2002 Roundup of North American Auto Electronics Suppliers

**Autoliv**
- **2002 Consolidated Net Sales**: $4,443.4 million
- **Change from 2001**: up 11.3%
- **2002 Net Income**: $180.5 million, or 4.1% of sales—a 23% improvement over 2001.

Autoliv attributes 3% of revenue growth to acquisitions and 2% to currency exchange rates; organic growth was 6%. During 2002, Autoliv’s airbag sales grew 12% to $3.2 billion, and seat belt sales increased 9% to $1.3 billion. Autoliv generates half its revenues in Western Europe, one-third in North America and about one-tenth in Japan.

New Autoliv programs launched during 2002 include applications of its inflatable curtain side airbag by Mercedes, Mitsubishi, Nissan and Toyota. The company consolidated operations in North America, closing two plants, one in Indiana and one in Colorado.

**DaimlerChrysler Huntsville Electronics**

As a division of DaimlerChrysler, Huntsville reports shipments as standard costs, not sales.

- **2002 Standard Costs**: $1,087 million
- **Change from 2001**: up 5.1%

Huntsville plant manager, Mike Hall, attributes higher standard costs in 2002 to an increase in volume plus some higher-cost products added to Huntsville’s product mix, including the launch of a new in-dash six-disc CD radio. In 2003, Huntsville expects to cut costs by close to $100 million. Mr. Hall estimated standard costs in 2003 would come to slightly over $900 million. Mr. Hall also credits the company’s MCM (materials cost management) program.

Turn to Roundup, page 8

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**NHTSA Test Could Establish Benefits of ESC in Rollover Prevention**

In a Wall Street Journal piece written on January 15, 2003, National Highway Traffic Safety Administration head, Jeffrey Runge, warned that if carmakers don’t make light trucks, and especially SUVs, safer his agency “would push automakers to install more safety technology in vehicles, particularly to deal with risks of rollover and side impact crashes.” Such technology could include not only electronic stability control systems but also head protecting and side airbags and rollover sensors.

According to NHTSA, rollover crashes in the U.S. cause roughly 10,000 fatalities per year and over 200,000 non-fatal injuries per year. The TREAD Act of 2001 directed NHTSA to develop a dynamic rollover test that will help U.S. consumers decide which new vehicles are likely to be involved in rollover crashes. Although Congress wanted the test procedure finalized by November 2002, NHTSA will not be ready for a few more months. Once the test procedures are determined, several more weeks will be needed to conduct the tests and announce the results.

However, the tests come out, NHTSA and Congress aren’t planning to require installation of electronic stability control (ESC) systems in vehicles that are shown to be susceptible to rollover. According to spokesman Tim Hurd, “NHTSA doesn’t like to prescribe a particular technology to fix a problem. Rather, we look for results... A airbag mandates were an exception.” Any “pushing” on carmakers to improve SUV safety is more likely to come from consumers. Dynamic rollover tests conducted by NHTSA could demonstrate authoritatively that electronic stability control systems do indeed lessen the risk of rollover crashes. That information alone, without government mandates, could stimulate sales of electronic stability control systems in the United States. According to Bosch, a pioneer in electronic stability control, only 6% of vehicles in the U.S. are built with the feature today, compared with about 40% of vehicles in Europe.

ESC systems help keep the vehicle under control by monitoring the vehicle’s yaw, sideways acceleration, wheel speed, and the position of the steering wheel, and independently adjust the braking forces at each wheel to keep the vehicle on its intended path.

Bosch supplied the world’s first ESC system in 1995 for Mercedes production vehicles. Called ESP, for Electronic Stability Program, Bosch’s system was used to make the Mercedes A class less susceptible to rollover. But Bosch can’t really say objectively the degree to which its ESC system prevents rollovers. According to Bosch, roughly 95% of rollover crashes happen after the vehicle leaves the road—the vehicle “trips” over curbs or other obstacles as it slips laterally. “While ESP isn’t much help once the vehicle leaves the road, it indirectly helps by keeping the

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Turn to Rollover, page 3
MOST Common in Europe

A model for how to quickly establish automotive electronics standards, the MOST (Media Oriented Systems Transport) fiber-optic multimedia communications bus has already gained wide support in Europe. Although the MOST Cooperation came together just six years ago, 11 vehicles in production in Europe today benefit from MOST technology. Ford’s European affiliates Volvo, Jaguar, Land Rover and Aston Martin, and GM’s Saab division are working on MOST projects for luxury models, but don’t expect to see MOST applied in vehicles made in the States or Japan until 2006.

