

# Strategic *report*

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# Chairman's statement

## To shareholders

The value of the significant changes that have been made in recent years is evidenced in our performance this year



*“Since Sir Andrew became CEO, the company has returned £30 billion to shareholders.”*

It is clear from the following pages that the Group made good progress against its strategy in 2013.

The Board believes the business is seeing the benefits of the significant changes the management team has driven over recent years to deliver sustainable growth, reduce risk and enhance returns to shareholders.

The notably strong performance from the R&D organisation in 2013 – with six major new product approvals in areas including respiratory disease, HIV and cancer – is critical to the longer-term prospects of the Group. That this had been achieved at the same time as R&D is effectively managing its cost base to deliver an improved estimated rate of return of 13% is particularly encouraging.

It is worth noting that since Sir Andrew became CEO, GSK's market capitalisation has grown from approximately £55 billion to around £80 billion and the company has returned some £30 billion to shareholders via £20 billion of dividends and £10 billion of share buy-backs.

### **Risk management and commitment to ethical behaviour**

The Board aims to assure the integrity of GSK's business operations through rigorous processes and systems and during the year, risk management was once again a key part of the Board's discussions.

Through the Audit & Risk Committee, we oversee the issues and challenges faced by management, and encourage the creation of an environment in which GSK can achieve its strategic ambitions in a responsible and sustainable manner.

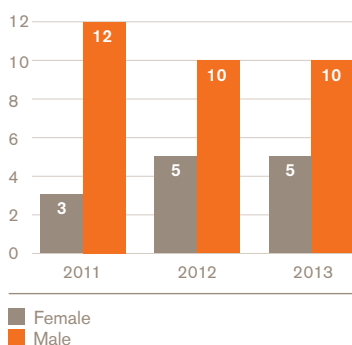
I have no doubt that commercial success is directly linked to operating in a responsible way and which meets the changing expectations of society. In this respect, the company continues to adopt industry-leading positions on a range of issues.

The announcement of plans during 2013 to evolve the way the business interacts with healthcare professionals and pays sales staff are developments I was particularly pleased to see.

In the same way the Board strongly supports the commitments the company has made to advance transparency around clinical trial data, and welcomes the subsequent actions of other companies in this field. Over time, it is to be hoped these steps will advance medical science and improve patient care.

The allegations of fraudulent behaviour by certain employees within our business in China are wholly contrary to the company's values. In addition to the Chinese Government investigation, we have commissioned an independent review of our Chinese operations by the law firm Ropes and Gray, and we will implement all appropriate actions as necessary on conclusion of these investigations.

Board gender diversity



### Governance and remuneration

We have been mindful of the changes outlined in the new UK Narrative and Remuneration Reporting regulations and this Annual Report adheres to the new reporting standards.

In particular, this year's Remuneration Report comprises two parts that will each require shareholder approval at the Group's forthcoming AGM. Further details are set out in Tom de Swann's letter to shareholders on page 96 of this Report.

### Board changes and composition

There were a number of changes to the Board during the year. I would like to thank Sir Crispin Davis, who stood down in May, for his valuable contributions over nearly ten years of service. In April, we were pleased to have Hans Wijers join the Board as a Non-Executive Director. His extensive experience of running global companies has already proved to be of great value to Board discussions.

There were also planned changes in the Chairmanships of several Board Committees. Tom de Swaan succeeded Sir Crispin Davis as Chairman of the Remuneration Committee and Judy Lewent succeeded Tom as Chairman of the Audit & Risk Committee, with Tom remaining as a member of that committee.

In addition, I would like to thank Sir Deryck Maughan for agreeing to remain on the Board for up to an additional two years having succeeded Sir Robert Wilson as Senior Independent Director in May. Sir Deryck's considerable experience and knowledge of GSK's businesses will provide continuity and balance.

Finally, Sir Robert Wilson stands down at the 2014 AGM after ten years of exceptional service and I would like to thank him for his longstanding commitment to the Group.

Regarding composition of the Board, our priority is to have diversity in terms of gender, length of tenure and business experience across developed and emerging markets. During the year, GSK had 33% female representation on the Board, a level that exceeds the original aspiration to have 25% by the start of 2013. The Board firmly believes that a diverse balance of experience, insight, perspectives and background among its Board members is in the best long-term interests of the Group and its shareholders.

### Prospects

In closing, the Board would like to thank Sir Andrew and his executive team for their commitment during a year in which the Group once again demonstrated its ability to deliver innovation while constantly striving for substantial change. I am confident the Group will continue to identify and grasp the many opportunities that will strengthen GSK's performance, reward its shareholders, and create sustainable long-term value for society.

Sir Christopher Gent  
Chairman

# Our CEO's Review of the year

Company performance in 2013 was defined by remarkable output from our R&D organisation



*“We led the sector for new medicine approvals and returned £5.2 billion to shareholders.”*

Over the past six years we have been making fundamental changes at GSK to deliver innovation and access to our products for patients and customers and improved sustainable financial performance for our shareholders.

In 2013, we saw further strong delivery against these priorities.

During the year, we led the sector for new medicine approvals and returned £5.2 billion to shareholders through dividends and share buy-backs – helping generate the best annual total shareholder return (TSR) performance since the formation of GSK.

We grew sales and earnings in line with guidance with turnover up 1% to £26.5 billion and core earnings per share up 4% to 112.2p (both CER). We achieved this trading result despite some unexpected challenges, including significantly reduced sales in our Chinese business.

During 2013, we also continued to take action to reform our business model to better meet the expectations of society. In particular, we took industry-leading positions and actions to improve global public health, increase transparency of our clinical data and modernise our commercial practices and interactions with customers.

#### Exceptional R&D delivery

2013 was the most productive period of R&D output in the company's history.

Of the six major new medicine files we profiled at the start of 2013, five were approved: *Breo* and *Anoro* for respiratory disease, *Tafinlar* and *Mekinist* for melanoma (skin cancer) and *Tivicay* for HIV. We are expecting regulatory decisions for albiglutide, the remaining asset in this group, in the first half of 2014. In addition, we launched our new injectable quadrivalent flu vaccine in the USA.

Overall, GSK accounted for 19% of FDA new drug approvals during 2013 and, since 2009, we have achieved more FDA approvals of new molecular entities (NMEs) than any other company.

The conversion of our advanced pipeline to approved products represents the next step in our strategy to deliver sustainable organic growth and value to shareholders.

In particular, I want to note the growing strength of our respiratory portfolio. With *Advair*, *Flovent*, *Ventolin*, *Breo*, *Anoro* and seven other respiratory products in late-stage development, we are confident in our ability to maintain a leadership position in this area well into the next decade.

In addition to the highlighted approvals, our future pipeline opportunity remains extensive. We have around 40 NMEs in Phase II/III clinical development. In 2014 and 2015 we expect Phase III read-outs for six NMEs and are planning ten NME Phase III starts in key areas such as respiratory, oncology and immuno-inflammation.

Importantly, we also continue to improve our financial efficiency in R&D and our estimated internal rate of return of our R&D investments is now 13%. This is good progress and we continue to target 14% on a longer-term basis.

Improved R&D productivity is also underpinning our strategy to create more flexibility around the pricing of our new medicines to meet the needs of payers and governments.

### Broadly based sales growth

In terms of sales, we saw a broadly based performance in 2013. There was an improved performance in our US business, where sales were up 1% (or 4% excluding the divestment of *Vesicare*). We also saw stabilisation of our European business, which reported flat sales, with the benefits of our restructuring programme helping to offset economic and pricing pressures in the region.

We remain committed to investing for continuing growth in our important Emerging Markets business. Sales in the region were up 5% for the year and 11% in the fourth quarter, excluding China.

During the year, we also took steps to increase our equity holdings in our fast-growing Indian pharmaceuticals and consumer subsidiaries and announced plans to build new manufacturing capacity in the country.

Consumer Healthcare sales grew 4% excluding divested brands, with growth across all regions.

### Optimising and re-shaping our portfolio

We continue to take steps to optimise and focus our portfolio.

During 2013 we divested our anti-coagulant products for more than £700 million. We also created a new Established Products Portfolio made up of our older, largely non-promoted brands, with the aim of finding more opportunities to reduce complexity, enhance profitability and optimise the value of this group of products.

We also completed a significant divestment in our Consumer Healthcare business with the sale of drinks brands *Lucozade* and *Ribena* to Suntory of Japan for £1.35 billion. While these are iconic brands, particularly in the UK, we believe their growth potential is better realised by a company with existing category presence and a substantial drinks distribution infrastructure in the emerging markets.

### Financial efficiencies and cash generation

Operationally we continue to restructure and simplify our business to reduce our long-term cost base. In 2013 we delivered incremental year-on-year savings of around £400 million from both ongoing and structural initiatives.

This is creating greater flexibility to invest in our growth markets and new product launches and – together with continued improvement in our financial efficiency – strengthens our ability to deliver earnings per share growth ahead of sales.

The business remains highly cash generative with £4.7 billion in free cash flow in 2013. In addition, we realised £2.5 billion from divestments leaving net debt of £12.6 billion at the end of the year. We continue to focus on using cash to protect our credit profile and fund organic investment and restructuring programmes as well as our ongoing commitment to a growing dividend, further share buy-backs and bolt on acquisitions – whichever offers the most attractive returns.

### Changing our business model

We made considerable further progress during 2013 on our agenda to operate responsibly and meet the changing expectations of society.

We made new commitments to increase transparency of our clinical research. Early in the year we announced our support for the AllTrials campaign and became the first pharmaceutical company to commit to publishing the detailed clinical study reports for all of our medicines. In May, we were also the first in our industry to launch an online system enabling researchers to request access to the anonymised patient-level data from our clinical trials. I am pleased that other companies are now also adopting this approach.

We also announced plans to evolve the way we sell and market products to healthcare professionals to further align our activities with the interests of patients and remove the perception of conflict of interest. Specifically, we plan to stop direct payments to healthcare professionals for speaking engagements and for attendance at medical conferences and extend the principle of our US 'Patient First' programme globally, to decouple sales team remuneration from prescription generation.

We continue to expand access to our medicines to people living in the developing world.

During 2013 we signed a ground-breaking five-year partnership with Save the Children to combine the resources and capabilities of our two organisations to help save the lives of one million children living in the poorest countries in Africa.

I was also delighted we achieved a significant milestone for our malaria vaccine candidate which demonstrated that it could potentially halve the number of malaria cases in young children. This vaccine has the potential to save the lives of hundreds of thousands of children in Africa and we now plan to file for approval during 2014. We are committed to making it available at a not-for-profit price.

There is no higher priority for me than the values-based conduct of our employees. In the past few years, we have focused on bringing to life our values of transparency, respect for people, integrity and patient focus and being thoughtful about what they really mean at a human level.

It is because of my strong belief in our company's values that the allegations made in China about the behaviour of some individuals were so disappointing. The investigation into this matter by the authorities in China continues and we are co-operating fully. As a company, we are committed to learning the lessons and taking all appropriate action in relation to the outcome of their investigation.

### Outlook

Looking to 2014, we see continued momentum for the business and are targeting core earnings per share (EPS) growth of 4-8% CER on turnover growth of around 2% CER on an ex-divestment basis (2013 EPS base of 108.4p, turnover £25.6 billion). The range in our guidance takes into account the roll-out of new products along with potential competition from generics to our older products such as *Lovaza*.

In closing, I would like to thank all our employees, partners and suppliers for their continued commitment and support. Overall, I am confident that our core focus on innovative product development and our programme of investment, coupled with the changes we are making to our business model, are positioning the company competitively for the long term.



Sir Andrew Witty  
Chief Executive Officer

# Business overview

## What we do

We are a science-led global healthcare company that researches and develops a broad range of innovative products in three primary areas of pharmaceuticals, vaccines and consumer healthcare

# £26.5bn

2013 Group turnover up 1% CER

### Pharmaceuticals



**£17.9bn**    **67%**

Turnover                      of Group

Our Pharmaceuticals business develops and makes medicines to treat a broad range of acute and chronic diseases. Our portfolio is made up of both patent-protected and off patent medicines.

#### Sales by therapy area

	£m
Respiratory	7,516
Anti-virals	667
Central nervous system	1,483
Cardiovascular and urogenital	2,239
Metabolic	174
Anti-bacterials	1,239
Oncology and emesis	969
Dermatology	770
Rare diseases	495
Immuno-inflammation	161
ViiV Healthcare (HIV)	1,386
Other	799

➔ Read more on page 60

### Vaccines



**£3.4bn**    **13%**

Turnover                      of Group

Our Vaccines business is one of the largest in the world, producing paediatric and adult vaccines against a range of infectious diseases. In 2013, we distributed more than 860 million doses to 170 countries, of which over 80% were supplied to developing countries.

#### Sales by category

	£m
Paediatric vaccines	1,916
Includes vaccines against: polio, diphtheria, tetanus, pertussis, measles, mumps, rubella, meningitis C, chicken pox, pneumococcal disease and rotavirus infection	
Adolescent, adult and travel	1,504
Includes vaccines against: flu (pandemic and seasonal), human papilloma virus (cervical cancer), hepatitis A and B, typhoid, meningitis A,C,W,Y, and booster vaccines against diphtheria, tetanus, pertussis and polio	

➔ Read more on page 61

### Consumer Healthcare



**£5.2bn**    **20%**

Turnover                      of Group

We develop and market a range of consumer healthcare products based on scientific innovation. We have brands in four main categories: Total Wellness, Oral Care, Nutrition and Skin Health. These include a number of well-known brands such as *Sensodyne*, *Panadol* and *Horlicks*.

#### Sales by category

	£m
Total Wellness	1,935
Oral Care	1,884
Nutrition	1,096
Skin Health	272

➔ Read more on page 62

## Our global reach

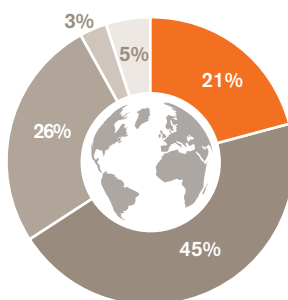
We have a significant global commercial presence in more than 150 markets, a network of 86 manufacturing sites in 36 countries and large R&D centres in the UK, USA, Spain, Belgium and China.

We have reshaped our business over recent years to better align to the strategic approach we have had in place since 2008. This has allowed us to better access markets with high-growth potential including those in Asia Pacific, Latin America and Japan.

# 99,451

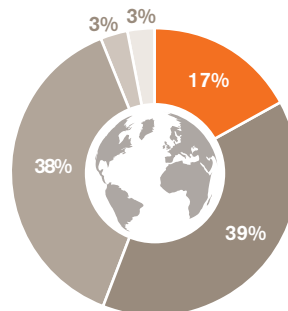
Employees

Employees by region 2008



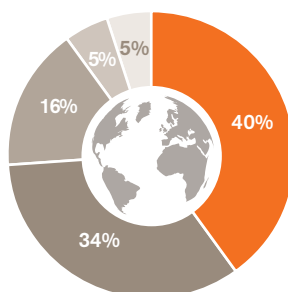
■ USA  
■ Europe  
■ EMAP  
■ Japan  
■ Other

Employees by region 2013



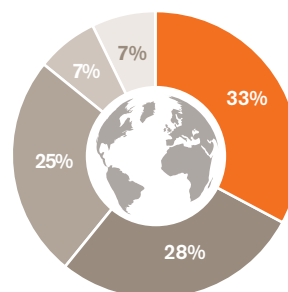
■ USA  
■ Europe  
■ EMAP  
■ Japan  
■ Other

Turnover by region 2008



■ USA  
■ Europe  
■ EMAP  
■ Japan  
■ Other

Turnover by region 2013



■ USA  
■ Europe  
■ EMAP  
■ Japan  
■ Other

## R&D

Our business is sustained through investment in R&D. In 2013 we spent £3.4 billion before non-core items\*, £3.9 billion in total, in our search to develop innovative medicines, vaccines and consumer products.

During the year we saw significant delivery from our late stage pipeline, with six key medicines approved by regulators in the USA alone.

We have dedicated research programmes for diseases that affect the developing world. We are one of the few healthcare companies researching both new vaccines and new medicines for all three of the World Health Organization's priority diseases: HIV/AIDS, malaria and tuberculosis.

# £3.4bn

Core R&D expenditure in 2013

# 10

Potential phase III study starts in 2014/15

## Core R&D expenditure allocation in 2013

	£m	%
Pharmaceuticals	2,726	80
Vaccines	496	15
Consumer Healthcare	178	5

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\* The calculation of core results and non-core items is set out on page 65.

## How we're structured

While we have three primary areas of business, our commercial business is structured as a combination of regional units and areas of focus.

For Pharmaceuticals and Vaccines, we operate in geographical segments that combine these two businesses. Our Consumer Healthcare business functions as a global unit, as does ViiV Healthcare, the specialist HIV company we founded with Pfizer in 2009, joined by Shionogi in 2012.

Other trading turnover includes Canada, Puerto Rico, Australasia, central vaccine tender sales and contract manufacturing sales.

## Turnover by segment

	£bn
US Pharmaceuticals and Vaccines	7.2
Europe Pharmaceuticals and Vaccines	5.2
EMAP Pharmaceuticals and Vaccines	4.7
Japan Pharmaceuticals and Vaccines	1.6
ViiV Healthcare	1.4
Other trading	1.2
Consumer Healthcare	5.2

# The global context

## Opportunities and challenges

Despite continuing macro-economic and market challenges around the world, there remains a significant need for medicines and healthcare treatments.

### Global economic overview

Global economic growth for 2013 continued to be affected by the fallout from the international financial crisis that began in 2008. At 3%, performance was slower than the 3.5% originally predicted by the International Monetary Fund (IMF), and also just below growth in the preceding year of 3.1%.

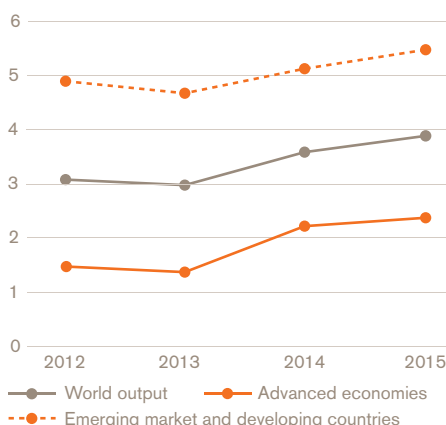
In the USA, the economy grew at an annual rate of 1.9%. Indicators suggest an underlying recovery, supported by a rebound in the housing market and a continued fall in the unemployment rate, from a peak of 10% in 2009 to 6.7% by the end of 2013. Despite earlier announcements, the Federal Reserve held off tapering its quantitative easing measures in the year.

In the Eurozone the economy remained weak, unemployment high and labour markets depressed. Growth for the year was -0.4%. The stringent fiscal reforms introduced in a number of Eurozone countries caused social and political tensions.

In Japan, the government's fiscal stimulus and monetary easing to support private consumption and investment appears to be having an effect. The economy grew 1.7% during the year.

Performance of emerging markets and other regions was highly variable. In China, growth remained stable at 7.7%, with much of this growth coming in the second half of the year from inward investment. India grew at 4.4%. Growth was subdued in the economies of the Middle East and North Africa, Latin America and Russia compared with 2012. Many currencies were put under pressure by the US Federal Reserve's tapering announcements in May 2013.

Figure 1: Current and predicted growth rates (%)



Source: WEO Update, January 2014 (IMF)

Based on IMF assessments, the outlook for global economic growth in 2014 is 3.7%, with the highest rates likely to be seen in the developing economies of India, other Asian region and sub-Saharan Africa (see Figure 1). Factors such as political turbulence within the European Union and instability in the Middle East are likely to continue to affect the international business environment.

### The global healthcare market

Sales in the world pharmaceutical market rose slightly to £511 billion (CER) in the year to September 2013, from £499 billion in the previous year, according to the industry information company IMS.

Emerging markets and Asia Pacific saw the largest sales growth at 10%, pushing the proportion of total sales from this region up to 22% for 2013. Sales from Europe were largely unchanged, at 24% of the total. North American pharmaceutical sales were £219 billion, representing 43% of the market.

The top therapeutic classes by sales were unchanged in terms of positioning. Oncology/immunomodulatory represented 16% of total sales (10% growth), central nervous system had 15% (a decline of 1%), while other areas also had declines (see Figure 2).

The IMS Institute for Healthcare Informatics predicts that annual spend on prescription medicines will grow slowly – between 1-4% – in North America, Europe and Japan, whereas spending in emerging nations will grow 10-13% overall as a result of economic expansion and population changes in these markets.

### Population growth and evolving lifestyles

Population growth, increasing prosperity in emerging markets, global changes in lifestyle and governments' response to these dynamics are all likely to expand the need for medicines and other healthcare products in the future.

The United Nations forecasts that the global population will reach 9.6 billion in 2050 compared with 7.2 billion in 2013. While birth rates decline in Europe and Japan, this is likely to be offset by the sharp rise in populations elsewhere, particularly in the Middle East and southern Asia.

### Regional pharmaceutical market sales

# £511bn

total global pharmaceutical market sales

Source: IMS data 2013



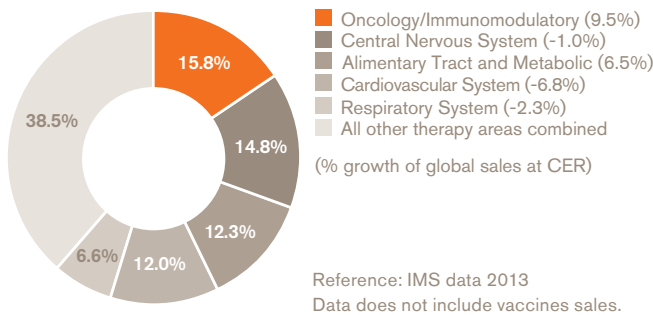
**US**  
US sales were steady in 2013. This was partly a result of patent expiries on blockbuster medicines. However, the North American region still remains the top pharmaceutical market by total sales.

# £219bn

sales in 2013



Figure 2: Total global sales of medicines by therapeutic classes (%)



**Europe**

Overall performance was better in Europe than in 2012, with sales up approximately 1%. Austerity measures and fiscal issues in many countries are the main drivers for continued slow growth in the region.

**EMAP**

Emerging markets continue to grow quickly with sales up 10% in 2013. Sales in these diverse areas are predicted to continue to grow strongly.

**£124bn**

sales in 2013



**£113bn**

sales in 2013



**Japan**

While mandatory price cuts of 5-6% have been imposed in alternate years, sales in Japan saw approximately 2% growth in 2013 and the market continues to be supportive of new medicines.

**£55bn**

sales in 2013

People are also living longer, partly as a result of medical advances like vaccination that have prevented or treated diseases that previously caused a significant number of deaths. As people live longer, they are more likely to develop diseases of ageing, leading to greater demand for medical treatments.

Countries with rising populations are many of the same economies that are experiencing improved economic outlooks. As prosperity increases, we have seen trends towards more sedentary lifestyles, increased consumption of food, alcohol and tobacco and a corresponding rise in chronic, non-communicable diseases (NCDs) such as type 2 diabetes and heart disease. These diseases already disproportionately affect low and middle-income countries, where nearly 80% of deaths from NCDs occur. In 2008, the WHO projected a global increase in deaths from NCDs of 17% by 2018, with the greatest increase in the African (27%) and the Eastern Mediterranean regions (25%).

Governments around the globe are under pressure to improve healthcare provision. Where a strong healthcare infrastructure is absent, people often purchase medicines themselves, and households in developing countries spend a greater proportion of their income on healthcare than their counterparts in more developed markets. A recent Pharma Futures report estimates these out-of-pocket costs can be as high as 40% in China and India, and 25% in Brazil.

Economic growth in emerging markets is likely to be mirrored by increased spending on healthcare from both governments and individuals. Demand for medicines, vaccines and consumer healthcare products is expected to continue to grow significantly faster in these regions than in more mature markets over the next few years.

A number of non-governmental organisations, including the World Health Organization, are leading efforts to support regions and countries in prioritising and introducing wider healthcare provision. There is a particular emphasis on infant immunisations, which ultimately have the potential to prevent millions of deaths (see Figure 3 on page 10).

**Price controls and regulatory pressures**

The prescription medicines and vaccines industry is highly regulated. Individual governments have overall responsibility for determining which products can be marketed in their countries and in many cases, through state-regulated systems, how these products are priced.

The wide variations in regional and country-specific laws around regulations of medicines can present challenges to the availability of new products in different markets. As many governments have been seeking to control costs and reduce spending, national healthcare budgets – particularly the proportion spent on medicines – have been squeezed.

# The global context

## continued

### USA

The US regulatory agency, the Food and Drug Administration (FDA), approved 27 new molecular entities in 2013, down from 39 in 2012. Many of these approvals marked the first approval of the medicine in any market. A number of experimental medicines had their development and review expedited under the 'breakthrough therapy designation' programme, as a result of the 2012 Safety and Innovation Act. This Act was designed to speed up the approvals process for medicines intended to treat serious or life threatening conditions, and is enabling medicines to reach patients sooner (see Figure 4 Expedited development).

In the USA, there are no government price controls on private sector purchases. However, pharmaceutical manufacturers are required by federal law to provide rebates to the government on certain medicines in order to qualify for reimbursement under various healthcare programmes. These rebates are shared between the states and the federal government to offset the overall cost of prescription drugs provided through the Medicaid insurance programme for low-income Americans. Rebates were increased and expanded through the Affordable Care Act (ACA). Although the increase means additional costs for pharmaceutical manufacturers, it is also allowing Medicaid to provide greater access for patients to prescription medicines.

This expansion of the Medicaid programme, together with new health insurance marketplaces and a financial penalty for certain Americans who choose not to purchase insurance, which launched on 1 January 2014, caused a great deal of uncertainty in the insurance market through 2013.

### Europe

The European Medicines Agency (EMA), which regulates new medicines for the European Union, approved 38 medicines containing new active substances in 2013. This compared with the 35 novel medicines approved in 2012. Europe also had the first two approvals for biosimilar monoclonal antibodies (mAbs).

The Pharmacovigilance Risk Assessment Committee (PRAC), introduced as part of the revised EU pharmacovigilance legislation, completed its first year of operation in 2013 and led to an increase in the amount of information available to the public about regulators' scrutiny of the safety of medicines.

For both industry and regulators this legislation created new resourcing needs, as the requirements around monitoring, reporting and managing of safety issues expanded.

The year saw further debate on EU proposals to improve the regulations around conducting clinical trials, with the aim of boosting clinical research in EU member states. The proposals are nearing finalisation and could simplify clinical trials processes in Europe when they come into effect in 2016.

Austerity programmes and restricted budgets continued to create challenges for healthcare systems across Europe. In most countries, the pressure on drug prices remained high and governments used a range of cost containment measures, such as International Reference Pricing, to squeeze efficiencies out of drug budgets.

Overall, access for patients to treatments remains variable. Increasing use of managed entry schemes for launching new products, significant reforms of pricing systems (eg in France, UK and Sweden) and industry-wide stability agreements to manage the entire drugs budget have all helped to some extent. Furthermore, in some countries, policies have been implemented to reduce shortages of medicines, while in others, patients have seen their payments for prescription products increase.

### Japan

The Japanese regulator, the Pharmaceutical and Medical Device Agency (PMDA), approved 17 medicines containing new active ingredients in the six months from April to September 2013.

In April 2013, the PMDA produced a roadmap outlining its desire to further strengthen partnerships with foreign regulatory agencies including the FDA, the EMA and agencies in Asia. This heightened spirit of co-operation should speed up regulatory approvals, improve the quality of safety measures, as well as improve the quality and quantity of research and the speed at which information can be shared globally.

The government in Japan continues to progress a number of additional initiatives that are likely to affect the prescriptions medicine industry. These include the goal of having 60% of all prescriptions filled by generic medicines by March 2018, and the introduction of health technology assessments for evaluating pharmaceuticals and medical devices.

### Figure 3: The best chance for childhood

According to the World Health Organization (WHO), a wide range of vaccines are available for, or contribute to, the prevention and control of 25 vaccine-preventable infections. As birth rates rise in developing countries, there is a tremendous opportunity to offer children protection from the many infections common in childhood and preventable by these vaccines. In its Global Vaccine Action Plan from 2011-2020, the WHO predicts that widening access to vaccines could prevent between 24.6 – 25.8 million deaths by the end of the decade.

### Figure 4: Expedited development

# 5yrs

The expedited review process was introduced by the US Food and Drug Administration in 2012 as a way of speeding up the availability of medicines intended to treat serious or life-threatening conditions. A recent review found it had reduced the number of years required for clinical testing. Candidate medicines with 'breakthrough therapy' designation had an average of 5.1 years of clinical testing before being approved, compared with 7.5 years for those that underwent a standard review.

### Emerging markets

Across emerging markets, prescription medicines are regulated in a variety of ways in different countries. For the industry, this can present significant challenges, such as a requirement for additional market-specific documentation. For example, markets such as China, India, Russia, Vietnam and Nigeria now require local clinical data in order to meet regulatory requirements.

Marketing authorisation application (MAA) requirements continue to evolve in the emerging markets to align more closely with those in Europe, the USA and Japan, in terms of both format and content.

Many governments in the region, including Indonesia, China and India, are looking to expand the population covered by the government funded health schemes. This could increase the opportunities for high volume tenders but also impact pricing.

Although the specific tools and methods each country implements to control health spending varies, governments everywhere continue to seek ways to manage healthcare spending, including spending on medicines.

In many of the larger emerging markets, such as Brazil, Russia, China and India, governments are attempting to manage costs through pricing controls. In several markets, the authorities are looking for ways to control or help manage the out-of-pocket spending by patients themselves. For example, India is introducing price controls on both patented and non-patented products. International reference prices remains a frequent approach to reducing pricing in countries like Turkey, Brazil and Australia. China and Russia are also expected to introduce this soon. Other trends in the emerging markets include protectionist policies that favour local or domestic suppliers.



### Cutting red tape

New European proposals to cut clinical trial regulation could simplify R&D requirements in EU member states



### Intellectual property and patent protection

The journey from scientific breakthrough to approved new medicine or vaccine takes many years and can incur significant costs. To ensure a reasonable reward for this expertise and investment, research-based pharmaceutical companies rely on the protection of their intellectual property via patents, trademarks, regulatory data protection, registered designs, copyrights and domain name registrations.

Patents generally have a 20 year term from filing but, because of the long development time for medicines, patent life is significantly eroded before launch. In some countries, some of the lost time can be restored. Sometimes, patents may be challenged before they expire. Courts may determine that a patent is invalid, non-infringed or unenforceable, leading to the loss of protection on that innovation in that legal jurisdiction. (Significant litigation for GSK is summarised in Note 44 to the Financial statements, 'Legal proceedings'.)

We operate in markets where intellectual property rights, particularly patents and data protection, are less enforceable as governments seek to control prices and increase access to medicines for their population by limiting such rights.

Countries such as India, Brazil and Argentina have introduced or are considering practices that may restrict the grant of patents for certain types of inventions that are commonly available in developed countries. There are also indications that some countries are considering more widespread use of compulsory licensing, where essentially, an individual or company seeking to use another's patents can do so without seeking the rights holder's consent, and pays the patent owner a set – usually low – fee for the license.

When patents expire on medicines, these medicines can be subject to competition from generic products. The effect of this is particularly acute in Western markets, where generic products can rapidly capture a large share of the market. As generic manufacturers typically do not incur significant costs for R&D, they are able to offer their products at considerably lower prices than branded competitors.

The same pressures for generic competition do not apply as significantly to vaccines and other biological products, or to products where patents exist on both active ingredients and the delivery device. In emerging markets, a known heritage or brand for existing medicines – whether on patent or not – is also valued by patients.

### Consumer healthcare

The development timelines for consumer healthcare products are significantly shorter and the intellectual property protections are not the same as for prescription medicines. However, consumer healthcare products are also subject to national regulation comparable for the testing, approval, manufacturing, labelling and marketing of products. High standards of technical appraisal frequently involve a lengthy review and approval process, which can cause delay to our product launches.

Consumer healthcare products also have a greater reliance on brand loyalty and trademark protection to create value across all markets, not just those in developing countries. This market is becoming more challenging. Retailers have consolidated and globalised, which is strengthening their negotiating powers.

### Competition

Our main consumer healthcare competitors include Colgate-Palmolive, Johnson & Johnson, Procter & Gamble, Reckitt Benckiser, Unilever, Pfizer and Novartis.

Competition for our prescription products comes from other companies researching and making patent-protected medicines with indications to treat similar diseases to our medicines. Our principal research-based pharmaceutical and vaccines competitors include AbbVie, Amgen, AstraZeneca, Bayer, Bristol-Myers Squibb, Eli Lilly, Johnson & Johnson, Merck & Co, Novartis, NovoNordisk, Pfizer, Roche Holdings, Sanofi and Takeda.

In addition, many other locally-operating companies compete with GSK in certain markets.

#### References

Fig 3 – GVAP plan: [http://www.who.int/immunization/global\\_vaccine\\_action\\_plan/DoV\\_GVAP\\_2012\\_2020/en/index.html](http://www.who.int/immunization/global_vaccine_action_plan/DoV_GVAP_2012_2020/en/index.html)

Fig 4 – FDA review process/approvals: <http://www.reuters.com/article/2013/10/29/us-usa-fda-jama-idUSBRE99R12920131029>

# Our business model

## How we create value

We continue to adapt our business model to deliver sustainable performance through innovation and expanding access

### Our mission

We have a challenging and inspiring mission: to improve the quality of human life by enabling people to do more, feel better, live longer. This mission gives us the purpose to develop innovative medicines and products and make them available to as many people who need them as possible.

Our mission is underpinned by a number of key factors:

### Our values

We put our values of patient-focus, transparency, integrity and respect for people at the heart of every decision we make. We are focused on integrating these values into our culture, decision-making and how we work. As well as meeting the quality and policy controls required of us, we continue to review and challenge our practices to ensure that our actions meet or exceed the expectations of society.

