JM

2017 Annual Report & Accounts

Johnson Matthey
Inspiring science, enhancing life

In 2017, Johnson Matthey is 200 years old.

1817

On 1st January 1817, the day Percival Norton Johnson got married, he also founded a gold assaying business. It would go on to serve the Bank of England and lead the world in developing applications for precious metals.

« Follow Johnson Matthey's 200 year journey as a pioneer of technologies that have changed our world.

200 Years of Inspiring Science

1800 – 1899

Pioneering Metallurgical Science

Building a Reputation for Quality and Integrity

1900 – 1965

R&D and Platinum Group Metal (Pgm) Expertise Established

Expansion into New Territories and Markets

1817
Percival Norton Johnson sets up gold assaying business in London with £150 of capital (that's £11,500 today)

1852
The company (now with George Matthey, who joined as an apprentice in 1837) is appointed official assayers to the Bank of England and official refiners in 1861

1874
The company produces the first standard metre and kilogramme in platinum-iridium alloy. The kilo is still the standard measure today

1875
Johnson Matthey supplies platinum leads for the first electric lamps

1918
Alan Powell is appointed as the company's first Research Scientist. Today, Johnson Matthey has 1,500 people in R&D, 12% of our global workforce

1927
Expansion into North America as Johnson Matthey acquires a majority interest in J Bishop Platinum Works

1928
Johnson Matthey develops and patents first method for extraction of platinum

1960s
The company supplies electrocatalysts for fuel cell systems used in NASA space programmes

1964
Expansion into Asia with the formation of Arora-Matthey Limited in India and operations in Japan in 1979

1970 – 2000
Pgm Chemistry and Catalysis
Early Benefits to Air Quality and Health

2000 to present
Continued Investment in Science
Focus on Sustainability

1974
Johnson Matthey produces the first autocatalyst, enabling car companies to meet legislation resulting from the Clean Air Act

1980
The company wins the MacRobert Award, Britain's top engineering distinction, for work on car exhaust emission control

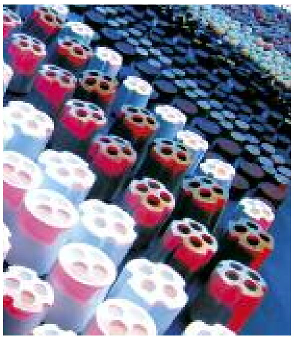
1983
Successful commercialisation of platinum based anticancer drugs marking the start of science for pharmaceutical applications

1998
Johnson Matthey expands its autocatalyst operations and invests in R&D for heavy duty diesel emissions control

2001
Johnson Matthey broadens its offering to the pharmaceutical industry with the acquisition of Macfarlan Smith

2001
Johnson Matthey opens its first manufacturing operation in China. Today, the company has seven facilities in the country and employs over 1,000 people

2002 and 2006
Acquisitions of ICI's Synetix division and Davy Process Technology sees Johnson Matthey expand into base metal catalysis and process technologies for the chemicals sector

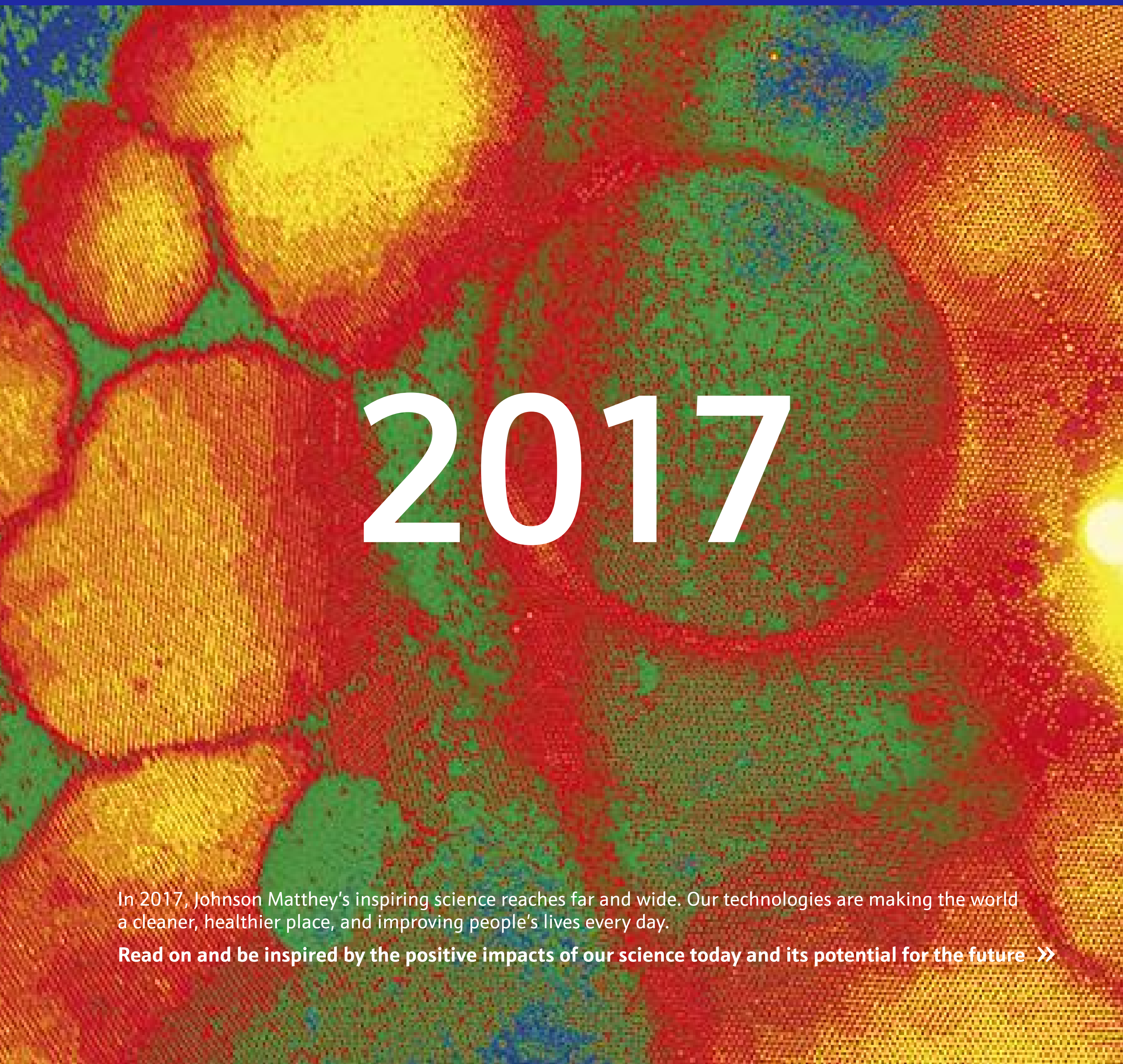


2007
Sustainability 2017 launched, further driving the company's commitment to development of sustainable technologies

2013
Johnson Matthey creates 'New Businesses' arm to drive growth in new areas such as automotive battery technologies

2016
State of the art pgm refinery opened in China. Johnson Matthey is world's largest recycler of these valuable metals

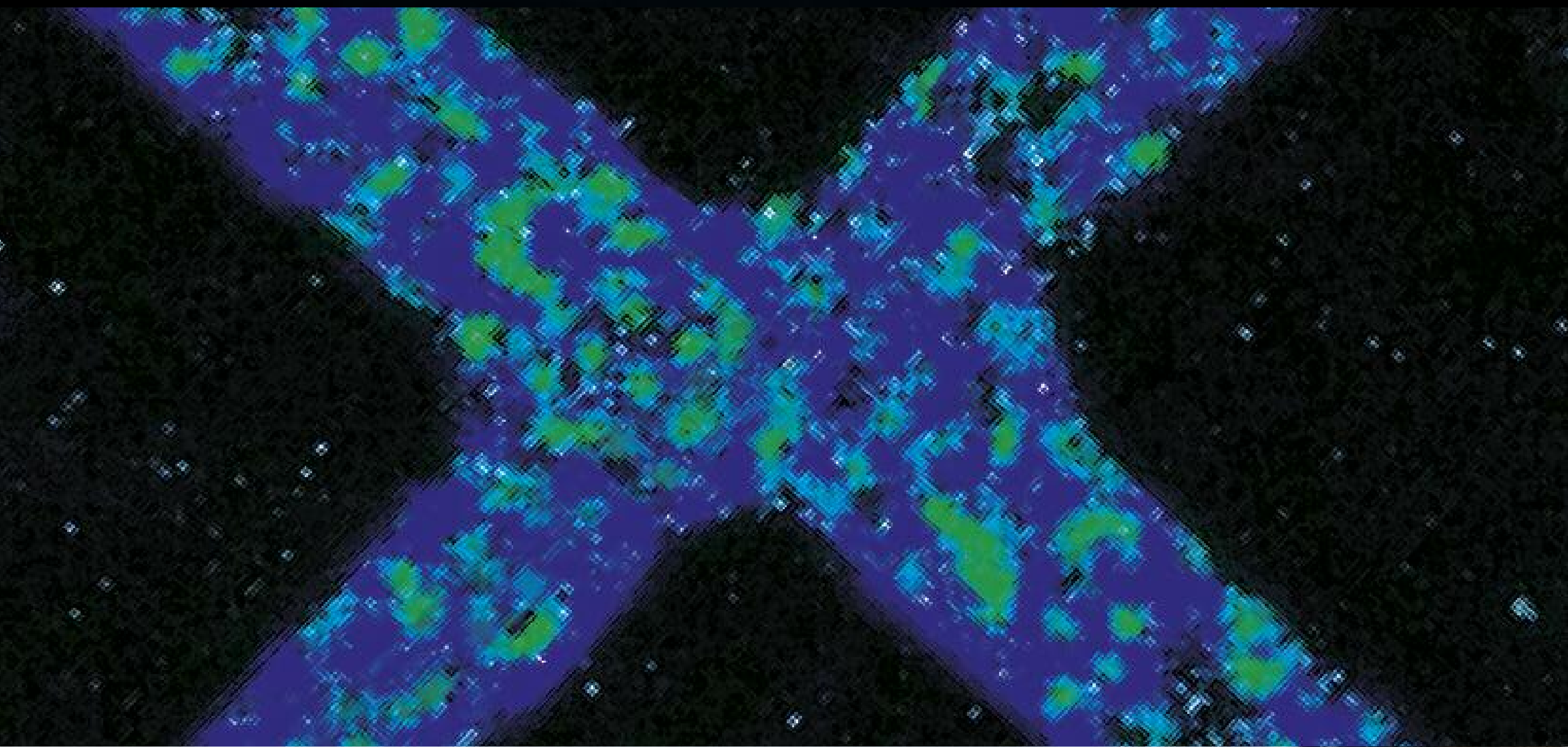
Inspiring science, enhancing life.



2017

In 2017, Johnson Matthey's inspiring science reaches far and wide. Our technologies are making the world a cleaner, healthier place, and improving people's lives every day.

Read on and be inspired by the positive impacts of our science today and its potential for the future »



Our vision is for a world that's cleaner and healthier; today and for future generations.

We use science to create innovative products…

Cleaner Air

One in every three new cars carries an emission control catalyst from Johnson Matthey. That's millions of cars. Toxic carbon monoxide and unburned hydrocarbons go into the catalyst, cleaner air comes out. With our deep understanding, at the atomic scale, of the distribution of platinum, palladium and rhodium in our catalysts, we're also able to minimise the amounts of precious metal required to do the job.

Our catalysts stop around 20 million tonnes of pollutants in their tracks every year – a breath of fresh air for people all over the world.

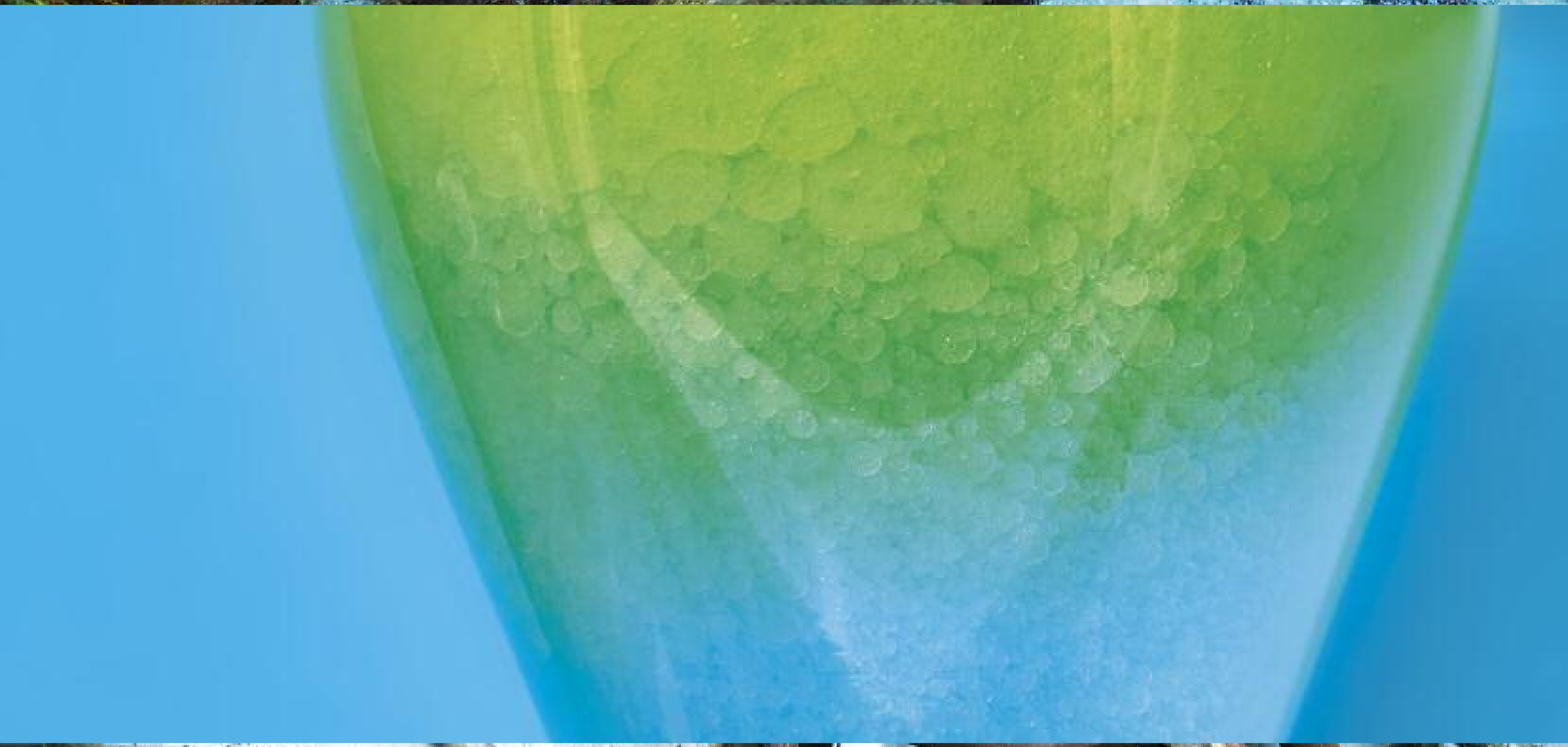
…Researching and developing solutions to make a positive contribution to our society and the environment, and a real difference to everyone's lives.

Finding the Remedy

'Active pharmaceutical ingredients' (APIs) are the constituents of pills and other medications that do all the work, whether it's attacking cancer cells, regulating a heartbeat or combating severe pain. Making them effectively always starts in the lab, with super clever chemistry. Johnson Matthey develops API processes for many important, life changing drugs. We employ highly complex chemistry to prepare molecules to very specific standards, then design advanced manufacturing methods to produce them at the scale that our pharmaceutical customers need.

In this way, our chemistry helps relieve symptoms in millions of people each year.




As a global leader in sustainable technologies, we work with customers and partners across markets from pharmaceutical and medical to automotive, industrial and chemical production…

Recycling Rare Elements

They're not called precious metals for nothing. Platinum group metals, or pgms, are a valuable natural resource and their applications are numerous. You'll find them in autocatalysts, jewellery and electronics. The more pgms we can reuse, the less we need to take from the earth. So we've developed highly advanced processes for extracting and separating pgms from products – so advanced that we can recycle platinum, for example, to a purity of 99.999%.

In fact, we recycle enough platinum and palladium in a year to make millions of autocatalysts.

…Optimising processes, improving efficiency and maximising the use of the planet's natural resources. Enhancing business performance, day to day while sharpening the competitive edge, long term.

Making More from Less

Populations are growing all over the world, placing ever greater demands on food production and the manufacture of agricultural products such as fertilisers. With pgm and base metal catalysts developed by Johnson Matthey, chemical companies are able to produce more fertiliser using fewer materials and less energy. We design our catalysts to cleverly maximise their atomic level surface area, greatly accelerating the reactions that produce ammonia and nitric acid while only using a minimum of metal.

With Johnson Matthey technology, our customers produce fertilisers that help cultivate millions of tonnes of produce every year.





Our solutions continue to evolve, in step with the demands of our changing times.

We remain committed to tackling new challenges to build a cleaner and healthier future for the generations to come.

Charging Forward

Electric vehicles are on their way and we're developing advanced new materials for battery cells in hybrid and full electric cars. Cathodes are the key. We're engaged in the cutting edge science needed to understand how different cathode materials can reduce the time a battery takes to charge and extend the distance a fully charged electric vehicle can travel.

Our materials are already helping to reduce CO_2 emissions from cars. It's a long journey to pollution-free roads, but we're getting there.

We've been in business for over 200 years, starting out specialising in precious metals. But now we devote our science to rather more valuable assets...

Our planet and its people.

Johnson Matthey

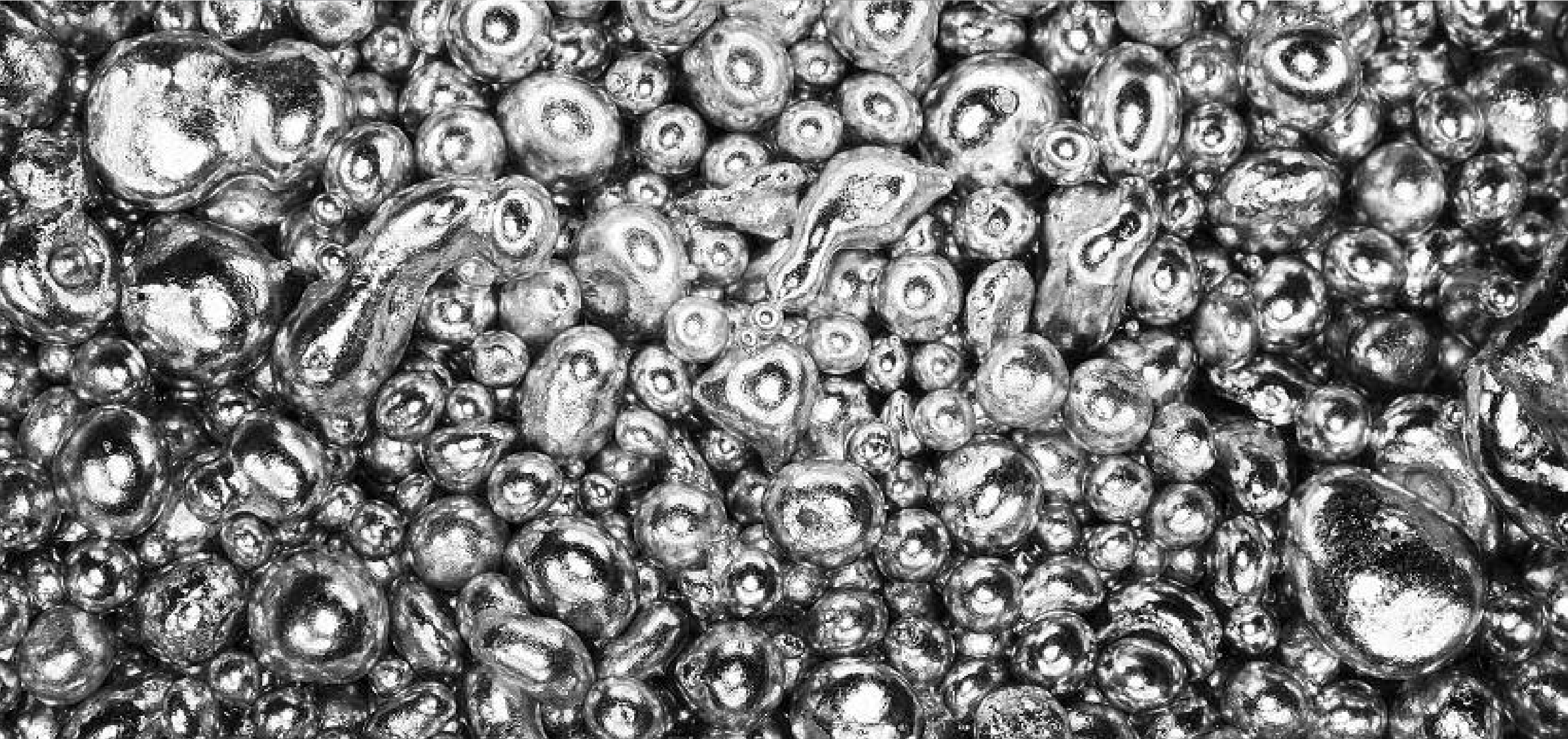
Inspiring science, enhancing life

Breaking the Silence

Cochlear implants can change deaf people's lives in the most profound way, by providing them with a sense of sound. The implant consists of vital platinum components; these are made of high grade platinum, which is biocompatible, has high electrical conductivity and strength. Johnson Matthey produces the components by melting grains of platinum into an ingot or rod, which is then drawn or rolled into wire or strip form.

Last year alone, thousands of men, women and children were able to hear for the first time by using cochlear implants containing our platinum strips and wire.

Cochlear implant image courtesy of Cochlear Limited



Performance Highlights

2016/17 has been a year of further progress for Johnson Matthey: strengthening our business, implementing our strategy and delivering financial results in line with our expectations.

		Year to 31st March 2017	2016	% change	% change, continuing businesses[1] at constant[2] rates
Financial					
Revenue	£ million	**12,031**	10,714	+12	+6
Sales excluding precious metals (sales)[3]	£ million	**3,578**	3,177	+13	+3
Operating profit	£ million	**493.2**	418.9	+18	
Profit before tax	£ million	**461.6**	386.3	+19	
Earnings per share	pence	**201.2**	166.2	+21	
Underlying[4]:					
Operating profit	£ million	**513.3**	450.8	+14	–
Profit before tax	£ million	**481.7**	418.2	+15	+1
Earnings per share	pence	**209.1**	178.7	+17	
Dividend per share					
Ordinary	pence	**75.0**	71.5	+5	
Special	pence	**–**	150.0		
Social					
Average number of employees		**12,214**	12,494	-2	
Voluntary employee turnover	%	**8.9**	6.9	+29	
Charitable donations	£ thousands	**738**	679	+9	
Health and Safety					
Lost time injury and illness rate[5]		**0.49**	0.37	+32	
Total recordable injury and illness rate[5]		**1.05**	0.85	+24	
Occupational illness cases per 1,000 employees		**1.00**	0.90	+11	
Environment					
Energy consumption	thousands GJ	**5,136**	5,064	+1	
Carbon footprint[6]	thousand tonnes CO_2 equivalent	**509**	482[7]	+6	
Waste to landfill	tonnes	**6,894**[8]	1,953	+253	
Water withdrawal	thousands cubic metres	**2,643**	2,605	+1	

1 Growth for continuing businesses excludes the contribution from the Research Chemicals business in 2015/16.

2 Growth at constant rates excludes the translation impact of foreign exchange movements, with 2015/16 results converted at 2016/17 average exchange rates.

3 We believe that sales excluding precious metals is a better measure of the growth of the group than revenue. Total revenue can be heavily distorted by year on year fluctuations in the market prices of precious metals. In addition, in many cases, the value of precious metals is passed directly on to our customers.

4 Before amortisation of acquired intangibles, major impairment and restructuring charges, profit or loss on disposal of businesses, significant tax rate changes and, where relevant, related tax effects. See note 5 on page 136 for reconciliation.

5 Per 200,000 working hours in a rolling year.

6 Calculated using regional or national emission data. See page 67.

7 Restated to account for a miscalculation in the carbon intensity of electricity at Redwitz, Germany.

8 Excludes 17,682 tonnes of uncontaminated soil from a construction project in Redwitz, Germany, which was classified as non-hazardous waste to landfill under local law (see page 67).

Contents

About this Report

Our integrated report for 2017 combines all aspects of the group's performance into one document and reflects how we are addressing areas which we believe have the potential to have a material impact on our business.

Unless otherwise stated, performance data is for the year ended 31st March 2017.

Navigation

Throughout this report you will find a series of easy to identify icons to help you find further information about the group.

Read more

Go online

R Principal risk

Sustainability Reporting

This report is written to the GRI reporting standard. We report against GRI in line with the issues that are important and / or material to our business.

Stay Updated

You can find this report and additional information about Johnson Matthey, including the latest news, investor updates and sustainability, on our website:

www.matthey.com

Cautionary Statement

The Strategic Report and certain other sections of this annual report contain forward looking statements that are subject to risk factors associated with, amongst other things, the economic and business circumstances occurring from time to time in the countries and sectors in which the group operates. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a wide range of variables which could cause actual results to differ materially from those currently anticipated.

1. Building a Sustainable Business

An introduction to Johnson Matthey and a summary of our progress during the year.

This section outlines how we are working to use our inspiring science to enhance people's lives.

Contents

Building a Sustainable Business

Chairman's Statement

Celebrating Johnson Matthey at 200

I am extremely proud to be Chairman of Johnson Matthey in its 200th year. It is remarkable to think that in 1817, when Percival Norton Johnson founded his gold assaying business in London, it would be a further 14 years until Darwin set sail on the voyage that would crystallise his theory of evolution. The company has a long and fruitful history and has made a significant contribution to the modern world: supplying platinum for the first electric light bulbs and fuel cell electrocatalysts for NASA space missions; developing platinum therapies to treat cancer and, of course, emission control catalysts that make a major impact on global air quality. Being part of the team which looks after the business to pass on to others in the future is a great privilege. We are celebrating our 200th anniversary with our employees, customers and other partners by working together to develop solutions to some of the most pressing global challenges that we face today.

Group Performance

We saw an improving performance this year despite some tough markets, as we benefited from our technology strengths and from the decisive action taken last year to improve our efficiency. Our strong, customer focused technology enabled us to outperform in key markets, particularly in Emission Control Technologies. We have made good progress in building our platforms in future growth drivers; active pharmaceutical ingredients for improved health and high energy battery materials to enable zero emission vehicles and cleaner air.

As always, it is our employees around the world that have delivered the inspiring science that has enhanced people's lives. On behalf of all our shareholders, I'd like to thank them for their hard work and commitment over the past 12 months. And it is fitting, in our anniversary year, that we also pay tribute to the many thousands of people who have worked for the company in the past for the part they have played in making Johnson Matthey the great success it is today.

Strategic Focus

The global geopolitical backdrop remains volatile. Over the past year, developments, such as the UK's vote to leave the European Union, reinforce the need for us to remain agile and focused in the way we pursue our strategic goals. We must concentrate on getting the right balance between exploring new opportunities and developing those areas where we are already leaders. It is the board's responsibility to ensure the executive team are making the right business decisions to achieve this.

Towards the end of the year, we undertook a review of the group's strategy and have begun to refine it to ensure Johnson Matthey is robust, yet agile and flexible enough to grow in an uncertain environment. The review reconfirmed the benefits of a more focused and collaborative organisation. I believe this, together with our continued investment in R&D, infrastructure and our people, will help us create long term value for our shareholders.

Values and Culture

A key part of the board's role is to take effective steps in shaping and developing a healthy corporate culture. During the year, we continued to enhance governance and compliance with the ongoing embedding of our code of ethics. Our ethics panel reports to the board, demonstrating our commitment to doing the right thing and holding those who are found lacking in this area accountable.

Health and safety remains a priority. Disappointingly, after several years of improved performance, 2016/17 saw some reversal in the trend. During the year, and recognising the importance of driving continuous improvement, we have continued to emphasise our health and safety culture programme. For 2017 a key goal is to ensure that we translate this into improved performance.

Running a sustainable business has long been at the heart of Johnson Matthey's culture. So when the UN announced its 17 sustainable development goals we knew this was something that was aligned with our aspirations. This major initiative to tackle the world's most serious environmental, economic and social challenges over the next decade calls upon companies to work together and play their part by contributing positively to communities in which they operate.

Board Matters

Today's business world presents a range of risks and opportunities – operational, commercial, geopolitical, environmental and financial. This is why it's essential to maintain the right mix of attributes and skills on the board to effectively monitor and manage these and work with the executive team to deliver the group's strategy. We understand that to do this it is necessary to keep the membership of the board refreshed to meet the changing needs of the business over time.

On behalf of the board, I would like to thank again Den Jones and Dorothy Thompson who both stepped down from the board on 20th July 2016. We wish them well in their future endeavours.

Tim Stevenson
Chairman

The board is extremely pleased to have welcomed Anna Manz and Jane Griffiths to Johnson Matthey. Both have made early contributions to the board's activities. Anna was appointed Chief Financial Officer on 17th October 2016, joining us from Diageo plc where she held a number of senior financial roles including Group Strategy Director. She brings strong credentials in financial leadership along with international experience and deep commercial awareness to Johnson Matthey.

Jane Griffiths joined the board as a Non-Executive Director on 1st January 2017. Jane is Company Group Chairman of Janssen EMEA, the research based pharmaceutical arm of Johnson & Johnson. She brings a wealth of experience and understanding of the management of global businesses to the board, especially in the pharmaceutical sector, together with a strong interest in diversity.

Chairman Succession

In May 2017, I informed the Nomination Committee of my intention to step down as your Chairman at the latest by 31st December 2018. By then I will have served for over seven years and believe that it will be the right time for me to hand over the Chairmanship of the group. Johnson Matthey is in a strong position for the future and it has been an honour to serve as Chairman of such a great company. The Senior Independent Director, Alan Ferguson, will lead the search for my successor.

Outlook

Johnson Matthey represents the best of science, heritage and industry. Our ability to navigate change and adapt to uncertainty has always been, and continues to be, a huge strength. With that strong foundation we will continue to use our expertise to provide cleaner air, improved health and more efficient use of natural resources. We will achieve this through investing for enduring, long term impact, positioning our businesses to deliver strong, consistent and sustainable results, holding ourselves accountable for our responsibilities and putting our people first.

In that context, 2017/18 will see us further strengthen our business. Johnson Matthey's role in providing solutions to major global challenges of our time is as relevant today as it was in 1817. With 200 years of inspiring science as our foundation and a robust strategy for the future, I believe that Johnson Matthey is well positioned to deliver long term performance for our shareholders.

Tim Stevenson
Chairman

In Summary

- **Proposed ordinary dividend of 75 pence up 5% on last year**
- **Board focused on working with the executive team to deliver the strategy**
- **Johnson Matthey is well positioned to deliver long term performance for our shareholders**

Celebrating 200 years

of innovation

> Read more about our culture and values on page 56.

> Read more about health and safety on pages 60 to 65.

> See our Board of Directors on pages 72 and 73.