A digital medium, the MOST bus carries audio, video and data services combined with command signals in one message. According to the consortium, at least 60 MOST devices are in production including audio amplifiers, Bluetooth interfaces, CAN gateways, car radios, satellite radios, cockpit interfaces, DVD players, HMI units, CD media players, navigation systems, telephones, TV tuners, sound systems, video encoders and decoders, voice recognition systems, vehicle interfaces and wideband LAN interfaces. MOST technology is available from Oasis Silicon Systems, Karlsruhe, Germany, www.oasis.de. For more information, go to www.mostcooperation.com.

Delphi to Use Electronics Contract Manufacturers

Delphi Delco Electronics recently picked Solectron and Flextronics to help it explore the potential for transferring some of its manufacturing to outside electronics manufacturing services providers. “We got started in mid-2002 moving very slowly and cautiously to make sure we picked the right partners,” said Karen Miller, managing director of pass-through products and contract manufacturing at Delphi Delco. “We looked at many, many potential suppliers narrowing it down to five that matched our volume, electronics technology and quality requirements,” said M s. Miller.

Delphi’s first two programs began with Solectron, which will manufacture printed circuit board assemblies using surface-mounted devices on FR-4 boards. Solectron will build the boards in Guadalajara, Mexico, very close to Delphi’s own manufacturing facility there, where Delphi will add value to the Solectron assembly. The proximity to Delphi’s plant in Guadalajara was a key factor in awarding the contract to Solectron. Initially, Delphi will keep outsourced volumes low until it gains more experience.

Delphi Delco said it is interested in outsourcing as a way to add flexibility to its production capacity. By outsourcing when production volumes are high, Delphi can avoid having to invest in additional fixed assets. And further, said M s. Miller, “It can be a learning experience.

We are learning a lot from these companies who are experts in their field.” By outsourcing subassemblies, Delphi Delco can focus on its strengths including systems integration, engineering, sales and systems manufacturing. For each outsourcing project, said M s. Miller, “We have gotten approval and consent from our customer.” If things go well with manufacturing outsourcing, Delphi is likely to try other outside services including supply-chain management and design services.

As Delphi begins outsourcing, other top-tier suppliers including Siemens VDO Automotive, Motorola Automotive (formerly M otorola A CES) and Huntsville Electronics remain reluctant. Motorola Automotive manufactures in-house almost all of what it sells. “We consider our quality to be a core competency. When we make things in our own facilities we can exert more control, which drives the quality level better than if we outsourced,” said M otorola marketing manager Ken Hopkins.

Huntsville Electronics plant manager Mike Hall finds it hard to believe that contract manufacturing would really lead to lower costs than Huntsville’s. To get a low cost, EMS suppliers manufacture in low labor cost countries such as M exico or China. “Most of us [in auto electronics] have already done that.” Despite large manufacturing volumes, M r. Hall doesn’t believe that contract manufacturers can save a whole lot on component prices either. Many of the components Huntsville buys, such as 12-volt power semiconductors, are unique to the auto industry—probably not purchased in volume by EMS providers. Like M otorola, Huntsville finds quality another obstacle to outsourcing. “A ny tier one would be a little leery of relinquishing a whole lot of control to a subcontractor without significant quality guarantees,” said M r. H all.
vehicle on the road,” said Bosch’s Paul Mercurio, marketing manager for ESP systems. The other 5% of rollovers happen while the vehicle is still on the road, where ESP can be effective.

Bosch is working on an enhanced rollover prevention feature for its ESP system, which would sense a potential rollover and issue control signals to mitigate against it. Bosch has not decided whether the enhancement will require a new rollover sensor or infer impending rollover based on existing sensors.

In a report published on November 26, 2002, Mercedes concluded that ESP-equipped vehicles are 15% less likely to be involved in any type of accident, not just rollovers, compared to vehicles without ESP. The 15% improvement number came from Mercedes’ analysis of accident data from the German Federal Statistics Office. The company compared accident statistics of Mercedes vehicles produced before ESP was made a standard feature (beginning in the summer of 1999) with accident statistics for later models, which had ESP. According to the report, Mercedes’ share of rollover accidents for vehicles equipped with ESP was reduced by 12%.

