

Annual Report 2010 - 11

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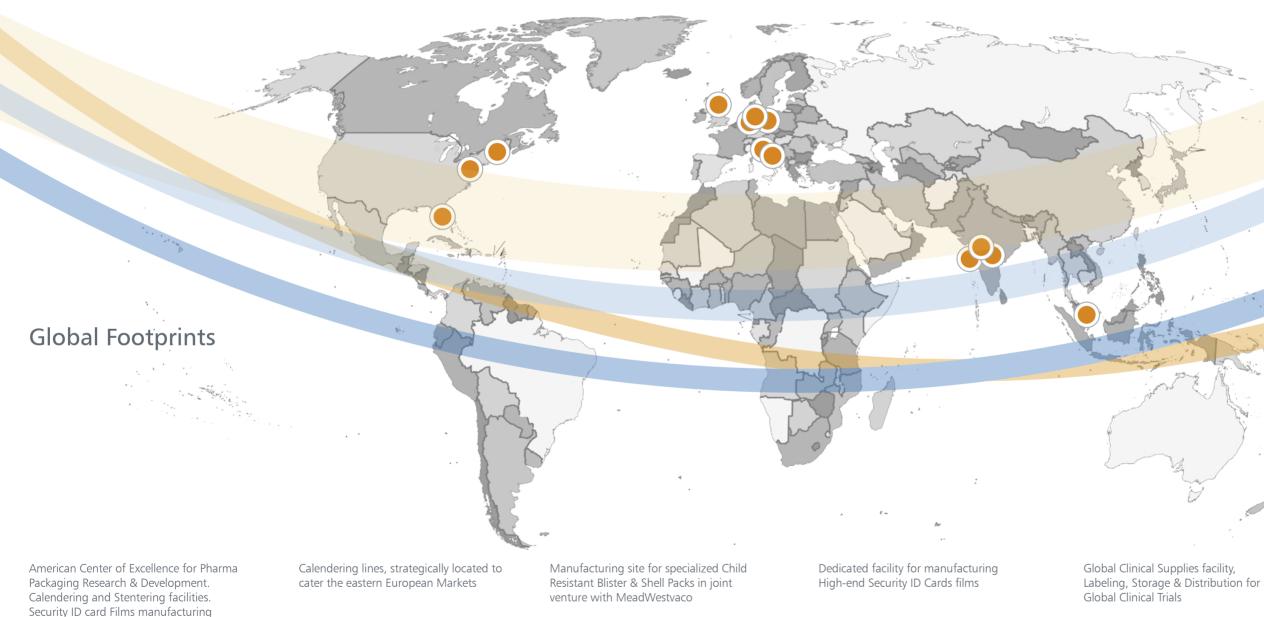
Global Center of Excellence and R&D Center for Pharmaceutical Packaging Development. Global Clinical Supplies facility for Asian Market. State of the art Polymer Coating and Aluminum Printing facilities

World's largest Polymer Coating & Lamination lines. Pharma Center of Excellence for Asia. Development Center for nonClonableID<sup>™</sup> Technologies

Global Clinical Supplies facility for manufacturing Clinical Trial Kits, Labeling, Storage & Distribution with value added IT & Communication Services for Global Clinical Trials

High-end Specialty Calendered Film for Print and Shrink applications

Calendering, Coating and Specialty Flexible Films manufacturing sites





European Center of Excellence for Pharma Packaging Research & Development. Global scale Calendering, Coating and Lamination facilities

Calendering, Lamination and Metallizing manufacturing capability for the European Food Industry

## Contents

#### Vision

## Delivering Innovation - Touching Lives

#### Values

Speed

Proactive and swift action are our mantras

## Innovation

Our constant approach at all levels is to seek better ways of listening, thinking and doing - making our offerings meaningful and impactful

## Happiness

We are motivated by our customers' success and happiness of our stakeholders

### Offerings

### Packaging Innovations

Pharma Packaging Innovations Specialty Films Solutions Packaging Films Solutions Cards Solutions

## **Global Clinical Supplies**

Research Process Outsourcing for new drug discovery in clinical trials; Facilitating speed-to-market

## nonClonableID<sup>™</sup> Technologies

nonClonableID<sup>™</sup> Technologies for Track 'n' Trace and Authentication of people and products - anywhere, any time

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#### Chairman's Letter

## Towards Global Impact

### Dear Shareholders,

In the two decades of Bilcare's existence, your company has achieved numerous milestones and 2010 – 11 has been a watershed year.

