



interpack alliance

PROCESSING & PACKAGING

EMERGING PACKAGING MARKETS

Potentials and Trends in the Packaging Industries
in India, Russia and China

interpackalliance.de

THE GLOBAL PACKAGING INDUSTRY

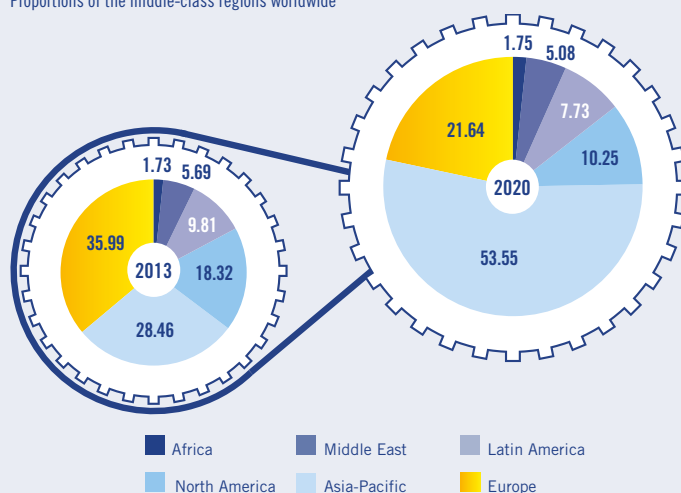
ASIA AS A DRIVER OF GROWTH

From chewing gum to a smart phone, from a coffee capsule to a TV set – practically everything that we consume is packaged. Every person in modern industrialised societies has contact with the packaging industry every day. And every year, they are joined by millions of people in developing countries who are buying industrially manufactured consumer goods for the first time. That is why the prospects for the packaging industry are good. In 2015 it had revenue of 839 billion dollars worldwide. In five years, in the estimation of the consultancy Smithers Pira, it will approach the trillion dollar threshold. Until then, revenues in the global packaging industry will grow by 3.5 percent per year. According to a forecast from the Canadean research institute, by 2018 the sale of packaging units will rise by 400 billion to four trillion units. And the centre of growth in the industry will shift in the process: whereas in 2010, around two thirds of packagings were sold in the established industrialised countries in Western Europe, North America and Japan, currently the biggest potential for growth in the in the BRIC countries and the rest of Asia. In 2012, at 36 percent, Asia already accounted for the biggest world share of packaging sales. According to forecasts from Smithers Pira, in 2018 the Asian packaging market will already account for more than 40 percent of the world market. In emerging countries, such as China, India or Brazil, the affluent middle class is growing, and consumption is growing along with prosperity. More single households with a preference for ready meals and smaller packaging units, increasing urbanisation and booming online

shopping are further drivers of growth in Asia. Furthermore, there are global consumption trends that are having an impact on the packaging industry. The Packing Machinery Manufacturers Institute, PMMI, cites greater health awareness among consumers, the increasing importance of recycling and environmentally aware consumption and the growing importance of brand strategies and premium products.

NEW CUSTOMERS IN ASIA

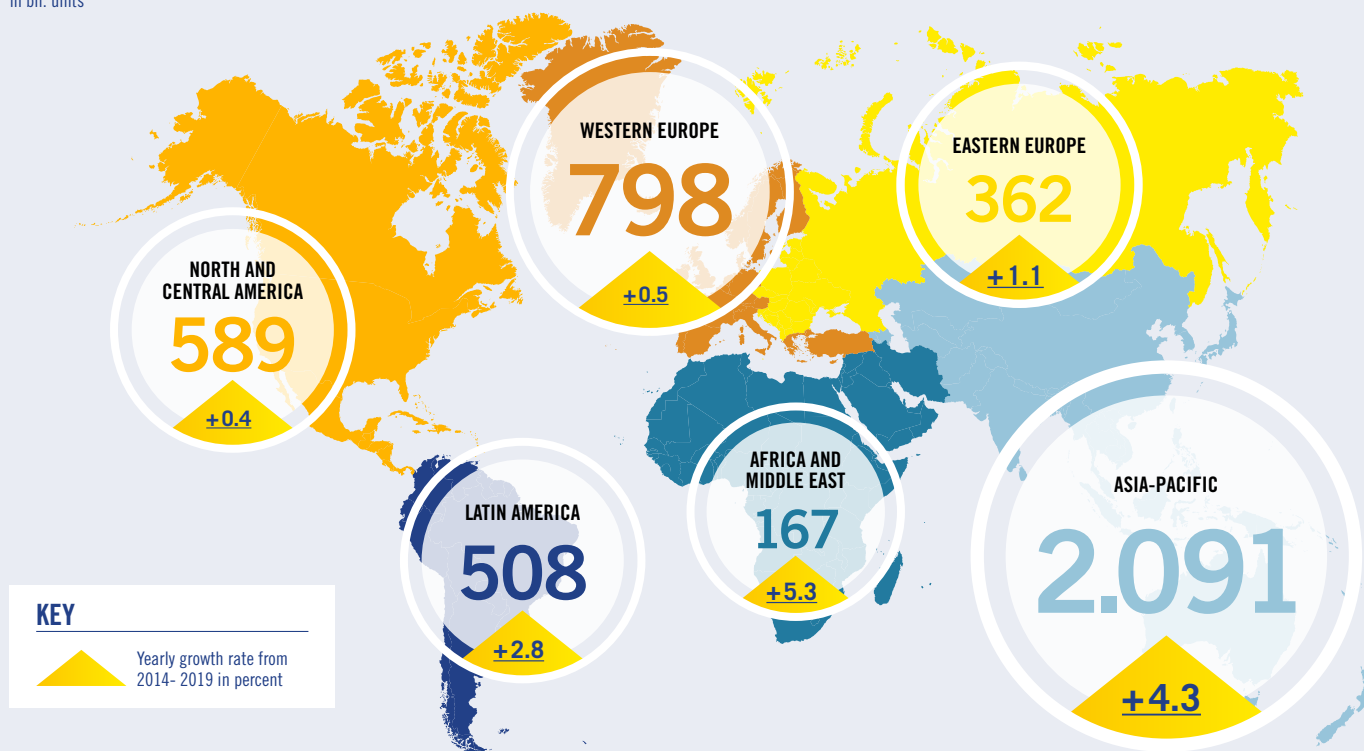
Proportions of the middle-class regions worldwide



Source: Global Industry Analysts

THE GLOBAL PACKAGING MARKET

in bn. units



Source: PMMI, Euromonitor

THE MARKET FOR PACKAGING MACHINERY

The good prospects for the packaging industry are also enlivening the market for packaging machinery. It will grow by more than five percent per year up to 2020 and then account for a market volume of 64.7 bn. dollar, as forecast by the market research instituted Technavio and Global Industry Analysts. In particular, technological developments and innovations, rising demand in the food, drinks, pharmaceuticals and chemicals sectors and the growing sales market for automated, fully integrated and multifunctional systems are driving growth forward. Sales of energy-saving machines and machines that help to comply with regulatory guidelines (such as the serialisation obligation to mark packaging units with clearly assigned codes) are also rising strongly. According to a study by the association of Italian packaging machinery

