

# Automotive Plastics News

Today. Tomorrow - Together

January 2005 Volume 34, Issue 2



## 2004 Innovation Awards Program



### 34<sup>TH</sup> ANNUAL INNOVATION AWARDS GALA AN OVERWHELMING SUCCESS!

The 2004 SPE Innovation Awards Gala, held on November 10 at Burton Manor in Livonia, Michigan, was heralded as a tremendous success by automakers, suppliers, the media and attendees, and accolades continue to roll in. The sold-out crowd of over 700 at this year's event included more than 200 of the auto industry's senior executives.

Key honorees and award winners included:

**Grand Award Winner:** 2005 Ford Mustang - Door Panel with Integrated Acoustic Chamber

**Engineering Excellence Award:** Porsche Carrera GT

**Executive Leadership Award:** Jim Padilla, Chief Operating Officer and Chairman, Automotive Operations, Ford Motor Company

**Lifetime Leadership Award:** Tom Moore, retired vice president, Liberty and Technical Affairs, DaimlerChrysler

**Hall of Fame Award:** Ford Escort Bumper Box Beam

Mr. Padilla was presented the 2004 SPE Automotive Division *Executive Leadership Award* by Suzanne Cole,



(L to R) Automotive Division Awards Program Chairperson Suzanne Cole, Jim Padilla of Ford, Tom Moore - retired DaimlerChrysler, and Monica Prokopyshen SPE Automotive Division Chairperson at the VIP reception.

Awards Program Chairperson. "It's a real privilege to be here today, to represent the people of Ford Motor Company," said Padilla. "Awards like this really don't go to individuals, they go to the teams that allow a leader and companies to succeed."

The SPE Automotive Division *Lifetime Leadership Award* was presented to Tom Moore, Vice-President, Liberty and Technical Affairs, DaimlerChrysler (retired), by Monica Prokopyshen, Automotive Division Chairperson. In thanking the Automotive Division for his award, Tom said "As many of you know, I have been a supporter of plastics use in automotive applications for several decades. I remember one presentation I gave at an aluminum conference explaining why plastics would dominate in future vehicles - not aluminum! ALCOA was not happy...I enjoyed my career, particularly the last 14 years at DaimlerChrysler. I was very fortunate in having work assignments I really

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# Treasurer's Report

Brian Grosser

Current assets for the Automotive Division are \$36,350.

The Awards Night Gala was another huge success and this year we topped \$180,000 in sponsorships, advertisements, and ticket sales. Overall, we will show a small profit when all of the debits and credits are posted. Our 2005 goal for sponsorship will be \$250,000.

We continue to support the Plastivan Project and have paid for 8 visits already this year.

All necessary IRS and SPE National documents have been prepared and mailed (Thanks Stu!).

[www.speautomotive.com](http://www.speautomotive.com)

## Automotive Division Meeting Schedule and Special Events Calendar

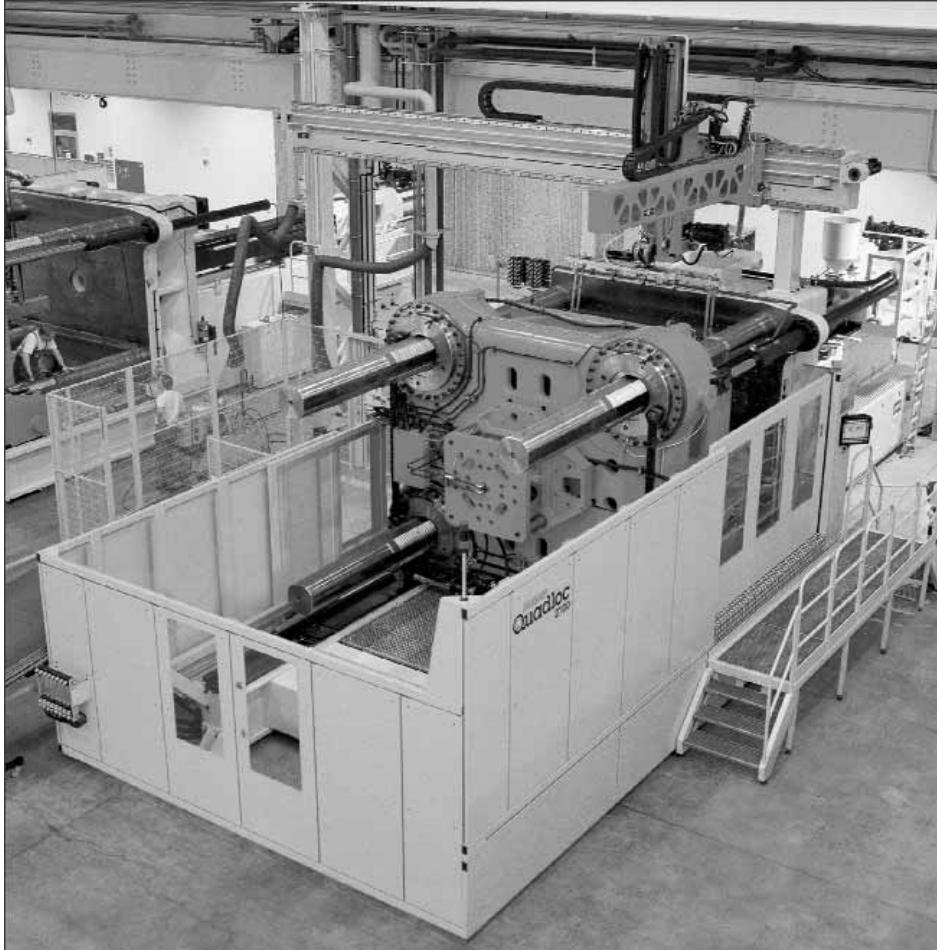
February 7, 2005 APC, Troy, MI	Automotive Division Board of Directors Meeting
April 11, 2005 APC, Troy, MI	Automotive Division Board of Directors Meeting
May 1 - 5, 2005 Boston, MA	ANTEC, Hynes Convention Center,
June 6, 2005 Location TBD	SPE BOD Planning Meeting

Automotive Division Board of Directors meetings are open to all SPE members.  
Call Monica Prokopyshen at 248.576.7349 for more information.

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# Chairman's Message

Monica Prokopyshen

First of all, I would like to thank all our sponsors worldwide, whose generosity and commitment to automotive plastics innovation made the 34th Annual Innovation Awards Program one of the most talked about events around town. I would also like to thank the OEM community whose new vehicle models provided the glitter for our glamorous evening and the gold in the form of nomination support. Many more volunteers spent innumerable hours to ensure the success of this event. Thanks so much and congratulations to all the nominees.

As part of our continuing improvement efforts, many of you noticed a few changes to our ceremony and processes. Some changes were worth trying and others were worth keeping, like the student participation program.

## Student Participation Program

We have already received offers from companies who wish to sponsor future designers and engineers for the 35th-annual ceremony, as well as offers from schools who wish to participate. Student participants helped with logistics and were then seated with companies in whose products they were interested. They saw and touched some of the most innovative designs of our industry, while networking directly with the innovators and decision makers.

Participants from The College for Creative Studies included: Marc Reisen, Constantine Kafantaris, Chris Piscitelli, Leon Fitzpatrick and Danny Schumpert. Students from the University of Michigan, Dearborn included: Jason McCloskey, Ananda K.R. Pandya, Arun Ramanathan, and Greg Robinson.

## New Award Categories

What would an innovations ceremony be without new ideas? A new idea that wildly exceeded our expectations was the *"Engineering Excellence Award."* The buzz ranged from: "This is what distinguishes the SPE Automotive Division. You

reward the engineers and engineering teams," to "This is the one [award] everyone will want."

With the "tuner" market capturing consumer passion and driving industry innovation, it was time for the SPE AD to recognize leadership with a *"Performance and Customization"* award category. The breadth of ideas is demonstrated by the variation in finalists for this category: a dockable family entertainment system, removable rigid doors for the Neighborhood Electric Vehicles, and a gas-assist compression molded LFT compositetowing package.

## Customer Feedback

In the days and weeks following the ceremony, people literally pulled me aside in the halls and at other venues to tell me what they liked and didn't like about the ceremony! These impromptu meetings also served as performance feedback on how we are serving our members and community, and executing our mission. One lesson learned: stick with a 9:00 p.m. close to the ceremony! Another important message that was echoed: the SPE Automotive Division is an engineering society that recognizes, rewards and communicates engineering excellence!

For a number of years now, our aim has been to increase the international breadth of nominations, so I was moved by a comment by a senior executive who described our event as inclusive and inviting to foreign participants. I welcome your suggestions on how to further our outreach.



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enjoyed -- where I could develop virtually any idea that I thought had a promising potential. So my advice for everyone in retirement is to keep doing the part of your career you really enjoyed and don't do the other things. Thanks to Suzanne and Monica and their committee for selecting me for this award. I look forward to working with many of you during the next phase of my life."

In an event that has been described as the "Academy Awards of the Plastics Industry," the Ford Mustang stole the show during the 34th Annual Awards program. Winning or sharing in three of the nine innovation categories, the Mustang also received the coveted *Grand Award*.

The *Grand Award*, signifying "best-in-show," was presented to Ford Motor Company for the 2005 Ford Mustang and its one-piece door trim with integrated acoustic chamber and subwoofer. This is the first door ever produced with an 8-inch subwoofer enclosed within a 12 liter hermetically sealed integral acoustic chamber that provides significantly better audio performance and saves more than 18 lbs per vehicle.

To receive this recognition is truly an honor," said Greg Smith, Executive Vice-President, President of the Americas, accepting the Grand Award on behalf of the Mustang team. "We've been saying all along that we're about building great products, and that's what we're doing."



Accepting the Grand Award was Greg Smith of Ford Motor Company.

"This evening is great evidence that innovation is alive and well in this industry," said Padilla. "This is not smokestack America; this is innovative America. The creativity to drive simplification, commonization, lighter weight, waste and cost reduction and environmental friendliness are all essentials as we move forward. Plastics help us achieve that."



The Grand Award Winning Team for the "Door Trim with Integrated Acoustic Chamber and Subwoofer" on the 2005 Mustang. Team members include Stacey Swank, Tom Comey, Banyuagu Pefora, Brian McLaughlin, Ben Coon, Bob McQueen, Shawn Jefferson, Robert Stafford, Phillip Sandow, and Pat Dennis.

