> <li>Full service supplier</li> <li>Just-In-Time (JIT) assembly</li> </ul>	<ul style="list-style-type: none"> <li>Ford</li> <li>Volkswagen</li> <li>General Motors</li> <li>DaimlerChrysler</li> <li>Nissan</li> </ul>	<ul style="list-style-type: none"> <li>GM Escalade, Silverado, Suburban, Avalanche, Tahoe, Sierra, Yukon</li> <li>Ford Focus, Mazda 323, Volvo S40</li> <li>VW Golf, New Caddy, Seat Altea</li> <li>DaimlerChrysler Town &amp; Country, Voyager, Caravan</li> <li>VW Transporter</li> </ul>	<ul style="list-style-type: none"> <li>Vehicle stability/safety requirements</li> <li>Modular assembly</li> <li>New technologies</li> <li>Adjacent markets</li> <li>Electronic technologies</li> </ul>

Competitors	Key Advantages	Top Five Customers	Leading Products	Market Opportunities
<ul style="list-style-type: none"> <li>ArvinMeritor</li> <li>OE Service</li> <li>Bosal</li> <li>Goerlich's Exhaust Systems</li> <li>Midas/IPC</li> </ul>	<b>Emission &amp; Ride Control</b> <ul style="list-style-type: none"> <li>Brand dominance</li> <li>Relationships with all major wholesale distributors/retailers</li> <li>Global presence</li> <li>Leading market shares</li> <li>Product innovation</li> <li>Product quality</li> </ul>	<ul style="list-style-type: none"> <li>NAPA</li> <li>TEMOT Autoteile</li> <li>Automotive Distribution International (ADI)</li> <li>Advance Auto Parts</li> <li>Independent Motor Trade Factors Association (IFA)</li> </ul>	<ul style="list-style-type: none"> <li>Quiet-Flow3® Mufflers/Assemblies</li> <li>Dynomax® Ultra-Flo Stainless/Welded Mufflers/Systems</li> <li>DNX™ performance exhaust systems</li> <li>SoundFX™ mufflers</li> <li>Clean Air™ catalytic converters</li> </ul>	<ul style="list-style-type: none"> <li>Growing number of vehicles on the road</li> <li>OE Service</li> <li>New technologies</li> <li>Emission regulations</li> <li>Performance-product demand</li> </ul>
<ul style="list-style-type: none"> <li>ArvinMeritor</li> <li>Kayaba</li> <li>OE Service</li> <li>ZF Sachs</li> </ul>	<ul style="list-style-type: none"> <li>Extensive product and vehicle coverage</li> <li>Targeted marketing programs</li> <li>Introduction of service parts</li> </ul>	<ul style="list-style-type: none"> <li>NAPA</li> <li>Advance Auto Parts</li> <li>O'Reilly Auto Parts</li> <li>TEMOT Autoteile</li> <li>Pep Boys</li> </ul>	<ul style="list-style-type: none"> <li>Reflex® shocks &amp; struts</li> <li>Sensa-Trac® shocks &amp; struts</li> <li>Rancho® shocks, struts and suspension lift kits</li> <li>Quick Strut™</li> <li>Gas-Magnum® shocks</li> <li>DNX™ performance shocks and struts</li> <li>Monro-Matic Plus® shocks</li> <li>DuPont™ car-care line</li> </ul>	<ul style="list-style-type: none"> <li>Growing number of vehicles on the road</li> <li>OE Service</li> <li>New technologies</li> <li>Unperformed maintenance</li> <li>Premium mix expansion</li> <li>Broader product coverage</li> <li>Heavy-duty truck penetration</li> <li>Safety/installer education</li> <li>Testing/diagnostic equipment</li> </ul>

### Diverse Customer Base Top Customers as a % of Total 2004 Revenues

#### Largest OE Customers



#### Largest AM Customers



### Profile

People:	Approx. 18,400
Manufacturing & Just-In-Time Facilities:	71
Engineering Centers:	13
Countries Served:	138

As of 12.31.04

## >> VISION

# PIONEERING GLOBAL IDEAS FOR CLEANER, QUIETER AND SAFER TRANSPORTATION.

## CORPORATE PROFILE

Tenneco Automotive is one of the world's largest designers, manufacturers and marketers of emission control and ride control products and systems for the automotive original equipment market and aftermarket. The company became an independent corporation in 1999, allowing singular focus on strategies to maximize global results.

Tenneco Automotive markets its products principally under the Monroe®, Walker®, Gillet®, and Clevite® Elastomer brand names. Leading manufacturers worldwide use our products in their vehicles, attracted principally by our groundbreaking advanced technologies. We are one of the top suppliers to the automotive aftermarket, offering exceptionally strong brand recognition among consumers and trade personnel.

## VALUES

### Teamwork

Seamless collaboration

### Integrity

Being honest, fair and never compromising our ethics

### Trust

Relying on and having faith in one another

### Passion and a Sense of Urgency

A consuming desire to win now

### Balance

Promoting a balanced perspective in everything we do

### Accountability

Accepting responsibility for our actions

### Continuous Improvement

Relentless focus on achieving more with less

### ED

Execution and Discipline

## EXECUTION AND DISCIPLINE

Execution and Discipline drive results through detailed planning, follow-through and accountability.

## TABLE OF CONTENTS

Gatefold  
Tenneco  
at a Glance

1  
Financial  
Highlights

2-4  
Chairman's  
Letter

5  
Operations  
Review

6-8  
North  
America

9-11  
Europe &  
South America

12-13  
Asia Pacific

14  
Commercial  
Vehicle

15  
Technology

16  
Board of Directors  
& Officers

17+  
10K

Inside Back Cover  
Investor  
Information

## FINANCIAL HIGHLIGHTS

Execution and Discipline has driven notable progress in Tenneco Automotive's business since we emerged as a separately traded public company five years ago. The table below summarizes our reported results, which include the costs of achieving this improvement — namely restructuring, refinancing and similar charges. Adjusting for these items, our operational improvements were even greater. You can read more information about the charges in Management's Discussion and Analysis found in our Form 10-K included in this Annual Report.

(dollars in millions except share and per share data)	2004	2003	2002	2001	2000	1999
Sales	\$4,213	\$3,766	\$3,459	\$3,364	\$3,528	\$3,260
Earnings before interest and taxes	\$ 171	\$ 176	\$ 169	\$ 92	\$ 120	\$ 148
Depreciation and amortization	\$ 177	\$ 163	\$ 144	\$ 153	\$ 151	\$ 144
EBITDA*	\$ 348	\$ 339	\$ 313	\$ 245	\$ 271	\$ 292
Net income (loss) before discontinued operations and changes in accounting principles	\$ 13	\$ 27	\$ 31	\$ (130)	\$ (42)	\$ (81)
Earnings (loss) per share before discontinued operations and changes in accounting principles	\$ 0.31	\$ 0.65	\$ 0.74	\$ (3.43)	\$ (1.20)	\$ (2.42)
Capital expenditures	\$ 130	\$ 130	\$ 138	\$ 127	\$ 146	\$ 154
Average diluted shares outstanding	44,180,460	41,767,959	41,667,815	38,001,248	34,906,825	33,656,063
Total debt	\$1,420	\$1,430	\$1,445	\$1,515	\$1,527	\$1,634
Cash and cash equivalents	\$ 214	\$ 145	\$ 54	\$ 53	\$ 35	\$ 84
Debt net of cash balances	\$1,206	\$1,285	\$1,391	\$1,462	\$1,492	\$1,550