➔ See Responsible Business on page 50

### Our people

Our people are critical to our ability to achieve our mission. We rely on their knowledge, expertise and ability to innovate. Every employee is asked to perform with ethical integrity. We strive to create a workplace culture where employees feel valued and able to take ownership of their professional development and maximise their potential.

➔ See Responsible Business on page 50

### Our strategic priorities

Our three strategic priorities are to grow a diversified global business, deliver more products of value and simplify our operating model. These have been in place since 2008 and are designed to help us produce sustainable growth and improved operational and financial performance. We have reshaped our business to better align to this strategic approach and we are now a substantially different company in terms of geography, products and capabilities than we were five years ago.

➔ See Strategic Priorities on page 14

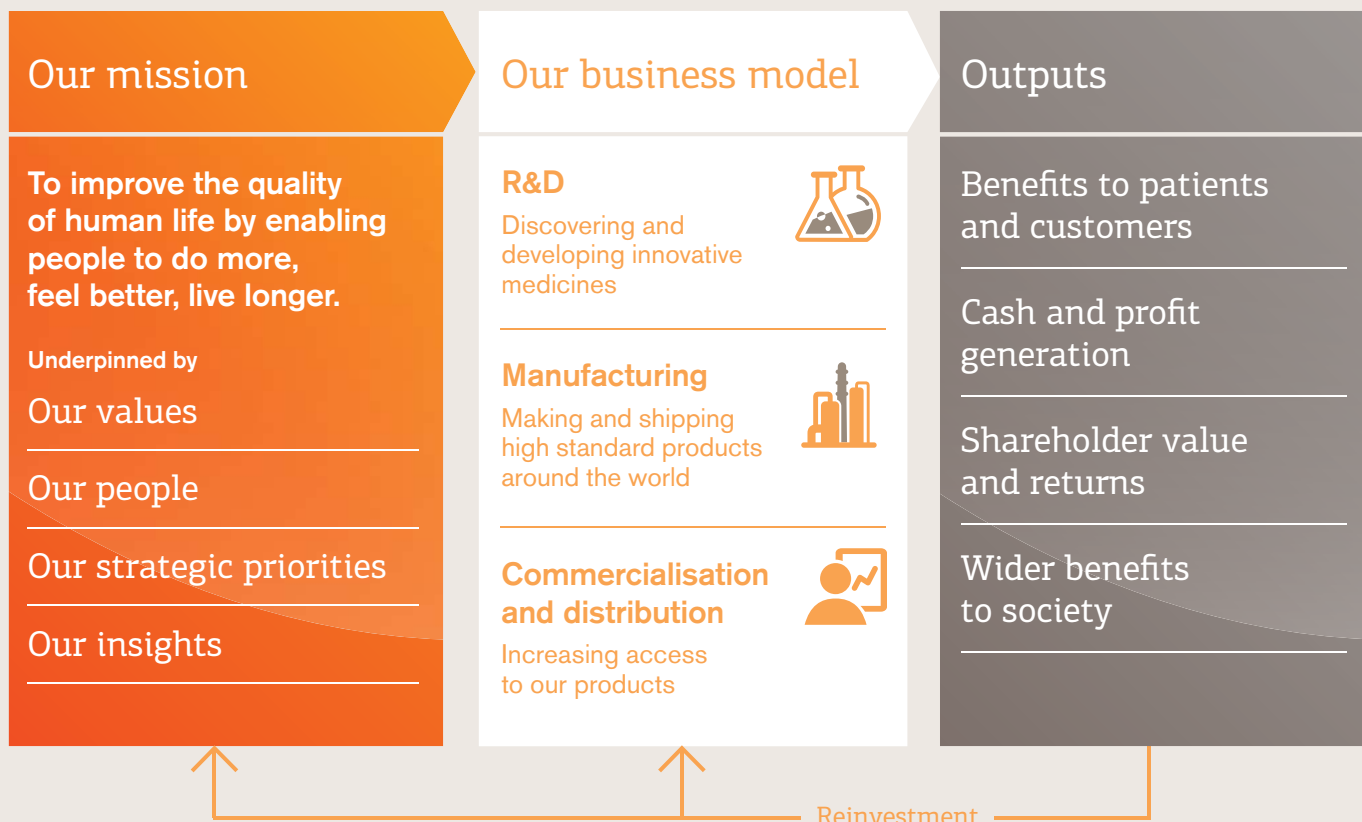
### Our insights

We continuously investigate the needs of patients and consumers. This understanding helps us ensure our medicines and products meet the requirements of those they are intended for while also addressing the specific needs of the markets where we make them available.

### Our business model

We have a broadly based and balanced business across pharmaceuticals, vaccines and consumer healthcare. At the core of our business model are the concepts of innovation and access. We create value by researching, manufacturing innovative products and making these accessible to as many people who need them as possible.

Improving healthcare and making it affordable and accessible to more people is a huge challenge, and one that requires a combined effort.



To meet this challenge, everyone involved – industry, healthcare professionals, universities, healthcare funders including governments, charities and regulators – need to work together. With this in mind, partnership and collaboration is a key principle of our business approach.

We continue to reform our business model. For example, we have taken industry-leading positions to improve global public health through our pricing and access strategies, increase transparency of our clinical trial data and modernise our commercial practices and interactions with customers.

## R&D

Discovering and developing new medicines is a long, expensive and uncertain process that requires us to be highly selective in where we invest our resources. Our primary goal in R&D is to develop innovative new medicines that offer significant improvements over existing treatments and so we focus our efforts on areas where the science presents new opportunities most likely to lead to significant medical advances.

As a large research-based company, we have significant scale, resource and expertise that we can bring to the search for new medicines. In recent years we have challenged the traditional hierarchical R&D business model by creating smaller, more agile and accountable early-stage R&D groups. These groups are tasked with seeking out the biological targets involved in disease and create the molecules or biopharmaceuticals that will ultimately become new medicines.

We have also increased the work we do alongside external partners, capturing the scientific diversity that exists across academia, research charities and within other companies and sharing the inherent risks of R&D.

In the process of our research, we grow knowledge and expertise and create intellectual property. Our business model ultimately relies on an environment that appropriately protects this intellectual property and provides us with an opportunity to earn a reasonable return on our R&D investment.

➔ See Deliver section on page 32

## Manufacturing

Our ability to consistently produce high quality products and distribute them through our global network is a key part of our business model. Our extensive manufacturing organisation and supply chain makes and distributes our products to over 150 countries around the world.

➔ See Simplify section on page 44

## Commercialisation and distribution

Our commercial success depends on market presence and customer understanding. With our focus on expanding access, we seek to make our products as widely accessible as possible to countries at all levels of income and development.

A GSK presence in a market is frequently a requirement before a medicine can be made available, so our wide geographical spread helps with this. In addition, this allows us to understand the unique characteristics of each market place and adapt our business model to address specific healthcare needs and requirements.

We have taken a strategic decision to introduce more flexible approaches to pricing that reflect a country's wealth and ability to pay. In the poorest countries, this has included capping prices at 25% of developed market levels, and forming alliances with non governmental organisations to reduce prices through high volume contracts.

In developed markets, we have pioneered novel reimbursement approaches to widen access to our newer medicines and priced these at or below current treatments.

➔ See Grow section on page 20

## Outputs

Delivering innovation and maximising access to our products generates value for patients, shareholders, and society more widely.

Our primary contribution is to make products that provide benefits to patients and consumers.

Successful delivery of this generates profitable and sustainable performance. In turn, this allows us to generate value and returns for our shareholders and enables us to reinvest in the business.

We also create value by making direct and indirect economic and social contributions in the countries where we operate. These wider benefits to society include contributions through tax, employment and enhancing the well-being of local communities through our global community initiatives.

# Our strategic priorities

## How we deliver

Our strategy is designed to deliver sustainable growth, reduce risk and improve long-term financial performance and returns to shareholders

### Our aim

### Our progress

## Grow a diversified business

We have been creating a more balanced business and product portfolio, capable of delivering sustainable sales growth. This is centred on our three business areas of Pharmaceuticals, Vaccines and Consumer Healthcare.

Total sales grew 1% to £26.5 billion in 2013 (3% excluding divestments). Performance was generated from multiple businesses and geographies reflecting successful implementation of the strategy.

## Deliver more products of value

We have changed our R&D organisation so that it is better able to sustain a pipeline of products that offer valuable improvements in treatment for patients and healthcare providers.

This is underpinned by a focus on improving productivity and rates of return in R&D.

During 2013, we received approvals for six major new products and several new indications for existing medicines and vaccines.

We also generated a high volume of phase III data on key assets in our pipeline.

Our estimated return on R&D investment increased to 13%.

## Simplify the operating model

As our business continues to change shape, we are transforming how we operate so that we can reduce complexity and become more efficient.

This frees up resources to reinvest elsewhere in the business.

We have several restructuring programmes which are on track to deliver total annual savings of £3.9 billion by 2016 compared with 2007. During 2013 we delivered incremental savings of £400 million.

We are also making good progress transforming our manufacturing network, supply chain and enterprise wide processes.

## Responsible business

Being a responsible business is central to our strategy, and how we deliver success is just as important as what we achieve. Ensuring our values are embedded in our culture and decision-making helps us better meet the expectations of society.

In 2013 we have made considerable further progress on our agenda to operate responsibly.

Specifically, we took action to increase transparency of clinical research data and modernise our commercial operations and interactions with customers.

We also made progress on driving access to medicines in the poorest countries and passed a key milestone in the development of a potential vaccine against malaria.

## Highlights

# £26.5bn

Group turnover

# 39%

Group turnover outside USA and Europe

## Our priorities

- Successful launch and commercialisation of new products from our pipeline
- Continue to invest in key growth businesses including Emerging Markets, Vaccines and Consumer Healthcare
- Look for further opportunities to increase focus and optimise value of our product portfolio



→ Read more on page 20

## Financial architecture

Our financial architecture is designed to support the delivery of our strategy and to enhance returns to shareholders. It is focused on four key priorities: delivering sustainable sales growth, improving operating leverage, improving financial efficiency and converting more of our earnings into cash.

By applying this architecture consistently, we are driving better and more consistent decision making across the company and improving delivery of our key financial objectives of earnings per share growth and free cash flow generation, which can then be returned to shareholders or reinvested in bolt-on acquisitions, wherever the most attractive returns are available.

Implementing this financial architecture helped us to return £5.2 billion to shareholders through dividends and buy-backs in 2013.

### Outlook

For 2014, we are targeting core earnings per share growth of 4-8% CER (from 2013 base of 108.4p adjusted for divestments completed during 2013) on sales growth of around 2% CER (from 2013 base of £25,602 million adjusted for divestments completed during 2013).

The range in our guidance reflects the transition we expect to see in our portfolio during the year as we roll-out new products but also face potential competition from generics to older products such as *Lovaza*.

# 6

Significant new product approvals in 2013

# 40

Medicines in Phase II/III development

- Delivery of Phase III data for six potential new medicines and vaccines and around 10 NME Phase III starts across 2014/2015
- Continued focus on increasing R&D rate of return



→ Read more on page 32

# £400m

Incremental savings in 2013

# 10

Days reduction in working capital

- Further cost savings delivery from our restructuring programmes
- Further roll-out of standardised enterprise platforms and delivery of an integrated supply chain



→ Read more on page 44

# 60%

Increase in the volume of medicines supplied to Least Developed Countries since 2010

# 1st

Pharmaceutical company to sign AllTrials campaign for research transparency

- File our RTS,S malaria vaccine candidate for approval in 2014 and, if approved, offer at a not-for-profit price
- Implement changes on how we incentivise our sales teams and work with healthcare professionals



→ Read more on page 50

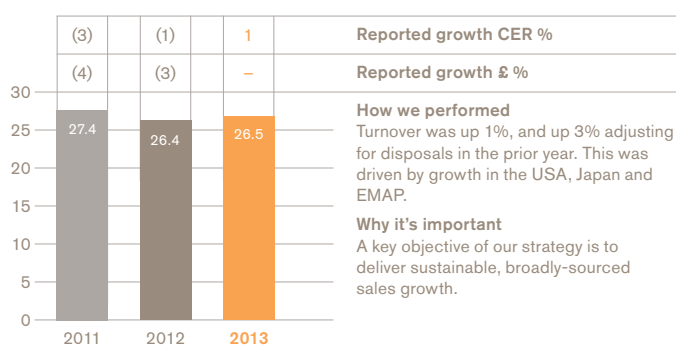
# How we performed

## Key indicators

We measure our performance against a number of key indicators and the remuneration of our executives is based on many of these

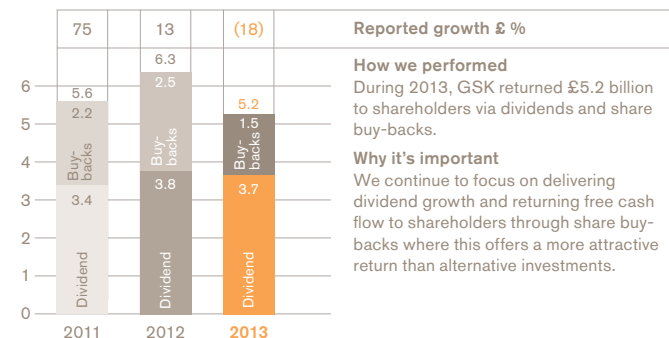
### Group turnover

# £26.5bn



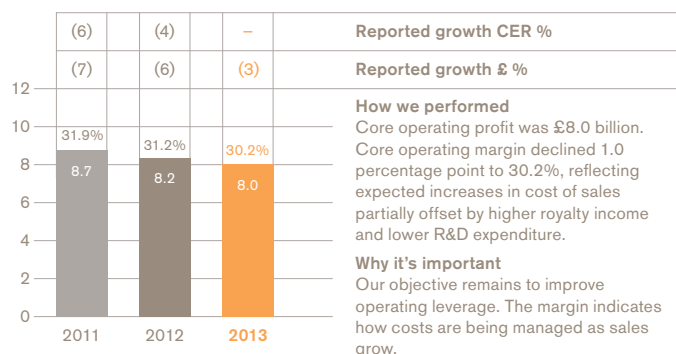
### Cash returned to shareholders

# £5.2bn



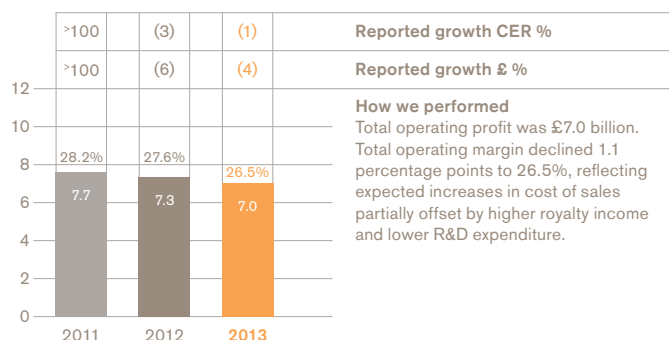
### Core operating profit and margin<sup>a</sup>

# £8.0bn



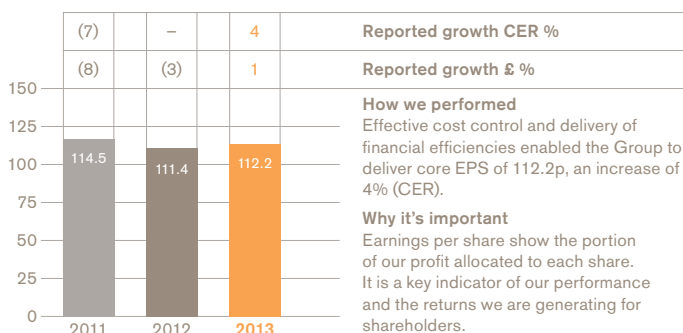
### Total operating profit and margin

# £7.0bn



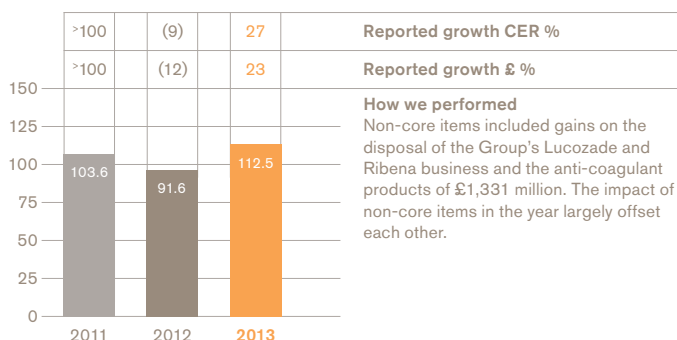
### Core earnings per share<sup>a</sup>

# 112.2p



### Total earnings per share

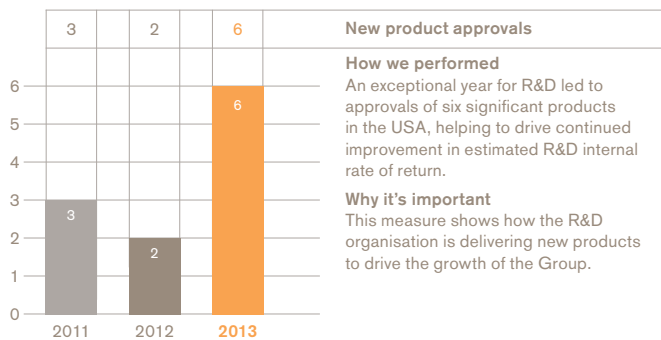
# 112.5p





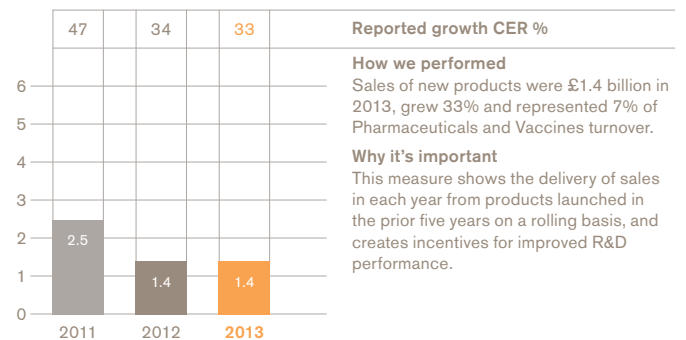
## New product approvals in the USA

# 6 approvals



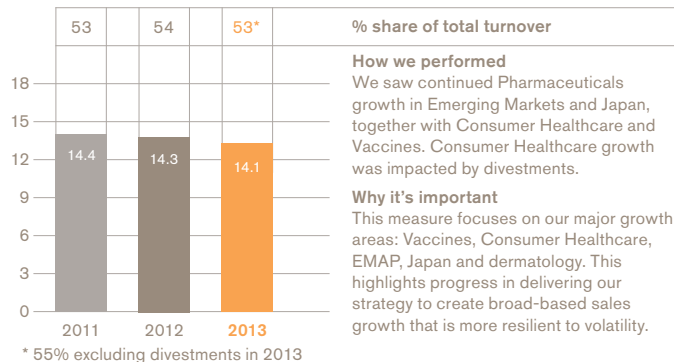
## New Pharmaceuticals and Vaccines product performance<sup>b</sup>

# £1.4bn



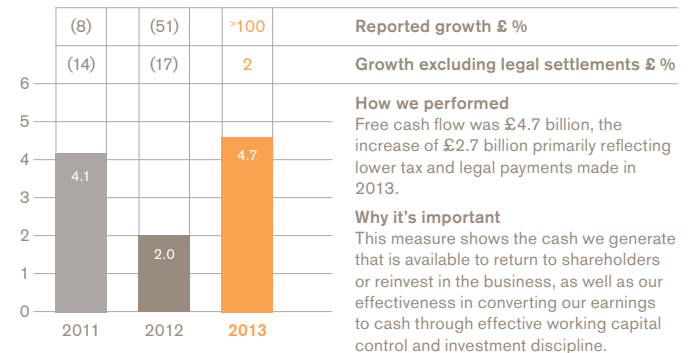
## Turnover in our major growth areas<sup>b</sup>

# £14.1bn

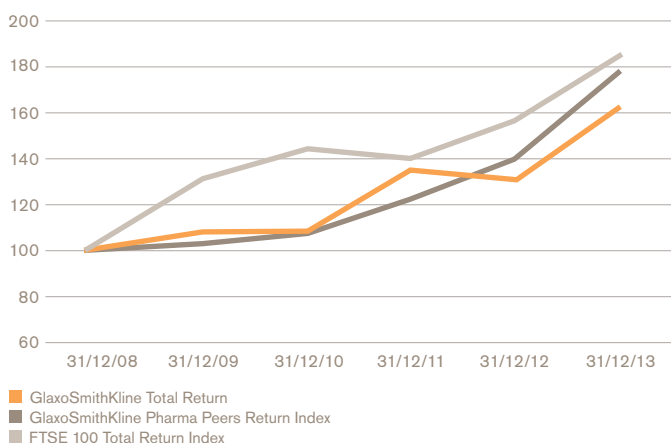


## Free cash flow<sup>b,c</sup>

# £4.7bn



## Relative total shareholder return<sup>b,d</sup>



<sup>a</sup> We use a number of adjusted measures to report the performance of our business. These include core results, which are used by management for planning and reporting purposes and may not be directly comparable with similarly described measures used by other companies. Core results exclude a number of items from total results. A full definition of core results can be found on page 58 and a reconciliation between core results and total results is provided on page 65.

<sup>b</sup> The remuneration of our executives is linked to the marked key indicators. Further information on our executive pay policy can be found in our Remuneration report on page 96.

<sup>c</sup> The calculation of free cash flow is described on page 58 and a reconciliation is provided on page 72. The calculation of CER is described on page 58.

<sup>d</sup> The constituents of the Pharma Peers Return Index are listed on page 106.

# Risk management

## Our approach to risk

We have rigorous processes and systems in place to help assure the integrity of our business operations which include how we identify and manage the risks that could impact our business

The management of risk is an important factor in the long-term success of our business and is a key focus of our Board and senior management. Sound risk management helps us address the inherent risks in our business while creating value for shareholders, protecting company assets and maintaining our focus on the fundamentals of product quality, safety and sustainability.

Our aim is to identify, assess and manage risk at all levels of the organisation. Employees are expected to take accountability for identifying and escalating encountered risks so that they can be appropriately managed. Our risk management hierarchy is focused on making such escalation simple, rapid and transparent. This approach allows us to balance our level and type of risk exposure with our ability to pursue our strategic priorities.

The hierarchy of our risk management governance is shown in Figure 1. The diagram summarises the linked roles, responsibilities and relationships between different oversight and management groups. Figure 2 provides a representation of the process and framework around risk management.

We are committed to conducting business in accordance with all applicable laws and regulations. Our established company policies, standards and internal controls, together with our company values, underpin our approach to risk management.

### Global risk management

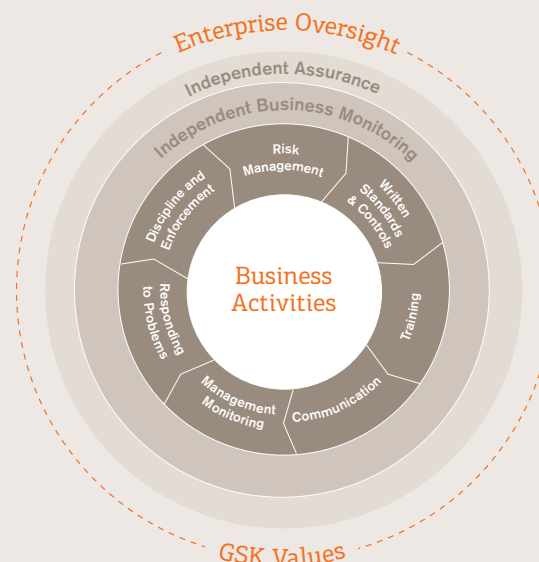
The Board is responsible for ensuring that risks that could adversely impact the company are appropriately managed, with the oversight of this managed through the Audit and Risk Committee (ARC). The ARC will take a holistic view, looking at our financial results and controls, the operations of our businesses and their management of risk, as well as considering new emerging risks. (Further information on the Board's responsibilities is included in the Corporate Governance section, see page 82.)

While the Board and the ARC set the direction of our risk management and policies, it is our Corporate Executive Team (CET) that has responsibility for identifying, approving, monitoring and enforcing key policies concerning risks and controls that determine how the Group conducts its business.

Figure 1: Governance structure of risk management



Figure 2: Our control framework



Our internal control framework, in conjunction with our values, helps to ensure that we effectively manage risks as we conduct our business activities.

We are subject to inspections and audits conducted by external parties, including regulatory agencies, to assess the adequacy of our internal control framework. We actively address findings from these activities and take appropriate corrective actions to improve our internal controls across the Group.

Each year, CET reviews the risks facing the Group and agrees a list of most significant risks – referred to as Principal risks – that require particular attention from a Group perspective including those that could cause our actual results to differ materially from expected and historical results. A summary of our Principal risks is set out below, while a full description of each risk is presented in 'Risk factors' on page 232 to 241.

In addition, the CET considers how each of the Principal risks could interact across the company and have a compound impact. Specific accountability is assigned to designated individuals responsible for developing the overall Group approach to those Principal risks identified as having a particular exposure in this regard.

The work of the CET and the ARC is supported by the Risk Oversight and Compliance Council (ROCC), whose membership comprises senior executives representing the various business units and global support functions making up GSK.

It is the responsibility of the ROCC to ensure each area of the business has robust processes in place to identify risks, assign clear accountability, and monitor the effectiveness of internal controls and mitigation plans. Processes are in place to ensure business units and global support functions escalate significant operational compliance issues, internal and external audit results, and investigations to the ROCC and then onward to the ARC in a timely manner.

We expect our third parties to uphold the same high standards we set for ourselves and establish appropriate governance to help ensure that our expectations are met.

#### **Risk management within the business**

Operational day-to-day management of risk rests within the business. We are committed to being a responsible, values-based business and management is responsible for embedding this into our culture, decision making and how we work.

Each business unit and global support function maintains a Risk Management and Compliance Board (RMCB). The purpose of the RMCBs is to identify specific operational, legal, and compliance risks that may affect the achievement of business objectives and to help ensure that appropriate internal controls are implemented. The relevant CET members accountable for different parts of the business each present an annual report to the ROCC and the ARC.

Our Global Risk Officer and Global Ethics and Compliance team are responsible for supporting the effective integration of risk management into our business units and global support functions. Audit & Assurance is responsible for independently assessing the adequacy and effectiveness of the management of risk areas and reporting outcomes to the ROCC and ARC. These groups maintain independent reporting lines outside of business management.

## **Principal risks**

The Principal risks listed below are those we believe could cause our actual results to differ materially from expected and historical results. They are not listed in order of significance. A full description of risk definition, context, potential impact, and mitigating activities is set out on pages 232 to 242 in 'Risk factors'.

### **Patient safety**

Failure to appropriately collect, review, follow-up, or report adverse events from all potential sources. This could compromise the Group's ability to conduct robust safety signal detection and interpretation and to ensure that appropriate decisions are taken with respect to the risk/ benefit profile of the Group's products, including the completeness and accuracy of product labels and the pursuit of additional studies/analyses, as appropriate.

### **Anti-bribery and corruption**

Failure to foster a culture within the company in which bribery and corruption are unacceptable; adopt measures and embed procedures to prevent bribery and corruption by employees, complementary workers and through third party interactions; investigate allegations of bribery and corruption and remediate issues identified; and comply with applicable ABAC legislation.

### **Research practices**

Failure to protect and inform patients involved in human clinical trial research; conduct objective, ethical preclinical and clinical trials using sound scientific principles; guarantee the integrity of discovery, preclinical, and clinical development data; manage human biological samples according to established ethical standards and regulatory expectations; treat animals ethically and practice good animal welfare; appropriately disclose human subject research for medicinal products; and ensure the integrity of our regulatory filings and of the data that we publish.

### **Commercial practices and scientific engagement**

Failure to engage in commercial and/or scientific activities that are consistent with the letter and spirit of legal, industry, or company requirements relating to marketing and communications about our medicines and associated therapeutic areas; appropriate interactions with healthcare professionals (HCPs) and patients; and legitimate and transparent transfer of value.

### **Product quality**

Failure to ensure product quality throughout manufacturing and distribution processes resulting in non-compliance with good manufacturing practice (GMP) and regulations.

### **Environment, health and safety and sustainability**

Failure to ethically manage environment, health and safety and sustainability consistent with company objectives, policies and relevant laws and regulations.

### **Supply chain continuity**

Failure to deliver a continuous supply of compliant finished product.

### **Intellectual property**

Failure to appropriately secure and protect intellectual property rights.

### **Financial reporting and disclosure**

Non-compliance with financial reporting and disclosure requirements or changes to the recognition of income and expenses.

### **Information protection**

Risk to the Group's business activity if critical or sensitive computer systems or information are not available when needed, are accessed by those not authorised, or are deliberately changed or corrupted.

### **Tax and treasury**

Failure to comply with tax law or significant losses due to treasury activities.

### **Crisis and continuity management**

Inability to recover and sustain critical operations following a disruption or to respond to a crisis incident in a timely manner regardless of cause.

# Grow

We continue to pursue our strategy of generating sustained and broadly based sales growth.

Over the past six years we have created a more balanced business and product portfolio, capable of delivering sustainable sales growth.

We believe our positions in Vaccines and Consumer Healthcare and in key Pharmaceutical therapeutic areas including respiratory and HIV provides us with significant competitive advantage and opportunity for synergies.

Regionally we continue to make significant investments in higher growth markets, for example in Asia-Pacific, Latin America and Japan. We have reshaped our US business to reflect changing market dynamics and to enable the successful launch of the multiple new product approvals we have received over the last year. In Europe we are restructuring to improve efficiencies and focus resources on growth opportunities in what continues to be a challenging environment.

## Progress summary

Reported turnover grew 1% in 2013 to £26.5 billion (+3% excluding divestments).

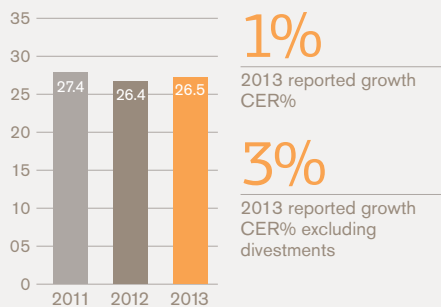
Performance was in line with our guidance despite some unexpected challenges and was generated from multiple businesses and geographies reflecting successful implementation of our strategy.

We saw an encouraging return to growth in our US pharmaceuticals and vaccines business and stabilisation of our European business. Reported pharmaceutical and vaccine sales grew 1% in our Emerging Markets region (+5% excluding China).

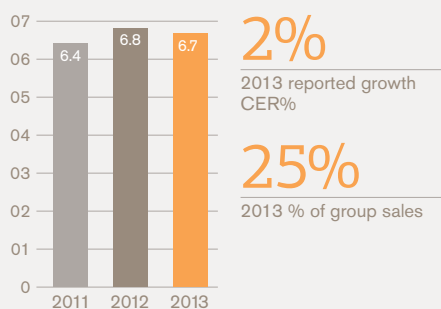
Our Consumer Healthcare business also made further progress with sales up 4%, excluding divestments.

During the year we completed the divestment of drinks brands *Lucozade* and *Ribena* and two anti-coagulant drugs *Arixtra* and *Fraxiparine*. We also formed an Established Products Portfolio of largely non-promoted brands, which will be reported separately from 2014.

Group turnover over 3 years £bn



Sales in emerging markets over 3 years £bn





## Building our business in emerging markets

As part of our focus on emerging markets, we have invested heavily in Brazil over recent years. The economy there is expanding quickly, and – in terms of healthcare – is now the sixth largest pharmaceutical market in the world.

Pharmaceutical and vaccines sales in our business in Brazil increased by 6% during 2013, contributing to overall growth across the emerging markets region of 5% for the year (excluding China).

As well as expanding sales of our medicines and vaccines in Brazil, we are committed to scientific research in Latin America. Through our 'Trust in Science' programme, we collaborate with outstanding scientific groups to explore new ways to treat priority diseases.

During 2013, we also formed a collaboration with the São Paulo Research Foundation to create a new sustainable chemistry centre.

**In our photo:** A doctor in a hospital in Rio de Janeiro. Brazil has more than 320,000 doctors but also the largest population – over 200 million – in South America. Their public healthcare system offers full coverage for every citizen.

### References

IMS World Review 2012 Analyst; <http://www.abpi.org.uk/industry-info/knowledge-hub/global-industry/Pages/industry-market.aspx>

<http://data.worldbank.org/indicator/SH.MED.PHYS.ZS>

<http://www.kantarhealth.com/docs/ebooks/brazil-the-gem-of-latin-america.pdf>

## Our priorities

Successful launch and commercialisation of new products from our pipeline is a key priority for 2014.

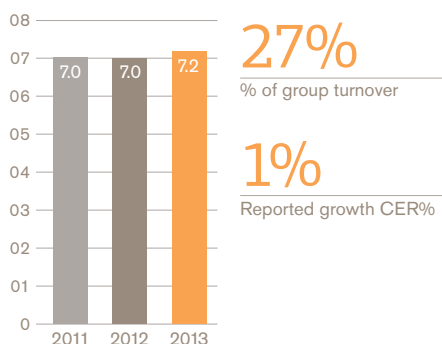
At the same time, we will continue to invest in our target growth businesses such as Emerging Markets, Vaccines and Consumer Healthcare.

We will continue to look for further opportunities to drive synergies across Pharmaceuticals, Vaccines and Consumer Healthcare, and review our product portfolio to increase focus, reduce complexity and optimise value.