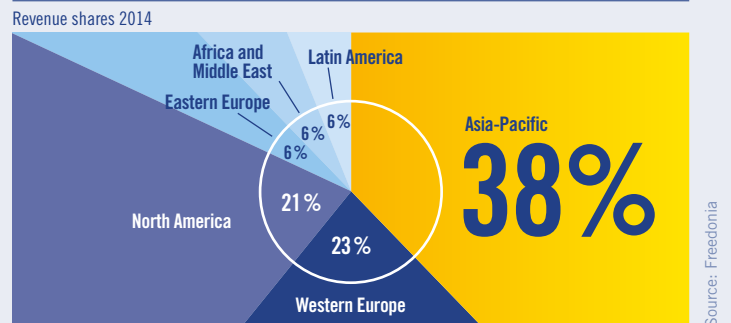
manufacturers (Ucima), demand will grow the most in the period from 2015 to 2018 in the fields of cosmetics (+6.6 percent), chemicals (+5.4 percent) and food (+5.2 percent). In absolute terms, however, the food industry will remain the main purchaser of packaging machines, with a share of just under 32 percent of the global market, followed by the drinks industry with a share of 31.5 percent.

Just as for packaging, the Asia-Pacific region offers the greatest growth potential for packaging machinery, too. As early as 2017, China and India together will combine 21 percent of world demand, as estimated by the market research company Freedonia.

THE STRONGEST-GROWING REGION



GLOBAL MARKET FOR PACKAGING MACHINERY



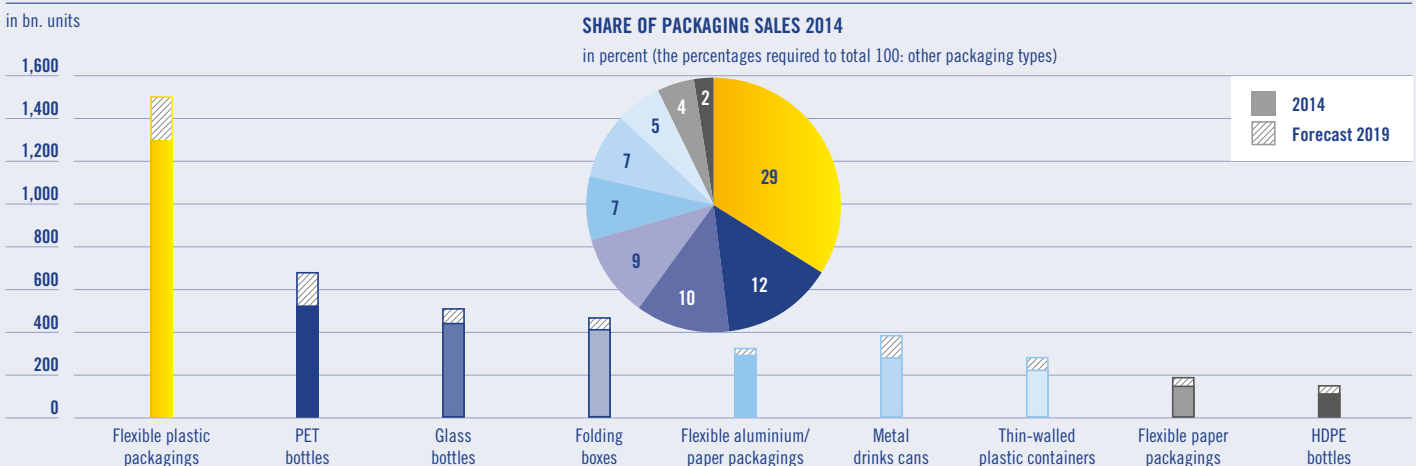
SALES ACCORDING TO PACKAGING TYPES

Viewed in terms of types of packaging, flexible plastic packagings dominate the market, with a global share of market volume of 26 percent, followed by PET bottles with 12 percent. According to Euromonitor, the latter have the greatest growth potential, with an expected annual sales growth of 4.7 percent in the next three years. On the European market, flexible packagings and rigid plastic packagings are the majority of packagings with a share of 62 percent. They are mainly used by the food industry. According to estimates from Smithers Pira, the sale of flexible food packagings has grown worldwide by 4.0 percent per year since 2010. That was the highest growth according to final consumer sectors, followed by the drinks and pharmaceuticals industries. According to forecasts by

Packaging & Converting Intelligence, the sale of flexible packagings will grow to just under 683 billion units by 2018. China will remain the biggest single market, while India will record the highest growth rates at 8.6 percent per year. The packagings industry is thus a reflection of world economic trends. The emerging industrial countries, mainly those in Asia, with their growing, consumption-happy middle classes are driving the sector's growth. For example, demand there for flexible plastic packagings for food and drinks more than compensates for consumer trends in the western industrialised countries, which are tending towards a reduction in packaging.

PACKAGING SALES

in bn. units



INDIA

POPULATION (M)	1,311
CURRENCY	INDIAN RUPEE
LANGUAGE	HINDI AND ENGLISH
INFLATION (2015)	4.9%



ECONOMIC GROWTH

(FDP in US\$ bn, growth potential in percent)



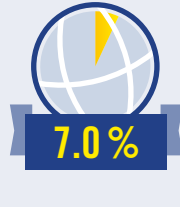
PER CAPITA GDP

(2015, in US\$)



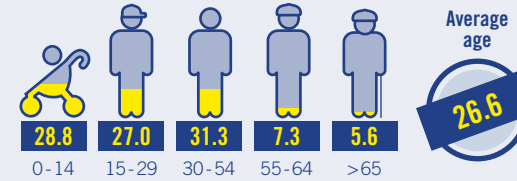
SHARE OF WORLD GDP

(2015, adjusted to purchasing power)

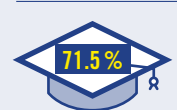


POPULATION STRUCTURE

(Share of each age group in percent)



LEVEL OF EDUCATION



Enrolment rate in secondary schools



Literacy rate of those aged over 15

MIDDLE CLASS



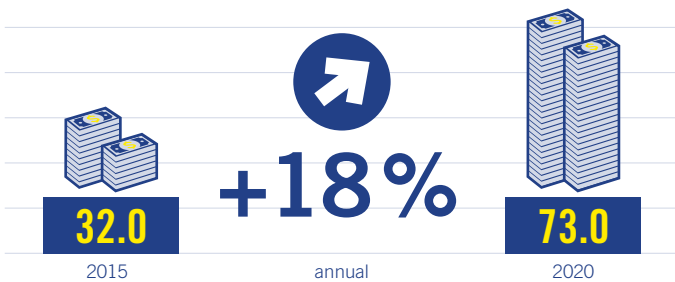
Share of the population with an income of between US\$ 10 and 50 per day