\*EBITDA represents income from continuing operations before cumulative effect of changes in accounting principles, interest expense, income taxes, minority interest and depreciation and amortization. EBITDA is not a calculation based upon generally accepted accounting principles. The amounts included in the EBITDA calculation, however, are derived from amounts included in the historical statements of income data. In addition, EBITDA should not be considered as an alternative to net income or operating income as an indicator of our performance, or as an alternative to operating cash flows as a measure of liquidity. We have reported EBITDA because we believe EBITDA is a measure commonly reported and widely used by investors and other interested parties as an indicator of a company's performance. We believe EBITDA assists investors in comparing a company's performance on a consistent basis without regard to depreciation and amortization, which can vary significantly depending upon many factors. However, the EBITDA measure presented in this document may not always be comparable to similarly titled measures reported by other companies due to differences in the components of the calculation.

### Revenue Per Employee

\$ in thousands



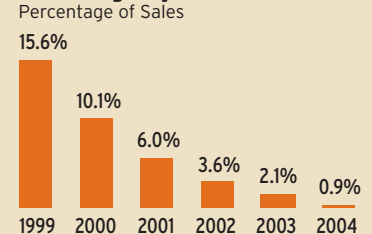
### Debt Net of Cash Balances

\$ in millions



### Working Capital<sup>†</sup>

Percentage of Sales



<sup>†</sup> See 2004 Form 10-K Item 6 for reconciliation to GAAP reporting measure.

## >> TO OUR SHAREHOLDERS

Over the last five years, we've made tremendous headway in improving our financial position and enhancing operating results, and 2004 was no exception. Our team of more than 18,000 employees has steadily transformed this company from a struggling, highly leveraged and newly independent operation to a profitable, high-tech auto supplier with leading market share positions in every region of the world and in each of our product lines.

### **Enhanced Shareholder Value**

Since becoming a stand-alone company, we've pursued the same goals of debt reduction and market expansion, relying on stringent cost management, capitalizing on natural growth drivers and leveraging alliances and joint ventures to get us there. Staying the course has continued to yield improving results. Even in 2004, against a difficult industry backdrop, we remained disciplined in the execution of these strategies and ultimately delivered outstanding results. Let me put some numbers to my enthusiasm.

- Revenues increased 12% in 2004 to \$4.2 billion — our highest ever.
- Operating income adjusted for certain items increased 21% over 2003, representing three years of consecutive improvements since becoming a stand-alone company.
- Adjusted earnings were our best ever at \$1.18 per share, which is 115% higher than the previous year.
- Capital spending was unchanged from 2003 at \$130 million despite the impact of the higher Euro and the fact that in 2004 we more than doubled the number of product or platform launches implemented.
- And debt less cash balances ended the year at a historically low \$1.206 billion, down 6% from 2003.

I've cited adjusted numbers so that you can see how our base operations are performing. Of course, an explanation of these adjustments, including restructuring and other items, can be found in the Management's Discussion and Analysis of the attached Form 10-K. Additionally, a reconciliation of the results is detailed on the inside back cover of this report.



Mark P. Frissora

Chairman, Chief Executive Officer and President  
April 2005

In 2004, our liquidity benefited from the successful refinancing of our most-expensive 11 5/8% bonds for new 8 5/8% bonds due 2014. As a result, we will generate pre-tax interest expense savings of about \$15 million annually.

The market's view of our strong operating performance and this favorable refinancing transaction was reflected in a 171% increase in the market capitalization of our stock last year. This led to two *Automotive News* Shareholder Value Awards, which recognized Tenneco for delivering the highest shareholder return among automotive suppliers for 2004 and over the latest three-year period.

Shareholders also benefited from our long-standing commitment to corporate governance best practices including independence, transparency and accountability. We will continue to incorporate the same high standards and integrity in every aspect of our business.

#### **The Foundation of Our Success**

As I think about the exciting opportunities ahead for Tenneco, I realize that we wouldn't be in a position to take advantage of many of them were it not for the significant amount of change that's taken place over several tough years.

Positive change. Above all else, we've become an extremely process-oriented company. This is a priority for us and I'm passionate about it. We've invested in training for every manager in the organization and are now moving that training down to the shop floor, so that everyone is on the same page and equally accountable. Process tools like Lean Manufacturing, Six Sigma, Business Operating Systems, 8D analysis—these are what give Tenneco its low-cost advantage. They allow us to reduce our fixed costs, providing greater flexibility when we need it, while continuing to be competitive for the benefit of our customers.

Restructurings have been necessary and effective. We've closed excess capacity, right-sized our workforce and reorganized our plants for optimal workflow. This has been an extensive undertaking, but the results have made it worthwhile. We're benefiting from higher capacity utilization, improved manufacturing efficiencies and lower overhead costs. Today we're a leaner, more streamlined and more efficient business. There's still work to do of course, but we're much better positioned to capitalize on the many growth opportunities that are now ours for the taking.

### Strategic Framework

On this front, our strategic plan has two primary objectives. First, we're targeting growth markets where we can take advantage of external trends.

Examples include:

- emerging automotive regions like China and Eastern Europe;
- legislation-driven regulations for emissions and consumer safety concerns — each offer greater prospects for technology-driven companies;
- frequently replaced service parts, like brakes and filters, in the aftermarket; and
- new and existing customers with positive growth trajectories, like the Japanese and Korean automakers.

Second, we're focused on further diversifying our revenue stream through entry into counter-cyclical adjacent markets like commercial and specialty vehicles.

Diversity of platforms, geography, customers, markets and product lines has been the key to our revenues outperforming global market production

rates in each of the last eight quarters. Continuing to diversify our business will better insulate us during challenging automotive cycles.

Our priority is to grow organically. We've come a long way in improving our financial position and have no intention of stepping backwards. Where value can be added through acquisitions, we'll be opportunistic. However, our criteria are stringent. Any acquisition must be accretive and credit neutral. That was the case with our early-2005 \$10 million acquisition that brought us all of the exhaust business for Harley-Davidson motorcycles. This profitable business generated 2004 revenues of \$38 million and supports our diversification strategy while leveraging our technology strength. Any future acquisitions must offer a low-risk way to grow revenues by enhancing our technical capability in areas like electronics and software for ride control, and air-flow management or fuel management for emission control.

For 2005, our goal is to continue to pursue opportunities that will make Tenneco a stronger company going forward, building on the considerable progress achieved over the last five years. Our improved performance is a sign that we're on the right track.

But for all the progress that we've made, we're really just getting started. We have a distinctive mix of leading brands, growing channels and strong positions around the world. We will continue to focus on areas of high potential, relying on our global workforce of talented, experienced and motivated people to lead us through Execution and Discipline.



Mark P. Frissora

Chairman, Chief Executive Officer  
and President

April 2005



## >> EXECUTION & DISCIPLINE

Tenneco Automotive has created a culture based on Execution and Discipline, encouraging behaviors and practices that drive value creation. This culture is rooted in its people, processes and strategies.