Another highlight of the event was a spectacular display of vehicles including the 605 hp, 200 mph, 2005 Porsche Carrera GT (the *Engineering Excellence Award* winner), the all new 2005 Ford Mustang GT, two Ford GT's (formerly known as the Ford GT-40), several prototype vehicles from Ford, two electric GEM vehicles from DaimlerChrysler, a Dodge Viper, Ram Power Wagon, a 2005 Corvette and several other spectacular vehicles. The display was particularly exciting thanks to the hard work of Roy Palasek, Bayer Corporation and Ed Garnham, SPE BOD who worked long hours to design and orchestrate the lighting and positioning of the vehicles.... the results were stupendous!

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The VIP cocktail reception (reserved for program sponsors and senior-level automotive executives) was one of the absolute best networking opportunities in town, according to several supplier executives in attendance. This year's VIP reception featured a lighted Ford GT and a string quartet, which created a very conducive environment for Jim Padilla, Tom Moore and top level, Ford and DaimlerChrysler executives to interact with program sponsors and VIPs.

As Jim Padilla said, it takes a team approach to win in today's competitive marketplace. In today's frantic auto industry, pressure is on the entire supply chain to innovate faster, design faster, launch faster and produce faster, with furious attention paid to price and quality in a race to sell more vehicles worldwide. Performance, customization and personalization are emerging as key trends within the automotive industry in the race to win more customers and market share worldwide. Our theme for the 2004 Innovation Awards Gala was *"Fast and Furious"*.

The automotive industry is on the brink of a revolution, and the plastics industry is poised to play a major role. In North America and globally, new technology and partnerships are making possible improvements in safety, breakthroughs in fuel delivery, structural support and comfort, as well as savings in energy efficiency.

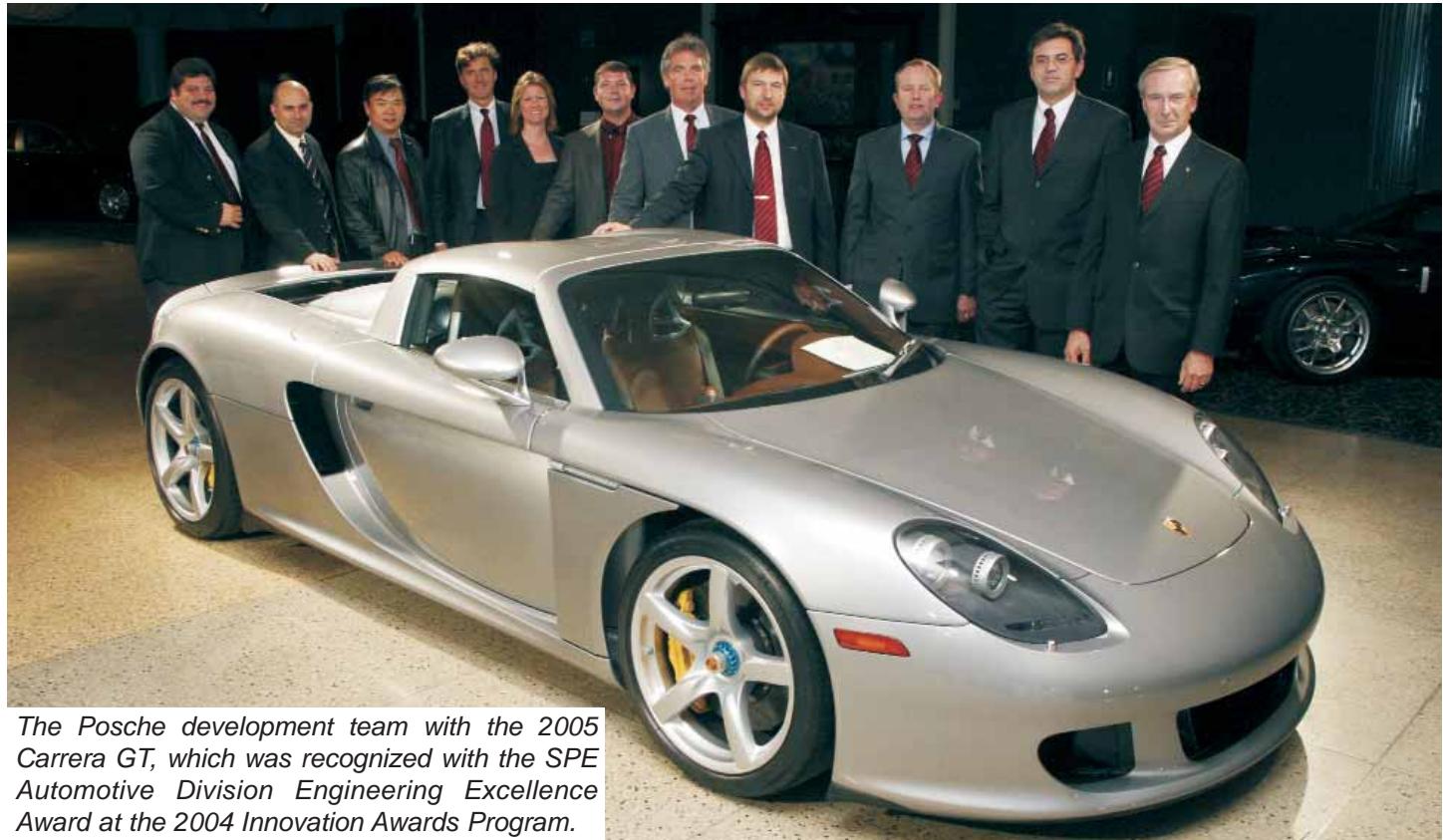
Helping drive this revolution is the innovative use of plastics and plastic composites. The automotive plastics industry is beginning to accelerate the development of break through products that deliver superior value to customers and help the automotive industry set new standards in design, safety and environmental performance.

### Engineering Excellence Award

New this year, the *Engineering Excellence Award* was presented to Porsche for the development of a carbon fiber engine frame and ceramic matrix composite clutch plate on the 2005 Carrera GT.

"The engineering expertise demonstrated in the Porsche Carrera GT is outstanding," said Cole. "Under the skin it is quintessentially Porsche, sporting an engine that exceeds 600 horsepower." The combined chassis (monocoque design) and first-ever carbon fiber engine frame of the Carrera GT comprises the backbone of the car, which delivers chassis stiffness at an extremely low weight (45 lbs.) - a breakthrough for both motorsport and production vehicles; and remarkably, it meets worldwide regulatory standards. The carbon fiber engine cradle, when compared with alternative materials, offers significant weight savings

*Continued Page 6*



*The Posche development team with the 2005 Carrera GT, which was recognized with the SPE Automotive Division Engineering Excellence Award at the 2004 Innovation Awards Program.*

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Accepting the Engineering Excellence award from Suzanne Cole is (l to r) Paul Ritchie and Michael Hoelscher of Porsche.

and performance benefits. It is a key factor in the car's outstanding occupant safety, accomplished through buffering the rear impact deformation needs.

"This innovation, combined with the carbon fiber ceramic clutch, Porsche Ceramic Composite Clutch (PCCC), enables the engine to be positioned significantly lower in the vehicle; this yields the ultra-low center of gravity and allows this vehicle to be driven safely at high speed with astounding handling," said Cole. "This innovative duo demonstrates the tremendous future that exists for the continued growth of plastics, not only in high-performance cars, but throughout the entire automotive industry."

### Break Through Plastic Innovations

This year's nominations were of very high technical quality, with several cutting edge innovations that represented new levels of performance for the plastics industry. Some of the trends that have emerged from the finalists include larger plastic parts, more sophisticated design and processes, and breakthrough applications in underhood and chassis components never seen before in the auto industry. At the heart of this year's event was the innovative component finalists and winners within our nine judging categories.

Winners were selected from nine categories, which include Body Interior, Body Exterior, Chassis/Hardware, Process/Assembly/Enabling Technologies, Powertrain, Materials, Environmental, and Performance/Customization. In addition the *Hall of Fame* and *Grand Award* (which is chosen among the winner of the nine categories) recipients were also announced at the event.

Innovative finalist nominations ranged from the Porsche Carrera GT carbon fiber reinforced composite engine frame,

to the Ford GT Ship-In-A-Bottle (SIB) fuel tank assembly, to the 2005 Ford Mustang door trim with integrated acoustic chamber and subwoofer, to plastic hard doors for the GEM DaimlerChrysler Electric Vehicle, to the running boards for the 2005 GM SSR Roadster and many other very innovative plastic components.

### Materials Category Winner

Application: Two-shot Load Bearing Touch-off Molding

Vehicle: '05 Mustang convertible

OEM: Ford Motor Company

System Supplier: Cooper Standard Automotive

Material Suppliers: A. Schulman/Zeon Chemicals

This marks the first time an all-plastic component has been used in a load-bearing touch-off molding in a convertible. (2005 Mustang Rear Deck lid) The new molding also offers an innovative clip feature, which ensures easier attachment to the vehicle. Cost savings over the previous metal design are pegged at 40 percent, along with a 24 percent reduction in weight.



Brian Grosser presents the Materials category award to Mike Williams of Ford.

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### Body Exterior Category Winner

Application: Base/Luxury Blow Molded Running Board

Vehicle: '05 GMT 800 full-size SUVs

OEM: General Motors

System Supplier: ABC Group

Material Supplier: Salflex Polymers (ABC Group)

The Body Exterior category champion was the body-color blow-molded running board that incorporates an integrated step pad and offers molded-in body color with a Class-A finish. An innovative bracket attachment allows in-plant installation, eliminating the need for dealer installation of the previous design.

Compared to the previous design, this design reduces the number of components 53 percent, offers a 50 percent improvement in strength, a 17 percent weight reduction and an estimated total cost savings of \$100 million.

### Process/Assembly/Enabling Technologies Category Winner

Application: Simultaneous Shot Injection Molded IP

Vehicle: '05 Mustang

OEM: Ford Motor Company

Systems Supplier: Visteon Automotive Systems

Materials Supplier: Advanced Composites

This innovative component provides a two-tone appearance on the lower instrument panel of the 2005 Mustang without painting. By using in-house Computer Aided Engineering (CAE) mold filling analysis tools, the Mustang design team was able to balance the simultaneous two-shot injection molding process to provide a scratch resistant two-tone part. Two colors are injected simultaneously into the mold.