Chief Executive's Statement

In 2016/17, Johnson Matthey has continued to apply its unrivalled science skills, bringing technical solutions to our customers and making a contribution towards a cleaner, healthier world. The company has also reached an incredible milestone – 1st January 2017 marked the 200th anniversary since its foundation.

In the context of our long history, it has been a year of further progress. We have strengthened our business, implemented our strategy and have delivered financial results in line with our expectations. Global markets have remained tough, yet at constant currency and on a continuing basis, we grew our sales[1] by 3% and our underlying profit before tax by 1%.

Underlying sales growth has come from the application of our leading technologies and we've continued to build for the future, investing a combined £440 million in capex and R&D during the year. In Emission Control Technologies, our technological strengths helped us to deliver strong sales growth, notably in Europe, as we provided customer focused solutions to meet increasing standards for emissions and consumer demand for cleaner air. We have broadened our platforms, in particular our pipeline of new active pharmaceutical ingredients which improve health and in high energy battery materials as we work to develop next generation technologies to enable the shift towards zero emission transportation. Our cost saving programme has increased efficiency, primarily in Process Technologies and Fuel Cells. Cash generation has improved through our disciplined management of working capital and as a result, we have a strong base on which to build.

200 Years of Inspiring Science

I am extremely proud to be Johnson Matthey's Chief Executive as we celebrate our 200th anniversary. This milestone comes at a time when the world is experiencing rapid change and Johnson Matthey's reputation, built on integrity, world class science and investing for the long term, is a precious commodity. I am pleased to say these foundations remain a focus in the company today.

While protecting what has made Johnson Matthey successful for so long, we must continue to look forward. We have therefore taken advantage of this milestone to refresh our brand so that our purpose and aspirations are clear and relevant to our current and future stakeholders. Our new brand identity – Inspiring science, enhancing life – encapsulates what we do best and highlights the hugely positive impact we have on the world. It will help us to build a stronger presence in our markets, connect with more customers worldwide and attract and retain top talent, all of which are vital for our 3rd century of growth.

Inspiring science is the basis of what makes Johnson Matthey special. Making sure that we are at the cutting edge and developing new technologies is essential. These things take time and we take a long term view. In 2016/17, we invested 5.6% of our sales in R&D, an increase of 7% on last year. To maximise the value from this investment we are more actively managing our innovation portfolio to ensure that we allocate our resources to those opportunities with the greatest potential.

Leading in Sustainability

Ten years ago we set an ambition to make sustainability part of the way we do business. In 2007, we launched Sustainability 2017 to drive this. The programme came to a close at the end of March this year and we have achieved what we set out to do. We have transformed the efficiency of our operations and reduced their environmental impact, cutting by half both our carbon intensity and energy consumption relative to sales. In 2016/17 we saved a further £25 million as a result of our continuous improvement programmes, bringing the total value generated since 2007 to £142 million. We've delivered improved solutions for our customers as 93% of our sales come from sustainable solutions. At the same time, we've created significant value for our shareholders, more than our doubling earnings per share.

The most significant positive impact of Sustainability 2017 has been on our culture. That connection between Johnson Matthey's science and the benefit to our planet and its people struck a real chord with our employees around the world. In a practical sense, employees across the group strive to run our operations responsibly, uphold the highest ethical standards and safeguard their own safety and that of their colleagues.

Our commitment to health and safety has been unwavering during the year. However, despite a number of group wide safety initiatives and continued excellence in safety performance at many of our facilities, we had too many lost time accidents this year, and saw an increase compared with 2015/16. Reversing the trend in 2017/18 is a top priority.

An Evolving Business

Towards the end of 2016/17, we reviewed the group's strategy which reinforced that in order to enhance our performance, we must build a more connected and collaborative organisation. Our objective is to leverage the entire breadth of our skills and capabilities for the benefit of our customers, providing them with solutions to their challenges.

Robert MacLeod
Chief Executive

Our aim is to be truly customer centric and understanding our customers' markets is key to achieving this. To help us focus on our customers' needs and on global priorities, we have restructured our business[2] to focus on four areas: clean air, efficient natural resources, health, and new markets. These better align to our customers' markets and describe more clearly the positive impact of our products and services.

Putting Our People First

Our employees are our most powerful resource and without them we can not deliver our long term strategy. We encourage our employees to reach their full potential, whatever their role. We have programmes in place across the business to support career development and retention, as well as to improve diversity and inclusion.

Their talent, commitment to our customers and pride in working for the company is key to our growth. However, as Johnson Matthey continues to grow and evolve, it is important we understand what our employees expect from us and how we can support them. This year we undertook our first global staff engagement survey. I was very pleased that 75% of our employees completed it and there were many encouraging results. Of those responding, 85% said that we provide a safe working environment, 88% said they would speak up if they had any concerns around ethical behaviour and 70% feel their jobs provide opportunities to do challenging and interesting work. However, the survey also highlighted a number of areas where we must do better, including on providing greater clarity on strategy and priorities, and we are actively working on this across the group.

Outlook

As Johnson Matthey enters its 3rd century, we remain focused on sustainable growth through enhancing our existing market leading technologies and developing next generation technologies.

For the full year 2017/18, sales growth, at constant rates, is expected to be broadly in line with the 6% growth delivered in the second half of 2016/17. The combination of stronger sales growth, together with additional cost savings, is expected to be offset by comparison against the 2016/17 post-retirement credit and by higher non-cash pension charges in 2017/18.

Beyond 2017/18, our stronger business platform and operational momentum will deliver sustained sales growth and margin expansion, aligned to our vision for a world that's cleaner and healthier.

R J MacLeod

Robert MacLeod
Chief Executive

1 Sales excluding precious metals.

2 From 1st April 2017.

3 At constant currency in our continuing business.

In Summary

- **Sales[1,3] grew by 3%**
- **1% increase in underlying profit before tax[3]**
- **We continued to support R&D with gross R&D investment up 7% to £201 million**

Building

a solid platform for future growth

> Read more about the performance of the group and its divisions on pages 26 to 46.

> Read more about our strategy and how we are building a sustainable business on pages 8 to 23.

> Read more about our people on pages 54 to 59.

Strategy

Our vision is for a world that's cleaner and healthier; today and for future generations.

Our ambition is to be one of the best performing, most trusted and admired speciality chemicals companies in the world.

- We are proud of our products and technologies, how our customers use them and the positive impact they have on our planet.
- We are passionate about how science can enable global solutions for clean air, improved health and make the most efficient use of our planet's natural resources.
- This is central to our purpose to apply inspiring science to enhance life.
- Our strategy is designed to achieve this.
- Our strategy is to deliver sustainable growth using our existing market leading technologies and through developing the next generation of technologies to meet the global challenges and opportunities from:

Clean Air

Efficient Natural Resources

Health

We are a technology leader in four fundamental areas of science:

- Precious metal chemistry and metallurgy
- Surface chemistry
- Materials characterisation and testing
- Material design and engineering

We will create value for our shareholders and our customers by applying inspiring science to enhance life and we will measure our progress through our KPIs.

> Read more about our KPIs on pages 22 and 23.

Our Business

What we do and how we deliver our strategy

Johnson Matthey is a global leader in science that enables cleaner air, improved health and more efficient use of natural resources. We:

- Provide our customers with customised solutions
- Collaborate with them in the development of new and next generation products
- Scale up complex manufacturing

Which enables our customers to

- Improve the performance of their products
- Reduce their capital requirements or cost
- Bring products to market faster
- Reduce their environmental impact
- Comply with regulations or legislation

We have built a sustainable business platform to do this by:

- Investing in research and development and capital expenditure to enhance our existing technologies and to develop new technologies which will diversify our offer
- Building the strong, collaborative customer relationships which form part of Johnson Matthey's reputation. We leverage these relationships over time for our benefit and the benefit of our customers
- Creating flexible operations. We invest to move from lab to production at scale through efficient global manufacturing operations in accordance with our strategy, our values and our sustainable business goals
- Increasing our effectiveness in all areas from cost to cash, from health and safety to the impact we have on the environment and our stakeholders.

£265 million
of capital expenditure

£201 million[1]
gross R&D investment

93% of sales
from products with sustainability benefit

Our Values

Our values highlight what's important to us, what makes us distinctive and they explain what it's like to work at Johnson Matthey.

Health and Safety is Our Priority
We focus on protecting our people.

Integrity
Doing the right thing is important to us.

Recognition and Development
Anyone from anywhere can progress.

Ability and Innovation
We seek and value talented people.

Freedom to Act
Anyone with a good business case can realise their ideas.

The Best of Big and Small
We have big company resources but apply small company flexibility.

[1] Gross R&D includes capitalised development of £19 million which is also included in capital expenditure.

Our Global Markets

Customer demand for sustainable, technological solutions to global issues defines our markets.

Johnson Matthey's markets are global and are defined by four global sustainability drivers:

Population Growth Urbanisation Increasing Wealth	Natural Resource Constraints Increasing Electrification	Environmental Factors Climate Change Regulation	Health and Nutrition Ageing Population

These four drivers present significant global challenges which Johnson Matthey believes can be addressed by science-led solutions to enable clean air, improved health and more efficient use of natural resources.

Population growth	Urbanisation	Increasing wealth	Constraints on natural resources	Protecting the environment	The health and nutrition of the growing and ageing population.
The world's population is estimated to increase by 0.24 billion by 2020.	The percentage of the world's population living in cities is expected to increase by 1.3 percentage points to 56.2% by 2020.	The global GDP is expected to grow by 2.7% in 2017 and to increase further in subsequent years.	Global annual use of metals, biomass, minerals and other materials will increase from 85 to 186 billion tonnes by 2050.	As of April 2017, 144 countries have ratified the Paris Agreement pledging to reduce harmful emissions.	By 2020 to 2025 the average global life expectancy is expected to be 72.69 years compared to 71.66 between 2015 and 2020.

Clean Air

Public awareness of air quality issues has continued to increase globally. This is particularly the case in urban areas where Johnson Matthey's emission control catalysts and technologies for low or zero emission transport are a key part of the solution.

Efficient Use of Natural Resources

Constraints on natural resources are increasing and we are transitioning to a wider range of energy sources. Johnson Matthey's products, such as process catalysts, recycling capabilities and fuel cell technologies, help the world use resources efficiently and protect the environment.

Improved Health

Affordability of healthcare – increasingly wealthy and increasingly ageing populations across the globe will continue to place greater demands on healthcare provision, including on its affordability. Johnson Matthey's unique capabilities help bring cost effective, niche treatments to the market.

Johnson Matthey's vision is for a world that is cleaner and healthier. We believe that our leadership in sustainable technologies and the application of cutting edge, chemistry based science creates customer focused solutions for the opportunities and challenges of the four global sustainability drivers.

Our customers operate globally in:

Automotive

The automotive sector is undergoing a once in a lifetime transformation with the evolution of the powertrain and changing ownership models, driven in part by the global drive for improved air quality. There is increasing focus on tackling pollutants and reducing CO_2 emissions from vehicles and we are responding with science-led solutions for clean air.

Over 60% of our sales are to automotive manufacturers of both cars and trucks using diesel, gasoline, hybrid or electrified engines. We have leading technologies and supply a range of solutions including emission control catalysts, battery materials, fuel cell components, windscreen enamels and spark plug tips. In 2016/17 our sales to the automotive industry increased by 4% at constant rates. The drivers of this performance, which are tightening legislation to control pollutants and CO_2 emissions and demand for vehicles, are expected to continue.

In the short and medium term, tightening legislation, first in Europe and then in the Chinese and Indian markets, will drive growth through the need for more complex, higher value solutions from Johnson Matthey. As the mix of vehicle powertrains evolves and diversifies with increasing degrees of electrification, Johnson Matthey is investing in the development of next generation technologies and in our manufacturing facilities to ensure we have an efficient and flexible base from which to deliver clean air solutions for our customers.

Chemicals

The market for chemicals is cyclical, influenced by supply / demand fundamentals linked to GDP growth, chemical production capacity and feedstock prices. Global GDP is expected to remain muted and in China, GDP is expected to stabilise at mid single digit levels, lower than historical performance. Lower growth in China impacts the price of oil, for example, and creates supply / demand imbalances elsewhere. We are also seeing a changing balance in energy sources with gas and renewables playing increasingly important roles. These challenges provide opportunities for Johnson Matthey to help our customers to do even more with less resources and adapt to changes in feedstock and energy supplies.

12% of our sales are to chemical industry customers and we have strong positions and leading technologies. We provide licences, catalysts and other services including diagnostics and catalyst recycling. These help our customers operate their processes at optimum efficiency and with reduced environmental impact. In 2016/17 our sales to the chemicals market were 4% lower at constant rates as a result of limited investment in the construction of new plants and surplus manufacturing capacity for chemicals, reflecting the current lows in the market cycle.

Looking ahead, as we move through the cycle, volumes for end products enabled by our technology are expected to continue to increase driven by population growth and the imperative to use natural resources more efficiently.

Pharmaceuticals

Improved life expectancy and the affordability of healthcare drive demand in the $650 billion global pharmaceuticals market which is expected to grow at mid to high single digit percent per year. Within this, the market for active pharmaceutical ingredients (APIs), the chemically active substance which is meant to produce the desired effect in the body, is growing at a similar rate.

9% of our sales are to the pharmaceuticals market where we mainly develop and supply APIs which are used by our customers in the manufacture of drugs. We also provide catalysts and other intermediates used in the development of pharmaceutical products and offer contract development and manufacturing services. In 2016/17, our sales for continuing businesses at constant rates were 1% down as strong sales of APIs for two newly approved drugs broadly offset lower sales of APIs used in drugs to treat ADHD.

Pharmaceutical customers look for cost effective ways of delivering complex, high quality products and are increasingly outsourcing API manufacture to partners with skills in the development of APIs for generic drug products. With expertise in complex chemistry, scale up and working in highly regulated environments there are opportunities for Johnson Matthey in the large and growing pharmaceutical market to deliver a strong pipeline of new products to improve health.

1. Building a Sustainable Business

Our Structure

In the year ended 31st March 2017, our operations were organised into five global divisions[1]

Emission Control Technologies

Light Duty Vehicle Catalysts / Heavy Duty Diesel Catalysts

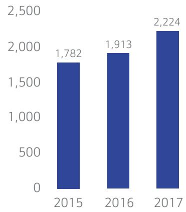
Emission Control Technologies is a leading global manufacturer of catalysts and catalyst systems to reduce emissions from vehicles and industry. Its products enable clean air for millions of people globally.

Read more on pages 30 to 33.

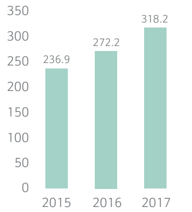
Key Statistics

Sales[2]	£2,224m
Underlying operating profit	£318.2m
Return on sales	14.3%
Return on invested capital	30.7%

Sales[2]
£ million



Operating Profit
£ million



Process Technologies

Chemicals / Oil and Gas

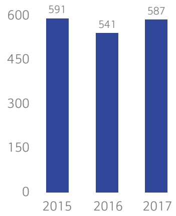
Process Technologies is a global supplier of catalysts, licensing technologies and other services to the syngas, oleo/biochemical, petrochemical, oil refining and gas processing industries. Its products enable our customers to optimise performance of their operations and minimise use of natural resources.

Read more on pages 34 to 36.

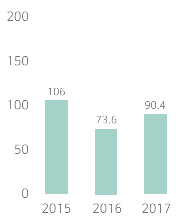
Key Statistics

Sales[2]	£587m
Underlying operating profit	£90.4m
Return on sales	15.4%
Return on invested capital	11.4%

Sales[2]
£ million



Operating Profit
£ million



Precious Metal Products

Services / Manufacturing

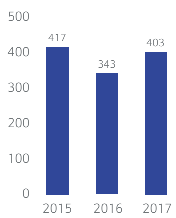
Precious Metal Products is organised into our Services businesses which include management, distribution, refining and recycling of precious metals and our Manufacturing businesses, which fabricate products using precious metals or related materials, platinum group metal catalysts and platinum group metal chemicals. All activities are focused on the most efficient use of natural resources.

Read more on pages 37 to 39.

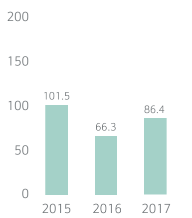
Key Statistics

Sales[2]	£403m
Underlying operating profit	£86.4m
Return on sales	21.4%
Return on invested capital	19.8%

Sales[2]
£ million



Operating Profit
£ million



Fine Chemicals

API Manufacturing / Catalysis and Chiral Technologies

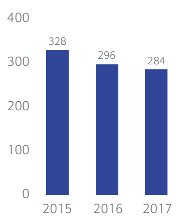
Fine Chemicals' products and services improve health. It is a global supplier of active pharmaceutical ingredients (APIs) and custom services for pharmaceutical customers. It also provides catalyst technologies for pharmaceutical, agrochemical, flavour and fragrance applications.

Read more on pages 40 to 41.

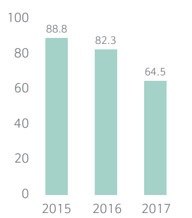
Key Statistics

Sales[2]	£284m
Underlying operating profit	£64.5m
Return on sales	22.8%
Return on invested capital	12.3%

Sales[2]
£ million



Operating Profit
£ million



New Businesses

Battery Technologies / Fuel Cells / Water Technologies / Atmosphere Control Technologies / New Business Development

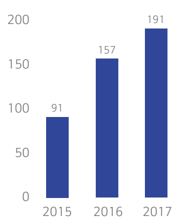
New Businesses provides Johnson Matthey with access to additional areas of potential growth that align to the global priorities of cleaner air, improved health and the more efficient use of natural resources.

Read more on pages 42 to 43.

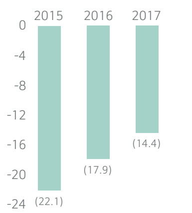
Key Statistics

Sales[2]	£191m
Underlying operating profit / (loss)	(£14.4m)

Sales[2]
£ million



Operating Loss
£ million



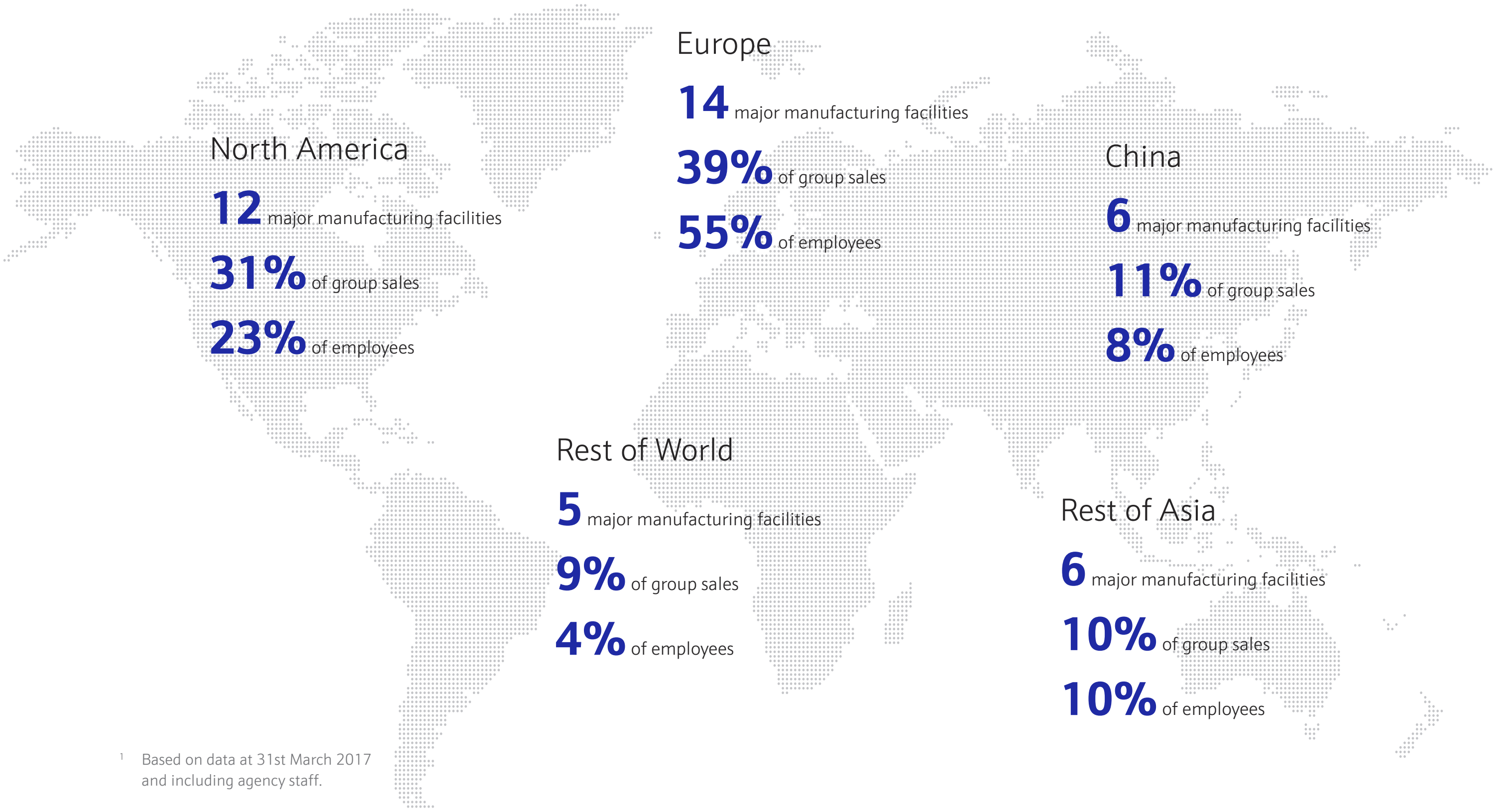
[1] On 20th April 2017, we announced we are restructuring our organisation into four global sectors; Clean Air, Efficient Natural Resources, Health and New Markets. These align to the global sustainability drivers of our business and provide increased focus for the group.

[2] Sales excluding precious metals.

Global Reach

We have a significant global presence in over 30 countries

This improves our access to high growth potential markets. We meet our customers' needs from our 43 major manufacturing sites across all regions. We invest in our global footprint to ensure we are best positioned to serve our customers and serve future demand in our markets. We employ around 13,000[1] people worldwide.



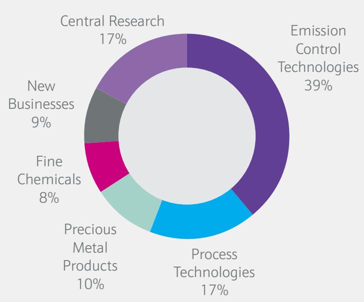
[1] Based on data at 31st March 2017 and including agency staff.

Go online: www.matthey.com/locations

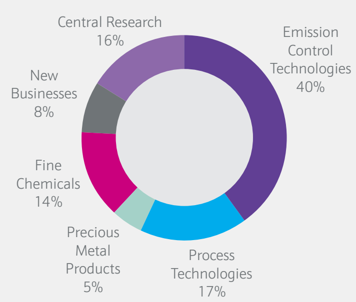
Research and development (R&D) underpins our sustainable business platform

We have a network of global R&D centres focused on enhancing our existing products and developing next generation technology solutions for our customers. Our centres are staffed by high calibre scientists and are equipped with world class equipment for research. 1,450, or 12%, of our employees work in R&D.

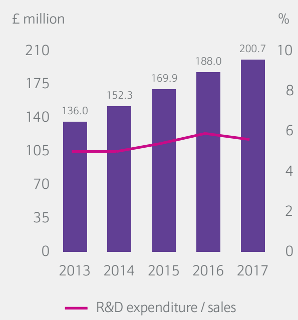
Research and Development Employees



Distribution of Research and Development Expenditure



Gross Research and Development Expenditure



1. Building a Sustainable Business

Growing Responsibly

We launched our ten-year Sustainability 2017 programme in 2007 to support growth by running our business in a more sustainable way.

The most important outcome of Sustainability 2017 has been the successful integration of sustainability across Johnson Matthey. We've achieved this through engaging employees and making sustainability the way we do business.

Our ethos of sustainability, which focuses on both the way we run our operations and the positive impact of our products and services on the world around us, really struck a chord with our employees and it is their commitment and enthusiasm that has driven our success.

Over the last decade this has transformed the efficiency of our operations, reduced their environmental impact, delivered improved solutions for our customers and created significant value for our shareholders. Today, more than 93% of our sales come from products and services that are contributing to a cleaner, healthier world.

Measuring the Impact of Sustainability 2017

Sustainability 2017 included six challenging targets to help us build a sustainable business. Our performance against these is set out in the table below.

Sustainability 2017 Target	Sustainability 2017 Key Performance Indicators	Baseline 2007	2017[1]	Target	% achieved
At least double earnings per share	Underlying earnings per share (pence)	82.2[2]	**209.1**	164.4	154
Halve carbon intensity	Global warming potential (tonnes CO_2 eq / £ million sales)	294[3]	**142**	147	103
Achieve zero waste to landfill	Waste to landfill (tonnes)	16,555[3]	**6,894[4]**	0	58
Halve key resources per unit of output	Electricity consumption (GJ / £ million sales)	1,098[3]	**546**	549	101
	Natural gas consumption (GJ / £ million sales)	1,604[3]	**802**	802	100
	Water withdrawal (m^3 '000 / £ million sales)	1.426[3]	**0.740**	0.713	96
Continual improvement in lost time injury and illness rate (LTIIR)	Number of lost workday cases per 200,000 hours worked in a rolling year	0.65[5]	**0.49**	0.2	36
Achieve zero occupational illness cases	Annual incidence of occupational illness cases per 1,000 employees	4.2[6]	**1.00**	0	76

[1] Data presented is for the period 1st April 2016 to 31st March 2017.

[2] Data presented is for the period 1st April 2006 to 31st March 2007.

[3] Data presented is for the period 1st January 2006 to 31st December 2006.

[4] Excludes 17,682 tonnes of uncontaminated soil from a construction project in Redwitz, Germany, which was classified as non-hazardous waste to landfill under local law (see page 67).

[5] Baseline is LTIIR for the period 1st April 2013 to 31st March 2014. We have a target of 0.2 for our LTIIR and our aspiration is one of continual improvement towards zero LTIIR.

[6] Baseline is incidence of occupational illness cases per 1,000 employees in calendar year 2008, restated.

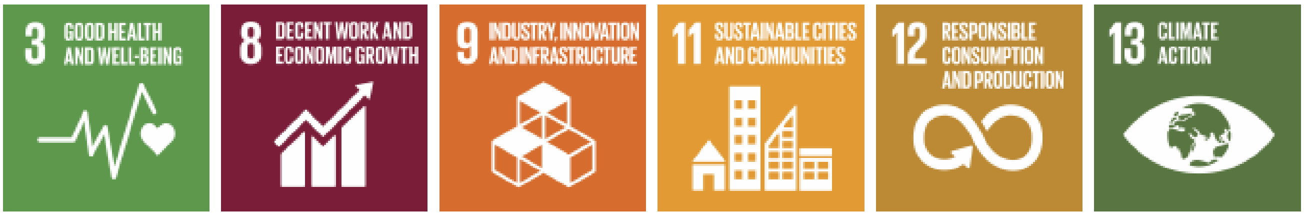
Through Sustainability 2017 we have more than doubled our underlying earnings per share while halving our carbon intensity and almost halving our use of key resources, namely electricity, natural gas and water, relative to sales. Our health and safety performance has improved and we have made health and safety a priority in order to drive further progress. Occupational illness cases have reduced to just one case for every 1,000 employees.

Sustainability 2017 has delivered cost benefits too. In 2016/17, we saved approximately £25 million as a result of our sustainability, manufacturing excellence and continuous improvement programmes, bringing the total value generated since 2007 to £142 million.

Supporting Global Goals

Tackling the most pressing issues of our time requires collective action. The UN Sustainable Development Goals (SDGs) were introduced in September 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. There are 17 goals for 2030, each providing guidelines and targets for countries and companies to adopt in line with their own priorities.

We have evaluated and aligned our priorities against the SDGs to understand where our products, services, technologies and the way we run our business have the potential to make the greatest contribution. There are six goals (shown below) where we believe we can make the biggest positive impact. We have considered our ability to contribute to these in the context of our areas of material importance, risks, strategic themes and key performance indicators. In this report we present our non-financial disclosures in accordance with the Global Reporting Standard (GRI) guidelines (see pages 188 and 189).



		GRI non-financial disclosure themes		
	Financial Performance	**Social**	**Environmental**	**Governance**
Material Topics Read more on page 51.	• Financial sustainability	• Community volunteering • Diversity and inclusion • Employee retention and recruitment • Health and safety • Modern slavery and child labour • Responsible sourcing	• Air quality • Greenhouse gas emissions • Product lifecycle management • Resource scarcity • Responsible sourcing • Water use	• Climate change risk • Ethical business practices and compliance • Sustainability leadership
Principal Risks and Uncertainties Read more on pages 16 to 21.	1 Existing Market Outlook 2 Future revenue growth 3 Maintaining our competitive advantage 6 People 11 Business transition	4 Environment, health and safety 5 Sourcing of strategic materials 6 People 7 Security of metal and highly regulated substances 10 Ethics and compliance	4 Environment, health and safety 5 Sourcing of strategic materials 8 Intellectual capital management 9 Failure of significant sites 12 Product quality	4 Environment, health and safety 6 People 10 Ethics and compliance
Strategic Themes Read more on pages 8 and 51.	• Creating shareholder value • Sustainable growth	• Diversity and inclusion • Zero harm	• Greenhouse gas emissions • Increase positive impact of products	• Community engagement • Responsible sourcing
Key Performance Indicators Read more on pages 22 and 23.	• Sales excluding precious metals • Underlying earnings per share • Return in invested capital • Capital expenditure • R&D expenditure	• Lost time injury and illness rate (LTIIR) • Annual incidence of occupational illnesses • Voluntary employee turnover	• Carbon footprint	• Gross R&D expenditure
UN SDGs	8 9	3 8 11	11 12 13	8 9 12

Our Focus to 2025

We are continuing to apply sustainable business principles as the basis of our strategy and in 2017/18 we will introduce new targets to drive further progress over the next eight years to 2025. These will align to the strategic themes in the table above and be more externally focused, with emphasis on our contribution to sustainable development through our value chains, and through our science and technology.

Read more on page 51.

Risks and Uncertainties

The effective identification and management of risk across the group is integral to the delivery of the group's strategic objectives.

A Holistic Approach to Managing Risk

Our approach to risk management focuses on the early identification of key risks and taking action to reduce the likelihood of these having a detrimental impact on the business. During the year, we strengthened our processes and reporting capabilities so that risks continue to be identified and appropriately managed. As with all Johnson Matthey processes, we regularly assess our approach to ensure that it meets business needs and supports the effective management of risks while meeting the requirements of the UK Corporate Governance Code.

The effective management of risk enables Johnson Matthey to:

- Deliver our strategic objectives
- Improve our decision making, planning and prioritisation
- Pursue opportunities while keeping risks at an acceptable level in a rapidly changing external environment
- Effectively deal with risks should they materialise
- Consider risk and reward and implement controls in the areas that matter most to us.

Our Risk Framework

We operate a holistic risk management system that is applied throughout the business.