Source: IMF, UNICEF, PEW, United Nations

INDIAN PACKAGING MARKET

PACKAGING INDUSTRY REVENUE

(in US\$ bn)



SHARE OF GLOBAL PACKAGING INDUSTRY

(As of 2015)

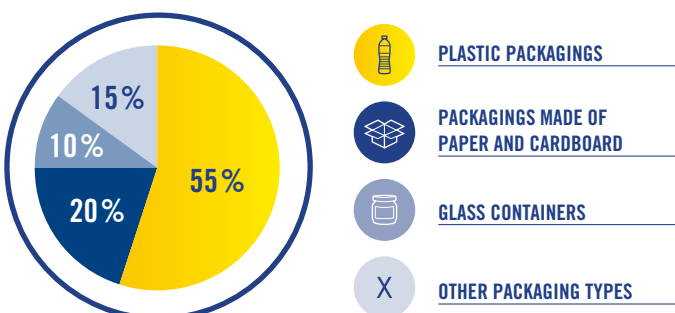


Source: Indian Institute of Packaging (IIP), Tata Strategic Management Group

THE PACKAGING INDUSTRY IS ONE OF THE STRONGEST GROWTH SECTORS IN INDIA. THE DEVELOPMENT POTENTIAL IS STILL GREAT. ECONOMIC GROWTH, THE DYNAMICALLY GROWING MIDDLE CLASS, RISING INCOMES AND INCREASING URBANISATION ARE GREATLY CHANGING CONSUMER BEHAVIOUR.

SHARE OF PACKAGING TYPES

(of total revenues in the packaging industry, 2015)



Source: GTA

TRADE RELATIONS

GERMANY, ITALY AND CHINA ARE INDIA'S MOST IMPORTANT TRADING PARTNERS FOR THE IMPORT OF PACKAGING MACHINERY, BUT TAIWAN AND OTHER ASIAN COUNTRIES ARE CATCHING UP QUICKLY.

INDIAN IMPORTS OF PACKAGING MACHINES FROM GERMANY

(Imports in € m, without bottling machinery)



29%

GERMANY'S SHARE OF ALL OF INDIA'S IMPORTS OF PACKAGING MACHINES

(2014, without bottling machinery)

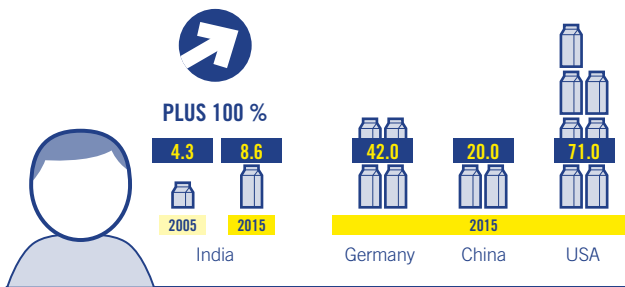
Source: Federal Statistical Office, United Nations Comtrade

INDIA

DRIVER OF GROWTH

PER CAPITA CONSUMPTION OF PACKAGINGS

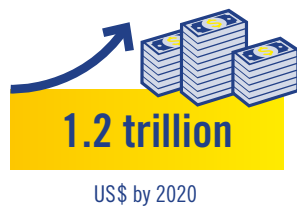
(Consumption in kg, per person, per year)



The **PER CAPITAL CONSUMPTION** of packagings in India is well **BELOW THE AVERAGE** of other countries. This represents high growth potential to the packaging industry.

Source: Indian Institute of Packaging (IIP)

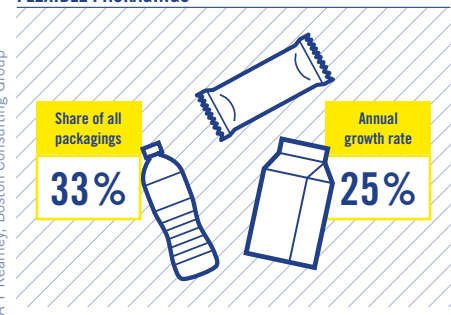
INDIAN RETAIL



The online sale and delivery of food is becoming increasingly popular in India and, according to BCG, will reach a market volume of US\$ 20 bn. by 2020.

FLEXIBLE PACKAGINGS

Source: Confederation of Indian Industry (CII), A T Kearney, Boston Consulting Group



Source: Tata Strategic Management Group

RISING GROSS NATIONAL INCOME PER CAPITA

Atlas method (exchange rate average over last 3 years)



A rapidly growing, consumption-happy middle class, the rapidly rising Indian income and the increasing availability of modern retail formats will continue to drive the demand for packaged products on.

GREENDEX SCORE 2014



Source: World Bank

1st place with a value of 61.4. Among other things, 57% of Indians stated that they regularly avoided environmentally harmful products.

CONSUMER BEHAVIOUR

Percentage of consumers who stated that packaging is important for product satisfaction



BECAUSE OF THE PACKAGING:



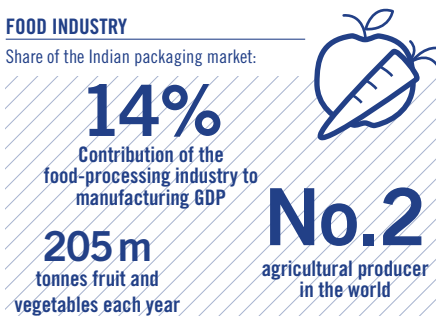
Source: National Geographic Society

Source: MeadWestvaco Corporation Packaging Matters Study

MAJOR CUSTOMER MARKETS

FOOD INDUSTRY

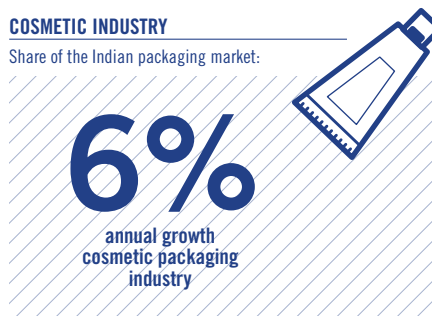
Share of the Indian packaging market:



The Indian government has made the expansion of food processing a priority. In the years ahead, around US\$ 960 m are to be invested in this industry. The industry employs around 13 m people.

COSMETIC INDUSTRY

Share of the Indian packaging market:



The Indian cosmetics market is growing strongly. Every year the Indian players, such as Hindustan Unilever Ltd, Colgate-Palmolive India Ltd and Dabur India Ltd, are launching new products on the market and are marketing them with constantly rising advertising expenditure. The industry employs around 13 m people.