This process cut investment by about 3 times compared to a two-shot process, and reduces tooling investment by 50%. It provides a direct labor savings of 13% per part and an added indirect labor savings of \$240,000 per year.



Accepting the Body Exterior category award from Kevin Pageau is Paul Bathish of General Motors.



Dr. Suresh Shah presents the Process/Assembly/Enabling Technologies category award to Mike Whitens and Phil Spender of Ford.

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### **Chassis/Hardware Category Winner**

Application: Structural Mirror Bracket

Vehicle: '04 Durango and Dakota

OEM: DaimlerChrysler

System Supplier: Mayco Plastics, Inc.

Material Supplier: DuPont Automotive

This application represents the first use of a polymer to reinforce sheet-metal body panels at the body-in-white (BIW) stage. The switch to the plastic bracket provides an 86% weight reduction over steel, saving 1.4 pounds per vehicle and about \$0.80 per part, which will net DaimlerChrysler about \$5 million over four years. The new snap-fit bracket is also completely recyclable.

### **Environmental Category Winner**

Application: Fan and Shroud Module

Vehicle: '05 GMT 800 and 900 light trucks

OEM: General Motors

System Supplier: Robert Bosch Corp.

Material Supplier: Wellman, Inc.

This injection molded component is the first electrically driven fan and shroud to replace an engine driven fan and shroud on light trucks. All of the raw material comes from post-consumer nylon carpets removed from homes, hotel and offices. It is GM's largest plastic recycling program.

The electrically driven fan gives these trucks better fuel efficiency and high horsepower, but the real benefit is the recycling effort. Wellman points out that the amount of carpet being diverted from landfills on this GMT 800/900 program each year would cover 160 football fields.



Accepting the Chassis/Hardware category award from Dr. Bing Xu is John Radomski, Bill Grabowski, Joe Rozenbaum, Sadeep Vijaywargyo and Jim Zweng.



Rahul Mukerjee presents the Environmental category award to Dave Mattis of General Motors.



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### Powertrain Category Winner

Application: Oil Pan Module

Vehicle: '04 Actros BR500 heavy-duty truck

OEM: DaimlerChrysler

System Supplier: KTSN

Material Supplier: BASF Corporation

This application is the world's first nylon oil pan module. Along with a weight savings of 50% over its aluminum predecessor, this design allows for a 30% increase in sump capacity, which translates into a lower oil change interval, reduced oil use and lower maintenance costs for the trucking company.

The pan is injection molded of glass-filled polyamide to offer high heat and chemical resistance, impact strength and good material damping. It's about 1dB quieter than its metal competitor. It also provides a 10% cost savings.

### Performance & Customization Category Winner

Application: Gas-assist Compression Molded Towing Package (Aftermarket)

System Supplier: Cequent Towing

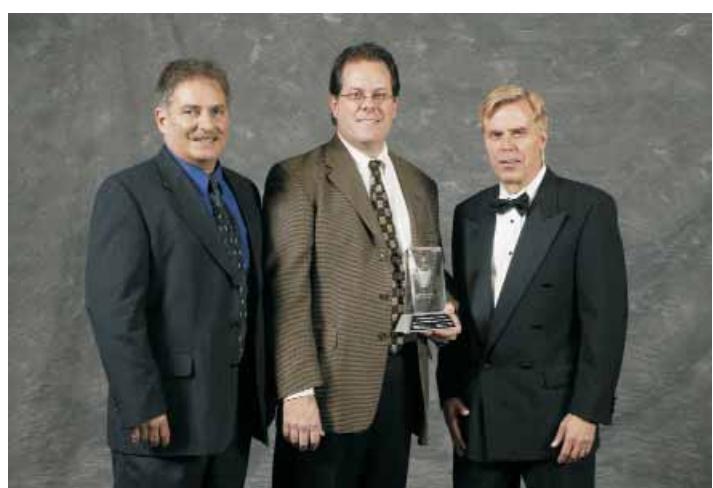
Material Supplier: Composite Technologies

An aftermarket towing tray made from a 25-percent glass-filled, compression-molded polypropylene took the top honors in the Performance and Customization category. These platforms extend from the back of a truck or SUV to provide extra space for hauling gear.

At just 14.5 lb, the two-piece plastic tray assembly weighs 25 percent less than a comparable steel grate and 15 percent less than aluminum. It still resists deflection, though, and has a capacity up to 500 lbs.



Dr. Norm Kakarala presents the Powertrain category award to Dr. Guenther Zoll and J. Baker



Rick Sofia of Composite Technologies and Paul Caruso of Cequent Towing accept the Performance and Customization category award from Terry Cressy.



### Body Interior Category Winner (*Two way tie*)

Application: Instrument Panel Carrier with Encapsulated Steel Beam

Vehicle: '05 S40 and V50, C-Max, Focus, Mazda3

OEM: Volvo, Ford Motor Company, Mazda

System Supplier: Faurecia

Material Supplier: Quadrant Plastic Composites, AG

This compression-molded lower IP carrier not only integrates more than a dozen functions, such as airbag and steering column support, but it also accommodates both left and right-hand drive vehicles in one design. The system weighs in at 2 kg less than steel systems and produces an estimated 20% costs savings, much of that due to the integration of functions like airbag supports and HVAC ductwork. It provides excellent crash resistance in all markets in which it is sold. This component is also used on the Ford Focus, C-Max and the Mazda 3 for a total volume across all vehicle lines of 1.7-million vehicles annually.

### Body Interior Category Winner (*Two way tie*)

Application: Door Trim with Integrated Acoustic Chamber and Subwoofer

Vehicle: '05 Mustang (also **Grand Award Winner**)

OEM: Ford Motor Company

System Supplier: Visteon Corporation

Material Supplier: Ferro Corporation

This application was also the 2004 SPE *Innovation Awards Program* Grand Award Winner. This is the first door ever produced with an eight-inch subwoofer enclosed within a hermetically sealed acoustic chamber. This design provides improved in-vehicle audio performance and saves more than 18 pounds and \$40 per vehicle.



The Body Interior Award for the Instrument Panel Carrier was presented by Maria Ciliberti to Ford, Mazda, and Volvo, as this technology is utilized on vehicles produced and sold by each of these companies. Accepting the award are Didier Thalgott, Phillippe Vatel, Jeff Webb, Vincent Louchet, and Javier Martinez-Cue.



The 2004 SPE Automotive Division Grand Award winning application for "The Most Innovative Use of Plastics" - Door Trim with Integrated Acoustic Chamber and Subwoofer on the 2005 Mustang



## Hall of Fame Award

Application: Bumper Box Beam

Vehicle: 1984 Escort/Lynx

OEM: Ford Motor Company

System Supplier: Ford Milan (Visteon)

Material Supplier: GE Plastics

The SPE Automotive Division also presented its Hall of Fame Award to the Ford Motor Company for the Bumper Box Beam on its Ford Escort. The Hall of Fame award is given annually for an application that has been in continuous use for 10 years or more, and has made a significant and lasting contribution to the application of plastics in automobiles.

Twenty years ago, Ford Motor Company launched the first injection-molded bumper energy management system in automotive history on the Escort/Lynx. This initial launch in

1984 was on limited production run of 10,000 vehicles to validate the production feasibility of this new technology. As with all good technologies, this approach has evolved several times among many manufacturers, including the front bumper application on the 1999 model Ford Explorer and Mercury Mountaineer. Today's evolution has resulted in more than 20 energy absorbers in production globally, including the first pedestrian friendly bumper system now being introduced on a 2005 model.



Past Chairman of the Automotive Division, Fred Dean of Azdel, Inc. addresses the crowd at the Innovation Awards Program



Dave Reed (center) presents the Hall of Fame award to Barbara Samardzich and Mike Westhoff of Ford.

Overall the "Fast and Furious" Innovation Awards Gala was an outstanding event that you will want to place on your calendar for next year. Our executive award recipients are icons in the auto industry and our finalists are truly exceptional. It's an opportunity for your company to have its innovative plastics components recognized by the entire auto industry and the media. We fully anticipate a record-breaking number of nomination submissions and a sold-out event again next year.

Continued Page 12

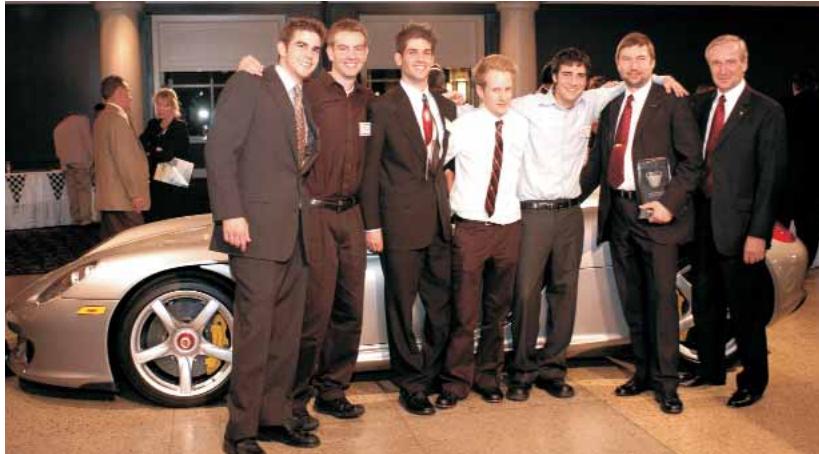
So plan ahead and begin thinking about nominations and your support of the 2005 35th-Annual *Innovation Awards Program*, which will be held next November at Burton Manor in Livonia, Michigan. Please be advised that a limited number of program sponsorships are available, so call us now for information to avoid disappointment later in the year. If you are interested in participating in any way, contact the 2005 Awards Chairperson, Suzanne Cole at (248) 766.7173.

The many awards given at SPE's annual *Innovation Awards Program* symbolizes pioneering contributions of automotive engineers in one of the largest and most demanding industries that use plastics. As is customary, proceeds raised from this event will be used to fund SPE educational efforts and technical seminars, which help to continue to ensure that plastics will maintain their important role in future transportation application development.

For more information about the SPE Automotive Division visit [www.speautomotive.com](http://www.speautomotive.com)



Mr. and Mrs. Jim Padilla sit with Ann Stephens of Ford, and are surrounded by other Ford executives, and Suzanne Cole of SPE.