For the past decade, Team Bilcare has strived to achieve global leadership in the pharmaceutical packaging domain. Driven by our vision, beliefs and commitment to excellence, this goal has now been achieved and we stand acknowledged as one of the leading global players in the pharma packaging industry. Even as I pen my thoughts on the successful achievement of volume leadership in our domain, the long persistent challenges of Pharma brands – growth, convenience and communication to patients, and perhaps most importantly, the serious issue of spurious drugs are yet to be resolved. This is where your company is committed to bring path-breaking innovations through technology solutions.

Bilcare's recent European venture has resulted in new global footprints and an opportunity to partner with over 2000 established customers backed

Bilcare now brings a seamless offering to the demanding markets

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by state-of-the-art research and plant facilities in America, Europe and Asia. As your company steps forward into an exciting and challenging business environment, it is leveraging its considerable cumulative learning and customer-centric solutions to build strong engagements with the heavyweights of pharma in Europe and allied countries.

This strategy is consistent with current market trends in the packaging and pharmaceutical packaging sectors. Western Europe, US and Japan dominate sales and consumption figures although Central America, Asia and Central & Eastern Europe are forecast to show the highest growth rates over the next four years.

In the pharmaceutical packaging vertical, industry experts estimate that the U.S and Europe will account for more than 50% of pharmaceutical packaging demand. U.S. will remain the largest consumer of pharmaceutical packaging as its advanced drugproducing sector introduces sophisticated therapies with specialized packaging needs. At the same time, India, China and Brazil are poised to provide rapid opportunities for growth based on expanding pharmaceutical manufacturing capabilities and the up-gradation and diversification of drug-producing sectors.

With Bilcare's strategic presence across the globe, your company is set for long-term growth by integrating cross-border strengths and best practices. At our facilities, we look to supplement over four decades of European manufacturing excellence in combination with our research capabilities in India and Singapore. This is also resulting in a seamless blending of the cost optimization of the East with the efficient decision-making process and product development chain of the West; creating a winwin situation for our customers and numerous 'generation next' ideas and solutions for demanding markets across the globe.

Across our businesses, Research and Innovation continues to be the backbone of our path forward. We have expanded our basket of products and services to provide comprehensive solutions to the packaging needs of our global clientele. Bilcare's innovation-led solutions approach allows us to work as an extended arm of our customers, and is yielding excellent results in other verticals of our packaging business as well.

We believe that absorption and adaptation of new ideas and

technologies enables us to develop new products, processes & solutions and leads to successful technology innovations. Our aluminium material innovations, child protection solutions and many patented anti-counterfeiting products are the new growth areas for Bilcare.

Our consolidated revenue stands at ₹. 2,287 Crores, showing a 118% growth. EBIDTA grew at 45% and stood at ₹. 377 Crores while PAT was ₹. 149 Crores. The Directors recommend a dividend of 30%, amounting to ₹. 3.00 per share.

Today, I am excited about the impeccable quality of our people, augmented by our recent acquisition. Team Bilcare continues to drive the core of our initiatives, enterprise and growth. Our multicultural employee pool continues to set new standards of excellence as we are constantly inspired by our human talent and innovation. We seek to create an enterprise of entrepreneurs driving the business globally and have put processes and systems in place to develop empowered leaders. Your company is riding a new wave of possibilities for sustainable growth.