Board

✓ Has overall responsibility for the approach to risk management and internal control
✓ Ownership of principal risks and uncertainties
✓ Sponsors the framework for enterprise risk management at Johnson Matthey
✓ Determines the organisational risk management approach
✓ Monitors the nature and extent of exposure for our principal risks

Audit Committee

✓ Oversight of process and review of controls testing

Group Management Committee (GMC)

✓ Championship of risk management
✓ Carries out top down identification and review
✓ Development of company strategy in line with board risk appetite
✓ Reporting on principal risks and uncertainties to the board and on process to the Audit Committee

Sector Level

✓ Carrying out top down review activities
✓ Responsible for ensuring that sites and functional areas have developed risk registers
✓ Review and challenge of risk registers
✓ Continuous monitoring
✓ Reporting to GMC on sector risk and issues

Site / Functional Areas

✓ Carrying out risk identification, assessment and mitigation
✓ Reporting top risks to sector and Corporate Assurance and Risk
✓ Carrying out regular reviews on effectiveness of existing controls and progress with control implementation

TOP DOWN
Oversight
Identification of risk
Mitigation of risk at group level

BOTTOM UP
Identification of risk
Assessment of risk
Mitigation of risk
Reporting

How We Manage Risk

Evolution of Our Framework

We recognise that risk management is an important part of our business and continually seek to improve our process.

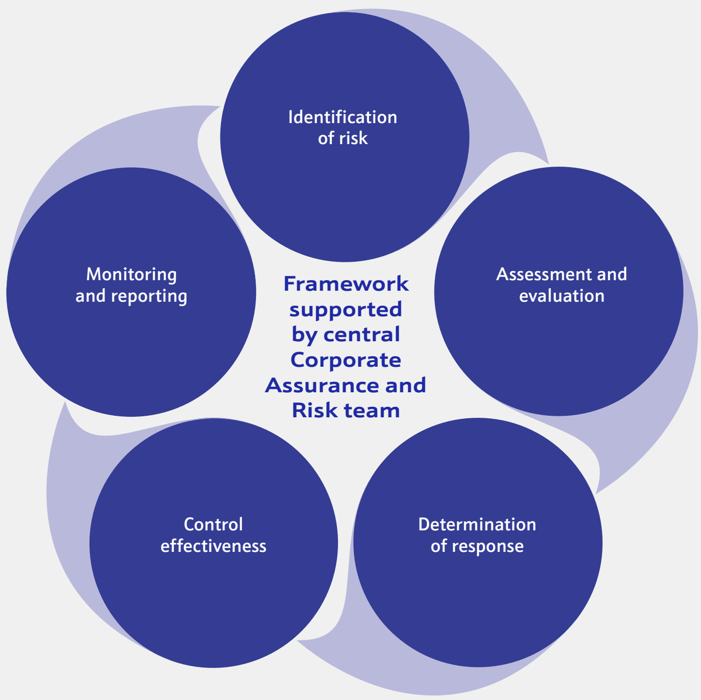
This year we enhanced our existing process by:

- Reviewing and updating our guidance for the group's businesses and functional areas
- Continuing to roll out risk management training
- Working with the senior leadership team, sectors, business and functional areas to strengthen risk definition, ownership, assessment and reporting
- Developing an in house software solution to allow for thematic analysis of risk and aggregation.

Our Risk Process

Our risk process is designed to support everyone, at all levels of the business, in identifying and managing risks.

All risks, whether they are identified at the most senior level or throughout the business, are described, analysed and reported using a standard framework. The central Corporate Assurance and Risk team acts as an advisory function and provides independent challenge and review. Each of our business functions also participates in the process, identifying any risks that may prevent them achieving their objectives and describing these in terms of cause and consequence. These are scored using a variety of impact measures, including financial, operational, reputational and people factors. Controls for each risk are described and assessed. Each risk, at every level, has a designated owner who is responsible for ensuring the described controls are effective and efficient. We continually review the level of risk throughout the business and complete a formal submission every six months for reporting purposes (as illustrated in our risk framework opposite).



1. Building a Sustainable Business

Our Principal Risks and Uncertainties

Understanding why and how our principal risks change

The ongoing review of our principal risks ensures that we reflect on the challenges facing our business and the changes we have made to our business in response to those challenges. In April 2017, we announced a change in our group structure. As a consequence of a strategic review, the group moved to managing and reporting the business as four sectors: Clean Air, Efficient Natural Resources, Health and New Markets. These are aligned to the global priorities of cleaner air, the efficient use of natural resources and improved health. This focus provided us with a refreshed framework to consider the identification of new risks, evolution of existing risks and evaluation of control effectiveness. During this exercise we concluded that while many of our risks remain largely unchanged we could describe them more precisely, to ensure focus is on the most important mitigating activities. As a result of this process we have made the following changes to our principal risks and uncertainties:

- Existing market outlook (previously described as 'growth within our existing business' and 'global economic, political and regulatory uncertainty'). This risk was broadly defined across both external influences on our business as well as internal factors. We have refocused this risk on external influences and will use refined key risk indicators to monitor any movement in the most important underlying assumptions associated with our business plans. The internal factors are picked up in a new risk (risk 3).

- Future revenue growth (previously described as 'innovation' and 'new business'). Our risk associated with growing our business, both through the identification of opportunities and acting on new opportunities, was predominately focused on potential merger and acquisition activities. We have now amended this to consider the risks associated with investment decisions, including significant capital investment, mergers and acquisitions and research and development activities.

- Maintaining our competitive advantage in existing markets. This risk was previously captured under the very wide ranging 'growth within our existing business'.

  The internal aspect of this risk in meeting our customers' evolving technology needs coupled with ongoing process efficiencies to maintain our competitive advantage is reflected in this new risk (risk 3).

- Product quality. This new risk was previously managed at business and divisional level. With our continuing emphasis on quality and brand we have elevated this risk to ensure greater board visibility.

- Sourcing of strategic materials. This risk previously covered a wide range of supply chain aspects. We have refocused this risk to consider sourcing of our strategic raw materials, the supply of which is vital to our manufacturing processes.

- People. This risk has been reassessed in the context of our recent strategic review, which has identified some areas where we need to build additional capability.

- Business transition. We are evolving the way we run our business. Historically, we have operated as a decentralised organisation and, to drive efficiency, we are in the process of standardising some activities across the group. Directed by strong functional leaders, our business transition will position the group for future growth. The risk has been amended to reflect our current business transition plans.

We also considered the risk landscape for cyber and information systems resilience and determined that this was included within our 'failure of significant sites' risk and as such did not need to be included as a separate principal risk and uncertainty.

Managing Through Brexit

Brexit, whilst not a separate risk, is included within the scope of our existing market outlook risk. As a major manufacturing and exporting business, we have been monitoring developments through a dedicated working group, giving careful consideration as to how best to navigate the situation. There is still a great deal of uncertainty as to what Brexit will mean for Johnson Matthey. The Brexit working group is focused on ensuring that Johnson Matthey is prepared to navigate through and deliver the best outcome for our people, our business and our customers. In addition, we plan to work closely with the UK Government to make the most of the opportunities that Brexit offers, and ensure that our industry can continue to succeed.

The following table sets out the principal risks and uncertainties facing the group, the mitigating actions for each and an update on any change in the profile of each risk during the course of the year. The net risk rating (after mitigating controls) is also shown.

Existing Market Outlook 1

Risk and impact	Mitigation	Changes since 2016 annual report
The risk of a change to the outlook for our key markets is either unplanned or unforeseen and as a result we are poorly positioned to respond. This risk would include legislative change, for example as a result of Brexit or changes in customer or consumer behaviour impacting our business.	• Understanding the key drivers and the range of possible scenarios. • Building plans against those scenarios. • Monitoring changes to those drivers and adjusting business plans accordingly.	This risk partially replaces 'growth within our existing business'. This risk is specifically focused on understanding the external influences which may impact our business. It is rated as high as a result of the uncertainty of Brexit and the evolving pace of change in the BEV/European diesel market, making scenario planning essential. Risk 3 focuses on the related internal factors. → **Risk rating** ■ High (unchanged from risk 1 last year)

Future Revenue Growth

2

Risk and impact
Failure to grow through new opportunities either as a result of failing to identify the opportunity, fund or execute successfully.

Mitigation
- Monitoring and understanding market evolution as part of our strategic planning process resulting in opportunity identification.
- Growth opportunities are executed through targeted acquisitions, capital investment and research and development. Progress is monitored and tracked against specific key performance indicators (KPIs).

Changes since 2016 annual report
New growth opportunities may be realised through different combinations of investment including acquisition, capital investment and R&D. As the approach may change based on the circumstances, we believe the risk is better expressed by focusing on the missed opportunity irrespective of the investment type.

→

Risk rating
Medium (unchanged from the innovation risk rating last year)

Maintaining our Competitive Advantage

3

Risk and impact
Failure to maintain our competitive advantage in existing markets, and as a result, not meeting customers' evolving needs as efficiently as our competitors.

Mitigation
- Investment in understanding our customers.
- R&D and capital investment processes ensure resource is prioritised against the areas of greatest opportunity.
- Benchmarking business processes' efficiency.

Changes since 2016 annual report
This risk was previously captured under the very wide ranging 'growth within our existing business'. The external aspect of this risk is captured in risk 1 and the internal risk of failing to run our business to sustain our competitive advantage is captured here. We have a strong track record of meeting our customers' evolving technology needs, our capability coupled with ongoing process efficiency activity means we have rated this risk as medium.

New risk

Risk rating
Medium

Environment, Health and Safety

4

Risk and impact
In common with similar manufacturing companies, the group operates in a challenging safety environment that is subject to numerous health, safety and environmental laws, regulations and standards.

If we fail to operate safely and respond to changes made to applicable laws, regulations or standards we could adversely impact our employees, we may lose production time and could attract negative media and regulator interest.

Mitigation
- Understanding of our business risk profile.
- Systems and processes to facilitate adherence to corporate policies, procedures and standards.
- Training and awareness activities.
- Risk, audit activities and safety checks.
- Safety culture programme and behavioural standards.
- Investigations to determine the cause of incidents and accidents and the development of remediation plans.
- An independent hotline for employees to report concerns.

Changes since 2016 annual report
Health and safety is our priority and we take our responsibility for environmental impact very seriously. Over the past 12 months we have worked to refine our mitigating activities.

→

Risk rating
Medium

Sourcing of Strategic Materials

5

Risk and impact
As Johnson Matthey has limited suppliers from which to source certain strategic raw materials, any breakdown in the supply of these materials would lead to an inability to manufacture and satisfy customer demand.

Mitigating activities
- Supplier key performance indicators, audits and quality management.
- Sourcing from multiple suppliers.
- Research and development alternatives to consider use of non-strategic materials.
- Expertise in supply chain, logistics, procurement and trade export controls.
- Business continuity management, identification of critical failure risks and plans in place to manage these.

Changes since 2016 annual report
The prior year risk rating was principally driven by the risks associated with sourcing of strategic materials. During the year, we have focused on building expertise in supply chain and procurement and as such have assessed the risk as reducing.

↓

Risk rating
Medium

1. Building a Sustainable Business

People
6

Risk and impact
To achieve our strategic objectives, we continually assess the skills and capabilities that will enable us to deliver our strategy. An inability to recruit and retain key skills may result in a slower growth trajectory.

Mitigation
- Assessment of skills and capability requirements.
- Robust talent management processes.
- Remuneration strategy with clarity around market best practice and Johnson Matthey's position on base pay, annual and long term incentives, pensions and regional benefits.
- Transparency of policies.

Changes since 2016 annual report
This risk has been reassessed in the context of our recent strategic review, which has identified some areas where we need to build additional capability. We have therefore increased the risk rating.
↑

Risk rating
Medium

Security of Metal and Highly Regulated Substances
7

Risk and impact
On any given day, the group has significant quantities of high value precious metals or highly regulated substances on site and in transit; loss or theft due to a failure of the security management systems associated with the protection of metal or highly regulated substances may result in performance impact, reduced customer confidence and potential legal action.

Mitigation
- Security management systems and site security systems.
- Assay and other process controls.
- Security awareness campaigns and training.
- Audits of site security systems.
- Stock takes to check inventories.
- Use of approved carriers for transit.
- Insurance coverage for losses from theft or fraud.
- Liaison with local law enforcement for high risk sites.

Changes since 2016 annual report
Unchanged from 2016 although we have amended the title to reflect the specific risks.
→

Risk rating
Low

Intellectual Capital Management
8

Risk and impact
Failure to identify and protect the group's intellectual capital or failure to identify third party intellectual capital rights could lead to a loss in business advantage, loss of freedom to operate and reputational damage associated with litigation.

Mitigation
- Business intellectual capital strategy and new product introduction process.
- Portfolio management of intellectual capital.
- Monitoring of third party intellectual capital.
- Use of intellectual capital lawyers to provide specialist guidance.
- Training and awareness.

Changes since 2016 annual report
Decreased to reflect our increasingly effective mitigations.
↓

Risk rating
Medium

Failure of Significant Sites
9

Risk and impact
Potential risks include a disruptive event such as fire, flood or earthquake, a major incident at site level, such as an explosion, IT systems failure, cyber attack or other events such as geopolitical instability.

The consequences associated with this risk include the impact on our ability to manufacture goods and satisfy customer demands.

Mitigation
- Assessment of critical sites.
- Business continuity plans in place and annual programme of testing in place.
- Cyber awareness and monitoring.
- IT disaster recovery.
- Inventory management to provide critical spares and inventories.
- Use of external suppliers for key activities and services including generators and utilities.
- Insurance of sites.

Changes since 2016 annual report
No change
→

Risk rating
Medium

Ethics and Compliance

10

Risk and impact
Failure to comply with ethical and regulatory compliance standards leading to reputational damage, to civil or criminal legal exposure for the company or for individuals or to risk of contractual breach.

Mitigation
- Code of ethics in place supported by training and formal acknowledgement.
- Understanding of key ethics and compliance risks.
- Use of subject matter experts, internal and external, on legal compliance and risk mitigation matters.
- Group and local policies and procedures in place including full integration with business processes.
- Group control requirements such as supplier on-boarding, counterparty due diligence and payments approval.
- Independent confidential speak up hotline for employees, contractors and third parties.
- Oversight on contractual provisions and commercial arrangements by legal teams.
- Global network of ethics ambassadors.
- Emergency response procedures for events such as dawn raids.
- Investigation of incidents and allegations of misconduct.

Changes since 2016 annual report
This risk is reassessed on an ongoing basis in the light of the evolving regulatory and business background. There is significant mitigation in place but the risk rating remains unchanged this year as we embed upgraded third party intermediary processes.

→

Risk rating
■ High

Business Transition

11

Risk and impact
To position the group for future growth and maximise available efficiencies, we are evolving the way we run our business. Historically we have operated as a decentralised organisation but to drive efficiency we are in the process of standardising some activities across the group, directed by strong functional leaders in order to ensure best practice is used and maintained across the group. The risk is that we fail to achieve the benefits of these efficiencies, lose our business agility and / or fail to maintain a very high level of customer responsiveness.

Mitigation
- Communication and employee engagement plans are in place for all programmes with support from the GMC as appropriate.
- Change management processes.
- Programme management and governance activities with KPIs and red, amber, green (RAG) review reports.
- Capital allocation decision making process.

Changes since 2016 annual report
Risk reflects our business transition that will position the group for future growth. The risk rating remains unchanged from the business transition risk rating last year.

→

Risk rating
■ Medium

Product Quality

12

Risk and impact
Our products are used in a wide range of applications, processes and systems. The safety and quality of these products is crucial to ensuring that they operate as intended.

We may be exposed to liability claims should a product fail to perform as expected. This could lead to loss of future business and reputational damage.

Mitigation
- Quality management systems in place supported by accreditation and audit.
- Robust manufacturing processes.
- Monitoring and reporting of quality performance, taking corrective action where required.
- Robust contract terms and conditions.

Changes since 2016 annual report
We considered whether quality management should be a principal risk in 2016. At that time we concluded that while important, it was not significant enough to be considered as a principal risk as the impact and likelihood varied by sector according to the product produced, customer and contractual risk. With our continued emphasis on quality and brand we have elevated this risk to ensure greater board visibility.

New risk

Risk rating
■ Medium

1. Building a Sustainable Business

Key Performance Indicators

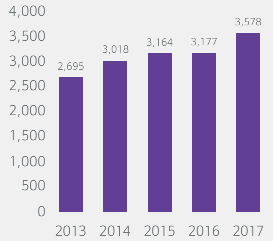
Johnson Matthey's Key Performance Indicators (KPIs) monitor the group's long and short term performance against its strategy.

The KPIs track current business performance against a range of measures. These cover our financial performance, investment in facilities and in R&D. They also measure the carbon footprint of our operations and our progress in driving continuous improvement in the safety, wellbeing and retention of our employees.

The KPIs, together with the group's performance against them in 2016/17, are described below:

Sales Excluding Precious Metals

£ million



Monitoring sales is a measure of the growth of the business. In many cases, variations in the value of the precious metals contained within our products are passed directly on to our customers, therefore to measure the growth of the group, we use sales excluding the value of precious metals.

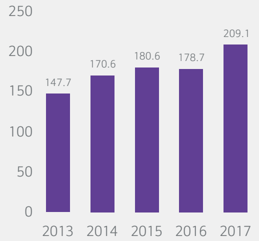
Performance in 2016/17

In 2016/17, sales excluding precious metals increased by 13% to £3.6 billion including a translational foreign exchange benefit of £351 million. Excluding this, continuing business grew 3%, with growth in Emission Control Technologies, Precious Metal Products and New Businesses offset by a decline in Fine Chemicals.

> Read more on pages 26 to 46.

Underlying Earnings per Share

pence



Underlying earnings per share is the principal measure used to assess the overall profitability of the group. The following items are excluded from underlying earnings as they do not allow for a consistent comparison of performance between financial years:

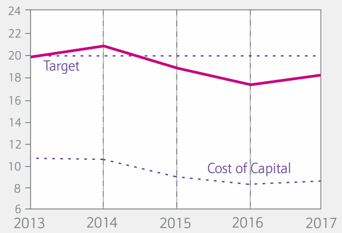
- Amortisation and impairment of intangible assets arising on acquisition of businesses (acquired intangibles)
- Major impairment or restructuring charges
- Profit or loss on disposal of businesses
- Tax on the above and major tax items arising from changes in legislation

Performance in 2016/17

This year, underlying earnings per share increased by 17% to 209.1 pence as the group's underlying operating profit benefited from translational foreign exchange of £69 million. Further details are provided on pages 26 to 46 and a reconciliation from earnings per share is given in note 11 on page 138.

Return on Invested Capital (ROIC)

%



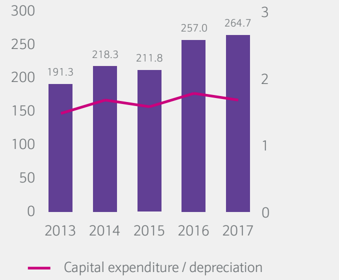
Johnson Matthey is a capital intensive business and value for shareholders is generated through the efficient use of these assets. ROIC is defined as underlying operating profit divided by the monthly average capital employed, defined as equity plus net debt. ROIC for individual divisions is calculated using average monthly segmental net assets as the denominator.

Performance in 2016/17

The group's ROIC increased from 17.3% to 18.2%, as a result of higher underlying operating profit and higher average capital employed primarily due to the impact of foreign exchange translation. Further details are provided on page 46.

Capital Expenditure

£ million | times



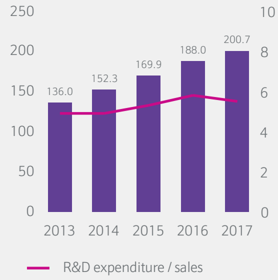
To enable future growth Johnson Matthey invests significant amounts in maintaining and improving existing plants and, where necessary, adding new facilities to increase capacity. Capital expenditure is subject to detailed review to ensure it meets internal hurdle rates. Annual capital expenditure is measured as the cost of property, plant and equipment and intangible assets purchased during the year. We believe that the appropriate ratio of capital expenditure to depreciation to support future growth is in the range of 1.6 to 2.0.

Performance in 2016/17

In 2016/17 the group's capital expenditure was £264.7 million which represented 1.7 times depreciation (2015/16 1.8). Further details are provided on page 46.

Gross Research and Development Expenditure

£ million | %



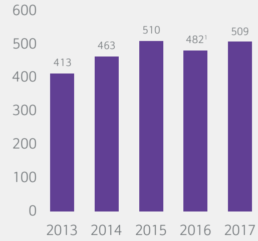
Johnson Matthey's strategy is to deliver sustainable growth using our existing market leading technologies and through developing the next generation of technologies to meet the global challenges and opportunities from clean air, improved health and efficient use of natural resources. To maintain our competitive position and enable future growth, we invest in research and development.

Performance in 2016/17

The group increased its research and development expenditure this year by 7% to £200.7 million. Further details of the group's research and development activities are described throughout the Strategic Report and on our website.

Carbon Footprint

thousand tonnes CO_2 equivalent



We measure our progress towards reducing the carbon footprint of our operations and improving our energy efficiency by looking at the group's total global warming potential (GWP). Total GWP is based on our direct and indirect energy usage and CO_2 equivalence which provide a strong platform for monitoring the impacts associated with energy use in our operations. In the future we will broaden the scope of our GWP measurement to include all aspects of our business and to consider the beneficial impacts of our products and services.

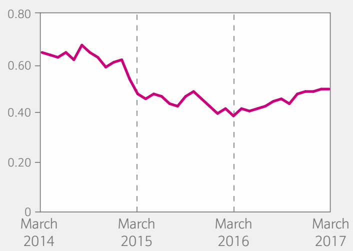
Performance in 2016/17

This year the group's GWP increased 4% from 482,000[1] to 509,000 tonnes CO_2 equivalent. Further information on the group's GWP is given in our environmental impact section on pages 66 to 69.

[1] Restated, see page 66.

Safety – Lost Time Injury and Illness Rate (LTIIR)

per 200,000 working hours in a rolling year



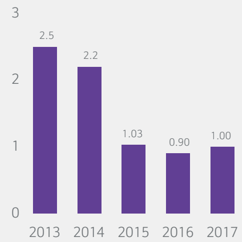
Johnson Matthey is a manufacturing business and a significant proportion of our employees work in production environments with chemicals and process machinery. Rigorous safety systems apply across all facilities and are essential if the group is to avoid accidents which could cause injury to people or damage to our property, both of which can impact the group's performance. We actively manage our safety performance through monitoring the incidence and causes of accidents that result in lost time.

Performance in 2016/17

The group's LTIIR increased this year to 0.49 after two years of improved performance. New measures have been put in place to help reverse this year's trend. Further details of our safety improvement programmes are provided in the health and safety section on pages 60 to 65.

Health Management – Annual Incidence of Occupational Illness

cases per 1,000 employees



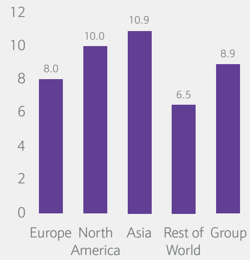
The health and wellbeing of our employees is a priority for Johnson Matthey and we are working hard to minimise workplace related negative health effects. We manage our performance in this area by measuring the number of occupational illness cases arising as a result of exposure to workplace health hazards.

Performance in 2016/17

The annual incidence of occupational illness cases increased this year to 1.00 per 1,000. Our overall number of occupational illnesses remains very low and we expect to see some annual fluctuations as these are subject to statistical variation. Further details are provided in the health and safety section on pages 60 to 65.

Voluntary Employee Turnover

%



The success of Johnson Matthey is partly dependent upon our ability to attract and retain talented employees. This means that being an attractive employer is a prerequisite in a competitive environment. We monitor our success in retaining our staff using voluntary employee turnover statistics.

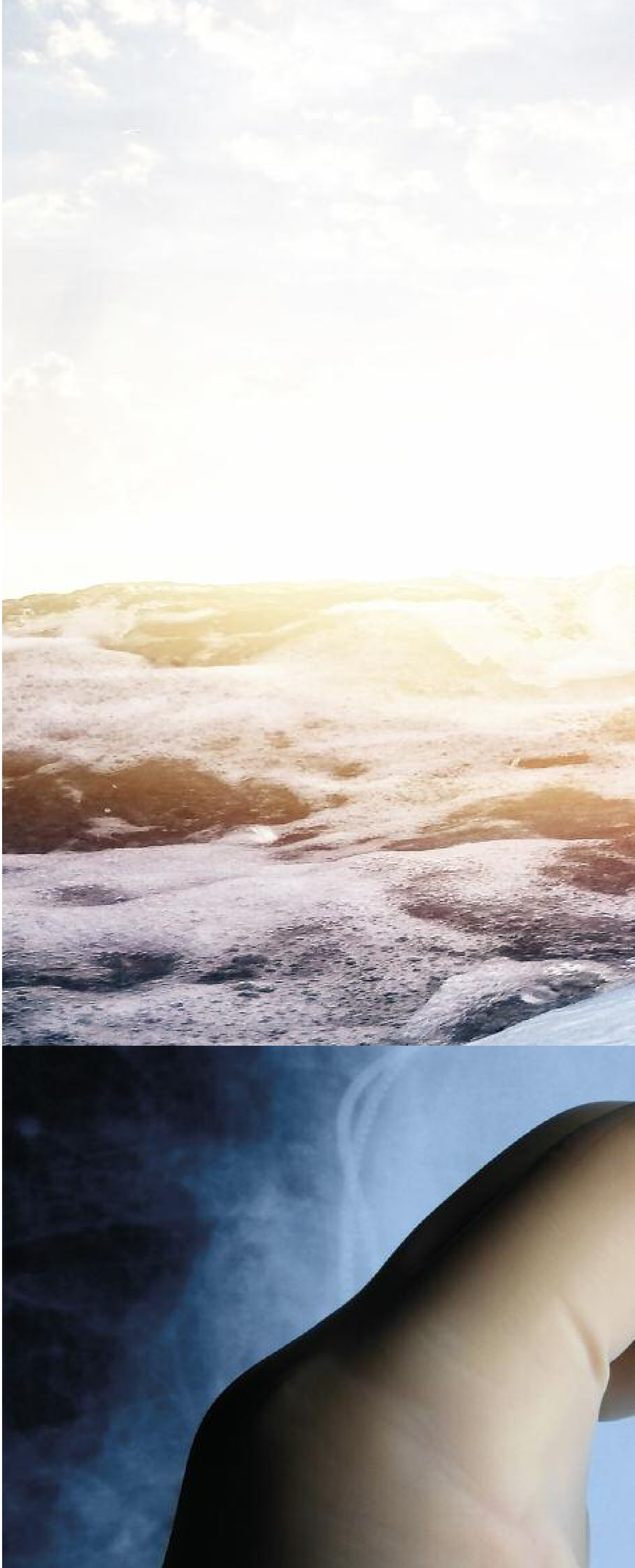
Performance in 2016/17

In 2016/17, the group's voluntary employee turnover increased to 8.9% from 6.9% in 2015/16, but remains low relative to industry baselines. Further details of our programmes to attract, retain and develop our people are provided in the people section on pages 54 to 59.

2. Financial Performance

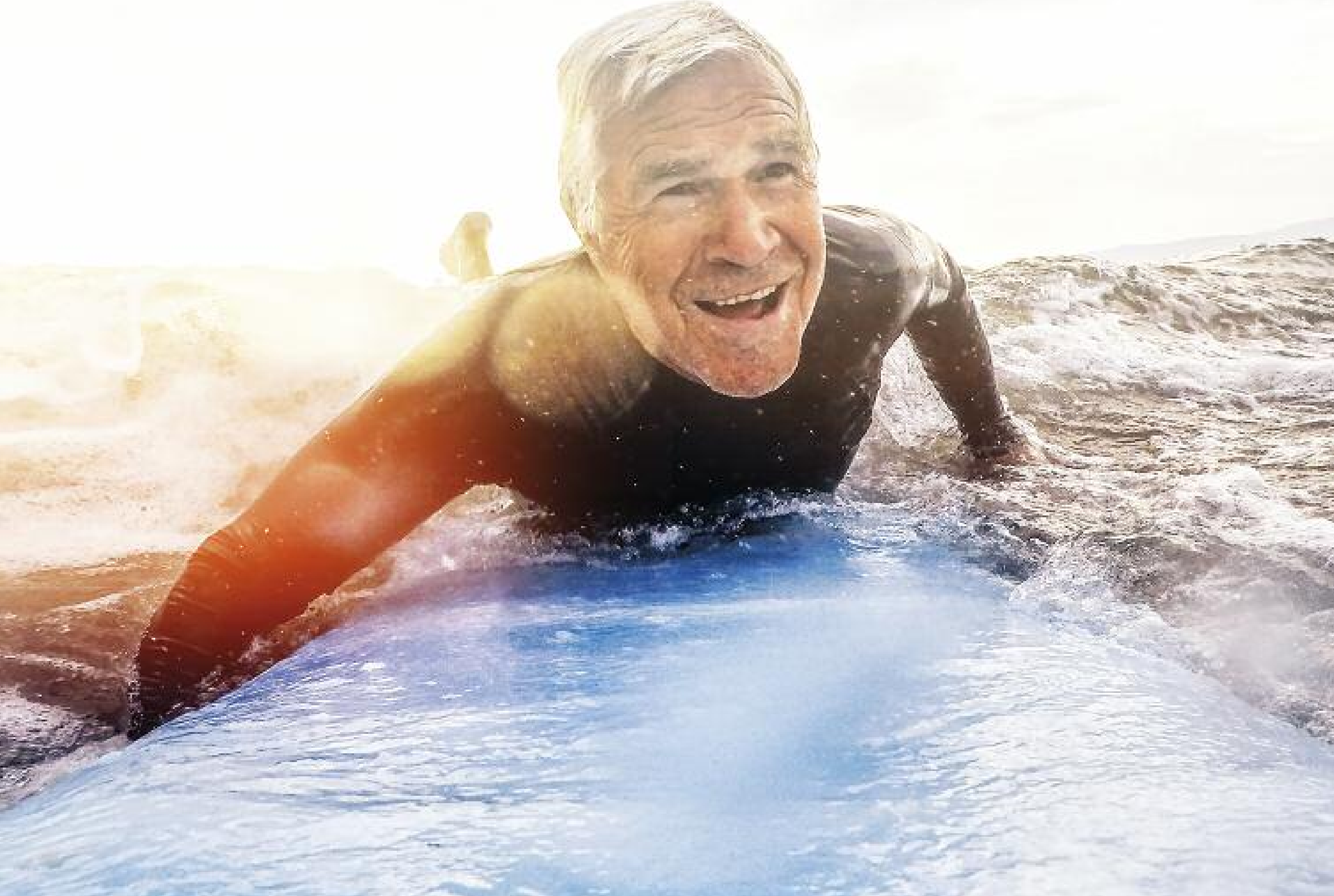
Financial performance of the Johnson Matthey group and its five operating divisions.