Numerous students from the College for Creative Studies and the University of Michigan-Dearborn volunteered to assist with logistics and setup. They saw and touched some of the most innovative designs of our industry, while networking directly with the innovators and decision makers.



Barbara Samardzich of Ford accepts the Hall of Fame award for the Xenoy Bumper Beam on the 1984 Escort.



## SPEcial Recognition Awards

SPE Automotive Division Chairperson Monica Prokopyshen presented two special awards at the 2004 Innovation Awards Program. Left, Monica presents a special recognition award to Dr. Stuart Cohen, long time SPE volunteer and officer on the Automotive Division Board of Directors. Right, Monica presents the Past Chairman's Award to Dr. Michael Connolly of Hunstman Polyurethanes, Automotive Division Chairman 2003-2004. We congratulate both Stuart and Michael on their awards, and thank them for their many hours of volunteer service to the SPE Automotive Division and the plastics industry.



## Executive Leadership Award



SPE recognized Jim Padilla, Ford Motor Company Chief Operating Officer (COO) and chairman of Automotive Operations, with the 2004 Executive Leadership Award. Padilla is responsible for Ford's global automotive business, overseeing sales and marketing, manufacturing, engineering and other operations comprising approximately 300,000 employees in more than 200 countries.

"Since joining Ford as a quality-control engineer in 1966, Padilla has been a successful leader during crucial times, such as Jaguar's critical turnaround period and after the breakup of Autolatina," said Suzanne Cole, SPE Awards Program Chairperson. "Padilla continues to provide outstanding opportunities for engineers to apply creativity and materials knowledge to develop exciting innovations. He is an exceptional leader who encourages his team to focus on priorities, such as improving quality and developing exciting products. He has helped his people make sound decisions and execute quickly, as evidenced by the all-new 2005 Ford Mustang, which is already proving to be a big hit. With his straightforward style and uncanny business sense, Ford is on the right track for tremendous success with Jim Padilla at the helm."



Awards Program Chairperson Suzanne Cole with Jim Padilla, Chief Operating Officer, Ford Motor Company, and Chairman, Automotive Operations.

## Lifetime Achievement Award

The 2004 Lifetime Leadership Award was presented to Tom Moore. Throughout his extensive career, Moore held many key leadership positions at DaimlerChrysler and Ford Motor Company, and most recently was Vice-President for Liberty and Technical Affairs at DaimlerChrysler until his retirement in late-2003. Moore was also the leader of a well-known "skunkworks" operation, conducting all of the Chrysler Group's advanced technology development. His contributions to the Liberty Project produced several major accomplishments, including the PNGV "super car," called Dodge ESX3.



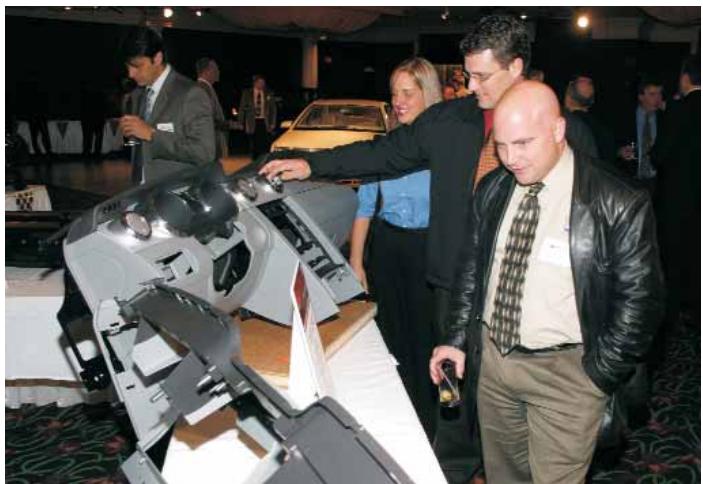
Ford has recognized him as leading the revitalization of its manufacturing operations. "Moore is a true innovator with a creative and entrepreneurial spirit who knows how to lead people and get things done," said Cole. "I am pleased to recognize Tom's many contributions and wish him the best in his next career as an inventor."

This award adds to the many he has already been honored with, including the Henry Ford Technology Award in 1986.



Tom Moore, Vice-President, Liberty and Technical Affairs, DaimlerChrysler (retired) with Monica Prokopyshen, Automotive Division Chairperson.

Past executive honorees at the SPE Automotive Division Awards Program include **J.T. Battenberg III**, Chairman, CEO and President of Delphi Corporation (2002), **Bernard Robertson**, Senior VP - DaimlerChrysler (2003), & **Robert Schad**, President and CEO of the Husky Corporation (2004).

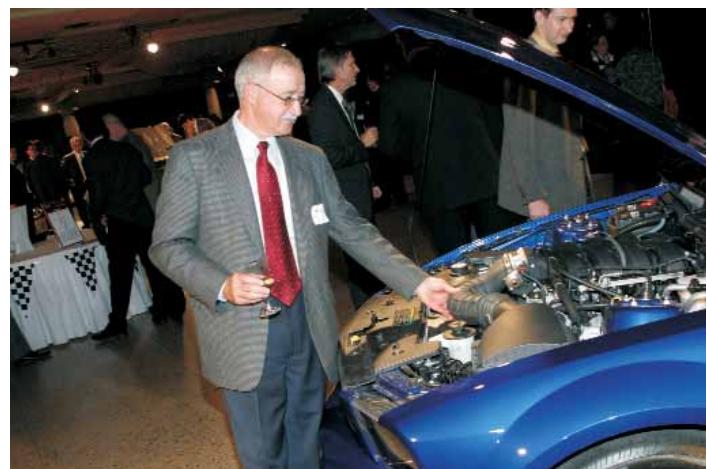


**Another highlight of the evening was the spectacular display of vehicles including:**

- the 605 hp, 200 mph, 2005 Porsche Carrera GT
- the all new 2005 Ford Mustang GT
- two Ford GT's (formerly known as the Ford GT-40)
- several prototype vehicles from Ford
- two electric GEM vehicles from DaimlerChrysler
- a Dodge Viper
- a Ram Power Wagon,
- a 2005 Corvette
- plus several other exciting vehicles.



# People, Parts & Vehicles on Display !!

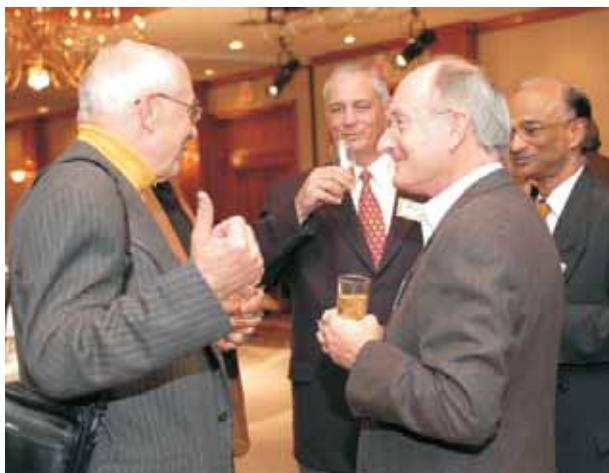


Over one dozen vehicles were on display in the reception area at Burton Manor, with all 55 of the components and applications nominated for the 2004 Innovation Awards Program competition. Attendees were able to review all of the nominations in detail, and network with some of the over 700 plastics professionals in attendance, representing OEM's, resin suppliers, molders, large Tier I suppliers, media and trade journalists.



# VIP Reception 2004

The VIP cocktail reception (reserved for program sponsors and senior level automotive executives) was one of the absolute best networking opportunities in town, according to several supplier executives in attendance. This year's VIP reception featured a lighted Ford GT and a string quartet, which created a very conducive environment for Jim Padilla, Tom Moore and top level, Ford and DaimlerChrysler executives to interact with program sponsors and VIPs.







# Innovation Awards Program History

"Most Innovative Use of Plastics"

Recognizing Innovation for 34 years

## Grand Award Winner Summary

Year	Category	Part Name	OEM	Make/Model	Tier 1 Supplier	Resin Supplier
2004	Body Interior	Door Trim with Integrated Acoustic Chamber and Subwoofer	Ford	2005 Mustang	Visteon Corporation	Ferro Corporation
2003	Body Exterior	smart Roadster Roof Module	DaimlerChrysler	2003 smart Roadster	Arvin Meritor	GE Plastics
2002	Process/Enabling Technologies	Extruded Polymer Film Fascia	DaimlerChrysler	2002 Dodge Neon	DCC - Belvidere Assy Plant	A.Schulman / ExxonMobil
2001	Materials	Nano-Composite TPO	GM	2002 Astro & Safari	Blackhawk Automotive	Basell USA, Inc. / Souther Clay Products
2000	Chassis/Hardware/Powertrain	Controlled Energy Management Bumper Isolator	Ford	2001 Ford Windstar	LDM Technologies	ExxonMobil Chemical
1999	Process/Enabling	Fan Shroud and Reservoir Assembly	DaimlerChrysler	Dodge Dakota	Textron	Montell
1998	Body Exterior	I-Section Bumper Beam	Mitsubishi	1998 Galant	Continental Structural Plastics	Azdel, Inc.
1997	Environmental	"Carpet to Car Parts"	Ford	All N.A. vehicles using nylon air cleaners	Visteon/Ford, Sandusky Plastics Plant & Atul Vora DuPont	DuPont Automotive
1996	Chassis/Hardware	Structural Battery Tray	GM	1997 EV-1	Delphi Energy & Engine Management Systems, Cambridge Industries	Exxon Chemical Co.
1995	Chassis/Hardware	Integrated Front End System (I.F.E.S.)	Ford	Taurus/Sable	Budd Co., Plastics Div.	Budd Co.
1994	Powertrain	Thermoplastic Air Intake Manifold	GM	Northstar Engine	Freudenberg-NOK	BASF
1993	Chassis/Hardware	Front Suspension Stabilizer Link	Ford	1994 Taurus/Sable	Lemforder	BASF
1992	Body Interior	Instrument Panel System	Chrysler	1993 LH Platform	Lescoa, Acustar, Davidson, Blue Water	GE, Exxon, Rhetech, BASF, Davidson Vinyl
1991	Body Interior	Integrated Child Seat and Top Impact Pad	Chrysler	1992 Plymouth Voyager, Intergram, Barnum Company, Dodge Caravan	Pac-Lite Products	Exxon Chemical, Huntsman Chemical
1990	Body Exterior	Exterior Door Panel	Saturn	1991 2-Door and 4-Door	Saturn Corp.	Dow Chemical
1989	Chassis/Hardware	Composite Wheel Passenger Car	Chrysler	1990 Shelby CSX	Goodyear	Dow, Reichold
1988	Body Exterior	Front Fender	GM	1989 Cadillac "C" (Deville & Fleetwood)	BOC-FAD	GE Plastics
1987		Quarter Panel Assembly - Sportside	GM	T & B		
1986		Quarter Window	GM	Pontiac Fiero		
1985		Windshield w/Anti-Lacerative Layer	GM	Cadillac		
1984		Drive Shaft	Ford	Truck		
1983		Exterior Body Panels	GM	Pontiac		
1982		Tailgate Assembly	GM		Fisher Body	
1981		Radiator Core End Caps	Ford			
1980		Rear Axle Leaf Spring	GM	Chevrolet Corvette		
1979		Grille Opening Panel Assembly	Ford	Truck		
1978		Bucket Seat Frame	GM	Chevrolet Corvette		
1977		Instrument Panel	Ford	CL-9000 Truck		
1976		Fender Aprons	Ford			
1975		One Piece Jeep Top	AMC	Jeep		GE Plastics
1974		Fascia and Rear Bumper Cover	GM	Chevrolet Monza		
1973		Block Heater Motor Housing	Ford			
1972		Radiator Fan Shroud Assembl	GM	Buick		
1971		Transmission Reactor	Ford			