In October 2001, NHTSA published static rollover ratings for 93, 2001 model-year vehicles using a five-star rating system based on its “static stability factor,” essentially a measure of how top-heavy the vehicle is. That factor is derived by dividing the distance between the front wheels by twice the vehicle’s center of gravity height. The test was met with criticism from vehicle manufacturers, Consumers Union and the National Academy of Sciences. A according to N A S, the static ratings “do not adequately reflect differences in rollover resistance shown by available crash data. ... The five-star system should be revised to allow better discrimination among vehicles and incorporate results from road tests that measure vehicle control and handling characteristics.” Further, according to N A S, the static rollover rating does not account for the positive effects of electronic stability control systems, which may reduce the likelihood of a single-vehicle crash and thus the risk of subsequent rollover.

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**CEA Forecasts U.S. Mobile Audio, Video, Nav and Vehicle Security**

In the graphs below, e = estimated; p = projected.

**U.S. Aftermarket Autosound Equipment Sales in $ Millions**

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,859</td>
<td>2,070</td>
<td>2,169</td>
<td>2,098</td>
<td>2,256</td>
</tr>
<tr>
<td>Annual Growth</td>
<td>4.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**U.S. Factory-Installed Autosound Equipment Sales in $ Millions**

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>2,540</td>
<td>2,610</td>
<td>2,700</td>
<td>2,850</td>
<td>2,950</td>
</tr>
<tr>
<td>Annual Growth</td>
<td>4.3%</td>
<td></td>
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</tbody>
</table>

**U.S. Aftermarket Vehicle Security Sales in $ Millions**

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>194</td>
<td>205</td>
<td>218</td>
<td>266</td>
<td>265</td>
</tr>
<tr>
<td>Annual Growth</td>
<td>5.2%</td>
<td></td>
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</table>

**U.S. Mobile Video Factory Sales Forecast in $ Millions**

The Consumer Electronics Association estimates the market for mobile video equipment will grow 14.7% annually through 2006, driven by sales of in-dash monitors, overhead consoles and DVD players.

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>174</td>
<td>202</td>
<td>246</td>
<td>277</td>
<td>308</td>
</tr>
<tr>
<td>Annual Growth</td>
<td>15.4%</td>
<td></td>
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</tr>
</tbody>
</table>

**U.S. Factory Sales of Navigation Equipment in $ Millions**

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>37</td>
<td>42</td>
<td>49</td>
<td>60</td>
<td>73</td>
</tr>
<tr>
<td>Annual Growth</td>
<td>18.5%</td>
<td></td>
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</table>
Background

Founded in November 1977 to take advantage of the growing interest in solar energy technology, Solectron derives its name from the combination of solar and electronics. As the solar boom waned, Solectron made printed circuit board assemblies for electronics producers in Silicon Valley, California, and later expanded into other product areas such as laptops, wireless phones and networking equipment, which the company still manufactures in high volume today. Solectron’s business grew rapidly as the leading OEMs outsourced more electronics manufacturing in order to focus on core competencies such as R&D, product planning, sales and marketing. In 1991 the company operated only one manufacturing site; today Solectron operates more than 130 sites on five continents.

In the period from fiscal 1997 to fiscal 2001, Solectron sales grew 43.5% annually, from $4,408.5 million to $18,692.3 million. In late 2000 and early 2001 Solectron began investing in automotive industry capabilities by acquiring automotive focused sites from Sony and NatSteel. In calendar 2001 the technology bubble burst, and Solectron’s sales quickly shrank to $12,276.2 million. The company then decided to accelerate expansion into other markets including industrial, automotive and consumer electronics.

Besides expanding into new markets like the auto industry, Solectron has strengthened its range of services. To emphasize that it also provides engineering and supply-chain management, Solectron now describes itself as a technology, design and manufacturing services provider, not just an electronics manufacturing service provider. The company provides a broad range of services to some of the world’s top electronics producers including its three largest customers, Nortel, HP/Compaq and Cisco, who together account for 35.7% of sales. The table on page seven lists the many services Solectron offers.

Solectron Automotive

When Solectron’s bookings in its traditional markets declined precipitously in 2001, Solectron expanded into other markets that promised solid, long-term growth potential. The automotive electronics market was an obvious target, given its size and the long period of time automotive orders run. And further, Solectron already offered some automotive services and was in the process of strengthening its capabilities by acquiring companies that served automotive markets.