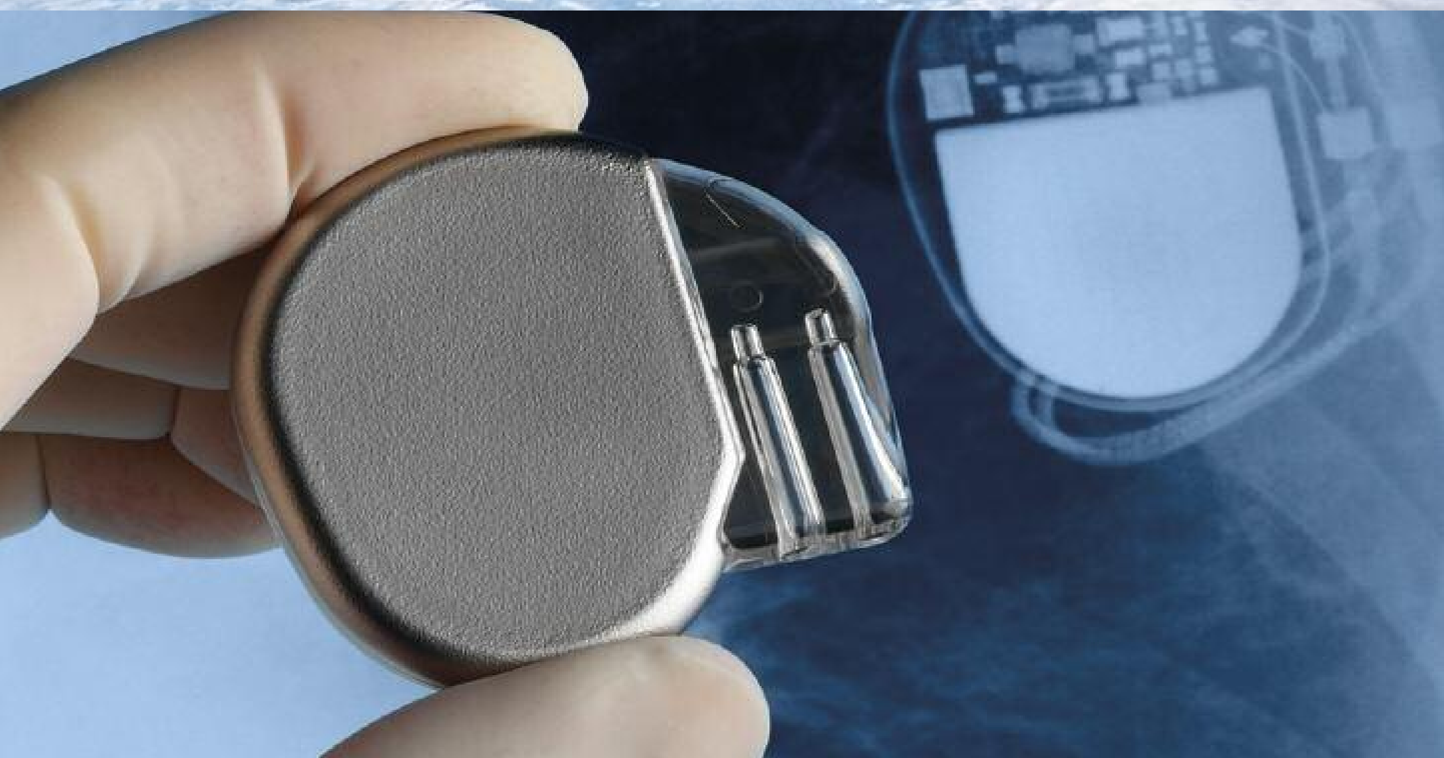
How we created value for shareholders in 2016/17 and how we are organising for future growth.



Contents

Financial Performance





Group Performance Review

Johnson Matthey delivered improving performance with a stronger second half in 2016/17.

		Year to 31st March 2017	2016	% change	% change, continuing businesses[2] at constant rates[3]
Revenue	£ million	**12,031**	10,714	+12	
Operating profit	£ million	**493.2**	418.9	+18	
Profit before tax (PBT)	£ million	**461.6**	386.3	+19	
Earnings per share (EPS)	pence	**201.2**	166.2	+21	
Underlying[1] performance:					
Sales excluding precious metals (sales)	£ million	**3,578**	3,177	+13	+3
Operating profit	£ million	**513.3**	450.8	+14	–
Profit before tax	£ million	**481.7**	418.2	+15	+1
Earnings per share	pence	**209.1**	178.7	+17	

1 Underlying is before amortisation of acquired intangibles, major impairment and restructuring charges, profit or loss on disposal of businesses, significant tax rate changes and, where relevant, related tax effects.

2 Growth for continuing businesses excludes the contribution of the Research Chemicals business in 2015/16.

3 Growth at constant rates excludes the translation impact of foreign exchange movements, with 2015/16 results converted at average exchange rates for 2016/17.

4 For definitions of other non-GAAP measures see glossary on page 190. For reconciliations of other non-GAAP measures see page 173.

Performance Highlights:

- Revenue up 12% to £12,031 million and operating profit up 18% to £493.2 million including translational foreign exchange benefit of £721 million and £69 million respectively
- At constant rates[3], sales for continuing businesses[2] grew 3% with underlying[1] PBT up 1%
- In H2, at constant rates, sales for continuing businesses grew 6% and underlying operating profit grew 4%
- As a result of the restructuring programme announced in 2015/16, costs were reduced by £26 million, primarily in Process Technologies and Fuel Cells
- EPS up 21% at 201.2 pence and underlying EPS up 17% at 209.1 pence
- Cash flow from operating activities of £523 million and free cash flow[4] of £230 million. Working capital days[5] reduced from 56 to 54 days
- Capital expenditure and R&D spend to drive future growth: capital expenditure was £265 million, 1.7 times depreciation[4], with gross R&D £201[6] million, 5.6% of sales
- Return on invested capital (ROIC)[4] increased to 18.2% from 17.3%
- Strong balance sheet with net debt to EBITDA[4] of 1.1 times (2015/16: 1.2 times)
- Recommended final dividend per share of 54.5 pence, up 5% reflecting confidence in group's medium term prospects. Full year dividend per share 75.0 pence

Underlying Operating Profit	Year ended 31st March **2017** **£ million**	2016 £ million	% change	% change, continuing businesses[2] at constant rates
Emission Control Technologies	**318.2**	272.2	+17	+2
Process Technologies	**90.4**	73.6	+23	+9
Precious Metal Products	**86.4**	66.3	+30	+17
Fine Chemicals	**64.5**	82.3	-22	-23
New Businesses	**(14.4)**	(17.9)	+20	+12
Corporate	**(31.8)**	(25.7)	-24	-24
Underlying operating profit	**513.3**	450.8	+14	–

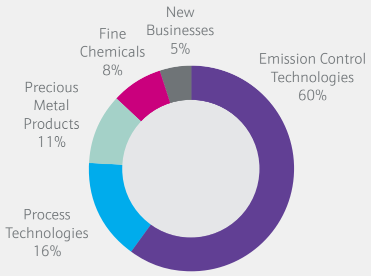
Performance in 2016/17

Johnson Matthey had a year of further progress: strengthening our business, implementing our strategy and delivering financial results in line with our expectations. Across each of our businesses we are applying our world class science and technology strengths to help customers solve problems, enabling Johnson Matthey to contribute to a cleaner, healthier world.

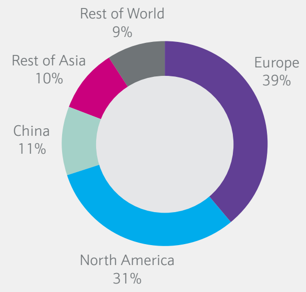
Underlying sales growth has come from the application of our leading technologies. We have invested over £440 million in capex and R&D combined, underpinning our commitment to science in the UK and internationally. In Emission Control Technologies (ECT) in Europe, our technology strengths delivered strong sales growth by providing customer focused solutions to meet increasing emissions standards. We have broadened our platforms, especially in our pipeline of new active pharmaceutical ingredients and in high energy battery materials. Our cost saving programme has increased efficiency, primarily in Process Technologies and Fuel Cells, and we have improved our agility and are capturing greater synergy across the divisions. Cash generation has improved through our disciplined management of working capital.

The performance of our five divisions is explained in more detail in the Financial Review of Operations section on pages 28 to 43.

Sales by Division

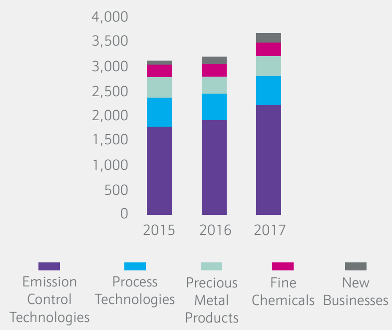


Sales by Destination



Divisional Sales

£ million



[5] Working capital days are calculated as non-precious metal related inventories, trade and other receivables and trade and other payables (including any classified as held for sale) divided by sales excluding precious metals for the last three months multiplied by 90 days.

[6] Gross R&D includes capitalised development of £19 million which is also included in capital expenditure.

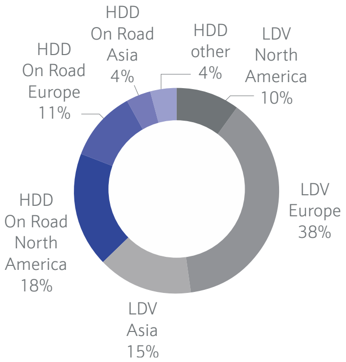
2. Financial Performance

Financial Review of Operations

Divisional Performance Summary

Emission Control Technologies

Sales[1] by business



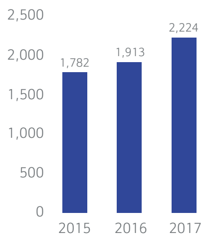
Heavy Duty Diesel (HDD) Catalysts **37%**

Light Duty Vehicles (LDV) Catalysts **63%**

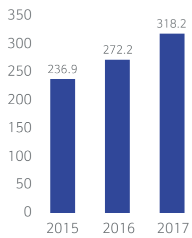
- **Light Duty Vehicle Catalysts** – a world leading manufacturer of catalysts for cars and other light duty vehicles powered by all types of fuel
- **Heavy Duty Diesel (On Road) Catalysts** – catalyst systems for diesel powered trucks and buses
- **Heavy Duty Diesel (Other) Catalysts** – catalyst systems for stationary equipment and non-road machinery

- Return on sales **14.3%**
- Return on invested capital **30.7%**
- Employees **4,948**

Sales[1]
£ million

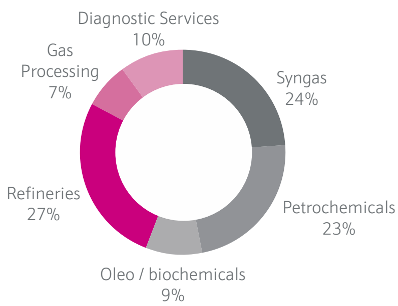


Operating Profit
£ million



Process Technologies

Sales[1] by business



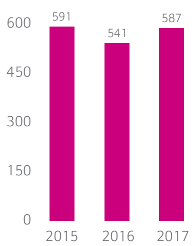
Oil and Gas **44%**

Chemicals **56%**

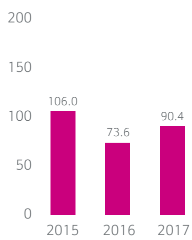
- **Chemicals** – manufactures speciality catalysts, licenses process technology and delivers services to the chemical industry
- **Oil and Gas** – manufactures catalysts, additives and absorbents and delivers services to the oil and gas industry

- Return on sales **15.4%**
- Return on invested capital **11.4%**
- Employees **2,068**

Sales[1]
£ million

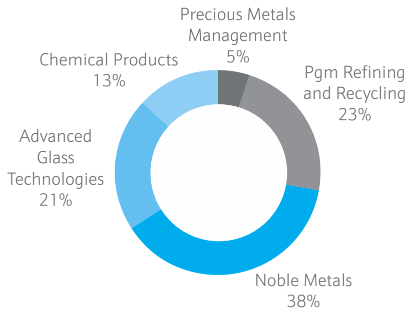


Operating Profit
£ million



Precious Metal Products

Sales[1] by business



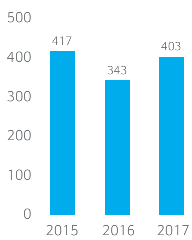
Manufacturing **72%**

Services **28%**

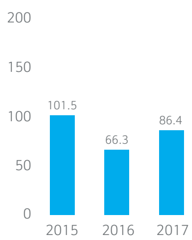
- **Services** – marketing, distribution, refining and recycling of platinum group metals (pgms)
- **Manufacturing** – fabricates products using precious metals and related materials and manufactures pgm chemicals

- Return on sales **21.4%**
- Return on invested capital **19.8%**
- Employees **2,137**

Sales[1]
£ million



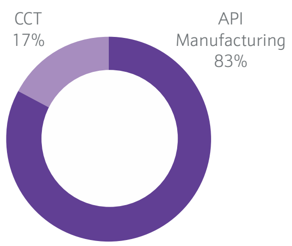
Operating Profit
£ million



[1] Sales excluding precious metals.

Fine Chemicals

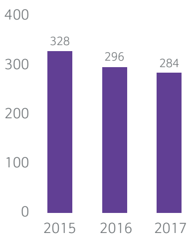
Sales[1] by business



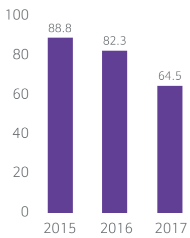
- **API Manufacturing** – a global supplier of active pharmaceutical ingredients and intermediate products
- **Catalysis and Chiral Technologies (CCT)** – supplies a range of speciality chemical, chiral and biocatalytic technologies

- Return on sales **22.8%**
- Return on invested capital **12.3%**
- Employees **1,292**

Sales[1]
£ million

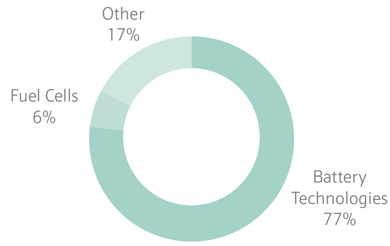


Operating Profit
£ million



New Businesses

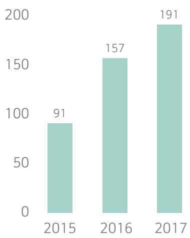
Sales[1] by business



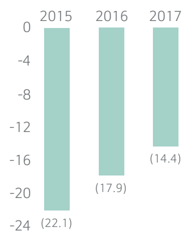
- **Battery Technologies** – focused on the research, development, design and manufacture of battery materials and integrated battery systems
- **Fuel Cells** – develops and manufactures catalysed components for fuel cells
- Investment in other new opportunities including atmosphere control technologies and water purification

- Employees **1,125**

Sales[1]
£ million



Operating Loss
£ million



- **Emission Control Technologies**

£318.2 million
Operating profit

- **Process Technologies**

£90.4 million
Operating profit

- **Precious Metal Products**

£86.4 million
Operating profit

- **Fine Chemicals**

£64.5 million
Operating profit

- **New Businesses**

£14.4 million
Operating loss

Group Structure

On 20th April 2017, Johnson Matthey announced a new group structure, effective 1st April 2017. The group has moved to managing and reporting as four sectors aligned on the global priorities of clean air, the efficient use of natural resources and improved health. The four sectors are Clean Air, Efficient Natural Resources, Health and New Markets.

2. Financial Performance

Emission Control Technologies

Divisional Summary

Business	Light Duty Vehicle Catalysts	Heavy Duty Diesel Catalysts
What We Do	Manufacture catalysts which control harmful emissions from cars and other light duty vehicles powered by all types of fuel	Manufacture catalysts which control harmful emissions from diesel powered trucks, buses and non-road machinery
How We Add Value	Develop high technology catalyst formulations and systems to meet legislated limits for emissions around the world	
Societal Benefits	• Improved air quality and fuel efficiency • Respiratory health benefits	
Global Drivers	Environmental Factors Climate Change Regulation Population Growth Urbanisation Increasing Wealth Health and Nutrition Ageing Population	
Customer Profile	• Car companies • Global customer base	• Heavy duty truck and engine manufacturers • Local Chinese producers • Global customer base
Major Competitors	• BASF • Umicore • Cataler	• BASF • Umicore • Haldor Topsøe
Employees	4,948	
Locations	• 13 manufacturing facilities in 12 countries • Nine technical centres in eight countries	
2016/17 Sales	£1,400 million	£824 million

Strategy

– **Maintain differentiation through technology by investing in R&D**

– **A deep understanding of markets and customers**

– **Operational excellence and sustainability**

– **Deliver superior growth**

The division is focused on maintaining differentiation through technology by investing in R&D. This investment is vital to ensure Emission Control Technologies can continue to develop high performance leading edge catalysts for its customers.

A deep understanding of markets and customers enables the division to provide the right solutions for its customers in evolving markets driven by tightening legislation. Strong relationships and a good understanding of customers' needs are crucial to the division's success.

The division is focused on operational excellence and sustainability to optimise raw materials and plant efficiency. This enables it to produce the best quality products at minimum operating cost whilst ensuring the highest standards of environmental, health and safety performance.

The division aims to deliver superior growth. It targets markets that are driven by global trends, such as environmental regulation and increasing wealth, applying its expertise in leading edge catalysis to generate growth at rates ahead of industry baselines.

Performance in 2016/17

	Year to 31st March 2017 £ million	2016 £ million	% change	% change, constant rates
Sales excluding precious metals (sales)	**2,224**	1,913	+16	+4
Underlying operating profit	**318.2**	272.2	+17	+2
Return on sales	**14.3%**	14.2%		
Return on invested capital (ROIC)	**30.7%**	28.3%		

Sales outperformed vehicle production in almost every market despite a year of limited changes in legislation

- Very strong growth in our European Light Duty Vehicle Catalyst business driven by sales of higher value catalysts across diesel and gasoline, and share gains in diesel catalysts
- In our Heavy Duty Diesel Catalyst business, sales outperformed in every region, driven by new business wins in North America and Asia, and sales of higher value catalysts in Europe
- The global focus on clean air will drive growth for our business over the medium to long term as tighter emissions legislation continues to be introduced, particularly in Europe and Asia.

Light Duty Vehicle (LDV) Catalysts

Our LDV Catalyst business provides catalysts for cars and other light duty vehicles powered by both gasoline and diesel. The business delivered a good performance in which it outperformed the growth in global vehicle production.

Our European LDV Catalyst business performed strongly and sales grew 13%, well ahead of the 4% growth in vehicle production.

Sales of catalysts for diesel powered vehicles, which account for approximately 80% of our European LDV catalyst sales, grew strongly in the year. This was in part driven by the full year effect of the sales of higher value catalysts to meet Euro 6b, which applied to all car production from September 2015 and which imposed tighter emissions standards on oxides of nitrogen (NOx) from diesel vehicles.

However, sales growth, and Johnson Matthey's outperformance, was primarily due to new business for higher value products. This is the result of our strength in the technology required to meet Euro 6b and the tougher real world driving emission standards (RDE). While RDE will not be applicable to new models of cars until September 2017, with the increased public focus and scrutiny on emissions, we have seen our customers increasingly shift towards more advanced NOx control systems for diesel vehicles. As a result, there was increased demand for our advanced selective catalytic reduction (SCR) catalysts which have a higher value. The move to advanced SCR catalysts will benefit sales in 2017/18 and through the medium term.

Sales of catalysts for gasoline powered vehicles showed good growth on the back of a shift in mix to some larger engine platforms for luxury vehicles and increased demand from some of our customers as a result of sales growth of their vehicles.

While in the year, diesel vehicles as a proportion of total vehicles produced in Western Europe declined only one percentage point to 51%, we expect the decline in diesel's share in Western Europe to accelerate over time, with demand for smaller diesel cars initially being most impacted.

Estimated Light Duty Vehicle Sales and Production

		Year to 31st March 2017 millions	2016 millions	% change
North America	Sales	**21.1**	20.9	+1
	Production	**18.0**	17.6	+2
Total Europe	Sales	**20.2**	19.3	+5
	Production	**21.8**	21.0	+4
Asia	Sales	**43.8**	39.9	+10
	Production	**49.3**	45.6	+8
Global	Sales	**93.9**	89.1	+5
	Production	**94.4**	89.0	+6

Source: LMC Automotive.

Johnson Matthey's Light Duty Vehicle Catalyst Sales by Region

	2017 £ million	2016 £ million	% change	% change, constant rates
Europe	**847**	698	+21	+13
Asia	**339**	282	+20	+6
North America	**214**	202	+6	-8
Total	**1,400**	1,182	+18	+7

2. Financial Performance

However, diesel engines continue to offer greater fuel efficiency and lower CO_2 emissions compared to their gasoline counterparts, particularly for larger vehicles. They enable car manufacturers to meet the significant reduction in fleet average CO_2 limits which will apply in 2020 and therefore, we expect diesel to remain an important powertrain technology. Consequently, with the tighter RDE legislation and the business wins Johnson Matthey has already secured, we expect to see continued strong sales growth in our European LDV diesel catalyst business over the short to medium term.

We are also well positioned in our technology for catalysts for gasoline engines and will benefit from growth in gasoline vehicle production and tighter legislation. Euro 6c legislation, which requires a reduction in particulate emissions from gasoline vehicles, will apply to new models from September 2017 and to all production from September 2018. Certain gasoline cars, such as those with direct injection, are expected to require additional advanced coated particulate filter catalysts to meet the new standard and we estimate this will initially apply to up to a quarter of gasoline cars sold in the European Union. The addition of a coated particulate filter catalyst will significantly increase our average sales value per vehicle for these cars. During the year, we secured contracts with customers to supply Euro 6c platforms and these will begin to phase in from September 2017.

In order to provide sufficient capacity to satisfy anticipated requirements for tighter European emissions legislation in the medium term, and also to enhance our global efficiency and operating flexibility, we plan to invest approximately £90 million in the construction of a new manufacturing plant in Poland. This plant will commence production in summer 2019.

In Asia, our LDV Catalyst business performed well with sales up 6%. In China, while our volumes outperformed the strong 14% growth in Chinese vehicle production, our sales growth was lower. This was due to a change in customer mix as we increased the number of platforms supplied to local car manufacturers but reduced sales to global car manufacturers. Although this change in mix negatively impacted sales, margins were maintained as the associated manufacturing costs were also lower. We continued to work with customers ahead of the introduction of China 6 legislation from 2020 and completed the expansion of our research and development facilities there. Our businesses in Japan and South East Asia grew slightly ahead of flat markets.

Sales in our North American LDV Catalyst business declined 8%, underperforming vehicle production which was up 2% in the year. This was expected as a number of sales agreements came to an end. However, sales in the second half benefited from new platform wins, which will drive sales growth next year.

Heavy Duty Diesel (HDD) Catalysts – On Road

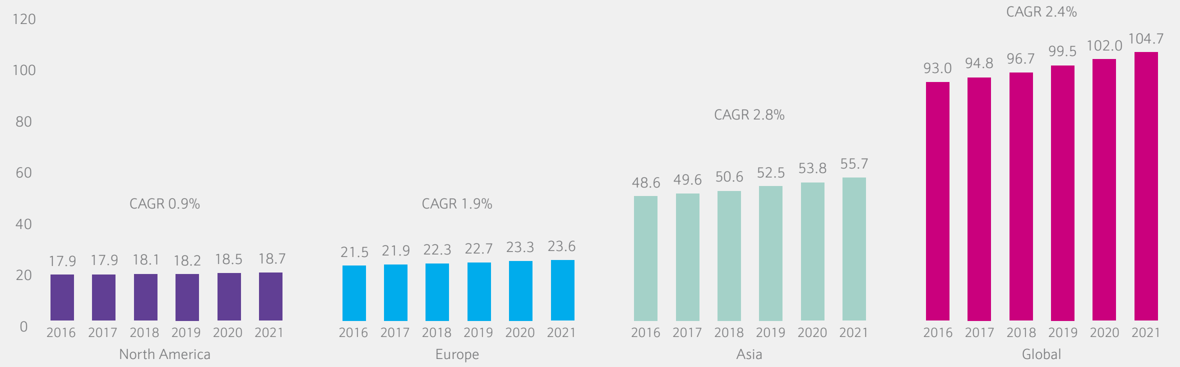
Our on road HDD Catalyst business, which provides catalysts for trucks and buses, outperformed truck production across all regions.

Our US HDD Catalyst business outperformed a weak US market, where total truck production was down 18%, driven by a 30% decline in production of the larger Class 8 trucks. Our sales declined by 15% as we benefited from the launch of a new Class 8 platform and strong demand for catalysts for smaller trucks. We expect Class 8 truck production to stabilise in the first half of 2017/18 given our improving order book.

Sales in our European HDD Catalyst business were up 15%, supported by 7% growth in truck production and positive mix as an increasing proportion of our sales related to higher value products, both coated and extruded.

Our HDD Catalyst business in Asia grew very strongly from a low base. Truck production in China was up 47% following enforcement of truck loading limits from September 2016. Johnson Matthey's strong reputation for working with customers in a rapidly changing legislative environment resulted in new business with local truck manufacturers. Our sales to China more than doubled. We expanded capacity in the year ahead of the move from nationwide China IV legislation to China VI in 2020.

Light Duty Vehicle Production Outlook (Calendar Years)
million



Source: LMC Automotive (April 2017)

Heavy Duty Diesel Catalysts – Other

Sales of catalysts for non-road and stationary applications fell slightly, mainly due to continued lower demand from the agricultural sector.

Operating Profit

Underlying operating profit was up 2%, and return on sales at constant rates declined only slightly in spite of higher initial manufacturing costs associated with producing more advanced catalyst systems. Return on sales is expected to be broadly maintained in the year ending 31st March 2018 as we balance continued investment in China with improvements in the manufacturing efficiency of our advanced catalyst systems.

Return on Invested Capital

ROIC improved to 30.7% from 28.3% driven primarily by the benefit of translational foreign exchange.

Estimated HDD Truck Sales and Production

		Year to 31st March 2017 thousands	2016 thousands	% change
North America	Sales	**478**	550	-13
	Production	**456**	558	-18
EU	Sales	**445**	413	+8
	Production	**569**	534	+7

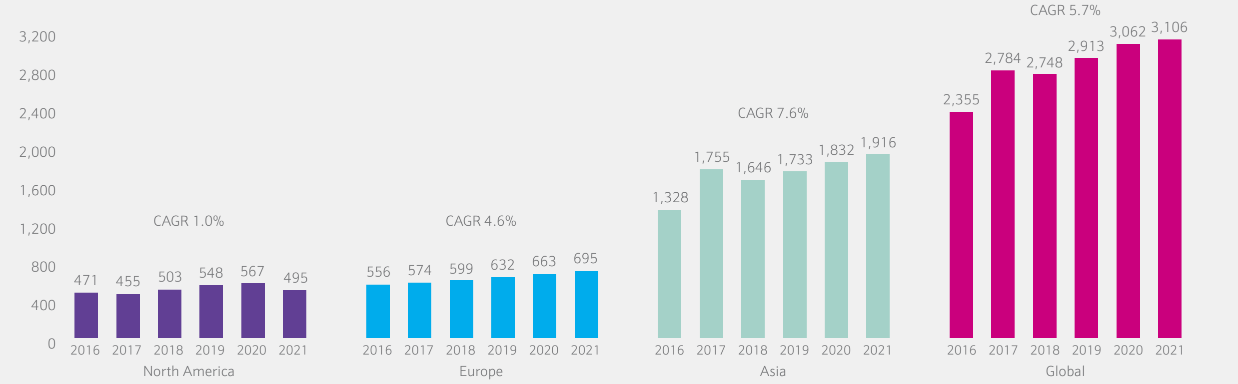
Source: LMC Automotive

Johnson Matthey's Heavy Duty Diesel Catalyst Sales by Region

	2017 £ million	2016 £ million	% change	% change, constant rates
North America	**397**	405	-2	-15
Europe	**249**	196	+27	+15
Asia	**85**	44	+95	+64
Other – non-road and stationary	**93**	86	+8	-3
Total	**824**	731	+13	-1

Heavy Duty Diesel Vehicle (Regulated Engines) Production Outlook (Calendar Years)

thousands



Source: LMC Automotive (April 2017)

Process Technologies

Divisional Summary

	Chemicals Markets			Oil and Gas markets		
Business	**Syngas**	**Oleo / Biochemicals**	**Petrochemicals**	**Refineries**	**Gas Processing**	**Diagnostic Services**
What We Do	Manufacture catalysts, license process technology and deliver services to the chemical industry			Manufacture catalysts, additives and absorbents and deliver services to the oil and gas industry		
How We Add Value	Innovate and develop products, process technologies and services to enable customers to operate their processes at optimum efficiency and with reduced environmental impact					
Societal Benefits	• More efficient use of natural resources • Lower energy use • Biorenewables / low carbon technology			• Improved fuel quality • More efficient use of natural resources • Lower energy use • Improved environmental performance of refineries	• Removal of harmful impurities from gas • Improved environmental performance for our customers	• Improved asset performance and integrity
Global Drivers	**Natural Resource Constraints** **Increasing Electrification**		**Environmental Factors** **Climate Change** **Regulation**	**Population Growth** **Urbanisation** **Increasing Wealth**		**Health and Nutrition** **Ageing Population**
Customer Profile	• Chemical companies • Engineering contractors			• Refineries • Industrial gas companies	• Gas producers	• Oil and gas companies
Major Competitors	• Haldor Topsøe • Clariant • BASF • Lurgi			• Clariant • Albemarle • Grace • UOP		
Employees	2, 068					
Locations	• Nine manufacturing facilities in six countries • Ten technical centres in four countries • Sales offices in key markets					
2016/17 Sales	£141 million	£53 million	£133 million	£161 million	£41 million	£58 million

Strategy

– **Maintain leading positions in catalysts and process technologies for chemicals and oil and gas markets**

– **Deliver growth in current sectors and through entry into new markets**

– **Expand capabilities**

– **Achieve margin improvement by operational excellence**

The division is focused on maintaining leading positions in catalysts and process technologies for chemicals and oil and gas markets and on continued development of high performance products and services for its customers.

Through combining its expertise in catalysts and process technology to create value and new opportunities, the division aims to deliver superior growth in current and new markets. Exploiting existing technology advantages and developing process technology to complement our catalysts will enable the division to access larger markets within the target sectors of oil and gas and chemicals. The division also aims to enter new sectors, both by leveraging existing capabilities and by targeted acquisition. It will also invest in its people, manufacturing and technology to capitalise on opportunities in its markets.

The division aims to expand capabilities through focused research and development, external partnerships and targeted acquisitions in order to provide value adding solutions for its customers.

Process Technologies has a broad asset base, closely aligned to market needs. The division will deliver improved margins by rigorous application of manufacturing excellence and lean tools.

Performance in 2016/17

	Year to 31st March 2017 £ million	2016 £ million	% change	% change, constant rates
Sales excluding precious metals (sales)	**587**	541	+8	–
Underlying operating profit	**90.4**	73.6	+23	+9
Return on sales	**15.4%**	13.6%		
Return on invested capital (ROIC)	**11.4%**	9.6%		

A good second half performance as the business maintained its strong position in a challenging market

- With fewer new chemical plants constructed in the year, licence income in our Chemicals businesses was lower impacting sales and profitability
- New business gains benefited catalysts sales with a good second half
- Operating profit grew strongly, up 9%, benefiting from efficiency gains from last year's restructuring programme

Process Technologies sells licences, catalysts and services to help our customers operate their processes at optimum efficiency with reduced environmental impact.

Chemicals

Across all our Chemicals businesses (Syngas, Oleo/biochemicals and Petrochemicals), we supply licences to our customers. There is excess manufacturing capacity which has negatively impacted new plant construction and consequently demand from our customers for new licences remains depressed. In addition, we saw lower sales of equipment to customers for use in the construction of their formaldehyde plants. We addressed these market challenges through restructuring the organisation improving both profitability and our flexibility to respond to demand.

