Introduction
The global automotive aftermarket industry generated sales of USD 112b in 2002. Global demand is expected to grow at a rate of five percent per year for the next five years. This industry encompasses all products and services purchased for light and heavy-duty vehicles after the original sale. Products include replacement parts, accessories, lubricants, appearance enhancers, and service, tools and equipment for repairs. Automotive can mean cars, vans, trucks, buses and heavy equipment, each with its own specific needs. The automotive aftermarket demands operational and logistics excellence that supports rapid part identification and substitution, online availability checking, on-time delivery, flexible replenishment and reverse logistics. Today’s automotive industry matches up some of the world’s most powerful corporations in the toughest global competition.
Market situation and trends

The automotive aftermarket is undergoing changes to improve sagging margins and increase revenue generation while reducing costs and improving customer service. The aftermarket industry is striving for shorter lead-times and facing tougher requirements regarding quality. At the same time, sales prices are under severe pressure and increased responsibility is being laid on distributors to provide exceptional service and to compete on price.

The most important success factors for automotive aftermarket distributors are cooperation between companies and integration of processes throughout the supply chain. It is extremely important to share information quickly and effectively within supplier networks and between customers.

Growing global motor vehicle demand

The demand for automotive parts and accessories is driven by a steady increase in the number of motor vehicles around the globe. The maintenance and servicing of older vehicles, especially in developing regions of the world, along with the greater use of complex automotive electronics, contribute to increased demand for spare parts.

Today’s automotive accessories, including original equipment and replacement parts, are of higher quality and last longer than ever before. This improved durability has resulted in a slightly slower increase in the growth of parts sales. Developing regions of the world, with a higher proportion of older vehicles, have a more rapidly expanding light vehicle market compared to mature markets such as North America, Western Europe and Japan.

The annual growth of the Western European aftermarket is expected to be well below average, but nevertheless remains respectable, considering the immense size of the market. At the same time the dismantling of European Union Block Exemption regulations will allow for greater competition and lead to price reductions of auto accessories and spare parts.

The North American aftermarket is expected to post the world market’s slowest gains due to continuing product improvements made by Original Equipment Manufacturers (OEMs) of light vehicles, combined with a younger light vehicle fleet in the US and Canada. Cars and their parts will last longer, thus reducing the demand for replacement parts.

The Asia/Pacific region will exhibit particularly healthy gains, with the exception of Japan. China and India are both expected to register double-digit annual gains in their respective automotive aftermarkets through 2007. Rapidly rising incomes in this region will allow for the speedy expansion of motor vehicle utilisation rates, in most of these countries, which are currently well below global averages.

Growing demand leads to:

- Longer life and better quality of automotive accessories and parts
- Increased competition between suppliers
- Reduced prices of aftermarket parts.

In a world where business is a more and more aggressive and when cars tend to get cheaper and cheaper each minute, only those car dealers that can work efficiently and reduce their operation cost will be able to survive.

Ignacio Amariles,
President,
Agenciauto S.A.
Decreased demand for spare parts

With the improved quality of original components, cars are being driven and kept longer than in the past. This has led to a reduced aftermarket demand for wear and tear parts. As a result, franchise dealer networks are struggling to maintain their market shares. This trend is due mainly to declining parts usage in cars in the 0-4 year range, which form the key customer base for franchises. These vehicles account for a reduced proportion of the vehicle pool, as the number of retained older vehicles grows.

Inventory and warehousing costs must be measured: spare parts will eventually sell, but they should not take up shelf space and capital, which are required for faster-moving items. Inventory costs must be balanced against desired service levels and the availability of parts at quick notice. The control of increasingly hi-tech spare parts, with strict cost and quality controls over a very broad range of parts and components, is a key factor for business success.

Growth of the accessories market

New product areas such as air conditioning, navigation and multi-media systems offer growth opportunities and are attracting new entrants. This growth in the accessories market is driven primarily by increased auto-maker standardisation, as well as a younger generation’s desire to customise their vehicles. Dealers and aftermarket distributors must be able to offer a wide selection of accessories with many variations. Vehicles are made-to-order rather than made-to-manufacture, as in the past.