PHARMACEUTICALS INDUSTRY

Share of the Indian packaging market:



Driven by an ageing and growing population and improved medical care, the Indian pharmaceuticals packagings market will grow by 5.5 percent per year to US\$ 2.6 bn.

INDIA

LEADING PACKAGING MANUFACTURERS



FLEXIBLE PACKAGINGS

UFLEX

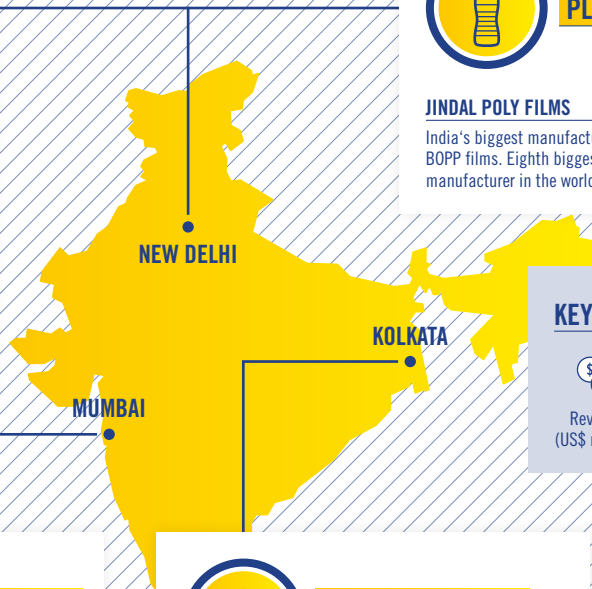
India's biggest company for flexible packagings is active in more than 140 countries.



PLASTIC PACKAGINGS

JINDAL POLY FILMS

India's biggest manufacturer of PET and BOPP films. Eighth biggest BOPET films manufacturer in the world.



KEY



PAPER AND CARDBOARD PACKAGINGS

TCPL PACKAGING

One of the leading Indian manufacturers of folding boxes and India's biggest processor of cardboard. Is the only Indian folding box manufacturer represented in all four Indian regions. Exports worldwide.



PACKAGINGS MADE OF GLASS

HINDUSTAN NATIONAL GLASS & INDUSTRIES LTD

India's market leader in the manufacture of glass containers has a market share of 55 percent. Production accounts for a daily capacity of 4,235 tonnes.



The Indian packagings sector is heavily fragmented and numbers around 22,000 companies. However, around 15 percent of the large packaging manufacturers generate around 70 percent of the total revenue, whereas 80 to 85 percent of the companies are SMEs.

In India, according to estimates from GTAI, there are around 600 to 800 manufacturers of flexible packagings, but the majority of them produce less than 250 tonnes. There are more than 10,000 manufacturers of corrugated board, whose production in 2013 was around 4.5 million tonnes.

GROWTH STRATEGY

GROWTH FACTORS

The demand for packagings is growing along with India's economy. The packagings industry is one of the strongest growing sectors on the subcontinent. India is not only one of the most heavily populated countries in the world, but also has a relatively young population. The per capita consumption of packagings is still well below that of other countries because the vast majority of household articles are bought unpackaged. But economic growth, the dynamically growing middle class, rising incomes and increasing urbanisation are greatly changing consumer behaviour. India is one of the biggest food manufacturers in the world. According to a joint assessment of IIM Calcutta and Academic Foundation, the market volume of the food industry will continue to grow by around eleven percent per year and will rise to 65.4 bn. dollars by 2018. India's market for packaged foods will grow by nine percent per year to a good 100 bn. dollars in 2030 according to McKinsey.



TRENDS

Although India is the world's biggest agricultural producer after China, according to GTAI the further processing degree of eight to eleven percent is still very low. According to estimates, between 18 and 40 percent of harvests spoil on the way to consumers. The Indian government is therefore supporting the food-packaging industry. The importance of organised retail, with supermarkets and hypermarkets and modern shopping centres is increasing rapidly. Whereas in 2015, according to Boston Consulting Group (BCG), 92 percent of all players in retail are still unorganised shops with fewer than ten employees or stalls on a market, forecasts predict that 24 percent will be accounted for by organised retail by as soon as 2020. In addition, online sales and delivery of food are becoming increasingly popular in India. According to BCG, revenue in online retail and mail order will increase five-fold from the current 14 bn. dollars to 70 bn. dollars in 2020. The major cosmetics company are also selling an ever-increasing and more diverse range on the Indian market.



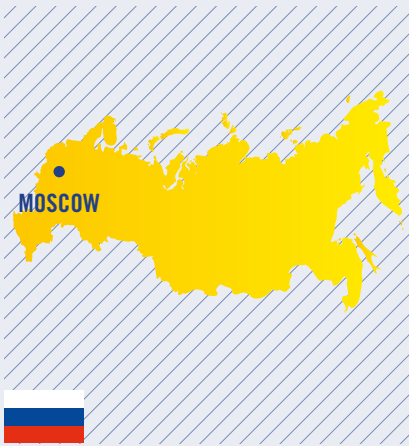
FUTURE STRATEGY

Global retailers such as Walmart, GAP or Tesco are intensifying their activities in India. In 2012, the Indian government opened up retail to foreign investment by increasing the upper limit for participation of foreign companies in single-brand retail from the previous 51 percent to 100 percent now. In multi-brand retail, such as supermarkets, the upper limit for participation is 51 percent. The ageing population in India and improved medical conditions are also advancing the Indian pharmaceuticals industry. By 2020, according to the market research company Novonous, it will grow by 18 percent per year, whereas the packaging market for pharmaceuticals products will reach an annual growth rate of 5.5 percent in the same period. The Indian pharmaceuticals industry is currently in a transition phase. It is working on improving manufacturing practices and quality standards so that it will be able to export high-quality, world class products in future. According to estimates from Research and Markets, the Indian pharmaceuticals sector currently represents only around 1.4 percent of global revenue and still has lots of growth potential.