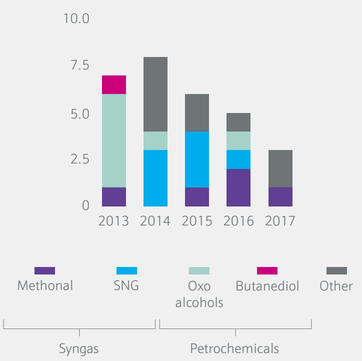
We also supply a portfolio of catalysts. In our Syngas business, these are primarily to customers who manufacture ammonia, formaldehyde and methanol. Sales of first fills of catalysts for new ammonia plants were down year on year as a result of excess ammonia manufacturing capacity. Methanol first fill catalyst sales benefited from the supply to an Iranian customer.

Ammonia and methanol catalyst replacements are typically every four to six years and those for formaldehyde are annual. Given there is excess manufacturing capacity for ammonia and methanol, our customers delayed the purchase of refill catalysts and sales of these catalysts were down year on year. Formaldehyde refill catalyst sales were up 9%. Sales of catalysts in our Oleo/biochemical business were steady.

The Petrochemicals business produces catalysts for a range of different processes. Since the summer of 2015 it has supplied speciality zeolites to ECT for use in its SCR catalyst technologies. Growth in ECT's demand for zeolites and the full year impact of this was the main driver of the year on year sales growth.

Across our Chemicals business, the second half showed stronger sales benefiting from the purchase of catalysts by our customers as they prepare for plant shutdowns in the summer.

Technology Licensing – Projects Awarded 2013-2017



Process Technologies – Chemicals Businesses' Sales

	2017 £ million	2016 £ million	% change	% change, constant rates
Syngas	**141**	158	-11	-17
Oleo/biochemicals	**53**	48	+9	-2
Petrochemicals	**133**	103	+30	+19
Total	**327**	309	+6	-3

2. Financial Performance

Process Technologies – Oil and Gas Businesses' Sales

	2017 £ million	2016 £ million	% change	% change, constant rates
Refineries	**161**	127	+27	+14
Gas Processing	**41**	42	-2	-5
Diagnostic Services	**58**	63	-8	-15
Total	**260**	232	+12	+3

Oil and Gas

Sales in our Refineries business, where we supply catalysts and additives, were up significantly as we outperformed a broadly flat market with sales growth of 14%. We won a large first fill by providing a customer specific solution based on our world class catalyst technology. In addition, we increased sales to an existing customer through our ability to respond quickly to an urgent order. In the increasingly competitive additives market, we developed new products and manufacturing processes and sales were up 1% in a flat market.

In Gas Processing, which supplies purification products used to remove mercury and sulphur impurities from natural gas, sales were down due to our introduction of more cost competitive products but this increased margins and profitability.

We have recently commenced a detailed strategic review to assess the alignment of our Diagnostic Services business with the rest of the group.

Operating Profit

Underlying operating profit was up by 9%. Lower income from licencing and Diagnostic Services impacted operating profit and return on sales but this was more than offset by the £18 million of cost savings from the restructuring programme announced last year.

We expect ongoing tough end markets for our catalyst customers and do not expect a significant recovery in investment in plant construction. We will continue to review our cost base and deliver supply chain and manufacturing efficiencies in the year ending 31st March 2018.

However, we expect licencing activity to remain subdued and this will negatively impact operating profit.

Return on Invested Capital

ROIC increased from 9.6% to 11.4% reflecting efficiency gains in the period and foreign exchange.

Precious Metal Products

Divisional Summary

	Services		Manufacturing		
Business	**Precious Metals Management**	**Refining**	**Noble Metals**	**Advanced Glass Technologies**	**Chemical Products**
What We Do	Global management and distribution of platinum group metals (pgms)	Refining and recycling of pgms from a wide range of inputs	Develop and fabricate a wide range of products from precious metals and other speciality materials	Develop and manufacture functional coatings and conductive inks	Manufacture pgm chemicals for a broad range of markets including automotive and chemical
How We Add Value	Ensure Johnson Matthey's operations have metal to meet their customers' orders	Ensure optimal recovery of pgms for external customers and Johnson Matthey's businesses	R&D to find new applications which use the unique properties of pgms and other materials	R&D in material technologies to provide high performance solutions	R&D to develop products that provide unique solutions for our customers
Societal Benefits	• Enable the production of pgm containing products that deliver environmental, health and social benefits	• More efficient use of natural resources	• Enhanced health and wellbeing • Greenhouse gas abatement	• Enhance lifestyle • Some environmental benefits	• Our customers' work underpins a broad range of environmental and other societal benefits
Global Drivers	**Natural Resource Constraints** **Increasing Electrification**	**Environmental Factors** **Climate Change** **Regulation**	**Population Growth** **Urbanisation** **Increasing Wealth**	**Health and Nutrition** **Ageing Population**	
Customer Profile	• Johnson Matthey's businesses and their customers • Other industrial pgm users	• End of life autocatalyst collectors • Industrial pgm users • Johnson Matthey's businesses and their customers • Miners	• Customers from a wide range of industries including medical, chemical and automotive	• Automotive glass manufacturers • Electronic component manufacturers	• Chemical / pharmaceutical manufacturers • Emission control catalyst manufacturers
Major Competitors	• BASF • Heraeus • Umicore • Bullion banks	• Heraeus • Umicore • BASF	• Heraeus • Umicore	• Ferro • DuPont • Heraeus	• Heraeus • Umicore
Employees	2,137				
Locations	• UK, US and Hong Kong	• UK, China and US	• Manufacturing sites in Europe, US and Australia; support centres in Asia	• Six manufacturing sites and three support centres in Europe, US and Asia	• Manufacturing sites and technical centres in Europe, US and Asia
2016/17 Sales	£19 million	£95 million	£152 million	£85 million	£52 million

2. Financial Performance

Strategy

- **Leverage our deep understanding of pgm chemistry, materials science and manufacturing**
- **Provide customer solutions through investment in R&D**
- **Offer first class services to our external and internal customers**
- **Deliver superior growth**

Through leveraging its deep understanding of pgm chemistry, materials science and manufacturing, Precious Metal Products can apply expertise to ensure it continues to develop leading edge products and manufacturing routes.

The division is focused on providing customer solutions through investment in R&D. Although it comprises a mix of newer and more mature businesses, constant innovation is key to enable the division to respond to customers' continued demand for new products.

Offering first class services to external and internal customers is an important element of the strategy. The division serves external customers and also provides vital services to other Johnson Matthey businesses, either through the provision of precious metals or through refining and recycling spent process or customer material. Investing in the business and focusing on the quality and scope of the services it offers is key to maintaining a competitive position.

The division aims to deliver superior growth by targeting higher technology areas where its expertise in adding value to precious metals and related materials can generate growth at rates ahead of industry baselines.

Performance in 2016/17

	Year to 31st March **2017** **£ million**	2016 £ million	% change	% change, constant rates
Sales excluding precious metals (sales)	**403**	343	+18	+6
Underlying operating profit	**86.4**	66.3	+30	+17
Return on sales	**21.4%**	19.4%		
Return on invested capital (ROIC)	**19.8%**	16.5%		

Stronger second half, reflecting higher pgm prices and actions taken to drive efficiency

- Pgm Refining and Recycling benefited from improving intakes and higher average pgm prices
- We have improved the operational efficiency of our refineries which benefited working capital
- Our Manufacturing businesses continued to grow steadily based on our strong market positions

Services

Sales in our Pgm Refining and Recycling business grew by 13% helped by improving intake volumes and higher average prices of platinum and palladium, which rose by 2% and 8% respectively over the year. These drivers particularly benefited the second half. The business also benefited from a focus on an improved mix of intakes and actions taken to improve the operational efficiency of our refineries.

In order to position us for future demand in China, we opened a new pgm recycling facility in Zhangjiagang in October 2016. The site is now processing small quantities of material consistent with a phased start up.

Sales in Precious Metals Management increased as the business benefited from volatility in pgm prices over the year.

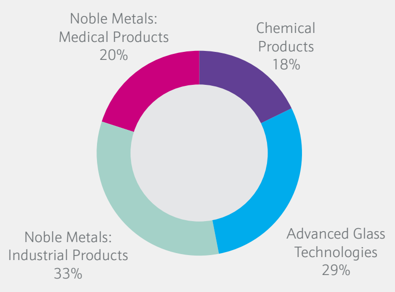
Precious Metal Products – Services Businesses' Sales

	2017 **£ million**	2016 £ million	% change	% change at constant rates
Pgm Refining and Recycling	**95**	77	+24	+13
Precious Metals Management	**19**	17	+12	+8
Total	**114**	94	+22	+13

Manufacturing

Sales across our Manufacturing businesses grew by 4% with good growth in Advanced Glass Technologies and Noble Metals.

Manufacturing Businesses' Sales



Sales growth in Noble Metals reflects slightly higher sales of medical device components and increased sales of pgm products for a range of industrial applications. Sales of pgm gauzes, used in the production of nitric acid, were slightly down in the year.

Sales growth in our Advanced Glass Technologies business was driven by higher automotive production, particularly in China, leading to increased demand for our black obscuration enamels used in car windscreens. Sales of other glass products for a range of functional and decorative applications were broadly steady.

Sales across Chemical Products were slightly up, helped by a small increase in sales of materials for autocatalysts to ECT.

Operating Profit

Underlying operating profit grew strongly in the year, up 17%. The first half benefited from the US post-retirement medical benefit credit. The second half was particularly strong, benefiting from sales growth across manufacturing products, higher pgm prices and improved operational efficiency helped by an improved mix of intakes.

While some of these improved trends are expected to continue, there will be no US post-retirement medical benefit credit in 2017/18.

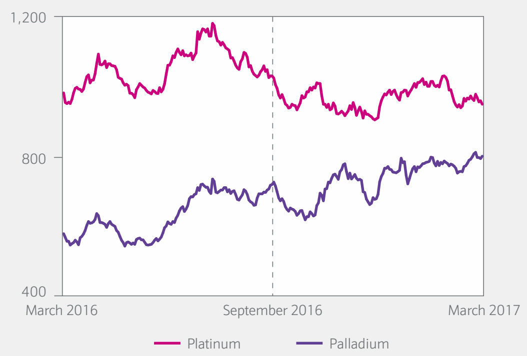
Return on Invested Capital

ROIC improved in the year, to 19.8%, reflecting operating profit growth and foreign exchange.

Precious Metal Products – Manufacturing Businesses' Sales

	2017 £ million	2016 £ million	% change	% change, constant rates
Noble Metals	**152**	130	+16	+4
Advanced Glass Technologies	**85**	71	+20	+5
Chemical Products	**52**	48	+9	+1
Total	**289**	249	+16	+4

Platinum and Palladium Prices
US$/oz



2. Financial Performance

Fine Chemicals

Divisional Summary

Business	Active Pharmaceutical Ingredient (API) Manufacturing		Catalysis and Chiral Technologies
	API and lifecycle management	Custom pharma solutions	
What We Do	Develop and manufacture complex APIs for a variety of treatments, including for pain management and Attention Deficit Hyperactivity Disorders (ADHD)	Provide custom pharmaceutical research, development and manufacturing services	Supply a leading range of speciality chemical, chiral and biocatalytic technologies and products
How We Add Value	Use our unique technology position and expertise to develop and manufacture APIs, enabling first to market commercialisation opportunities for our branded and generic customers	Leading complex chemistry capabilities and technology, coupled with outstanding services, enabling customers to increase R&D productivity and speed to market	Use our unique catalysis technology position to develop highly efficient and sustainable catalytic processes and manufacture products for customers in the pharmaceutical and agrochemical sectors
Societal Benefits	• Improved quality of life for an ageing global population • Treats critical conditions e.g. cancer, chronic pain, neurodegenerative diseases	• Facilitating the development and commercialisation of pharmaceuticals for unmet medical needs	• Sustainable processes that enable cost effective pharmaceutical manufacture
Global Drivers	Health and Nutrition Ageing Population		Population Growth Urbanisation Increasing Wealth
Customer Profile	• Multiple small and large branded and generic pharmaceutical companies	• Innovative pharmaceutical companies developing novel products	• Pharmaceutical, fine chemical and agrochemical companies
Major Competitors	• Medtronic • Siegfried • Noramco • Cambrex • Francopia • AMRI	• AMRI • Hovione • Alcami • Almac	• Evonik • BASF
Employees	1,292		
Locations	• Global network of 11 sites located in US, Europe, India and China		
2016/17 Sales	£236 million		£48 million

Strategy

– **Deliver niche products and services to pharmaceutical markets**

– **Leverage synergies between market presence, technology and global manufacturing network**

– **Move further up the pharmaceutical value chain**

– **Deliver superior growth**

Fine Chemicals is focused on delivering niche products and services to pharmaceutical markets where it can apply its capabilities in complex chemistry, research, development and manufacturing to deliver existing and new products. Differentiation through technology while delivering on speed to market and quality is a key value proposition we offer to both innovative and generic pharmaceutical customers.

By leveraging synergies between market presence, technology and our global manufacturing network across the division, we maintain a robust portfolio of new products and customers. Vertical integration and close collaboration between its businesses are key advantages the division offers to customers through providing a unique and differentiated offering.

Building upon its reputation as a premier technology led API development business, Fine Chemicals aims to extend its position in generic pharmaceuticals by moving further up the pharmaceutical value chain, through coinvesting and codeveloping new formulated drug products to increase access and value share of this high growth market segment.

The division aims to deliver superior growth in markets that are driven by global trends towards the increased use of pharmaceutical products. Its strong position in niche areas and its technology, process development and manufacturing infrastructure position it well for growth at rates ahead of industry baselines.

Performance in 2016/17

	Year to 31st March 2017 £ million	2016 £ million	% change	% change, continuing businesses[1] at constant rates
Sales excluding precious metals (sales)	**284**	296	-4	+1
Underlying operating profit	**64.5**	82.3	-22	-23
Return on sales	**22.8%**	27.8%		
Return on invested capital (ROIC)	**12.3%**	16.9%		

[1] Continuing businesses excludes sales and underlying operating profit from the year ended 31st March 2016 of £38 million and £7.5 million respectively in relation to the Research Chemicals business sold in September 2015.

Strong sales from active APIs for two newly approved drugs offset lower sales of ADHD APIs

- Underlying operating profit was significantly down due to lower sales of the higher margin ADHD APIs
- Investment to drive medium term growth through the continued development of our pipeline of new APIs

API Manufacturing

Our API Manufacturing business develops and manufactures APIs for a variety of treatments, with over half of our sales coming from opiate-based painkillers and ADHD treatments. While our API portfolio is currently relatively small, there is great opportunity for Johnson Matthey to increase its share of a $650 billion global pharmaceutical market growing at mid to high single digits per year.

The performance in the year reflects lower sales from ADHD treatments in the US and lower sales of opiate-based APIs, broadly offset by sales of new APIs for drugs which have been in development and have now been successfully launched.

Increased competition in the US market for ADHD treatments had a significant impact on the business' results. While the market for ADHD treatments grew in the year, consolidation of distributors and increased competition amongst ADHD drug product manufacturers led to significant pricing pressures. The impact of this on our main customer led to a reduction in our sales.

Sales of opiate-based APIs were lower this year, partly reflecting increased competition in the market for bulk opiates, principally codeine and morphine. Sales were also impacted by the conclusion of a contract with one customer for a specialist opiate.

The US Drug Enforcement Agency has introduced tighter manufacturing quotas for the 2017 calendar year for certain controlled substances. This had no material impact on sales in the year, although the tighter quotas may impact future periods.

Sales of other APIs grew strongly. We benefited from a significant contribution from dofetilide, an anti-arrhythmic drug and which is currently the only true generic alternative to Tikosyn®. We worked to develop dofetilide with the generic manufacturer and we now supply the API. Following its launch in June 2016 it has had strong sales, particularly in the second half of the year.

We also saw increased sales of an API for the treatment of muscular dystrophy, as approval was granted for a customer's new product in September 2016.

Our API Manufacturing business also includes our contract development business. This had an excellent year of sales. The business benefited from capacity expansion in North America and a full year's contribution of Pharmorphix, a solid state research services provider acquired last year, which has broadened our product and service offering.

Catalysis and Chiral Technologies (CCT)

CCT saw increased sales across its range of catalysts, with particular growth in catalysts used in the production of drugs to treat Hepatitis C.

Operating Profit

The reduced contribution from ADHD-related sales had a significant impact on underlying operating profit at a time when we were investing in the business to develop future growth. This was partially offset by the strong contribution of dofetilide for the first time this year.

In the year we have continued to develop our API product portfolio and now have over 40 products in development. This will reduce volatility of sales and profit trends, improving performance as our portfolio builds scale in the medium term. In 2017/18, sales growth will improve and operating profit is expected to grow.

Return on Invested Capital

The reduction in operating profit, partly as a result of investing in future growth, was the primary driver of the reduction in ROIC to 12.3%.

Fine Chemicals – Sales by Business

	2017 £ million	2016 £ million	% change	% change, continuing businesses[1] at constant rates
API Manufacturing	**236**	217	+9	-1
Catalysis and Chiral Technologies	**48**	41	+17	+9
Research Chemicals	**–**	38		
Total	**284**	296	-4	+1

[1] Continuing businesses excludes the Research Chemicals business that was sold in September 2015.

2. Financial Performance

New Businesses

Divisional Summary

Business	Battery Technologies	Fuel Cells
What We Do	Research, development and manufacture of battery materials, design and supply of high performance battery systems	Develop and manufacture catalysts and components for emerging fuel cell markets
How We Add Value	Development of improved and next generation battery materials, design and integration of high performance battery systems	Leverage expertise in advanced materials to develop more economically viable fuel cell components
Societal Benefits	• Alternative energy • Low carbon, zero emission transport / power	
Global Drivers	Environmental Factors Climate Change Regulation Natural Resource Constraints Increasing Electrification Health and Nutrition Ageing Population	
Customer Profile	• Automotive and heavy duty vehicle customers • Lithium-ion cell manufacturers • High performance cordless tool and niche transport manufacturers	• Manufacturers of fuel cells for portable, automotive and stationary applications
Major Competitors	Systems: • LG • BMZ Materials: • BASF • Umicore	• W L Gore • 3M
Employees	1,125	
Locations	• Materials manufacturing in China and Canada • Materials R&D in UK and Germany • Systems design, development and manufacture in UK and Poland	• Headquartered in UK • R&D capability in UK
2016/17 Sales	£191 million	

Strategy

– **Targeting opportunities with sales potential of around £200 million per annum by 2020**

– **Develop new business areas**

– **Invest in R&D to drive growth**

– **Make targeted acquisitions to accelerate progress**

We are targeting opportunities with sales potential of at least £200 million per annum within ten years. We will focus on areas adjacent to our current businesses and that build on our core technology competences.

The division is focused on developing new business areas. Potential areas must show a good fit with our key global drivers, offer strong market growth, attractive margin potential and present the opportunity for new market entry positions through application of Johnson Matthey's technology.

We will invest in R&D to drive growth through developing technology for new markets. Through an ongoing process, we will identify and evaluate new opportunities whilst developing and filtering out those already in our pipeline.

Alongside organic development and the evolution of our business plans, we anticipate the need to fill gaps in our experience and make targeted acquisitions to accelerate progress. These are likely to be relatively small scale, up to the value of around £100 million.

Performance in 2016/17

	Year to 31st March 2017 £ million	2016 £ million	% change	% change, constant rates
Sales excluding precious metals (sales)	**191**	157	+22	+10
Underlying operating profit / (loss)[1]	**(14.4)**	(17.9)	+20	+12

[1] In the year ended 31st March 2017, our long term investments in two venture funds were impaired and this resulted in a charge of £5 million.

Through our New Businesses Division we access additional areas of potential growth

- Widened our portfolio of battery materials, developing high energy materials
- Sales growth and improving productivity in Fuel Cells

Battery Technologies is the biggest element of New Businesses and has two parts, Battery Systems and Battery Materials.

Battery Materials, which sells battery materials for automotive applications, saw sales down 2% with a significantly weaker second half as changes to electric vehicle tax incentives in China have impacted the market for lithium iron phosphate (LFP) battery materials. Drawing on our expertise in nickel-based chemistry we have moved at pace to extend our battery technology platforms. We have already entered into two new licensing agreements and are developing nickel rich, high energy battery materials.

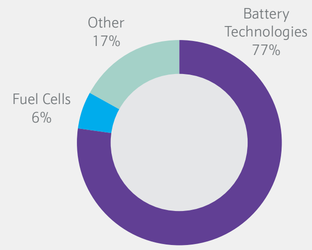
Battery Systems is a cell assembly business and delivered single digit growth mainly from increasing demand for e-bikes in Europe.

In our other new businesses, growth in the stationary back up power market benefited Fuel Cells, with sales 23% ahead of last year. We increased our expertise in water technology with small acquisitions of MIOX Corporation and Finex in 2016. Atmosphere Control Technologies, acquired in May 2015, delivered modest sales growth in North America.

Operating Profit

The underlying operating loss reduced by £3.5 million despite taking a £5 million impairment charge. The underlying improvement resulted from a significant reduction in the operating loss in Fuel Cells, helped by the prior year restructuring, and improved profitability within Battery Technologies. We will continue to make progress in the underlying profitability of New Businesses.

New Businesses' Sales



2. Financial Performance

Financial Review

In Summary

- **As a result of the restructuring programme announced in 2015/16, costs were reduced by £26 million, primarily in Process Technologies and Fuel Cells**
- **Cash flow from operating activities of £523 million and free cash flow of £230 million. Working capital days reduced from 56 to 54 days**
- **Capital expenditure and R&D spend to drive future growth: Capital expenditure was £265 million, 1.7 times depreciation, with gross R&D £201 million[1], 5.6% of sales**
- **Strong balance sheet with net debt to EBITDA of 1.1 times (2015/16: 1.2 times)**

Introduction

Johnson Matthey delivered improving performance with a stronger second half in 2016/17. Profit before tax of £461.6 million was up 19% and earnings per share increased by 21% to 201.2 pence. Underlying profit before tax of £481.7 million was up 1% at constant rates on a continuing basis and underlying earnings per share increased by 17% to 209.1 pence. Further aspects of the group's financial performance in 2016/17 are outlined below.

Corporate

Corporate costs increased in the year from £25.7 million to £31.8 million, primarily driven by an increased charge in relation to performance related pay and benefits due to the improving business performance compared to the year ended 31st March 2016.

Corporate costs for the year ending 31st March 2018 are expected to be around 1% of sales.

Foreign Exchange

The calculation of growth at constant rates excludes the impact of foreign exchange movements arising from the translation of overseas subsidiaries' profit into sterling. The group does not hedge the income statement impact of these translation effects.

The principal overseas currencies, which represented 82% of the non-sterling denominated underlying operating profit in the year ended 31st March 2017, were:

	Share of 2016/17 non-sterling denominated underlying operating profit	Average exchange rate Year ended 31st March		% change
		2017	2016	
US dollar	36%	**1.308**	1.510	-13
Euro	33%	**1.191**	1.367	-13
Chinese renminbi	13%	**8.79**	9.60	-8

There was a significant decrease in the value of sterling against most major currencies during the year. The impact of exchange rates increased sales and underlying operating profit for the year by £351 million and £69 million respectively.

If current exchange rates are maintained throughout the year ending 31st March 2018, foreign currency translation will have a positive impact of approximately £13 million on underlying operating profit. A one cent change in the average US dollar and euro exchange rates each has an impact of approximately £1.6 million on full year underlying operating profit and a ten fen change in the average rate of the Chinese renminbi has an impact of approximately £0.9 million.

[1] Gross R&D includes capitalised development of £19 million which is also included in capital expenditure.

Anna Manz
Chief Financial Officer

Research and Development (R&D)

Johnson Matthey spent £200.7 million on R&D in the year, an increase of 7% and 5.6% of sales. This included £18.9 million of capitalised development costs. Investment in R&D supports our growth agenda, especially in ECT and Fine Chemicals.

Major Impairment and Restructuring Costs

In the financial year ending 31st March 2018, Johnson Matthey expects to take a restructuring charge as part of our continued focus on operational efficiency. The charge is expected to be in the range of £50 million to £65 million, of which over half will be cash. It is expected to generate savings of around £25 million in a full year and benefit 2017/18 by approximately £10 million.

In the year ended 31st March 2016, a major impairment and restructuring charge of £141 million was taken. It identified annual cost savings of £34 million of which £8 million were achieved in 2015/16 and a further £26 million were realised in 2016/17. In the year ended 31st March 2017, cash costs relating to the restructuring charge were around £16 million.

Finance Charges

Net finance charges were £31.8 million, down from £32.6 million in 2015/16. Interest increased by £5.8 million mainly due to the negative impact from foreign exchange on interest on our US dollar and euro denominated debt and the higher average net debt, as excess cash from disposals was held during the year ended 31st March 2016 prior to payment of the special dividend in February 2016. 99% of the group's net debt at 31st March 2017 has fixed interest rates averaging approximately 3.1%. The group's interest charge on its post-employment benefit plans decreased by £6.6 million.

Taxation

The tax charge for the year was £77.0 million, a tax rate of 16.7% on profit before tax (2015/16: 15.7%). The tax charge on underlying profit before tax was £82.0 million, which represents an effective tax rate of 17.0%, up from 16.1% last year due to the change in UK tax legislation during the year which adversely impacted the tax outcome of certain intra group financing arrangements.

Going forward we expect that the current upward pressure on corporate tax rates will continue and the tax rate on underlying profit will be around 18%.

Our Approach to Tax

Johnson Matthey has developed a reputation over the last 200 years for integrity and our people take pride in doing the right thing across all aspects of our business. These principles underpin our approach to the management of tax.

We want to be clear and open on our approach so that our stakeholders understand it. Today we have operations in over 30 countries and, for each of those countries, we endeavour to pay our fair share of tax. We follow the laws of the relevant country and our group tax strategy so that we pay the correct and appropriate amount of tax at the right time.

Through implementation of our tax strategy we plan to:

- Optimise global tax incentives and exemptions, such as those which support the research and development of our next generation of sustainable technologies. We will only engage in tax planning which is supported by a clear commercial rationale.
- Have clear and consistent tax policies and procedures to support our business strategy. All our tax policies and guidelines are managed and maintained by our professional tax function which is supported by external advisers. This ensures compliance and allows us to properly respond to global tax changes and developments.
- Proactively identify, evaluate, manage and monitor tax risks arising from our business operations to ensure they remain in line with the group's risk appetite, seeking external advice where necessary.
- Ensure that all tax returns are accurate, complete and are submitted in a timely manner through the activation of a thorough tax risk compliance management process.
- Maintain open, positive and cooperative relationships with governments and global tax authorities. We also partake in constructive discussions on taxation policies that are relevant to our business.

The board approves our tax strategy each year and reviews compliance against it on a regular basis. That way, our strategy will encompass any learning and remain relevant and consistent with our values. The tax strategy satisfies the requirements of UK Finance Act 2016.

2. Financial Performance

Pension

IFRS – Accounting Basis

At the year end, the group's net post-employment benefit position, after taking account of the bonds held to fund the UK pension scheme deficit, was a surplus of £63.3 million, up from a surplus of £47.3 million at 31st March 2016. This increase in the surplus results from changes in the assumptions made relating to inflation and mortality, partly offset by the lower discount rates at 31st March 2017.

The cost of providing post-employment benefits in the year was £45.9 million, a reduction of £24.6 million, as a result of the higher discount rate at 31st March 2016 compared to 31st March 2015. This reduction included the impact of the £16.8 million one-off credit which was mainly the result of the implementation of an inflation cap in the US post-retirement medical plan.

For the year ending 31st March 2018, the cost of providing post-employment benefits is expected to increase, due to the absence of the one-off credit in the US post-retirement medical plan and due to the reduction in discount rates at 31st March 2017. The service cost, accounted for in operating profit, is expected to increase by £12 million.

Actuarial – Funding Basis

The latest triennial actuarial valuation of the UK scheme as at 1st April 2015 revealed a deficit of £69 million in the legacy defined benefit career average section, or £28 million after taking account of the future additional deficit funding contributions from the special purpose vehicle set up in January 2013. The latest valuation update as at 1st April 2016, showed the UK pension scheme to be in deficit, £109 million in the legacy defined benefit career average section. The deficit for this section of the scheme is £69 million after taking account of the special purpose vehicle. The increase in the deficit from 1st April 2015 was due to a reduction in gilt yields which increased the value of liabilities combined with lower than assumed asset returns. The 2016 valuation showed a surplus of £2 million in the defined benefit cash balance section of the scheme, which was opened on 1st October 2012 when the defined benefit career average section was closed to new entrants. The latest actuarial valuations of our two US pension schemes showed a surplus of £2 million at 30th June 2016 down from a £3 million surplus at 30th June 2015.

Capital Expenditure

Capital expenditure was £264.7 million (of which £259.5 million was cash spent in the year), which equated to 1.7 times depreciation. The principal investments were:

- to increase ECT manufacturing capacity and technology in Europe and China to meet demand from business wins, vehicle production growth and new legislation;
- improvements to API development and manufacturing facilities and capitalised development costs as we work on expanding our pipeline of new APIs; and
- to upgrade core IT business systems.

Depreciation was £151.7 million (2015/16: £139.3 million). Capital expenditure for the year ending 31st March 2018 is expected to be around £285 million (1.8 times depreciation).

Free Cash Flow

Free cash flow was £230 million. While working capital days (excluding precious metals) reduced, the strong sales in the fourth quarter increased receivables at the year end.

Dividend

The board has recommended a 5% increase in the final dividend to 54.5 pence per share. Together with the interim dividend of 20.5 pence per share this gives a total ordinary dividend for the year ended 31st March 2017 of 75.0 pence per share (2015/16: 71.5 pence per share). At this level the dividend would be covered 2.8 times by underlying earnings per share. Subject to approval by shareholders, the final dividend will be paid to shareholders on 1st August 2017, with an ex-dividend date of 8th June 2017.

Return on Invested Capital

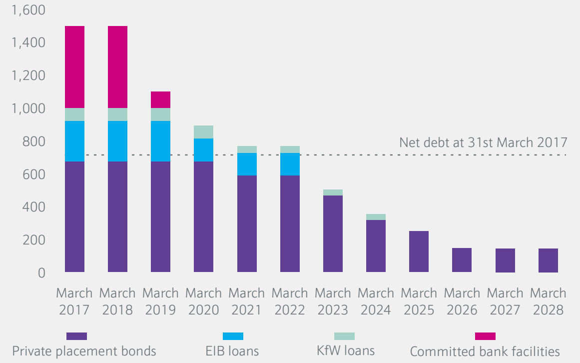
Return on invested capital (ROIC) increased to 18.2% from 17.3%. Underlying operating profit for the group was 14% ahead of last year at £513.3 million, and average invested capital increased £215 million to £2,816 million, primarily due to the impact of foreign exchange translation.

Our long term ROIC target is 20%. We continue to invest organically in our businesses across the world to improve returns and we target appropriate acquisitions that accelerate the delivery of the group's strategy. Acquisitions may depress ROIC in the short term, but they create long term value.