We seek to build on our achievements and develop our human potential to the greater benefit of our stakeholders in a profitable, responsible and inclusive manner. Our belief towards society, has given impetus to our continued CSR initiatives, providing educational resources to deserving children, ensuring the inculcation of leadership qualities and investing in their holistic development.

Although FY 2011 has been a watershed year, I see the next 3 years promising to usher in beneficial times for Bilcare. I am confident that, with our depth of resources, products and talent, we can meet varied business & industry challenges and deliver the values we seek to achieve.

While consolidating our assets and ensuring optimum utilization of our offerings, we will be the most preferred client partner and establish a strong global leadership in our domain.

I thank you for your continued support and guidance and look forward to welcome many more to join this exciting journey.

Regards,

Mohan H. Bhandari Chairman & Managing Director



#### Mohan H. Bhandari Founder, Chairman and Managing Director

Mohan Bhandari is the founder of Bilcare and spearheads the company as Chairman and Managing Director. He has almost 30 years experience in the global pharmaceutical packaging industry. Under his leadership, the Company has grown exponentially in the both the domestic and international arena. A first generation technocrat entrepreneur, he received the Lifetime Achievement Award in 2007, during the 59th Indian Pharmaceutical Conference, in recognition of the spirit of business excellence he exemplifies. He holds a degree in Physics from the University of Pune and a postgraduate diploma in both Management Studies and Packaging Science.

#### Chandra Prakash Jaggi Director

Chandra Prakash Jaggi has over 39 years of experience in the manufacturing industry. A recipient of numerous awards, he has also won an award from the President of India for productivity and guality improvement.

#### Dr. Arthur Carty Director

Dr. Arthur Carty has over four decades of experience in research in different fields of science. He brings to the Bilcare Board, deep insights on R&D and specifically nanotechnology expertise. Dr. Carty currently holds office as Executive Director, Waterloo Institute for Nanotechnology at the University of Waterloo. He is also a Research Professor with the department of Chemistry at the University of Waterloo. Dr. Carty has to his credit over 316 journal publications and five patents. He has served as Canada's

first National Science Advisor to the Prime Minister and the Government of Canada from 2004 to 2008. He also served as the President of the National Regional Council (NRC), Canada from 1994 to 2004.

#### Dr. Praful R. Naik **Executive Director**

Dr. Praful Naik leads the core research initiatives at Bilcare and is the Company's Chief Scientific Officer. An expert in medicines and their formulations, he has over 21 years of experience in pharmaceutical science from his prior association with pharmaceutical companies like Johnson & Johnson. and Smithkline Beecham. Dr. Naik holds a Ph.D. in Pharmaceutics from the Institute of Technology, Banaras Hindu University He represents the Indian pharmaceutical industry on the International Medical Products Anti -Counterfeiting Taskforce of WHO.

#### Rajendra Tapadia Director

Rajendra Tapadia provides support to Bilcare on process and product technology. He is an eminent industrialist with over three decades of experience in the industry. Mr. Tapadia holds a degree in Chemistry from Pune University and a postgraduate diploma in Business Management.

#### Dr. Volker Huelck Director

Dr. Volker Huelck offers quidance to the Material Science development team at Bilcare. He is the Chairman of the German Plastics Centre and a member of the Global Council at Lehigh University, USA. Dr. Huelck holds an M.S. in Chemical Engineering and a Ph.D. in Interpreting Polymer Networks.

## Director

University, USA.

#### Dr. R. V. Chaudhari Director

#### Dr. Kalvani Gandhi

Dr. Kalyani Gandhi provides leadership and direction to the human resource team at Bilcare. She has over 32 years of experience in teaching and is the former Dean of the Indian Institute of Management, Bangalore. She holds a Master's degree in Industrial Psychology and has completed her Ed.D. and M.Ed. from Rutgers

Dr. R. V. Chaudhari, a renowned catalysis and reactor engineering expert, provides valued insight and guidance to Bilcare's IP strategy and R&D initiatives. He has published more than 260 papers in various international journals, 3 books and holds 62 patents. He is a 'Deane E Ackers Distinguished Professor' at the Department of Chemical and Petroleum Engineering, Center for Environmentally

Beneficial Catalysis, at the University of Kansas, USA. He holds a Ph.D. in Physical Chemistry and Fellowships of several scientific academies and societies.