RUSSIA

POPULATION (M)	146
CURRENCY	ROUBLE
LANGUAGE	RUSSIAN
INFLATION (2015)	15.5%



ECONOMIC GROWTH

(FDP in US\$ bn, growth potential in percent)



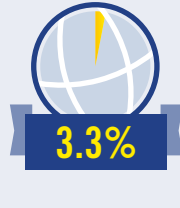
PER CAPITA GDP

(2015, in US\$)



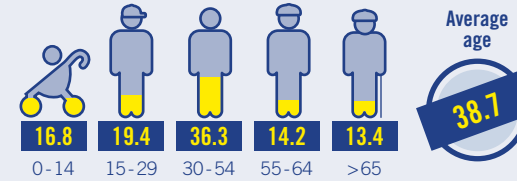
SHARE OF WORLD GDP

(2015, adjusted to purchasing power)

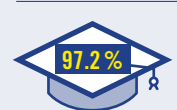


POPULATION STRUCTURE

(Share of each age group in percent)



LEVEL OF EDUCATION



Enrolment rate in secondary schools



Literacy rate of those aged over 15

MIDDLE CLASS



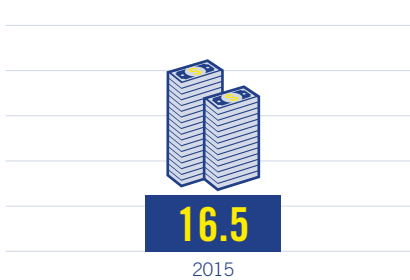
Share of the population with an income of between US\$ 10 and 50 per day

Source: IMF, UNICEF, PEW, United Nations

RUSSIAN PACKAGINGS MARKET

PACKAGING INDUSTRY REVENUE

(in US\$ bn)



SIZE OF PACKAGINGS MARKET

(As of 2015)



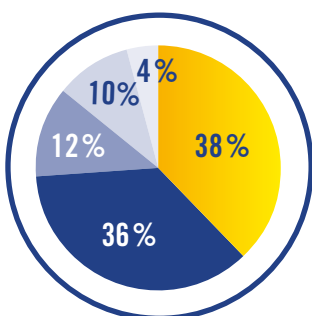
ONE OF THE FIVE FASTEST GROWING PACKAGINGS MARKETS IN THE WORLD.

Source: Ipack Ima, Packaging & Converting Intelligence

RUSSIA RELIES ON SELF-SUFFICIENCY FOR FOOD. IN SPITE OF WEAK ECONOMIC GROWTH AND THE EMBARGO, LOCAL PRODUCTION OF MEAT, COOKED MEATS AND CHEESE WAS INCREASED IN 2015 BY MEANS OF IMPORT SUBSTITUTION. IN 2016 DEMAND FOR PACKAGING SHOULD RISE AGAIN AFTER FALLING SLIGHTLY IN 2015.

SHARE OF PACKAGING TYPES

(of total revenues in the packaging industry, 2015)



- PLASTIC PACKAGINGS
- PACKAGINGS MADE OF PAPER AND CARDBOARD
- GLASS CONTAINERS
- METAL PACKAGINGS
- OTHER PACKAGINGS

Source: Ipack Ima

TRADE RELATIONS

GERMANY, ITALY AND SWITZERLAND ARE THE MAIN TRADING PARTNERS FOR RUSSIAN IMPORTS. ALTHOUGH CHINA AND JAPAN HAVE CAUGHT UP IN RECENT YEARS, INTEREST IN HIGH-QUALITY MACHINES AND WESTERN TECHNOLOGY IS STILL AS GREAT AS EVER.

RUSSIAN IMPORTS OF PACKAGING MACHINES FROM GERMANY

(Imports in € m, without bottling machinery)



35%

GERMANY'S SHARE OF ALL OF RUSSIA'S IMPORTS OF PACKAGING MACHINES (2014, without bottling machinery)

Source: Federal Statistical Office, United Nations Comtrade

RUSSIA

WACHSTUMSTREIBER

INCREASING DOMESTIC PRODUCTION

2015



Milk production

➔ **PLUS 26 %**



Meat production

➔ **PLUS 9 %**



Fish production

➔ **PLUS 6 %**

Since August 2014 Russia has been boycotting food from the EU and is expanding its own food production and processing. To cushion the strong price rise and **DOMESTIC FOOD PRODUCTION**, the Russian government support **IMPORT SUBSTITUTION**. For this, around **11 BN. US\$** has been provided as state help for agriculture.

Source: Rosstat, IKAR (Institute for Agricultural Market Studies), Gaidar Institute for Economic Policy, ITE Group

RISING PACKAGINGS SALES

in bn. items

GROWTH
2015-2020



8.5%



As a consequence of the 2015 embargo, demand for packagings has fallen, but according to forecasts will rise again in 2016. It will grow as a result of **RISING DOMESTIC PRODUCTION** of foods, etc. probably by **8.5 PERCENT** by 2020 and then reach a volume of **101 BN. PACKAGING UNITS**.

Source: Euromonitor, VDMA, GTA

BIGGEST EUROPEAN PACKAGINGS MARKET

Consumption of packagings in Europe



Flexible packagings

Annual growth rate
2014-2018

6.28%



Paper and cardboard

Annual growth rate
2014-2018

1.91%



Rigid plastic

Market share in Europe

13.4%

Source: Smithers Pira, IMF, World Bank

A MARKET WITH A GREAT DEAL OF POTENTIAL



biggest economy according to
purchase-power adjusted GDP 2015
(by way of comparison: Germany 5th place)



Country with
high income

according to the World Bank definition, high-income countries have a per capita GDP of more than US\$ 12,736.



High level of education and well
trained workforce

Source: Smithers Pira, IMF, World Bank

MAJOR CUSTOMER MARKETS

FOOD INDUSTRY

No.2 food and drinks market
in Europe

27.5 m.
tonnes (2014)

Sales of
packaged foods



26 bn.
litres (2014)

Sales of
packaged drinks

Russia's food market is growing rapidly. The biggest Russian retail group, Magnit, opened five new stores every day in 2015. Foreign companies are also investing in the market: by 2020, Tengelmann wants to open 150 new stores for around US\$ 540 million. The increase in online shopping is another driver of growth. According to estimates, e-commerce will grow by 11 percent a year by 2018 in the area of food and drink.

COSMETIC INDUSTRY

No.1 biggest cosmetics market
in Eastern Europe



50%

market share cosmetics
retail Eastern Europe

Sales of cosmetics (Jan - Sept 2015):

-36%

in the mass
market segment

-16%

for medical
cosmetics

-18%

in the premium
sector

Russia is still an important market for cosmetic items in Europe. But the embargo is severely affecting this sector in particular. In the first three quarters of 2015 the average price of cosmetic items rose by 22 percent in comparison to the same period of the previous year. Revenue in 2015 fell.

PHARMACEUTICALS INDUSTRY

Medicine production aim 2018:



90%

meeting demand from
national production
(2015: 41%)



The market for medical packagings is a booming growth market. According to forecasts, the manufacture of medical products will increase rapidly. The Russian government recently set itself the goal of manufacturing 90 percent of medicine production domestically by 2018. In 2015, the international pharma giant Astra-Zeneca opened a US\$ 224 million factory for manufacturing medicines and packagings - the biggest foreign investment to date in the Russian pharmaceuticals market.