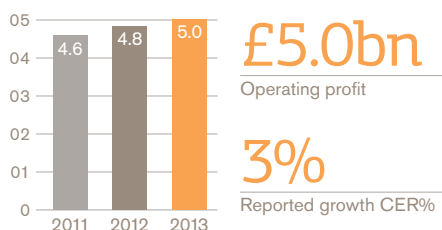
# Pharmaceuticals and Vaccines USA

Our US business performed well in a dynamic and challenging environment and made very good progress in new product approvals

Turnover £bn



Operating profit £bn



Breakdown of turnover

	£m	Growth CER %
Respiratory	3,655	7
Anti-virals	57	(2)
Central nervous system	440	(15)
Cardiovascular and urogenital	1,244	(16)
Metabolic	4	>100
Anti-bacterials	27	30
Oncology and emesis	380	17
Vaccines	978	17
Dermatology	140	(40)
Rare diseases	113	(4)
Immuno-inflammation	148	>100

## Marketplace

The US is undergoing perhaps the greatest transformation in its healthcare system for 50 years. Implementation of the Affordable Care Act (ACA), much of which starts in 2014, will mean changes for patients, physicians, payers and the pharmaceutical industry.

There is significant opportunity for all healthcare stakeholders, including government entities, healthcare providers, and private industry, to work together to address the challenges of rising costs, an ageing population and an epidemic of chronic disease. These factors, along with economic uncertainty, are placing greater emphasis on the demand for higher quality care, lower costs and better health outcomes.

## Performance

US Pharmaceuticals and Vaccines turnover rose 1%, but grew 4% when the impact of the conclusion of the Vesicare co-promotion agreement in Q1 2012 is excluded. Pharmaceuticals turnover was down 1% (up 2% excluding Vesicare) and vaccines turnover grew 17%. Core operating profit was up 3%.

By therapy area there were particularly strong performances in respiratory, oncology and vaccines.

Respiratory sales grew 7%, with *Advair* up 8% to £2.8 billion. Estimated underlying growth for *Advair* was 6% with some volume decline offset by a positive impact of price and mix. *Flovent* sales were up 6% to £482 million in line with estimated underlying growth for the year. *Ventolin* sales grew 4% to £291 million. The launch of *Breo Ellipta* began in Q4 2013 with £6 million of sales recorded in the quarter.

Oncology sales grew by 17%, reflecting continued strong growth contributions from *Votrient* (up 56% to £144 million) and *Promacta* (up 33% to £73 million), which benefited from a new indication for thrombocytopenia associated with Hepatitis C received during Q4 2012. *Arzerra* sales grew 18% to £46 million. Oncology performance also reflected contributions totalling £21 million from *Tafinlar* and *Mekinist*, which were both launched in Q2 2013 as monotherapy treatments and have achieved strong initial uptake in the BRAF V600 melanoma market.

Cardiovascular and urogenital sales fell 16% largely due to the ending of the *Vesicare* co-promotion agreement in 2012 while Central Nervous System sales declined 15% largely due to generic competition to the *Lamictal* franchise.

In Vaccines, a sales increase of 17% was primarily the result of increases in *Infanrix/Pediarix* sales of 23% to £271 million and *Boostrix* sales of 23% to £183 million, both of which benefited from competitor supply shortages. *Fluarix/FluLaval* sales were also strong, up 65% to £146 million, following the launch of the Quadrivalent flu formulation in 2013.

## Portfolio progress

In the course of 2013, six approvals were received from the FDA: *Breo Ellipta* and *Anoro Ellipta* for respiratory disease, *Tafinlar* and *Mekinist* for melanoma, and a new injectable quadrivalent flu vaccine, as well as ViiV Healthcare's *Tivicay* for HIV. Overall, GSK accounted for 19% of FDA new drug approvals during 2013 and since 2009 we have achieved more approvals by the FDA of new molecular entities (NME) than any other company.

The approvals of *Breo Ellipta* and *Anoro Ellipta* add to the strength of our respiratory portfolio. Supplemented by our existing products and a further seven that are in late-stage development, we are confident in our ability to maintain a leadership position in this area well into the next decade.

A number of other products are awaiting review or decisions by the FDA. We have submitted *Arzerra* as first-line treatment of chronic lymphocytic leukaemia (CLL). We have also submitted an FDA application for albiglutide, for adult patients with type 2 diabetes and filed New Drug Applications (NDAs) for fluticasone furoate for asthma, and umeclidinium bromide (UMEC), for patients with COPD, including chronic bronchitis and emphysema.

### Other developments

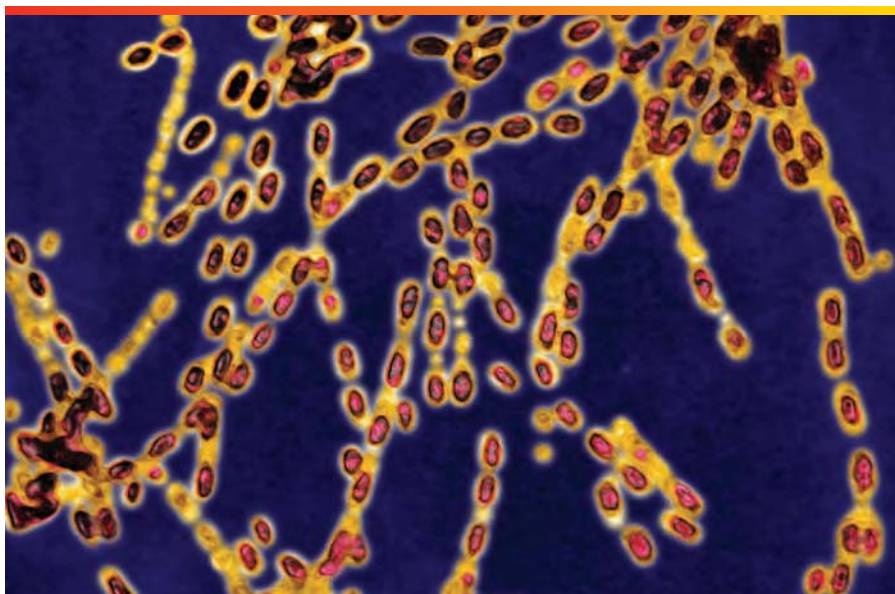
In September, the FDA published draft guidance on how to establish bioequivalence between inhaled medicines like *Advair* that contain fluticasone propionate and salmeterol administered through the *Diskus* and proposed generic versions. We have submitted comments on the draft guidance. The FDA has not identified a date for release of the final guidelines. If any generic applicant were to seek market entry before the lapse of *Diskus* patent protection in August 2016, it would need to send GSK a paragraph IV certification.

In November, the FDA eased restrictions on patient access to *Avandia* (rosiglitazone) following an FDA Advisory Committee review of the results from the Rosiglitazone Evaluated for Cardiovascular Outcomes and Regulation of Glycemia in Diabetes (RECORD) clinical trial.

We continue to see significant improvements in customer interactions following the changes we made in 2011 to de-couple the pay from the number of prescriptions issued for our sales representatives.

Following our announcement in December to change the way we interact with healthcare professionals, we will start the process to implement these changes in the USA in 2014 and expect it to be in place across the business by the start of 2016.

As part of our initiatives to support the health and well-being of communities in the markets in which we operate, we invested £221 million in our Patient Assistance programmes in the USA during 2013. These programmes are designed to help underprivileged families in the USA access essential healthcare.



Cavallini James / BSIP/Science Photo Library

## Working with government to provide bioterrorism protection

Anthrax is one of the most likely agents to be used in a bioterrorist attack, and the US Centers for Disease Control and Prevention (CDC) has classified it as a category A biothreat.

Following many years of collaboration with the Biomedical Advanced Research and Development Authority, in 2013 we were awarded a new contract to provide our inhalation anthrax treatment, raxibacumab, to the Department of Health and Human Services (HHS).

We will provide 60,000 doses over four years, at a value of approximately \$196 million (\$23 million of which were realised in 2013) and are proud to be helping protect US citizens against bioterrorism. This forms part of a broader five-year base contract.

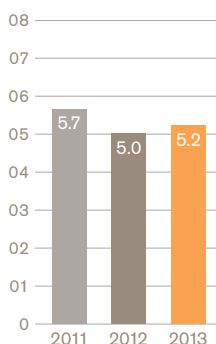
The raxibacumab contract is the latest in a long line of examples of how we work closely with the US government. We are working with the US government and the Texas A&M University System to establish a \$91 million biodefence and pandemic influenza-vaccines manufacturing facility in Texas.

In a novel approach to drug development funding, we were awarded up to \$200 million in 2013 to develop new antibiotics via a public-private agreement. This marks the first time that HHS has taken a portfolio approach to funding drug development with a private sector company.

# Pharmaceuticals and Vaccines Europe

In Europe, we have been restructuring to improve our business performance and support new product approvals

## Turnover £bn



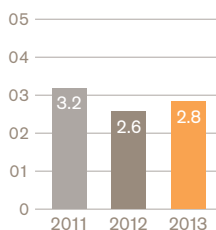
19%

% of group turnover

flat

Reported growth CER%

## Operating profit £bn



£2.8bn

Operating profit

3%

Reported growth CER%

## Breakdown of turnover

	£m	Growth CER %
Respiratory	1,907	(3)
Anti-virals	66	(14)
Central nervous system	355	(11)
Cardiovascular and urogenital	533	2
Metabolic	42	41
Anti-bacterials	393	(6)
Oncology and emesis	339	28
Vaccines	1,049	3
Dermatology	170	5
Rare diseases	129	1
Immuno-inflammation	8	100

## Marketplace

Europe remains a challenging environment as governments continue to implement austerity measures.

France, Germany and the UK all introduced or announced either cuts, freezes or reductions to the medicines budgets in the course of 2013.

In southern Europe, austerity measures have also continued to drive price reductions. However, in October 2013 the Spanish government announced plans to repay most of its €4.1 billion debt to the pharmaceutical industry.

The introduction of Health Technology Assessment (HTA) systems is also impacting the European marketplace. Governments are using HTAs to guide decisions on the allocation of healthcare resources, including expenditure on medicines. Assessment criteria are becoming more challenging around what are viewed as acceptable comparators, incremental benefits against clinical measures and patient populations.

## Performance

European Pharmaceuticals and Vaccines turnover was £5.2 billion, flat compared with 2012, as the benefits of the recent restructuring and refocusing of the business were offset by continued pricing pressures and generic competition to a number of products.

Pharmaceutical sales were down 1% to £4 billion while Vaccines grew by 3% to £1 billion, largely due to an improved tender performance. Operating profit in Europe rose 3%.

By therapy area, respiratory sales were down 3%, reflecting increased competition in many markets. *Seretide* sales were down 2% to £1.5 billion, with some volume decrease but no net impact of price and mix. *Serevent* and *Flovent* sales were down 17% and 7% respectively.

In oncology, sales grew 28% to £339 million, led by sales of *Votrient*, which increased by 91% to £130 million, as it continued to build market share in many markets. *Revolade* received approval for use in thrombocytopenia associated with hepatitis C at the end of Q3 and sales in the year increased by 47% to £55 million. *Tafinlar* was launched in Q3 2013 in certain markets and has achieved strong uptake in these early launch markets.

Sales of Central Nervous System products fell 11% due to generic competition.

The 3% growth in vaccines sales in 2013 was driven primarily by successful tenders for our rotavirus vaccine *Rotarix* and *Boostrix* for diphtheria, tetanus and pertussis. This was supplemented by the launch of our *Nimenrix* vaccine for various strains of meningitis.

## Portfolio progress

In 2013, a number of new products received approval in Europe. These included *Relvar Ellipta* for COPD, *Tafinlar* for advanced metastatic melanoma and a four-strain influenza vaccine.

Additionally, a two dose schedule was approved for cancer vaccine *Cervarix* in 9-14 year old girls. *Synflorix* was also approved for immunisation against pneumonia in infants and children. Approval was granted in new indications for two existing products in oncology; *Revolade* for chronic hepatitis C-associated thrombocytopenia and *Tyverb*, which can be used in conjunction with trastuzumab for certain types of breast cancer.

## Other developments

We have been restructuring our European business over the course of 2012 and 2013 to reduce inefficiencies and ensure we focus investment into the areas with most growth potential. The reorganisation was largely complete by the end of 2013.

In Pharmaceuticals, last year we divested our anti-coagulant products, *Arixtra* and *Fraxiparine*, to The Aspen Group for more than £700 million. As part of the same transaction, we agreed to transfer a manufacturing site in France to Aspen in 2014.

In December, we announced changes to the way that we will compensate global sales employees who work directly with prescribing healthcare professionals (HCPs), removing individual sales targets. These changes will roll out to our global sales force during 2014. We also announced changes to how we work with healthcare professionals. During 2014, we will start the process to end direct payments to healthcare professionals for speaking engagements or attendance at medical conferences by start of 2016.



## An openness to offer early access to innovative medicines

We are committed to ensuring that patients who could benefit from our innovative medicines most can access them and are developing novel approaches to ensure we can do this in a sustainable manner.

By engaging with governments, healthcare professionals and regulators we are committed to ensuring patients who are appropriate for our medicines can benefit from them as soon as they are available.

When we launched our kidney cancer product *Votrient* in the UK, we agreed to provide head-to-head data against the standard of care within two years: if the results were positive we would retain the price; if they were negative we would pay a rebate and reduce the price. In 2013, the results became available. They were positive and it was agreed that we could retain the original price.

Across Europe, we continue to see an increasing number of patients benefiting from *Votrient*, now that it has achieved reimbursement status for two cancer types across the region, advanced kidney cancer and soft-tissue sarcoma.

By engaging with oncologists, we are also ensuring that eligible patients across Europe are able to access *Tafinlar* ahead of reimbursement – at no cost.

Initiatives such as these have contributed to growth in our oncology business in the last five years. By bringing innovative medicines to market and helping patients with cancer access these medicines quickly, we are seeking to be a key partner in oncology.



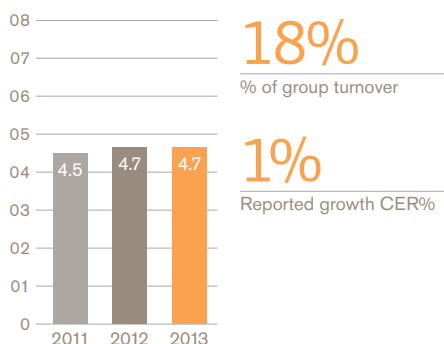
Our European business supported a number of initiatives to support health, well-being and science education in local communities. In the UK, we were a major supporter of WellChild, the national charity for sick children. We also implemented our science education programme which works with secondary school teachers to help inspire young people to continue their studies in science, technology, engineering and maths (STEM) subjects, to help them make the connection between the science they learn in the classroom and potential future careers. We also continued to provide financial support to Barretstown, a camp in Ireland that provides therapeutic recreation programmes for children with serious illnesses and their families.

# Pharmaceuticals and Vaccines

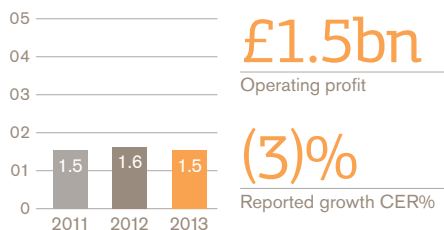
## EMAP

Our Emerging Markets and Asia Pacific business delivered strong performance despite political unrest and economic uncertainty in some markets

### Turnover £bn



### Operating profit £bn



### Breakdown of turnover

	£m	Growth CER %
Respiratory	877	4
Anti-virals	293	(20)
Central nervous system	341	7
Cardiovascular and urogenital	281	(2)
Metabolic	68	9
Anti-bacterials	750	5
Oncology and emesis	149	18
Vaccines	1,124	1
Dermatology	397	6
Rare diseases	48	2
Immuno-inflammation	1	-

### Marketplace

We remain optimistic about the long-term prospects in the emerging markets and the EMAP region continues to be a major engine of growth for our industry. Characterised by growing populations, increased GDP, more demanding middle classes and greater spending on healthcare, the business fundamentals in the region are strong and are expected to remain so in the coming years.

Economic and currency volatility continued to cause short term uncertainty in some countries. Subdued growth can in part be attributed to price pressures created by governments more tightly managing healthcare budgets, particularly in Brazil, Korea and India.

### Performance

EMAP Pharmaceuticals and Vaccines turnover grew 1% to £4.7 billion in 2013, adversely affected by the ongoing investigation in China and some vaccine supply issues. Excluding China, Pharmaceuticals and Vaccines sales were up 5% in EMAP. Operating profit in EMAP was down 3%.

Regionally, Pharmaceuticals and Vaccines growth was strong in the Middle East/Africa (up 7%), Latin America (up 6%) and South-East Asia (up 6%), partially offset by declines in Korea (down 9%) and India (down 5%). Performance in India was affected by government price controls introduced in the middle of the year. However, we continue to be optimistic about business prospects in the country, as demonstrated by our open offer to increase our holding in our publicly-listed Indian pharmaceuticals subsidiary. We aim to complete this transaction in 2014.

In China, sales were down 18%. Our business in China has been the subject of an investigation by government authorities after allegations of fraudulent behaviour. We are concerned and disappointed by these allegations and are co-operating fully with the Chinese authorities.

Pharmaceuticals sales in EMAP rose 2% to £3.6 billion (up 5% excluding China). In the respiratory therapy area, sales grew by 4%, led by *Seretide*, up 4% to £429 million. *Veramyst* grew 16% to £71 million and *Ventolin* sales were up 2% to £171 million.

Oncology sales grew 18% to £149 million, led by strong growth of *Votrient* (up 77% to £37 million) and *Promacta* (up 92% to £22 million). However, sales of *Tykerb* and *Hycamtin* declined (9% to £47 million and 36% to £7 million respectively).

Sales of anti-bacterials grew 5% to £750 million. This was primarily due to an 11% increase in sales of *Augmentin* to £393 million.

Sales of anti-virals fell 20% due to declines in *Zeffix* and *Hepsera*.

Vaccines sales grew 1% to £1.1 billion (3% excluding China), reflecting strong tender performances from *Cervarix* and *Infanrix/Pediarix*, partially offset by a tough comparison with 2012. In Brazil, we maintained existing vaccine tenders and signed a new technology transfer agreement for *Boostrix*. In India we finalised a joint venture to focus on early stage research and development of a six-in-one combination paediatric vaccine to help protect children from polio and other infectious diseases.

### Portfolio progress

In addition to filing our new pipeline products in EMAP countries, we are also implementing a 'catch up' programme, which aims to bring more of our established products to developing countries. As part of this programme, we received approvals for a further 26 products treating non-communicable diseases, respiratory, antibiotics and oncology in 2013.

### Other developments

Following our announcement in December, some markets within our EMAP business have started to implement changes to the way that we compensate our sales employees who work directly with prescribing healthcare professionals (HCPs), removing individual sales targets. These changes will roll out to our entire global sales force during 2014.

## A new formulation to help those on low incomes

In the emerging markets, we have been looking at innovative ways to expand access to our products. For instance, asthma patients in emerging markets on low incomes, have to pay for medicines directly. However, many of these people are often paid on a weekly or even daily basis and so the purchase of medicines, which are normally sold in large packs, can be out of reach for many.

In response, we have developed smaller pack sizes and an inhaler device that is less costly to produce. *Ventolin Rotacaps* uses a re-engineered version of our established GSK inhaler technology, but one that is five times less expensive to produce.

We have packaged the actual medicine into individual dose capsules, allowing this to be purchased in quantities as small as four capsules at a time. This cuts the overall cost of the medicine, enabling more patients to buy the medicine in quantities that fit with their cash flow.

The new inhaler is available in four markets – the Philippines, Indonesia, Kenya and Nigeria – and we have submitted it for regulatory approvals in other markets. Ultimately we hope it will open up access to many more patients who are currently unable to afford inhaled respiratory medicines.

Across the EMAP region, we are continuing to expand in the least developed markets, where we estimate there are some 240 million people who are under served by healthcare provision. Our Developing Countries Market Access (DCMA) unit manages our commercial business in the world's poorest countries and focuses on volume rather than profit growth. We have now created a new operating unit to embrace countries across sub-Saharan Africa and other Least Developed Countries. This is the first step in a broader growth strategy for Africa.

We remain fully committed to supporting healthcare across all the emerging markets, despite the challenges that exist in some countries and regions. We believe that improving patient access to medicines and vaccines is not just for patient benefit but is also key to the longer term success of the business.

In May, we added to our commitment to the GAVI Alliance, with a new agreement to supply Cervarix to four new GAVI demonstration projects at a significantly discounted price. We also extended the *Synflorix* vaccine supply agreement in order to protect an additional 80 million children in the world's poorest countries from pneumococcal diseases such as meningitis and pneumonia. These latest commitments add to our existing agreements to supply GAVI with up to 480 million doses of *Synflorix* over the next decade and 132 million doses of *Rotarix* over the next five years.

As part of our drive to improve access to vaccines and healthcare in developing countries we entered into two new partnerships: one with Save the Children and another with Barclays bank. The alliance with Save the Children is a long-term strategic global partnership which aims to help save the lives of one million children by combining the expertise, resources and influence of the two groups. It will touch many areas of our business, in particular using our R&D knowledge. For more on this partnership see page 55.

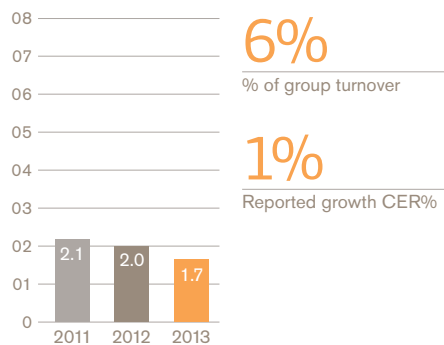
The partnership with Barclays seeks to increase access to affordable healthcare while helping to create improved economic conditions for growth. We will be combining our skills and expertise with those of Barclays to help remove financial barriers to healthcare access, and also supporting small business development and job creation, starting in Zambia.

In May, we announced our financial support for the One Million Community Health Workers campaign, which aims to train health workers to provide essential services to the poorest communities in sub-Saharan Africa.

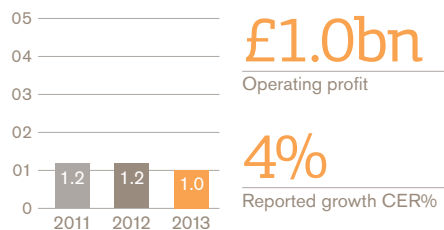
# Pharmaceuticals and Vaccines Japan

The strong performance of our pharmaceutical products offset a challenging environment for our vaccines business in Japan

## Turnover £bn



## Operating profit £bn



## Breakdown of turnover

	£m	Growth CER %
Respiratory	567	9
Anti-virals	230	26
Central nervous system	307	(5)
Cardiovascular and urogenital	119	23
Metabolic	50	(17)
Anti-bacterials	23	(3)
Oncology and emesis	63	36
Vaccines	36	(76)
Dermatology	28	3
Rare diseases	184	18

## Marketplace

Japan remains the world's second largest prescription medicine market after the USA. The vast majority of residents are covered by social health insurance, with the remainder receiving public assistance. Demand for high quality medical treatments remains high.

In April 2013, the government announced plans for the further promotion of the use of generic medicines with an explicit goal to increase to 60% the generic drugs share of the market. This has already accelerated generic launches in some categories.

## Performance

Pharmaceuticals and Vaccines sales in Japan grew by 1% to £1.7 billion in 2013. A 9% growth in Pharmaceuticals sales was partially offset by a 76% decline in Vaccines sales. Operating profit in Japan grew 4%.

By therapy area, respiratory sales grew 9% to £567 million. *Adoair* sales increased by 8% to £277 million and there was also strong growth from *Veramyst* (up 28% to £49 million) and *Xyzal* (up 27% to £120 million). *Relvar Ellipta* was launched in December and recorded sales of £3 million.

Anti-viral sales grew 26% due to the government's decision to stockpile our flu antiviral, *Relenza*.

In rare diseases, sales of the pulmonary arterial hypertension (PAH) medicine *Volibris* increased 50% to £42 million. However sales of *Flofan* fell by 9% due to the impact of the price reduction of 2012, as well as the launch of generic epoprostenol by various manufacturers.

Several other pharmaceutical products performed strongly. Benign prostatic hyperplasia treatment, *Avolve* (dutasteride), increased sales by 25% to £114 million and became the market leader in January 2014. Central Nervous System (CNS) medicines remain an important therapy area and our anti-epileptic *Lamictal* performed strongly, with sales growing 28% to £83 million. However, generic competition led to a 22% decline in sales for our anti-depressant, *Paxil*.

Vaccines sales were down 76%, primarily reflecting the impact on *Cervarix* of the suspension of the recommendation for the use of HPV vaccines in Japan during the second half of 2013 and the adverse comparison with 2012, which benefited from the final stages of the catch-up HPV vaccination programme.

## Portfolio progress

In 2013, the Japanese business received three regulatory approvals – *Arzerra* for Chronic Lymphocytic Leukemia (CLL), *Relvar Ellipta* for asthma and *Paxil* for Post-Traumatic Stress Disorder (PTSD) – bringing the total number of approvals since 2000 to 76. Approval was also received for *Xyzal* in January 2014 for allergic rhinitis.

We have been focusing on reducing the gap between approvals of pipeline products in the USA and Europe and Japan and, in 2013, Japan became the first country to receive regulatory approval for *Relvar Ellipta* in asthma with its launch taking place early December.

In September, trametinib, dabrafenib, dolutegravir and mepolizumab (for Churg Strauss Syndrome) were granted orphan drug status subject to priority review. GSK now has 23 orphan drug designations in Japan.

## Other developments

The Japanese government reviews the prices of prescription medicines funded by health insurance every two years, resulting in average price cuts of 5-6%, and the next revision is due in April 2014. Discussions between the authorities and the industry around pricing began at the end of the year.

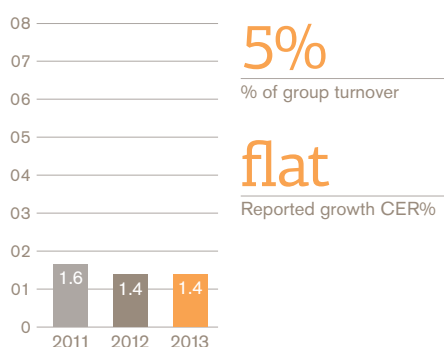
In September 2013, we published details of payments to healthcare professionals. This was in keeping with the new guidelines on transparency from the Japan Pharmaceutical Manufacturers Association.

We continue to support and invest in the health and well-being of communities in the markets in which we operate. In 2013, we provided further financial support for the area affected by the 2011 Great East Japan earthquake. In addition, we supported our Save the Children partnership through employee fundraising.

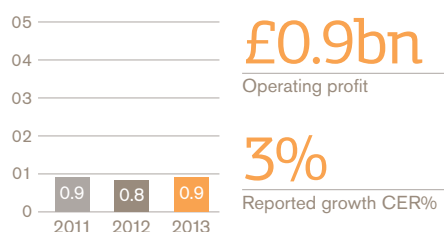
# ViiV Healthcare

## ViiV Healthcare saw an important milestone with the approval and launch of dolutegravir, a new treatment for HIV

### Turnover £bn



### Operating profit £bn



### Breakdown of turnover

	£m	Growth CER %
<i>Combivir</i>	116	(36)
<i>Epivir</i>	43	(10)
<i>Epzicom/Kivexa</i>	763	14
<i>Selzentry</i>	143	10
<i>Trizivir</i>	97	(10)

### Marketplace

There are currently 35 million people living with HIV/AIDS across the world. Around 36 million people have died from AIDS related causes since 1984, with deaths during 2012 estimated at close to 4,400 per day.

In the US, the HIV market continues to grow at a modest rate. The European marketplace is strong, despite austerity measures, changing healthcare systems and the associated pricing pressures.

Our business outside these regions remains an important priority. This continued focus has resulted in the establishment of a new Middle East and Africa hub in 2013. In least developed, low income and sub-Saharan Africa countries, the major market issue is one of access.

### Performance

ViiV Healthcare turnover for 2013 was flat at £1.4 billion as the growth generated by *Epzicom/Kivexa* and *Selzentry/Celsentri* (maraviroc), together with the introduction of the newly approved *Tivicay* (dolutegravir), was offset by the impact of continued competition to older products. Operating profit grew 3%.

There was strong growth from *Epzicom/Kivexa* (up 14% to £763 million) and *Selzentry/Celsentri* (up 10% to £143 million). *Epzicom/Kivexa* is performing particularly well across all regions of the business, reflecting increased confidence in the marketplace and enhanced position in local guidelines in both North America and Europe.

The highlight of 2013 was the approval of *Tivicay* in the USA in August. Physician response to *Tivicay* has been extremely positive and the product launch trajectory is on pace with the best recent launches in the HIV space. *Tivicay* recorded sales of £19 million in 2013.

Regionally, sales in North America grew, driven by good performance of *Epzicom* and *Selzentry*, together with the launch of *Tivicay*. In Europe sales declined, with the arrival of generic competition to *Combivir* offsetting strong growth for *Kivexa*. In our International region sales also declined, with an increase in generic competition for the mature portfolio balanced by strong growth for *Kivexa* in Latin America, Japan and Russia.

A key element of our International strategy is to create local partnerships with generics manufacturers in Middle Income Countries – and at the end of 2013 we confirmed a new relationship with Emcure, to launch generic maraviroc as *Axentri* in India.

### Portfolio progress

ViiV Healthcare filed its investigational single-tablet regimen combining dolutegravir, abacavir and lamivudine known as *dolutegravir-Trii* in the US and EU in October.

Work on experimental integrase inhibitor GSK-744 continues to progress. A study of the long-acting injectable form of this drug is set to begin in the second quarter of 2014.

### Other developments

Access to medicines is a major focus for ViiV Healthcare and during 2013 we maintained our commitment to supporting people with HIV in 138 countries. The company offers royalty-free voluntary licences and not-for-profit pricing in all low-income and least-developed countries and in sub-Saharan Africa, where 75% of all people with HIV live. For middle income countries, we take a case-by-case approach that assesses local needs. All our HIV medicines, including those in the pipeline and new breakthroughs such as *Tivicay*, are covered by this access policy.

In 2013 we announced a voluntary licence to the Medicine's Patent Pool foundation to improve access to abacavir for children living with HIV.

In addition, we have a number of community initiatives and currently support over 300 projects around the world through Positive Action, the Positive Action for Children Fund and our Paediatric Innovation Seed Fund.

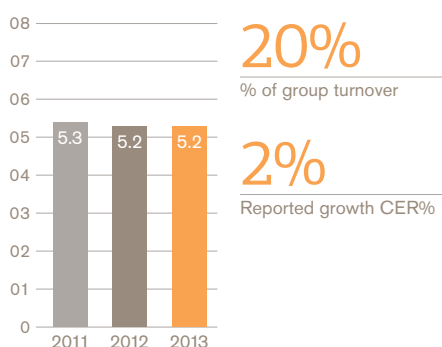
During 2013, ViiV Healthcare also committed over \$2.3 million towards funding grassroots projects in the USA, addressing gaps in care and services for people living with or at risk from HIV/AIDS.

We continue to support the Paediatric Innovation Seed Fund, which focused on five projects during 2013, including a collaboration with the Clinton Health Access Initiative and Mylan Pharmaceuticals. This partnership aims to produce a taste-masked, dispersible medicine for paediatric use and in November 2013, Mylan filed a regulatory dossier to the WHO pre-qualification regulatory approval procedure.

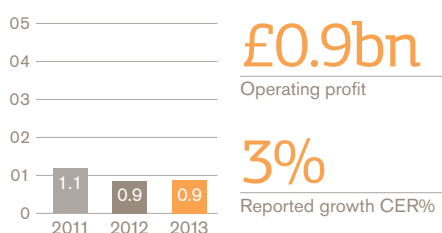
# Consumer Healthcare

Consumer Healthcare performance was strong, particularly in our Oral Care and Nutrition areas, and was boosted by our renewed focus on core brands

## Turnover £bn



## Operating profit £bn



## Breakdown of turnover

	£m	Growth CER %
Total Wellness	1,935	(5)
Oral Care	1,884	6
Nutrition	1,096	7
Skin Health	272	5

## Marketplace

The global consumer healthcare marketplace is wide and diverse, with each individual marketplace or region presenting its own challenges and opportunities.

In the developed economies of Europe, Asia and North America, competition is intense as the main market players strive to gain market share via innovation and aggressive marketing. Increasingly, premium branded competitors must drive market value by offering consumers superior, clearly differentiated products to compete with own label offerings.

Growth slowed slightly in the emerging markets. In the long-term prospects remain strong, driven by an emerging middle class, greater disposable income and increased GDP.

## Performance

Overall, Consumer Healthcare turnover grew 2% to £5.2 billion in 2013. Excluding the non-core OTC brands that were divested in the first half of 2012, turnover grew 4%. Operating profit for Consumer Healthcare grew 3%.

Our Consumer Healthcare business is structured around four categories; Total Wellness, Oral Care, Nutrition and Skin Health.

Total Wellness sales, excluding the non-core OTC brands that were divested in the first half of 2012, grew 1% to £1.9 billion. A severe cold and flu season in early 2013 helped drive growth of several respiratory brands. This was offset by a 40% reduction of Total Wellness sales in China, driven by regulatory changes.

A 6% increase in Oral Care sales to £1.9 billion was driven by growth of *Sensodyne* toothpaste for Sensitivity and Acid erosion which was up 15% and denture care brands up by 9%.

Our Nutrition category grew 7% with emerging markets recording a 14% increase. Family Nutrition (*Horlicks*) was up 14%, due to increased consumer access in India and geographic expansion into Bangladesh and Pakistan. In addition, Functional beverages grew by 11% in emerging markets, and 3% in Europe.

Skin Health sales grew 5% to £272 million, led by *Abreva* in the USA.

At a regional level, excluding the non-core OTC products divested in 2012, US sales grew 2% to £951 million, led by strong contributions from Oral Care brands, *alli* and *Abreva*. This was partially offset by declines in gastro-intestinal products, due to increased competitor activity, and in smoking control products.