#### Dr. Bhojraj Suresh Director

Dr. Bhojraj Suresh, an eminent expert in pharmaceutical sciences, provides Bilcare guidance on its R&D and product development efforts. He has over two decades of experience in pharmaceutical research and sciences. He was recently conferred the '2009 Outstanding Contributor Award' by the ChemTech Foundation. He currently holds office as President with the Pharmacy Council of India, New Delhi. He is also the Chairman of the Scientific Body of the Indian Pharmacopoeia Commissions and has close to 300 scientific publications to his credit.



The developing markets of South & Central America, Asia, and Central & Eastern Europe will show the highest growth over the next four years.

Management Discussion and Analysis

# **Expanding Horizons**

## Pharmaceutical Industry Overview

The tough market conditions and slowdown in the growth rate of the past few years were brought on by cost containment in the US and major European markets and the impact of several blockbuster patent expiries. However, Big Pharma met these challenges head on, delivering steady results and consolidating on their gains, resulting in more positive developments in 2010.

According to the pharmaceutical research agency IMS Health, the pharmaceutical industry grew by 4.1% in 2010 to USD 856 billion. This was led by a 14% growth rate in Latin America, Asia, Africa and Australia. Growth rates in North America stood at 1.9% a decrease from the 5.5% in 2009. In absolute terms, the market size in North America is still the largest at USD 335 billion. Within the growth continents, Africa, Asia and Australia, which account for USD 129.7 billion of the USD 874.6 billion pharmaceutical market, delivered the best growth of 14%. However growth in Europe continues to be sluggish, with the continent growing at a slower 2.4% in 2010 as compared to 4.9% growth in 2009 and IMS has estimated Europe's pharmaceutical sales in 2010 to be approximately USD 253.2 billion.

Big Pharma has indicated the new trend it will follow in the years ahead i.e. cost cuts in existing turfs and driving home a collaborative advantage to invigorate sales. As a result, reputation perseverance via adoption of anti-counterfeiting measures is coming to the fore on its own, given that sales growth witnessed in "pharmerging" (BRIC, South Korea, Turkey & Mexico) markets is superior to the developed world. In the long term, the regular use of sub-standard or counterfeit medicines can lead to therapeutic failure or drug resistance and in some cases death.

Counterfeiting as a problem has accelerated, with 2009 and 2010 providing fresh visibility in areas such as China. Counterfeiting affects the user, manufacturer and government authorities, though not necessarily in that order of importance. The relatively easy access that counterfeiters have to duplicating drug packaging is one of the key reasons for the growth in this malaise and a step in this direction would be to enable determining the efficacy and safety of these drugs at a point of purchase. This would also go a long way in making the customers, companies and regulators satisfied about the medicines available using technologies which can be easily ascertained by all to be genuine. According to the World Health Organization, while most of the incidents involved insufficient active ingredients, the fatal ones in China found a six times higher concentration of the active ingredient.

#### **Global pharmaceutical sales**

IMS Health estimated that pharmaceutical sales are likely to cross USD 975 billion by 2013 and breach the USD 1 trillion barrier in 2014. Pharmerging nations including the BRIC, South Korea, Turkey and Mexico will continue to play an important role in driving this development. A number of factors limited drug sales growth in 2010, including patent loss, payers seeking to limit price increases, and increased use of generics. Numerous events could also have a longer-term effect on the pharmaceutical market, including the passage of comprehensive healthcare reform in the US and the possibility of decentralization of healthcare in Europe. Nevertheless, the pharma sector is expected to grow in the next 3 years, albeit at reduced levels, given the rising rates of chronic diseases alongside aging populations, and a boost in per-capita medical spending.