Capital Structure

Net debt at 31st March 2017 was £715.7 million. This is down £181.1 million from 30th September 2016 and is an increase of £40.8 million from 31st March 2016. Net debt increases to £758.5 million when adjusted for the post-tax pension deficits. The group's underlying EBITDA increased to £665 million (2015/16: £590.1 million). As a result, the group's net debt (including post tax pension deficits) to EBITDA was 1.1 times (2015/16: 1.2 times). Our target range is 1.5 to 2.0 times.

Maturity Profile of Debt Facilities
At 31st March 2017 exchange rates
£ million



Treasury Policies, Going Concern and Viability

Treasury Policies and Financial Risk Management

Group Treasury is a centralised function within Johnson Matthey based in the UK and US. The role of Group Treasury is to secure funding for the group, manage financial risks and provide treasury services to the group's operating businesses. Group Treasury is run as a service centre rather than a profit centre. The group does not undertake any speculative trading activity in financial instruments.

Funding and Liquidity Risk

The group's policy on funding capacity is to ensure that we always have sufficient long term funding and committed bank facilities in place to meet foreseeable peak borrowing requirements.

At 31st March 2017 the group had cash and deposits of £330.4 million and £498.6 million of undrawn committed bank facilities available to meet future funding requirements. The group also has a number of uncommitted facilities, including overdrafts and metal lease lines, at its disposal. The maturity dates of the group's debt and committed borrowing facilities as at 31st March 2017 are illustrated in the chart on page 46.

Of the committed bank facilities, £120.2 million falls due to be repaid in the 15 months to 30th June 2018 (the going concern period). £51.5 million of the committed bank facilities were refinanced in May 2017 for a further two years with a long term relationship bank.

Going Concern

The directors have assessed the future funding requirements of the group and the company and compared it to the level of long term debt and committed bank facilities for the 15 months from the balance sheet date. The assessment included a sensitivity analysis on the key factors which could affect future cash flow and funding requirements. Having undertaken this work, the directors are of the opinion that the group has adequate resources to fund its operations and so determine that it is appropriate to prepare the accounts on a going concern basis.

Viability

In accordance with provision C.2.2 of the 2014 UK Corporate Governance Code, the directors have assessed the viability of the company over a longer period than the 15 months covered by the 'Going Concern' statement. The directors' assessment has been made by considering the group's current position and prospects, our strategy, the board's risk appetite, and our principal risks and how these are managed, as set out in the section on 'Risks and Uncertainties'. The directors have determined that a three year period to 31st March 2020 is an appropriate period over which to assess the group's viability. We refresh our strategy every three years and this period is also aligned with our normal and well established business planning process which includes preparing and reviewing a three year plan each year. In making the assessment, we have considered a number of severe but plausible stress scenarios linked to the group's principal risks. We have analysed the impact of five individual operational or market risk scenarios, plus all of them occurring at the same time. Such scenarios include the loss of a major site, product failure or the decline in demand from a shift in the markets in which we operate. We have also considered a hard Brexit scenario, but this was not modelled as it is unlikely to materialise before 2019/20. The assessment took account of the group's current funding, forecast requirements and existing debt and committed borrowing facilities. It assumed that existing debt and borrowing facilities could be refinanced as they mature. We have also undertaken a reverse stress test in order to analyse scenarios and circumstances that would threaten our current financing arrangements. All of our stress tests were derived through discussions with senior management and the board after considering our principal risks and uncertainties.

Based on this assessment, the directors have a reasonable expectation that the company will be able to continue in operation, comply with facility covenants and meet its liabilities as they fall due over a period of at least three years.

Foreign Currency Risk

Johnson Matthey's operations are located in over 30 countries, providing global coverage. A significant amount of profit is earned outside the UK.

In order to protect the group's sterling balance sheet and reduce cash flow risk, the group has financed a significant portion of its investment in the US and Europe by borrowing US dollars and euros respectively. Additionally, the group uses foreign currency swaps to hedge a portion of its assets. The group uses forward exchange contracts to hedge foreign exchange exposures arising on forecast receipts and payments in foreign currencies. Currency options are occasionally used to hedge foreign exchange exposures, for example in a bid situation. Details of the contracts outstanding on 31st March 2017 are shown on page 156.

Interest Rate Risk

At 31st March 2017 the group had net borrowings of £715.7 million of which 99% was at fixed rates with an average interest rate of 3.1%. The remaining 1% of the group's net borrowings was funded on a floating rate basis. A 1% change in all interest rates would have a 0.01% impact on underlying profit before tax. This is within the range the board regards as acceptable.

Precious Metal Prices

Fluctuations in precious metal prices have an impact on Johnson Matthey's financial results. Our policy for all manufacturing businesses is to limit this exposure by hedging against future price changes where such hedging can be done at acceptable cost. The group does not take material exposures on metal trading.

A proportion of the group's precious metal inventories are unhedged due to the ongoing risk over security of supply.

Credit Risk

The group is exposed to credit risk on its commercial and treasury activities. In both cases counterparties are assessed against the appropriate credit ratings, trading experience and market position. Credit limits are then defined and exposures monitored against these limits. In treasury and precious metal management, these exposures include the mark to market of outstanding transactions and potential settlement risks.

>
Read more about our principal risks on pages 16 to 21.

3. People and Planet

Understanding our place in the world, the way we treat our people and work with our communities.

This section also describes how we are making health and safety our priority and how we are managing our impact on the environment.

Contents

People and Planet

Our World

Creating a sustainable business doesn't end with us. We build relationships with our many stakeholders. By working together, we can solve some of the world's greatest challenges.

Introduction

Our science-led products and technologies have a positive impact on the world around us and the people who live in it. So it is essential to us that we understand our stakeholders and what's important to them. That way we can maximise the opportunities we have to grow our business and positively affect everyday life.

The Global Picture

We keep abreast of the global sustainability agenda to understand where we can play a role and what changes may affect our business. In 2016/17, the most significant areas for Johnson Matthey were:

- The ongoing implications of the Paris Climate Change Agreement, which came into force on 4th November 2016. As of 31st March 2017, 144 of the 197 countries involved had ratified the agreement. Johnson Matthey is a signatory of L'Appel de Paris (the Paris Pledge for Action), committing us to play our part in delivering the agreement's ambition to limit global temperature rise to less than 2°C. To achieve this we have made greenhouse gas emissions reduction a key theme in our sustainable business goals to 2025.

  Go online:
  www.parispledgeforaction.org

  > Read more on page 51.

- The UN Sustainable Development Goals (SDGs), which provide a platform for collective action on global issues. We have applied the principles of the SDG compass tool developed by GRI, the UN Global Compact and the World Business Council for Sustainable Development, and identified the most relevant SDGs for Johnson Matthey. We have benchmarked our approach and maturity in applying the SDGs to our business against our peers in the Sustainability 50 group and are among the leaders.

  Go online:
  https://sustainabledevelopment.un.org/

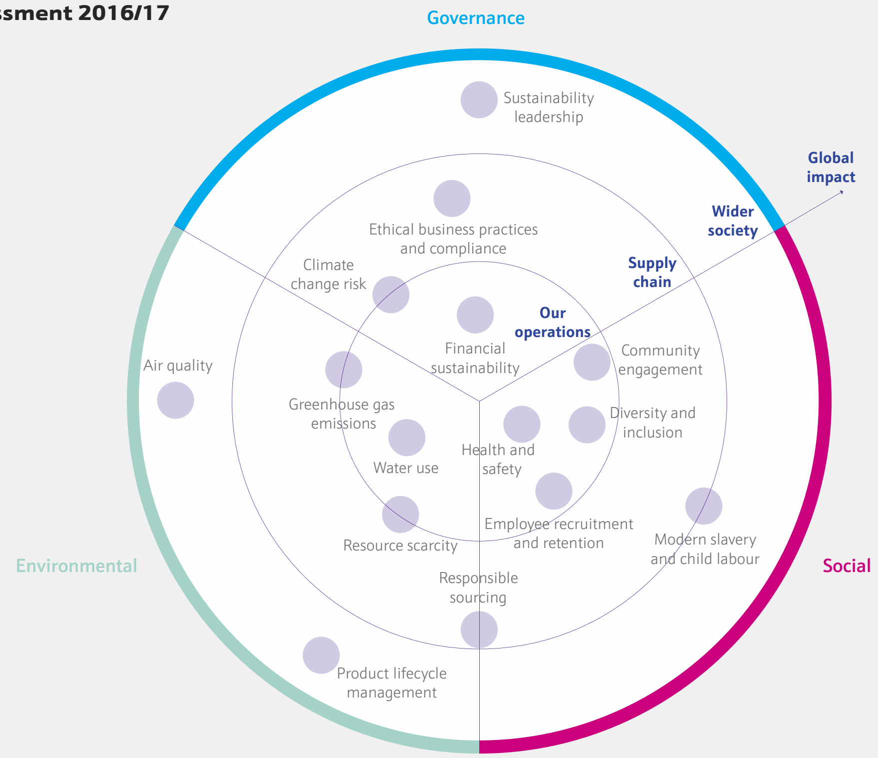
  > Read more on page 15.

The Areas that Matter Most

When considering the purpose of our business we think about the needs of our stakeholders – namely our customers, suppliers, investors, employees and local communities. We do this by assessing the topics that matter most to them and where we make the largest positive or negative contribution to wider society. These are our material areas and we review them each year.

In 2016, we appointed an external consultancy to interview a cross section of some of our largest customers, investors and other external stakeholders to gain a more detailed understanding of the environmental, social and governance areas most important to them. We used this information, together with feedback from our global employee survey, to determine and map our material areas, as shown below. We continuously engage with our stakeholders to help address these.

Materiality Assessment 2016/17



The map highlights areas of focus for Johnson Matthey. Further explanation can be found throughout this report. There is also a full index of these issues in the GRI summary table on pages 188 and 189.

Go online: www.matthey.com/sustainability/governance/stakeholders

> Read more on pages 14 and 15.

Our Sustainability 2017 programme ended on 31st March 2017. We have achieved much of what we set out to do (see page 14) and are now defining the next stage of our sustainability journey. Drawing on these material areas and an understanding of the contribution we can make in the world, we have defined six themes which form part of our sustainable business goals to 2025. These are:

- For health and safety, aspire to zero harm
- Improve sustainable business practices in our supply chains
- Reduce our greenhouse gas emissions per unit of production output
- Ensure that Johnson Matthey is truly inclusive, fostering employee engagement and development within a diverse and global workforce
- Increase the positive impact that our products, services and technologies contribute to a cleaner, healthier world
- Increase our work within our local communities through Johnson Matthey's employee volunteering programme.

These themes will provide a framework as we continue to build a sustainable business.

Communicating with External Stakeholders

We maintain ongoing communications with our external stakeholders and update them on our activities through regular publications (including this report), our website, surveys and topic specific meetings. Understanding their needs and the impact of our business on them helps keep us on the right course.

We are also active members of a number of trade associations which help us to understand, inform and contribute to issues and discussions that are relevant to our stakeholders. Associations we have worked with in 2016/17 include the UK Chemical Industries Association, the Diesel Technology Forum, the Society of Motor Manufacturers and Traders, the Association for Emission Control by Catalyst, the Engineering Employers Federation, the Platinum Group Metals Health Science Research Group of the International Precious Metals Institute in the US, Eurometaux (which represents the European non-ferrous metals industry), CEFIC (the European Chemical Industry Council) and DECHEMA (the expert network for chemical engineering and biotechnology in Germany).

An important stakeholder group are our shareholders and we meet with our major shareholders regularly, as described in the Corporate Governance Report.

> Read more on pages 85 and 86.

3. People and Planet

For investors particularly interested in ethical and socially responsible investments, we meet with specialists from their organisations to discuss sustainability and corporate social responsibility (CSR) issues where applicable and participate in key sustainable investment benchmarking studies. These include the Carbon Disclosure Project (CDP), FTSE4Good, London Benchmarking Group and Business in the Community.

In March 2017, we received an 'AAA' ESG rating from investment index provider MSCI for the fifth consecutive year. This is the highest possible rating for a company's risk and performance against a range of environmental, social and governance (ESG) factors, and one that places us above our chemical industry peers. We are a constituent of the Ethibel Sustainability Index Excellence Europe and FTSE4Good UK 50 Index.

Thinking Globally, Acting Locally

We have a strong sense of community and our place within it. Although we are a global company, we believe that we can make a real difference by acting locally. Our sites around the world get involved with local initiatives in many ways. We take part in activities to strengthen local economies, to encourage schoolchildren take an interest in science and to support employees who are involved in charity work. As a responsible business, we want to show that we provide value beyond our products.

Go online:
www.matthey.com/sustainability

Sites choose which projects to support, within the criteria set out in our community investment policy. A core theme is 'promoting science education' which takes many forms, such as school visits to our sites.

Our community investment committee has representatives from many of our locations. It meets quarterly to update on progress and agree funding. 68% of our sites are actively involved in their local communities and have either formal or informal engagement plans in place.

We offer all employees two days' paid leave per year for community work. They are encouraged to work with organisations in their local area where they can make most use of their skills or gain new knowledge. We are committed to supporting our community partners. It is a key theme in our sustainable business goals to 2025, which will include specific performance metrics to further enhance our contribution.

In 2016/17 the company donated £738,000 (2015/16 £679,000) to charitable organisations. This figure represents donations made by Johnson Matthey but does not include payroll giving, employee donations or time. The company made no political donations in the year. We operate a corporate charitable donations programme which represented 41% of the group's total donations in 2016/17. The remainder of charitable giving is managed locally by individual businesses. This programme supports organisations in the areas of environment and sustainability, medical and health, science and education, social welfare and economic development.

We support employee fundraising efforts for good causes and match donations up to £1,000 per employee per year and up to a total of £70,000 per annum for the group as a whole. In the last year, employees raised £99,750 for 60 charities to which the company added £50,300 in matched contributions.

We launched our partnership with global children's development charity Plan International in 2016. Together we are working on an education programme in Sierra Leone to train women teachers. In a country where 73% of girls have dropped out of school by the age of 11 and with 92% of teachers being men, there is an overwhelming need for more female teachers to ensure girls are not left behind in their education. Working with Plan International and the Open University, the programme is on track to train over 400 teachers and it is estimated that over 120,000 children will directly benefit over the next ten years. Employees have enthusiastically supported the charity, raising more than £45,000 this year including a £15,000 corporate donation, enough to train 25 teachers.

Responsible Sourcing

We are committed to improving sustainable business practices across all our supply chains and this is a key theme of our sustainable business goals to 2025.

We will measure performance against this goal through the implementation of our Group Supplier Code of Conduct which we plan to launch this year.

The code includes standards on health and safety, the environment, human rights and ethical conduct. It supports the Group Ethical and Sustainable Procurement Policy, which our businesses will continue to implement across their supply chains.

The code incorporates work undertaken by our largest division, Emission Control Technologies (ECT), which represented 60% of sales in 2016/17. ECT launched its own supply chain programme in 2013 and is the most advanced of our divisions in this area. In the last three years all of its strategic suppliers have been audited against the ECT Global Supplier Manual which outlines the standards that we expect our suppliers to meet. Strategic suppliers represent 74% of ECT's raw material spend (excluding platinum group metals and substrates, which often remain the responsibility of the customer).

In 2016/17, 19 audits representing 15% of the division's total spend on raw materials were conducted. 115 corrective action plans were subsequently put in place in partnership with the suppliers, 42% of which have already been completed. The vast majority of these were health and safety concerns within suppliers' operations and we recognise the need to work with our suppliers to build their capability to better manage the issues we audit against. As of 31st March 2017, there were 92 corrective action plans open with ECT suppliers.

ECT Supply Chain Audit Non-Conformances 2016/17

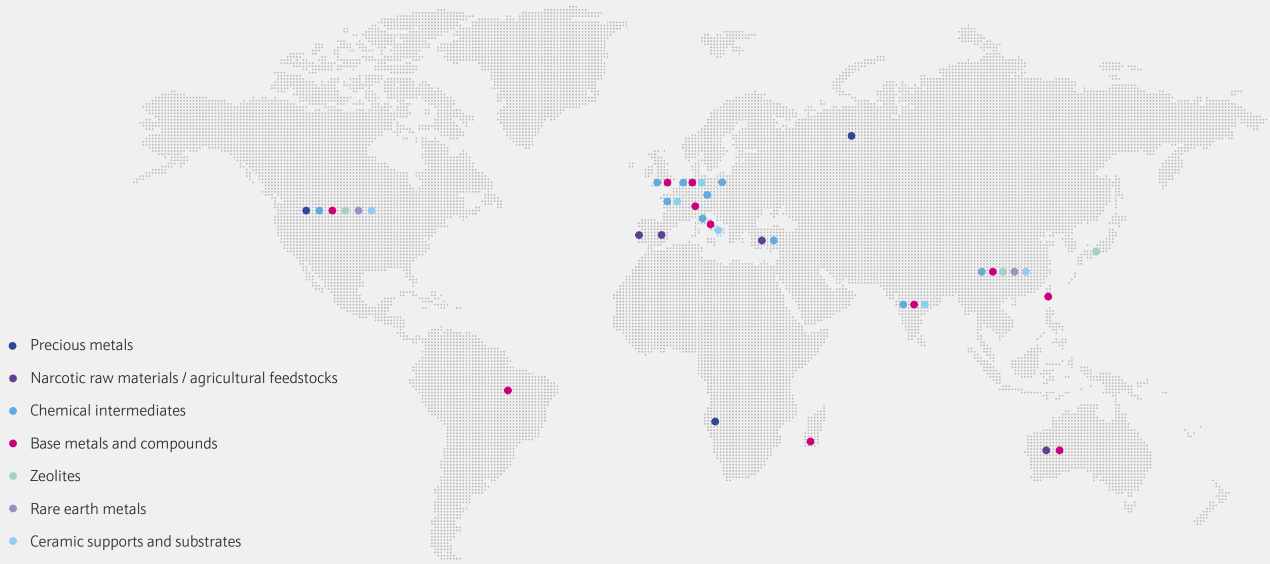
Audit topic	Number of new non-conformances identified in 2016/17	Total number of non-conformances open at 31st March 2017 [1]
Child labour	– [2]	–
Forced labour	–	–
Wages and working hours	8	8
Discrimination	1	–
Freedom of association	–	–
Health and safety	84	60 (16 from 2015/16)
Environmental	8	10 (4 from 2015/16)
Other	14	14 (4 from 2015/16)

1 Includes some ongoing non-conformances cases from 2015/16.

2 One supplier audit lacked a written policy stating their minimum age of employment, but was able to demonstrate that all their workers were over the age of 21 and that an ID checking process was in place.

Where we Source Strategic Raw Materials

We procure goods and services globally and our supply chains are multi-tiered. Sourcing of strategic materials is a principal risk (see page 19) and monitoring and understanding the risk is challenging but essential. Some of our strategic raw materials are available from only a limited number of countries. The countries we rely on for these materials are highlighted in the map below.



Elsewhere in the group, Process Technologies launched a new, more detailed preassessment questionnaire to gather critical information from its suppliers on labour practices and modern slavery compliance. Over 70% of the division's global strategic suppliers completed it. Responses are being used to identify higher risk suppliers requiring a formal site based detailed audit; 6% of the high and medium risk suppliers have been formally assessed.

As part of doing the right thing, we understand the importance of knowing the providence of the raw materials we use. The majority of supply chain purchases in Fine Chemicals are narcotic raw materials, all of which are purchased from legitimate suppliers within countries who are signatories to the Single Convention on Narcotic Drugs 1961, principally Australia, Spain and Turkey. We have close working relationships with all our suppliers of these materials and perform regular on site audits. Historically, these audits have covered product quality but more recently we have begun to introduce wider sustainability issues into the process.

In 2016/17, we re-established our group supply chain governance team of senior leaders from our sustainability, legal, supply chain and procurement functions. The remit of the team is to discuss emerging global supply chain issues, the changing regulatory landscape and Johnson Matthey's obligations and strategy to address these.

Transparency in Conflict Minerals

We do not knowingly use any material from conflict sources and require all our suppliers to track the use of conflict minerals in the materials that they supply to us. We have established a process for due diligence based on the Organisation for Economic Co-operation and Development (OECD) guidelines, which includes keeping records that enable us to track the suppliers of all the raw materials for each of the products or services we supply to customers and provide them with a tailored answer to any query. This year, we have responded to around 60 customer requests for information.

Of the smelters used throughout all tiers of our supply chain, 87% are listed on the conflict free smelter list of the Electronic Industry Citizenship Coalition (EICC) and we expect this to increase as more refiners and smelters join the programme and are certified.

Go online:
www.conflictfreesourcing.org

Modern Slavery and Child Labour

We support the principles set out in the UN Universal Declaration of Human Rights and the International Labour Organisation Core Conventions, including the conventions on child labour, forced labour, non-discrimination, freedom of association and collective bargaining.

We also support the principles endorsed under the UN Global Compact and the UN Guiding Principles on Business and Human Rights (the 'Ruggie' Principles). We are working to embed them throughout our operations and whenever we enter into business in a new territory, make an acquisition or enter a joint venture. There were no human rights grievance reports made against Johnson Matthey during the year.

We are committed to ensuring that there is no modern slavery in our business or any of our supply chains. We are aware that we operate in high risk territories and sectors and have begun, as part of our programme to implement our Group Supplier Code of Conduct, a detailed risk assessment to identify suppliers that we believe are exposed to the highest risk of modern slavery and human trafficking. We are introducing modern slavery provisions to our terms and conditions of purchase across the group.

We published our first statement in September 2016 and are progressing our programme further.

Go online:
www.matthey.com/sustainability/sustainability-governance/modern-slavery

Our People

Johnson Matthey is full of talented people with a real passion for science and a pride in applying it to make the world cleaner and healthier. They bring our values to life and are our most important asset for the long term success of the company.

Our People – Performance Summary

		2017	2016
Average number of employees		**12,214**	12,494
Total employee turnover[1]	%	**12.3**	12.1
Voluntary employee turnover[1]	%	**8.9**	6.9
Employee gender (female)[2]	%	**25**	25
Gender of new recruits (female)	%	**28**	28
Trade union representation	%	**26**	24
Internal promotions	% of all recruitment in year	**39**	30
Attendance	days lost per employee	**4.8**	5.6

1 Employee turnover is calculated by reference to the total number of leavers during the year expressed as a percentage of the average number of people employed during the year. The analysis does not include agency workers not directly employed by Johnson Matthey.

2 At 31st March.

Introduction

As we grow and work towards our vision for a cleaner, healthier world, we rely on our talented and committed workforce to achieve it. We are working to enhance the engagement of our people to enable them to reach their full potential, so they can do their best work with us.

Our people strategy is structured around five pillars: attracting and recruiting talent; developing and supporting our people; rewarding and retaining them; embedding our culture and values and supporting change.

During 2016/17 we created action plans and expected outcomes for our strategy, as explained below.

Attracting and Recruiting Talent

We want to be the first choice for potential recruits with the skills that match the needs of the business. We are investing in our employer brand to raise our profile in the market and emphasise that we are one company working together.

We regularly feature in Management Today's top ten Most Admired Companies in Britain and in 2016 we were Britain's Most Admired chemicals company for the third year running. This award is peer voted by those who already know us; the task for us now is to reach those who are not aware of our work and the opportunities we can offer.

To achieve this, we have further defined consistency in our recruitment processes and messaging. This will continue over the coming year. We are also creating a unified graduate and apprentice programme, starting in the UK, to streamline our recruitment of young people starting their careers.

We have specific talent needs to support our R&D activities and need to maintain a thriving, innovation-led environment to attract and retain the best people. We do this by encouraging our scientists to think freely and to collaborate and learn from one another. We host an annual science conference to bring our global R&D community together to network, share experiences and celebrate achievements. A separate academic conference for our sponsored university students helps nurture future scientists.

More broadly, we are developing a global induction programme to help all new recruits gain a consistent understanding of how we work, what we expect from our people and what they can expect from us.

As part of this process, we aim to gain insights into how employees feel during their induction and to identify what people should ideally gain from the experience. We will launch a pilot before we finalise the programme and are evaluating bespoke online resources that recruits can use before they join us to give a clear idea of the company where they will be working.

Developing and Supporting Our People

We fill skill gaps both by developing and appointing from within the group and recruiting from outside. As a global company with businesses located around the world, we benefit from a mobile workforce. We encourage employees to apply for jobs across the group which expands their experience and develops their skills.

During 2016/17, 937 internal promotions and appointments were made representing 39.4% of roles filled during the year. 160 of these were moves between our different businesses.

We develop employees at all levels of our organisation so that they are equipped with the knowledge and skills our company needs and to improve their career satisfaction. Our goal is to enable employees to reach their full potential, in turn helping the company to meet its business goals.

A strong leadership pipeline is essential and during the year we conducted a comprehensive review of how we are developing our leaders. This explored the latest thinking around learning and development approaches and how we could apply them. We also benchmarked ourselves against several companies that are at the forefront in this area.

Leaders and managers have a vital role to play in leading by example to bring our values and strategy to life. We support them through a leadership framework which sets out the behaviours and competencies we expect.

We assess the talent and skills needs of our business annually. Each division and function conducts talent reviews and considers their strategic business objectives for the next three years and the skills needed to achieve these. This process highlights any gaps, prompting us to seek out existing employees who, with the right development, could be identified to fill these future roles or alternatively, plans are generated to recruit external people into the group.

We have explored specific talent needs of some functions this year by conducting in depth talent reviews in manufacturing and finance and we plan to conduct similar reviews in IT, finance, legal and human resources in 2017/18.

During the year, we introduced a common global performance review process for managers which is underpinned by our values and a set of leadership competencies. This ensures managers develop while also supporting those things that are important to us. Our global performance review process will be rolled out across the group down to graduate level by the end of 2018/19.

During 2016/17, 75% of female managers and 77% of male managers received a performance review.

Rewarding and Retaining Employees

Our reward and benefits arrangements are competitive, fair, transparent and benchmarked against our peers. We benchmark our benefits in each country where we operate, taking into account cost considerations, so that employment with us is attractive.

We believe that our clear communication of these to our people helps them feel motivated and that their efforts at work are fairly rewarded. They are also designed to ensure that the best people join us and want to stay.

Elements, our online portal, gives employees access to their benefits in one place. It is now available to staff in the UK, US, China and India, and will roll out to more countries in the coming year.

We support employee wellbeing and resilience training for staff and managers is available, enabling them to identify personal stress triggers in themselves and their teams. In addition, many of our businesses provide access to flu vaccinations and discounted rates at local gyms.

In 2016/17 we introduced a global job classification system with more formal career paths. This has made the skills and experience required for each career level more transparent so individuals can understand how they fit into the organisation and how to progress. In addition, we have implemented a new global grading system for management levels as well as new annual and long term incentive plans for managers so that they are recognised for their contribution. We will continue to roll out this new grading system to levels below management in the coming year.

3. People and Planet

Our employee share schemes give staff a financial interest in the company and stimulate their performance. Eligible employees may participate in a share ownership plan through which they can buy shares in Johnson Matthey which are matched by a company funded component. Employees in these plans are able to contribute to a company share ownership plan or a 401k approved savings investment plan (a US tax approved scheme).

Through these ownership plans, Johnson Matthey's current and former employees collectively held 1.51% of the company's shares at 31st March 2017.

Johnson Matthey also provides various pension arrangements for its employees worldwide. These are a combination of defined benefit and defined contribution pension plans, savings plans and provident funds which are designed to provide retirement benefits, based on local laws and practices.

Embedding Our Culture and Values

Our culture is underpinned by our values and these are brought to life by our people. Our leaders set the standard for everyone, actively demonstrating the actions, processes and outcomes associated with our values which are presented on page 9. Our values also drive our high ethical standards.

'Doing the Right Thing', our global code of ethics, is central to the way we act as a company and sets out our expectations for the behaviour of our people. It is available in 22 languages, mirroring our growth into new territories and emerging markets. Ethics ambassadors, of which there are around 100 to cover all our major operations, promote these behaviours locally and offer guidance to their colleagues.

Targeted training is offered to people whose roles mean they are particularly exposed to specific compliance risks. Online training on our code of ethics was launched to all employees in March 2017 and will continue annually. The training includes an acknowledgement that asks employees to confirm that they have access to the code of ethics and that they will work in line with it's six commitments which are:

- Understanding and following the principles in the code
- Asking for help and speaking up when I have concerns
- Working safely and respecting the rights of others
- Doing business responsibly, fairly and legally
- Protecting Johnson Matthey's brand, assets and reputation
- Supporting Johnson Matthey's ambition to build a sustainable business.

We encourage people to raise their concerns when they see something that they are unsure about. Together with internal routes available to employees, we have a confidential helpline 'speak up' (which can also be accessed online). It gives the opportunity to raise issues confidentially and (where local law permits) anonymously. The benefits of speaking up have been promoted through ethics training modules, as have the protections in place for those who speak up. As a result, a majority of employees did not opt for anonymity when using the service.

>
Read more on page 59.

When a report is received, it is reviewed and assessed by our Ethics Panel (which reports annually to the Audit Committee), which is responsible for reviewing matters raised and for our procedures. At its meeting in January 2017, the Audit Committee reviewed reports received in 2016/17 up to that date.

This year, the board will also oversee the work of the Ethics Panel. If a report requires investigation, this will be conducted in accordance with our investigation principles of confidentiality, impartiality and objectivity, capability and efficiency. All investigations generate recommendations and agreed actions are tracked and followed through to resolution.

>
Read more on page 77.

Improving Employee Engagement

We believe that employees, no matter where they are based in the world, are at the heart of our business success and are the most important ambassadors for our brand. If we can create a positive experience for them that is highly motivating and encourages commitment to the organisation, this will increase levels of engagement and enablement. In turn, this will support improved operational and financial performance, customer satisfaction and enable us to better attract and retain great talent.

In November 2016, we ran our first ever global employee survey to support our ambition to further enhance Johnson Matthey's reputation as a great place to work. The survey was designed to gain a greater understanding of strategically and culturally important themes across the group and highlight opportunities to create a better working environment for employees to develop and contribute.

From the 11,979 employees that were invited to take part in the survey, we received a 75% response rate which is a great result for a first time survey. We donated £9,030 to Plan International, our company charity, £1 for each completed survey.

The survey revealed some areas of strength, reflecting the positive efforts we have made in recent few years. In matters of health and safety, 85% of respondents agreed that we provide a safe working environment and in ethics we scored highly, with 88% saying they would report misconduct or raise a concern.

The survey also highlighted areas of opportunity where we can do better. We are treating two of these as areas for immediate action; to be even clearer to employees about the company's strategy and priorities, and to ensure more open communications throughout the company. We have formed cross functional focus teams at the Group Management Committee (GMC) level to address these issues.

Divisions and functional management teams have also received their detailed survey results and have identified their keys strengths and areas for improvement. These teams are in the process of prioritising action plans for improvement working with local employee groups.

The next survey will be in 2018 so that we can track the outcomes of the actions we are taking.

Johnson Matthey's purpose lies in applying inspiring science to enhance life. To engage our staff and encourage them to contribute to our future direction, we launched an open innovation platform, IdeasLab, allowing anyone in Johnson Matthey to submit ideas either around a 'grand challenge' or on an independent innovation. The grand challenges are set around strategic business issues or areas of opportunity, and the first theme was sustainable cities. 115 ideas were submitted from across Johnson Matthey and everyone in the company had the opportunity to contribute to and vote for their preferred ideas.

The top teams received coaching from London Business School and pitched their ideas to a senior panel. Three winning ideas were selected and have been taken forward for further evaluation. New challenges will be launched several times a year.