RUSSIA

LEADING PACKAGING MANUFACTURERS

MOSCOW
ZHELEZNOGORSK
(KURSK-REGION)
STAVROPOL
REGION



More than 3,000 packaging companies are active on the Russian market. Around 900 companies are involved in the production and supply of packaging machinery. The trend towards innovative packagings is stimulating demand for modern, western machines. However, local manufacturers are increasingly strengthening their market position.

KEY



PACKAGINGS MADE OF GLASS

GLASS DÉCOR

Glass Décor is the market leader on the Russian market for glass decoration and one of the leading technological glass bottle manufacturers. Has a production capacity of up to 15 million bottles per month.



1999



PACKAGINGS

GOTEK

Fifty percent of the quantities manufactured go to large international or Russian companies. Supplies more than 250 companies. Quantity of corrugated board produced amounted to 366 million m² in 2014.



1968



182.9



COSMETIC PACKAGINGS

ARNEST OAO

Arnest is the biggest manufacturer of perfumery & cosmetic products in Russia and the CIS countries. Sells products to more than 600 brands. Has a production capacity of 50 million.



104.9



8.6



2,600

GROWTH STRATEGY

GROWTH FACTORS

The EU sanctions and the falling oil price are causing problems for the Russian economy. In 2015 alone, wages fell by ten percent in real terms, whereas inflation was twelve percent. But the import substitution policy triggered by the Russian government as a result of the sanctions also presents opportunities. Local production of food and other consumer goods rose last year. Expertise is needed for this. Currently therefore, German food technologists have never been in such demand in Russia. Russia is still a large market with a workforce and a high level of education. The consultancy Smithers Pira predicts that Russia will rise to be the biggest food market in Europe by 2020, overtaking Germany. That is good news for the packagings manufacturers, because the food market consumes around 70 percent of all packagings. Here, too, demand for flexible packagings in particular is rising.



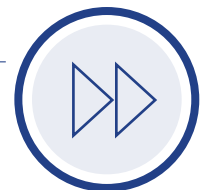
TRENDS

Because of the ageing population, the trend in the Russian market is towards packagings that are easy to open and, due to the rising number of single parents and single households, towards smaller packaging units. On the other hand, packagings of the same size are being filled with less content to conceal a price rise. Moreover, packagings manufacturers are increasingly manufacturing environmentally friendly products for the Russian market. In the Russian population, women outnumber men by a ratio of 1,000 to 863. For this reason, companies are deliberately using light and bright colours and aesthetic design in packagings to increase the attractiveness to female consumers according to Switzerland Global Enterprise.



FUTURE STRATEGY

National food wholesaling is increasing in importance in Russia. Where it used to be easier and cheaper to import food from abroad before the sanctions, embargo and Rouble devaluation, domestic offerings between the regions are now increasingly attractive. But the infrastructure for logistics, refrigeration and transport of food is not at a modern standard in all regions and areas. German companies and investors have a great opportunity here to help in modernisation. Exports of packaging machinery to Russia are currently falling. But, according to the VDMA, this fall can be explained by the fact that Russian packaging manufacturers are currently holding back on investment. It cannot be seen that they are importing more from China or other countries. The VDMA expects that exports of packaging machinery from the EU will pick up again as soon as the Russian economy recovers. The Association therefore advises its members to remain in close contact with Russian customers in the crisis and then be available when the country's economy is growing again.



CHINA

POPULATION (M)	1,376
CURRENCY	RENMINBI
LANGUAGE	CHINESE
INFLATION (2015)	1.4%



ECONOMIC GROWTH

(GDP in US\$ bn, growth potential in percent)



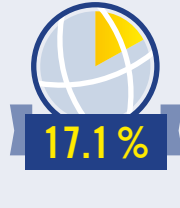
PER CAPITA GDP

(2015, in US\$)



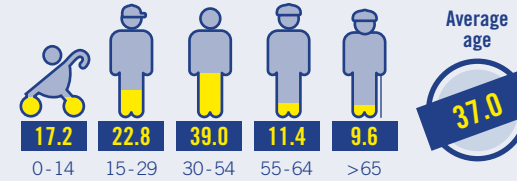
SHARE OF WORLD GDP

(2015, adjusted to purchasing power)

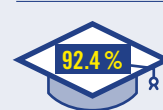


POPULATION STRUCTURE

(Share of each age group in percent)



LEVEL OF EDUCATION



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MIDDLE CLASS



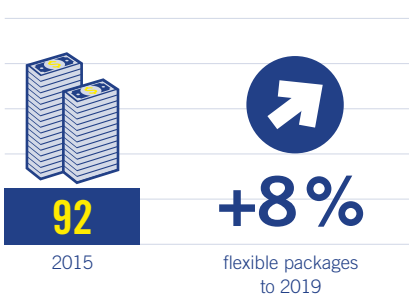
Share of the population with an income of between US\$ 10 and 50 per day

Source: IMF, UNICEF, PEW, United Nations

CHINESE PACKAGING MARKET

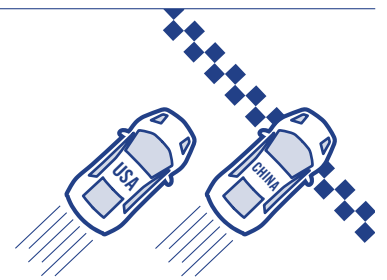
PACKAGING INDUSTRY REVENUE

(in US\$ bn)



WORLDWIDE RANKING

according to revenue (as of 2015)



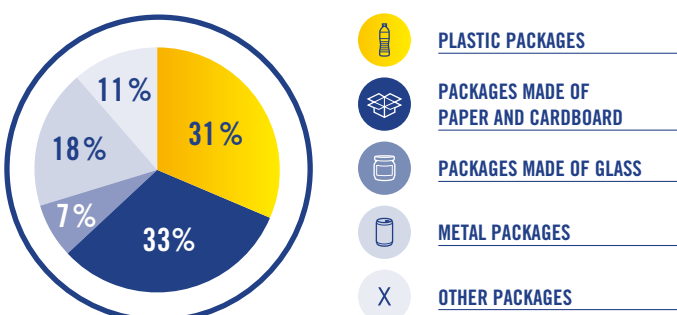
will overtake the USA as number 1 in 2017

Source: Technavio, VDMA

THE PACKAGING INDUSTRY HAS GROWN RAPIDLY IN THE LAST DECADE. WILL THUS OVERTAKE THE USA AS THE BIGGEST PACKAGING MARKET. THE SECTOR IS RELYING ON QUALITY PRODUCTS AND IS INCREASINGLY DEMANDING HIGH-QUALITY MACHINES. IN VIEW OF THE SEVERE ENVIRONMENTAL PROBLEMS, ENVIRONMENTALLY FRIENDLY AND RECYCLED PACKAGES HAVE A STRONG MARKET POTENTIAL IN THE LONG TERM.