In Europe, sales grew 3% to £1.8 billion, helped by strong growth in products for respiratory health and pain. Oral Care sales in Europe were flat, as strong growth in *Sensodyne* and denture care brands was offset by a decline in *Aquafresh*, which was impacted by some supply issues in Q4.

Rest of World markets, which include India, China, Latin America and Africa, grew 6% to £2.4 billion, reflecting growth across most categories and markets. Performance in India was particularly strong with sales up 16%. India remains an important market for the business and this was reinforced by our investment in our publicly-listed Consumer Healthcare subsidiary as we brought our holding share to 72.5% during the year.

## Other developments

We extended our approach to innovation with the launch of the Shopper Science Lab (see case study) and the Human Performance Lab (more on this on page 42).

These two world-class facilities enrich our ability to better serve our consumers, by deepening our understanding of what influences their decision at shelf, and improving our R&D capability by working with elite performers to understand human performance and applying that to new products for mass consumers.

We also continued with our strategy to increase the focus on a core portfolio of Consumer Healthcare brands, with a particular emphasis on emerging markets. An element of this was the sale of our *Lucozade* and *Ribena* drinks brands to Suntory Beverage & Food Ltd, the Japanese consumer goods company, for £1.35 billion. We completed the sale at the end of 2013.



## Shopping the habits of shoppers

At GSK, innovation isn't limited to our R&D organisation. We also see how technological innovation could allow us to deepen our understanding of what influences consumer decisions. This will enable us to improve the experience for our consumers and ultimately increase sales. The opening of our high tech shopper research facility, the Shopper Science Lab, is a significant step towards this.

It is the largest and most advanced shopper insight and collaboration facility in Europe, fitted out with cutting-edge technology including a virtual insight and engagement touch screen wall, eye-tracking and skin sensors to monitor consumers emotional reactions and a mock retail and pharmacy store.

We can use the Shopper Science Lab to explore habits and behaviours to understand what influences consumer choices. The flexibility of the facility allows us to analyse different store layouts, shelf enhancements and packaging displays to improve the shopper experience at point of purchase. Through this, we can collaborate with our retail partners to identify the best joint value creation opportunities.

Investing in facilities such as the SSL, allows GSK to stay at the forefront of the science of shopping, giving us a competitive advantage in the fast-paced world of consumer healthcare. This is completely in keeping with our aim of becoming the first and best fast moving consumer healthcare company driven by science and values.

# Deliver

Our strategy to increase productivity in R&D and to improve rates of return is underpinned by changes made in recent years to our organisation and our ways of working.

We have broken up the traditional hierarchical R&D business structure to create smaller, agile and more autonomous teams of scientists. We have also increased the level of externalisation of our research, allowing us to explore new areas of science while sharing risk with other groups.

Being more rigorous in how we allocate investment across Pharmaceutical, Vaccine and Consumer Healthcare R&D, and changing our processes so we are able to make decisions earlier around pipeline progressions, has meant that only those medicines that are significantly differentiated from existing therapies are being progressed.

All of this has been underpinned by a focus on improving rates of return in R&D.

We believe these changes to our R&D organisation and ways of working are allowing us to sustain a pipeline of products that offer valuable improvements in treatment for patients and healthcare providers.

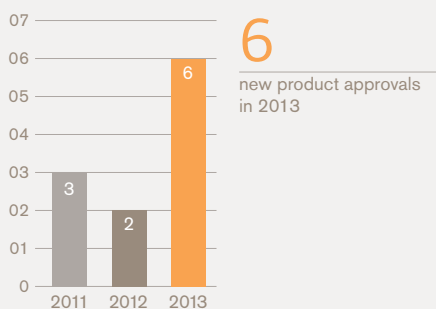
## Progress summary

During 2013, we received approvals for six significant new products, including treatments for the respiratory diseases asthma and COPD, malignant melanoma (skin cancer) and HIV, as well as a new vaccine against four-strains of flu. We also received approval for new indications for several existing vaccines and cancer medicines.

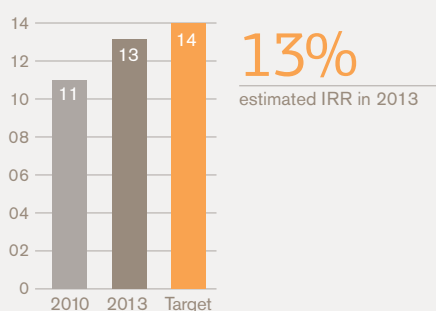
As well as gaining these significant approvals, in 2013 we also generated a high volume of Phase III data on key assets in our pipeline. This is an unprecedented level of late-stage pipeline delivery for the company.

Overall, our return on Pharmaceuticals and Vaccines R&D investment has been increasing, due to a combination of greater innovation, effective asset progression and successful approvals, coupled with reductions in R&D spend. We continue to target an internal rate of return of 14% on a longer term basis.

New product approvals in the USA



Estimated internal rate of return







## Treating HIV

HIV/AIDS has claimed more than 36 million lives in the past 30 years. In the USA, more than 1.1 million people have HIV. Due to improvements in treatments, a 20-year old with HIV on treatment in the USA is now expected to live until they are over 70 – a life expectancy approaching that of the general population.

We established ViiV Healthcare with Pfizer in 2009, to focus on HIV treatment and research. After a long-term collaboration on the joint development of several novel medicines, we were joined by Shionogi in 2012.

In 2013, ViiV Healthcare received approval for *Tivicay* (dolutegravir), an integrase inhibitor for the treatment of HIV, providing patients with a new treatment option.

Parker (pictured) learned he was HIV-positive in 2008.

*“Being healthy to me means doing everything I possibly can to keep my body in the best shape it can be, so that I may spend more time with the people I care about.”*

**Parker, aged 26, from Texas, USA**

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Samji H, Cescon A, Hogg RS, Modur SP, Althoff KN, et al. (2013) Closing the Gap: Increases in Life Expectancy among Treated HIV-Positive Individuals in the United States and Canada. PLoS ONE 8(12): e81355. doi:10.1371/journal.pone.0081355

## Our priorities

We remain confident in our ability to sustain pipeline delivery, with a key focus for 2014 and 2015 being the delivery of Phase III data for six potential new medicines and vaccines.

We are also planning for Phase III stage progressions for around ten new products in key areas such as respiratory, oncology and vaccines in 2014/15.

Driving improvements in ways of working across the R&D organisation will continue to be a priority, so that increasing levels of output can be maintained without increased expenditure.

# Pipeline progress

## New treatment options

Our R&D organisation performed exceptionally well in 2013, with a record number of approvals, and encouraging evidence of our ability to sustain this output

Of the six major new medicine files we profiled at the start of 2013, five were approved: *Breo* and *Anoro* for respiratory disease, *Tafinlar* and *Mekinist* for melanoma (skin cancer) and *Tivicay* for HIV. We are expecting regulatory decisions for albiglutide, the remaining asset in this group, in the first half of 2014. In addition, we launched our new injectable quadrivalent flu vaccine in the USA.

This is the most productive period in the company's history. Overall GSK accounted for 19% of FDA new drug approvals during 2013 and since 2009 we have achieved more approvals for new molecular entities in the USA than any other company.

### Respiratory

Within respiratory, *Breo Ellipta*, a once-daily combined steroid and long-acting beta agonist, was approved in the USA as a treatment for COPD, and the same product, under the name *Relvar Ellipta*, was approved for the treatment of asthma in Japan. *Relvar Ellipta* also received marketing authorisation in Europe for both COPD and asthma.

Another new product for COPD, *Anoro Ellipta*, was also approved in the USA. *Anoro Ellipta* is the first once-daily product to reach the market in the USA that combines two long-acting bronchodilators in a single inhaler. Both *Breo/Relvar* and *Anoro* are administered using our novel inhaler device, *Ellipta*.

### Oncology

Our oncology business was strengthened by a number of regulatory approvals in 2013. Two new products, *Tafinlar* and *Mekinist*, were approved in the US for use singly in metastatic melanoma and, under the FDA's accelerated approval process, for use as the first combination of oral targeted therapies. This accelerated approval is contingent on the results of the Phase III trial, which is designed to evaluate the clinical benefit of the combination in this patient population. *Tafinlar* also gained European approval, and we expect a decision in Europe in 2014 on both *Mekinist* and the combination use. New indications for two existing products in our portfolio – *Tyverb* and *Revolade* – were also approved by regulators.

### HIV/Aids

ViiV Healthcare, the company we established with Pfizer in 2009 to focus on HIV treatment and research, gained approval for *Tivicay* in the USA and Europe. *Tivicay* is the first once-daily integrase inhibitor that does not need to be used in conjunction with a booster drug, and it has been approved for use both in treatment-naïve and treatment-experienced patients.

### Vaccines

During the year we gained approvals for two new quadrivalent flu vaccines: *Flulaval* in the USA and *Fluarix* in Europe. These four-strain vaccines provide added protection versus traditional trivalent vaccines.

In Europe, our HPV vaccine, *Cervarix*, received approval for a two-dose schedule, in addition to the existing three-doses. The European Medicines Agency also approved an additional indication against pneumonia for *Synflorix* in infants and children. Pneumonia continues to be one of the leading causes of death in children under five.

### A strong pipeline

Promising progress was made in 2013 with a number of Phase III assets progressing to regulatory filing by year's end.

Files were submitted in the USA and Europe for albiglutide, a treatment for type 2 diabetes, a single tablet combination of *Tivicay* and ViiV's *Kivexa* for the treatment of HIV, *Arzerra* as a first line treatment for chronic lymphocytic leukemia (CLL) and umeclidinium, the long-acting muscarinic antagonist component of *Anoro*, for COPD.

In the USA we filed fluticasone fuorate, the steroid component of *Breo/Relvar*, as a monotherapy in asthma and in Europe submitted *Votrient* for ovarian cancer.

We also expect regulatory decisions in Europe in 2014 on *Anoro Ellipta*, *Incruse*, *Mekinist* and *Mekinist/Tafinlar* combination use.

2013 was an important year for our malaria vaccine candidate, with Phase III data showing that over 18 months of follow-up, the vaccine almost halved the number of malaria cases in young children, and reduced by around a quarter the number of malaria cases in infants. Using these data, we intend to submit a regulatory file in Europe for this asset in 2014.

Initial Phase III data were also received for darapladib in chronic coronary heart disease and the therapeutic vaccine MAGE-A3 in melanoma. While the primary endpoint in the darapladib study and the first co-primary endpoint in the MAGE-A3 study were not met, we are in the process of further analysing these data to determine whether there are patient sub-groups which would benefit from these treatments. Further Phase III studies of MAGE A3 in lung cancer and darapladib for acute coronary syndrome will read out in 2014.

We handed back rights to partner companies for four assets in 2013: IPX066 in Parkinson's disease was returned to Impax Pharmaceuticals due to delays in the anticipated regulatory approval and launch dates; and disappointing Phase III data prompted us to return rights for migalastat in Fabry disease to Amicus Therapeutics, for vircinon in Crohn's disease to Chemocentryx, and for drisapersen in Duchenne muscular dystrophy to Prosensa. We also decided not to pursue development of *Tykerb* in either head and neck or gastric cancer, after studies of this medicine in these indications failed to meet their primary endpoints.

We remain confident that we are capable of delivering a strong, sustainable pipeline of potential new medicines. We have around 40 new molecular entities (NMEs) in Phase II/III clinical development and in 2014/2015 expect Phase III read-outs for 6 NMEs including MAGE-A3, darapladib, and mepolizumab in severe asthma. Phase III studies will also start for around 10 new assets.

## Six significant new product approvals

### Breo/Relvar Ellipta

fluticasone furoate/vilanterol

- Combination once-daily inhaled corticosteroid and long-acting beta-2 agonist bronchodilator
- Approved in the USA to treat COPD, in Europe to treat asthma and COPD, and in Japan to treat asthma
- Offers 24-hour efficacy from a once-daily dose
- New dry powder inhaler (DPI), *Ellipta*, enables simultaneous delivery of both medicines
- Despite medical advances, more than half of asthma patients continue to experience poor control and significant symptoms (European Respiratory Review)

# 235m

people currently have asthma (WHO)

### Anoro Ellipta

umeclidinium and vilanterol

- First once-daily dual bronchodilator to treat chronic obstructive pulmonary disease (COPD) in the USA
- Combines two long-acting bronchodilators in one device
- New dry powder inhaler (DPI), *Ellipta*, enables simultaneous delivery of both medicines
- 27 million people in the USA are estimated to be affected by COPD (National Heart, Lung and Blood Institute)

# 4th

leading cause of death worldwide is COPD (International COPD coalition)

### Tivicay

dolutegravir

- An integrase inhibitor approved in the USA and Europe for the treatment of HIV in combination with other antiretroviral therapy
- First integrase inhibitor that does not need to be used in conjunction with a booster drug
- Approved for patients new to treatment and those who have already received other HIV medicines
- Globally, 35 million people were living with HIV at the end of 2012 (WHO)
- 1.7 million people died of AIDS-related illnesses worldwide in 2011 (WHO)

# 35m

people living with HIV (WHO)

### Tafinlar

dabrafenib

- A pill for metastatic melanoma, approved in the USA and Europe
- Medicine targets patients with the genetic mutation BRAF V600E
- Approximately half of all people with metastatic melanoma have a BRAF mutation
- Melanoma causes 75% of all skin cancer-related deaths (American Cancer Society)
- In the USA, there were an estimated 9,480 deaths from melanoma in 2013 (National Cancer Institute)

# 50%

of all malignant melanoma cases have a BRAF mutation (Lancet Oncology)

### Mekinist

trametinib

- A first-in-class targeted treatment for melanoma, approved in the USA
- The median age of a newly diagnosed metastatic melanoma patient is almost a decade younger than that of patients with other cancers (Cancer Network)
- The only FDA-approved MEK inhibitor for patients with BRAF V600E and V600K mutations
- The number of people worldwide diagnosed with melanoma in 2015 will be 233,000 (WHO)
- Only one in two patients worldwide with metastatic melanoma is expected to survive for a year after diagnosis

# 1st

in class MEK inhibitor

### Fluarix/Flulaval

quadrivalent influenza vaccine

- A seasonal influenza vaccine that protects against four different strains of the virus
- Offers additional protection compared to traditional three-strain vaccines
- Influenza is a serious public health problem that can cause severe illness and even death
- Epidemics occur yearly during autumn and winter
- Vaccination is the most effective way to prevent infection

# 500k

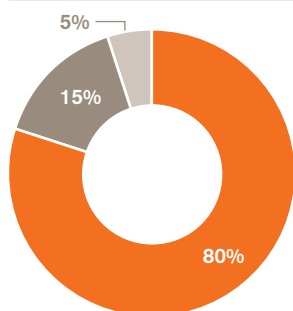
seasonal influenza may cause up to 500,000 deaths per year worldwide (WHO)

# Investment in R&D

## *Focus on productivity*

We remain committed to improving productivity in research and development, so we can develop more innovative new products with greater efficiency

Core R&D expenditure



■ Pharmaceuticals  
■ Vaccines  
■ Consumer Healthcare

Our primary goal in R&D is to discover and develop new medicines that provide advances on current treatments and are valued by both patients and payers.

Over 12,300 people work in our R&D organisation and our core R&D spend was £3.4 billion on R&D during the year.

Our R&D spend is spread across our three businesses: Pharmaceuticals, Vaccines and Consumer Healthcare.

The R&D process for pharmaceuticals and vaccines is long, expensive and uncertain, and it is difficult to predict which products will succeed or fail. It is therefore important to drive efficiencies wherever possible to offset these risks. A key priority in 2013 continued to be implementing improvements across our R&D organisation, so that increasing levels of output could be maintained without increased expenditure.

The level of regulation and the approvals processes for consumer healthcare products differ from those in pharmaceuticals and vaccines research as the development times are shorter and the costs are significantly less. Innovation in consumer products is based on developing new products and formulations that meet customers' needs.

Across all three areas, we make decisions about our R&D investment based on where we see the best opportunities, both in the market and in the science. We believe this is more effective than determining investment requirements on the basis of a fixed proportion of sales.

### Calculating the rate of return in R&D

Declining R&D productivity is an issue that the pharmaceutical industry as a whole has faced over the past decade. As a result it has become more important for companies to provide a greater level of transparency on the returns that their R&D organisations make to determine capital investment allocation.

This rate of return is determined by assessing the R&D costs involved in discovering and developing our late stage pipeline projects against the profits of newly approved medicines and vaccines as they achieve regulatory approval and become available to patients. Careful allocation of R&D spending is critical.

In 2010, we calculated that our estimated R&D internal rate of return (IRR) was 11% and stated a long-term aim of increasing this to 14%. The combination of innovation, effective asset progression and successful approvals with reductions in R&D spend has led to an improvement in the current estimated IRR to 13%. We continue to target 14% on a longer-term basis.

This improvement in estimated IRR is an important measure of our financial discipline and our strategic progress to improve the economics of research and development. It also underpins our strategy to create more flexibility around the pricing of our new medicines.

Calculation of our IRR incorporates actual and predicted sales figures based on probabilities of success for medicines in the pipeline. We also take into account an estimate of attributable R&D costs, estimated profit margins, capital investment and working capital requirements.

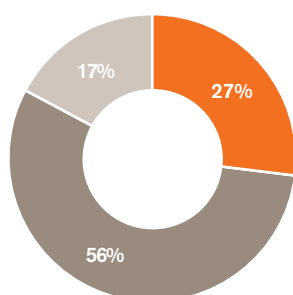
The calculation for 2013 includes products launched from 1 January 2012 to 31 December 2013 and compounds in Phases IIb and III of the development process. The calculation is based on actual sales from 2011 to 2013, and forecast sales up to 2034, adjusted to reflect expected failure rates, which are broadly in line with standard industry failure rates. The cost base used in this calculation comprises an estimate of attributable R&D costs and actual and projected milestone payments where appropriate.

# Pharmaceuticals R&D

## Our search for new medicines

Our pharmaceuticals R&D organisation has been restructured to create research groups that are more agile, autonomous and outward-facing. We believe this structure is key to building a strong pipeline of innovative new medicines

### Core Pharmaceutical investment



- Discovery
- Development
- Facilities and central support

More than 10,500 people are employed in our Pharmaceuticals R&D business. In 2013 our pharmaceuticals core R&D expenditure was £2.7 billion, a decline of 5% compared to the previous year. When this is viewed in the context of the record number of approvals we gained and our strong pipeline outputs this year, we believe this is evidence that our strategy of increasing R&D productivity is working.

The length of time and costs involved in drug discovery and development make it essential that we are highly selective in where we invest our resources. We distribute expenditure across early stage research and late-stage development, and we focus on those areas where scientific advances have opened up new opportunities that we consider most likely to lead to significant medical advances. We also ensure we evaluate all experimental products at key points in the development pathway, so we can be confident we are putting resources in the projects we believe have the highest probability of succeeding.

Our key R&D centres are in the UK, USA, Spain and China. In 2013 we announced plans to significantly expand and rejuvenate some of these facilities – most significantly in Pennsylvania in the USA – to ensure we are well-placed to maintain our position as a leader in R&D and to attract new talent.

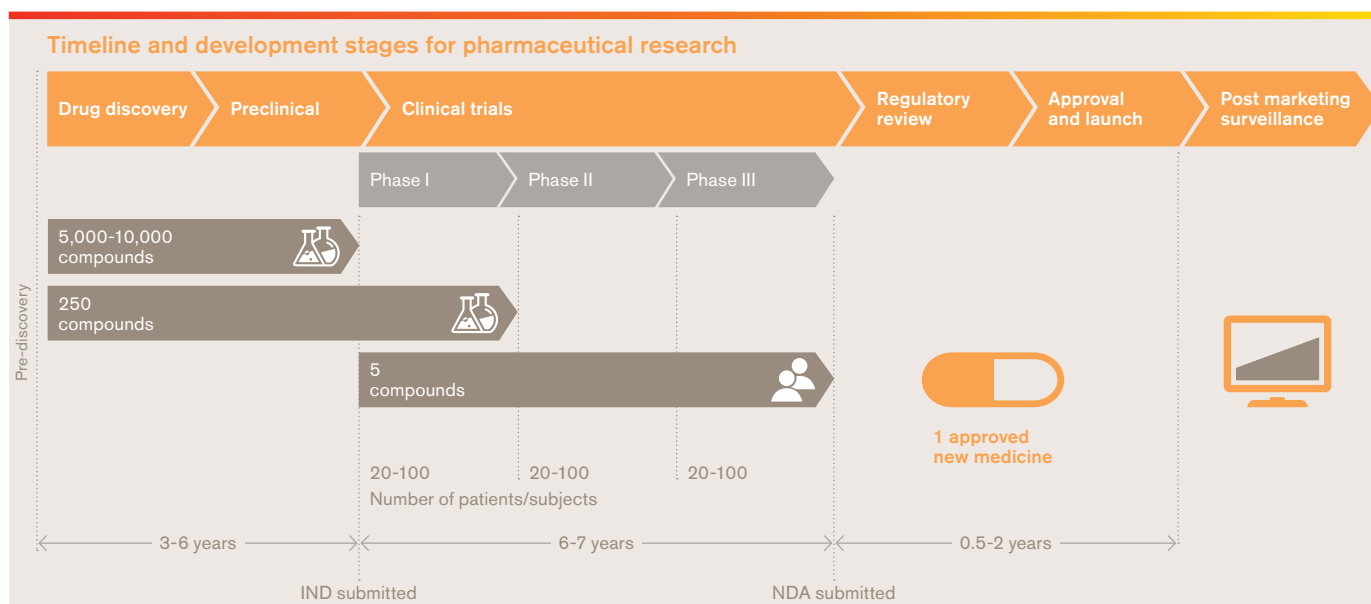
### Early-stage research

In early stage research (drug discovery), our aim is to identify the biological targets involved in the development of diseases and then to create small molecules or biopharmaceuticals that interact with these disease targets, ultimately leading to new medicines.

In recent years we have transformed our pharmaceutical R&D organisation with the aim of enhancing efficiency and productivity. Our new approach has three key elements. First, we have broken up the traditional hierarchical R&D business model and created smaller, more agile early-stage R&D groups called Discovery Performance Units (DPUs). Second, we have changed our processes so that we are progressing only those experimental medicines that are significantly differentiated from existing therapies. Third, we are increasing the amount of research we do with external partners, enabling us to access new areas of science and to share the risk of development.

Our DPU structure helps us to maintain flexibility in our discovery research investment, while focusing on the most promising scientific opportunities.

We had 42 DPUs in 2013. Each DPU has between 5 and 70 scientists who all work on a particular disease pathway or area of science. The DPU is responsible for discovery and development of potential new medicines through to early stage clinical trials (up to the completion of Phase IIa).



# Pharmaceuticals R&D

## Continued

DPU's are given their own budget, and progress against DPU business plans is regularly reviewed by the Discovery Investment Board (DIB). Membership of the DIB includes senior R&D and commercial management, and external individuals with expertise including life science investment experience and an understanding of payer perspectives. It is chaired by the President of R&D.

In 2013 we continued to be active in deal making and collaborating with external companies, individuals and academics. In particular we have been active in venture funding and were instrumental in the start up of four venture funds during the year focusing on different areas of science or regions (see below: Nurturing the biotech ecosystem). In 2013, we also ran two competitions – one with the goal of increasing understanding in the nascent field of bioelectronics, and the other with a view to forming partnerships with academia.

Our core discovery expenditure was £742 million in 2013, down approximately 7% against 2012.

### Late stage development

When a compound has demonstrated a potential proof of concept in how it works, we make a decision on whether to advance it into late-stage development. This is also known as commit to medicine development. This decision is typically made after Phase IIa trials, during which the compound is tested in a small number of human volunteers. At this point, we will devise and instigate larger-scale studies in humans using the investigational medicine to further investigate its efficacy and safety.

At the same time, we work to optimise the compound's physical properties and its formulation so that it can be produced efficiently and in sufficient quantities through the manufacturing process. In some cases, our research may include developing new devices to deliver these medicines (see case study, Patient-centric design).

If all of these stages are successful, we can use the results of our studies to submit a regulatory file for approval with regulatory agencies.

The responsibility for guiding an investigational medicine through the later stages of development to filing rests with our Medicines Development Teams (MDTs), small units of six to ten people.

We now have around 40 new molecular entities in Phase II/III clinical development.

### Governance

The R&D governance structure aims to ensure clear accountabilities and product reviews. The oversight of strategic issues and overall budget management across R&D is owned by the R&D Executive team. There are three governance boards that determine investment over the lifecycle of R&D and early commercialisation, beginning with the DIB, as described earlier.

Our Portfolio Investment Board (PIB) assesses the technical, commercial and investment case for each project to progress in development. The PIB is co-chaired by the Chairman of R&D and the President of North America Pharmaceuticals, and includes the heads of each pharmaceutical region along with the head of global manufacturing.

The PIB is accountable for investment decisions and funding allocation across all late-stage Pharma R&D investments, Medicines Discovery and Development, Biopharm R&D, Oncology, Stiefel, Rare Diseases and Emerging Markets R&D. This allows investment decisions to be made in a holistic way, ensuring a balance and diversity of assets of differing risk profiles, novelty, opportunity, development cost and potential to be reimbursed by payers.

## Nurturing the biotech ecosystem

Discovery research is exciting and innovative but also time consuming and high risk. Those factors, along with the global economic downturn, have resulted in fewer investments in early stage life sciences companies over the past several years. A number of venture capital firms have stopped investing altogether in the sector; there are fewer investments and the average amount invested has fallen.

To fill those gaps and ensure that innovative ideas don't get lost because of a lack of financing, we have taken a creative approach to early research investment through the creation of and participation in a number of venture capital funds, including one fund with a pharmaceutical industry competitor.

In 2013 alone, we have been instrumental in the start-up of four venture funds focusing on different areas of science (rare diseases and bioelectronics) or regions (west coast of the USA).

One of those funds, with San Diego-based Avalon Ventures, is ground-breaking in its efforts to fund and launch up to ten early stage life science companies. The first company to be formed out of that collaboration was announced in December, less than nine months after the fund was formally launched.

Through our participation in these venture funding activities, we gain access to a broad range of early research programmes and in some cases have an option to buy companies that demonstrate scientific promise.



Projects are reviewed by the PIB at certain key decision points: 'Commit to medicine development', 'Commit to Phase III' and 'Commit to file'. Funding is generally allocated up to the next key decision point, typically between two and four years ahead. The PIB also carries out an annual late-stage funding review, where investment in all projects is reviewed, adjusted if necessary and prioritised. No individual late-stage project has incurred annual expenditure of more than 10% of the total annual R&D expenditure.

Our Commercial Accountability Board (CAB) is responsible for commercial alignment and investment decisions on our innovative marketed products portfolio, governing the transition from R&D portfolio to our commercial operations. CAB reviews individual assets at the 'Commit to launch' milestone and beyond including endorsement of the commercial strategy and global targets for assets. CAB also approves investments in Phase 3b/4 evidence generation, conducts post-launch reviews and annual reviews of reimbursement decisions against predicted performance.

Other important governance boards in R&D include the Scientific Review Board (SRB), the governing body accountable for the scientific assessment of the R&D portfolio to support investment decision making at the Portfolio Investment Board (PIB). At the SRB, there will be a debate, review and endorsement of a unified R&D view on the scientific aspects of all assets. The SRB establishes a view on the overall scientific promise of the asset; development plan to deliver the asset; cost effectiveness of the clinical plan; opportunities and risks to the likely product profile; and gaps where evidence is missing or remains uncertain. The SRB view is the formal R&D position communicated at the PIB.

Two other important governance boards in R&D are the Technology Investment Board (TIB), which makes investment decisions for new platform technologies and licensing or options based collaborations up to the point of entry into clinical trials; and the New Product Supply (NPS) Board, which is the governing body accountable for the technical feasibility and infrastructure assessments covering all aspects of the physical product and supply chain.

Our Regulatory Governance Board, launched in 2012 and led by the Chief Regulatory Officer, operated throughout 2013 with its focus on enhancing compliance with company-wide standards, increasing efficiency of regulatory services, and aligning capabilities with business needs both globally and locally.



## Patient-centric design

A key challenge in designing inhalers for asthma and COPD treatments is to make the delivery mechanism as simple and reliable as possible for patients, while ensuring it effectively delivers each dose of medicine.

GSK has been at the forefront of respiratory science since the launch of *Ventolin* over 40 years ago. This year we unveiled the new *Ellipta* multi-dose dry powder inhaler marking the next generation of GSK innovation in inhalation devices.

The *Ellipta* inhaler is the result of more than ten years of design, development and planning, which involved testing and tailoring our designs based on patient experience. It is designed to be easy for patients to use, with the minimum number of steps: open, inhale & close. It will be used across all our new inhaled respiratory medicines. The *Ellipta* inhaler was recently approved to deliver the *Relvar/Breo* and *Anoro* inhalation products.

The *Ellipta* inhaler is unusual in that the two compounds that make up the *Relvar/Breo*, fluticasone furoate and vilanterol, or *Anoro*, umeclidinium and vilanterol, are stored separately within the inhaler, rather than being combined and stored together. The compounds only come into contact when the dose is administered, or 'actuated', by the patient. This means that for two medicines, there is no need to blend them together, which would require a new formulation being developed for each new dual combination.

This separate storage is especially important as not all combinations of medicines can be blended due to physical or chemical interactions. Where medicines can be blended, the *Ellipta* has the potential to allow three or more compounds to be stored and delivered. Potentially this could enable new treatment combinations in a single inhaler.

# Vaccines R&D

## Prevention efforts

Our vaccines R&D is centred on discovering and developing prophylactic and therapeutic vaccines to protect people against infectious diseases, cancers and chronic disorders

### Highlights

1,600

Scientists working on new vaccines

30

Vaccines in development

Our R&D effort within vaccines is focused on the development of new prophylactic and therapeutic vaccines while stringently managing and prioritising our investment decisions. Our core R&D investment in 2013 was £496 million, down 3% against 2012. We have more than 1,600 scientists working on the development of new vaccines. We currently have around 30 vaccines in development for a range of diseases and received a number of approvals and new indications this year (see pages 34-35).

A key part of our approach in vaccines R&D is expanding our access to new vaccine technologies. Our acquisition this year of the Swiss-based company Okairos is an example of this. This purchase provided us with access to a novel vaccine platform technology that could play an important role in the development of new prophylactic vaccines as well as new classes of therapeutic vaccines. This acquisition also brought in early stage assets for diseases such as respiratory syncytial virus, hepatitis C virus, malaria, tuberculosis, ebola and HIV.

A highlight from 2013 were the results from a large-scale Phase III trial of our malaria vaccine candidate, RTS,S. This demonstrated that the vaccine continued to protect young children and infants from clinical malaria up to 18 months after vaccination.

Our research on vaccines can be divided into early stage research and later stage development. Our aim is to identify and develop vaccines that can help the body raise an immune response against an infective organism or – with our newer stage research – diseased cells.

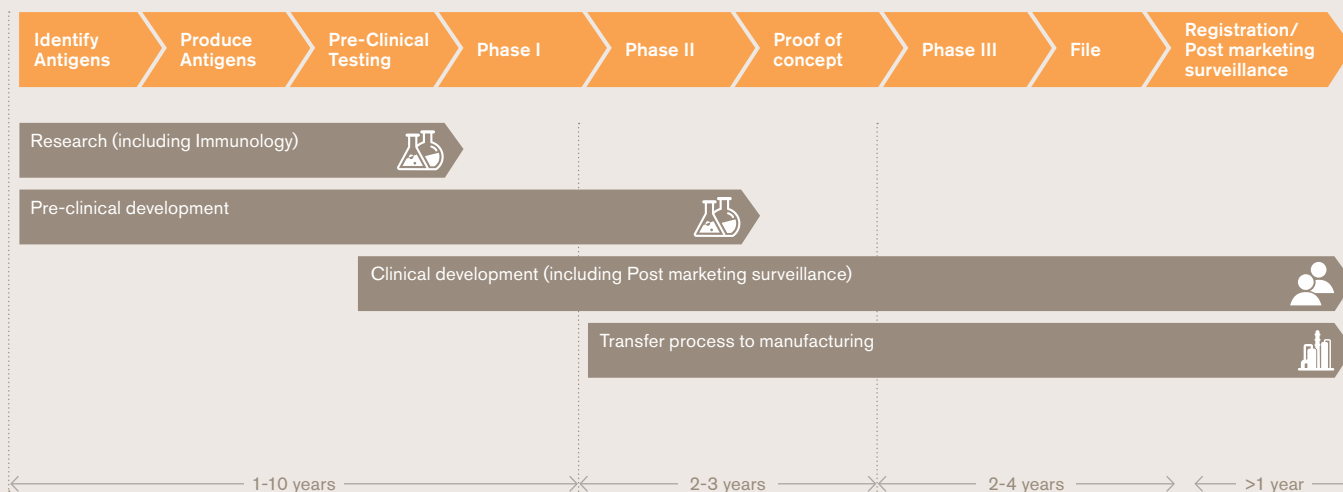
As with pharmaceuticals R&D, the resources required and length of time it takes to discover and develop new vaccines means it is essential that we are highly selective in where we concentrate our efforts. We focus on those areas where advances have opened up new scientific opportunities that we consider most likely to lead to significant medical advances.

### Discovery and development

The discovery and development of a new vaccine is a complex process that typically takes between 10 and 12 years.

Vaccine discovery begins by identifying new antigens, which are specific structures on pathogens (viruses, bacteria or parasites) or on cancer cells that are recognised by the immune system. We then produce these pathogens in yeast, bacteria or mammalian cells and genetically manipulate them so that they can be purified and formulated in to a vaccine. It is the antigen that creates the body's immune response.