In the following pages, several of Tenneco's senior leaders talk about the energy, initiative and commitment that have enabled the company to make sustained progress through Execution and Discipline.



**Neal Yanos**  
Senior Vice President and General Manager, North America Ride Control and Aftermarket  
20 years in the auto industry  
Joined Tenneco Automotive in 1988



**Brent Bauer**  
Senior Vice President and General Manager, North America Original Equipment Emission Control  
21 years in the auto industry  
Joined Tenneco Automotive in 1996



**Hari Nair**  
Executive Vice President, Managing Director, Europe and South America  
20 years in the auto industry  
Joined Tenneco Automotive in 1987



**Ulrich Mehlmann**  
Vice President and General Manager, Europe Original Equipment Emission Control  
21 years in the auto industry  
Joined Tenneco Automotive in 2003



**Josep Fornos**  
Vice President and General Manager, Europe Original Equipment Ride Control  
22 years in the auto industry  
Joined Tenneco Automotive in 2000



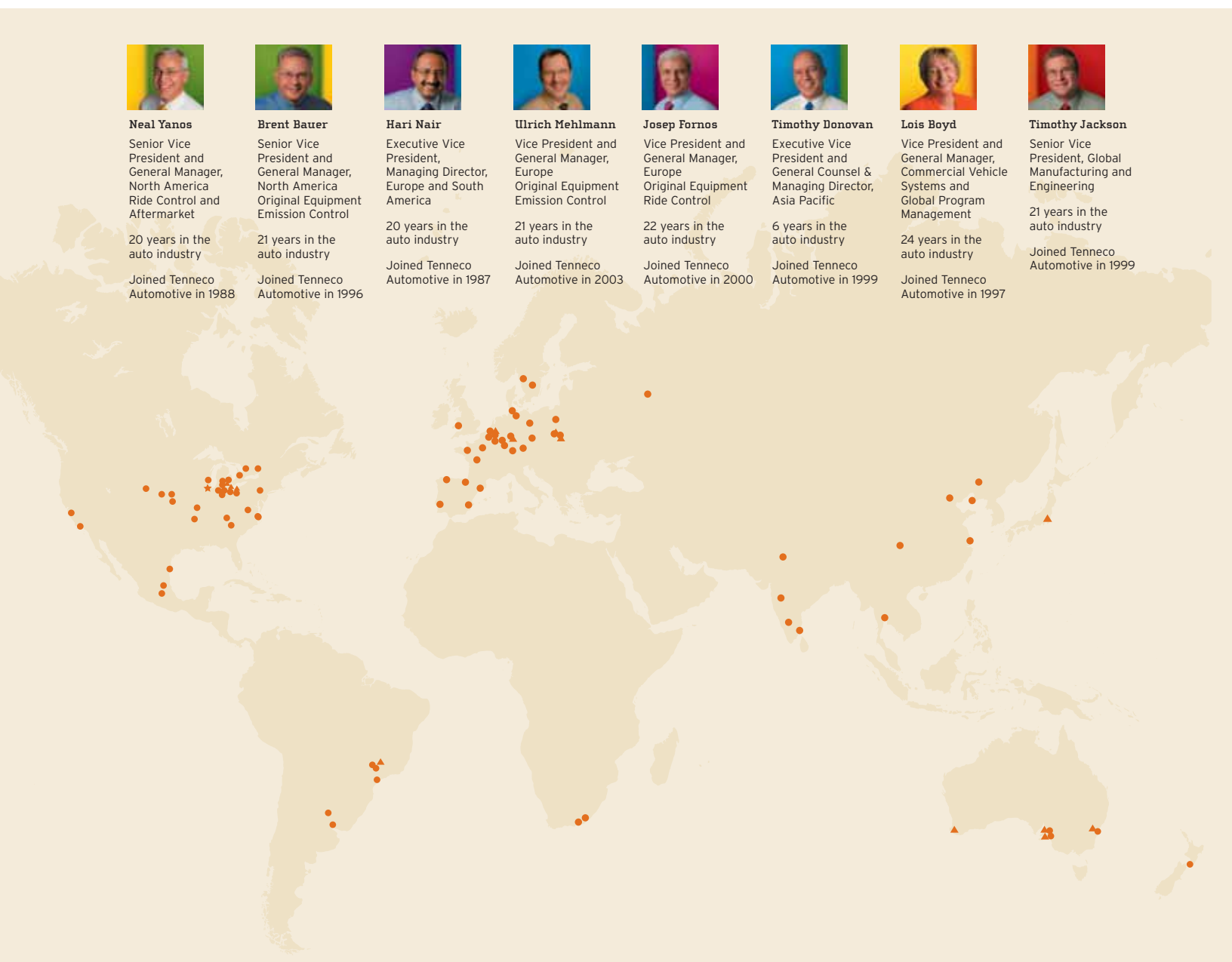
**Timothy Donovan**  
Executive Vice President and General Counsel & Managing Director, Asia Pacific  
6 years in the auto industry  
Joined Tenneco Automotive in 1999

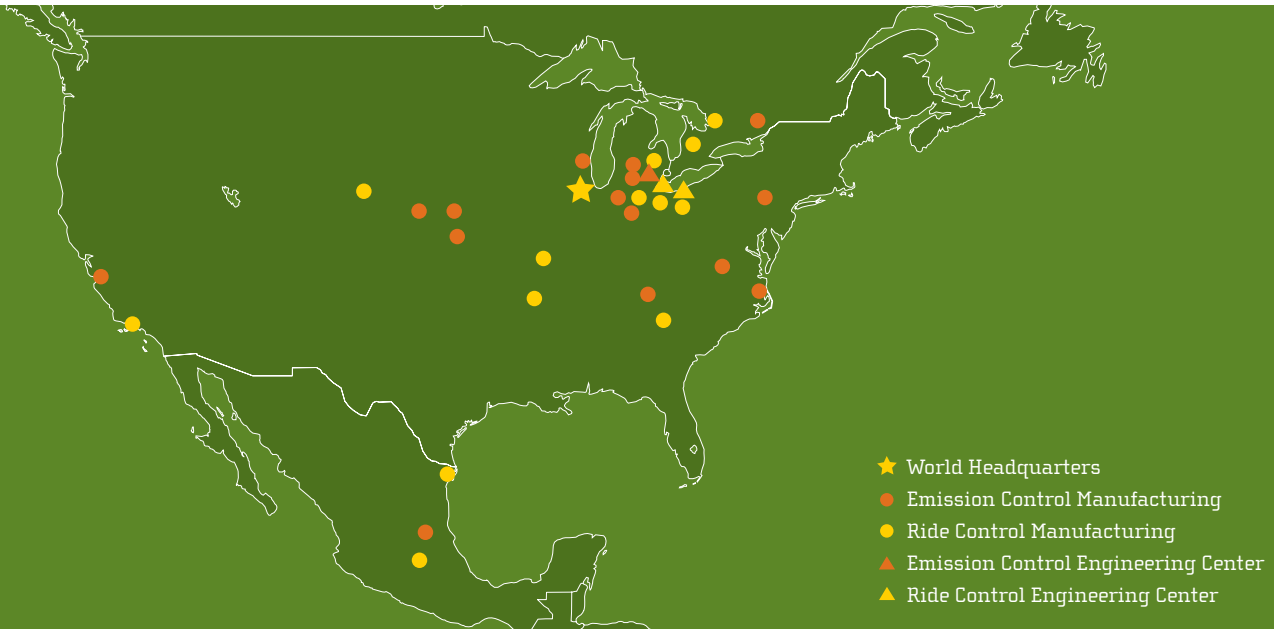


**Lois Boyd**  
Vice President and General Manager, Commercial Vehicle Systems and Global Program Management  
24 years in the auto industry  
Joined Tenneco Automotive in 1997



**Timothy Jackson**  
Senior Vice President, Global Manufacturing and Engineering  
21 years in the auto industry  
Joined Tenneco Automotive in 1999





## >> NORTH AMERICA

How have North American operations changed in the last five years?