SHARE OF PACKAGING TYPES

(of total revenues in the packaging industry, 2015)



TRADE RELATIONS

China is **GERMANY'S** second most important export partner for packaging machines. The **AWARENESS OF QUALITY** is rising among Chinese buyers and strong growth can be seen in the medium and high **QUALITY SEGMENT**.

CHINESE IMPORTS OF PACKAGING MACHINES FROM GERMANY

(Imports in € m, without bottling machinery)



31%

GERMANY'S SHARE OF ALL OF CHINA'S IMPORTS OF PACKAGING MACHINES (2014, without bottling machinery)

Source: Research and Markets, PwC

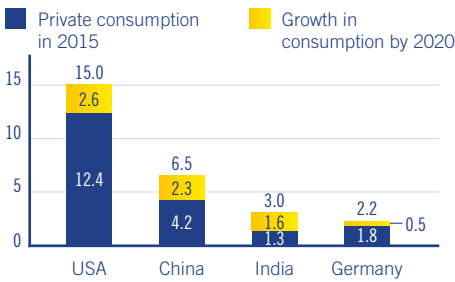
Source: Federal Statistical Office, United Nations Comtrade

CHINA

DRIVERS OF GROWTH

GROWING PRIVATE CONSUMPTION

Private consumption by 2020, in US\$ tr

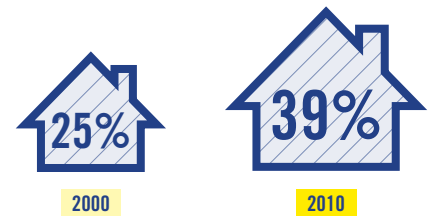


According to BCG, between 2015 and 2020, China's private consumption will grow by US\$ 2.3 trillion. That is more than current total consumption in Germany. The median available **INCOME** in China will rise by **89 PERCENT** between 2015 and 2030. The Chinese **MIDDLE CLASS** is already the biggest in the world.

Source: Boston Consulting Group, Economist Intelligence Unit, Canadean, Euromonitor

SMALLER HOUSEHOLDS

Proportion of single-person and two-people households among all Chinese households



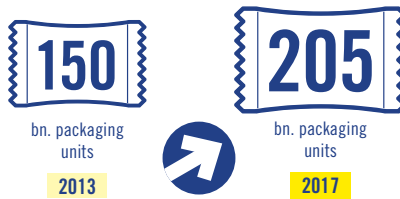
IMMENSE POTENTIAL OF THE PACKAGING INDUSTRY

Biggest national market for ...

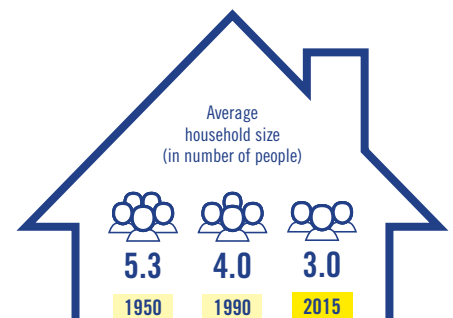


CHANGED CONSUMER BEHAVIOUR

Flexible packages for food



The **MARKET FOR FLEXIBLE PACKAGES** in China should reach revenue of around **US\$ 12 BN** by 2020 and grow by almost **EIGHT PERCENT** per year. Nowadays, both parents usually work in China. This means that the sale of frozen products, microwave meals and other **CONVENIENCE PRODUCTS** and **FAST FOOD** are rising.

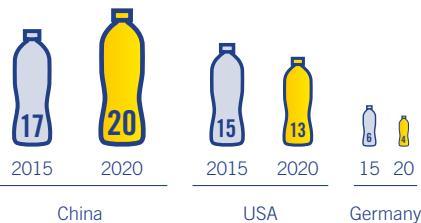


China's **SINGLE CHILD POLICY** brought about a constant shrinking in the average household size. Almost half of unmarried people over the age of 30 now live alone. A consequence of this is that demand for **FLEXIBLE and SMALLER PACKAGES** is increasing.

An average **CHINESE SUPERMARKET** in an urban area has a **WIDER RANGE OF PRODUCTS** than a typical US or Japanese supermarket.

Source: Canadean, Smithers Pira, Packaging & Converting Intelligence

Global top consumers of packaged drinking water (share of the world market)

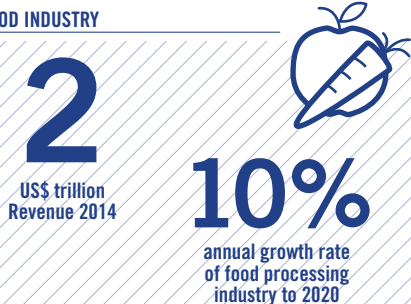


Consumption of bottled drinking water in China in 2015 was **69 BN. LITRES** and is expected to grow by a further **58 PERCENT** by 2019. The market value of all packaged water units has risen by **91 PERCENT** since 2010. Large containers remain the dominant packaging form, but the share of **MEDIUM-SIZED PACKAGES** has doubled since 2010.

Source: Canadean, Chinese National Health and Family Planning Commission, Zenith International

MAJOR CUSTOMER MARKETS

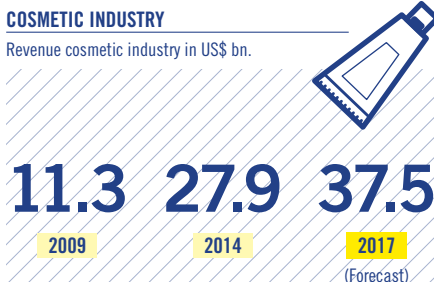
FOOD INDUSTRY



Around 26.5 million tonnes of dairy products are manufactured every year in the biggest food and drinks market in the world. Demand for packaging is also rising due to a change in consumer behaviour: for example, whereas in 2007 only 40 percent of households consumed ready-to-drink tea products, the figure is now as high as 70 percent.

COSMETIC INDUSTRY

Revenue cosmetic industry in US\$ bn.



In 2014, China was the second-biggest cosmetic market in the world. In recent years, the industry has grown by an average of 20 percent per year. Skincare and make-up products generate around two thirds of the sector's revenue. The uninterrupted growth of cities will continue to lead to constant growth in the Chinese cosmetic market in the future.

PHARMACEUTICALS INDUSTRY

US\$ 11 bn. revenue in pharmaceuticals packaging industry 2014

10.6% growth rate 2014-2015

China is the world's biggest growing market for pharmaceutical products and in 2050 will probably be the biggest pharmaceuticals market in the world. The previously dominant cheap pharmaceutical glass packages will give ground to high-quality plastic packages.

Source: GTAI, Indian Council of Agricultural Research (ICAR), Crisil, UBM Canon, Tata Strategic Management Group, Research and Markets

CHINA

LEADING PACKAGING MANUFACTURERS



ALUMINIUM PACKAGES

SHANDONG LIPENG CO., LTD.