Following the pattern predicted last year, companies are looking East to stimulate business growth. The Asia-Pacific region looks to emerge as the fastest growing pharmaceutical market over the next few years. This can be attributed to the low costs and favourable regulatory environment. This region has experienced important developments regarding contract manufacturing, especially in generics and APIs. Increased R&D activities in the region have helped the Asia-Pacific pharmaceutical industry expect to grow during 2010-2012 and become the global API production hub in next few years.

Overall, lower cost generic drugs are leading the way for most nations. There is also an increased focus on security and anti-counterfeiting measures to ensure genuineness of drug intake and patient safety.

#### Global pharmaceutical sales by region

Pharmaceutical sales in North America grew at a pace of 1.9% in 2010 to USD 335 billion. Other continents including Latin America, Asia, Africa and Australia have continued to grow at a healthy rate, which has resulted in further deterioration in the pharmaceutical positioning of North America and Europe. The 3-A continents (Asia, Africa and Australia) exhibited slightly reduced growth rate of 14% in 2010 compared to the previous year's growth of 15.5%. Compared to a growth of 4.8% in 2009, Europe continued to slide by showing a growth of 2.4% in 2010. In absolute terms, the latest market size in Europe stood at USD 253.2 billion as compared to USD 264 billion in 2009. The developed world has continued to struggle in the face of the trend of more products going offpatent, a pattern which is expected to escalate in the coming years. Therefore, while the developed market growth has been dampened, Latin America and the 3-A continents are thriving based on the surge in generics requirements. However, even in 2010, North America, Europe and Japan accounted for over 78% of the global pharmaceutical sales.

#### Leading therapy class in 2010

Oncology remained the top selling therapy class in 2010 with a 6.7% growth to USD 55.97 billion from USD 52.72 billion in 2009. Anti-diabetics ranked in the top five growing segments, with sales of USD 34.42 billion at 12.2% in 2010. The anti-epileptic segment continued to show sluggish figures at USD 12.55 billion at a rate of 3.3%. Lipid regulators stood as the second largest therapy class with a growth of 2%. The year 2010 saw USD 36.4 billion worth of lipid regulator sales worldwide. Auto immune agents which have seen a sharp increase in usage showed 14.7% growth in 2010. The year saw sales of USD 20.71 billion worth of auto immune agents. Respiratory agents at USD 35.92 billion sales and HIV anti-virals at USD 15.43 billion annual sales saw growths of 7% and 13.2% respectively.

IMS health estimates that patent expiries which are likely to peak through 2012 might witness almost USD 142 billion of sales to come under pressure. Till 2012 it expects six of the top 10 selling drugs to face competition from generics. Cholesterol regulators, antipsychotics and anti-ulcerants are segments which could come under pressure.

## Collaborative Pharma – The evolving business model

The industry is currently witnessing rapid expansion with advances in manufacturing processes, technology innovation and integration, which is the main driving force behind the growth of pharmaceutical packaging sector globally. The growth is expected to be higher in India and China, primarily on account of increasing generics and contract manufacturing activities. The increasing demand for biologics will boost the demand for innovative product packaging solutions in the global pharmaceutical packaging market. Also, with more than \$ 120 billion worth of drugs going off-patent in the next five years, generic drug manufacturers in developing economies will emerge as a major segment, driving demand for pharmaceutical packaging. While these factors will continue to drive demand for packaging, the industry needs to overcome challenges such as availability and price volatility of raw materials and changing health regulations, in order to meet the increasing demand.

The market size of drug delivery devices and blister packaging is expected to grow at a faster rate than other segments in the pharmaceutical packaging industry. Increasing demand for improved drug delivery mechanisms and more complex biologic molecules will have to be complimented with better drug delivery devices. Also, blister packaging will witness growth because of increasing usage of unit dose packaging. Packaging solutions providers who aim to dominate the market will need to evolve business strategies and expand their product horizons.