**Brent Bauer, Senior Vice President and General Manager, North America Original Equipment Emission Control:**

We have much better process disciplines. We have put in place things like Business Operating Systems, where each area of the business regularly tracks the vital few metrics they need to drive progress. Today, we employ Lean Manufacturing and Six Sigma methods to identify opportunities to take waste out of the system and to increase quality and speed. Processes like these have really become ingrained in the business. Additionally, the savings we're getting by sourcing components from low-cost countries and working with suppliers on cost reductions are making us more competitive and more profitable.

**Neal Yanos, Senior Vice President and General Manager, North America Ride Control and Aftermarket:**

Our focus has been very strategic. We don't expend a lot of resources where the likelihood of profitability is low.

In terms of culture, our people have the attitude that it's their company, and they're running it to win. We hold ourselves accountable for the targets we set and expect to achieve them. That's different from having lots of good ideas, but no accountability for the execution of those ideas.

**Brent:** That's right. That discipline and accountability is part of what's driven our strong performance over the last five years. Additionally, we have outstanding technical resources and engineering expertise, which gives us a competitive edge. And we're seeing tremendous leverage today as revenues grow and we continue to reduce fixed costs.

**How are the new environmental mandates impacting your business?**

**Brent:** It's hard to find a competitor that stacks up better than Tenneco on technology. Our customers know that we have the products and capabilities to help them meet the stricter mandates. In North America, legislation like ULEV, SULEV and Tier II is driving increased exhaust content on gas-engine vehicles. And as diesel engines grow in importance over the next several years, there will be

“Tenneco is efficient. We provide services and products with fewer people and resources than most other big suppliers. And still, our OE revenues continue to outperform market production rates.”

Neal Yanos



pollution-control regulations in place for that segment too. In 2004, we leveraged the diesel technology developed for our European operations to win three new light-duty diesel platforms in North America for the 2007 model year. They're the largest platforms we've ever won — and we won them because we had a better technical solution than our competitors.

**Business with the Japanese automakers in North America is another targeted growth area for Tenneco. What are you doing to improve your position with these original equipment manufacturers (OEMs)?**

**Brent:** The Japanese automakers are rapidly gaining share in North America, and we certainly want to be a part of their growth. As a result of a long-term focus on building relationships with these customers, we've been successfully winning new business. In 2004, Japanese OEM business represented 19% of our total North American original equipment (OE) revenues. That's up from 16% a year earlier. By delivering the highest levels of quality, responsiveness and execution, we expect these

relationships to continue to expand. For example, our award-winning launch of the Lexus RX330 played a big part in our winning the Toyota Tundra truck platform in 2004, which is scheduled to be a high-volume platform that's launching in 2006.

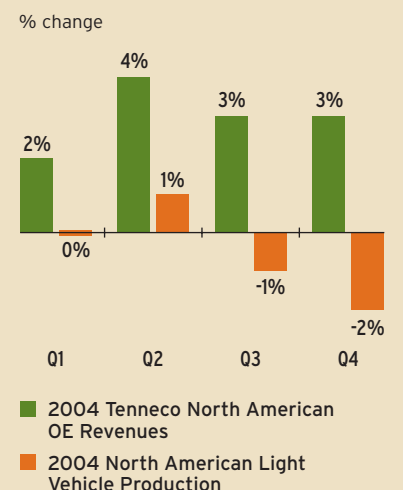
**Why is the aftermarket a good business to be in, and what are your plans for growth?**

**Neal:** The aftermarket's a great business for us. We employ a premium product strategy, which drives better margins; and, we have strong brand equity with Monroe and Walker. Additionally, we've been improving profitability as we capitalize on favorable manufacturing synergies across our product lines. We're also benefiting from a stronger top line as sales to existing customers expand, the exhaust market stabilizes, and we add new customers like Pep Boys for ride control products, and Wal-Mart and Target for our niche DuPont-branded car-care line. In addition to our leading market shares, our sales force, customer support areas, and engineering and marketing savvy give us a clear competitive advantage that we can leverage by bringing new, non-core products through our distribution channel.

### Execution & Discipline Pep Boys Case History

Success is the product of many years of hard work. That was the case with the North American Aftermarket team, who pursued Pep Boys for two years, convincing them of the value of the Monroe, Rancho and DNX lines of shocks, struts and exhaust products. Ultimately, we signed a long-term contract to supply Pep Boys stores across the United States and Puerto Rico. Persistence, hard work and customer focus paid off.

### North American Revenues Outperform Market Production





“Emission regulations dictate the kind of product solutions that customers are looking for. Based on our expertise and capabilities, in 2004 we won all of the domestic OEMs’ light-duty diesel business—our largest platforms ever.”

Brent Bauer

### Execution & Discipline Cambridge Case History

For Toyota, the first launch of a Lexus made in North America was vitally important. Our Lexus team of emission-control engineers in Canada worked side by side and used extensive benchmarking with Japanese counterparts to find ways to reduce costs, improve performance and reach quality levels that exceeded Toyota’s world-class standards. For that, Toyota bestowed its prestigious Excellence Level Award on our team in Cambridge.

#### How has the rising cost of steel affected your business?

**Neal:** In ride control, we use a lot of carbon steel for our shocks and struts so the substantially higher costs could really impact our margins. But our global supply chain team has done a great job working with steel suppliers to secure capacity and negotiate the best prices based on our global purchasing power. And we’re working with all of our customers to get price recovery. We’re also continuing our focus on cost reduction.

**Brent:** On the exhaust side, we’re going to feel some pressure this year. However, we’re also negotiating for customer price recovery, and our supply chain team has been very strategic, focusing on materials substitution, low-cost country sourcing and optimizing the sale of our global scrap volumes.