### Vaccines research and development cycle





In some cases, the formulation of the vaccine into clinical lots involves mixing antigens with our proprietary adjuvant systems. We use adjuvants to improve the immune system's response to antigens contained in vaccines and we have been innovating in the area of adjuvant systems for more than 20 years. Candidate vaccines are usually a combination of several antigens, and the final composition of the vaccine (antigens and adjuvant) may change over time.

Traditionally, vaccines have been used to prevent illness. However, we are pioneering a different approach designed to programme the body's immune system to fight existing diseases and this represents a new treatment model as a therapeutic vaccine. We are evaluating the immunotherapeutic concept against a variety of tumour types.

The first read out on Phase III data from our investigational MAGE-A3 antigen-specific cancer immunotherapeutic in melanoma patients came through in 2013. While the trial did not meet its first co-primary endpoint, we will be continuing the trial until the second co-primary endpoint is assessed, with results expected in 2015. The same asset is also in development in lung cancer, and Phase III data for this indication will read out in 2014.

Partnerships and collaborations, both with scientific partners and funding bodies, play an increasingly important role in our vaccines research. An example of our collaborative approach is a new research agreement with the Bill & Melinda Gates Foundation (BMGF) which aims to accelerate advances in vaccine R&D that have the potential to transform global health.

Our R&D efforts also include the lifecycle management of vaccines already on the market and those that we anticipate will emerge from the pipeline. We do this to increase the value our products can bring, by extending their reach and adapting them to ensure they meet the needs of patients.

### Governance

In 2012 we further consolidated the organisation of vaccine discovery and development teams, to simplify the infrastructure, focus on timely decision making and enhance clarity and accountability. Since then, we have continued to improve efficiency through investment in operational transformation programmes.

We have continued to emphasise the importance of our Project teams and Vaccine Leadership Teams, which are responsible for day-to-day progress of our research and development, including identifying and developing new products.



GAVI/Adrian Brooks

## The science of the supply chain

Vaccines need to be kept at a constant temperature – between 2C and 8C – from manufacture up until administration. This cold-chain, as it is known, is considered by many to be the biggest challenge in getting vaccines out to people around the world, particularly in hot, remote and resource-limited regions.

In an effort to overcome this challenge, we signed an early stage research partnership with the Bill & Melinda Gates Foundation (BMGF) this year. The \$1.8 million agreement will support research into seeing if we can make some of our vaccines more heat stable, thus reducing the need for continuous refrigeration.

This initiative is part of a vaccine discovery partnership that was unveiled in October 2013 in Brazil, which would also fund research into other biomedical technologies that have the potential to overcome a significant and long-standing barrier to vaccine access in developing countries. Overall the partnership aims to integrate key players in vaccine development – biotechnology institutions, pharmaceutical companies, non-government organisations (NGOs) and academia – to drive advances in vaccine R&D that have the potential to transform global health.

There are several key decision points in the vaccine development process: commit to research (decide to initiate full research programme), commit to candidate development (decide to invest resources to move to clinical development); commit to early clinical development; commit to Phase III; registration and launch.

Oversight of these key decisions rests with two bodies the Vaccine Development and Commercial Board (VDCB) and the Vaccine Investment Board (VIB).

The VDCB reviews the research project strategy and advises on its scientific, technical and commercial feasibility.

The board has an overall view of both early and advanced projects. It is chaired by our senior vice presidents for discovery and development: one from Vaccine Value and Health Sciences (early portfolio); one from our Immunotherapeutics business unit (late portfolio); and one from Immunotherapeutics. All VDCB recommendations to progress projects are submitted to VIB.

The VIB is chaired by our President of Vaccines. This board makes the final decision on whether to invest in a project, by evaluating the VDCB's recommendation alongside public health benefit, business opportunity, development costs and risks, the project timing and overall evolution of our portfolio of vaccines.

# Consumer Healthcare R&D

## Product innovation

Our ongoing commitment to innovation, creating new, scientifically differentiated products, is demonstrated by the 13% contribution to global sales from these products in 2013

### Highlights

# £178m

R&D investment in 2013

# 13%

of global sales from innovative products

Our “innovation portfolio” is critical to how we continue to grow our Consumer Healthcare business. Our focus is on creating a continual pipeline of new, scientifically differentiated products which define our four Consumer Healthcare categories.

Through new technologies and formulations we provide products that meet the needs of consumers and are valued by experts. These reinforce our leadership positions, particularly in areas such as sensitive teeth, family nutrition and smoking cessation.

Our commitment to innovation was reflected in our investment of £178 million in core Consumer Healthcare R&D in 2013 increased 14% from 2012. Overall, 13% of sales came from innovative products launched in recent years. Key contributions came from:

#### NiQuitin Strips

Launched in 2013, *NiQuitin Strips* is the first and only oral stop-smoking aid in a strip format designed for light smokers. The patented formula that suspends nicotine in a polymer system/water soluble matrix, combined with the thin format, enables it to dissolve in the mouth in approximately 3 minutes. Clinical studies have shown its effectiveness in relieving the urge to smoke in 50 seconds, allowing consumers to benefit from fast, effective craving relief in a discrete format. We have already launched this product in 3 markets.

#### Sensodyne Repair & Protect

Our Oral Care innovation continued to lead the sensitive teeth category with the introduction of *Sensodyne Repair & Protect* in the USA. By developing a novel non-aqueous stannous fluoride formulation, our Oral Care R&D team were able to help consumers who deal with dentin hypersensitivity. The active ingredient in *Sensodyne Repair & Protect*, stannous fluoride, builds a repairing layer over the vulnerable areas of teeth, to help protect from pain. Due to its instability in water, it has not been used in oral health products for many years. Addressing the stability issues and incorporating into the product formulation, *Sensodyne Repair & Protect* provides proven and effective lasting relief from the twinge of sensitivity and offers everyday cavity protection with fluoride.

#### Women's Horlicks

Continuing the success of our range of *Horlicks* across the Indian sub-continent, we launched *Women's Horlicks*. This scientific formulation specifically meets the unique nutritional needs of women in the region. Designed to include 100% of the daily requirements of iron, calcium, folate and other vital nutrients, the product has become the first health drink for women in India with the complete list of macronutrients to be recommended by the World Health Organization.



## The study of human performance

The GSK Human Performance Lab is a leading science facility focused on applied and discovery research. It combines our science expertise, external advisors and cutting-edge technology to deepen our understanding of human performance.

By working in partnership with individuals and organisations committed to elite human performance – professional athletes, sports governing bodies, sports teams, extreme explorers – we will be able to improve our understanding of how the body and brain function and what can be done to drive improvements in human performance.

With this scientific data and performance results, our scientists can apply the research to developing new products that not only meet, but anticipate the health needs of the wider population

# Pipeline progress

## Late stage summary

Our pipeline remains extensive. In total we have around 40 new molecular entities (NMEs) in Phase II/III clinical development. A summary of pharmaceuticals and vaccines in Phase III development is set out below. A more comprehensive list of our medicines and vaccines in Phases I to III of development is available on pages 218-221.

Therapeutic area	Compound	Indication	Phase III	Filed	Approved
<b>Respiratory</b>	mepolizumab	severe asthma (also eosinophilic granulomatosis with polyangiitis)	▪		
	<i>Relvar/Breo Ellipta</i> (vilanterol <sup>†</sup> + fluticasone furoate)	COPD – mortality outcomes	▪		
	vilanterol <sup>†</sup>	COPD	▪		
	fluticasone furoate	asthma		▪	
	<i>Incruse Ellipta</i> * (umeclidinium)	COPD (also hyperhidrosis)		▪	
	<i>Anoro Ellipta</i> (umeclidinium + vilanterol <sup>†</sup> )	COPD			▪
	<i>Relvar/Breo Ellipta</i> (vilanterol <sup>†</sup> + fluticasone furoate)	asthma			▪
<i>Relvar/Breo Ellipta</i> (vilanterol <sup>†</sup> + fluticasone furoate)	COPD			▪	
<b>Paediatric Vaccines</b>	MMR	measles, mumps, rubella prophylaxis	▪ (US)		
	<i>Mosquirix</i> (Malaria RTS,S) <sup>†</sup>	malaria prophylaxis ( <i>Plasmodium falciparum</i> )	▪		
	<i>Nimenrix</i> (MenACWY-TT)	Neisseria meningitis groups A, C, W & Y disease prophylaxis			▪
<b>Other Vaccines</b>	Zoster <sup>†</sup>	Herpes Zoster prophylaxis	▪		
	Flu (pre-) pandemic	pre-pandemic & pandemic influenza prophylaxis			▪
	Flu vaccine	seasonal influenza prophylaxis			▪
<b>Antigen-Specific Cancer Immunotherapeutic</b>	MAGE-A3 immunotherapeutic <sup>†</sup>	treatment of melanoma	▪		
	MAGE-A3 immunotherapeutic <sup>†</sup>	treatment of non-small cell lung cancer	▪		
<b>HIV</b>	dolutegravir + abacavir sulphate + lamivudine	HIV infections – fixed dose combination		▪	
	<i>Tivicay</i> (dolutegravir)	HIV infections			▪
<b>Oncology</b>	<i>Arzerra</i> (ofatumumab) <sup>†</sup>	chronic lymphocytic leukaemia, use in relapsed patients	▪		
	<i>Arzerra</i> (ofatumumab) <sup>†</sup>	diffuse large B cell lymphoma (relapsed patients)	▪		
	<i>Arzerra</i> (ofatumumab) <sup>†</sup>	follicular lymphoma (refractory & relapsed patients)	▪		
	<i>Mekinist</i> (trametinib) <sup>†</sup> + <i>Tafinlar</i> (dabrafenib)	metastatic melanoma, adjuvant therapy	▪		
	<i>Tyverb/Tykerb</i> (lapatinib)	breast cancer, neo-adjuvant & adjuvant therapy	▪		
	<i>Votrient</i> (pazopanib)	renal cell cancer, adjuvant therapy	▪		
	<i>Arzerra</i> (ofatumumab) <sup>†</sup>	chronic lymphocytic leukaemia, first line therapy		▪	
	<i>Votrient</i> (pazopanib)	ovarian cancer, maintenance therapy		▪	
	<i>Mekinist</i> (trametinib) <sup>†</sup>	metastatic melanoma			▪
	<i>Mekinist</i> (trametinib) <sup>†</sup> + <i>Tafinlar</i> (dabrafenib)	metastatic melanoma			▪
	<i>Revolade/Promacta</i> (eltrombopag) <sup>†</sup>	hepatitis C induced thrombocytopenia			▪
	<i>Tafinlar</i> (dabrafenib)	metastatic melanoma			▪
	<i>Tyverb/Tykerb</i> (lapatinib)	metastatic breast cancer, in combination with trastuzumab			▪
<b>Cardiovascular &amp; Metabolic</b>	darapladib	atherosclerosis (also diabetic macular oedema)	▪		
	<i>Eperzan</i> (albiglutide)	type 2 diabetes		▪	
<b>Immuno-inflammation</b>	<i>Benlysta</i> s.c. (belimumab)	systemic lupus erythematosus	▪		
	<i>Benlysta</i> (belimumab)	vasculitis	▪		
	sirukumab <sup>†</sup>	rheumatoid arthritis	▪		
<b>Rare diseases</b>	2696273 <sup>†</sup>	adenosine deaminase severe combined immune deficiency (ADA-SCID)	▪		
	mepolizumab	eosinophilic granulomatosis with polyangiitis (also severe asthma)	▪		
	<i>Volibris</i> (ambrisentan) <sup>†</sup>	chronic thromboembolic pulmonary hypertension	▪		
<b>Infectious diseases</b>	<i>Relenza</i> i.v. (zanamivir) <sup>†</sup>	influenza	▪		
<b>Dermatology</b>	<i>Toctino</i> (alitretinoin) <sup>†</sup>	chronic hand eczema	▪		
	<i>Duac</i> low dose	acne vulgaris			▪

<sup>†</sup> In-licence or other alliance relationship with third party

\* The use of the brand name is not approved by any regulatory authorities

# Simplify

Reducing complexity in our business remains a central element of our strategy. In doing so we can stop waste and inefficiencies and reinvest savings elsewhere in the business.

Over the last six years we have been implementing significant restructuring programmes.

We are transforming our global manufacturing network and supply chain to make it more efficient and better able to respond to the needs of our customers and patients.

We are also investing in new technology to streamline different parts of the business including manufacturing, supply chain, finance and HR.

## Progress summary

We are undertaking a broad range of restructuring change programmes which began from 2007 onwards and are simplifying many areas of our business from supply chains to finance, HR and R&D.

In total, our ongoing restructuring programmes delivered annual savings of £3.0 billion in 2013 and are expected to deliver £3.9 billion of annual savings by 2016. Year on year incremental savings from ongoing and structural programmes were £400 million in 2013.

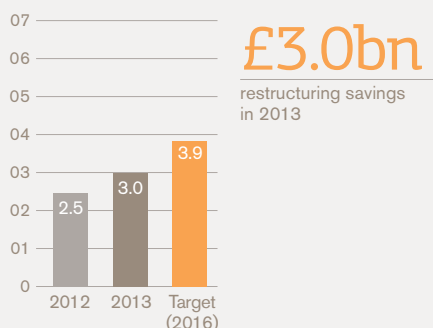
Safety and quality remain the priority of our manufacturing and supply organisation. We are transforming our operations to improve service for end customers and ensure safety and sustainability in our operations.

We have created six regional business centres across the globe to bring together support functions in order to streamline and standardise functional support to the businesses.

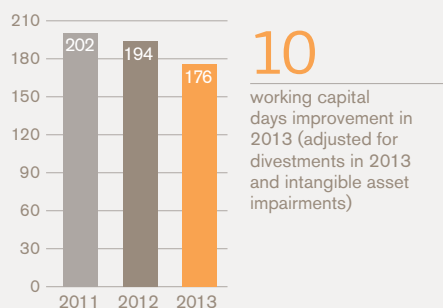
Our global ERP system deployment made significant progress in 2013, with 70% of our European Pharmaceutical revenue and 25% of our European Consumer Healthcare revenue now on the system.

The creation of the Established Products Portfolio allows us to better allocate resources to the new portfolio of medicines while also achieving reduction in inefficiencies and realising some opportunities for reinvestment.

Restructuring annual savings £bn



Working capital days





## Proximity production

Sales of our Oral care products, *Polident* and *Poligrip*, increased by 10% in 2013 and are projected to grow significantly over the coming years.

As part of our on-going efforts to create a streamlined and flexible supply chain, we moved the manufacturing of the active ingredient in *Poligrip* and *Polident* from a factory in the USA to Cork, Ireland in 2013. Now the ingredient travels just 50 miles down the road to where the products are manufactured in Dungarven. This is expected to produce a 17% reduction in the *Poligrip* cost of goods by 2017 and will also reduce carbon emissions.

**Pictured:** One of our employees at our Dungarven site in Ireland.

*“The production of the active ingredient in Cork will dramatically increase the speed of response to any changes in customer demand, as well as reducing the cost of production and delivery.”*

**Joe Power, VP and site director, Cork**

## Our priorities

We continue to restructure and simplify our business to reduce the long-term cost base.

In manufacturing we will continue to focus on delivering products of value at optimal cost and reduce pack presentations, manufacturing defects and waste.

We will fast track the implementation of the integrated supply chain supported by enterprise resource planning (ERP) in order to improve supply service levels, reduce stock outs and reduce the cost of the supply chain.

In Core Business Services we will continue to migrate services and focus on improving service efficiency and effectiveness.

We will also manage our Established Products Portfolio to reduce complexity, enhance profitability and optimise the value of this group of products.

# Simplify

## Our operating model

### In 2013 we continued to transform our operating model to reduce costs and complexity and improve efficiency

The transformation of our operating model and processes remains a key business strategy, enabling us to standardise and streamline important aspects of our business, including our supply chain.

Our restructuring programmes are continuing to contribute and support the delivery of significant savings. These savings are then available to be re-invested in our priority growth businesses, new product launches, or returns to shareholders.

#### Restructuring progress

We began our Operational Excellence restructuring programme in 2007. This programme remains on track to deliver £2.8 billion of annual savings in 2014.

In 2013 as this programme was coming to a close, we announced a new Major Change programme with a focus on improving supply chain processes, building capabilities in manufacturing and R&D, and restructuring our European business. This programme is in its early stages and remains on track to deliver £1 billion of annual savings by 2016. Together, these two restructuring programmes produced annual savings of £3.0 billion in 2013.

In addition to these programmes, we began a separate structural initiative in 2012 to reshape our long-term operating expenses and liabilities. In 2013 this produced a reduction of approximately £280 million in our long-term employment costs through restructuring of our post-employment medical benefits. In 2012 there was a benefit of £395 million when we restructured our pension obligations.

Taking these ongoing and structural initiatives together in 2013, we delivered incremental year-on-year savings of around £400 million with a similar amount expected in 2014 helping to offset mix pressure and fund ongoing investment requirements.

We have also continued our integration of Human Genome Sciences into the business, and restructuring benefits in 2013 from this were around £130 million.

#### Global manufacturing and supply

The global manufacturing and supply (GMS) division is focused on delivering a transformational plan to enable us to manufacture and supply both the new product portfolio and our existing products to consistently high quality and with increased efficiency.

We have 86 sites in 36 countries manufacturing our pharmaceuticals, consumer healthcare products and vaccines. Our GMS division is responsible for 72 of these sites, employing more than 27,000 people who make and supply our pharmaceutical and consumer healthcare products. The remaining 14 sites, employing 7,500 staff, are run by our Vaccines business.

We continue to review this network and seek opportunities to optimise its operations. During 2013, we closed three smaller manufacturing sites in Singapore, US and Mexico, sold our Coleford site in the UK as part of the divestment of our Lucozade and Ribena brands and announced that one further site would leave our network in 2014. We also completed the integration of the former Human Genome Science manufacturing site in the USA, and acquired the DeMiclén Consumer Healthcare manufacturing facility in Slovakia to support growth.

We have invested in our manufacturing network throughout the year, with commitments totalling more than £300 million being announced across key centres such as the UK and India to implement improvements and technological advances into our manufacturing processes.

#### Supply chain progress

GMS has aligned organisationally to a new model with responsibility for the entire pharmaceutical and consumer healthcare supply chains – from the supplier through to delivery to the customer – creating a fully integrated supply chain.

Since 2011 our Consumer Healthcare business has been reforming and simplifying its supply chain model to implement this end to end chain. This has delivered over £300 million in savings since it began and created greater operating flexibility, allowing us to deliver products to customers more quickly and efficiently.

We have transferred the learnings from this during 2013 to our pharmaceuticals manufacturing operations, creating supply chain structures aligned from supplier through to delivery to customer.

Our Vaccines supply chain is also implementing an end-to-end transformation programme to improve customer service, reduce inventories through lead-time reduction, and to improve forecast accuracy. In 2013 our key priorities here were the implementation of end-to-end inventory management, and of a new sales and operational planning process. These are well underway and will be finalised by the end of 2014.

Further simplification in our supply chain is driving greater efficiency in areas including logistics and warehousing, procurement, portfolio simplification and manufacturing. These programmes are at an early stage but have already reduced volatility and improved responsiveness allowing better inventory management which has already delivered £100 million of benefits in our pharmaceutical supply chain in 2013.

We have also been reducing the complexity of our portfolio of existing products. By discontinuing unprofitable packs and standardising pack presentation formats we are improving operational efficiency while ensuring patient and customer needs are met (see case study). This year we have reached our target of 10% discontinuations by year end and remain on target to achieve the reduction of 25% of packs in our portfolio over the four year period to 2016.

#### Core Business Services

The Core Business Services (CBS) group was set up in 2011 to bring together support functions including facilities management, HR, IT, finance and procurement, into a centralised team to streamline and standardise these operations. Our aim is to increase productivity, and free up time in the businesses so they can focus on the execution of business strategy in their local markets, and reduce the number of global support staff.

We have invested in a global enterprise resource planning (ERP) system which is playing an important role in reducing costs, improving service levels and reducing working capital in manufacturing, the supply chain and commercial operations. Roll-out of the ERP is on time and on budget.

Following the positive start made in 2012, further progress was made through 2013 in enrolling our European pharmaceutical and vaccines markets on our commercial ERP system. 70% of our European Pharmaceuticals revenues and 25% of our Consumer Healthcare revenues are now on the system.

In 2013, we completed advance deployment of the forecasting and planning element of the ERP system to 44 markets in Latin America. Now all GSK businesses in the region forecast and plan on the same system to the same data standards. This has enabled the consolidation of reporting and business analysis.

## Cutting variation in a drive to enhance productivity

At the beginning of 2013, we conducted an audit which identified that our manufacturing group was making our migraine treatment, Imigran, in more than 360 different packs of varying size and quantity of tablets. Each different pack format required a unique manufacturing process, meaning that the more pack formats we make, the greater the cost and complexity of manufacturing.

In a bid to reduce these costs, we looked at ways to simplify the number of pack formats. This involved a review of all of the Imigran packs and listening to patients to find out which pack formats they liked best.

As a result, we were able to discontinue 8% of Imigran's pack formats during 2013 and expect to cut a further 5% in 2014. We achieved these cost reductions with no change in total supply of the medicine. By discontinuing the least popular pack formats, we have more resource to ensure we continue to meet demand for the most popular Imigran packs.

The reduction in pack formats for this product was just one part of an overall global initiative that we started in 2013 to reduce our number of packs by around 20%. In 2013, we discontinued 10% of our pack formats and we are aiming to cut a further 9% of our overall number of pack formats by the end of 2014.

This initiative is particularly important for our Established Products Portfolio (EPP). EPP comprises around 50 products, as well as our branded generics business and other local products that, together, make up annual sales of around £4 billion. Many of these products are no longer promoted, and so it is important that operating costs and processes for these products are simplified as far as possible, to allow us to focus on new product launches and products with the greatest growth potential.

We are also accelerating the deployment of improved forecasting and planning processes across the Group, enabled by ERP. This should result in, a reduction in supply chain operating costs, reduced inventory levels and improved forecasting. The roll out is expected to be completed by mid 2015.

A key element of the CBS approach has been the creation of six regional multifunctional business service centres that will focus on delivering robust and effective services to the markets, sites and regions. In 2013, we opened four centres – one in Costa Rica, two in the US and one in the UK – complementing those in Kuala Lumpur and Poland that began operation in 2012. This global network is the foundation for standardising and continuously improving the support services offered to all business units. This centralised model will improve process efficiency and effectiveness and free up time in the businesses so they can focus on the execution of business strategy in their local markets.

Under the umbrella of CBS we have also conducted a number of targeted programmes to simplify our business and take out costs. In IT, for example, the introduction of new global platforms to run standard enterprise-wide processes and reduce the number of individual business applications has seen the organisation decommission 407 applications since the beginning of 2012 – 8% of the total.

By developing global category strategies, we have begun to standardise the material specifications and removed complexity from our supply base.

In HR, we started implementing the people management element of the system globally. By the end of 2013, all the GSK and agency employees in Canada and Latin America were on the system.

# Our financial architecture

## Our financial architecture is designed to support the execution of our strategy and to enhance returns to shareholders

GSK's financial architecture is focused on four key priorities: delivering sustainable sales growth, improving operating leverage, improving financial efficiency and converting more of our earnings into cash.

Our financial architecture is designed to ensure we are maximising the returns from more sustainable sales growth. To do this we continue to simplify our business, allocate our resources more efficiently and flexibly and build leverage across the P&L to drive earnings per share faster than sales and in turn convert more of those earnings into cash that we can reinvest in the business and return to shareholders, wherever the returns look most attractive.

By applying this architecture consistently, we are driving better and more consistent decision making across the company. Our capital allocation decisions are rigorously benchmarked using a Cash Flow Return on Investment (CFROI) framework.

### Sales growth

Reported sales in 2013 grew 1% to £26.5 billion. Excluding the impact of product disposals made in 2012, sales grew 3%. Five businesses – respiratory, oncology, Vaccines, ViiV Healthcare and Consumer Healthcare – accounted for around 70% of sales in 2013 and grew by 4% (CER). As we move into 2014, we expect to deliver sales growth of around 2% CER (excluding products divested in 2013).

### Operating leverage

In 2013, core operating profit was flat at CER. On a reported basis, the core operating margin declined by 1 percentage point of which 0.5 related to negative impact from currency. The operating margin benefited from reduced R&D costs and higher royalty receipts offset by expected upward pressure on cost of sales from the unwinding of costs of manufacturing volume shortfalls, adverse mix and the impact of preparing for the launches of new pipeline products. The Group's continuing restructuring programmes contributed incremental year-on-year savings of around £400 million from both ongoing and structural initiatives.

The £280 million contribution from structural benefits in 2013 which related to savings in our long-term employment costs through restructuring of our post-employment medical benefits was approximately £115 million lower than in 2012 when we restructured our pension obligations.

We remain focused on managing our cost base more effectively. Our Operational Excellence programme which was initiated in 2007 and remains on track to deliver annual savings of £2.8 billion in 2014. In addition, our new major change programme, announced in 2013 is on track to deliver pre-tax savings of at least £1 billion by 2016.

We continue to balance cost savings with continued investment in the business to support the new launches of our R&D pipeline, which will be a key driver of future sales growth. With increasing contributions from pipeline sales in 2014 onwards, we remain confident that we can drive improvement in the core operating margin over the medium term.

### Financial efficiency

Despite the pressure on the operating margin in 2013, financial efficiencies delivered significant value during the year and contributed positive leverage to our reported core earnings per share (EPS).

We made further financial efficiency gains in 2013, taking advantage of an era of low interest rates to secure more attractive long-term funding rates, without losing flexibility. Overall we have reduced net funding costs by 3 percentage points since 2010 while maintaining our targeted credit rating of A1/P1 to preserve access to short-term capital markets.

We also continue to align our tax strategy with our future business profile and have implemented a number of measures to centralise our Pharmaceutical intellectual property and product inventory ownership in the UK. This allowed us to reduce our 2013 core tax rate to 23.0% from 24.4% in 2012, which is ahead of our expectations at the beginning of the year. We continue to expect improvements in the tax rate, especially as new products come through which will benefit from the newly introduced patent box arrangements in the UK. Our core tax rate in 2014 is expected to be around 22%.

### Earnings per share

In 2013, the significant progress in improving our financial efficiency, together with our continued share buy-back programme, enabled us to deliver core EPS up 4% to 112.2p which was at the top end of our EPS guidance range of 3% to 4%.

In 2014, we expect to deliver core EPS growth of 4-8% CER, on turnover growth of around 2% CER, on an ex-divestment basis (2013 EPS base of 108.4p, turnover base £25.6 billion).

### Cash conversion

The business remains highly cash generative and we continue to focus on improving conversion of earnings into cash through greater focus on cash generation and capital allocation. A particular focus is on working capital and in 2013 we continued to make progress. Excluding the distorting impact of disposals and intangible write-offs, we reduced the working capital conversion cycle by 10 days in 2013.

On a cash basis, we delivered an additional £46 million of savings despite renewed growth in many of our businesses and the need to start building inventory behind our new launches. We are developing an end-to-end supply chain that joins our manufacturing and commercial businesses to increase visibility, accountability and flexibility, hence reducing the inventory required and releasing cash.

### Returns to shareholders

Free cash flow is available to invest in the business or to return to shareholders consistent with protecting our credit profile. The priority is to cover the dividend but free cash flow above and beyond this requirement is available for share buy-backs or bolt-on acquisitions, wherever the most attractive returns are available.

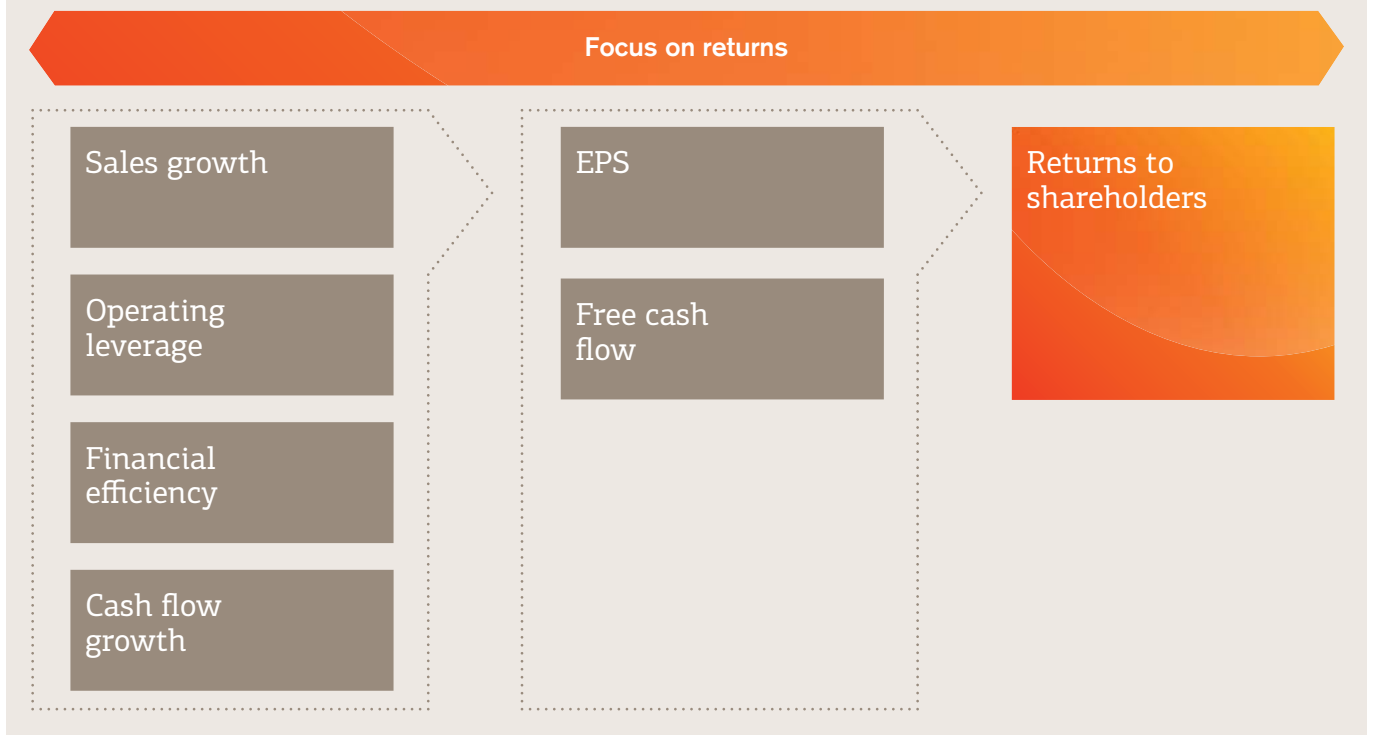
The decision as to how to allocate such cash flow is rigorously benchmarked using a returns-based framework based on CFROI comparisons.

In 2013 we returned £5.2 billion of cash to shareholders. We paid £3.7 billion in dividends with our ordinary dividend up 5% to 78p per share. In addition we bought back £1.5 billion of shares as part of the long-term programme that we started in 2011.

In 2014 we expect to deliver continued dividend growth and we are currently targeting share repurchases of £1-2 billion.



## Financial architecture to drive improved returns



### Measurement and reporting

From January 2014, the Group will report the Established Products Portfolio of more than 50 tail brands with sales totalling £4.2 billion in 2013 (£3.9 billion excluding divestments) as a separate segment. We have set up this segment to bring greater focus on how we optimise value and in particular profits and cash from this group of products. Where we can realise more attractive value than our own efforts we will also consider further divestments.

# Responsible business

Being a responsible business is central to our strategy and mission, and how we deliver success is just as important as what we achieve.

Operating responsibly and ensuring our values are embedded in our culture and decision-making helps us better meet the expectations of society.

In 2013 we continued to take bold steps to modify our business model. Specifically we made further progress on driving access to our medicines in the poorest countries, took action to increase

the transparency of our clinical research and modernise our commercial practices and the way we interact with our customers, and passed a significant milestone in the development of a potential vaccine against malaria.

We continue to invest in our people and are working hard to reduce our environmental footprint.

## Progress summary

We made good progress in 2013 towards our forward-looking commitments that we announced in 2012. These commitments are reported across our four areas and they aim to address unmet global health needs and are aligned with our strategic priorities and values.

### Health for all

- Increased the volume of medicines supplied to Least Developed Countries since 2010 by 60%.
- Achieved a major milestone in the development of our malaria vaccine candidate, RTS,S, which will lead us to submit a regulatory file in 2014 to make the vaccine available at a not for profit price in sub-Saharan Africa.
- Formed an innovative new partnership with Save the Children to help save the lives of one million children over five years.

### Our behaviour

- Became the first pharmaceutical company to enable external researchers to access detailed anonymised patient-level data from our clinical trials through a new online system.

- Announced plans to evolve the way we sell and market products to healthcare professionals to further align the company's activities with the interests of patients.

### Our people

- Began the roll out of preventative healthcare benefits through our Partnership for Prevention programme which will be available to employees and their families worldwide by 2018.
- Launched a new performance management system to better link employee reward with our values.

### Our planet

- Our Scope 1 and 2 carbon emissions from our operations grew slightly by 0.6% in 2013, although these have declined by 7% since 2010.
- We became the first company to be awarded global certification to the Carbon Trust's Water Standard in recognition of our year-on-year reductions in operational water use globally.



## Malaria milestone

Last year, malaria killed an estimated 627,000 people and more than three quarters of these deaths occurred in children under five.

The malaria parasite endemic in sub-Saharan Africa, *Plasmodium falciparum*, is also the most serious type of malaria where acute infections can rapidly become life-threatening.

Working in partnerships with others, we have been carrying out research into a vaccine to fight against malaria for more than 30 years. In 2013, we achieved a major milestone in the development of the world's first vaccine against *P falciparum*. Phase III data showed that our vaccine almost halved the number of cases in young children (aged 5-17 months at first vaccination) in the 18 months after vaccination.

Based on this data and previous studies, we plan to submit a regulatory application to the European Medicines Agency in 2014 and the vaccine could be available as early as 2016.