Johnson Matthey reached its 200th anniversary in 2017. This is an incredible milestone and is testament to the hard work of everyone in the company. To mark this, all employees are invited to join together for a day of celebration on 19th July 2017, the 200th day of our 200th year, with events being held at our sites around the world.

Diversity and Inclusion

We are committed to developing a truly inclusive culture that is not only about having diversity within our company, but about leveraging that diversity to produce better products and services for our customers.

Our Diversity and Inclusion taskforce, which is led by a member of the GMC, is driving activities to create a more diverse and inclusive workplace. During the year, it arranged awareness training on diversity, inclusion and unconscious bias, which was attended by members of the GMC and corporate and divisional leadership teams.

In 2017/18, we will develop diversity and inclusion awareness training that will be rolled out across the entire organisation in a phased way. In addition, we have also prioritised the development of an unconscious bias training module. This will be used over time by HR and recruiting managers as part of our work to establish a foundation for blind recruitment, a system where information such as name, age and gender is withheld from the CVs of applicants to avoid unconscious bias.

As part of the UK Equality Act 2010, we will be publishing our gender pay figures in 2018, covering the pay of our UK employees.

Our commitment to diversity and inclusion will also be a key theme in our sustainable business goals to 2025

> Read more on page 51.

An action plan has been created to guide our sites on this theme and we continue to work with external experts and organisations to learn more about best practice in this area.

In line with our Equal Opportunities Policy, we recruit, train and develop employees who are the best suited to the requirements of the job role, regardless of gender, ethnic origin, age, religion or belief, marriage or civil partnership, pregnancy or maternity, sexual orientation, gender identity or disability.

People with disabilities can often be denied a fair chance at work because of misconceptions about their capabilities, and we work to enhance their opportunities by attempting, wherever possible, to overcome the obstacles. This might mean modifying equipment, restructuring jobs or improving access to premises, provided such action does not compromise health and safety standards.

This is set out in our policy, which extends to employees who have become disabled during their employment and who will be offered employment opportunities consistent with their capabilities. We would also look to make reasonable adjustments for new recruits.

Go online for our policies on equal opportunities and diversity: www.matthey.com

Governance and Human Resources

As a global company, we maintain progressive HR standards backed by group policies. Our HR activities always meet local statutory requirements and we often go beyond them to recognise best practice. Our global HR policies are applied across all our sites and are supplemented by local policies. Site specific policies and procedures are explained at inductions and through staff handbooks.

Our HR policies and risks are examined by the GMC and the Group Policy and Compliance Committee, with the board responsible for overseeing the overall people strategy. In addition, the Nomination Committee oversees talent and succession decisions and the Remuneration Committee deals with remuneration policy.

There were no significant fines or non-monetary sanctions for non-compliance with laws and regulations during the year.

Priorities for 2017/18

- Continue to develop our employer brand so that prospective employees become familiar with the company as a leader in science that enhances people's lives.
- Enhance and improve our global standardised talent and development processes across the group, including workforce planning, performance management, talent review and succession and development.
- Enhance the leadership development of our people through a new pilot programme for mid-level leaders and by redesigning our development programmes for senior leaders. Additionally, in 2018/19 we will launch a new programme for employees taking on a leadership role for the first time.
- Support the recently introduced global grading system for managers by developing additional supporting materials for employees so they understand how they fit into the organisation with capabilities, skills and experiences defined for each career level. We will also roll out the system to levels below management.
- Act on the results of our employee engagement survey of 2016/17 to increase engagement and enablement and move the organisation towards improved performance. A further priority for next year is to stimulate and embed employee engagement through detailed action plans across the group, divisions and functions.
- Prioritise change management training for the HR function to support employees and management teams with organisational change. We will also evaluate options to provide similar support for managers in due course.
- Improve our process for reporting grievances with wider data coverage that will provide figures for 'total grievances'.

3. People and Planet

Our People – Performance Data

New Employees by Age Category

	Aged under 30 Male	Aged under 30 Female	Total	Aged 30-50 Male	Aged 30-50 Female	Total	Aged over 50 Male	Aged over 50 Female	Total	Total Male	Total Female
Europe	210	132	342	262	127	389	43	15	58	515	274
North America	131	30	161	106	37	143	36	12	48	273	79
Asia	161	27	188	145	41	186	3	0	3	309	68
Rest of World	12	3	15	18	7	25	0	0	0	30	10
Total group	**514**	**192**	**706**	**531**	**212**	**743**	**82**	**27**	**109**	**1,127**	**431**

Attendance

Good rates of attendance were maintained this year. The average number of days lost per employee in 2016/17 due to sickness and unplanned absence was 4.8 days, down from 5.6 days in 2015/16. This represents 1.9% of lost time per employee in the working year.

Average Number of People Employed

The following tables set out the average number of people employed by Johnson Matthey and the net change in the number of people employed during 2016/17 by geographical region and by employment contract.

Average headcount 2016/17

	Permanent employees Male	Permanent employees Female	Total	Temporary contract employees Male	Temporary contract employees Female	Total	Total
Europe	4,275	1,618	5,893	327	226	553	6,446
North America	2,402	616	3,018	23	6	29	3,047
Asia	1,781	370	2,151	21	11	32	2,183
Rest of World	371	165	536	1	1	2	538
Total group	**8,829**	**2,769**	**11,598**	**372**	**244**	**616**	**12,214**

Annual Change in People Employed

During the year approximately 400 people left our business. This included a relocation of some of our battery systems related activities from Dundee, Scotland as well as reorganisation of activities in our Emission Control Technologies Division from Korea. There were also reductions in Process Technologies and Precious Metal Products as a result of driving efficiencies. We support our employees during their redundancy transition with practical help to find new roles, which often includes a mix of counselling and training in job search techniques, CV preparation and interview techniques.

Net change between average headcount 2015/16 and 2016/17

	Permanent employees	Temporary contract employees	Total net change
Europe	-190	+36	-154
North America	-72	-10	-82
Asia	+8	-7	+1
Rest of World	-43	-2	-45
Total group	**-297**	**+17**	**-280**

Employee Turnover by Region

The high level of employee commitment and loyalty to the group continues to bring strength to our businesses. Voluntary staff turnover was low compared to many other organisations at 8.9% (2015/16 6.9%). The total employee turnover figure increased slightly to 12.3% from 12.1% in 2015/16.

The following table sets out the employee turnover in 2016/17 by geographical region. The employee turnover figure is calculated by reference to the total number of leavers during the year expressed as a percentage of the average number of people employed during the year. The analysis does not include agency workers not directly employed by Johnson Matthey.

	Aged under 30 Male	Aged under 30 Female	Total	Aged 30-50 Male	Aged 30-50 Female	Total	Aged over 50 Male	Aged over 50 Female	Total	Total leavers	Employee turnover	Voluntary employee turnover
Europe	120	57	177	207	118	325	139	41	180	682	10.6%	8.0%
North America	92	44	136	139	43	182	84	21	105	423	13.9%	10.0%
Asia	100	8	108	179	42	221	11	3	14	343	15.7%	10.9%
Rest of World	5	8	13	30	9	39	5	1	6	58	10.8%	6.5%
Total group	**317**	**117**	**434**	**555**	**212**	**767**	**239**	**66**	**305**	**1,506**	**12.3%**	**8.9%**

Gender Diversity Statistics

The table below shows the gender breakdown of the group's employees as at 31st March 2017.

As at 31st March 2017	Male	Female	% Male	% Female
Board	6	3	67%	33%
GMC	7	3	70%	30%
Subsidiary directors	105	16	87%	13%
Senior managers	141	49	74%	26%
New recruits	1,127	431	72%	28%
Total group	**9,258**	**3,048**	**75%**	**25%**

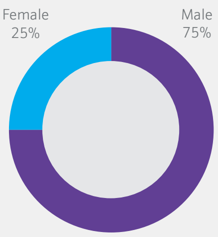
Some individuals are included in more than one category.

Gender of People Employed by Employment Type

As at 31st March 2017	Full time % Male	Full time % Female	Part time % Male	Part time % Female
Europe	74%	26%	44%	56%
North America	79%	21%	40%	60%
Asia	83%	17%	11%	89%
Rest of World	70%	30%	39%	61%
Total group	**76%**	**24%**	**43%**	**57%**

Percentage of People Employed by Gender

As at 31st March 2017	% Male	% Female
Europe	72%	28%
North America	79%	21%
Asia	83%	17%
Rest of World	70%	30%
Total group	**75%**	**25%**



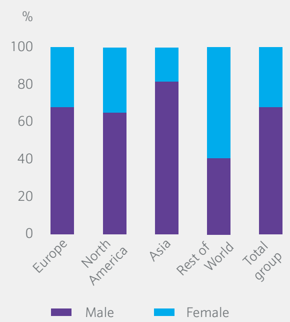
Trade Union Representation

26% of our employees (2015/16 24%) belong to a recognised trade union. We have positive and constructive relations with all the recognised trade unions that collectively represent our employees. The following table sets out the average number and percentage of employees who were covered by collective bargaining arrangements and represented by trade unions by geographical region in 2016/17. During the year no working time was lost due to employee action.

	Permanent employees	Represented	% Represented
Europe	5,893	2,173	37%
North America	3,018	486	16%
Asia	2,151	92	4%
Rest of World	536	273	51%
Total group	**11,598**	**3,024**	**26%**

Average Number of Contractors Employed

	Male	Female	Total
Europe	431	203	634
North America	39	21	60
Asia	80	18	98
Rest of World	11	16	27
Total group	**561**	**258**	**819**



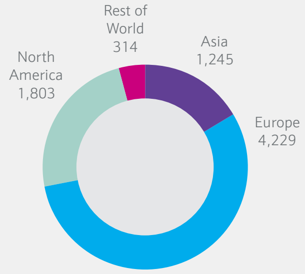
Speak Up Reports

In 2016/17 there were a total of 75 speak up reports, an increase of 42% (see page 56). 63% of these were closed in the year. We view the uplift as a positive reflection of a greater awareness and understanding of the benefits of speaking up, and that our people know that raising concerns is valued and investigations are taken seriously.

Concern raised	Number of cases
Bribery and corruption	8
Business and financial reporting	6
Business integrity	10
Competition / anti-trust	1
Confidential information and intellectual property	4
Conflict of interest	2
Discrimination or harassment	33
Environment, health and safety	8
Other or general enquiry	3

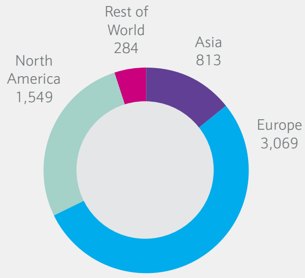
Anti-Bribery and Corruption Training by Region

number of employees



Competition Law Training by Region

number of employees



Health and Safety

Our science enables a cleaner and healthier world. At the same time, we are committed to the health and safety of everyone involved in bringing our science to life.

Health and Safety – Performance

	2017	2016	% change
Lost time injury and illness rate (LTIIR)	**0.49**	0.37	+32
Total recordable injury and illness rate (TRIIR)	**1.05**	0.85	+24
Incidents of occupational illness cases per 1,000 employees	**1.00**	0.90	+11

Introduction

Our vision is for a cleaner and healthier world and we make health and safety our priority. We use our scientific know-how to improve health, safety and wellbeing. It is applied by our customers in products that are used to relieve pain, restore hearing and alleviate the symptoms of a variety of medical conditions. At the same time, we strive to safeguard the safety and wellbeing of our staff and those who come into contact with our products.

Health and safety is one of Johnson Matthey's core values and we have been working hard to embed it in our culture. We have adopted a safety culture maturity model (below) to guide our progress and employees are required to follow five clear and simple safety principles. In addition, with a health and safety element now a requirement of all employees' performance reviews, we have taken further steps to ensure it remains firmly on everyone's radar.

The group has made good progress over the past few years. However, recently the trend of improved performance has reversed and we must do better. We are committed to this and over the last year new measures, such as an improved incident reporting system and a new behavioural training scheme, have been put in place to help us regain momentum.

Our Commitment to Health and Safety

Our focus on health and safety is underpinned by five principles:

1. All injuries and occupational illnesses are preventable.
2. We are all responsible for preventing injuries and occupational illness.
3. Adherence to lifesaving policies and site safety rules is mandatory.
4. Working safely is a condition of employment.
5. We will promote off the job health and safety for our employees.

The maturity model that we have adopted helps map our course towards further improvements in embedding health and safety. We reviewed our performance this year and believe that we have remained at level three, 'involving', which is about making sure all of our people are engaged. We know that culture does not change overnight and a one size fits all approach to health and safety won't get the positive results we require, so progressing along the maturity model demands commitment and rigour.

To move to level four we need to make sure that everyone at Johnson Matthey reaches a high level of engagement with health and safety. This starts with our managers and team leaders who need to inspire their teams and lead by example. We are bringing this to life for them through a new training programme, 'My Team, My Responsibility'. This is reinforced by the delivery of site specific improvement plans for each of our sites, 70 of which were developed last year. These plans identify specific areas of action for example, improving communications, tightening up our processes and training leaders in how to make safety a priority.

27 of our sites are compliant with BS OHSAS 18001, the internationally recognised British Standard that sets out requirements for occupational health and safety management good practice.

All of our manufacturing sites have formal health and safety committees to help monitor, collect feedback and advise on occupational safety programmes. They are led by site senior management and meet on a regular basis to cascade plans and ideas to and from our workforce. Over half of our manufacturing sites have a formal joint worker-management health and safety committee comprised of representatives from both staff level and management grades, covering 67% of employees globally.

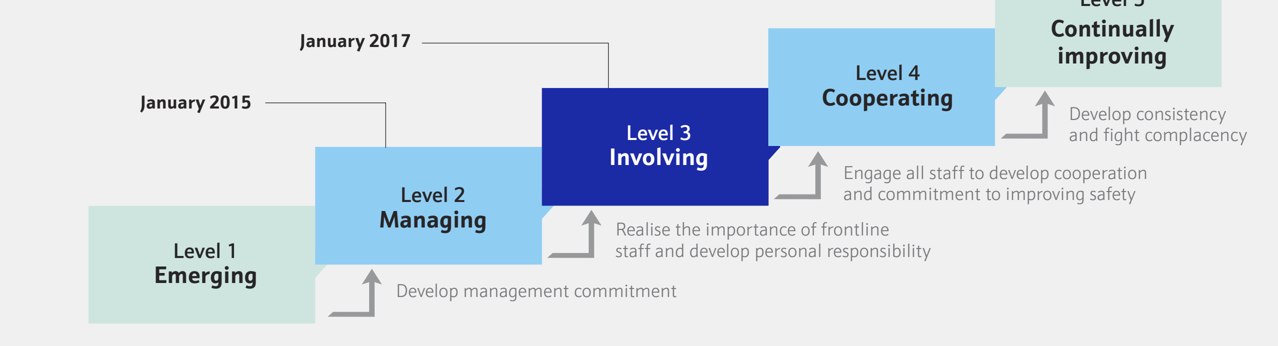
Safety Performance

Our performance is summarised in the table on page 60 and the charts on page 65. Our LTIIR rate increased by 32% during the year, from 0.37 in 2015/16 to 0.49 in 2016/17. Over the same period, our TRIIR also increased from 0.85 to 1.05, an increase of 24%. There were a total of 60 lost time accidents and illnesses across the group during 2016/17. There were no employee fatalities in the year; the last employee fatality at Johnson Matthey occurred in July 2015.

We have focused on behaviours with the launch of the Environment, Health and Safety (EHS) Behaviour Standard and there was a reduction in the number of incidents related to people failing to follow procedures. The standard has also empowered people to speak up about incidents and say when they are related to workplace design. Remedial action plans are then set up to tackle the issues.

Most of the increases in incidents are found among those where a lack of situational awareness is a key root cause, with workers failing to maintain their attention when in the workplace. One of the modules of the new My Team, My Responsibility programme aims to encourage a mindset of heightened awareness of the hazards in the workplace.

Our Safety Culture Maturity Model



3. People and Planet

Health Performance

In line with our health and safety principles, we have continued to focus on supporting employees' wellbeing. Our specialist occupational physicians were involved in several projects during the year, including a review of our emergency treatment options for acids. As new treatments became available we wanted to explore how we might use them in our own operations. We provided guidance to managers on stress, which is a significant cause of occupational illness at Johnson Matthey. We also reviewed cases involving chemical exposure so that we can identify the symptoms more easily as these cases are often misdiagnosed.

85% of our facilities around the world conducted an annual sustainable health review and improvement planning process in 2016/17, which was a slight decrease on last year. The top three issues identified were ergonomics, wellness and chemical exposure management.

We use a health scorecard system developed by the UK Chemical Industries Association to rate the level of implementation of preventative programmes against our corporate standards. The scorecard includes 14 key elements that align with our most significant health risks. 88% of sites completed their health scorecard review during the year. We saw a small decrease in the proportion of sites achieving A and B levels of maturity and a corresponding increase in sites reporting C and D grades, mainly due to new sites self-reporting. We expect these grades to improve next year.

Employee occupational illnesses increased slightly from 0.9 cases per 1,000 employees in 2015/16 to 1.0 cases per 1,000 employees in 2016/17. Our overall number of occupational illnesses remains very low and we expect to see some annual fluctuations as these are subject to statistical variation.

Contractor Health and Safety

The health and safety of contractors working for Johnson Matthey is as important to us as that of our staff. Our clear and determined efforts to ensure the safety of contractors was reflected in two projects during the year. During the construction of our platinum group metal refinery in China, we had zero lost time accidents over 700,000 man hours. Our newly built factory for assembling battery systems in Poland also achieved health and safety excellence during construction, with zero lost time accidents over 330,000 man hours.

Overall, contractor LTIIR dropped from 0.53 to 0.30. We saw a reduction from 11 lost time incidents during 2015/16 to six during 2016/17. The number of contractor hours worked during 2015/16 and 2016/17 are very similar at around four million hours. There were no contractor fatalities in 2016/17; the last one occurred in October 2010.

We revised our contractor safety policy during the year and launched new guidance to help sites achieve compliance. There have been no other formal changes to our contractor management during 2016/17.

My Team, My Responsibility

My Team, My Responsibility training builds on our EHS behaviour awareness programme. It is aligned with our EHS Behaviour Standard, which forms part of our performance review process and sets out expected behaviours around safety standards, communication, risk management and involvement for all levels of staff.

This training builds on work we have already done to encourage employees to take personal responsibility for safety. Team leaders receive training on how to deliver the interactive programme. Back at their local site, team action plans are developed, along with how they will be tracked. These are later submitted to a third party consultancy for audit.

The aim of the programme is to help us identify preventative measures to avoid incidents from happening in the first place. It will also build the skills and confidence of team leaders, remove employee reluctance to speak up and make the right behaviours second nature.

Improving Safety with Better Reporting

A robust system for reporting and understanding safety incidents will also help drive improved performance. In April 2017, we replaced our existing system, which did not have sufficient global consistency, with a new system called Enablon.

Enablon has powerful reporting capabilities and formal action management to ensure that corrective action is taken. The system is globally consistent and will enable us to analyse trends, giving clear visibility of incidents and near misses. This will help us identify patterns and proactively target areas of concern before they escalate into accidents. Its analysis functionality also provides a root cause analysis of incidents and captures behavioural safety observations.

Combating Common Causes of Injury

Slips, trips and falls are also a common cause of injury; 24% of our lost time injuries come from these incidents. We have launched a training video in 11 languages to help employees develop positive behaviours to prevent these injuries occurring. The video is used at team meetings, inductions and awareness events, so that the risks are front of mind among all employees.

Process Safety Risk Management

We take our responsibility to safeguard products and processes that are potentially harmful very seriously, beyond simply complying with the law.

One area of special concern for us is process safety risk management (PSRM), which is all about how we safely manage our most hazardous processes. We have implemented our own PSRM policy, developed a process safety audit protocol and audited selected sites. We have worked with the Chemical Industries Association in the UK to develop national training standards for process safety.

New this year was a revision of our PSRM policy and guidance, which are available to employees on our intranet. The policy defines 'applicable processes', i.e. those with high hazards such as flammable gas and toxic liquids. In 2016, we surveyed our sites to find out exactly where our process hazards are located. We found that 30 of our 70 sites operate these applicable processes and we are now better placed to develop a schedule for auditing these sites. To date, we have no specific process safety performance indicators and in the coming year we plan to explore how we might set up common global indicators.

Regular and Hazardous Work Audits

Following the tragic fatality at one of our US sites in July 2015, we undertook 26 hazardous work audits at our largest manufacturing plants. These raised over 600 improvement actions, ranging from smaller scale improvements to training programmes and, in some cases, complete rethinks of a site's systems. Of the sites that were audited, eight have a combined total of 48 audit actions ongoing, to be completed in the 2017/18 reporting year.

We also have an ongoing programme of regular EHS assurance audits. These are undertaken using global protocols, which have been updated to incorporate the key findings of the hazardous work audits. In 2016/17, we undertook 23 audits at our manufacturing and R&D facilities. Priority was given to sites that were not part of the hazardous work audit programme and had not been subject to a routine audit in the past 18 to 24 months.

Product Lifecycle Management

Our products make a significant contribution to protecting the planet and the efficient use of its resources. However, the chemicals that go into them need careful management throughout their lifecycle. We take this product stewardship very seriously through our policies and practices on product lifecycle management.

The majority of products that leave our sites are only part way through their lifecycle. They go on to become part of another product or material, which will be used and then disposed of or recycled.

Irrespective of our product's lifecycle stage, the same principles of product stewardship are applied. We are committed to responsible management of the chemicals we use and produce and have well established systems to ensure the sound management throughout their lifecycle. Our approaches are in line with the global framework introduced by the Strategic Approach to International Chemicals Management (SAICM) to promote chemical safety around the world.

By carrying out rigorous evaluations of our new and existing products, assessing any risks associated with product use and determining appropriate risk management measures, we ensure vital information is communicated to end users and others in the supply chain. Our procedures also capture information on component sourcing, when appropriate, and our technical / safety data sheets detail safe use, disposal and substance content information. These procedures are applied to all of our significant product and service categories. We work collaboratively with industry partners and customers, regulators and non-governmental organisations to increase understanding of the lifecycle impacts of our products and to maintain confidence in Johnson Matthey as a responsible company.

Our businesses have management systems to assess the health and safety impact of products across their lifecycle, from product concept and R&D through manufacturing, distribution, the use phase, and finally to end of life or reuse. As such, all significant product and service categories are assessed for improvement in terms of health and safety impacts. To maintain a focus on our products' sustainability, we have recently formed a central committee to monitor substance of concern designation and establish a focused list of substances that are relevant to Johnson Matthey, which an authorised manager will need to approve new uses of within our businesses and technology centres. Johnson Matthey's products are not subject to restrictions in the markets in which they are offered and our regulatory affairs teams are well placed to respond to stakeholder questions related to banned or disputed products.

Read more online, including our policy on animal testing: www.matthey.com/sustainability

We use a systematic product responsibility reporting scheme to monitor the performance of our operations and maintain surveillance of the company's products and services.

In 2016/17, there were no notifications of significant end user health effects involving our products. We did not identify any non-compliance with regulations or voluntary codes concerning health and safety impacts of products and services or product and service information, labelling and marketing communications.

Work continued during this year to harmonise the hazard communication documentation across the company. A number of divisions are regionally centralising their hazard communication teams and collaborating more broadly to drive continuous improvement in the quality of information in our safety data sheets and product labelling.

3. People and Planet

We continue to contribute to industry wide efforts to develop state of the art guidelines on occupational hazard and safety management information for platinum group metals and their products, via the International Platinum Association's Platinum Group Metals Health Science Research Group (HSRG). During the year, we have been developing a workplace guide that will support the industry in ensuring these critical chemicals and products are responsibly managed.

Phase two of the HSRG-funded epidemiology study on occupational chloroplatinate exposure paradigms and risk of respiratory sensitisation (allergy and asthma), designed to update the previous study with more recent exposure monitoring data, has recently commenced. Chloroplatinates feature as intermediates in the manufacturing processes for some of our platinum based products. Planning for how our operations will comprehensively meet the voluntary exposure control target for chloroplatinates, which we reported on last year, progressed well during 2016/17.

Regulatory developments around the globe continue apace. We maintain active horizon scanning to ensure our current and future business plans align with the prevailing chemical and product legislative requirements in, for example, South Korea, India and the Eurasian Economic Area.

Preparations to submit the remaining 120 lower tonnage substance registrations before May 2018 under the EU chemical management framework known as REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation) are progressing to plan and we remain on track to meet the regulatory deadline.

Our US sites met their 2016 Chemical Data Reporting obligations under the Toxic Substances Control Act (TSCA). We have reviewed and updated our TSCA reporting and retention programmes to ensure our continued compliance.

We have entered into initial dialogue with certain UK Government departments and the UK Chemical Industries Association, in relation to how chemicals control policies may develop following the UK's decision to leave the European Union.

In 2017/18, Johnson Matthey will join The Council of European Chemical Industry (CEFIC) as a corporate member. This follows recognition that our portfolio of businesses and products has an increased interest in chemistries that CEFIC and its sector groups actively support through leading advocacy within Europe. In addition to coverage related to our water technologies, catalyst and active pharmaceutical ingredient interests, Johnson Matthey will benefit from CEFIC's horizontal programmes on, for example, regulatory horizon scanning and advocacy, sustainability and the circular economy.

Priorities for 2017/18

To reverse 2016/17's negative trend in our health and safety performance, in 2017/18 we will review our strategy and develop an updated approach. At the same time, we are improving our reporting methods so we can better review and track leading indicators (such as near misses, safety observations and training coverage) so that we can take preventative action before accidents happen. We will do this through Enablon. Following its launch to EHS representatives across the world, we now need to embed it more widely so that everyone knows when to and how to log events. The system also helps us track the follow up and closure of incidents. This should increase our understanding of risk in different environments and add rigour to our processes, which in turn will improve performance.

In addition, we plan to integrate our PSRM audits into our regular assurance programme of EHS audits and review our overall approach to PSRM. We will also complete the roll out of My Team, My Responsibility training which will help raise awareness of workplace hazards, increase employee engagement and stimulate personal commitment to EHS.

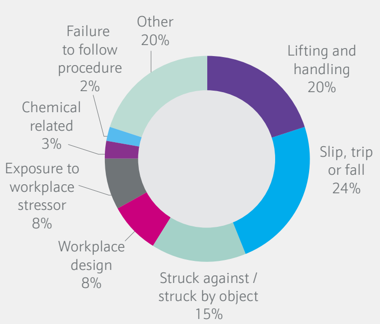
We will continue work to embed and enhance our product stewardship assessments, which will help to refine the process of developing and introducing new products across our markets and geographies. We plan to integrate the framework into business processes through, for example, awareness training, in order to support our focus on sustainable product development.

Following a review of key EHS policies this year, including our eight lifesaving policies, we will be working to embed them more fully in the business in the year ahead.

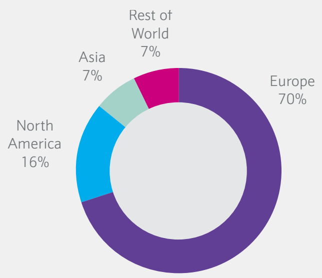
Looking further ahead, our aim is to be in the top 10% of our industry peers and we will benchmark our progress whilst continuing to develop and adapt our long term strategy to realise our aspiration of zero harm.

Health and Safety – Performance Data

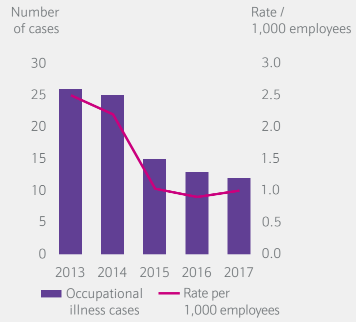
Lost Time Injuries and Illnesses by Event Type



Lost Time Injuries and Illnesses by Region

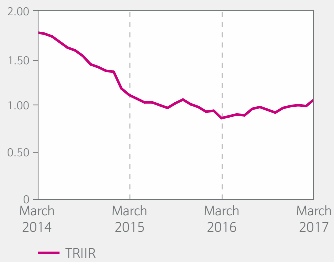


Occupational Illness Cases



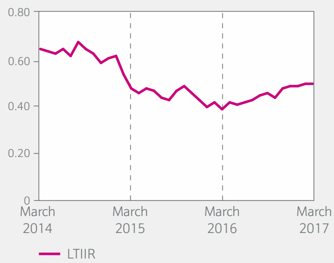
Lost Time Injury and Illness Rate (LTIIR)

per 200,000 working hours in a rolling year

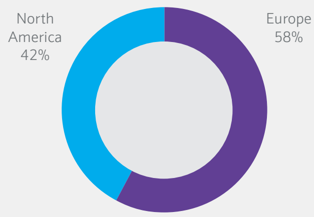


Total Recordable Injury and Illness Rate (TRIIR)

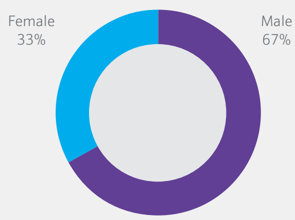
per 200,000 working hours in a rolling year



Occupational Illnesses by Region



Occupational Illnesses by Gender

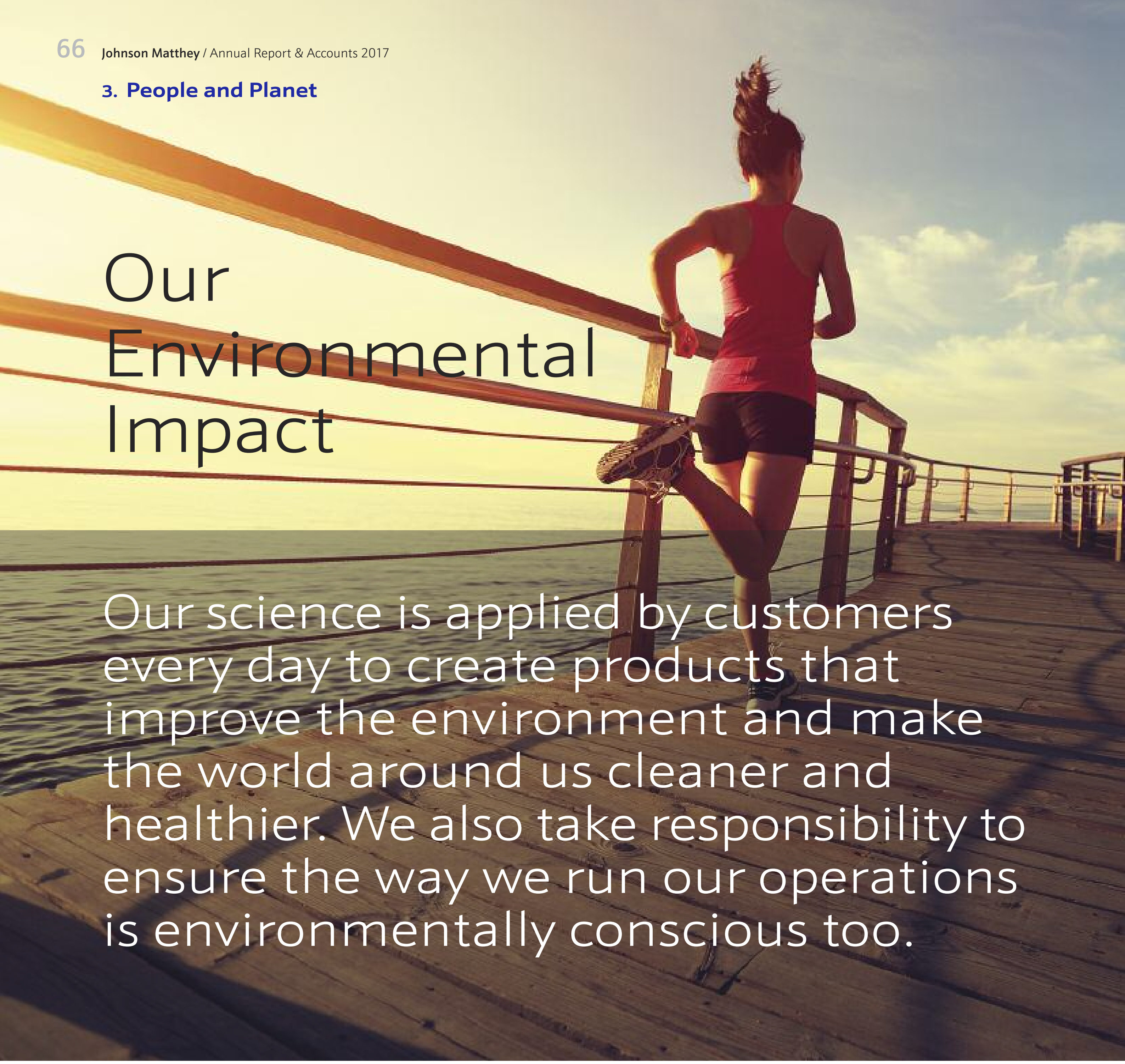


Trade Union Committee Representation

23 of our manufacturing sites have active trade unions, with 20 of them having a trade union representative on their local health and safety committee and 15 sites have formal trade union agreements that cover health and safety topics (listed in the table below).