#### What is the North American operation doing to help improve margins over time?

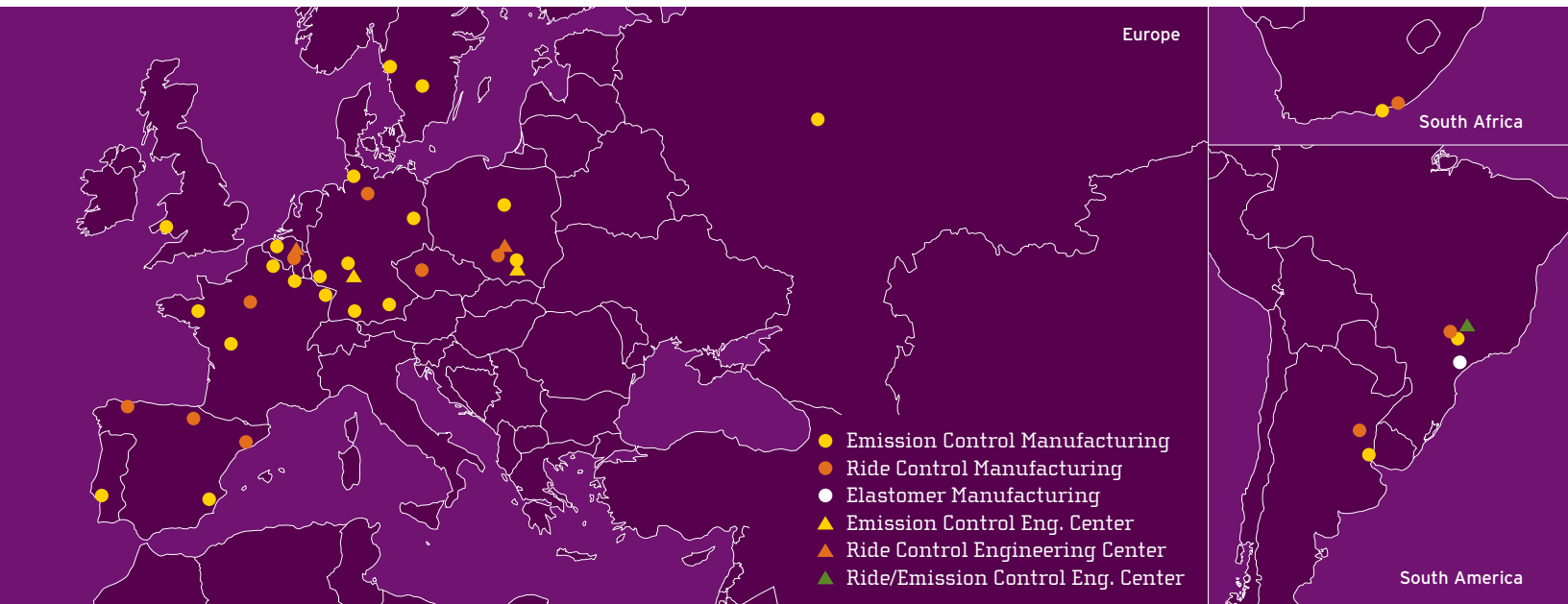
**Brent:** We have a pretty good track record of improving gross margin in North America. The formula is simple. Having differentiated technology allows us to capture a better return. Moreover,

the leverage we get from adding higher-margin revenues on top of our efforts to continuously lower our fixed costs is significant. Over the long-term, we think there’s a lot of opportunity, especially as we expand the implementation of Lean Manufacturing throughout our plants.

#### North American auto production is expected to be flat this year. Will you continue to outperform the market?

**Neal:** It’s all about the diversity of our platforms and the markets we serve, and the strength of the new platforms that we’re launching. Today, we’re favorably positioned on a large number of the top-selling vehicles. It’s been an advantage.

**Brent:** The diversity of our customer base is another advantage. Having Toyota, Honda and Nissan among our top six customers in North America is really paying off.



## >> EUROPE & SOUTH AMERICA

How have you transformed European operations in recent years?

**Hari Nair, Executive Vice President, Managing Director, Europe and South America:** Over the past five years, we've adjusted to changes in the marketplace by modifying our profile in terms of manufacturing capacity and location, customer mix and market share. This was the result of careful planning and determined execution, and leaves us well positioned to benefit from market opportunities.

**Ulrich Mehlmann, Vice President and General Manager, Europe Original Equipment Emission Control:** Also, we've made our operations more process-oriented, improving efficiency and reducing our costs. Equally important, our innovative technologies are driving new business growth in emission control as well as our expanded presence in the luxury segment.

**Josep Fornos, Vice President and General Manager, Europe Original Equipment Ride Control:** The European OE ride control business has benefited from a renewed focus. Based on the incremental new contracts we've won, we should move closer

to the #1 position in the European market this year.

**Hari:** Besides operational improvements, we've completely transformed the culture of the organization. The concept of Execution and Discipline is embedded in the way our people work. It's about making people accountable. Employees must feel that they can contribute to the best of their abilities. Recognition and celebration of success are key to this.

**The improvement in the OE operation has been significant. How much opportunity is left?**

**Ulrich:** Quite a bit. On the top line, our technological leadership in developing diesel products that provide a cost-effective means for meeting stricter emission standards results in greater customer satisfaction. That means more opportunity for Tenneco. In addition, we are looking at adjacent markets, like commercial trucks and specialty vehicles, to generate increased revenues. Our focus is more pointed than simple revenue generation. We are driving for profitable growth.

“Customers recognize us as a contributor to their success and not merely a commodity supplier. We can manage the entire development spectrum. Advanced engineering and technology is what sets us apart.”

Hari Nair



### Execution & Discipline Valencia Case History

Execution and Discipline was critical to meeting the simultaneous challenges of serving new customers, handling multiple launches and executing a plant redesign at our emission-control facility in Valencia, Spain in 2004. Launching four new platforms—each for a different customer—while moving 80% of the equipment to improve workflow was accomplished successfully without the need for additional resources and without disrupting any production for existing customers.

**Josep:** I agree. Our advanced Computerized Electronic Suspension product provides vehicle handling and safety improvements that customers are willing to pay for. At the same time, we are reducing costs by increasing purchases from low-cost countries, outsourcing non-core processes, further reducing inventories and standardizing more of our products and processes.

**Hari:** The improving South American economy and our efficient operations there also present opportunities for growth. Additionally, we'll continue to look at ways to fine-tune our manufacturing footprint to take advantage of

market growth and lower costs in Eastern Europe.

#### What percent of manufacturing is in Eastern Europe?

**Hari:** Approximately 22% of our European OE ride control manufacturing capacity is in the east today versus a low single-digit percentage just a few years ago. We are continuing to migrate our emission control capacity to Eastern Europe as well.

**Josep:** We have been aggressive in developing opportunities in Eastern Europe. In 2004, we launched the high-volume Ford Focus, a compelling example of our “Go East” strategy. We would never have won this ride control business without our capacity in Poland and the Czech Republic.

**Ulrich:** Moreover, we now have full engineering and design capabilities for exhaust systems in Eastern Europe. We believe this differentiates us from most automotive suppliers. And, while Western European automotive production is expected to be flat this year, we see positive projections in the east and are well positioned to capitalize on that expansion. For example, we are building relationships in Russia with our exhaust contract for the Lada Riva,

manufactured by AvtoVAZ, and we'll begin supplying exhaust parts for GM's Opel Astra in Poland this year.

#### What was your most important launch in 2004?

**Hari:** We had 37 well-executed OE product or platform launches in Europe last year and all of them were important. These successes helped increase our OE ride control market share in Europe from the #4 position as recently as 2001 to challenging the leading competitor for the top position in 2005. At the same time, we maintained our #1 position\* in the European OE emission control business.