Nahya (pictured), a paediatrician, has been involved in the RTS,S malaria vaccine trial at the Ifakara Health Institute in Tanzania.

*"It's our hope that the malaria vaccine could help many, many children. It could help reduce the burden of malaria as a disease."*

**Nahya Salim, paediatrician and research scientist in Tanzania, Africa**

### References

World Health Organization – Fact sheet on the World Malaria Report 2013. December 2013.

[http://www.who.int/malaria/media/world\\_malaria\\_report\\_2013/en/index.html](http://www.who.int/malaria/media/world_malaria_report_2013/en/index.html)

Wellcome trust – Plasmodium falciparum  
[http://malaria.wellcome.ac.uk/doc\\_WTD023865.html](http://malaria.wellcome.ac.uk/doc_WTD023865.html)

## Our priorities

In 2014, we will continue to challenge our business model at every level to ensure we are responding to the needs of patients and meeting the wider expectations of society.

Next year we will begin a two-year process to end the practice of paying health care professionals to speak on our behalf. This move will help put patient interests first.

# Responsible business

## Our approach

How we conduct our business is just as important to us as the financial results we achieve. We strive to put our values at the heart of every decision we make and to meet or exceed the expectations of society

Our commercial success is directly linked to operating in a responsible way. We report our approach and the progress we are making across four areas:

- Health for all
- Our behaviour
- Our people
- Our planet

In 2012, we developed longer-term commitments across these four areas. They reflect global health needs and are aligned with our strategic priorities and our values of transparency, respect for people, integrity and patient-focus.

This year we will be reporting on our progress against these commitments in our 2013 Corporate Responsibility Report available on [gsk.com/responsibility](http://gsk.com/responsibility).

The following pages provide an overview of our approach.

### Health for all

Our mission is to improve the quality of human life by enabling people to do more, feel better, live longer. The main way we can do this is through developing new medicines, vaccines and consumer products and increasing access to these products for those who need them, regardless of their ability to pay. At the same time, we need to generate returns so that we can be a sustainable business that invests in research for the new treatments of tomorrow.

To achieve this, we have been evolving our business model and implementing novel approaches such as flexible pricing structures. We have also been accelerating our innovation processes by opening up our research findings and resources to others, and working in new ways with partners.

### Access to healthcare

We are committed to improving access to patients who need our products irrespective of their ability to pay, by focusing on product affordability and availability, and investing in stronger healthcare systems in developing countries.

To improve access, we employ innovative funding mechanisms and use a flexible pricing approach that is based on a country's wealth and ability to pay. Our Developing Countries and Market Access (DCMA) operating unit seeks to increase patient access to our medicines and vaccines for around 800 million people in the Least Developed Countries (LDCs), as defined by the United Nations.

Since the DCMA unit was established in 2010, the volume of medicines we supply to LDCs has increased by 60% from 55 million units in 2010 to 89 million in 2013.

The price of our patented medicines in the LDCs is capped at no more than a quarter of our developed world prices. Since 2009 we have also re-invested 20% of our profits in the LDCs into local healthcare capacity-building projects in those countries. In 2013 this amounted to £5.1 million and since 2009 we have reinvested £15 million.

We aim to make our established, off-patent products available to developing countries through our 'catch up' programme. Through this programme, we have been seeking approvals for our medicines in these markets, and have received approvals for 26 products in 2013.

In vaccines, we have used a tiered pricing model for over 20 years and, in 2013, we updated our approach to better align with a country's ability to pay. For the least well off countries, we work closely with GAVI and UNICEF to improve access to vaccines. These organisations, which purchase large volumes of vaccines for the world's poorest children, always benefit from our lowest prices.

We aim to take a responsible approach to pricing in all markets. It is important that prices reflect the value our medicines bring to patients but we are also very mindful of the burden of healthcare costs. For example, we have priced our newly launched products at or below the prices for those currently available, despite their positively differentiated profiles. For example, in the USA we launched *Tafinlar*, our BRAF inhibitor, last year with a price around 30% lower than an existing BRAF inhibitor.

### Diseases of the developing world

Neglected tropical diseases (NTDs) like leprosy and intestinal worms affect billions of people in the world's most vulnerable communities. As a leading member of the London Declaration, GSK is working with the Bill & Melinda Gates Foundation and 12 other pharmaceutical companies to control or eliminate ten of the 17 NTDs by 2020 that affect 1.4 billion people.

Our most significant contribution to this is in the elimination of lymphatic filariasis (LF) and control of soil-transmitted helminths (intestinal worms) through the donation of albendazole tablets. In 2013, we shipped 763 million tablets, bringing the total donated to more than 4 billion tablets since 1998.

We are also researching new treatments for other diseases such as sleeping sickness, Chagas disease and visceral leishmaniasis.

Approximately 627,000 malaria-related deaths were reported last year and GSK is committed to tackling this disease. We have invested \$350 million in the development of our malaria vaccine candidate RTS,S, including collaborations with the PATH Malaria Vaccine Initiative and support from the Bill & Melinda Gates Foundation. This year, our clinical trial reported further data on the vaccine (see page 34) and we intend to submit a regulatory application in 2014. We are also developing tafenoquine for the treatment and relapse prevention of *P vivax* malaria.

We remain committed to supporting the World Health Organization objective of eradicating polio completely by 2018 by providing vaccines to UNICEF. In 2013, we provided 412 million doses of oral polio vaccine to the Global Polio Eradication Initiative.

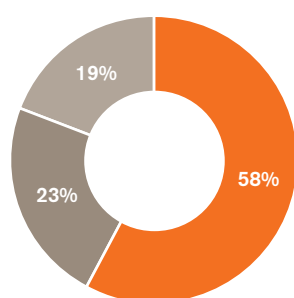
### Innovative science to create value for all

Our approach to R&D includes our strategy for open innovation for the diseases of the developing world, which seeks to stimulate innovation and enhance the productivity of our research process. This research has transformed our approach to intellectual property and external partnerships.

While our current open innovation models focus on diseases of the developing world, we are also exploring ways to extend these models to solve other significant health challenges where the traditional business model is inadequate, including anti-microbial resistance and non-communicable diseases such as Alzheimer's disease.

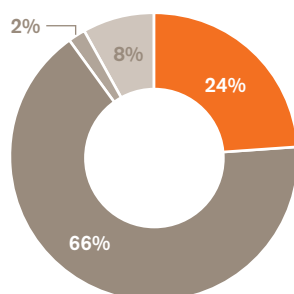
In early 2014, we joined the Accelerated Medicines Partnership (AMP) – a new partnership between the National Institutes of Health (NIH), ten pharmaceutical companies and three non-profit organisations. The goal of the AMP is to transform the current model for developing new diagnostics and treatments in challenging disease areas and make the data generated available to the broad biomedical community. We will be participating in and providing funding for the Alzheimer's pilot.

**Programmes supported by financial giving in 2013**



■ Health and well-being  
■ Education  
■ Other

**Our giving in 2013**



	<b>£m</b>
<span style="color: #e67e22;">■</span> Cash	54
<span style="color: #8e8e8e;">■</span> Product and in-kind	146
<span style="color: #666666;">■</span> Time	4
<span style="color: #444444;">■</span> Management	17

We also believe that by sharing our research findings – both positive and negative – we can stimulate innovation and help others to build on our existing research. Our aim is that this will accelerate the drug development process to produce new medicines for patients.

**Health and well-being in our communities**

We are committed to improving the health and well-being of our communities by supporting programmes that improve healthcare infrastructure, enhance science and health education and assist in humanitarian relief.

In 2013, GSK donated medicines valued at £146 million (at cost) and £54 million in cash. Product donations worth £3.8 million were provided to our partners AmeriCares, Direct Relief, IMA World Health, MAP International and Project HOPE for humanitarian aid. These partners distributed donated medicines to 87 countries in 2013. This included providing supplies of antibiotics and basic medicines to those affected by conflicts and natural disasters, including the earthquake in Pakistan, the typhoon in the Philippines and the tornadoes in the USA.

GSK's annual IMPACT Awards have channelled more than £8 million to over 450 outstanding healthcare charities in the UK and the USA over the past 16 years.

**Our behaviour**

We aim to put the interests of patients and consumers first and to have our decisions guided by our four values of transparency, respect for people, integrity and patient-focus. We have policies, guidance and codes of conduct in place for our people, our partners and our suppliers.

**Living our values and principles**

Ethical conduct is a priority for GSK. We need to operate with integrity around the world, in our interactions with patients, prescribers, payers, and governments and we must live our values. Failure to uphold high ethical standards could impact our company's success.

Our zero tolerance approach to bribery and corruption applies to everyone at GSK as well as third parties who act on behalf of the company.

In this context we were concerned and disappointed by allegations of fraudulent behaviour in our China business. We are taking this matter extremely seriously and are co-operating fully with the Chinese authorities.

We have taken a number of actions, including also commissioning an independent report from international legal firm Ropes and Gray, who have extensive experience in anti-corruption and international risk.

We are committed to learning any lessons required as a result of the Chinese investigation and will take all appropriate steps as necessary at its outcome. We remain fully committed to China, supporting the government's healthcare reforms and to supplying our products to patients.

In 2013, we simplified the policies underpinning our Code of Conduct and completed our annual business certification programme. The Ethical Leadership Certification requires managers and designated employees to certify their awareness, understanding, and compliance with GSK's values and policies. Over 65,000 designated employees had completed the certification process in 2013.

We continue to support the Guiding Principles on Business and Human Rights, as endorsed by the United Nations Human Rights Council in 2011. In recognition of these principles, we undertook a systemic assessment in 2013 to identify our human rights impacts and prioritised seven areas to further examine GSK's policies and processes. We also updated our GSK Human Rights Statement based on the findings of our assessment.

**Research practices**

We seek to ensure that our research practices meet high ethical standards and patient safety remains our first priority.

Our clinical trials are conducted in accordance with Good Clinical Practice (GCP) guidelines. All employees complete training on GCP before undertaking any roles related to GSK-sponsored clinical research. In 2013, there were 44,685 GCP-related training activities. We also conducted 323 clinical quality assurance assessments.

In addition, we conducted 51 investigations of suspected irregularities and took corrective action where appropriate. Independent regulatory authorities also performed 112 inspections of GSK sites and the investigators we used to conduct clinical trials.

# Responsible business

## Continued

In 2013, we built on our longstanding commitment to clinical trial transparency. To facilitate further research that can help advance medical science or improve patient care, we launched an online system to enable researchers to request access to detailed anonymised patient-level data from our clinical trials. We also began publishing Clinical Study Reports (CSRs) once the medicines have been approved or terminated from development. This will extend back to the formation of GSK in 2000, starting with the most commonly prescribed medicines. We also support the AllTrials campaign, which calls for full reporting of methods and results of all trials.

In early stage research, we use a number of methods for drug discovery work, including in some cases research involving animals. We use alternatives to animals whenever we can. However, in some studies animal research is the only method that can be used to demonstrate the effects of a potential new medicine in a living body before it is tested in humans. When animals are used in research, we are committed to acting ethically and practising good animal welfare and minimising the number of animals used. In 2013, the number of animals we used declined by 10% and was 33% lower than in 2000. Most animals in our research – including research carried out by contractors – are mice. Less than 0.3% of the animals we use are non-human primates.

### Manufacturing and supply

Efficient and responsible manufacturing and supply is key to GSK. We expect suppliers to uphold the same high standards we set for ourselves, which is based on our Code of Conduct.

We conduct audits on governance, risk management, environmental, health and safety and sustainability issues on a subset of suppliers, which have been identified as critical to our supply chain.

GSK is also a member of the Pharmaceutical Supply Chain Initiative (PSCI), which audits suppliers on their labour practices, and their environment, health and safety performance.

Moving to an end-to-end supply chain operating model for our Pharmaceutical and Consumer Healthcare products will standardise and improve controls across our entire supply chain.

During 2013 we continued to address the problem of counterfeiting. One effective measure, initially adopted in China, is to use serial numbers on product packages to enable electronic monitoring for the purpose of patient safety. In 2013, we began a programme that will modify nearly 200 packaging lines across 25 manufacturing sites internationally allowing us to provide unique serial numbers on nearly 7,000 stock keeping units.

We greatly value the relationships we have with our many suppliers and understand the pressures on cash flow and financing faced by smaller companies. Following a change to our standard payment terms for suppliers in the UK and USA in 2012, we offered to review these payment terms for smaller suppliers identified as micro, small and medium size enterprises in Europe or diverse suppliers in the USA. We also offer a range of supply chain finance options to both our UK and US suppliers.

Several companies have taken up these opportunities already and we are planning increased communications to make more of our smaller suppliers aware of the support available.

### Sales and marketing with integrity

GSK has an important role to play in supporting education for healthcare professionals (HCPs) and in providing accurate information about our medicines to help them make the best treatment decision for their patients. In 2013, we announced plans to evolve the way we interact with HCPs to further align our activities with the interests of patients.

In 2014, we will implement a new compensation system that will apply to all GSK sales employees who detail our prescription products to prescribing healthcare professionals. This will mean sales professionals being evaluated and rewarded for their technical knowledge, the quality of the service they deliver to support improved patient care and the overall performance of our business, replacing individual sales targets.

This follows the success of our actions in the USA where we decoupled reward for our sales representatives from the number of prescriptions issued, focusing instead on demonstration of our values and on the patient.

In addition, we intend to phase out the practice of paying HCPs to speak on our behalf about our products or disease areas to audiences who can prescribe or influence prescribing.

We will work to implement these changes effectively in line with local laws and regulations across our global business by the start of 2016.

We will strengthen our own dedicated medical and scientific capability to appropriately lead engagement with HCPs. We will improve our multi-channel capability, including use of digital technologies, to ensure appropriate product and disease area information can be provided to HCPs conveniently. Finally, we will support fair, balanced and objective medical education for HCPs through provision of independent educational grants.

We will continue to offer appropriate fees to HCPs who provide services for GSK-sponsored clinical research, advisory activities and market research. These activities are essential to provide us with insights on specific diseases, identification of symptoms and diagnosis, application of clinical trial data or medication dosage and administration, and on how to effectively and appropriately communicate the benefits and risks of its medicines to help meet patient needs.

## Our people

Our people are essential to our success. We focus on building their individual capabilities and aim to support and empower them to be the best they can be.

### Talent and leadership development

We aim to attract and retain the most talented people by investing in training and development that is tailored to individuals' needs and recognises the potential of our employees.

In 2013 over 3,500 leaders completed our Leading Delivery programme, which helps middle-level managers translate the strategic ambition to our business into meaningful action. We also enrolled over 140 leaders onto Leading Business, which is designed to develop the capabilities of those managing a business function. For people who are new to management positions, we launched Management Essentials, which teaches basic management skills.

During the year, we continued to support entry level students through internships, industrial placements, apprenticeships and graduate schemes. In 2013, we increased our graduate intake to 334 from 303 (in 2012) as part of our aim to recruit 450 graduates a year by 2015.

Coaching was a global focus in 2013. We reached over 6,500 leaders in 30 countries through our coaching programmes to strengthen leadership capabilities.

Our PULSE volunteer partnership programme gives employees the opportunity to work full-time for three or six months with a non-profit organisation or charity to help address global healthcare challenges while developing their leadership skills. In 2013, 99 employees volunteered with 47 organisations, including Save the Children, as part of our new global partnership with the charity.

### Inclusion and diversity

Our focus is to enable gender diversity in management and senior roles. In 2013, we introduced targeted individual and group coaching and sponsorship for emerging diverse talent. In 2014, we will invite employees to join dialogue sessions to discuss and address hidden barriers that could hinder gender diversity.

At the end of 2013, 57% of our global work force were male and 43% were female.

The percentage of women in management continued to rise in 2013.

#### Women in management positions (%)

	2009	2010	2011	2012	2013
SVP, VP	25	25	26	27	28
Director	36	37	38	39	40
Manager	42	42	42	43	44
<b>Total</b>	<b>38</b>	<b>38</b>	<b>39</b>	<b>40</b>	<b>41</b>

Women represent 21% of our Corporate Executive Team and we have exceeded our goal to achieve at least 25% female board representation by 2013. Female Non-Executive Directors make up 33% of the Board. We ranked joint third in the 2013 Female FTSE 100 Board Report, a study of women's representation on the boards of the UK's top companies.

#### Employees by gender (number)

	Male	Female	Total
Board	10	5	15
Management*	9,483	6,705	16,188
<b>Total employees</b>	<b>56,621</b>	<b>42,830</b>	<b>99,451</b>

\* Management: senior managers as defined in the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, which includes persons responsible for planning, directing or controlling the activities of the company, or a strategically significant part of the company, other than the Board, including directors of undertakings included in the consolidated accounts.



Elisse Bogos/Save the Children

## Partnership with Save the Children to help save 1 million lives

We aim to help save the lives of 1 million children through our partnership with Save the Children. By combining our R&D capabilities and on-the-ground expertise, we will bring much-needed medicines and vaccines to some of the world's poorest children, train thousands of healthcare workers and seek to alleviate child malnutrition.

This new partnership builds on our collaboration with Save the Children over the past eight years, including as part of our 20% reinvestment programme in Least Developed Countries and our Africa Malaria Partnership.

We are investing at least £15 million in this initiative and encouraging our employees to contribute £1 million a year through fund raising. We are establishing two signature programmes to demonstrate interventions in the Democratic Republic of Congo (DRC) and Kenya, while a joint paediatric board will look at new or repurposed products to tackle the causes of newborn and infant death.

One of our first life-saving projects is the reformulation of chlorhexidine, an antiseptic found in our *Corsodyl* mouthwash, into a gel for umbilical cord cleansing to prevent infection in newborns.

We are also registering a child-friendly, powder-based antibiotic in the DRC to help fight pneumonia, one of the biggest killers of children under five. These interventions are two of the 13 recommended in the report of the UN Commission on Life Saving Commodities.

We also teamed up with Save the Children to award US\$1 million in recognition of healthcare innovations originating in the developing world designed to reduce infant mortality. In 2013, the award was split between five organisations. The largest portion was awarded to Friends of Sick Children in Malawi, for their development of a low-cost device to help newborn infants breathe.

# Responsible business

## Continued

Making sure that people with disabilities have access to career opportunities and capturing their talent is a global focus for us. In 2014, we will establish a Global Disability Council within GSK to agree priority areas for improving opportunities for disabled people, develop objectives to drive our disability agenda forward, and monitor and report on our progress.

The rich cultural diversity of our employees is a key strength in helping us meet the diverse needs of patients and healthcare providers in countries in which we operate. Staff based in our Emerging Markets, Asia Pacific and Japan regions represented 43% of our total workforce in 2013. Six nationalities are represented on the Corporate Executive Team and Board.

We monitor and benchmark the proportion of ethnic minorities in our workforce against industry averages and the national population in countries such as the UK and USA and engage with groups representing diverse communities.

### Engaging our people

Our CEO and members of the Corporate Executive Team deliver live broadcasts and messages to keep employees updated about the company's progress towards its strategy and commitments.

Our frequent global employee survey helps us understand our performance as an employer. During 2013, we have taken steps to address issues identified by the last survey, completed in 2012, with a focus on training leaders to be better coaches, supporting employees through change and better recognising individuals' contributions.

In 2013, we introduced interim surveys for individual business units and functions and covered some 36,000 employees. Results showed that most businesses had made significant improvements in team leader effectiveness, a priority area for improvement based on the 2012 survey results.

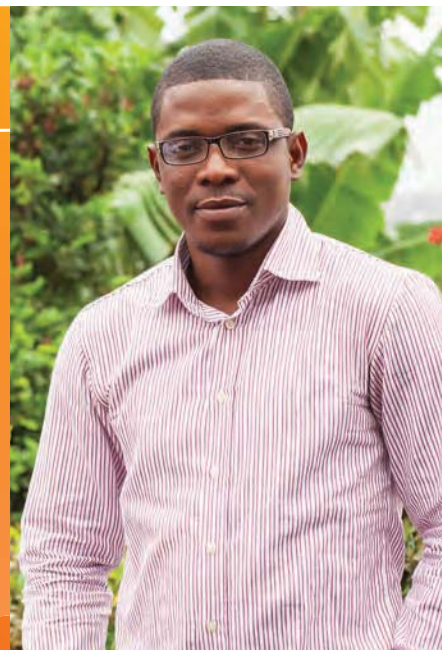
GSK employees were again enthusiastic participants in our Orange Day volunteer programme, which gives staff one paid day a year for this purpose. In 2013, we also challenged employees around the world to work together to raise over £1 million a year for five years for Save the Children.

## Setting the standard in employee healthcare

We are putting our values into practice by offering competitive benefits packages, including preventive healthcare for employees and their families.

Our Partnership for Prevention (P4P) programme offers all eligible employees and their family members access to up to 40 preventive health services at little or no cost. P4P will be available to employees across GSK by 2018. To date P4P benefits are in place for over 5,200 employees and family members in 11 countries.

As part of the P4P pilot, which ran in 2012, we focused on encouraging employees to do more exercise and improve their diet and have since developed a global physical fitness programme that will be launched in 2014.



### Health and safety and wellbeing

As a progressive healthcare company, we believe that helping our employees be healthy, resilient and productive is a priority and brings our mission to life for our people.

To achieve our goal of zero harm to employees, we focus on preventing incidents before they occur and in 2013 training activities focused on key risks such as driver safety and machinery-related incidents. We had two serious incidents in 2013. The injury and illness rate in 2013 was 0.29 per 100,000 hours worked – down from 0.33 in 2012. This was underreported in 2013 and we are working to include data from a number of Commercial Operations business units.

We also worked to increase reporting of near miss incidents so that we can better understand how and why such events occur and then share this knowledge across the business to help prevent more serious incidents. As a result, in 2013, we reported 131,924 such events – an increase of 98% since 2012.

We also expanded our network of health and safety co-ordinators who make sure our safety programmes are on track and expanded a driver safety programme to five continents.

We continued to implement risk reduction initiatives and further improved process safety in manufacturing and R&D to prevent serious events such as fires, explosions and releases of hazardous substances.

Our Energy for Performance programme helps employees remain focused and energised and productive. By the end of 2013, 44,500 employees in 55 countries had participated in energy and resilience training since 2008.

Our Employee Assistance Programme offers advice, information and counselling through a confidential helpline and website and is available to employees.

### Performance, reward and recognition

Incentivising behaviour that is consistent with our values is a priority in the way we evaluate, recognise and reward performance. In 2013, we announced a new performance system that will come into effect in 2014. This system is designed to ensure our employees understand what is expected of them and help them connect their contribution to the delivery of our strategy and their reward.

For our most senior people, we dis-incentivise unethical working practices using a 'clawback' mechanism that allows us to recover performance-related pay.

We are committed to supporting the health and wellbeing of our employees and their families and during the year, we began to phase in our global preventive healthcare initiative, the Partnership for Prevention programme (see Setting the standard in employee healthcare).



## Our planet

To ensure we can continue to deliver high quality products to patients and consumers in the future, we must protect the natural resources we need to make them today.

### Carbon

We have set ambitious targets to achieve a carbon-neutral value chain by 2050. Our operational emissions remain lower than our 2010 baseline and we are engaging with employees, suppliers and customers to address carbon emissions in our value chain – from sourcing of raw materials and transport, to use and disposal of our products. We are using carbon footprint analyses of our top 35 products to target the most effective reductions.

Our scope 1 & 2 carbon emissions from our operations grew slightly by 0.6% in 2013, although these have declined by 7% since 2010. The investments we made in 2013 will start to deliver further carbon emission reductions in 2014 (see Carbon emissions table). Scope 1 emissions refer to all direct greenhouse gas emissions, including burning fuels for energy, emissions from sales force cars, emissions during manufacture of metered dose inhalers and other process emissions from our manufacturing operations and waste treatment. Scope 2 emissions include indirect greenhouse gas emissions from consumption of purchased electricity, heat or steam.

Our scope 3 emissions (excluding raw materials) increased by 1.5% in 2013 across the value chain due to strong sales of HFA propellant-based inhalers, and have increased 11% since 2010. Scope 3 emissions are all the other indirect emissions, not included in scope 2, such as embedded carbon dioxide in purchased raw materials, the propellant released when patients use and dispose of our metered dose inhalers, as well as business travel by air and logistics.

Materially important emissions – such as the emissions from the use of our metered dose inhalers – are detailed in our value chain carbon footprint performance data, published in our 2013 Corporate Responsibility Report.

Important achievements in 2013 include:

- The Best in Continuing Carbon Reduction Award 2013 from the Carbon Trust for year-on-year overall reductions in emissions.
- Collaborating in the launch of a tool to help companies calculate the carbon footprint of tablet medicines that are distributed in blister packs.

### Carbon emissions

Tonne CO <sub>2</sub> e	2010	2011	2012	2013
Scope 1 emissions	1,011,180	1,035,856	1,018,014	1,037,288
Scope 2 emissions	964,215	881,101	804,253	796,034
Total scope 1&2 emissions	1,975,395	1,916,957	1,822,267	1,833,322

Intensity ratios	2010	2011	2012	2013
Sales Revenue £ 000,000	28,392	27,387	26,431	26,505
Scope 1&2 (tonnes CO <sub>2</sub> e)/ sales revenue £ (millions)	69.6	70.0	68.9	69.2
FTE	96,461	97,389	99,488	99,451
Scope 1&2 (tonnes CO <sub>2</sub> e)/FTE	20.5	19.7	18.3	18.4

The scope 1 and scope 2 carbon emissions are calculated according to The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (see table). We were certified to the Carbon Trust Carbon Standard in 2012 which certifies that we are making year-on-year overall reductions in emissions associated with operations and transport and will be applying for recertification in 2014. These emissions are not materially important to our carbon reduction strategy.

- Being named in the CDP Performance Leadership Indices as a global leader in tackling carbon emissions and for our transparent reporting.

In 2013, we repeated our survey of suppliers of packaging and leaflet paper and used this information to help us in our purchasing decisions.

### Water

In 2013, we achieved a further 2% reduction in water use from the previous year, keeping us on track to meet our target to cut operational water use by 20% by 2015 from our 2010 baseline.

We mapped water usage across our value chain in 2013 and identified that the production of the raw materials we use accounts for an estimated 84% of our total water footprint and our own operations represent just 1%.

In 2013, we became the first company to be awarded global certification to the Carbon Trust's Water Standard. As part of the assessment, the Carbon Trust audited sites in the UK, USA and India.

### Waste

In 2013, we generated 11% more waste than in 2012 as a result of business growth, but we reduced our waste by 6% compared to our 2010 baseline. Only 6% of total waste was sent to landfill and 37 of our sites have now achieved zero waste to landfill – up from 34 in 2012. By 2020, we aim to halve our operational waste compared to 2010 and have zero waste to landfill.

In the UK, we installed equipment at our site in Ware to dismantle spent respiratory inhalers so we can recycle the components.

### Other impacts

We manage a range of other important issues to reduce our environmental impact. For example we use 'green chemistry', which aims to reduce the use of hazardous chemicals and processes from drug development by replacing them with those that have a lower environmental impact.

Our Green Chemistry Performance Unit, established in 2012, researches ways to replace hazardous or unsustainable chemicals with better alternatives.

To support research into sustainable chemistry, we are investing in a new centre of excellence for green chemistry at the University of Nottingham in the UK and pledged annual funding until 2024 for a second Centre of Excellence for Sustainable Chemistry in São Paulo, Brazil. In Singapore, we are funding research into green and sustainable manufacturing as part of our partnership with the Singapore Economic Development Board.

# Financial review

The Financial review summarises the performance of the Group for the year, in comparison with the results of the previous year. The Financial review also sets out the balance sheet position of the Group at 31 December 2013

## Group performance

Our financial review discusses the operating and financial performance of the Group, the financial outlook and our financial resources. We compare the results for each year primarily with results of the preceding year and on a CER basis. In this review we discuss the results on both a core basis and a total basis.

All growth rates included in this Report are at constant exchange rates (CER) unless otherwise stated. CER growth is discussed below.

We use a number of adjusted measures to report the performance of our business. These measures are used by management for planning and reporting purposes and in discussions with and presentations to investment analysts and rating agencies and are defined below. These measures are not defined in IFRS and may not be comparable with similarly described measures used by other companies.

### Core results reporting

Core results exclude the following items from total results: amortisation and impairment of intangible assets (excluding computer software) and goodwill; major restructuring costs, including those costs following material acquisitions; legal charges (net of insurance recoveries) and expenses on the settlement of litigation and government investigations; other operating income other than royalty income; disposals of associates, products and businesses, and acquisition accounting adjustments for material acquisitions, together with the tax effects of all of these items.

Major restructuring costs charged in arriving at operating profit include costs arising under the Operational Excellence restructuring programme, initiated in 2007 and expanded in 2009, 2010 and 2011, the Major Change restructuring programme initiated in 2013 and restructuring costs following the acquisitions of Human Genome Sciences, Inc. in August 2012 and Stiefel Laboratories, Inc. in July 2009.

Reconciliations of core results to total results are presented on page 65.

Core results reporting aligns business performance reporting around the underlying trading performance of the Group and its primary growth drivers by removing the volatility inherent in many of the non-core items.

Core results reporting is utilised as the basis for internal performance reporting and the core results are presented and discussed in this Financial review as we believe that this approach provides investors with a clearer view of the underlying trading performance of the Group. We also believe that this approach should make the Group's results more comparable with the majority of our peers, many of which use similar forms of underlying performance reporting to discuss their results, although the precise calculations may differ. The Financial review also presents and discusses the total results of the Group.

### Free cash flow

Free cash flow is the net cash inflow from operating activities less capital expenditure, interest and dividends paid to non-controlling interests plus proceeds from the sale of property, plant and equipment and dividends received from joint ventures and associated undertakings. Free cash flow growth is calculated on a sterling basis. A reconciliation is presented on page 72.

### Working capital conversion cycle

The working capital conversion cycle is calculated as the number of days sales outstanding plus days inventory outstanding, less days purchases outstanding.

### CER growth

In order to illustrate underlying performance, it is our practice to discuss the results in terms of constant exchange rate (CER) growth. This represents growth calculated as if the exchange rates used to determine the results of overseas companies in Sterling had remained unchanged from those used in the previous year. CER% represents growth at constant exchange rates. £% represents growth at actual exchange rates.

### Restatement of comparative information

As set out in Note 1 to the Financial statements, 'Presentation of financial statements', an amendment to IAS 19 'Employee benefits' has been implemented in the year. The effect has been to reduce total operating profit for 2013 by £160 million (2012 – £92 million; 2011 – £73 million). Comparative information has been restated accordingly.

## Financial review 2013

### Group turnover by business

	2013 £m	2012 (restated) £m	Growth CER%*	Growth £%
Pharmaceuticals	17,898	17,936	1	–
Vaccines	3,420	3,325	2	3
Pharmaceuticals and Vaccines	21,318	21,261	1	–
Consumer Healthcare	5,187	5,170	2	–
	26,505	26,431	1	–

\* CER% represents growth at constant exchange rates. £% represents growth at actual exchange rates.

Total Group turnover for 2013 was £26,505 million, up 1%. Excluding the impact of disposals, primarily the conclusion of the Vesicare co-promotion agreement in the US in Q1 2012 and the non-core OTC brands divested in H1 2012, turnover grew 3%. Pharmaceuticals and Vaccines turnover grew 1% and excluding disposals, grew 2%. Pharmaceuticals turnover grew 1% and, excluding disposals, grew 2%, as growth in the US, Japan and EMAP was partially offset by continued pricing pressures and generic competition in Europe. ViiV Healthcare turnover for 2013 was flat. Vaccines turnover grew 2%, despite the adverse comparison with strong *Cervarix* sales in Japan in 2012. Excluding *Cervarix* in Japan, Vaccines sales grew 5%, reflecting the strong growth in the US of *Infanrix/Pediarix* and *Boostrix*, both of which benefited from competitor supply issues, and *Fluarix/FluLaval*, which benefited from the launch of the new Quadrivalent formulation, as well as a better performance by the business in Europe. Consumer Healthcare turnover increased 2% to £5,187 million, but excluding the non-core OTC brands divested in H1 2012, turnover grew 4%.

### Group turnover by geographic region

	2013 £m	2012 (restated) £m	Growth CER%	Growth £%
US	8,730	8,476	2	3
Europe	7,511	7,326	(1)	3
EMAP	6,746	6,788	2	(1)
Japan	1,890	2,225	2	(15)
Other	1,628	1,616	4	1
	26,505	26,431	1	–

Group sales outside the USA and Europe accounted for 39% of total turnover and reported growth of 2%, adversely impacted by sales declines in China.

### Group turnover by segment

	2013 £m	2012 (restated) £m	Growth CER%	Growth £%
Pharmaceuticals and Vaccines:				
US	7,192	7,000	1	3
Europe	5,166	5,001	–	3
EMAP	4,698	4,721	1	–
Japan	1,657	1,969	1	(16)
ViiV Healthcare	1,386	1,374	–	1
Other trading and unallocated	1,219	1,196	5	2
Pharmaceuticals and Vaccines	21,318	21,261	1	–
Consumer Healthcare	5,187	5,170	2	–
	26,505	26,431	1	–

In the US, Pharmaceuticals and Vaccines turnover was up 1%, but grew 4% excluding the impact of the conclusion of the Vesicare co-promotion agreement in Q1 2012. Pharmaceuticals turnover was down 1% but excluding Vesicare, grew 2%. Sales of Respiratory products grew 7% to £3,655 million, led by an 8% growth in *Advair*, although this performance included the benefit of favourable stocking patterns in the fourth quarter. Oncology products also performed well, growing 17% to £380 million, led by strong performances from *Votrient* and *Promacta* and the initial impact of the launches of *Tafinlar* and *Mekinist* monotherapies during the year. These gains were partially offset by the impact of generic competition to *Lamictal* and a number of Dermatology products. The 17% increase in Vaccines sales primarily resulted from the increases in *Infanrix/Pediarix* and *Boostrix* sales, both of which benefited from competitor supply shortages. *Fluarix/FluLaval* sales were also strong following the launch of the Quadrivalent flu formulation in 2013.