Has company premises of around 130,000 m². Is market leader for aluminium-coated printing plates.



216.0 19.3 1,960



With almost 12,000 manufacturers, the Chinese packaging market is highly fragmented. There are a large number of SMEs in the sector. The market share of the ten biggest packaging manufacturers is

less than eight percent of revenue. In China, the major foreign companies, such as Ball, Alcan and Tetra Pak are mainly focusing on higher-quality and technologically advanced packaging products.

Geographically, 70 percent of all packaging companies are in the three major economic

regions of Zhejiang Province, Jiangsu Province and the Yangtze River Delta.



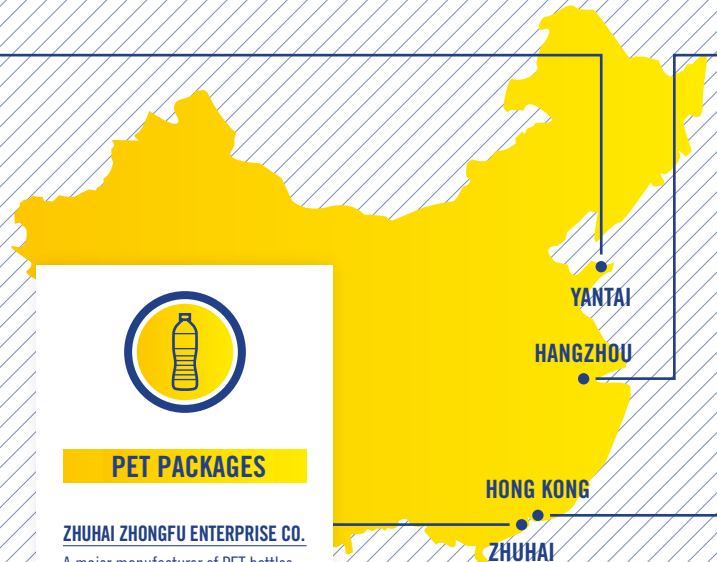
METAL PACKAGES

CPMC HOLDINGS LTD.

The biggest manufacturer of metal packaging products in China.



812.3 45.0 6,583



PET PACKAGES

ZHUHAI ZHONGFU ENTERPRISE CO.

A major manufacturer of PET bottles. Has 14 production sites in 8 European countries.



298.4 -10.6 3,280



PAPER AND CARD-BOARD PACKAGES

NINE DRAGONS PAPER HOLDINGS LTD.

In terms of production capacity, it is the world's biggest manufacturer of environmentally friendly recycled paper.



4,863.5 228.1 17,000

KEY



GROWTH STRATEGY

GROWTH FACTORS

The packaging market in China will very soon be the biggest in the world. The growing population, more but smaller households, rising purchasing power and increasing health awareness among the Chinese are boosting the packaging business rapidly. What's more, the change in consumer behaviour has a major impact on the sector. Whereas in the year 2000, only 40 percent of the population lived in cities, by 2020 this figure will be as high as 60 percent according to the construction and consultancy company YY Development Group. The rising number of working mothers, the desire for comfort and consumer-friendliness and the growing presence of multinational food retailers are driving sales of packaged foodstuffs and cosmetic items. Frozen food and microwave meals are on the advance.



TRENDS

The traditional and cheap packages made of paper and cardboard still dominate. But the changing household structure and the growing pharmaceuticals market are causing demand for modern plastic packages to soar. Even though cheap, standardised packaging machines still form the biggest market segment in China, the demand for high-quality, high-performance machines with high endurance and low reject rates is rising. The demands made on the films used for food packaging is rising. The biggest increases can be seen in flexible packages. In the estimation of Smithers Pira, the sale of beverage packages will grow by eight percent per year to 2018, driven by higher consumption of plastic bottles and drinks cans. China therefore offers enormous potential for packages suppliers.



FUTURE STRATEGY

Since Chinese consumers are increasingly attracted to western products, the manufacturers must offer modern packages. Local companies are also increasingly meeting western standards to keep up with the competition. According to the Canadian research institute, the most popular western products are chocolate, coffee, cheese, ice cream and soft drinks. Providers of packaged consumer goods will profit from Chinese consumers' attraction to western consumer standards. The trend is towards convenience products. For example, whereas fewer than 40 percent of households consumed ready-to-drink tea preparations in 2007, according to BCG the figure was as high as 70 percent by 2015.





INTERPACK – PROCESSES AND PACKAGING

interpack is the world's most important event for the packaging sector and the associated processing industry. Every three years, the trade fair, which was held for the first time in 1958, attracts around 170,000 visitors from the food, beverage, confectionery, baked goods, pharmaceuticals, cosmetics, non-food and industrial products to Düsseldorf's trade fair centre – including very large numbers of top decision-makers. Around 2,700 exhibitors will display products and solutions across the whole supply chain in 19 halls, an unprecedented scale anywhere else in the world. The innovative special subjects are a trademark of interpack. The SAVE FOOD initiative against food waste resulted from just such a subject and is now the biggest initiative of its kind in the world, involving the UN partners of the FAO and UNEP.

interpack is at the top of the interpack alliance. These include the international trade fairs upakovka (Moscow), food pex (Shanghai), china pharm (Shanghai), bulk pex (Shanghai), pacpro Asia (Shanghai), packtech India/food pex India (Mumbai) components (Düsseldorf), food processing & packaging exposium Kenya (Nairobi), indopack (Jakarta) and process expo (Chicago). The events of the interpack alliance bring exhibitors together with their customers locally in the most important growth markets – always with a different focus with respect to the relevant target groups.

www.interpack.de



THE MESSE DÜSSELDORF GROUP

With turnover of €902 million in 2015, the Messe Düsseldorf Group was able to maintain its position as one of the most successful German trade fair companies. In this fair year, around 25,800 exhibitors presented their products to 1.1 million trade visitors at events in Düsseldorf. Added to this were more than half a million congress delegates.

With around 50 specialist trade fairs, including 24 No. 1 events in the five fields of expertise of machinery and equipment, trade, skilled trades and services, medicine and health, fashion and lifestyle as well as leisure at the Düsseldorf location and around 80 to 100 events of its own, involvements and commissioned events abroad, the Messe Düsseldorf Group is one of the leading export platforms in the world. That is why Messe Düsseldorf GmbH is in 1st place with respect to internationalism at capital goods trade fairs. At its own events in the field of machinery, installation and equipment, 64 percent of the exhibitors and 54 percent of the trade visitors come from abroad; overall, customers from around 180 countries attend trade fairs in Düsseldorf. Sales support centres for 132 countries (71 foreign representation) and expertise centres in 8 countries form Group's the global network.

www.messe-duesseldorf.de



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