**Ulrich:** We also made great strides in increasing customer satisfaction last year by implementing detailed plans for meeting and exceeding expectations. As a result, we had a number of successful launches including the BMW 1-Series, which represents our move into the higher-volume small-vehicle segment, and Porsche's Boxster and 911, which demonstrate our continuing relationship with this prestigious nameplate.

\*Market share data in this annual report is based on 2004 estimated revenues and are compiled from our knowledge of our relative position in the market and industry sources. These data are prepared in accordance with what Tenneco believes to be standard industry practice.



Ulrich Mehlmann



Josep Fornos

### What will drive future revenue growth?

**Josep:** New ride control technologies that address comfort and safety such as CES, our electronic shock, and Kinetic, our anti-roll system offering improved vehicle stability. Also, leveraging our North American relationships with the Japanese automakers and developing new relationships with Korean OEMs as both have expanded their European market shares.

**Ulrich:** Stricter environmental requirements will also drive growth. We anticipate increased value for emission-control content in both the passenger car and commercial vehicle markets.

### What have you done to improve European aftermarket results?

**Hari:** We have been making steady improvements, including signing roughly \$20 million in incremental business in 2004 with customers like Van Heck & Co., a major wholesale distributor in the Netherlands. In addition, we adjusted our product mix by eliminating weak-selling parts. And new products being rolled out in 2005, like high-performance brakes and filters under our DNX brand, will help to offset the shrinking exhaust segment that resulted from the

introduction of longer-lasting stainless steel by the OEMs. We've also streamlined manufacturing operations to reduce costs, including integrating aftermarket and OE production to more efficiently utilize capacity.

### Why are European operating margins lower than North America's?

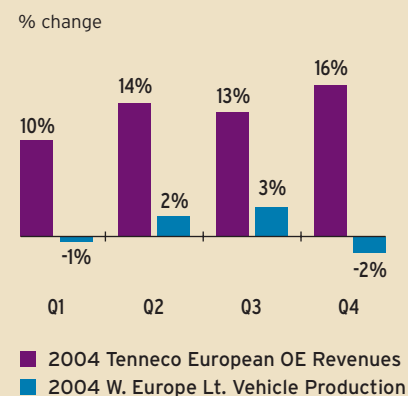
**Hari:** Complexity. The total number of countries we serve exceeds 90. That means doing business with multiple legal entities, currencies and languages, and producing a greater number of models and engine variants to meet consumer preferences, which vary by region. But more than anything else, Western European labor costs are significantly higher, in part resulting from a more stringent regulatory environment.

**Ulrich:** But we are making progress as revenues increase and ongoing restructuring initiatives bear fruit. New OE programs that we've launched in lower-cost Eastern Europe are helping continue this progress.

### How does Tenneco stack up against the competition? What differentiates you?

**Josep:** A combination of things that add up to best-in-class customer service and

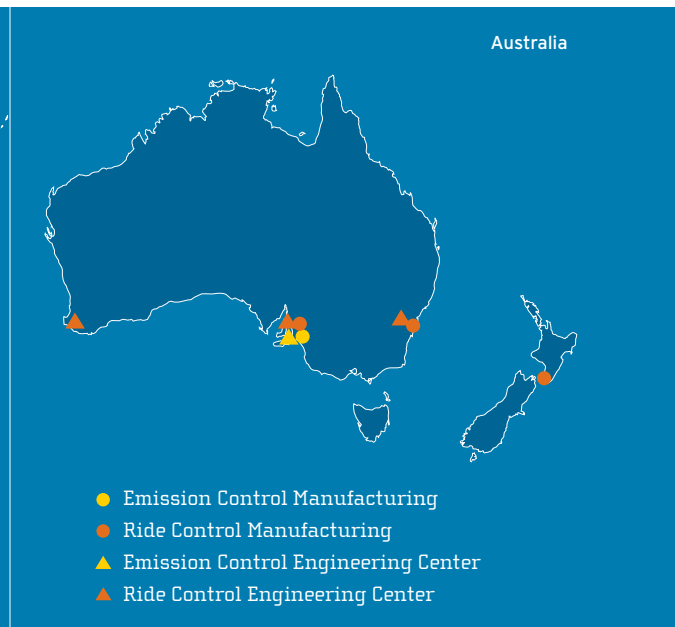
### European Revenues Outperform Market Production Rates



superior quality. And these are not my words. The most frequent feedback from our customers is that we flex where others don't — whether it be in operations, design, engineering or logistics, and when a customer faces an issue, our reaction speed is second to none.

**Ulrich:** We place the highest importance on providing solutions that are tailored to individual customers.

**Hari:** By providing solutions and delivering on our promises, we are building credibility, trust and a win-win partnership with our customers.



## >> ASIA PACIFIC

China is expected to become the world's second largest automotive market in terms of sales in three years. Are China's steps to slow its booming economy likely to persist and what does that mean for Tenneco's growth?

**Tim Donovan, Executive Vice President and General Counsel & Managing Director, Asia Pacific:**

There is concern that the Chinese government might try to further limit economic growth this year. As a result, we expect to deliver a modest increase in volume in 2005 as that economy sorts itself out. Beyond that, I really do believe China's growth is going to be a stair-step versus a straight-line trajectory. Regardless, we continue to believe that the opportunity is substantial, given its population size and relatively low level of vehicle ownership. Over the long-term, China could become Tenneco's largest market.

**So what will it take to make that happen?**

**Tim:** Two important catalysts will be greater efficiency in our OE joint-venture operations and the effective use of capacity in low-cost countries

for the production of export products and components. As quality improves, the most likely candidates to handle the export volume will be India and China. Today, virtually all of our production in China is for use in the Chinese market.

Another area driving growth will be the stricter emission standards. Beijing is restricting emissions now in anticipation of the 2008 Olympic Games. Shanghai is planning to do the same.

Finally, we are positioning ourselves for the expected consolidation of about 120 automakers in China today to less than 10 that are likely to survive over the long haul as global players. Our leading market share in emission control gives us a competitive advantage as this trend plays out.

**What are your plans for Thailand and India?**

**Tim:** Thailand presents an opportunity for us to manufacture cost-effective emission components for export throughout the region. In India, we are upgrading our ride control facility to make products for global export.





“We became the #1 exhaust supplier in China last year and continue to grow with that market, diversifying our customer base through new business.”

Tim Donovan

**In Asia there are seven joint ventures — five in China and one each in Thailand and India. Are there plans to open more?**

**Tim:** In China we're in pretty good shape right now with the 2004 addition of a new JV to service Ford and the recent partnership with Eberspächer for BMW exhaust business. We currently have four exhaust JVs and one ride control JV in China. Why only one shock plant? Shocks are relatively cost-effective to ship, so having multiple facilities, each in proximity to the customer, is not as important as it is for exhaust facilities. Of course, we're always open to new opportunities to expand our business in the Asia Pacific region.

**What is the outlook for growth in the aftermarket business?**

**Tim:** It's a very fragmented market right now in China. There's no clear distribution system for aftermarket like there is in the United States. We're currently launching a very detailed plan to leverage our strong Monroe brand in China with a goal of capturing a 30% share of the aftermarket by 2009.