Despite low automotive profits, Solectron management sees opportunities within the automotive electronics industry. As top-tier suppliers like Delphi, Visteon, Bosch and Siemens VDO try to move up the supply chain from components to systems, Solectron believes they will leave openings in component manufacturing. “We saw a similar opportunity in the communications and computing industries,” noted Brian Antell, senior vice president and president of Solectron Microsystems division. “They were going to focus on systems and high-level assem-
Solectron plans to establish automotive sales offices around the world. Solectron has already set up an office in Southfield, Michigan, with about 20 employees dedicated to automotive electronics. “We are not as well established in Europe and Asia,” said M. Hughson, “though, we are finalizing plans to make sure those two regions are better serviced.” The automotive market segment has identified 18 of Solectron’s 130-plus manufacturing sites around the world where it plans to establish automotive standards and practices.

A utomotive sales in fiscal 2002 came to about $221 million, less than 2% of Solectron’s total sales. Based on first-quarter sales of $94.1 million, total automotive sales for fiscal 2003 could reach $350 million. In three to four years, M. A. Antell expects automotive sales to climb to about $1 billion per year. Solectron’s automotive manufacturing sites in Asia, Europe and North America have QS-9000/TS16949 certification in place or in process.

A utomotive—Slow to Outsource Electronics Manufacturing

To date, few tier-one suppliers have opted to outsource their electronics manufacturing, and until the high-tech bubble burst, traditional manufacturing service companies were plenty busy serving other customers—the computing, networking and communications markets.

One obstacle to greater acceptance of automotive electronics outsourcing is the labor unions, which have won agreements from carmakers and suppliers to keep electronics manufacturing in house. There is also a common misconception among carmakers and tier-one suppliers that EMS providers are only interested in taking on super-high-volume business. But according to Solectron, the company can comfortably handle volumes from as little as 100 units up to millions of units per year. Solectron already serves customers in low volume markets, for example, high-end computing, medical and network infrastructure equipment. With 18 automotive manufacturing facilities, Solectron can choose the plant whose capabilities best match the volume requirements.

Benefits of Outside Manufacturing and Design Services to the Automotive Industry

- OEMs and suppliers can more narrowly focus on core strengths. If a parts supplier’s manufacturing doesn’t distinguish it from the competition, the supplier should consider giving up in-house manufacturing in order to focus on core strengths such as marketing, sales, product planning, engineering or research.
- Carmakers and tier ones can reduce the number of suppliers they use in order...

Continued on following page
to simplify procurement efforts and reduce costs. Rather than dealing with separate component makers, top-tier suppliers could instead use just one manufacturing service company to make a collection of components, printed circuit board assemblies and other subassemblies.

Using an EMS provider can help improve return on invested capital. According to analysis from Lehman Brothers, automotive supplier return on investment numbers have been declining significantly since 1997. (See the chart on this page.)

Outsourcing electronics manufacturing would free up capital for higher-return investments. With less capital tied up in manufacturing facilities, suppliers would have more to invest in research and development and other wealth-generating endeavors.

Large EMS companies like Solectron already employ advanced packaging and manufacturing technologies not yet widely used in the automotive industry, for example, flip-chips and high pin-count ball grid arrays (BGAs). “Telecommunications and consumer electronics are usually ahead of automotive electronics,” said Denis Marchand, vice president of new technology, Solectron Microsystems division. “For example, we are developing technologies that will be used in telecom and consumer products shortly. Those same technologies might be useful in auto applications five years from now.”

### Solectron Acquisitions

While Solectron has some experience providing electronics manufacturing services to the auto industry, the company established its automotive bona fides through the acquisition of several component manufacturers who were already serving the auto industry. The largest automotive acquisition, C-MAC, was completed in December 2001. C-MAC brought with it Invotronics, which became part of C-MAC in September 2000 and Kavlico, which C-MAC bought in November 2000.

“With Kavlico and Invotronics, we gained people who have spent their whole careers in automotive electronics,” explained Steve Heinzen, Solectron automotive marketing manager. “Those companies have a track record of developing and launching hundreds of parts into production.” Formerly a division of Magna, Invotronics was purchased by C-MAC for $57 million [$85 million Canadian]. Invotronics designs and manufactures electronics and electromechanical assemblies while specializing in actuators, switches, electronic control units, instrument clusters, driver information systems and ABS coil assemblies for automotive applications.