Companies who look to spearhead growth will need to rise to the needs of the pharmaceutical packaging market and its trends. Over the next few years, the this sector will provide the biggest growth opportunity in areas of production, including security-enhanced labelling & packaging components and for clinical trials and post-approval use of unit dose blister packaging, to name a few.

#### Trends in global packaging

The global packaging industry trends in 2011 show a renewed optimism and confidence. This has been augmented by the decrease in global economic uncertainty, rising sales innovation and increased production and process efficiency, and strong growth in emerging markets such as India, China and Brazil. When discussing sales, Western Europe is the largest world region for rigid plastic packaging sales, followed by North America and Asia. The US is the largest national market, with Japan in second place. The developing markets of South and Central America, Asia, and Central & Eastern Europe will show the highest growth for rigid plastic packaging over the next 4 years.

Western Europe, North America and Japan are forecast to grow consumption of rigid plastic packaging at the lowest rates over the next 4 years. In contrast, developing countries of Central and South America, Asia and Central and Eastern Europe will be the fastest-growing consumption markets.

Keeping the patterns in consumption and sales in mind and factoring the effect of the global economic trends, end-to-end packaging solutions providers are therefore geared to make a significant impact across various industry verticals in the next few years.

Bilcare Research is strategically positioned to leverage its strengths in pharmaceutical packaging, global clinical supplies, research and innovation driven technologies and address market and client needs. By addressing the 5 Cs of the industry i.e. Counterfeit, Compliance, Communication, Convenience and Cost, Bilcare enables clients to rely on our healthcare solutions whilst moving on their business growth journeys.

#### Business Overview Acquisition of Ineos' Global Films business

In the past year, we have expanded our product and service horizons through our approx.

€ 100 million (Rs. 607 crores) acquisition of the INEOS Group's plastic film-making, with annual sales of Rs. 1458 crores. This brings together complimentary capabilities and synergies of two leading global businesses, one a leader in Pharma and Specialty films and the other being the foremost solution provider of innovative packaging to global pharmaceuticals for their brand safety and growth. Bilcare's research and development focus, combined with INEOS' broad production and application knowledge provides a strong strategic fit.

INEOS Films was a global producer of rigid films. Its manufacturing and marketing activity was concentrated in the production of high quality polymer PVC and PVC-PE films and included the finishing of films in the form of coating, stentering, laminating and metallizing. It was also involved in the extrusion of PET and PET-PE films. With over 50 years experience in calendering rigid PVC films, INEOS Films was one of the leading high quality polymer film producers in the world. Worldwide the INEOS Films employed approximately 1,300 people with sites in Germany, Italy, India and the US. It had the capacity to produce around 140,000 tonnes of films per annum and had sales of € 240 million in 2009 calendar year.

Bilcare's acquisition comprised of the business, assets and personnel related to INEOS' Films operations located in North America, Europe, and Asia. It is a paradigm shift in the pharma packaging space and a significant step towards creating a customer centric company to deliver path breaking innovations and establish global leadership. Bilcare now has the unique opportunity to enhance its offerings to apply an innovation led approach to a broad range of industries, particularly in Europe and the US. While we continue to be an industry leader in pharmaceutical packaging, this venture has allowed us to achieve a market leadership led foothold in the European packaging sector, servicing a 1900 client list of venerable business names including Pfizer, Novartis and Johnson and Johnson, providing solutions in pharma packaging innovations, packaging films, card solutions and specialty films.

This venture will help Bilcare escalate customer acquisition strategy and market leadership position in Europe, which would have taken a decade to build organically. At the backend, we will use manufacturing best practices from our Asian plants, economies of scale in raw material purchasing from global sources in Asia and talent exchange to ensure significant manufacturing efficiencies which will help in cost optimisation and shoring up profitability in a definite manner over the next 3 years.

We offer integrated packaging solutions - from materials research and development, to packaging design, development and support – in numerous countries, across diverse industry sectors. As a research-driven organization, we follow a customercentric approach to fulfil needs in the areas of packaging films, specialty films and card solutions.