**What differentiates you from the competition in Asia?**

**Tim:** Primarily the quality of our management teams in the region— hiring local people that have intimate knowledge of the markets, as well as the legal, commercial and regulatory environment. We supplement this local orientation by drawing on our global manufacturing, supply chain and technological resources. Additionally, our leading-edge technology gives us a competitive advantage.

**What are your top priorities for 2005?**

**Tim:** Expanding and upgrading our ride-control operations, further diversifying our customer base through new business, improving processes, and executing flawless launches.

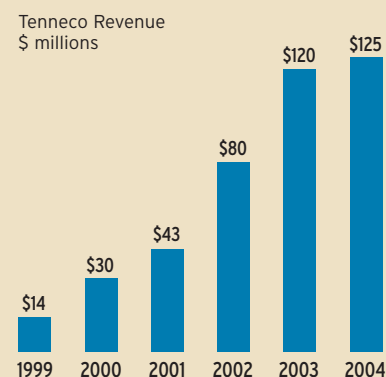
**What does Tenneco's culture of Execution and Discipline mean to you?**

**Tim:** It means differentiating ourselves from the competition by getting the basics right. Best-in-class suppliers like Tenneco know that being more process driven allows more opportunities for growth. We strive to be disciplined in the execution of our programs and processes—and that should give us an advantage.

### Execution & Discipline Australia Case History

Global customers need global supply teams that work together across continents, time zones and cultures with seamless focus. General Motors was looking for an exhaust supplier for one of its new models. A Tenneco Australian team enlisted their counterparts in North America and the commercial representative at our South Africa plant. Operating over three continents as a single global crew, the team won incremental new business worth millions of dollars.

### Leveraging Joint Ventures to Capitalize on Growth in China





“With new, global emission regulations for medium- and heavy-duty trucks, our broad technology portfolio and extensive experience gives us a strategic advantage.”

Lois Boyd

## >> COMMERCIAL VEHICLE

Tenneco formed its Commercial Vehicle business unit in 2004. Why this heightened emphasis now?

**Lois Boyd, Vice President and General Manager, Commercial Vehicle Systems and Global Program Management:** We’ve always participated in this segment with ride control and elastomer, or rubber-to-metal, products, but had no real presence in the exhaust market and not in a global fashion. Although the emission-control market worldwide was less than \$200 million in 2003, future opportunities are enormous. We estimate the size of the market could reach \$2.2 billion by 2010 as more stringent environmental regulations require more sophisticated technology, driving up the value of vehicle content. We formed a business unit to take advantage of this growth, capitalizing on our global synergies, as well as our reputation in the light-truck exhaust market.

**What hurdles do you face?**

**Lois:** Since we’re relatively new to the commercial vehicle exhaust market, raising our visibility with the truck makers

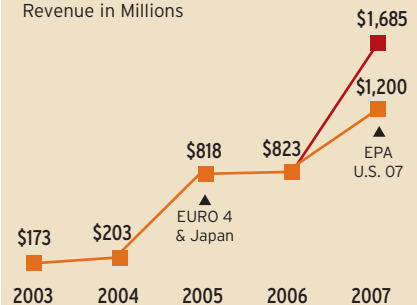
is our biggest challenge. We spent a lot of time this year linking the brands they know — Gillet, Walker, Monroe, Clevite — to Tenneco Automotive. We’re fortunate to already have good customer relationships on the ride-control side that we can leverage, and that many of the traditional muffler suppliers in this market don’t have emission technologies to support the OEMs in addressing the new environmental mandates. We believe that our experience, products and capabilities give us an edge.

**Have you been successful in winning any new business yet?**

**Lois:** We are the exhaust supplier to DaimlerChrysler on their heavy-duty Actros truck in Europe, which launched in January 2005 and addresses the Euro 4/Euro 5 environmental regulations. We’ve also been awarded business by one of North America’s largest commercial vehicle producers to supply exhaust systems that meet EPA 2007 standards. And currently, we’re quoting on 2007 launches with some specialty market customers and on platforms that must meet Euro 5 standards, beginning in 2008, and more stringent EPA standards for 2010.

### Higher Content Per Vehicle Drives Growth Opportunities

Global Exhaust Market for Medium/Heavy-Duty Trucks  
Revenue in Millions



■ Medium/Heavy-Duty Truck Market  
■ With Selective Catalytic Reduction adoption in U.S.

Sources: Global Insight unit volume; TEN estimate of content per vehicle

**What are specialty markets?**

**Lois:** Specialty markets include vehicles like snowmobiles, recreational vehicles, golf carts, and motorcycles. There are about 30 million motorcycles produced globally each year. We currently have BMW business in Europe, and recently acquired the exclusive Harley-Davidson exhaust business in North America. Specialty markets are niche opportunities with big potential.

“Computerized electronic suspension is an exciting new technology that enhances vehicle stability and control. We expect our share of the electronic-shock market in Europe to triple by 2007.”

Tim Jackson



## >> TECHNOLOGY

Tenneco is known for developing and commercializing innovative technologies. What design and engineering capabilities are unique to the company?

**Tim Jackson, Senior Vice President, Global Manufacturing and Engineering:** Tenneco has always been a leader in emission technology, from the mid-1970s with development of catalytic converters to being an industry-leading supplier of diesel particulate filter (DPF) technology today. Just one vehicle without a diesel particulate filter emits the same amount of pollution as 10,000 vehicles properly equipped with diesel particulate filters.

The market potential for DPF is significant. In Europe, 44% of light-vehicle registrations are diesel, yet only a small percentage are voluntarily fitted with DPF technology. The new European emission standards of 2008 should increase that number rapidly. In North America, diesel accounts for just over 1% of the market today, but could reach 6%-8% of total units produced by the end of this decade.

What's new in ride control?

**Tim:** Electronic shocks, which offer both superior ride and handling. We're also taking advantage of opportunities to use our elastomers expertise with some of our exhaust and ride-control components, like we did with the exhaust hangers for the new Ford F-150. Additionally, we're developing fluid-filled elastomers that act as a damper to minimize noise, vibration and harshness. All are leading-edge, high-margin products.

What products do you have to improve fuel efficiency?

**Tim:** One of our most exciting products is the Semi Active Muffler (SAM). SAM provides a cost-effective means of satisfying the need to provide acoustic silencing at low engine speeds, while minimizing back pressure at high RPMs — automatically.

Also, we've developed a new close-coupled manifold fabrication technology that is lighter in weight and produces cleaner emissions, more horsepower and greater torque.

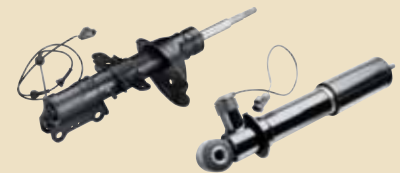
What about hybrids and other alternative vehicles?

**Tim:** We're working with Ford to develop an exhaust system for a diesel/electric

### Innovative Technologies Drive Content Per Vehicle



Diesel Particulate Filter (DPF)



Computerized Electronic Suspension (CES)



Semi Active Muffler (SAM)

hybrid demonstration vehicle. This concept vehicle is the first diesel equipped with an aftertreatment system capable of meeting California's SULEV requirements — the world's toughest! These are exciting times for automotive technology and Tenneco is leading the way.