Europe Pharmaceuticals and Vaccines turnover was £5,166 million, flat compared with 2012, as the benefits of the recent restructuring and refocusing of the business were offset by continued pricing pressures and generic competition to a number of products. Pharmaceutical sales were down 1% to £4,117 million. *Seretide* sales declined 2% on a 2% volume decline but flat pricing. Oncology products, particularly *Votrient* and *Promacta*, performed well, as did *Avodart*, but growth from these products was more than offset by lower sales of a number of older products, which were particularly impacted by continued pricing measures and generic competition. Vaccines sales grew 3%, largely due to an improved tender performance.

EMAP Pharmaceuticals and Vaccines turnover was up 1% to £4,698 million in 2013, adversely affected by the ongoing investigation in China, with Pharmaceuticals up 2% to £3,574 million and Vaccines up 1% to £1,124 million. In China, Pharmaceuticals and Vaccines sales were down 18%, driven primarily by declines in Respiratory and Hepatitis products. Excluding China, EMAP Pharmaceuticals and Vaccines sales grew 5% driven by Pharmaceuticals growth in the Middle East/Africa, Latin America, and South East Asia, partially offset by declines in India, and Korea. Vaccines sales were up 1% to £1,124 million, and up 3% excluding China, reflecting strong tender performances from *Cervarix* and *Infanrix/Pediarix*, which were partially offset by a tough comparison with 2012.

Japan Pharmaceuticals and Vaccines turnover grew 1% to £1,657 million, as a 9% growth in Pharmaceuticals sales was partially offset by a 76% decline in Vaccines sales. Strong growth in Respiratory products as well as for *Relenza*, *Avodart* and *Lamictal* was partly offset by generic competition to *Paxil* sales. Vaccines sales primarily reflected the impact on *Cervarix* of the suspension of the recommendation for the use of HPV vaccines in Japan during the second half of 2013 and the adverse comparison with 2012, which benefited from the final stages of the catch-up HPV vaccination programme.

ViiV Healthcare turnover was flat at £1,386 million as the growth generated by *Epzicom* and *Selzentry*, together with the introduction of *Tivicay*, was offset by the impact of continued competition to older products.

Consumer Healthcare turnover, excluding the non-core OTC brands divested in H1 2012, grew 4%, with growth in all four categories. Growth in the US, up 2%, and Europe, up 3%, primarily arose from Specialist oral health, including *Sensodyne*, Denture care and the re-stocking of *alli*, which was out of stock for much of 2012. Rest of World turnover grew 6% with strong growth in India, the Middle East and Latin America partly offset by a decline in sales in China, driven by the impact of the shelving restrictions on *Contac* and mandatory price reductions for *Fenbid*. Reported Consumer Healthcare turnover grew 2% to £5,187 million.

## Pharmaceuticals turnover

	2013 £m	2012 (restated) £m	Growth CER%	Growth £%
Respiratory	7,516	7,291	4	3
Anti-virals	667	753	(6)	(11)
Central nervous system	1,483	1,670	(8)	(11)
Cardiovascular and urogenital	2,239	2,431	(8)	(8)
Metabolic	174	171	10	2
Anti-bacterials	1,239	1,247	–	(1)
Oncology and emesis	969	798	22	21
Dermatology	770	850	(8)	(9)
Rare diseases	495	495	7	–
Immuno-inflammation	161	70	>100	>100
Other pharmaceuticals	799	786	6	2
ViiV Healthcare (HIV)	1,386	1,374	–	1
	17,898	17,936	1	–

## Respiratory

Respiratory sales in 2013 grew 4% to £7,516 million, with the US up 7%, Europe down 3%, EMAP up 4% and Japan up 9%. *Seretide/Advair* sales were up 4% to £5,274 million, largely driven by a strong US performance. *Flixotide/Flovent* sales increased 2% to £796 million, and *Ventolin* sales grew 2% to £642 million. *Xyzal* sales, almost exclusively made in Japan, grew 26% to £137 million, reflecting a strong allergy season.

In the US, Respiratory sales grew 7%, with *Advair* up 8% to £2,769 million, compared with 6% estimated underlying growth for the year (5% volume decline more than offset by an 11% positive impact of price and mix). *Flovent* sales were up 6% to £482 million with estimated underlying growth for the year up 6% (4% volume decrease offset by a 10% positive impact of price and mix). *Ventolin* grew 4% to £291 million, with estimated underlying growth of 8% driven mostly by improved price realisation in the first half of the year. The launch of *Breo Ellipta* began in Q4 2013 with £5 million of sales recorded in the quarter.

European Respiratory sales were down 3% reflecting increased competition in many markets. *Seretide* sales were down 2% to £1,458 million, with a 2% volume decrease and no net impact of price and mix. *Serevent* and *Flovent* sales were down 17% and 7% respectively.

Respiratory sales in EMAP grew 4%, but 9% excluding China, led by *Seretide*, which grew 4% to £429 million (12% excluding China). *Seretide* continued to deliver strong growth across many EMAP markets. *Veramyst*, grew 16% to £71 million and *Ventolin* increased 2% to £171 million.

In Japan, Respiratory sales grew 9% to £567 million, with strong growth from both *Xyzal* and *Veramyst*. *Adair* sales grew 8% to £277 million. *Relvar Ellipta* was launched in December 2013, recording sales of £3 million.

## Anti-virals

The 6% decrease in sales of Anti-virals reflected declines in *Zeffix* and *Hepsera* in China partially offset by tender shipments of *Relenza* in Japan.

## Central nervous system (CNS)

*Seroxat/Paxil* sales fell 16% to £285 million, primarily due to generic competition in Japan and Europe and *Requip* sales fell 18% to £125 million reflecting generic competition in the US and Europe. *Lamictal* sales fell 7% to £557 million, primarily as a result of generic competition to *Lamictal XR* in the US, which started in Q1 2013. Sales of the *Lamictal* franchise in the US fell 18% to £276 million.

## Cardiovascular and urogenital

Sales in the category fell 8% primarily as a result of the impact of the conclusion of the Vesicare co-promotion agreement in Q1 2012. Excluding Vesicare, sales declined 1%.

The *Avodart* franchise grew 10% to £857 million with 31% growth in sales of *Duodart/Jalyn*. *Avodart* sales grew 5% to £648 million.

*Lovaza* fell 5% to £584 million as a result of increased competition and the decline in the non-statin dyslipidemia prescription market. *Arixtra* sales fell 15% to £167 million.

## Metabolic

The increase in Metabolic product sales primarily reflected higher sales of *Prolia* in Europe and EMAP.

## Anti-bacterials

*Augmentin* sales grew 5% to £630 million with strong growth in EMAP, reflecting, in part, a comparison with some supply interruptions in 2012. *Zinnat* sales were flat at £169 million, and *Zinacef* sales fell 14% to £55 million.

## Oncology and emesis

Oncology and emesis sales grew 22% to £969 million, marking the second consecutive year of double digit percentage growth for the business. US sales were up 17% with strong performances by *Votrient*, *Promacta* and *Arzerra*, but also contributions from the launches of two new metastatic melanoma products *Tafinlar* and *Mekinist*. Sales in Europe grew 28% and EMAP grew 18%. *Votrient* sales grew 80% to £331 million, *Promacta* sales grew 46% to £186 million and *Arzerra* sales grew 23% to £75 million. *Tykerb/Tyverb* sales fell 13% to £207 million due to increased competition. Both *Hycamtin* in Europe and EMAP and *Argatroban* in the US continued to be adversely affected by generic competition.

In the US, there were continued strong growth contributions from *Votrient*, up 56% to £144 million, and *Promacta*, up 33% to £73 million, which benefited from a new indication for thrombocytopenia associated with Hepatitis C received during Q4 2012. *Arzerra* grew 18% to £46 million. The US performance also reflects contributions totalling £21 million from *Tafinlar* and *Mekinist*, which were both launched in Q2 2013 as monotherapy treatments and achieved strong uptake in the BRAF V600 melanoma market during the first few months on the market. In January 2014, *Tafinlar* and *Mekinist* were approved by the FDA for combination use.

In Europe, sales grew 28% to £339 million, led by sales of *Votrient*, which increased by 91% to £130 million, as it continued to build market share in many markets. *Revolade* received approval in Europe for use in thrombocytopenia associated with Hepatitis C at the end of Q3 2013 and sales in the year increased by 47% to £55 million. *Tafinlar* was launched in Q3 2013 in certain markets and has achieved strong uptake in these early launch markets.

EMAP sales grew 18% to £149 million led by strong growth of *Votrient* (up 77% to £37 million) and *Promacta* (up 92% to £22 million). In the region *Tykerb* was down 9% to £47 million, and *Hycamtin* was down 36% to £7 million.

## Dermatology

Sales declined 8% to £770 million, primarily as a result of the decline in the US, down 40% to £140 million, which continued to suffer from the impact of generic competition, particularly to *Bactroban*, *Duac* and *Soriatane*, together with the effect of the disposal of a number of tail brands in Q2 2013. EMAP sales grew 6% to £397 million, reflecting strong growth in *Bactroban*, *Dermovate* and *Duac* particularly in Middle East/Africa and Latin America. European sales grew 5% to £170 million.

## Rare diseases

*Volibris*, up 21% to £147 million, and *Mepron*, up 8% to £101 million, were the main drivers of the 7% growth in the category. *FloLAN* sales fell 16% to £103 million, primarily as a result of the biennial price reduction in Japan in Q2 2012 and continued generic competition in the US and Europe.

## Immuno-inflammation

*Benlysta* turnover in the year was £146 million, with £134 million in the US. Total in-market sales of *Benlysta* in the US in 2012 were £96 million.

## ViiV Healthcare (HIV)

ViiV Healthcare sales of £1,386 million were flat as sales in the US were up 5%, Europe down 3% and EMAP down 12%. *Epzicom/Kivexa* sales increased 14% to £763 million and *Selzentry* was up 10% to £143 million. *Tivicay* recorded sales of £19 million from the early stages of its launch in the US, which started in August 2013. *Tivicay* was approved in Europe in January 2014 and launches are planned in several markets throughout 2014. Growth contributions within this business were offset by declines in the mature portion of the portfolio, mainly *Combivir*, down 36% to £116 million

## Vaccines turnover

	2013 £m	2012 £m	Growth CER%	Growth £%
Vaccines sales	3,420	3,325	2	3

Performance of the Vaccines business improved towards the end of the year, with a significant increase in tender sales in the last quarter. The 2% increase in Vaccines sales was principally attributable to the growth of *Infanrix/Pediarix*, *Fluarix/FluLaval* and *Boostrix*, which was largely offset by the decline of *Cervarix* in Japan, reflecting the suspension of the recommendations for the use of HPV vaccines in Japan, together with an adverse comparison with strong *Cervarix* sales in 2012, which benefited from the final stages of the HPV vaccination catch-up programme in Japan. *Cervarix* sales declined 37% to £172 million. Excluding *Cervarix* in Japan, Vaccines sales increased by 5%.

*Infanrix/Pediarix* sales increased 9% to £862 million, with the growth primarily reflecting stronger tender shipments in Europe and EMAP as well as the benefit in the US of a competitor supply shortage. *Boostrix* sales, which also benefited from a competitor supply issue in the US, grew 19% to £288 million.

Sales of hepatitis vaccines fell 4% to £629 million, primarily reflecting lower sales in the US as a result of the return of competing vaccines to the market during the second half of 2012, together with declines in Europe and China.

*Synflorix* sales increased 2% to £405 million, helped by strong tender sales in Middle East/Africa and Latin America.

*Rotarix* sales grew 5% to £375 million, with strong growth in Middle East/Africa and Europe partially offset by the impact of increased competition in Japan.

*Fluarix/FluLaval* sales increased 25% to £251 million, following the launch of the Quadrivalent formulation in the US.

## Sales from new pharmaceutical and vaccine launches

	2013 £m	2012 £m	Growth CER%	Growth £%
<b>Pharmaceuticals:</b>				
<i>Arzerra</i>	75	60	23	25
<i>Benlysta</i>	146	70	>100	>100
<i>Duodart/Jalyn</i>	209	157	31	33
<i>Lamictal XR</i>	98	148	(34)	(34)
<i>Mekinist</i>	10	–	–	–
<i>Potiga/Trobalt</i>	11	7	43	57
<i>Prolia</i>	51	26	96	96
<i>Relvar/Breo Ellipta</i>	8	–	–	–
<i>Tafinlar</i>	16	–	–	–
<i>Tivicay</i>	19	–	–	–
<i>Votrient</i>	331	183	80	81
<i>Xgeva</i>	7	–	>100	>100
<i>Dermatology</i>	8	7	20	14
<b>Vaccines:</b>				
<i>Synflorix</i>	405	385	2	5
<i>Nimenrix</i>	12	1	>100	>100
	<b>1,406</b>	<b>1,044</b>	<b>33</b>	<b>35</b>

New products are those launched in the last five years (2009 to 2013 inclusive). Sales of new products were £1,406 million in 2013, grew 33% in the year and represented 7% of Pharmaceuticals and Vaccines turnover. In Q4 2013, sales of new products were £465 million, grew 50% and represented 8% of Pharmaceuticals and Vaccines turnover.

*Tafinlar* and *Mekinist*, both for metastatic melanoma, were approved and launched in the US in Q2 2013. In Q3 2013, *Tivicay*, for the treatment of HIV-1 patients, was approved and launched in the US and *Tafinlar* was granted approval and launched in Europe. In Q4 2013, *Breo Ellipta* was launched in the US for COPD and *Relvar Ellipta* was granted approval in Europe for COPD and asthma and launched in Q1 2014. In addition, launch activities are currently underway for *Anoro Ellipta*, which was approved in the US for the treatment of COPD in December 2013.

## Consumer Healthcare turnover

	2013 £m	2012 (restated) £m	Growth CER%	Growth £%
Total wellness	1,935	2,057	(5)	(6)
Oral care	1,884	1,806	6	4
Nutrition	1,096	1,050	7	4
Skin health	272	255	5	6
	<b>5,187</b>	<b>5,170</b>	<b>2</b>	<b>–</b>
	2013 £m	2012 (restated) £m	Growth CER%	Growth £%
USA	951	926	1	3
Europe	1,819	1,802	(1)	1
ROW	2,417	2,442	4	(1)
	<b>5,187</b>	<b>5,170</b>	<b>2</b>	<b>–</b>

Consumer Healthcare turnover grew 2% in the year. Excluding the non-core OTC brands that were divested in H1 2012, turnover grew 4% reflecting overall growth in all three regions.

### Total wellness

Total wellness sales, excluding the non-core OTC brands that were divested in H1 2012, grew 1%. In both the US and Europe *alli* reported strong growth, in large part due to being out of stock for much of 2012. A severe cold and flu season in early 2013 helped drive growth of several respiratory brands including *Coldrex*, *Beechams* and *Panadol Cold and Flu*. This growth was partly offset by a 57% reduction in sales in China of *Contac*, due to new shelving requirements, and *Fenbid*, down 31%, in advance of mandatory price reductions.

### Oral care

Strong growth in Oral care sales was led by growth in Specialist oral health, with *Sensodyne* Sensitivity and Acid erosion up 15% and denture care brands up 9%, but *Aquafresh* was down 12%.

### Nutrition

Nutrition sales grew 7% with strong growth in Rest of World markets, led by *Horlicks*, up 14%, and *Boost* in India and key expansion markets in the sub-continent. *Lucozade* grew 4% and *Ribena* grew 3%.

### Skin health

Skin health sales grew 5%, led by *Abreva* in the US.

### Regional performance

Excluding the non-core OTC products divested in 2012, US sales grew 2%, led by strong contributions from Oral care brands, *alli* and *Abreva*. This was partially offset by declines in Gastro-intestinal products, reflecting increased competitor activity, and Smoking control products impacted by supply disruptions. In Europe, sales grew 3% helped by sales of *alli* and strong growth in products for Respiratory health and Pain. Oral care sales in Europe were flat, as strong growth in *Sensodyne* and denture care brands was offset by a decline in *Aquafresh*, due in part to supply issues in Q4 2013. Rest of World markets grew 6%, reflecting growth across most categories and markets, particularly in India, partially offset by a 23% reduction of sales in China, mainly due to the reduction in sales of *Contac* and *Fenbid*.

## Core results

We use the core reporting basis to manage the performance of the Group and the definition of core results is set out on page 58. A review of the Group's total results is set out on pages 66 to 67. The reconciliation of total results to core results is presented on page 65.

## Cost of sales

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Cost of sales	(7,549)	(28.5)	(7,109)	(26.9)	6	6

Core cost of sales was 28.5% of turnover compared with 26.9% in 2012. Net of currency effects of 0.3 percentage points and the impact of a 0.3 percentage point reduction to the 2012 cost of sales percentage due to the settlement in early 2012 of a royalty agreement and the conclusion of the Vesicare agreement, the cost of sales percentage increased 1.0 percentage points. This reflected the expected impact of the unwinding of costs of manufacturing volume shortfalls, adverse mix and the impact of preparing for the launches of new pipeline products, partially offset by ongoing cost management, better price realisation and restructuring benefits.

## Selling, general and administration

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Selling, general and administration	(7,928)	(29.9)	(7,905)	(29.9)	1	–

Core SG&A costs as a percentage of sales were 29.9%, flat on 2012, as the net favourable year-on-year benefits of the Group's restructuring programmes and ongoing cost management efforts funded investments in growth businesses and preparations for new product launches.

Advertising and promotion expenses decreased 2%, Selling and distribution decreased 1% and general administration increased 6%.

## Research and development

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Research and development	(3,400)	(12.8)	(3,485)	(13.2)	(3)	(2)

Core R&D expenditure declined 3% to £3,400 million (12.8% of turnover) compared with £3,485 million (13.2% of turnover) in 2012. This reflected the completion of a number of large trials, the phasing of ongoing project spending as well as continuing cost management.

We remain focused on delivering an improved return on our investment in R&D. Sales contribution, reduced attrition and cost reduction are all important drivers of an improving internal rate of return. R&D expenditure is not determined as a percentage of sales, but instead capital is allocated using strict returns based criteria.

The operations of Pharmaceuticals R&D are broadly split into Discovery activities (up to the completion of Phase IIa trials) and Development work (from Phase IIb onwards).

The table below analyses core R&D expenditure by these categories:

	2013 £m	2012 (restated) £m
Discovery	742	800
Development	1,535	1,655
Facilities and central support functions	449	377
Pharmaceuticals R&D	2,726	2,832
Vaccines R&D	496	498
Consumer Healthcare R&D	178	155
Core R&D	3,400	3,485

The proportion of Pharmaceuticals R&D investment made in the late-stage portfolio decreased from 58% of Pharmaceuticals R&D costs in 2012 to 56% in 2013.

## Royalty income

Royalty income was £387 million (2012: £306 million) and included a prior year royalty catch-up adjustment recorded early in 2013.

## Core operating profit

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Core operating profit	8,015	30.2	8,238	31.2	–	(3)

Core operating profit was £8,015 million, flat in CER terms on a turnover increase of 1%. The core operating margin of 30.2% was 1.0 percentage points lower than in 2012. Excluding currency effects, the margin declined 0.5 percentage points. This reflected the negative impact of an expected increase in cost of sales, partially offset by higher royalty income and lower R&D expenditure, as the Group's continuing restructuring programmes contributed incremental year-on-year savings of around £400 million from both ongoing and structural initiatives.

The contribution in 2013 from structural benefits was approximately £115 million lower than in 2012. Total savings realised from changes to post-retirement medical obligations in 2013 were approximately £280 million. In 2012, the Group realised £395 million of savings from the capping of future pensionable salary increases and a change in the basis of future discretionary pension increases from RPI to CPI in certain legacy plans.

### Core operating profit by business

	2013		2012 (restated)		Growth	
	£m	Margin %	£m	Margin %	CER%	£%
Pharmaceuticals	6,633	37.1	6,652	37.1	3	-
Vaccines	1,096	32.0	1,169	35.2	(8)	(6)
Pharmaceuticals and Vaccines	7,729	36.3	7,821	36.8	1	(1)
Consumer Healthcare	913	17.6	908	17.6	3	1
	8,642	32.6	8,729	33.0	2	(1)
Corporate & other unallocated costs	(627)		(491)		30	28
Core operating profit	8,015	30.2	8,238	31.2	-	(3)

### Core operating profit by segment

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Pharmaceuticals and Vaccines						
USA	4,993	69.4	4,786	68.4	3	4
Europe	2,829	54.8	2,629	52.6	3	8
EMAP	1,468	31.2	1,560	33.0	(3)	(6)
Japan	978	59.0	1,179	59.9	4	(17)
ViiV Healthcare	885	63.9	849	61.8	3	4
Pharmaceutical R&D	(2,823)		(2,778)		1	2
Other trading and unallocated pharmaceuticals	(601)	(49.3)	(404)	(33.8)	31	49
Pharmaceuticals and Vaccines	7,729	36.3	7,821	36.8	1	(1)
Consumer Healthcare	913	17.6	908	17.6	3	1
	8,642	32.6	8,729	33.0	2	(1)
Corporate & other unallocated costs	(627)		(491)		30	28
Core operating profit	8,015	30.2	8,238	31.2	-	(3)

### Net finance costs

	2013 £m	2012 £m
Finance income		
Interest and other income	59	77
Fair value movements	2	2
	61	79
Finance expense		
Interest expense	(726)	(745)
Unwinding of discounts on liabilities	-	(10)
Remeasurements and fair value movements	(5)	(24)
Other finance expense	(22)	(24)
	(753)	(803)

Core net finance expense was £692 million compared with £724 million in 2012, despite higher average net debt levels during the year, largely driven by continuing share repurchases and dividends to shareholders. This reflected our strategy to improve the funding profile of the Group. Net debt at 31 December 2013 was £1.4 billion lower than at 31 December 2012, reflecting receipts of £2.5 billion from the disposals of businesses, intangible assets, Aspen shares and other investments realised largely at the end of the year.

### Share of after tax profits of associates and joint ventures

The share of after tax profits of associates of £43 million (2012 – £29 million) principally arose from the Group's holding in Aspen Pharmacare.

### Core profit before taxation

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Core profit before tax	7,366	27.8	7,543	28.5	-	(2)

### Taxation

Tax on core profit amounted to £1,695 million and included recognition of US R&D credits reflected in the effective core tax rate of 23.0% (2012: 24.4%).

We continue to believe that we have made adequate provision for the liabilities likely to arise from periods which are open and not yet agreed by tax authorities. The ultimate liability for such matters may vary from the amounts provided and is dependent upon the outcome of agreements with the relevant tax authorities or litigation.

### Core earnings per share

Core EPS of 112.2p (2012 – 111.4p) increased 4% in CER terms and 1% at actual exchange rates.

### Dividend

The Board declared four interim dividends resulting in a dividend for the year of 78 pence, a 4 pence increase on the dividend for 2012. See Note 16 to the financial statements, 'Dividends'.



## Core results reconciliation – 31 December 2013

	Core results £m	Intangible amortisation £m	Intangible impairment £m	Major restructuring £m	Legal charges £m	Acquisition accounting and other £m	Total results £m
Turnover	26,505						26,505
Cost of sales	(7,549)	(450)	(408)	(178)			(8,585)
Gross profit	18,956	(450)	(408)	(178)			17,920
Selling, general and administration	(7,928)			(300)	(252)		(8,480)
Research and development	(3,400)	(97)	(331)	(39)		(56)	(3,923)
Royalty income	387						387
Other operating income	–					1,124	1,124
Operating profit	8,015	(547)	(739)	(517)	(252)	1,068	7,028
Net finance costs	(692)			(6)		(8)	(706)
Profit on disposal of interest in associates and joint ventures	–					282	282
Share of after tax profits of associates and joint ventures	43						43
Profit before taxation	7,366	(547)	(739)	(523)	(252)	1,342	6,647
Taxation	(1,695)	149	226	145	9	147	(1,019)
<i>Tax rate</i>	23.0%						15.3%
Profit after taxation	5,671	(398)	(513)	(378)	(243)	1,489	5,628
Profit attributable to non-controlling interests	250					(58)	192
Profit attributable to shareholders	5,421	(398)	(513)	(378)	(243)	1,547	5,436
Earnings per share	112.2p	(8.2)p	(10.7)p	(7.8)p	(5.0)p	32.0p	112.5p
Weighted average number of shares (millions)	4,831						4,831

## Core results reconciliation – 31 December 2012 (restated)

	Core results £m	Intangible amortisation £m	Intangible impairment £m	Major restructuring £m	Legal charges £m	Acquisition accounting and other £m	Total results £m
Turnover	26,431						26,431
Cost of sales	(7,109)	(378)	(309)	(128)		(1)	(7,925)
Gross profit	19,322	(378)	(309)	(128)		(1)	18,506
Selling, general and administration	(7,905)			(418)	(436)	(30)	(8,789)
Research and development	(3,485)	(99)	(384)	(11)			(3,979)
Royalty income	306						306
Other operating income	–					1,256	1,256
Operating profit	8,238	(477)	(693)	(557)	(436)	1,225	7,300
Net finance costs	(724)			(1)		(4)	(729)
Share of after tax profits of associates and joint ventures	29						29
Profit before taxation	7,543	(477)	(693)	(558)	(436)	1,221	6,600
Taxation	(1,838)	145	196	(285)	150	(290)	(1,922)
<i>Tax rate</i>	24.4%						29.1%
Profit after taxation	5,705	(332)	(497)	(843)	(286)	931	4,678
Profit attributable to non-controlling interests	235		(136)	10		70	179
Profit attributable to shareholders	5,470	(332)	(361)	(853)	(286)	861	4,499
Earnings per share	111.4p	(6.8)p	(7.3)p	(17.4)p	(5.8)p	17.5p	91.6p
Weighted average number of shares (millions)	4,912						4,912

## Total results

	2013		2012 (restated)		Growth	
	£m	% of turnover	£m	% of turnover	CER%	£%
Turnover	26,505	100	26,431	100	1	–
Cost of sales	(8,585)	(32.4)	(7,925)	(30.0)	8	8
Selling, general and administration	(8,480)	(32.0)	(8,789)	(33.3)	(3)	(4)
Research and development	(3,923)	(14.8)	(3,979)	(15.1)	(2)	(1)
Royalty income	387	1.5	306	1.2	25	26
Other operating income	1,124	4.2	1,256	4.8	(10)	(11)
Operating profit	7,028	26.5	7,300	27.6	(1)	(4)
Net finance costs	(706)		(729)			
Profit on disposal of interest in associates	282		–			
Share of after tax profits of associates and joint ventures	43		29			
Profit before taxation	6,647		6,600		4	1
Taxation	(1,019)		(1,922)			
Total profit after taxation for the year	5,628		4,678		24	20
Total profit attributable to shareholders	5,436		4,499			
Earnings per share (p)	112.5		91.6		27	23
Earnings per ADS (US\$)	3.53		2.91			

### Cost of sales

Total cost of sales was 32.4% of turnover compared with 30.0% in 2012. The increase primarily reflected the expected impact of the unwinding of costs of manufacturing volume shortfalls, adverse mix effects, the impact of preparing for the launches of new pipeline products and higher amortisation and impairments of intangible assets, partially offset by ongoing cost management, better price realisation and restructuring benefits.

### Selling, general and administration

Total SG&A costs decreased to 32.0% of turnover compared with 33.3% in 2012, reflecting lower legal and restructuring charges. The net favourable year-on-year benefits of the Group's restructuring programmes and ongoing cost management efforts funded investments in growth businesses and preparations for new product launches.

Advertising and promotion expenses decreased 2%, selling and distribution fell 1% and general and administration decreased 5%, primarily reflecting lower legal charges.

### Research and development

Total R&D expenditure declined 2% to £3,923 million (14.8% of turnover) compared with £3,979 million (15.1% of turnover) in 2012. This reflected the completion of a number of large trials, the phasing of ongoing project spending as well as continuing cost management, partially offset by higher restructuring and required regulatory charges.

### Other operating income

Other operating income of £1,124 million (2012 – £1,256 million) included the profit on the disposal of the *Lucozade* and *Ribena* business and the anti-coagulant products of £1,331 million. The 2012 income included gains on the profit on disposal of the non-core OTC brands of £559 million and the gain of £581 million arising on the revaluation of pre-existing collaborations as part of the HGS and ViiV Healthcare/Shionogi joint venture acquisitions.

### Operating profit

Total operating profit was £7,028 million compared with £7,300 million in 2012. The non-core items resulted in total net charges of £987 million in 2013 (2012 – £938 million).

The intangible asset amortisation of £547 million (2012 – £477 million) included £94 million related to the amortisation of the *Benlysta* intangible asset acquired as part of the HGS acquisition in late 2012. Intangible asset impairments of £739 million (2012 – £693 million) included write-offs of several R&D assets, together with the partial impairment of *Lovaza*, reflecting a reassessment of the Group's expectations on the likelihood of potential generic competition.

Major restructuring charges of £517 million (2012 – £557 million) comprised £238 million under the Operational Excellence programme, £260 million under the Major Change programme and £19 million related to the acquisition of HGS.

The Operational Excellence programme was initiated in 2007 and after several expansions is expected to cost approximately £4.85 billion. It is expected to deliver annual pre-tax savings of approximately £2.9 billion by the end of 2014.

The Major Change programme focuses on opportunities to simplify our supply chain processes, build the Group's capabilities in manufacturing and R&D, and restructure our European Pharmaceuticals business. The programme is expected to cost £1.5 billion, of which the non-cash charge will be £350 million, and is expected to deliver annual pre-tax savings of at least £1.0 billion by 2016.

Legal charges of £252 million (2012 – £436 million) principally related to provisions for existing product liability matters.

Acquisition accounting and other credits of a net £1,068 million (2012 – £1,225 million credit) included items related to major acquisitions, business, equity investment and asset disposals, one-off required regulatory charges in R&D and certain other adjusting items. The 2013 net credit included gains on the disposals of the *Lucozade* and *Ribena* business and the anti-coagulant products of £1,331 million. The 2012 net credit included gains on the profit on disposal of the non-core OTC brands of £559 million and the gain of £581 million arising on the revaluation of pre-existing collaborations as part of the HGS and ViiV Healthcare/Shionogi joint venture acquisitions.

### Net finance costs

	2013 £m	2012 £m
Finance income		
Interest and other finance income	59	77
Fair value movements	2	2
	61	79
Finance expense		
Interest expense	(726)	(745)
Unwinding of discounts on liabilities	(14)	(15)
Remeasurements and fair value movements	(5)	(24)
Other finance expense	(22)	(24)
	(767)	(808)

Total net finance expense was £706 million compared with £729 million in 2012, despite higher average net debt levels during the year, reflecting our strategy to improve the funding profile of the Group.

### Profit on disposal of interest in associates

The pre-tax profit on disposal of interest in associates was £282 million (2012 – £nil) and reflected the disposal of 28.2 million ordinary shares in Aspen Pharmacare for £429 million.

### Share of after tax profits of associates and joint ventures

The share of after tax profits of associates of £43 million (2012 – £29 million) principally arose from the Group's holdings in Aspen Pharmacare.

### Profit before taxation

Taking account of net finance costs, the profit on disposal of interest in associates and the share of profits of associates, profit before taxation was £6,647 million compared with £6,600 million in 2012, a 4% CER increase and a 1% increase in sterling terms.

### Taxation

	2013 £m	2012 (restated) £m
UK corporation tax at the UK statutory rate	265	350
Less double taxation relief	–	(180)
	265	170
Overseas taxation	1,284	1,510
Current taxation	1,549	1,680
Deferred taxation	(530)	242
Taxation on total profits	1,019	1,922

The charge for taxation on total profits amounted to £1,019 million and represented an effective tax rate of 15.3% (2012 – 29.1%), reflecting the differing tax effects of the various non-core items. It included a net deferred tax charge of £234 million related to the unwinding of deferred profit in inventory as existing inventory produced prior to the 2012 restructuring of the supply chain is sold. The 2013 charge for taxation on total profits also included deferred tax credits of £393 million, primarily reflecting continuing restructuring of the supply chain compared to a predominantly non cash deferred tax charge of £420 million in 2012. The Group's balance sheet at 31 December 2013 included a tax payable liability of £1,452 million and a tax recoverable asset of £129 million.

We continue to believe that we have made adequate provision for the liabilities likely to arise from periods which are open and not yet agreed by tax authorities. The ultimate liability for such matters may vary from the amounts provided and is dependent upon the outcome of agreements with relevant tax authorities or litigation.

### Earnings per share

Total earnings per share was 112.5p for the year, compared with 91.6p in 2012 and non-core net credits totalled 0.3p (2012 – 19.8p charges).

## Critical accounting policies

The consolidated financial statements are prepared in accordance with IFRS, as adopted for use in the European Union, and also with IFRS as issued by the IASB, following the accounting policies approved by the Board and described in Note 2 to the financial statements, 'Accounting principles and policies'. We are required to make estimates and assumptions that affect the amounts of assets, liabilities, revenue and expenses reported in the financial statements. Actual amounts and results could differ from those estimates.

The critical accounting policies, for which information on the judgements and estimates made is given in Note 3 to the financial statements, 'Key accounting judgements and estimates', and in the relevant detailed notes to the financial statements as indicated below, relate to the following areas:

- Turnover
- Taxation (Note 14)
- Legal and other disputes (Notes 29 and 44)
- Impairments of goodwill and other intangible assets (Notes 18 and 19)
- Pensions and other post-employment benefits (Note 28).

Information on the judgements and estimates made in these areas is given in Note 3 to the financial statements, 'Key accounting judgements and estimates'.