Diminishing DIY market

The number of consumers who are willing or able to perform automotive services on their own vehicles is steadily decreasing. This Do-It-Yourself (DIY) market is diminishing in key areas that require some level of mechanical knowledge.

The ever-increasing complexity of today’s auto engines and other automotive systems requires more diagnostic equipment and technically skilled mechanics. Many vehicles are equipped with onboard computers, computerised braking systems and complex electronically controlled components. This advance in auto technology makes it much harder to ‘do-it-yourself’ and promotes the need for professional automotive services.

Secondly, more double-income families have greater disposable income but less spare time, making DIY repair an unattractive option. These consumers look for professional service centres with trained personnel, equipment, facilities and products that deliver more thorough maintenance.

These pressures have produced a range of responses with varying degrees of success. Many dealers have tried to emulate the fast-fit operations, offering while-you-wait services for owners of vehicles over three years old.

Changing demand patterns:
- Reduced demand for spare parts
- Need to reduce inventory levels and costs
- Increasing costs from overstocked inventories
- Too much of the wrong inventory in the wrong places.
- Need to carry wide assortment of accessories
- Ability to customise orders
- Lost sales through not carrying the right assortment of parts
- Lost sales through inability to respond quickly enough to unforeseen demand
- Customer loyalty issues after changeover from acquisitions.
- More and more consumers seek professional service centres for auto repairs.
Improvements in collaborative planning forecasting and replenishment

Fundamental changes are also occurring at the wholesale level. The formation of pan-European buying groups is seen as a defensive move in response to the strong competitive forces from vehicle makers, fast-fits and auto centres. Buying groups, or Group Purchasing Organisations (GPOs), are now a distinctive feature of the European wholesale distribution channel.

Factoring in the importance of each sale as soon as it occurs is the art of retail replenishment. But, as with any art, it is based on human interpretation of incomplete information. In the case of retail, large, centralised buying and merchandising groups often made replenishment decisions for individual stores, with very little local knowledge. Today, most car manufacturers have created sophisticated models of demand for aftermarket products based on vehicle registrations, regional demographics and climate conditions. This information, which can more accurately predict spare parts demand, is made available at the local branch or retail level.

Buyers must have access to information that reflects consumer demands and trends. More importantly, this information must be visible throughout the supply chain in order to produce the most accurate - and, ultimately, least costly - procurement, warehousing and service operations. Clearly, powerful supply chain software that integrates and communicates information at all levels is required for success.

A changing supply chain

The automotive aftermarket supply chain is rapidly changing to lower procurement and distribution costs and to speed up delivery. A variety of distribution channels exist today:

- **The vehicle manufacturer** - who also manages customer service and aftercare through national and international dealerships managing vehicle servicing and spare parts distribution
- **The specialised parts manufacturers** - who OEM the vehicle manufacturers while supplying aftercare parts for wholesale and retail distribution
- **The specialist importer and distributor of foreign care parts** - to retailers and direct to the repair shops and to the public
- **Importers and distributors of grey-market spare parts**
- **Specialist refurbishers** - of re-usable spare parts, starter motors, alternators, transmissions, clutch assemblies etc.

The sizes of all these operations vary greatly, from large multi-national to very small local distributors. Channel partners, both supply-side and customer-side, can demand a broad range of aftercare services, over and above spare parts.
Technology drives business forward

Integrated IT solutions are an effective way to address demand issues by using technology to rationalise supply processes and increase efficiency. Technology can increase visibility across all aspects of the business and throughout the supply chain, benefiting cash flow, profitability and capital utilisation, while improving customer service.

The automotive aftermarket changes continuously and flexible, responsive business systems are therefore paramount. As companies grow and expand their presence through mergers, acquisition and alliances, it becomes increasingly important to have systems that are easy to maintain and grow - across multiple facilities, locations and languages. The industry demands operational and logistics excellence that supports rapid part identification and substitution, online availability, on-time delivery and flexible replenishment. The aspect of reverse logistics is especially critical to the aftermarket. Transporting, handling and returning used products present significant challenges, as well as potential profitability, for distributors.

Intense competition

The automotive aftermarket is highly competitive, with Internet capabilities and e-business introducing new channel opportunities and challenges. New competition can materialise overnight from the large multiples to small lock-up businesses. Pricing is becoming very competitive with smaller margins leaving little room for error.