## BOARD OF DIRECTORS

Left to right:

**David B. Price, Jr.**<sup>2,3</sup>  
Chief Executive Officer  
and President  
Birdet Price, LLC

**Jane L. Warner**<sup>2</sup>  
President, Plexus Systems

**Timothy R. Donovan**  
Executive Vice President  
and General Counsel &  
Managing Director, Asia Pacific  
Tenneco Automotive Inc.

**Mark P. Frissora**  
Chairman, Chief Executive  
Officer and President  
Tenneco Automotive Inc.

**Frank E. Macher**<sup>1</sup>  
Retired Chairman and  
Chief Executive Officer  
Federal-Mogul Corporation

**Dennis G. Severance**<sup>1</sup>  
Accenture Professor of  
Business & Information  
Technology, Stephen M. Ross  
School of Business  
University of Michigan

**M. Kathryn Eickhoff**<sup>1,3</sup>  
President and  
Chief Executive Officer  
Eickhoff Economics, Inc.

**Paul T. Stecko**<sup>2,3</sup>  
Chairman and  
Chief Executive Officer  
Packaging Corporation  
of America

**Roger B. Porter**<sup>2,3</sup>  
IBM Professor of Business  
and Government  
Harvard University

**Charles W. Cramb**<sup>1</sup>  
Senior Vice President  
and Chief Financial Officer  
The Gillette Company

- 1 Audit Committee
- 2 Compensation/Nominating/  
Governance Committee
- 3 Three-Year Independent Director  
Evaluation Committee

Orange numbers indicate the  
committee chair.

## OFFICERS

**Mark P. Frissora**  
Chairman, Chief Executive  
Officer and President

**Timothy R. Donovan**  
Executive Vice President  
and General Counsel  
& Managing Director,  
Asia Pacific

**Hari N. Nair**  
Executive Vice President,  
Managing Director,  
Europe and South America

**Kenneth R. Trammell**  
Senior Vice President  
and Chief Financial Officer

**Richard P. Schneider**  
Senior Vice President,  
Global Administration

**Timothy E. Jackson**  
Senior Vice President,  
Global Manufacturing  
and Engineering

**Paul Schultz**  
Senior Vice President,  
Global Supply Chain  
Management

**Brent J. Bauer**  
Senior Vice President  
and General Manager,  
North America  
Original Equipment  
Emission Control

**Neal A. Yanos**  
Senior Vice President  
and General Manager,  
North America Ride Control  
and Aftermarket

**Lois Boyd**  
Vice President and General  
Manager, Commercial  
Vehicle Systems and Global  
Program Management

**Josep Fornos**  
Vice President and  
General Manager, Europe  
Original Equipment  
Ride Control

**Ulrich Mehlmann**  
Vice President and  
General Manager, Europe  
Original Equipment  
Emission Control

**Herman Weltens**  
Vice President, Global  
Engineering and Technology,  
Emission Control

**Theo Bonneau**  
Vice President, Finance,  
Europe

**H. William Haser**  
Vice President and  
Chief Information Officer

**John E. Kunz**  
Vice President and Treasurer

**Paul D. Novas**  
Vice President, Finance  
and Administration, Europe

**James A. Perkins**  
Vice President and Controller

**James K. Spangler**  
Vice President,  
Global Communications

**J. Jeffrey Zimmerman**  
Vice President, Law

## INVESTOR INFORMATION

### Corporate Headquarters

Tenneco Automotive Inc.  
500 North Field Drive  
Lake Forest, Illinois 60045  
847.482.5000

### Web Site

www.tenneco-automotive.com

### Corporate Information

Individuals interested in receiving the company's latest quarterly earnings press release or other company literature should write the Investor Relations Department at the corporate headquarters address or call 847.482.5146.

Information about Tenneco Automotive is also available on the company's web site.†

### Stock Listing

Tenneco Automotive's common stock is listed under the ticker symbol TEN.

TEN is traded primarily on the New York Stock Exchange and also on the following exchanges: Chicago, Pacific and London.

As of February 22, 2005, there were approximately 34,355 holders of record of the company's common stock, par value \$0.01 per share.

### Investor Inquiries

Securities analysts, portfolio managers and representatives of financial institutions seeking information about the company should contact the Investor Relations department: 847.482.5042.

† The information on our web site is not part of this annual report

### Stockholder Inquiries

For stockholder services such as exchange of certificates, issuance of certificates, lost certificates, change of address, change in registered ownership or share balance, write, call or e-mail the company's transfer agent:

Wachovia Bank, N.A.  
Equity Services Group  
1525 West W.T. Harris Blvd., 3C3  
Charlotte, NC 28262-8522  
(Overnight Courier ZIP 28262-1153)  
866.839.3259 Toll Free  
704.427.2602

www.wachovia.com/shareholder-services  
Click on "Access Accounts"  
Click on "FirstLink Equity"

### Dividends

The company expects that for the foreseeable future it will follow a policy of retaining earnings in order to finance the continued development of its business. Additional information on the company's dividend policy and restrictions on the payment of dividends can be found in Management's Discussion and Analysis in the Annual Report on Form 10-K for the year ended December 31, 2004.

### Annual Meeting

The Annual Meeting of Stockholders will be held at 10:00 a.m. Central Time on Tuesday, May 10, 2005, at Tenneco Automotive's headquarters, 500 North Field Drive, Lake Forest, Illinois.

### Reconciliation of Adjusted Operating Income and Earnings Per Share

(see Chairman's Letter, page 2)

	Year Ended Dec. 31, 2004		Year Ended Dec. 31, 2003	
	EBIT (Millions)	Earnings Per Share	EBIT (Millions)	Earnings Per Share
Earnings Measures	\$171	\$0.31	\$176	\$0.65
Adjustments (reflects non-GAAP measures):				
Restructuring and restructuring related expenses	40	0.56	8	0.13
Changeover costs for a major new aftermarket customer	8	0.12	-	-
Consulting fees indexed to stock price	4	0.06	-	-
Tax Adjustments	-	(0.47)	-	(0.41)
Cost related to refinancing	-	0.60	-	0.18
Non-GAAP earnings measures	\$223	\$1.18	\$184	\$0.55

## STOCK PRICE DATA

	2005		2004		2003		2002	
	Sales Prices		Sales Prices		Sales Prices		Sales Prices	
	High	Low	High	Low	High	Low	High	Low
First Quarter*	\$17.36	\$13.92	\$14.88	\$ 6.73	\$4.32	\$2.01	\$4.10	\$1.90
Second Quarter			\$15.34	\$10.09	\$4.65	\$2.25	\$6.75	\$3.82
Third Quarter			\$14.51	\$11.95	\$7.45	\$3.61	\$8.32	\$3.50
Fourth Quarter			\$17.49	\$10.93	\$7.32	\$4.66	\$5.97	\$3.28

\* 2005 First Quarter through March 9, 2005

**TENNECO**  
*Automotive*

500 North Field Drive  
Lake Forest, Illinois 60045  
[www.tenneco-automotive.com](http://www.tenneco-automotive.com)  
NYSE: TEN