# Innovation Awards Program Questions and Answers

## How does my company benefit from participating?

- ☛ Involvement in the process drives and rewards innovative thinking, and promotes excellence.
- ☛ Keep up to date on the latest innovations from other engineers, designers, competitors, and customers.
- ☛ Reward your team and company through worldwide recognition.

## Is there any cost to make a nomination?

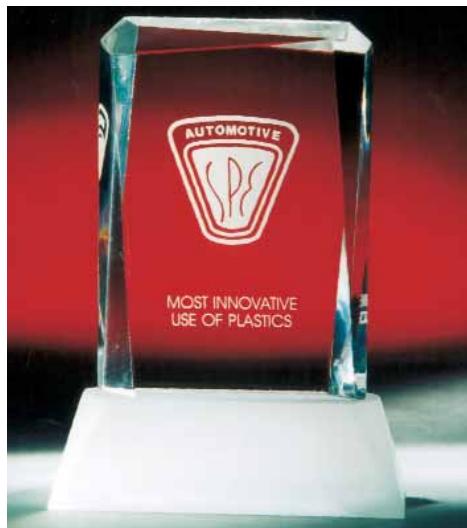
- ☛ No, there is no application fee. You must supply SPE a representative part/assembly, and be willing to make presentations to the judging committee(s).

## Who can make a nomination?

- ☛ Nominations can be made by anyone knowledgeable of the achievement - material supplier, molder, Tier 1/2/3, tool maker, OEM, etc.
- ☛ OEM approval is required for the nomination to be considered.

## Where do I get the nomination form, and when is the deadline for nominations?

- ☛ The electronic nomination form can be downloaded from our website at [www.speautomotive.com](http://www.speautomotive.com). It is usually posted by early June. The deadline for nominations varies each year, but is usually around the middle of September.



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Grand Award Trophy*

## Is my application eligible?

- ☛ Parts must be in mass production and on a vehicle that is available for consumer purchase by November 1 of the year of the judging.
- ☛ The vehicle can be manufactured and/or sold anywhere in the world.
- ☛ There is no minimum number of vehicles required.
- ☛ The application (innovation) cannot have previously been nominated.

## How do I know if my application has been previously nominated, and/or whether it is innovative enough?

- ☛ You really can't know. The past 5 years of the Award Program can be viewed at our website, but it can be tedious reviewing the previous nominations. You can contact the SPE Automotive Division board for guidance.
- ☛ If there is any doubt, we strongly encourage you to nominate your application. If it has been nominated previously, we will let you know. Many times people are so involved in the application development process that innovation and uniqueness of their application has become transparent to them.

## What are the categories, and is the judging criteria the same for each category?

- ☛ The categories are **Body Interior, Body Exterior, Chassis/Hardware, Powertrain, Materials, Environmental, Process/Assembly/Enabling Technologies, Performance and Customization, and Hall of Fame**.
- ☛ For Interior, Exterior, Chassis/Hardware, and Powertrain, the judging compares the attributes of the nomination to the others in the same category. These tend to be design-related innovations, but often have process or materials innovations that helped the application succeed. Examples might include a new invisible airbag tear-seam design, a new bumper energy absorber, metal replacement for powertrain, a new plastic door module, etc.

☛ In the Materials category, the focus of the evaluation is how innovative is the material used in the application, and the benefits the new material provides, with less emphasis on the actual part or application. Past winners include nano-composite TPO, carbon fiber SMC, and UV-stable TPU.

☛ The Environmental category looks at the long-term sustainability of plastics. Applications should be nominated if they make use of post-industrial or post-consumer recycle, especially in decorative or structural applications. Also, if an application is uniquely designed for recycling, it may compete well.

☛ The Process category is straightforward,

where the primary innovation is in the process (gas-assist, multi-layer blow molding, co-extrusion, etc). Once a process has been submitted, another unique part made with the same process cannot be submitted in this category in following years; the part can compete in any of the other categories.

Assembly/Enabling Technologies is a "catch-all" category where the primary innovation is related to unique assembly methods (welding, snap fits) or some other technology that contributes to the overall application development process.

☛ Performance and Customization is a new category for 2004. Here the judges will be evaluating how plastics contributed to the important industry trends in personalization and vehicle enhancement. Applications will

be judged on the effective and creative use of plastics to enhance vehicles.

☛ The Hall of Fame Award will be presented for an innovative application that has stood the test of time, being in continuous production for over 10 years.

## My part/application could fit multiple categories; which one do I enter it in?

☛ This often happens when a new design requires development of a new resin and/or new processing techniques. By answering the questions in the nomination form, this can often lead you to identify the single most innovative aspect of the application. Place the nomination in the category you believe it best fits. The screening committee may move it to another category upon further review.

☛ The nomination may also be moved to another category if that category is filled with strong nominations. For example, an exterior nomination with unique process may be moved to the Process/Enabling Technologies category if that category has a low number of nominations.

☛ Our objective is to get nomination in the category in which it will compete best, and have the best chance to win.

## Who judges the competition?

☛ The first round of judging is by the Board of Directors of the SPE Automotive Division and select industry experts. The finalists that will move on to the Blue Ribbon Judges are selected.

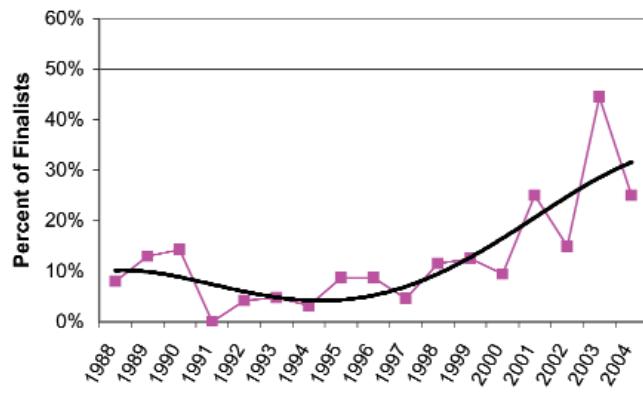
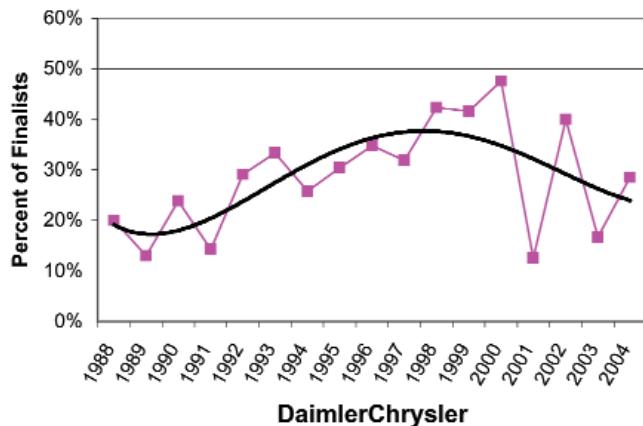
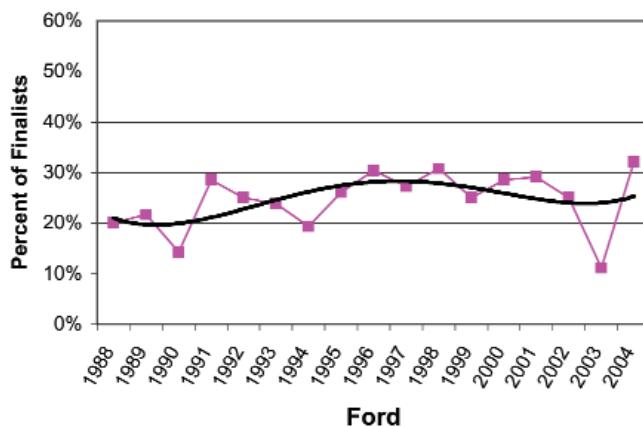
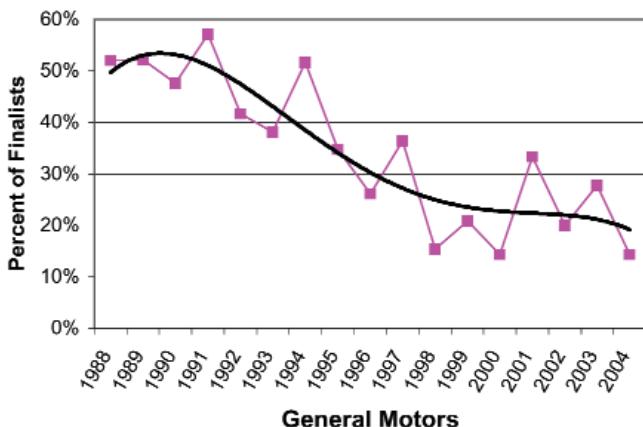
☛ The Blue Ribbon judging panel consists of leading industry experts, including journalists from automotive and plastics publications, university professors, automotive/plastics consultants, and retired automotive engineers.