We partner with our customers to increase the reliability of their products, deliver optimum packaging performance, innovation and brand growth. Our motto of providing brand growth solutions addresses the key challenges faced by the pharma industry worldwide, particularly the 5Cs – Counterfeiting, Compliance, Communication, Convenience and Cost. We have supplemented our research and development capabilities with broad production and application knowledge. With the additional scale, operational expertise and expanded geographic footprint, we offer a value proposition unrivalled in the packaging industry.

Bilcare is committed to global growth and innovation and finds itself at the forefront of delivering sustainable, affordable and innovative packaging solutions to ensure value addition to customers and a responsible business performance for our stakeholders. Based on our innovation led, process-driven, customer-centric solutions, we are poised for significant growth over the longterm. We have acknowledged global trends in packaging consumption and sales and are striving to maintain and improve upon our leadership position. Along with the expansion in our businesses, capabilities and ambitions, we seek to build on our achievements and develop our human potential to the greater benefit of our employees and stakeholders in a profitable, responsible and inclusive manner.

## Spectrum of Solutions

## **Packaging Innovations**

With the acquisition of the INEOS films business, Bilcare's packaging innovations division has expanded its product horizons in the past year. Alongside our mainstay pharma packaging vertical, we now offer integrated packaging films, specialty films and card solutions. We have supplemented our research and development capabilities with broad production and application knowledge, thus maintaining our status as a single source packaging solutions provider.

## Pharma Packaging Innovations (PPI)

Over the past year we have targeted the development of packaging solutions to address functional requirements of medicines with respect to efficacy and safety through the shelf life and cost optimization. We are also continuously creating a unique brand identity for products by incorporating several userrelated characteristics and using packaging as a promotional tool.

We develop innovative methodologies, customized equipment and testing protocols for understanding and optimizing the drug protection process, overcoming regulatory, quality and compliance concerns, solving drug-stability issues and accelerating 'speed to market' while optimizing packaging costs. These services are presently offered through our Research Centres in India, Singapore and the US and driven by Brandpak<sup>™</sup>, our innovative packaging solutions that ensures compliance, convenience, communication and branding, child safety whilst preventing counterfeits.

Bilcare Research is an established supply chain partner catering to the blister packaging needs of leading pharmaceutical manufacturers. We offer a full range of high quality film and foil packaging materials to protect even the most sensitive pharmaceutical products. Our coating, lamination and printing plants are equipped with online process control and quality inspection tools that meet all global regulatory, functional and application requirements. Our plants have been rated by industry experts and pharmaceutical majors as one of the best packaging material manufacturing facilities in the world.

We also partner and engage with well-qualified secondary operating facilities (slitting, printing and packing) outside our own manufacturing facilities, to make products available globally in the shortest possible time. Bilcare Research has introduced a broad variety of films, so customers can now choose the most costeffective packaging without compromising on protection requirements. All products are registered with USFDA with DMFs and comply with European standards. Our material scientists are continuously developing and introducing new and innovative materials into our growing product range.

Our integrated services enable clients to

focus on the core business of developing new drug molecules, formulation development, manufacturing and marketing while we partner with them in the area of drug stabilization and protection. We help customers capitalize on upcoming trends, through products that maximize the commercial potential and efficacy of drugs.

We look to leverage the powerful synergy of our research capabilities, state-of-the-art design and manufacturing facilities and commitment to create sustainable competitive advantages for our customers. Our core competency in developing specialty packaging material and designs continues to help customers in addressing compliance and counterfeit concerns.

## Packaging Films Solutions (PFS)

Using state-of-the-art technology and research, Bilcare meets the highly specialized demands of film packaging through superior physical protection, information communication, marketing and brand protection. Our solutions address the four important development parameters – global availability, value prices, functionality and time – in the packaging solution industry.