### Turnover

In respect of the Turnover accounting policy, our largest business is US Pharmaceuticals and Vaccines, and the US market has the most complex arrangements for rebates, discounts and allowances. The following briefly describes the nature of the arrangements in existence in our US Pharmaceuticals and Vaccines business:

- We have arrangements with certain indirect customers whereby the customer is able to buy products from wholesalers at reduced prices. A chargeback represents the difference between the invoice price to the wholesaler and the indirect customer's contractual discounted price. Accruals for estimating chargebacks are calculated based on the terms of each agreement, historical experience and product growth rates
- Customer rebates are offered to key managed care and group purchasing organisations (GPO) and other direct and indirect customers. These arrangements require the customer to achieve certain performance targets relating to the value of product purchased, formulary status or pre-determined market shares relative to competitors. The accrual for customer rebates is estimated based on the specific terms in each agreement, historical experience and product growth rates
- The US Medicaid programme is a state-administered programme providing assistance to certain poor and vulnerable patients. In 1990, the Medicaid Drug Rebate Program was established to reduce state and federal expenditure on prescription drugs. In 2010, the Patient Protection and Affordable Care Act became law. We participate by providing rebates to states. Accruals for Medicaid rebates are calculated based on the specific terms of the relevant regulations or the Patient Protection and Affordable Care Act
- Cash discounts are offered to customers to encourage prompt payment. These are accrued for at the time of invoicing and adjusted subsequently to reflect actual experience
- We record an accrual for estimated sales returns by applying historical experience of customer returns to the amounts invoiced, together with market related information such as stock levels at wholesalers, anticipated price increases and competitor activity.

A reconciliation of gross turnover to net turnover for the US Pharmaceuticals and Vaccines business is as follows:

	2013		2012 (restated)		2011 (restated)	
	£m	Margin %	£m	Margin %	£m	%
Gross turnover	10,066	100	9,758	100	9,770	100
Market driven segments	(1,136)	(11)	(1,035)	(10)	(885)	(9)
Government mandated and state programs	(1,450)	(14)	(1,463)	(15)	(1,521)	(15)
Cash discounts	(184)	(2)	(177)	(2)	(176)	(2)
Customer returns	(83)	(1)	(147)	(1)	(105)	(1)
Prior year adjustments	89	1	129	1	94	1
Other items	(110)	(2)	(65)	(1)	(155)	(2)
Total deductions	(2,874)	(29)	(2,758)	(28)	(2,748)	(28)
Net turnover	7,192	71	7,000	72	7,022	72

Market driven segments consist primarily of Managed Care and Medicare plans with which GSK negotiates contract pricing that is honoured via rebates and chargebacks. Mandated segments consist primarily of Medicaid and Federal government programs which receive government mandated pricing via rebates and chargebacks.

The total balance sheet accruals for rebates, discounts, allowances and returns in the US Pharmaceuticals and Vaccines business at 31 December 2013 and 31 December 2012 were as follows:

	At 31 December 2013 £m	At 31 December 2012 £m
Managed care, Medicare Part D and GPO rebates	413	390
US government and state programs	540	559
Cash discounts	21	21
Customer returns	194	217
Other	20	23
Total	1,188	1,210

A monthly process is operated to monitor inventory levels at wholesalers for any abnormal movements. This process uses gross sales volumes, prescription volumes based on third party data sources and information received from key wholesalers. The aim of this is to maintain inventories at a consistent level from year to year based on the pattern of consumption.

On this basis, US Pharmaceuticals and Vaccines inventory levels at wholesalers and in other distribution channels at 31 December 2013 were estimated to amount to approximately five weeks of turnover. This calculation uses third party information, the accuracy of which cannot be totally verified, but is believed to be sufficiently reliable for this purpose.

### Legal and other disputes

In respect of the accounting policy for Legal and other disputes, the following briefly describes the process by which we determine the level of provision that is necessary.

In accordance with the requirements of IAS 37, 'Provisions, contingent liabilities and contingent assets', we provide for anticipated settlement costs where an outflow of resources is considered probable and a reliable estimate may be made of the likely outcome of the dispute and legal and other expenses arising from claims against the Group. We may become involved in significant legal proceedings, in respect of which it is not possible to make a reliable estimate of the expected financial effect, if any, that could result from ultimate resolution of the proceedings. In these cases, appropriate disclosure about such cases would be included in the Annual Report, but no provision would be made.

This position could change over time and, therefore, there can be no assurance that any losses that result from the outcome of any legal proceedings will not exceed by a material amount the amount of the provisions reported in the Group's financial statements.

Like many pharmaceutical companies, we are faced with various complex product liability, anti-trust and patent litigation, as well as investigations of its operations conducted by various governmental regulatory agencies. Throughout the year, the General Counsel of the Group, as head of the Group's legal function, and the Senior Vice President and Head of Global Litigation for the Group, who is responsible for all litigation and government investigations, routinely brief the Chief Executive Officer, the Chief Financial Officer and the Board of Directors on the significant litigation pending against the Group and governmental investigations of the Group.

These meetings, as appropriate, detail the status of significant litigation and government investigations and review matters such as the number of claims notified to us, information on potential claims not yet notified, assessment of the validity of claims, progress made in settling claims, recent settlement levels and potential reimbursement by insurers.

The meetings also include an assessment of whether or not there is sufficient information available for us to be able to make a reliable estimate of the potential outcomes of the disputes. Often, external counsel assisting us with various litigation matters and investigations will also assist in the briefing of the Board and senior management. Following these discussions, for those matters where it is possible to make a reliable estimate of the amount of a provision, if any, that may be required, the level of provision for legal and other disputes is reviewed and adjusted as appropriate.

## Financial position and resources

	2013	2012
	£m	(restated) £m
<b>Assets</b>		
Non-current assets		
Property, plant and equipment	8,872	8,776
Goodwill	4,205	4,359
Other intangible assets	9,283	10,161
Investments in associates and joint ventures	323	579
Other investments	1,202	787
Deferred tax assets	2,084	2,391
Derivative financial instruments	1	54
Other non-current assets	889	682
<b>Total non-current assets</b>	<b>26,859</b>	<b>27,789</b>
Current assets		
Inventories	3,900	3,969
Current tax recoverable	129	103
Trade and other receivables	5,442	5,242
Derivative financial instruments	155	49
Liquid investments	66	81
Cash and cash equivalents	5,534	4,184
Assets held for sale	1	64
<b>Total current assets</b>	<b>15,227</b>	<b>13,692</b>
<b>Total assets</b>	<b>42,086</b>	<b>41,481</b>
<b>Liabilities</b>		
Current liabilities		
Short-term borrowings	(2,789)	(3,631)
Trade and other payables	(8,317)	(8,054)
Derivative financial instruments	(127)	(63)
Current tax payable	(1,452)	(1,374)
Short-term provisions	(992)	(693)
<b>Total current liabilities</b>	<b>(13,677)</b>	<b>(13,815)</b>
Non-current liabilities		
Long-term borrowings	(15,456)	(14,671)
Deferred tax liabilities	(693)	(1,004)
Pensions and other post-employment benefits	(2,189)	(3,121)
Other provisions	(552)	(699)
Derivative financial instruments	(3)	(2)
Other non-current liabilities	(1,704)	(1,432)
<b>Total non-current liabilities</b>	<b>(20,597)</b>	<b>(20,929)</b>
<b>Total liabilities</b>	<b>(34,274)</b>	<b>(34,744)</b>
<b>Net assets</b>	<b>7,812</b>	<b>6,737</b>
<b>Equity</b>		
Share capital	1,336	1,349
Share premium account	2,595	2,022
Retained earnings	913	642
Other reserves	2,153	1,787
Shareholders' equity	6,997	5,800
Non-controlling interests	815	937
<b>Total equity</b>	<b>7,812</b>	<b>6,737</b>

## Property, plant and equipment

Our business is science-based, technology-intensive and highly regulated by governmental authorities. We allocate significant financial resources to the renewal and maintenance of its property, plant and equipment to minimise risks of interruption of production and to achieve compliance with regulatory standards. A number of our processes use chemicals and hazardous materials.

The total cost of our property, plant and equipment at 31 December 2013 was £18,853 million, with a net book value of £8,872 million. Of this, land and buildings represented £3,909 million, plant and equipment £2,509 million and assets in construction £2,454 million. In 2013, we invested £1,235 million in new and renewal property, plant and equipment. This is mainly related to a large number of projects for the renewal, improvement and expansion of facilities at various worldwide sites. Property is mainly held freehold. New investment is financed from our liquid resources. At 31 December 2013, we had contractual commitments for future capital expenditure of £443 million and operating lease commitments of £777 million. We believe that our facilities are adequate for our current needs.

We observe stringent procedures and use specialist skills to manage environmental risks from our activities. Environmental issues, sometimes dating from operations now modified or discontinued, are reported under 'Our Planet' on page 57 and in Note 44 to the financial statements, 'Legal proceedings'.

## Goodwill

Goodwill decreased during the year to £4,205 million at December 2013, from £4,359 million. The decrease primarily reflects a weakening of overseas currencies.

## Other intangible assets

Other intangible assets include the cost of intangibles acquired from third parties and computer software. The net book value of other intangible assets as at 31 December 2013 was £9,283 million (2012 – £10,161 million). The decrease in 2013 reflected assets acquired from the acquisition of Okairos AG of £190 million, capitalised development costs of £246 million and £183 million of computer software costs, more than offset by the amortisation and impairment of existing intangibles of £682 million and £745 million, respectively.

## Investments

We held investments, including associates and joint ventures, with a carrying value at 31 December 2013 of £1,525 million (2012 – £1,366 million). The market value at 31 December 2013 was £2,212 million (2012 – £1,968 million). The largest of these investments are in an associate, Aspen Pharmacare Holdings Limited, which had a book value at 31 December 2013 of £229 million (2012 – £430 million) and an investment in Theravance, Inc. which had a book value at 31 December 2013 of £644 million (2012 – £362 million). During the year we sold 28.2 million shares in Aspen Pharmacare Holdings Limited, representing 6.2% of our interest, for £429 million. The investments include equity stakes in companies where the Group has research collaborations, which provide access to biotechnology developments of potential interest and interests in companies that arise from business divestments.

#### Derivative financial instruments: assets

We had both non-current and current derivative financial instruments held at fair value of £156 million (2012 – £103 million). The majority of this amount relates to interest rate swaps and foreign exchange contracts both designated and non-designated (inter-company loans and deposits) as accounting hedges.

#### Inventories

Inventory of £3,900 million has decreased by £69 million during the year. The decrease reflects the impact of the disposal of the *Lucozadel/Ribena* and anti-coagulant products businesses partly offset by higher vaccine stocks and stockbuilding for new product launches.

#### Trade and other receivables

Trade and other receivables of £5,442 million have increased from 2012 reflecting the receivable due from Aspen in respect of the inventory and a manufacturing site which formed part of the disposal of the anti-coagulants products business partly offset by a weakening of overseas currencies.

#### Derivative financial instruments: liabilities

We held both non-current and current derivative financial instruments at fair value of £130 million (2012 – £65 million). This primarily relates to foreign exchange contracts both designated and non-designated (inter-company loans and deposits, external debt and legal provisions) as accounting hedges.

#### Trade and other payables

Trade and other payables amounting to £8,317 million have increased from £8,054 million in 2012, reflecting the current year accrual in respect of the acquisition of further shares in the Group's Indian pharmaceutical subsidiary of £635 million partly offset by the effect of the increased shareholding in the Indian consumer healthcare subsidiary accrued in 2012, together with a weakening of overseas currencies.

#### Provisions

We carried deferred tax provisions and other short-term and non-current provisions of £2,237 million at 31 December 2013 (2012 – £2,396 million) in respect of estimated future liabilities, of which £646 million (2012 – £527 million) related to legal and other disputes. Provision has been made for legal and other disputes, indemnified disposal liabilities, employee related liabilities and the costs of restructuring programmes to the extent that at the balance sheet date a legal or constructive obligation existed and could be reliably estimated.

#### Pensions and other post-employment benefits

We account for pension and other post-employment arrangements in accordance with IAS 19. The deficits, net of surpluses before allowing for deferred taxation were £613 million (2012 – £1,312 million) on pension arrangements and £1,246 million (2012 – £1,685 million) on unfunded post-employment liabilities.

In December 2010, the UK scheme purchased an insurance contract that will guarantee payment of specified pensioner liabilities. This contract was valued at £775 million at 31 December 2013.

#### Net debt

	2013 £m	2012 £m
Cash, cash equivalents and liquid investments	5,600	4,265
Borrowings – repayable within one year	(2,789)	(3,631)
Borrowings – repayable after one year	(15,456)	(14,671)
Net debt	(12,645)	(14,037)

Net debt decreased by £1,392 million and reflected the receipts of £2.5 billion from the disposals of the *Lucozadel/Ribena* and anti-coagulant products businesses, intangible assets, part of the Group's investment in Aspen Pharmacare Holdings Limited and other investments. The impact of these was partly offset by the consideration paid to increase the shareholding in the Group's Indian Consumer Healthcare subsidiary from 43.2% to 72.5% at a cost of £588 million and to acquire Okarios AG for £205 million.

The Group's strong cash generation enabled the financing of share repurchases of £1.5 billion and dividend payments of £3.7 billion.

#### Movements in net debt

	2013 £m	2012 £m
Net debt at beginning of year	(14,037)	(9,003)
Increase/(decrease) in cash and bank overdrafts	1,473	(1,607)
Cash inflow from liquid investments	(15)	(224)
Net increase in long-term loans	(1,913)	(4,430)
Net repayment of short-term loans	1,872	816
Debt of subsidiary undertakings acquired	(6)	(3)
Exchange movements	(34)	385
Other movements	15	29
Net debt at end of year	(12,645)	(14,037)

#### Total equity

At 31 December 2013, total equity had increased from £6,737 million at 31 December 2012 to £7,812 million. The increase arose principally from a reduction in the pension deficit of £699 million, a reduction in the post-retirement provision of £439 million and retained profits in the year exceeding shares repurchased, partly offset by the liability of £635 million arising from the open offer to purchase shares held by the non-controlling interest in the Group's Indian Pharmaceutical subsidiary, GlaxoSmithKline Pharmaceuticals Limited.

A summary of the movements in equity is set out below.

	2013 £m	2012 (restated) £m
Total equity at beginning of year	6,747	8,827
Prior year adjustment - IAS 19R	(10)	(13)
At 1 January, as restated	6,737	8,814
Total comprehensive income for the year	6,215	4,014
Dividends to shareholders	(3,680)	(3,814)
Shares issued	585	356
Changes in non-controlling interests	(625)	(218)
Forward contract relating to non-controlling interest	–	8
Shares purchased and cancelled or held as Treasury shares	(1,504)	(2,493)
Consideration received for shares transferred by ESOP Trusts	–	58
Shares acquired by ESOP Trusts	(45)	(37)
Share-based incentive plans	294	211
Tax on share-based incentive plans	73	9
Distributions to non-controlling interests	(238)	(171)
Total equity at end of year	7,812	6,737

The changes in non-controlling interests in the year primarily arise from the voluntary open offer to acquire further shares in GSK Pharmaceuticals Ltd, the Group's Pharmaceutical subsidiary in India.

### Share purchases

In 2013, the Employee Share Ownership Plan (ESOP) Trusts acquired £45 million of shares in GlaxoSmithKline plc (2012 – £37 million). Shares are held by the Trusts to satisfy future exercises of options and awards under the Group share option and award schemes. A proportion of the shares held by the Trusts are in respect of awards where the rules of the scheme require us to satisfy exercises through market purchases rather than the issue of new shares. The shares held by the Trusts are matched to options and awards granted.

At 31 December 2013, the ESOP Trusts held 64 million (2012 – 75 million) GSK shares against the future exercise of share options and share awards. The carrying value of £355 million (2012 – £391 million) has been deducted from other reserves. The market value of these shares was £1,025 million (2012 – £1,004 million).

During 2013, 92.4 million shares were repurchased at a cost of £1,504 million (see Note 33 'Share capital and share premium account'). We are currently targeting further repurchases of £1-2 billion during 2014. The exact amount and timing of future purchases, and whether the shares will be held as Treasury shares or be cancelled, will be determined by the company and is dependent on market conditions and other factors. At 31 December 2013, we held 487.4 million shares as Treasury shares (2012 – 495 million shares), at a cost of £6,829 million (2012 – £6,602 million), which has been deducted from retained earnings.

No shares were purchased in the period 1 January 2014 to 5 February 2014.

### Commitments and contingent liabilities

Financial commitments are summarised in Note 39 to the financial statements, 'Commitments'. Other contingent liabilities and obligations in respect of short and long-term debt are set out in Note 31 to the financial statements, 'Contingent liabilities' and Note 32 to the financial statements, 'Net debt'.

Amounts provided for pensions and post-retirement benefits are set out in Note 28 to the financial statements, 'Pensions and other post-employment benefits'. Amounts provided for restructuring programmes and legal, environmental and other disputes are set out in Note 29 to the financial statements, 'Other provisions'.

### Contractual obligations and commitments

The following table sets out our contractual obligations and commitments at 31 December 2013 as they fall due for payment.

	Total £m	Under 1 yr £m	1-3 yrs £m	3-5 yrs £m	5 yrs+ £m
Loans	18,281	2,747	2,689	3,903	8,942
Interest on loans	10,063	674	1,244	1,049	7,096
Finance lease obligations	80	27	36	12	5
Finance lease charges	7	2	4	1	–
Operating lease commitments	777	134	170	110	363
Intangible assets	7,056	419	1,107	1,251	4,279
Property, plant & equipment	443	372	69	2	–
Investments	111	29	53	15	14
Purchase commitments	614	205	261	148	–
Pensions	510	85	170	170	85
Other commitments	233	75	123	35	–
<b>Total</b>	<b>38,175</b>	<b>4,769</b>	<b>5,926</b>	<b>6,696</b>	<b>20,784</b>

Commitments in respect of loans and future interest payable on loans are disclosed before taking into account the effect of derivatives.

We have entered into a number of research collaborations to develop new compounds with other pharmaceutical companies. The terms of these arrangements can include upfront fees, equity investments, loans and commitments to fund specified levels of research. In addition, we will often agree to make further payments if future 'milestones' are achieved.

As some of these agreements relate to compounds in the early stages of development, the potential obligation to make milestone payments will continue for a number of years if the compounds move successfully through the development process. Generally, the closer the product is to marketing approval, the greater the possibility of success. The amounts shown above within intangible assets represent the maximum that would be paid if all milestones were achieved, and include £5.2 billion which relates to externalised projects in the discovery portfolio. A number of new commitments were made in 2013 under licensing and other agreements, including arrangements with Adimab LLC, Immunocore Ltd and MorphoSys AG.

In 2013, we reached an agreement with the trustees of the UK pension schemes to make additional contributions over a three year period, including in 2013, to eliminate the pension deficit identified at the 31 December 2011 actuarial funding valuation. If the deficit persists, further contributions would be payable in the following four years depending on the level of deficit. The table above includes this commitment but excludes the normal ongoing annual funding requirement in the UK of approximately £120 million. For further information on pension obligations, see Note 28 to the financial statements, 'Pensions and other post-employment benefits'.

### Contingent liabilities

The following table sets out contingent liabilities, comprising discounted bills, performance guarantees, letters of credit and other items arising in the normal course of business, and when they are expected to expire.

	Total £m	Under 1 yr £m	1-3 yrs £m	3-5 yrs £m	5 yrs+ £m
Guarantees	103	75	2	1	25
Other contingent liabilities	95	2	27	18	48
<b>Total</b>	<b>198</b>	<b>77</b>	<b>29</b>	<b>19</b>	<b>73</b>

In the normal course of business, we have provided various indemnification guarantees in respect of business disposals in which legal and other disputes have subsequently arisen. A provision is made where an outflow of resources is considered probable and a reliable estimate can be made of the likely outcome of the dispute and this is included in Note 29 to the financial statements, 'Other provisions'.

We provide for the outcome of tax, legal and other disputes when an outflow of resources is considered probable and a reliable estimate of the outflow may be made. At 31 December 2013, other than for those disputes where provision has been made, it was not possible to make a reliable estimate of the potential outflow of funds that might be required to settle disputes where the possibility of there being an outflow was more than remote.

The ultimate liability for such matters may vary significantly from the amounts provided and is dependent upon the outcome of litigation proceedings and negotiations with the relevant tax authorities. This is discussed further in 'Risk factors' on pages 232 to 242 and Notes 14 and 44 to the financial statements, 'Taxation' and 'Legal proceedings'.

## Cash generation and conversion

A summary of the consolidated cash flow is set out below.

	2013 £m	2012 £m
Net cash inflow from operating activities	7,222	4,375
Net cash inflow/(outflow) from investing activities	524	(2,631)
Net cash outflow from financing activities	(6,273)	(3,351)
Increase/(decrease) in cash and bank overdrafts	1,473	(1,607)
Cash and bank overdrafts at beginning of year	3,906	5,605
Increase/(decrease) in cash and bank overdrafts	1,473	(1,607)
Exchange adjustments	(148)	(92)
Cash and bank overdrafts at end of year	5,231	3,906
Cash and bank overdrafts at end of year comprise:		
Cash and cash equivalents	5,534	4,184
Overdrafts	(303)	(278)
	5,231	3,906

The net cash inflow from operating activities for the year was £7,222 million (2012 – £4,374 million). The increase primarily reflected legal settlements being some £2.5 billion lower than in 2012, together with the phasing of restructuring expenditure, lower tax payments and pension contributions, partially offset by a smaller reduction in working capital compared with 2012 given supply chain investments in inventory and launch preparation.

## Free cash flow

Free cash flow is the amount of cash generated by the business after meeting our obligations for interest, tax and dividends paid to non-controlling interests, and after capital expenditure on property, plant and equipment and intangible assets.

	2013	2012
Free cash flow (£m)	4,657	2,049
Free cash flow growth (%)	>100%	(51)%

Free cash flow was £4,657 million for the year. The increase on 2012 primarily reflected the impact of lower tax payments and special UK pension contributions, partly offset by a smaller reduction in working capital and increased expenditure on property, plant and equipment. We paid dividends to shareholders of £3,680 million, and spent £1,504 million on repurchasing shares.

A reconciliation of net cash inflow from operating activities, which is the closest equivalent IFRS measure, to free cash flow is shown below.

## Reconciliation of free cash flow

	2013 £m	2012 £m
Net cash inflow from operating activities	7,222	4,375
Purchase of property, plant and equipment	(1,188)	(1,051)
Purchase of intangible assets	(513)	(469)
Disposal of property, plant and equipment	46	68
Interest paid	(749)	(779)
Interest received	59	30
Dividends received from joint ventures and associated undertakings	18	46
Distributions to non-controlling interests	(238)	(171)
Free cash flow	4,657	2,049

## Investment appraisal

We have a formal process for assessing potential investment proposals in order to ensure decisions are aligned with our overall strategy. This process includes an assessment of the cash flow return on investment (CFROI), as well as its net present value (NPV) and internal rate of return (IRR) where the timeline for the project is very long term. We also consider the impact on earnings and credit profile where relevant.

The discount rate used to perform financial analyses is decided internally, to allow determination of the extent to which investments cover our cost of capital. For specific investments the discount rate may be adjusted to take into account country or other risk weightings.

## Capital expenditure and financial investment

Cash payments for tangible and intangible fixed assets amounted to £1,701 million (2012 – £1,520 million) and disposals realised £2,033 million (2012 – £1,124 million). Cash payments to acquire equity investments of £133 million (2012 – £229 million) were made in the year and sales of equity investments realised £59 million (2012 – £28 million).

## Future cash flow

We expect that future operating cash flow will be sufficient to fund our operating and debt service costs, to satisfy normal levels of capital expenditure, to meet obligations under existing licensing agreements, to meet the expenditure arising from the major restructuring programmes (the precise timing of which is uncertain) outlined in Note 10 to the financial statements, 'Major restructuring costs' and to meet other routine outflows including tax and dividends, subject to the 'Risk factors' discussed on pages 232 to 242. We may from time to time have additional demands for finance, such as for acquisitions and share repurchases. We have access to other sources of liquidity from short and long-term capital markets and banks and other financial institutions, in addition to the cash flow from operations, for such needs.

## Working capital

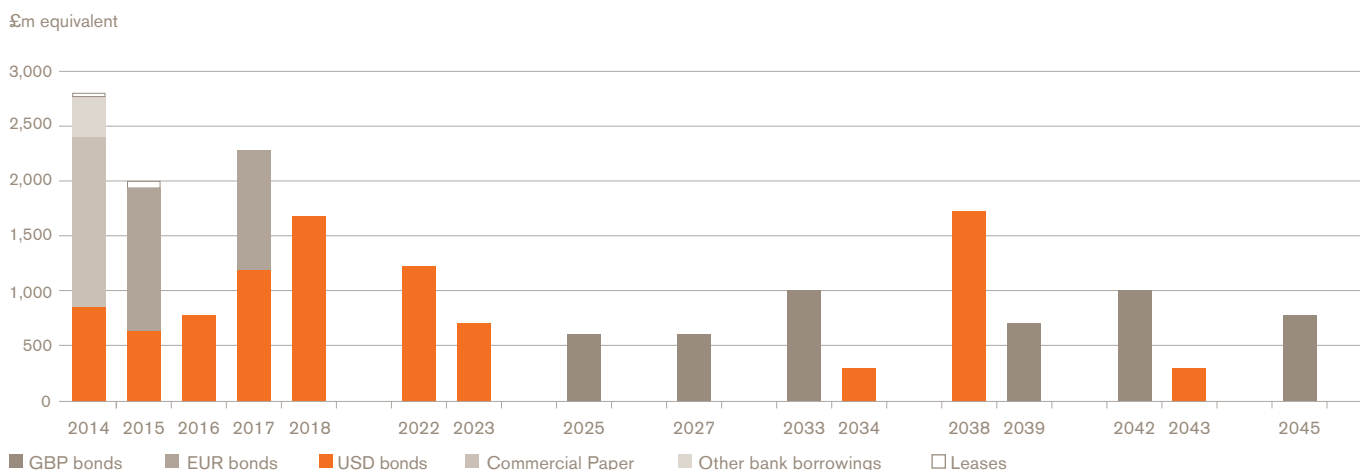
	2013	2012
Working capital percentage of turnover (%)	19%	21%
Working capital conversion cycle (days)	176	194

Our working capital programme has continued to make progress with further improvements in the collection of receivables and more effective management of payables balances. During the year a number of initiatives were implemented across our supply chains supporting the Pharmaceutical, Vaccines and Consumer Healthcare businesses that have provided stronger end-to-end accountability in each case. These programmes are at an early stage but have already reduced volatility and improved responsiveness allowing better inventory management. The net impact on inventory has been limited in 2013 as significant investments have also been made in improving service levels and preparing for new product launches.

The reported working capital conversion cycle days are distorted by divestments made during the year and the intangible asset impairments included in the denominator used in the conversion cycle computation. The year-end 2013 and 2012 conversion cycles, adjusted for these factors, were around 190 days and around 200 days, respectively, a reduction of 10 days.



## Maturity profile of gross debt



### Treasury policies

GSK reports in Sterling and pays dividends out of Sterling profits. The role of Corporate Treasury is to monitor and manage our external and internal funding requirements and financial risks in support of our strategic objectives. GSK operates on a global basis, primarily through subsidiary companies, and we manage our capital to ensure that our subsidiaries are able to operate as going concerns and to optimise returns to shareholders through an appropriate balance of debt and equity. Treasury activities are governed by policies approved by the Board of Directors, most recently on 9 July 2013. A Treasury Management Group (TMG) meeting chaired by our Chief Financial Officer, takes place on a monthly basis to review treasury activities. Its members receive management information relating to treasury activities.

### Capital management

Our financial strategy supports the Group's strategic priorities and it is regularly reviewed by the Board. We manage the capital structure of the Group through an appropriate mix of debt and equity.

GSK's financial architecture is designed to support the delivery of the Group's strategy, and to enhance returns to shareholders. There are four key priorities: delivering sustainable sales growth, improving operating leverage, improving financial efficiency and converting more of our earnings into cash. The free cash flow generated can then be returned to shareholders or reinvested in bolt-on acquisitions, wherever the most attractive returns are available. GSK continues to apply strict financial and returns-based criteria such as cash flow return on investment in order to allocate capital and assess investment opportunities, whilst protecting its credit profile.

The business remains highly cash generative and in 2013 GSK generated £4.7 billion in free cash flow. In addition, we realised £2.5 billion from divestments. In 2013, we returned a total of £5.2 billion to shareholders, £3.7 billion in dividends and £1.5 billion in share repurchases. Net debt at the end of the year stood at £12.6 billion, a reduction of £1.4 billion compared to the previous year.

In 2014, GSK expects to deliver continued dividend growth and as part of the long-term share buyback programme is targeting share repurchases of £1-2 billion depending on market conditions.

For further details see Note 41 to the financial statements 'Financial instruments and related disclosures'.

### Liquidity

As at 31 December 2013, our cash and liquid investments were held as follows:

	2013 £m	2012 £m
Bank balances and deposits	4,641	3,456
US Treasury and Treasury repo		
only money market funds	893	728
Corporate debt instruments	1	7
Government securities	65	74
	<b>5,600</b>	<b>4,265</b>

Cash and liquid investments of £3.9 billion, including amounts held by ViiV Healthcare, were held centrally at 31 December 2013.

We had net debt of £12.6 billion at 31 December 2013. The table below summarises cash and gross debt after the effects of hedging.

	2013 £m	2012 £m
Cash and liquid investments	5,600	4,265
Gross debt – fixed	(15,593)	(15,205)
– floating	(2,651)	(3,090)
– non-interest bearing	(1)	(7)
Net debt	<b>(12,645)</b>	<b>(14,037)</b>

GSK's policy is to borrow centrally in order to meet anticipated funding requirements. The cash flow forecast and funding requirements are monitored by the TMG on a monthly basis. Our strategy is to diversify liquidity sources using a range of facilities and to maintain broad access to funding markets.

GSK's long-term credit ratings have remained unchanged since February 2008. GSK's current ratings are A+ (stable outlook) by Standard and Poor's and A1 (negative outlook) by Moody's Investors Service ('Moody's'). Our short-term credit ratings are A-1 and P-1 with Standard and Poor's and Moody's respectively.

### Treasury operations

The objective of treasury activity is to manage the post-tax net cost or income of financial operations to the benefit of earnings. We use a variety of financial instruments to finance our operations and derivative financial instruments to manage market risks from these operations. These derivatives, principally comprising forward foreign currency contracts and interest rate swaps, are used to swap borrowings and liquid assets into currencies required for Group purposes and to manage exposure to financial risks from changes in foreign exchange rates and interest rates.

We do not hold or issue derivatives for speculative purposes. Our Treasury policies specifically prohibit such activity. All transactions in financial instruments are undertaken to manage the risks arising from underlying business activities, not for speculation.

### Interest rate risk management

GSK's objective is to minimise the effective net interest cost and to balance the mix of debt at fixed and floating interest rates over time. The policy on interest rate risk management limits the amount of floating interest payments to a prescribed percentage of operating profit.

We use interest rate swaps to redenominate one of our bonds into floating interest rates. The duration of these swaps matches the duration of the principal instrument. These interest rate derivative instruments are accounted for as fair value hedges of the relevant liability.

### Foreign exchange risk management

Foreign currency transaction exposures arising on internal and external trade flows are not generally hedged. The Group's objective is to minimise the exposure of overseas operating subsidiaries to transaction risk by matching local currency income with local currency costs where possible. Our internal trading transactions are matched centrally and we manage inter-company payment terms to reduce foreign currency risk. Foreign currency cash flows can be hedged selectively under the management of Corporate Treasury and the TMG. Where possible, we manage the cash surpluses or borrowing requirements of subsidiary companies centrally using forward contracts to hedge future repayments back into the originating currency.

In order to reduce foreign currency translation exposure, we seek to denominate borrowings in the currencies of our principal assets and cash flows. These are primarily denominated in US dollars, Euros and Sterling. Certain borrowings can be swapped into other currencies as required.

Borrowings denominated in, or swapped into, foreign currencies that match investments in overseas Group assets may be treated as a hedge against the relevant assets. Forward contracts in major currencies are also used to reduce exposure to our investment in overseas Group assets. The TMG reviews the ratio of borrowings to assets for major currencies monthly.

### Counterparty risk management

GSK sets global counterparty limits for each of GSK's banking and investment counterparties based on long-term credit ratings from Moody's and Standard and Poor's. Corporate Treasury's usage of these limits is monitored daily by a Corporate Compliance Officer (CCO) who operates independently of Corporate Treasury. Any breach of these limits would be reported to the CFO immediately. The CCO also monitors the credit rating of these counterparties and, when changes in ratings occur, notifies Corporate Treasury so that changes can be made to investment levels or to authority limits as appropriate. In addition, relationship banks and their credit ratings are reviewed regularly and a report is presented annually to the TMG for approval.

### Group reporting in 2014

During 2014, GSK intends to report core results performance measured against 2013 core results excluding divestments completed during 2013. The divestments include the disposals of *Lucozade* and *Ribena*, the anti-coagulant products and several other minor products. Summary restated 2013 core results excluding divestments for 2013 are set out below.

	Core results £m	Divested businesses £m	Core results excluding divestments £m
Turnover	26,505	(903)	25,602
Cost of sales	(7,549)	474	(7,075)
Selling, general and administration	(7,928)	179	(7,749)
Research and development	(3,400)	6	(3,394)
Royalty income	387	–	387
Operating profit	8,015	(244)	7,771
Profit before tax	7,366	(244)	7,122
Profit after tax	5,671	(184)	5,487
Profit attributable to shareholders	5,421	(184)	5,237
Earnings per share (pence)	112.2p	(3.8)p	108.4p

A reconciliation of core results to total results is set out on page 65.

### Strategic Report

The Strategic Report was approved by a duly authorised Committee of the Board of Directors on 26 February 2014 and signed on its behalf by:

**Simon Dingemans**  
Chief Financial Officer  
26 February 2014