☛ The Blue Ribbon panel selects the category winners from the list of finalists in each category, and the Grand Award Winner from the list of category winners.

## OEM Recognition

The charts below reflect the percentage of finalists for each OEM. The number of finalists an OEM may achieve will vary year to year, and is highly dependent on the number of

new models launched. Trends in recent years reflect the increase in vehicle sales by imports and the New Domestic manufacturers.





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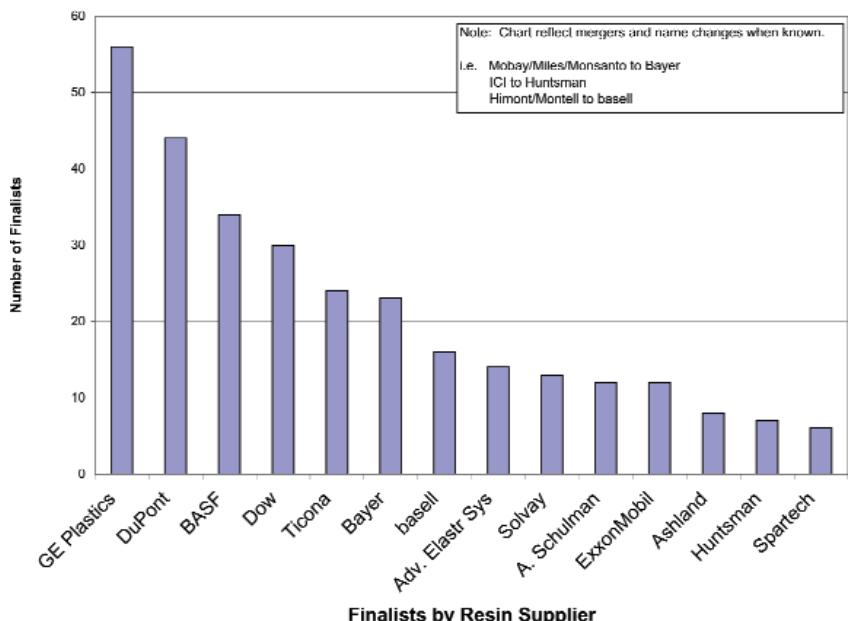
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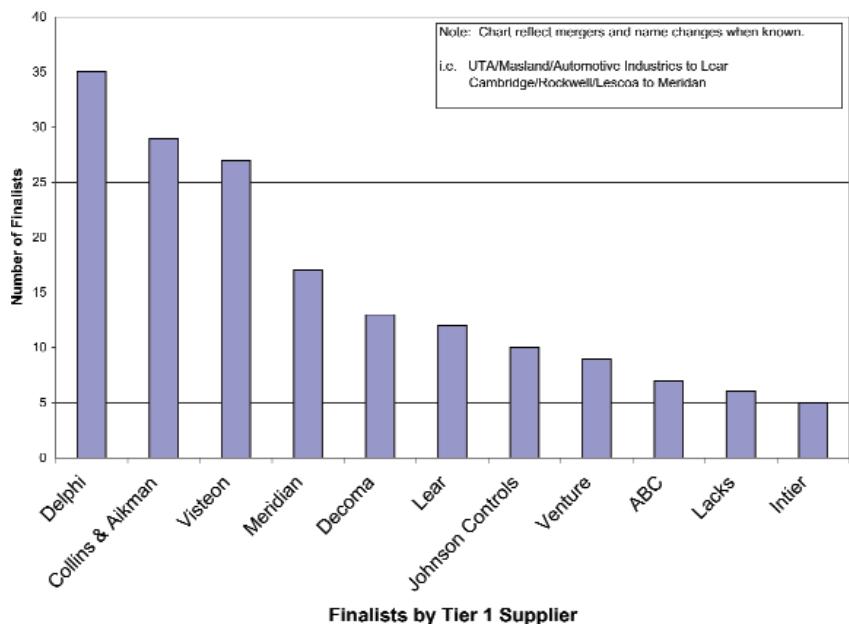
# SPE Automotive Division

## Innovation Awards Program History 1988-2004

The surrounding charts summarize various data from the past 16 years of the *Innovation Awards Program*. In all cases, the measurement axis is being a “finalist”. Considering the level of competition and the number of nominations, being selected as a finalist is significant. All finalists receive a “*Finalist Achievement Award*” in recognition of their accomplishment.



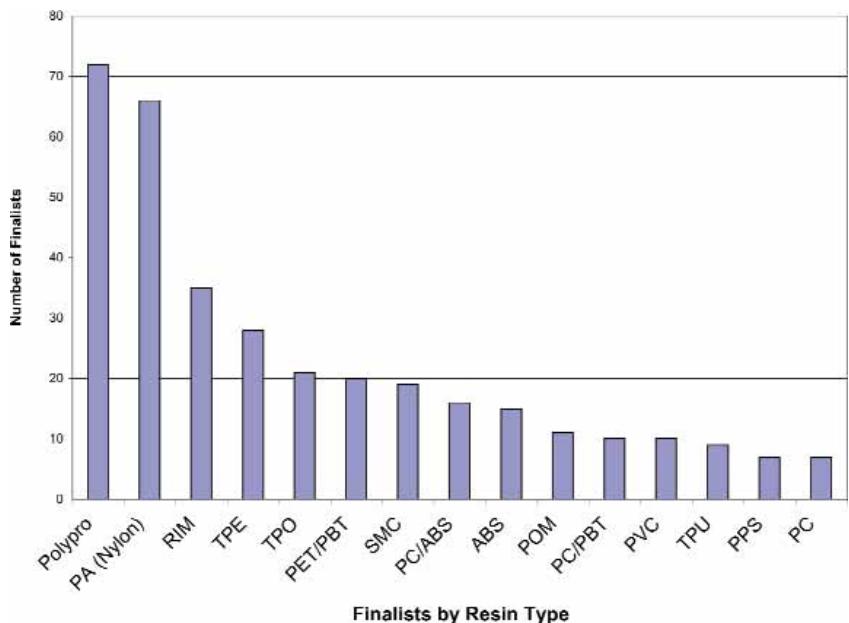
Finalists by Resin Supplier



Finalists by Tier 1 Supplier



The SPE Automotive Division  
Innovation Awards Program “Finalist  
Achievement Award” trophy.



Finalists by Resin Type

# FUTURE POTENTIAL AND INTERMATERIALS COMPETITION IN LIGHTWEIGHT AUTOMOTIVE COMPOSITES

Prepared by: Bob Eller, Robert Eller Associates, Inc.

**Abstract - This article is an abstract of a keynote address given at the SPE Automotive Composites Conference in Detroit (September 2004).**

It is based on Robert Eller Associates' (REA's):

- Recent automotive composites research in Europe, North America and Japan
- Recently completed automotive interior soft trim study (1)
- Multiclient analysis of advanced technology nonwovens in the automotive sector (2)
- Second global TPE multiclient study (Europe/N. America) (3)
- TPE multiclient study (China) (4)

For the complete paper and prospectuses for the multiclient studies, visit the REA Web Site at [www.robertellerassoc.com](http://www.robertellerassoc.com) or contact the author at [bobeller@prodigy.net](mailto:bobeller@prodigy.net).

Lightweight, fiber reinforced thermoplastic (LF-RTP) composites, based primarily on polypropylene and glass fibers, are in the growth stages in automotive and other markets based on their ability to provide semi-structural properties, light weight, and cost savings. New composite classes are emerging and the competition between composite classes will intensify, especially as composite density decreases. Exhibits 1 and 2 identify the classes of competing and composites competing their targets.

Supply Chain Shift - Both the automotive supply chain and the composites supply chain supporting it must change in order to accommodate current profitability and competitive, legislative, and vehicle performance pressures. The structure of the automotive composites industry is changing as:

- Compounders are broadening their product lines
- Fiber and nano-composite concentrates are being offered to specialty compounders and major fabricators
- Technology for direct compounding/fabrication of LGF-TPs proliferates
- New materials candidates (e.g., natural fibers, biopolymers, nano-composites) enter the supply chain
- Modularization encourages component integration
- Composites enter new vehicle modules and functions (semi-structural headliners and floor module elements, for example).

Intra-Composite Competition - Intra-composite competition has intensified beyond the well-known thermoset vs. thermoplastic competition.

Some examples of emerging intra-composite competition are:

- LD-RTPs displacing HD-RTPs in semi-structural applications
- Nano-composites replacing mineral-reinforced TPOs and ETPs (in bumper fascia and electronics components)
- Nano-composites and LGF-PPs competing for running boards and step pads
- Nano-composites competing with LGF-PPs for body side moldings.

The broadening of the composite property range (especially density lowering), has brought them into competition with established and emerging materials classes. Some examples of competition between composites and other materials classes are:

- LD-RTPs competing with multi-layer nonwoven sandwiches and compression molded sheet in wheel arch liners
- LD-RTPs competing with foam/skin laminates in floor modules
- LD-RTPs displacing PU foams in headliners
- Nano-composites use multi-layer, coextruded sheet in thermoformed fuel tanks
- Nano-composites competing with PVC for body side moldings.

Low Density Glass Mat Thermoplastics - High density GMTs (density range, 4000-5000 grams/sq. meter) are a mature thermoplastic composite for structural applications (e.g., for bumper reinforcing beams). In semi-structural applications, they have been displaced by a range of alternatives including LD-GMTs with densities in the 700-2000 gsm range. LD-GMTs from several suppliers (Quadrant, Azdel, Owens Corning, several Japanese suppliers) are in the early rapid growth stages.

Headliner Cores - LD-GMTs have made deep penetration into headliner cores in N. America, Europe and Japan vs. glass fiber reinforced PU foams. The headliner core is a good example of the new generation of semi-structural composites applications. It:

- Requires energy absorption (to meet FMVSS 201)
- Opens the potential for integrating foams and energy absorbing elements into the support
- Competes with foam core and bi-component PET nonwoven fiber solutions
- Requires acoustic performance (therefore opening the opportunity for advanced technology nonwovens) (Reference 2)
- Integrates textiles (nonwovens and knits)
- Brings new suppliers into the supply chain
- Places high priority on space conservation
- Offers value-added potential and layer integration potential in a low profit module.