Millions of Kavlico sensors are purchased each year by the automotive industry for engine, chassis and under-hood pressure measurements such as manifold absolute pressure (MAP), turbo-boost, exhaust gas recirculation, engine oil, fuel pressure and hydraulic brake pressure. Kavlico operates four plants, three in Moorpark, California, and one in Mönchengladbach, Germany. Depending on requirements, Kavlico pressure sensors can be made using one of four processes: single-chip micromachining, piezoresistive, ceramic capacitive or ultra-bar thin film. Besides pressure sensors, Kavlico also makes rotary and linear position sensors.

A iso from C-MAC, Solectron picked up design and production capability for low temperature co-fired ceramic circuits (LTCC). Best used in high temperature applications in the engine compartment and elsewhere, LTCC is a low-cost alternative to ceramic hybrid circuitry, which C-MAC also produces.

Other recently acquired businesses also have experience in automotive applications.

**NatSteel**: In the second quarter of fiscal 2001 Solectron picked up a manufacturing facility in Hillsboro, Oregon, when it purchased NatSteel, an EMS company with headquarters in Singapore. NatSteel facilities were used by NEC to make airbag and brake controllers.

**Navox**: A subsidiary of C-MAC, Navox developed simultaneous voice and data (SVD) communications modems that work with any cellular phone—GSM, TDMA, CDMA or AMPS. The Navox modem can send location data simultaneously with voice, without having to shut down the voice transmission. “With other services, you can’t send data while you are talking to the call center,” explained Earl Hugson.

**Sony N akaniida Corp. and Sony Industries Taiwan**: In 2000 Solectron acquired two manufacturing facilities from Sony. The N akaniida plant, in the Miyagi Prefecture, Japan, makes A/V/FM CD players, CD changers, CD mechanisms, tuner modules, advanced vehicle navigation systems, CCD back-up assists and printed circuit board assemblies. Now Solectron provides design and manufacturing services for these products for Sony and other customers.

**Smart Modular Technologies**: In 2000, with the purchase of Smart Modular, Solectron picked up experience with Bluetooth, 802.11 and other wireless products.

**Shinei International**: A manufacturer of metal enclosures, the company maintains a QS9000 manufacturing facilities in Singapore and Shanghai.
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gaps between what it can currently offer 
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A curious product-oriented businesses 
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Hughson, “With product and technology 
strategies to support, engineers don’t need 
to sit around waiting for service contracts 
to come along. ... Engineers can stay en-
gaged in product development which 
keeps their skill sets current in terms of 
software, electrical hardware design and 
validation. With core engineering capa-
tility in place, it is much easier to build 
on that foundation in order to provide 
engineering and manufacturing services 
for additional products.” Solectron will 
now leverage that automotive experience 
as it books new automotive design and 
manufacturing service orders from around 
the world.

Other automotive-related acquisitions 
will come along as Solectron fills in the 
gaps between what it can currently offer 
and what customers want. But don’t ex-
pect Solectron to take on large acquisi-
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and good technology. “We still have some 
work to do to make sure we have adequate 
technical resources that measure up to 
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Lead-Free Solder

Some years from now, lead-free solder 
could be required in the automotive elec-
tronics industry to protect the environ-
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Lead-Free Solder

Some years from now, lead-free solder 
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tronics industry to protect the environ-
Roundup... Continued from page 1

management) program for successfully reducing costs and improving manufacturing processes.

Delphi Corp.
2002 N et Sales: $27,427 million
Change from 2001: up 5.1%
2002 N et Income: $343 million, or 1.3% of sales, compared with a 2001 net loss of $22 million.

2002 Sales by Sector:
   Electronics and Mobile Communications sales grew 5% in 2002, to $5,041 million. Within Electronics and Mobile Communication, Mobile Multimedia sales declined 17% in 2002 to $310 million.
   Safety, Thermal and Electrical Architecture segment sales rose 7.5% to $9,705 million.
   Dynamics and Propulsion sales reached $13,008 million in 2002, which is 3% better than the segment's sales in 2001.