To survive in a market characterised by intensified competition, government regulation and new technology, the industry needs to accelerate its time-to-market success to take full advantage of business opportunities. Customers demand very short lead-times with high delivery precision across an expanding and contracting range of parts and components. To succeed, the most important factors are cooperation between business partners and integration of processes throughout the supply chain to capture, analyse and take action based upon customer requirements. The vehicle repair industry depends on a fast supply chain - every order placed should be delivered within hours, not days. Stock availability and location must be precise. Electronic collaboration is essential to quickly and effectively share information within supplier networks and between business entities.

Implications for the automotive aftermarket

In a fast-paced industry like the automotive aftermarket, keeping up with current technological trends sets the pace for success. As companies grow through mergers, acquisition and alliances, it is increasingly vital to have systems that are easy to maintain and expand - across multiple facilities, locations and languages. Exceptionally powerful software is often required to process high order volumes, typical of the automotive aftermarket. Any automotive aftermarket business software solution must provide the means to gain a competitive advantage, with the ability to meet escalating customer expectations and service levels while protecting and optimising profits.

Opportunities:

- Large vendor returns and annual adjustments add to rising costs
- IT solutions can help to optimise processing and margins
- Reverse logistics is crucial
- Profits from transporting, handling and returning used products
- Accelerated time-to-market
- Cooperation between business partners throughout the supply chain
- Fast supply chain.

"IBS consultants form part of our team, even though they actually belong to another company. We enjoy working with them. It’s like they’re members of the family"

Masatoshi Hasegawa,
Managing Director,
Mitsubishi Poland
IBS software
- a competitive advantage

IBS’ ASW is a world-leading business software suite for supply chain management, distribution, demand-driven manufacturing and financial control. It is designed to fulfil the requirements of worldwide business-to-business trading. According to studies conducted by AMR Research and Frost & Sullivan in 2001, IBS is the market leader for supply chain execution software. IBS also ranks among the top three globally active SCM suppliers.

IBS provides the automotive aftermarket sector with a complete solution, including hardware, software, financing and services. IBS can take on the full responsibility for an entire customer installation as a one-stop-shop supplier.

The software and services observe ‘best practice’ methodology, with built-in security, flexibility and process logic to prepare your business for the new generation of collaborative computing. The software is designed to provide a measurable return on your investment through its business intelligence capability, monitoring your increased asset utilisation, customer/supplier service levels, profitability, productivity and costs. At the same time, the system brings you complete knowledge about your customers’ buying patterns, preferences and profitability, enabling you to personalise service, based on their value to your business.

IBS consultants provide an unmatched level of industry expertise. They work closely with our customers to fully understand what drives their business, to anticipate future growth and to encourage the adoption of ‘best practices’. IBS’ extensive experience helps clients to stay ahead by leading the way with timely, reliable applications and solutions for distribution and supply chain management.

IBS’ service portfolio offers a range of professional services, including business process mapping, project management, technical support, implementation, training and pure business consulting. These services are characterised by quality and competence. As IBS’ consultants acquire knowledge about the customers’ business operations, they are able to provide continuous advice and guidance to help sustain a competitive advantage and grow the business. This long-term partnership generates major benefits for our customers in terms of business advantage and value for money. That is a primary reason why IBS repeatedly ranks very high in customer satisfaction ratings.

Since we went live with ASW five years ago, we have grown by about 37 percent. The ASW software has been one of the tools we’ve used to grow efficiently. In the first 18 months of using the software, inventory was reduced by 3 million dollars without affecting daily operations.

Al Jahnke,
Database Coordinator,
U.S. Tire & Exhaust
Tailored for the automotive aftermarket

ASW - IBS’ integrated IT solution - is tailored for the automotive aftermarket and addresses the needs of importers, wholesalers and distributors. The solution’s high functional product fit for the automotive aftermarket focuses on sales order management, warehouse and inventory control, procurement, logistics, financials and business intelligence.

The ability to capture and analyse demand at the branch level, and aggregate that information back to the regional and national level for replenishment, can improve aftermarket retail revenue and branch sales. Additionally, closer alignment of supply with demand can improve branch and DC inventories, by reducing obsolete and under-performing stock levels while proactively managing inventories to prevent stock-outs.