Underbody Shields - Underbody shields based on LD-GMTs are well established in European high-end vehicles, starting in the mid-'90s. Penetration has extended to mid-level vehicles in the European fleet but there is yet to be a substantial penetration into the N. American market.

Wheel Arch Liners - can be made from a range of reinforced and non-reinforced sheet. In Europe, constructions based on nonwoven/filled sheet/nonwoven sandwiches (see Reference 3) have penetrated the market in competition with LD-GMTs.

LGF-TPs - The long-glass fiber reinforced thermoplastics, offered by an increasing number of suppliers, extends the property range of the Short glass reinforced thermoplastics for structural and mechanical applications. Example applications include:

- Front end modules (note competition with hybrids and HD-GMT)
- Running boards (note competition with nano-composites)
- Door module (competition with SGF-PP and ETPs)
- Load floors (note competition with LD-GMTs and foam sandwiches)
- Instrument panel substrates.

The LGF-TPs offer an example of how the composites supply chain is shifting. Equipment introduced by Dieffenbacher and others allows the compounding and direct (in-line) fabrication of

components. Such equipment to make direct LGF-TPs (D-LGF-TPs) has been installed by large Tier 1s (e.g., Faurecia and Johnson Controls) and mid-sized custom molders. Masterbatches with high concentrations of long glass fibers are also available from compounders.

Compounds, masterbatches, and D-LGF-TPs are competing paths to market. All are likely to participate and it is too early to predict the shares. It is clear, based on the number of D-LFT machines sold, that the direct process has and will continue to gain a major share, especially among large processors with long runs.

**Self-Reinforced Composites:** It is possible to produce high tensile strength fibers via stretching. Tensile strength increases roughly in proportion to draw ratio. By controlling the position of the fibers in the matrix or via lamination, it is possible to make self-reinforced composites with PP and PET. PP self-reinforced composites are offered by several sources and are targeted at some of the same applications as LD-GMTs and LGF-PPs.

**Natural Fiber Reinforced Composites (NFCs):** NFCs based on wood fibers are widely used in auto interior applications in both thermoplastic matrices and with thermoset binders (e.g., phenolic). Thermoplastic matrix composites have gained share at the expense of phenolic binder composites. Hemp, jute, kenauf and other bast fibers have been widely discussed as the reinforcing fiber (usually in PP) but have not yet grown significantly. Some OEMs have shown interest in back integrating to fiber plantations in order to protect sources and quality.

While incorporation of natural fibers in a hydrocarbon (HC) matrix is of interest, incorporation of natural or biopolymers in a biopolymer matrix based on renewable sources is of even greater interest. Polylactic acid (PLA) from corn appears to be in the lead as a biopolymer candidate. The investment by Toyota in a 1000 tpy PLA facility suggests a serious commitment targeted at interior components

**Mineral Reinforced Thermoplastics/Role for Nano-composites -** Nano-sized mineral fillers offer the capability of making mineral-TPPs (nano-composites), which achieve the benefits of filler addition at lower concentrations (e.g., 3-5% vs. 12-40%), thereby:

- Avoiding the damage to the composite morphology that results from conventional-sized filler particles

- Gaining the benefits of lower density and lower filler concentration, which are 1) (Potentially) lower volumetric costs, 2) Easier processability (higher polymer content, less viscosity increase), 3) Wider processing window (reduces scrap rate), and 4) Thin wall molding capability

- Providing unexpected benefits (improved scratch/mar resistance, lower CLTE, better dimensional tolerance)

TPO appears to be the major host resin in which the benefits for applications such as body panels and fascia could be of interest. At

the current cost levels, it is unlikely that nano-PPs will be competitive with talc-PPs across a wide range of applications. The high surface area coverage obtained with nano-minerals results in an increase in vapor barrier properties. Nano-composites (possibly in HDPE matrices) are likely to play a role in the anticipated growth of the thermoformed fuel tank.

Clay is the dominant incumbent nano-mineral at present, but high aspect ratio talc (HAR-talc) as well as nano-talc offerings are reaching the market and may offer competitive advantages.

**Summary:** The automotive composites field is broadening rapidly and will experience rapid growth in exterior, interior, and under the hood structural, semi-structural, non-structural and mechanical applications.

The LD-GMTs will grow with the evolution of more complex, large area modules and components (headliner, floor modules, seat components, door modules and underbody shields are examples). The ability to incorporate on-board energy absorption, acoustics, and esthetic functions enhance the value added potential of the LD-GMTs.

*Continued Page 24*

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The new generations of automotive composites will compete with each other (intra-composite competition), and their expanded property envelope brings them into competition with a broad range of non-composite competitors (especially foams).

Automotive price pressure will continue to stimulate:

- Composite penetration into larger, more cost effective modules
- Value-added opportunities for composites materials suppliers and fabricators
- Shifts in the composite supply chain.

Biopolymers are in an early stage in their penetration of the automotive composites sector. Their potential remains to be defined.

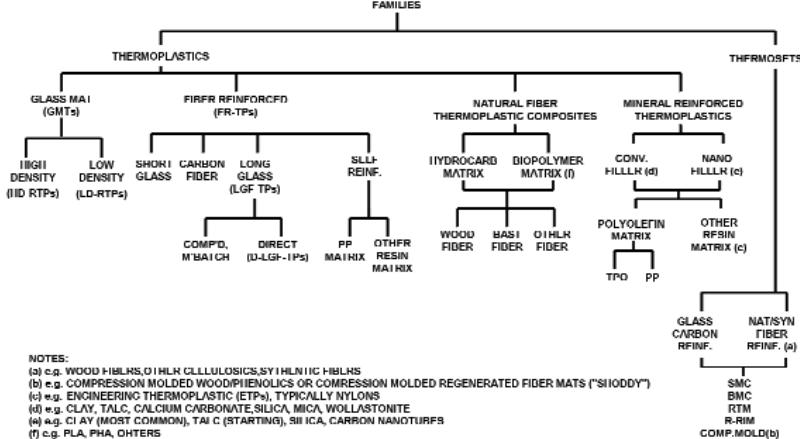
### REFERENCES

Bob Eller is President of Robert Eller Associates, Inc. ([bobeller@prodigy.net](mailto:bobeller@prodigy.net)). His company provides management decision-making support to the global plastics and automotive industries from offices in the U.S. and Europe. REA has completed European/U.S. multiclient studies of automotive interior soft trim (1); an analysis of advanced technology automotive nonwovens (2) (in collaboration with John R. Starr, Inc.); and is currently working on studies of TPEs in Europe/N. America (3) and China (4).

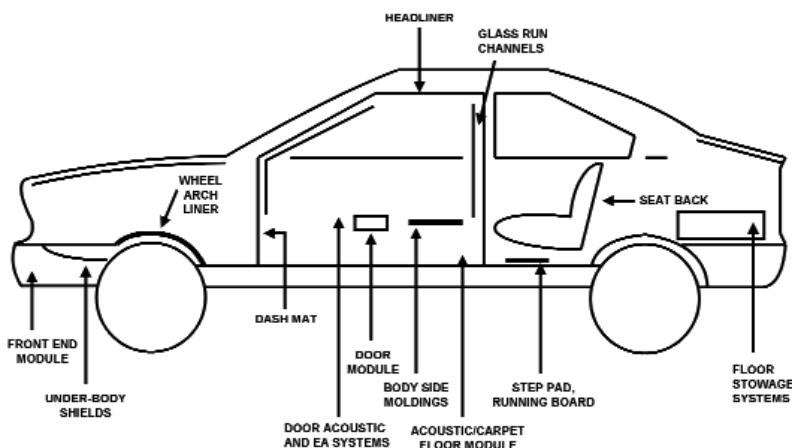
Study prospectuses and papers can be downloaded from: [www.robertellerassoc.com](http://www.robertellerassoc.com).

### EXHIBIT 1

#### COMPOSITES FAMILIES



#### COMPOSITES TARGETS



# Inter-Society Outreach

Mark Lapain

## SPE

International Polyolefins Conference 2005  
February 27-March 2, 2005, Houston, TX

4th Additives & Colors Conference  
March 16-17, 2005, Dorint Quellenhof Hotel, Aachen,  
Germany

Annual Technical Conference - ANTEC 2005  
May 1-5, 2005, Sheraton Boston Hotel & Towers and The  
Hynes Convention Center, Boston, MA

## SAMPE

26th Europe International Conference Forum and  
Tutorials/JEC  
April 5-7, 2005, Paris, France

SAMPE 2005 Symposium & Exhibition  
May 1-5, 2005, Long Beach, CA

SAMPE 2005 Fall Technical Conference  
October 31-November 3, 2005, Washington State  
Convention Center & Seattle Renaissance Hotel, Seattle, WA

## SAE

2005 SAE World Congress  
April 11-14, 2005, Cobo Center, Detroit, MI

Government-Industry Meeting  
May 9-11, 2005, Loews L'Enfant Plaza Hotel, Washington,  
DC

SAE Commercial Vehicle Engineering Congress &  
Exhibition  
November 1-3, 2005, Donald E. Stephens Convention  
Center, Rosemont (Chicago), IL

## SME

Westec 2005 Exposition & Conference  
April 4-7, 2005, Los Angeles Convention Center, Los  
Angeles, CA

Automation & Assembly Summit 2005  
April 18-20, 2005, Sheraton Lakeside Chalet, St. Louis, MO

Molecular Nanotechnology & Manufacturing: The Enabling  
Tools  
May 4, 2005, Minneapolis Convention Center, Minneapolis,  
MN

EASTEC 2005 Exposition & Conference  
May 24-26, 2005, Eastern States Exposition, W.  
Springfield, MA

The SME Summit 2005  
August 3-4, 2005, Olympia Resort & Conference Center,  
Oconomowoc, WI

Midwest 2005 Exposition & Conference  
September 13-15, 2005, Novi Expo Center, Novi, MI

## Miscellaneous

POLYCON 2005  
February 17-19, 2005, Nashville Convention Center,  
Nashville, TN

2005 Midwest Conference - ACMA  
March 15-16, 2005, South Bend, IN

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at 1-800-441-0575 or visit  
[plastics.dupont.com](http://plastics.dupont.com).