We provide a complete range of high-grade packaging films and flexible packaging solutions to suit varied product and technical requirements. Our packaging film solutions serve diverse industry sectors such as food, pharmaceuticals, meat, dairy, household products and automobiles and guarantee the highest levels of film quality through the utilization of selected raw materials, consistency of formulations and stringent quality control.

Our innovative packaging solutions enable customers to make the shift from conventional packaging films to advanced environmentfriendly packaging materials. Our Rigid Films product range includes PVC and PVC metalized Mono films and PVC/PE and PVC/EVOH/PE Multilayer films.

## Specialty Films Solutions (SFS)

Bilcare has a proven track record of providing specialty film solutions to meet customers' unique application requirements. We formulate and manufacture specialty films for thermoformed packaging, food and non-food products, consumer goods, printing/decoration, visual packaging, shrink flms, office/home furniture and other technical applications. Through a wide range of film components encompassing several colours, surface finishes and embossed effects, we design customized solutions for every customer's requirements.

With access to dedicated specialties manufacturing sites (USA, Germany, Italy and India) we can meet customer demands globally, with regional and local expertise. Our local service centres around the world complement our international network and guarantee that customer needs are consistently addressed. We have also ensured that all production sites work within the certification precepts of the quality management system ISO 9001 and the environment management system ISO 14001.

We are therefore able to achieve the highest product quality through the selection of high-grade raw materials, modern computercontrolled calender lines, and state-of-the-art coating and lamination lines under the control of highly qualified and committed packaging experts.

## Cards Solutions (CS)

Bilcare is also a leading global producer of a vast array of rigid films for card solutions. Through our GMP-compliant manufacturing facilities in Europe and North America, we produce high-quality cores and overlays for various card applications. Using highquality raw materials, advanced production technologies, and state-of-the-art computercontrolled processing methods, our products adhere to minimal production tolerances.

Our films deliver consistent performance with superior lamination capability, printability, heat resistance, and yield. Our solutions also deploy anti-counterfeiting features through our unique nonClonableID<sup>™</sup> technology for identity, authentication and card security across banking, mobile, loyalty, contact-less and combination-card applications.

Our product range includes Rigid PVC and PVC/ ABS cores for all card applications, Coated and uncoated overlay PVC-AMBS, Rolls and sheets, Transparent and opaque films in a variety of colours, Different finish surfaces.

With a healthy combination of established products and new offerings, Bilcare's packaging innovations division looks forward to a period of strong growth over the coming years.

## **Research Services**

Innovation is an integral part of Bilcare's pharmaceutical packaging vertical and our Research Services division has exemplified this by continuing to pioneer scientific research on drug stabilization and protection through packaging.

Our scientists include pharmacists, material scientists and packaging engineers have developed innovative methodologies, customized equipment and testing protocols for understanding and optimizing the drug protection process, overcoming regulatory, quality and compliance concerns, solving drug-stability issues and accelerating 'speed to market' while optimizing packaging costs.

These services are offered through our stateof-the-art research centres in India (Global Excellence Centre, Pune), Singapore (R&D centre, Bilcare Pte. Limited, Changi) and in the US (R&D centre, Bilcare Inc., Pennsylvania).

Over the past year, we have consolidated on the gains of Bilcare Optima<sup>™</sup> which provides scientific analysis for optimum packaging and sensitivity profiling of formulations. Our stateof-the-art analytical equipment and testing protocols help in ensuring and understanding packaging efficiency and packaging material quality. Our analytical services facilitate packaging engineers and quality professionals to understand protection effectiveness and application suitability. Our packaging audit services provide comprehensive insights into the current status of packaging operations and solutions to meet global standards and streamline operations. This stringent process not only saves costs, but also prevents hazards in quality once the product is in the market.

We have maintained our status as a marketleading supplier of specialty primary packaging for pharmaceutical products and have been honoured with awards for achieving remarkable success in providing novel packaging alternatives and services to the pharmaceutical sector. We look to spearhead further research and develop path-breaking packaging solutions for our customers' future needs.