The IBS solution is designed to optimise business operations and analysis, helping you to maximise profits by focusing on:

- Increased customer awareness and personalised service
- Increased sales
- Improved asset control
- Reduced costs
- Improved productivity
- Optimised supply chain collaboration
- Proactive business processing
- Automated decision support
- Improved profits and measurable ROI.

IBS’ automotive aftermarket solution is built around customers’ needs, with advanced customer-oriented functionality that focuses on performance and service. Designed in cooperation with world-leading automotive suppliers, the solution meets critical requirements like processing high order volumes, ability to receive by EDI, XML or via Web Services and assemble and deliver in-sequence with extremely short lead-times.

The software supports rapid identification of products with supporting specifications and pricing, online availability checking, original manufacturers’ recalls and product sales restrictions - translating sales demands directly to suppliers’ products. Furthermore, all applications are multi-language, multi-currency and multi-company and, where appropriate, equipped to handle all major international and national legal and fiscal regulations for sales tax, GST, VAT, taxation and reporting.

The solution combines the use of excellent servers, operating systems and application software and provides up-to-the minute status of all processes in the supply chain. At the same time, it can process more than 2 million order lines per hour with a response time of 0.04 seconds in a productive environment.

“IBS is different from the majority of ERP vendors thanks to the unique functionality in IBS’ warehousing and inventory management solutions. IBS’ software gives us a great analysis tool; we can track and analyse our sales and purchases at any time. With such a great piece of software we can control all areas of our business.”

Marek Borkowski, Logistics Director and Member of the Board, Auto Art S.A.
IBS software has a wide variety of functionality that is designed to support sales representatives, front-line distributors and jobbers who manage direct sales to customers, including these capabilities:

- **Branch counter sales** - Support of point-of-sale management for more efficient processing of retail sales.

- **Electronic catalogue support** - Easy, quick access to web-based catalogues, online pricing, personalised shopping lists and product availability.

- **Rapid parts search** - Pricing, availability or order entry are at your fingertips, including parts search by VIN number and chassis number.

- **Order entry automation** - IBS’ solution automates the entire order entry process, including service guarantee and warranty information, price calculations and online credit checking. This information is integrated automatically throughout the system, helping to reduce errors from multiple data entry and ensuring top customer service from sales through to delivery.

- **Internet customer self-service** - ASW NetStore lets customers place and track orders, helping to reduce your administrative costs. Credit card payment is supported.

- **Laptop and remote ordering** - Sales reps can enter orders from remote locations, using laptops and handheld devices, enabling quick service and order entry and promoting customer satisfaction.

- **Up-selling** - The IBS solution can suggest ancillary parts and complementary products, helping to increase sales opportunities.

- **Supersessions, cross-referencing and replacement parts** - Powerful item tracking and searching by serial, lot or batch number allows quick and easy access to inventory, bolstering sales efforts for specific customer requests.

- **Substitutes and complementary products** - The system can find and suggest substitutes for non-stocked items, helping to capture sales and retain customers, and it can also recommend complementary products for additional sales.

- **Automated delivery schedules** - The IBS solution automatically calculates required stock levels and creates orders based on customer forecasts transmitted via EDI. Forecasts are based on net or gross forecasts and current inventory, helping to ensure optimum stock levels and accurate deliveries.

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“Instead of taking orders over the phone, the orders can be made straight into our system and the order is automatically booked.”

Anders Hansen,
Administrative Director,
Nic. Christiansen Group
Distribution and logistics

Transport and shipping optimisation help you to reduce costs to your customers. It is especially critical for the automotive aftermarket to handle rush and emergency orders. IBS software helps you achieve this with these automated solutions:

- **Cross-docking, putaway, picking and packing** - The IBS solution helps you to optimise these warehouse routines that are aimed at faster delivery, which can result in shorter lead-times. The system takes into account all available information, including stock on hand, delivery dates and priorities, to help ensure the most efficient logistics.

- **Back-to-back delivery** - You can easily coordinate direct deliveries from suppliers to customers, helping to avoid the costs of receiving and picking sold goods.

- **Serial number tracking** - Total, automated tracking power lets you track individual items through serial number, with lot and batch tracking also fully supported.