The advertisement features a large image of a complex metal mold with multiple nozzles and internal channels. Below the image, the text "Pioneering Hot Runner" is written. The INCOE logo, which includes a stylized "I" and "C" intertwined, is prominently displayed with the words "INCOE CORPORATION" and "Systems and Technology". To the right of the logo, there is a list of services: "Hot Runner Systems" (DF Technology, Clear-Flo™, Valve Gate, Fast Cycle), "Control Technology" (Temperature, Valve Gate Sequence), and "External Gas Molding". At the bottom, it says "Since 1958. Global Sales, Service & Support." and provides contact information: Tel: 248.616.0220, [www.incoe.com](http://www.incoe.com), 1740 East Maple Road Troy, MI 48083, Fax: 248-616-0225, info@incoe.com.

**DUPONT** The miracles of science™

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The advertisement features the VYDENE logo, which consists of the word "VYDENE" in a bold, italicized font above the words "nylon resins" in a smaller font. To the right of the logo, the text "VYDENE® AUTOMOTIVE" is written. Below the logo, there are three sections of text: "Experience" (30 years supplying nylon resins into Automotive applications), "Engineering Support" (Part design, molding analysis, production launch), and "Consistency and Quality" (Vertically integrated producer and compounder). At the bottom, it provides contact information: Phone: 800-865-5508, E-mail: [vydyneautomotive@solutia.com](mailto:vydyneautomotive@solutia.com), Internet: [www.vydyneautomotive.com](http://www.vydyneautomotive.com). The SOLUTIA logo is also present at the bottom right.

## Membership Matters

Don't be surprised if a current SPE member takes A.I.M. on you!

Understanding that *Action Increases Membership*, we want to personally invite you to come and experience the benefits of becoming a member. With more opportunities for networking and staying in touch with the latest innovations, we think you'll agree there's a new look and feel to SPE. Make a New Year's resolution to take a closer look at how SPE Automotive Division can help you meet your 2005 professional goals and say "Yes" when asked to give us a try!

Visit [www.4spe.org](http://www.4spe.org) for membership information.

Bonnie Bennyhoff  
Membership Chair  
(248) 350.6573

### Below we welcome some of our newest members to the SPE Automotive Division:

Arturo Alegria	David Kramer	Plastic Omnium	Mike Savard	Husky Injection Molding
Vincent Allemand	Richard Kucejko	Cadillac Products Corp	Systems Ltd	FSS Fornecedora
Jay Azevedo	Jeff Lewis	Slide Products Inc	Julio Schmitt	Sunoco Chemicals
Michael Bernas	Toyota Technical Ctr USA Inc	Dave Ligon	Andrew Schnitgen	Sartomer Company
Barry Boyce	William Lucas	Ligon Automotive Sales	Kathleen Shelton	Semplex Corporation
Brett Boyett	Domenic Marando	Atlas Material Testing	Gene Simpson	University Massachusetts
James Bradley	Shinji Massamura	Technology LLC	Sung Song	Lowell
Jim Brost	Sean Mathew	Teknor Apex Inc	Daniel Spencer	IPR Automation / Sohner
Daniel Byrne	Michael Miga	INOAC Corporation		Plastics
Sergio Enriquez	Morgan Mills	Consolidated Metco	Sean Stabler	Giesel Verlag GmbH
Ramon Conte	Stephanie Moore	Cooper Standard Automotive	John Stansfield	SportRack Automotive
John Cupstid	Rufino Moreno	ExxonMobil Company	Justin Stewart	Norland Plastics
Lucia De Calderon	Mark Murphy	A. Schulman De Mexico	Dietrich Taubert	Management Recruiters of
Ronald Dice	Jason Murphy	Dow Automotive	Michael Turkiela	San Antonio
Dan Dobbs	Hidenori Nagoka	Toyota Technical Center	Dennis Velliquette	DSM Thermoplastic
Aaron Eshbaugh	Takashi Nakahara	Mitsui Chemicals Inc	Pamela Villela	Elastomers
Janice Evers	Michael Nemanic		Herman Vos	Rohm and Haas Automotive
Ralph Fearnley	Yuval Niv	Palziv	Ralph Wagner	Coatings
Jack Foster	Max Noger		Yuji Wakayama	Denso Interantional America
Alexander Gentile	Karl Nowak	Dow Chemical Company	Mark Waldrop	Cole Specialty Systems
Tony Godlewski	Eric O'Bryan	Mercury Marine	Sandra Wheeler	Neo-Resins Inc
John Graver	Scott Olig	Chicago Rawhide / SKF	Robert Whitehead	PCI Newco Inc
James Hawkins	Alfred Olsen	Quality Safety Systems	John Williams II	
Brian Hayashi	Joseph Orrison	Degussa-Huls Corporation	Bee Xiong	Bassell USA Inc
Philip Hemenway	Murray Phillips	ExxonMobil Chemical Co	Changlai Yang	
Thomas Heyer	Eric Post	Cambo Inc	Blake Zeeman	Avery Dennison - Fastener
Susan Hill	William Ramsey	BorgWarner Transmission	John Zyglewicz	Division
Motoko Ito	Bo Rhudy			
Hamdy Kahlil	John Rippere	Mitsubishi Chemical America		
James Kahn	Michael Roche			
Lennart Karlsson	Systems			
Ronald Kesterke	Boniface Santoro			
	Sam Sato			

## Are SPE Dues Tax Deductible?

The legal counsel of a large New York-based engineering society delivered an opinion, derived from interpretation of two rulings from the Internal Revenue Service, that a portion of Society dues are tax-deductible as a charitable contribution if certain conditions are met.

In the case of SPE, the amount of \$72.00 can be deducted as a charitable contribution if you itemize contributions. This sum is the difference between total dues (\$110.00) and the amount applied as a member subscription to *Plastics Engineering* (\$38.00), as stated on the dues invoice.

The full sum of \$110.00 can be used to compile the aggregate amount of miscellaneous deductions, of which that in excess of 2% of the taxpayer's adjusted gross income can be deducted. Remember, however, you can't deduct any portion of your dues twice. It's an "either/or" situation.

# Councilor's Corner

Nippani Rao

The following summarizes the highlights of the Councilor's Meeting, October 8 - 9, 2004 in Cleveland, Ohio

## Status of the Society:

1. ANTEC registration was lower than expected. Many chose not to stay at the headquarters hotel. This resulted in unoccupied guaranteed rooms and an unprecedented \$145,000 charge.

2. Income statement through June 30 shows the following. Income \$3,102,717, expenses \$2,079,524, allocated staff & overhead \$1,352,783, resulting in net loss of \$329,590. Include the impact of rebates \$162,000 and non-operating income of \$7,387, the net through June 30, 2004 is (\$160,203.)

3. As a result of the financial audit, which includes an audit of the SPE Foundation, SPE will have to absorb approximately \$165,000 of SPE Foundation expenses this year. Plans are underway to increase the Foundation income in future years to absorb this. Per IRS Tax rules, Foundation administrative costs need to be less than 25% of the foundation's income, and over the last few years it was in the 31% range. Plans are to raise \$150K-500K/year in the next 5 years. This will eventually bring the expense/income ratio to 25% or less.

4. Planned membership goal for June 30, 2004 is 21,097. Actual membership on June 30, 2004 was 21,119, which was 22 over the goal.

## 2005 Budget:

Total income is projected \$5,820,000. Total expenses \$5,741,000. Operating income of \$79,000. This is exclusive of rebated. Any funds from rebates that are not paid in 2005 will be added to the net-operating revenues. The rebate amount projected for 2005 is \$350,000. If rebates are included, the projected net-operating contribution for 2005 will be \$429,000.

Budget was approved by the council. Very few negative comments on budget. Several people applauded the honesty of the budget team. Budget assumes that rebates will be paid in 2006. The council needs to assess the alternative options to rebates and make recommendations.

## Pinnacle Award:

A new *Pinnacle Award* is being developed to replace *Pride* and *Star Awards* to Divisions and Sections. The objective here is to find a simpler and better way to assess the performance of the Divisions and Sections and also to

commonize as much as possible. Another suggestion was to have Silver and Gold levels. There has been some discussions on this and some was very negative. Some additional input was given and it is being revised and presented at the next Council Meeting in Atlanta January 21-23, 2005.

## ANTEC:

ANTEC net income has been decreasing for the last several years. \$596K in 2000 (Orlando), \$449K in 2001 (Dallas), \$400K in 2002 (San Francisco), \$289K in 2003 (Nashville) and \$75K in 2003 (Chicago). ANTEC is becoming less venue for commercial interaction and more a venue for academic interaction, with 30% of speakers being students. Corporate peers do not find compelling content delivered at ANTEC. Papers are also more from outside U.S and Canada and the technology is not new. Another trend is that paid attendance continues to erode.

A number of actions are being taken to eliminate free passes to the conference, increase the industry participation and reduce student and academic participation. Also selections of second-tier cities or locations will help to reduce costs. There will be more discussions on this in Atlanta.

## Membership:

Action Increases Membership (AIM) program has been very successful. Executive Committee's involvement in referrals has resulted in 37% (76/205) people joining the SPE. Only 4% of the SPE leadership participated. New and improved techniques such as territory managers and "six packs" have been introduced to encourage leaders to participate. Each territory manager will have 6 groups to work with, and Nippani Rao and Tom Powers were given six Sections and Divisions to work with to increase membership.

Next Meeting: Atlanta, GA January 21-23, 2005



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# Automotive Division Directory

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<b>Dr. Norm Kakarala</b> , Chairman-Elect Delphi Corporation (248) 655.8483	<b>Nippani Rao</b> , Division Councilor DaimlerChrysler (313) 576.7483	<b>Josh Madden</b> , Director Emeritus Material Engineering Services (248) 829.6335
<b>Mark Lapain</b> , Vice-Chair Intier Automotive (248) 567.5455	<b>Michael Connolly</b> Past-Chairman Huntsman Polyurethanes (248) 322.7416	<b>Dr. Allan Murray</b> , Director Emeritus Ecplexus, Inc. (248) 814.8072
		<b>Gordon Miesel</b> , Director Emeritus (248) 475.5766

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<b>Bonnie Bennyhoff</b> , Membership Advanced Elastomer Systems (248) 377.6204	<b>Dr. Norm Kakarala</b> , 2005 ANTEC Delphi Corporation (248) 655.8483	<b>Teri Chouinard</b> , Newsletter Sponsorship Intuit Group, LLC (810) 797.7242
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<b>Suzanne Cole</b> Cole & Associates	(810) 750.3863
<b>Ed Garnham</b> Avitar Group	(248) 824.2696

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