Thirty-five percent of Delphi’s 2002 sales were from customers other than General Motors. Non-GM sales grew 13% from 2001 to $9.57 billion, while sales to GM grew slightly, to $17.9 billion, compared with $17.6 billion in 2001. According to a presentation made in September by J.T. Battenburg, chairman, CEO and president, Delphi expects to maintain GM sales “in the $17 billion range” in 2003, despite GM’s decision to reduce vehicle costs by making features such as ABS and side airbags optional rather than standard equipment on many 2003 models. Delphi says its win rate on renewal business with GM is greater than 80% and greater than 70% on new GM business. Delphi expects overall sales growth in 2003 of 2% to 3%.

Delphi reports that it is 98% finished with its major restructuring plan of 2002. When fully complete, the restructuring plans of 2001 and 2002 taken together will have reduced Delphi’s workforce by 17,540 and accomplished the sale or closure of 21 facilities and/or product lines.

In January 2003, Delphi added ten more facilities to its Automotive Holdings Group, whose task it is to fix, close or sell unprofitable businesses. The Automotive Holdings Group has been working to close or sell Delphi’s generator and instrument cluster businesses.

Johnson Controls Automotive Systems Group
2002 Sales (fiscal year ending 9/30/02): $15,015 million
Change from 2001: up 10%
2002 Operating Income: $862.8 million or 5.7% of sales; operating margin was the same in 2001.

New interiors business in seating, instrument panels, overhead modules, door and electronics systems contributed to increased sales for the Automotive Systems Group, as did the acquisition of the automotive electronics business of Sagem SA (France), which was completed in October 2001. Interiors sales growth was strongest in Europe, where sales increased 22%. North American sales grew 4% and sales in Asia grew 7%, while South American sales declined 22%.

Among JCI’s promising new products are a AutoVista factory-installed DVD rears seat entertainment systems, PSI tire pressure monitors and the Overhead Rail System, which allows various modular devices such as video displays, remote control devices or storage units to be docked in easy reach of the driver. JCI announced in January 2003 that over 20 million of its Homelink units are on the road today. Homelink enables the driver to operate RF products like garage door openers, home lighting and security systems from the vehicle.

JCI is well-positioned for 42-volt battery business following its acquisition of the German battery manufacturers H oppecke Auto motive GmbH in 2001 and Varta A G’s automotive battery division in 2002.

The company anticipates sales growth between 5% and 10% for the Automotive Systems Group in fiscal year 2003. Operating margin for Automotive Systems is expected to remain about the same.

Lear Corp.
2002 Consolidated Sales: $14,424.6 million
Change from 2001: up 5.9%
2002 N et Income: $13 million, just 0.1% of sales, compared with net income of $26.3 million or 0.2% of sales in 2001.

Lear makes seat systems, flooring and acoustic systems, door panels, instrument panels and headliners as well as automotive electronics and electrical distribution systems. New business from General Motors and some new business in Asia came in the fourth quarter. Lear will supply the total interior, including the electrical distribution system, for GM’s next generation Buick LeSabre and Cadillac DeVille, for which Lear could potentially net up to $825 million in annual sales. Regionally, North America, where Lear content per vehicle was $577 in 2002, produced the strongest growth, 7.2%. In Europe, sales grew 4.8% and in the rest of the world, just 1.5%

For 2003, the company estimates net sales will reach approximately $15 billion, which represents slightly better than 4% growth over 2002. Lear disclosed that its present five-year sales backlog amounts to $4 billion, of which 35% is seats, 25% is electronics and 40% is interiors.

TRW Automotive Sector
2002 Sales: $10.5 billion, according to company estimates
Change from 2001: up 4%

In November 2002, the Blackstone Group (New York) agreed to purchase a majority interest in TRW Automotive Sector from Northrop Grumman in a deal that valued TRW at $4.425 billion. For more on the TRW acquisition, please see the Hansen Report, December 2002/January 2003.

Visteon Corp.
2002 Sales: $18,395 million
Change from 2001: up 3.1%
2002 N et Income (Loss): Visteon’s net loss in 2002 was $352 million, compared with a net loss of $118 million in 2001. Still its largest customer by far, Ford accounted for 80% of Visteon’s total revenue in 2002, despite Visteon’s loss of some major programs at the carmaker. In 2002, Visteon content per vehicle on Ford products was $3,000 in North America and $1,200 in Europe. Since Visteon was spun off from Ford, it has won $900 million in new Ford business.

Non-Ford sales were $3.6 billion in 2002, up 13% from 2001. Over $1 billion of non-Ford sales came from new business, 45% of it from outside North America, including a contract to supply instrument clusters for the Renault Mégane II.