- **Truck routing and planning** - Automated shipping optimisation helps you dispatch stock efficiently based on system-supplied shipment plans, delivery advice and route plan creation, along with freight documents and loading area instructions. The IBS solution also provides support for non-fleet shipping management.

- **Reverse logistics** - Transporting, handling and returning used products from end customers to a processing facility is a critical activity for automotive aftermarket businesses. ASW BUSINESS PARTNER REQUEST is specifically designed to manage returned product in close collaboration with your warehousing operations, helping to accelerate the returns and credit process.

- **Tool management** - The IBS solution has automated capabilities that help you with the efficient distribution of service and repair tools, including tracking, costing, pricing and replenishment.
Procurement

Efficient procurement processes and forecasting are critical in helping you to maintain margin and give the best prices to your customers. You must also be able to coordinate purchasing for multi-company centres and purchasing alliances. With the IBS solution, you can gain these benefits that address specific needs for automotive aftermarket distribution:

- **Automated purchase simulation and suggestion review** - You can obtain help in anticipating real procurement costs, maintaining safety stock and identifying critical purchasing needs. The IBS solution provides automatic simulation and suggestion management capabilities with review codes for product lines, helping to ensure accuracy, maximum line value, stock levels and optimised values. Additional functions include special buy evaluation, interactive line buying and graphical planning tools that give a complete overview of procurement information.

- **Distribution analysis** - Based on current information from throughout the system, this analysis capability helps you to determine real procurement costs. It also gives you the capability for direct automatic replenishment based on the analysis results.

- **Pull, priority and shortage evaluation** - Automatic analysis and monitoring of urgent stocks, plus the capability for automatic order generation, help keep procurement processes on top of the just-in-time situations common in the automotive aftermarket.

- **Gross margin split** - The system automatically calculates gross margin splits to help negotiate prices.

- **Surcharge handling** - Surcharges such as scrapping or disposal fees - for tires or other auto parts - are rolled into the system automatically, ensuring a full picture of real procurement costs.

- **Supplier agreement and price negotiation** - ASW SUPPLIER MARKETING SUPPORT lets you take greater advantage of supplier discount programs. The software handles complex supplier rebate rules and can help you negotiate the best supplier agreements and prices.

- **Centralised procurement support** - Requests for quotations are generated automatically and sent to suppliers through EDI, XML, web-service communications, fax or email. This quick creation and transmission can result in lower administrative costs, better prices and the ability to negotiate more favourable terms and conditions.

- **Stock optimisation** - ASW INVENTORY CONTROL provides you with tools for dynamic demand forecasting for different item segments, automated replenishment suggestions, inventory analysis and simulations. All of these functions help to ensure that the right components are available in stock, keeping lead-times on target and inventory at economical levels.

- **Automated delivery schedules** - The IBS system automatically calculates required stock levels and creates orders based on customer forecasts transmitted via EDI. Forecasts are based on net or gross forecasts and current inventory, helping to optimise stock levels and ensure accurate deliveries.
Warehousing and inventory

The IBS solution promotes efficient and optimised warehousing operations and inventory levels through comprehensive information management. It is designed to help you stock and trace the right parts, with a complete database, and get them to the right customers at the right place and time. The software uses advanced, automated techniques to streamline routines and includes these advantages for automotive aftermarket distribution:

- **SKU management** - The IBS solution helps you manage the thousands of number of stock keeping units (SKUs) you need to stock, helping to reduce overhead costs and giving you control over warehouse stock.

- **Inventory item segmentation** - You can classify all stock items based on volume or value classification, helping to identify products by high-turnover, slow-moving, low-margin or other categories, with direct impact on such KPIs as inventory days supply and cash-to-cash cycles.

- **Kitting and bundling** - Made-to-order parts, such as exhaust systems, are a vital part of your business. Automated kitting and bundling functionality helps you assemble products that meet your customers’ specifications in less time, with more accuracy and a positive impact on operational costs and customer satisfaction.

- **Bar code and radio frequency (RF) support** - Bar coding and RF support give you quick tracking and communications for serial and lot numbers or batch codes, reducing paperwork and improving both accuracy and speed.

- **Automatic notification and warning** - **ASW ALERT MANAGEMENT** monitors warehouse operations constantly and alerts you to actual or potential problems. The solution can also send messages with suggested actions to correct problems.

“The IBS software will help KEM to] respond quickly to customers’ needs by providing immediate answers as to order status, customer requests and global inventory availability.

Kenneth Brown,
Vice President and CFO, KEM
Financials
Along with powerful support for standard financial transactions, IBS’ financials solution provides answers that can enhance profitability especially for automotive aftermarket distribution, including:

- **Accounts Receivable** - ASW FINANCIALS helps you reduce bad debt and improve accounts receivable and payment statistics. You can monitor and administer customer account balances through automatic statements of account, reminders for overdue invoices and collection handling. This help to reduce A/R days outstanding and your cash-to-cash cycle time.

- **Automatic transaction creation and transfer**. Each event in the operational system has user defined accounting rules for automatic transfer to General Ledger and sub-ledgers.

- **Asset management** - IBS helps you obtain maximum value from assets - including physical property, warranties and service contracts - through ASW ASSET MANAGEMENT.

- **Activity-based costing reporting** - This gives you the opportunity to measure and improve the efficiency of CRM and SCM processes. The IBS solution calculates net profitability from an Activity Based Costing (ABC) approach. The equations used can include any type of ASW balance, whether these are pre-defined in the system, quickly and easily defined by users, calculated or redistributed.

- **International currency and language capability** - The system handles any currency and provides support for currency optimisation, helping to protect you from losses associated with currency exchange rates. Far-ranging language support means that you can communicate with customers all over the world in their language with, for example, multi-lingual transaction documentation.

- **Cross-company reporting** lets you choose a range of your system companies to include in financial or other reports. Assets analysis, profit and loss per division, and figures vital to a multi-company environment can be reported for any period.

- **Back-office accounting** - All financial transactions throughout your business operations are recorded into the system at time of entry.
**Business Intelligence**

Integrated tools for business process measurement can enable you to maximise profits and control critical success factors such as:

- Periodical improvements in Key Performance Indicators (KPI) and subsequent ROI
- Fill rates and on-time deliveries
- Business partner performance overviews based on item and customer profitability
- Operational costs and productivity
- Spare parts replenishment planning at all levels national, regional and local
- Optimised supply chains and collaboration
- Automated business processes
- Automated decision support and event management.

IBS software offers a business processes assessment solution that lets you extract, measure and compare information from a data warehouse that reflects all information contained within your business system. It can be used by all levels of employees and produces reports in a wide variety of formats. IBS BUSINESS INTELLIGENCE comes with pre-loaded client applications that are designed for supply management needs. Industry-standard OLAP (On-Line Analytical Processing) tools for Datamarts are included.

All ASW transactions that occur in your business system, which carry a cost, quantity, or other properties, are transferred to and sorted within the data warehouse. The balances can be compared against any number of key values, including those such as business partner, item, item group, salesperson, account number and cost centre.

You can also leverage data that is collected from external databases, including business partners and other external sources. Trade statistics and benchmark data, forecasts on general market trends and credit information are all at your disposal for analysis. A full range of reporting options, through Report Writer and Quick Report Writer, put the information at your fingertips.

From the range of fully integrated software modules available, you can select the software components you need, easily activating additional modules or upgrading to new releases when you wish. You can step up to new e-business and supply chain opportunities at a pace that suits your company.

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**We wanted to have a user-friendly system that would save us the time we usually spend in simply recording data. Until now, we have had no time for analysis of data.**

Gosia Osinska, Financial Manager, Honda

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**IBS has the right software for you, and the experience of worldwide installations. Are you interested in finding out more?**

Contact IBS today - [automotive@ibs.net](mailto:automotive@ibs.net) or visit [www.ibs.net](http://www.ibs.net)
IBS is a world leading provider of supply chain management solutions for distribution, demand-driven manufacturing, financials and business intelligence. IBS delivers measurable value through software solutions, services, hardware, outsourcing and financing. IBS offers industry solutions for the automotive aftermarket and industrial machinery with Goodyear, Honeywell Aerospace, Mitsubishi, and US Tire & Exhaust among its 5,000 customers in 40 countries.