Topics Covered by Trade Union Agreements

Topic	% of sites covered
Use of personal protective equipment	73
Participation of worker representatives in health and safety inspections and investigations	87
Training and education	80
Complaints mechanisms	87
The right to refuse unsafe work	73
Periodic inspections	60



Our Environmental Impact

Our science is applied by customers every day to create products that improve the environment and make the world around us cleaner and healthier. We also take responsibility to ensure the way we run our operations is environmentally conscious too.

Performance Summary

		2017	2016	% change
Carbon footprint[1]	thousand tonnes CO_2 equivalent	**509**	482[2]	+6
Energy consumption	thousands GJ	**5,136**	5,064	+1
Electricity consumption	thousands GJ	**1,955**	1,801	+9
Natural gas consumption	thousands GJ	**2,868**	2,948	-3
Waste to landfill	tonnes	**6,894**[3]	1,953	+253
Water withdrawal	thousands cubic metres	**2,643**	2,605	+1

1 Calculated using regional or national emissions data.

2 Restated to account for a miscalculation in the carbon intensity of electricity at Redwitz, Germany.

3 Excludes 17,682 tonnes of uncontaminated soil from a construction project in Redwitz, Germany, which was classified as non-hazardous waste to landfill under local law (see page 67).

Improving Processes to Support Performance

Sustainability 2017 has supported our ambition to grow responsibly. We have made huge progress towards the tough environmental targets we set ourselves in 2007 (detailed on page 14). In some cases we exceeded them, thanks to the work that has been carried out by our employees at a business and site level supported by established policies, systems and processes at the group level.

Our Manufacturing Excellence programme is one such way we have realised our ambitions. Launched half way through the Sustainability 2017 programme in 2012, it encourages a continuous improvement culture to enhance the efficiency and long term profitability of our operations. Progress is measured against ten criteria. The highest performing sites can work towards silver, gold or platinum status. This year, our site in Skopje, Macedonia, became the first to reach gold level and was followed by our Smithfield site in the US.

Each of our businesses sets internal reduction targets that are formally reviewed as part of the annual budget process to ensure that they are aligned with, and contributing to, the group's goals. In addition to process improvement efforts, the efficiency and longevity of equipment are considered in purchasing decisions and for large capital expenditure projects.

We have well established policies, processes and systems in place to manage environmental performance and help us realise continuous improvement. All our major manufacturing sites are required to maintain certification to the ISO 14001 environmental management system as a means of setting, maintaining and improving standards. We also require new or acquired sites to achieve ISO 14001 certification within two years of beneficial operation or acquisition; 89% of such sites are ISO 14001 compliant. Across all our global manufacturing sites 86% are compliant.

Going beyond this, 15% of our manufacturing sites are also ISO 50001 compliant. ISO 50001 builds on ISO 14001 and looks specifically at the development of energy management systems to systematically and continuously improve energy efficiency. Our manufacturing sites in Macedonia, South Africa and our major sites in Germany have all achieved this standard.

Environmental Performance

Every year we undertake a comprehensive review of group environmental performance across all our manufacturing and R&D facilities. Data over a five year period is presented on page 69. Year on year performance is highlighted in the commentary below.

This year four of our six key environmental indicators improved relative to sales, demonstrating the positive impact of our sustainability and continuous improvement efforts as our business grows.

Carbon Footprint

One of our Sustainability 2017 targets has been to halve our carbon intensity from a 2007 baseline. We achieved that goal and we are aiming to further reduce greenhouse gas emissions per unit of production output as part of our sustainable business goals to 2025.

We report greenhouse gas emissions from our manufacturing processes and energy usage in accordance with the 2015 revision of the Greenhouse Gas Protocol (www.ghgprotocol.org). Our total carbon footprint is based on:

- Scope 1 emissions – generated by the direct burning of fuel (predominantly natural gas) and process derived carbon dioxide (CO_2) emissions
- Scope 2 emissions – generated from grid electricity and steam use at our facilities
- Scope 3 emissions – losses from the transmission and distribution of electricity.

We report Scope 2 emissions using two methods: the location method, which makes assumptions based on regional or national emissions data; and the more recently introduced market method, which accounts more accurately for the emissions from the energy a business is buying, particularly when using low or zero carbon green tariffs.

16% of our sites are now using zero carbon tariffs for their electricity. Across all the areas where market data is available (which is 86% of our operations), 63% of sites are using electricity with a lower carbon intensity than the regional average.

As such, our total carbon footprint (Scope 1 and 2 emissions) is 7% lower using the market method than with the location method. Using the market method, our carbon footprint relative to sales decreased by 12%, and by 6% using the location method.

We will use the market method for recording progress against our new sustainable business goals to better reward sites that are switching to green lower carbon tariffs.

Energy Consumption

Sales grew by 13% in the year at actual rates and 3% at constant rates. By contrast we recorded a 1% absolute increase in energy usage within our facilities this year, attributed to the addition of two new manufacturing sites in the US and Finland and our new precious metal refinery in China. The differential highlights the ongoing energy efficiency and decarbonisation of our manufacturing processes and the efforts our people are making in continuous improvement.

Our site energy use comprises 56% natural gas, 38% electricity and 6% other fuels, predominantly attributed to diesel and gasoline used in our automotive engine test facilities. 0.5% of our electricity came from solar energy sources that are not grid connected.

Waste

For a business with as many complex global operations as Johnson Matthey, achieving zero waste to landfill has always been a particularly challenging target. This year, we introduced a more detailed waste reporting system for waste disposal across the group, allowing us to better track and report the considerable efforts our sites are making in minimising their waste streams and disposing of waste in the most responsible way.

These efforts have allowed us to make good progress towards our waste target in previous years, but in this final year of Sustainability 2017 we experienced some significant setbacks in the face of changing classifications and regulations.

Most significant was the disposal of 17,682 tonnes of non-hazardous soil in a construction project at our site in Redwitz, Germany. Local law states that any soil extracted must be reused within the same county and, if builders cannot find a buyer for their soil within the county, it must go to landfill.

Unfortunately, our Redwitz site was unable to find a buyer for its soil and so it was sent to landfill. We consider this to be an exceptional event and so have not included it in our ten year performance metrics for Sustainability 2017.

This year we also needed to send inert refinery slag from our Brimsdown, UK refinery to landfill. When the material has been produced in previous years we have been able to find reuse applications for it in the construction industry. Unfortunately we were unable to find an appropriate partner to work with on this occasion. This is not a sustainable solution and we will continue to search for a new partner.

Nonetheless, our sites continue to make efforts to find innovative ways to reduce their waste. Our site in Panki, India rethought its recycling process in the year, improving safety by reducing manual handling and reducing the site's waste by 2%.

Water Withdrawal

Our water withdrawal was similar to last year at 2.6 million m^3, a 2% increase in absolute terms but a 10% decrease relative to sales. 92% was supplied by local municipal water authorities, 6% was abstracted from groundwater, 2% was abstracted from fresh surface water and 0.01% was stored rainwater.

26 sites operate their own waste water treatment facilities treating 1.2 million m^3 of waste water per year. 26% of the water treated on site is recycled back into our processes rather than being discharged as effluent, also reducing our water demand. Our Clitheroe, UK site is leading the way, recycling 41% of the water treated on site.

Our total effluent increased 23% to 2.1 million m^3, largely due to more accurate metering at some of our facilities. 89% was discharged to local authority sewers after treatment and in accordance with local discharge consent agreements. The remainder was discharged to water courses after treatment and within quality limits set by local water authorities.

Our total consumption, water withdrawn less water discharged, was 573,664 m^3.

Water Risk

Water is an essential resource. The World Resource Institute (WRI) reported in June 2016 that in the industrialised world, fresh water is becoming scarcer due to increased demand and higher pollution levels. Availability is often transient, dependent on changing weather patterns.

A reliable supply of fresh water is required by all our manufacturing sites and, often in considerably greater quantities, by our strategic suppliers. To examine our exposure, we periodically undertake water stress surveys of our business. We also report our principal water risk publicly through the annual CDP Water survey.

Since our last water stress survey in 2012, our portfolio of sites has grown and changed, so this year we conducted a new survey using the World Business Council for Sustainable Development (WBCSD) Global Water Tool™ (version 1.3). Of the 66 principal sites surveyed, 15 were identified as being in regions of extreme water stress. Our water usage at most of these is very low, however there are four sites that are mains connected and are close to using the available supply per capita: Taloja, India; Yantai, China; New Mexico, US; Brimsdown, UK. Using the data from the survey we will prioritise water conservation projects for the sites that are at the greatest risk of an interruption to supply.

Our largest water risks are in our supply chain, where we are exposed to industries that are significant water users, such as mining and agriculture. The next step is to gather the exact locations of our strategic suppliers' facilities and evaluate them with the WBCSD tool.

Environmental Incidents

Johnson Matthey has a robust and effective management system that requires all sites to report environmental incidents to our Group Environment, Health and Safety (EHS) department. All spills that occur on unmade ground or near drinking water sources are classified as significant. Under this definition, two sites reported one significant spill each this year, both of which were remediated. There were no significant fines and no non-monetary sanctions for non-compliance with environmental laws and regulations in the year. However, we are involved in one ongoing dispute.

Environmental Spills

Site	Volume (litres)	Material	Impact
Kotka, Finland	3,700	Chemicals	Remediated with no environmental impact
West Deptford, US	50	Chemicals	Under investigation

Understanding Potential Impacts of Climate Change on Our Business

We disclose our environment, social and governance (ESG) performance through the Carbon Disclosure Project (CDP) climate change programme, which looks at risks and opportunities of climate from the world's largest companies on behalf of institutional investors. We also participate in benchmarking studies to deepen our knowledge and compare our progress against our peers. A changing global climate brings with it a number of risks and opportunities for Johnson Matthey which we continually consider and review annually as part of our CDP disclosure. The most significant of these continue to be environmental legislation and water availability.

Priorities for 2017/18

Having halved our carbon intensity over the ten years of Sustainability 2017, we are looking to extend our efforts in this area with the ongoing reduction of greenhouse gases per unit of production output. This is one of the themes of our sustainable business goals to 2025. We will continue to report our carbon footprint using the location and market based methods but will switch to the market method for reporting progress as it more accurately reflects the efforts our sites are making to decarbonise their energy usage.

Our Environmental Impact – Performance Data

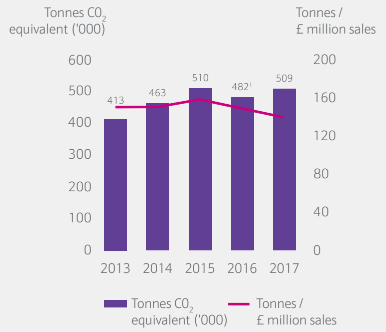
Carbon Footprint

	2017 thousand tonnes CO_2 equivalent	2017 % of total carbon footprint	2016 thousand tonnes CO_2 equivalent[1]	2016 % of total carbon footprint[1]
Scope 1	**203**	**40%**	204	42%
Scope 2 (location based method)	**282**	**55%**	258	54%
Scope 2 (market based method)	**247**	**52%**	253	53%
Scope 3 (from electricity transmission and distribution)	**24**	**5%**	20	4%
Total carbon footprint (location based method)	**509**	**100%**	482	100%
Total carbon footprint (market based method)	**474**	**100%**	477	100%

1 Restated to account for a miscalculation in the carbon intensity of electricity at Redwitz, Germany.

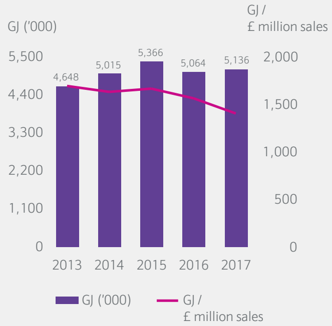
Carbon Footprint

	Tonnes CO_2 equivalent ('000)	Tonnes / £ million sales
2013	413	153.2
2014	463	153.4
2015	510	161.2
2016	482[1]	151.8
2017	**509**	**142.4**



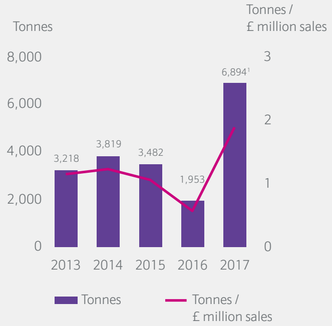
Energy Consumption

	GJ ('000)	GJ / £ million sales
2013	4,648	1,724
2014	5,015	1,662
2015	5,366	1,696
2016	5,064	1,594
2017	**5,136**	**1,435**



Total Waste to Landfill

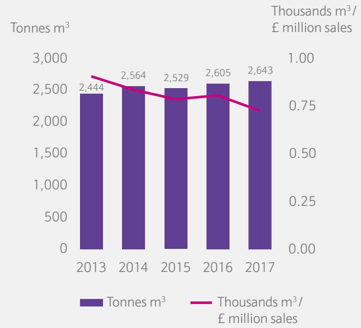
	Tonnes	Tonnes / £ million sales
2013	3,218	1.19
2014	3,819	1.27
2015	3,482	1.10
2016	1,953	0.61
2017	**6,894**[2]	**1.93**



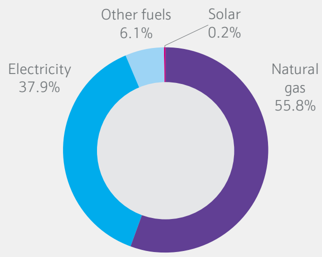
2 Excludes 17,682 tonnes of uncontaminated soil from a construction project in Redwitz, Germany which was classified as non-hazardous waste to landfill under local law (see page 67).

Water Withdrawal

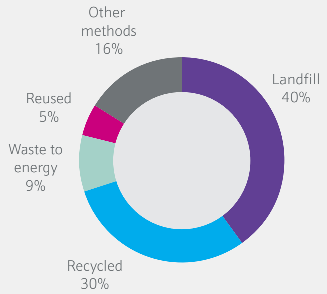
	Thousands m^3	Thousands m^3 / £ million sales
2013	2,444	0.907
2014	2,564	0.850
2015	2,529	0.799
2016	2,605	0.820
2017	**2,643**	**0.740**



Energy Consumption



Where Our Waste Goes



We disposed of 61,270 tonnes of waste via third parties in 2016/17. 36% was classified as hazardous waste, 5% of which was shipped internationally for disposal. In addition, we incinerated 7,974 tonnes of waste within our own facilities, including waste sent to our refineries for precious metal recovery.

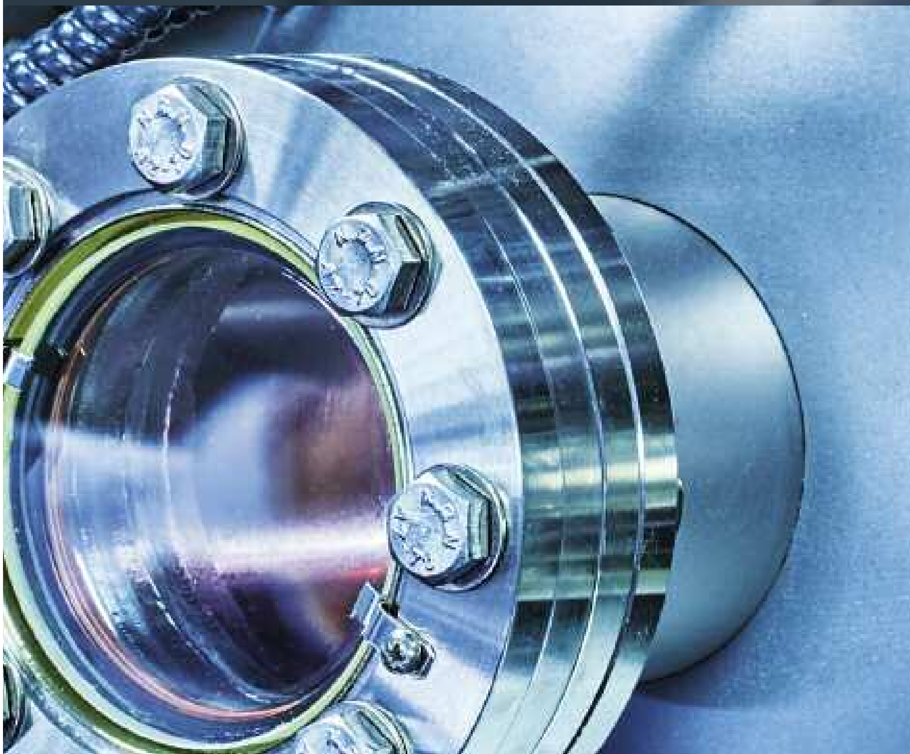
The Strategic Report was approved by the board on 31st May 2017 and is signed on its behalf by:

Robert MacLeod
Chief Executive

4. Governance

The Corporate Governance section, introduced by our Chairman, contains details about the activities of the board and its committees during the year.

It also contains the Directors' Report and the statement on responsibilities of directors.



Contents

Governance

Board of Directors







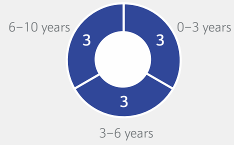


Board Diversity

Gender

Male	Female
67%	33%

Board Tenure



Dorothy Thompson retired as a Non-Executive Director with effect from 20th July 2016.

Den Jones resigned from the board as Group Finance Director at the Annual General Meeting on 20th July 2016 and left Johnson Matthey on 31st July 2016.

Anna Manz joined the board as Chief Financial Officer on 17th October 2016.

Jane Griffiths was appointed as a Non-Executive Director, joining the board with effect from 1st January 2017.

Simon Farrant – General Counsel and Company Secretary
Joined Johnson Matthey: 1994

Experience
Appointed Company Secretary in 1999 and Group Legal Director in 2007. He is a Solicitor and Attorney and Counselor-at-Law (State of New York).

Tim Stevenson, OBE – Chairman
Appointed to board: March 2011

Experience
Tim was appointed Chairman in July 2011. Tim was Chairman of The Morgan Crucible Company plc from December 2006 to July 2012 and Chairman of Travis Perkins plc from November 2001 to May 2010. He has also sat on a number of other boards including National Express plc, Partnerships UK and Tribal PLC. He was Chief Executive at Burmah Castrol plc from 1998 to 2000. He is a qualified barrister and is Lord Lieutenant of Oxfordshire.

Other Current Appointments
Director of the Emmott Foundation Limited.

Committees
Remuneration Committee, Nomination Committee (Chairman)

International Experience
Spain, UK

Sector Experience
Chemicals, Manufacturing, Oil and Gas, Retail

Robert MacLeod – Chief Executive
Appointed to board: June 2009

Experience
Robert was appointed as Chief Executive in June 2014 having joined Johnson Matthey as Group Finance Director in 2009. Previously he was Group Finance Director of WS Atkins plc and a Non-Executive Director at Aggreko plc. He is a Chartered Accountant with a degree in Chemical Engineering.

Other Current Appointments
Non-Executive Director at RELX PLC, RELX NV and RELX Group plc.

International Experience
UK, US

Sector Experience
Chemicals, Oil and Gas, Professional Services

Anna Manz – Chief Financial Officer
Appointed to board: October 2016

Experience
Anna joined Johnson Matthey as Chief Financial Officer in October 2016. She was previously Group Strategy Director and a member of the Executive Committee at Diageo plc. During 17 years at Diageo, Anna held a series of senior roles, including Finance Director Spirits North America, Group Treasurer and Finance Director Asia Pacific. Anna is a qualified management accountant with a degree in Chemistry.

Other Current Appointments
Non-Executive Director at ITV plc.

International Experience
China, India, Ireland, Kenya, Korea, Nigeria, Singapore, UK, US

Sector Experience
Manufacturing, Media

Alan Ferguson – Senior Independent Director
Appointed to board: January 2011

Experience
Alan was appointed a Non-Executive Director of Johnson Matthey in January 2011 and as Senior Independent Director in July 2014. He was previously Chief Financial Officer and a Director of Lonmin Plc. Prior to this he was Group Finance Director of The BOC Group. Before joining BOC, he worked for Inchcape plc for 22 years and was Group Finance Director from 1999 until 2005. He is a Chartered Accountant and sits on the Business Policy Panel of the Institute of Chartered Accountants of Scotland.

Other Current Appointments
Non-Executive Director and Chairman of the Audit Committee at Croda International Plc, The Weir Group PLC and Marshall Motor Holdings plc, where he is also Senior Independent Director.

Committees
Audit Committee (Chairman), Remuneration Committee, Nomination Committee

International Experience
South Africa, UK

Sector Experience
Automotive, Chemicals, Mining

Odile Desforges – Non-Executive Director
Appointed to board: July 2013

Experience
Odile's automotive industry experience began with the French Government's Transport Research Institute and developed with Renault SA and AB Volvo. She has held senior positions in purchasing, product planning, development and engineering, including as Chairman and Chief Executive Officer of the Renault-Nissan Purchasing Organization (RNPO) and most recently as Executive Vice President, Engineering and Quality at Renault. She was appointed a Knight of the French Legion of Honour in 2009.

Other Current Appointments
Non-Executive Director of Safran SA, Dassault Systèmes, Imerys and Faurecia.

Committees
Audit Committee, Remuneration Committee, Nomination Committee

International Experience
France, Japan, Sweden, UK

Sector Experience
Aerospace, Automotive, Defence, Manufacturing, Technology

Jane Griffiths – Non-Executive Director
Appointed to board: January 2017

Experience
Jane is currently Company Group Chairman of Janssen EMEA, the pharmaceutical arm of Johnson & Johnson (J&J). Since joining J&J in 1982 Jane's roles have included international and affiliate strategic marketing, sales management, product management, general management and clinical research. Jane is Director and Chair of the J&J Corporate Citizenship Trust in EMEA, a sponsor of the J&J Women's Leadership Initiative.

Other Current Appointments
Company Group Chairman of Janssen EMEA, Director and Chair of the Johnson & Johnson Corporate Citizenship Trust in EMEA. In addition to the above current appointments, Jane is Director of Johnson & Johnson Innovation Limited and a member of the Corporate Advisory Board of the 'Your Life' campaign.

Committees
Audit Committee, Remuneration Committee, Nomination Committee

International Experience
Africa, Middle East, UK

Sector Experience
Pharmaceuticals

Colin Matthews, CBE, FREng – Non-Executive Director
Appointed to board: October 2012

Experience
Colin has been Chief Executive Officer of Heathrow Airport (previously BAA), Hays plc and Severn Trent plc. He was also Managing Director of Transco and Engineering Director of British Airways. Prior to this he worked in strategy consulting for the motor industry and at General Electric Company. He has also served as Non-Executive Director of Mondi plc.

Other Current Appointments
Non-Executive Chairman at Highways England and Renewi plc.

Committees
Audit Committee, Remuneration Committee (Chairman), Nomination Committee

International Experience
Canada, France, Japan, UK

Sector Experience
Aerospace, Infrastructure, Professional Services, Technology, Utilities

Chris Mottershead – Non-Executive Director
Appointed to board: January 2015

Experience
Prior to joining King's College in 2009, Chris had a 30 year career at BP, most recently as Global Advisor on Energy Security and Climate Change. Before this, he was Technology Vice President for BP's Global Gas, Power and Renewables businesses, and was also the technical manager for its North Sea exploration and production activities. He is a Chartered Engineer and Fellow of the Royal Society of Arts.

Other Current Appointments
Senior Vice President of Quality, Strategy and Innovation at King's College London and Director of King's College London Business Limited. Non-Executive Director of The Carbon Trust, Carbon Trust Investments Limited and Imanova Limited.

Committees
Audit Committee, Remuneration Committee, Nomination Committee

International Experience
UK, US

Sector Experience
Energy, Oil and Gas

John Walker – Sector Chief Executive, Clean Air
Appointed to board: October 2013

Experience
John joined Johnson Matthey in 1984 and was appointed Division Director, Emission Control Technologies in 2009 after holding a series of positions within the division in the US, Asia and Europe. He was appointed Executive Director, Emission Control Technologies in October 2013 (division subsequently renamed Clean Air Sector in April 2017).

International Experience
Australia, China, France, Germany, India, Japan, Malaysia, UK, US

Sector Experience
Automotive, Chemicals

At the date of approval of this annual report, the Board of Directors of Johnson Matthey is as detailed above.

Letter from the Chairman

Good governance is fundamental to a successful company. We believe we have a governance framework which fits our needs and is effective.

Tim Stevenson
Chairman

This section of the annual report describes our corporate governance structures and processes and how they have been applied throughout the year ended 31st March 2017.

My Role as Chairman

My most important role is to ensure that Johnson Matthey has a board which works effectively under my leadership. I believe we have an effective board. We report on pages 82 to 84 on our board and committee review, which we conducted internally this year. I see open and constructive evaluation as integral to improving our effectiveness.

Our governance arrangements continue to be right for the company. They effectively support our strategy and business model and will enable us to respond to any challenges we may face. For me, ensuring the right dynamics of the board is vital. I am pleased to say that overall we have strong contributions and challenge from all our directors in an open and constructive atmosphere. This is in large part created by having a board comprising directors with a broad range and balance of skills, expertise and attributes. As Chairman, I lead the setting of the board's agenda and I pay considerable attention to ensuring we have a plan which allows for appropriate time to discuss all necessary items, particularly the development of strategy and the consideration of risk.

A key part of the board's role is to take effective steps in shaping and embedding a healthy corporate culture throughout our organisation. This is fundamental to being able to build sound governance behaviours and practices, all of which support the success of our company. We describe the board's activities in the year on pages 78 and 79.

Risk Management

Risk management is an important part of our wider discussion of strategy and our operating model. In this report, we aim to demonstrate how our strategy is underpinned by a robust risk management framework.

Succession Planning and Diversity

Ensuring that the group employs a process of thoughtful, strategic and practical succession planning is a key role for the board in nurturing our culture, sustaining our operating model and delivering our strategy. The board itself needs to be refreshed over time, drawing on an appropriately diverse talent pool. We recognise the benefits of bringing greater diversity throughout the organisation and in the boardroom. I am pleased that we now have real momentum in this area. We explain our approaches to this component of board effectiveness in this report.

The UK Corporate Governance Code

We are reporting this year against the 2014 version of the UK Corporate Governance Code and against the additional provisions in the 2016 revised version of the Code. We report on how we have applied the Code's main principles and complied with its relevant provisions. Except in one respect (which is explained on page 86), Johnson Matthey has complied with all relevant provisions throughout the year ended 31st March 2017 and from that date up to the date of approval of this annual report.

Tim Stevenson
Chairman

Getting to Know the Business

In order for our directors, particularly our Non-Executive Directors, to effectively discharge their responsibilities, it is critical that they understand our business.

At each board meeting we review the delivery against strategy of our divisions, either focusing on the whole division or businesses within it. These sessions are attended by the relevant division director and, where appropriate, other divisional senior management. They give the board an excellent opportunity to hear about, discuss and challenge the strategic direction of our business.

Throughout the year, the board also reviews our key functional areas. These reviews are attended by the relevant functional head and, where appropriate, other senior functional management. They enable the board to assess the strength of these functions in their ability to support delivery of the group's strategic objectives.

Last year, we introduced business 'teach-ins' for our board. These are half day sessions, separate from board meetings, which are attended by a range of managers from the relevant business. They are designed to give the board a more in depth insight into our businesses and their customers than is possible during board meetings. This deeper understanding enhances the Non-Executive Directors' ability to challenge, debate and contribute to divisional strategy at board meetings. A teach-in was held during the year on Process Technologies at its facility in Paddington, London (September 2016).

While the majority of our board meetings are held at our City office in London, the board holds two board meetings each year at operational sites. The board always tours the site and management present to them on the business, its challenges and successes. These visits enable the board to see our operations on the ground and to meet the teams that are making them successful. They are a useful opportunity for the board to hear about customers, business issues, risks and strategy as well as environment, health and safety developments and the business' sustainability and manufacturing efforts.

During 2016/17, board meetings were held at our manufacturing site at Royston, UK (April 2016) and in Philadelphia, US (October 2016). At Royston, the board visited Emission Control Technologies to learn more about manufacturing operations and capital projects. During the US visit the board toured our Precious Metal Products' Services business at West Deptford, the focus being on our platinum group metal recycling and refining operations. The board also visited our Fine Chemicals' Active Pharmaceutical Ingredient Manufacturing business' facility at Riverside. Areas of focus included our business' manufacturing operations, customers and partners.

Our Non-Executive Directors also undertake visits to our sites independent of the Executive Directors, either individually or collectively, to further enhance their knowledge and understanding, meeting with management and other employees. During the year, for example, some of our Non-Executive Directors visited our battery materials manufacturing facility at Candiac, Canada, while others visited our Fine Chemicals' operations at Devens near Boston, US, to hear more about the site and the business.

Tim Stevenson and the majority of our Non-Executive Directors also attended for part of the 2016 company conference, which gave them an opportunity to get a feel for the group's culture, hear more about the group's priorities in action and meet employees from across all our divisions and functions.

All of the above activities enable the Non-Executive Directors to continue to develop and refresh their knowledge and understanding of our businesses, the markets in which we operate and our key relationships. They are also important for building links with our employees. Through these, the board develops a sound and balanced insight into the group, which supports it in its role to provide entrepreneurial leadership and set strategy. This has been particularly important this year as we have reviewed our strategy, as explained by Robert MacLeod on pages 6 and 7.

Corporate Governance Report

Introduction

Our board of directors is responsible to our shareholders for ensuring the sound running of the company. This can only be achieved if the board is supported by appropriate and well managed governance processes. The key elements of these are described in this Corporate Governance Report.

UK Corporate Governance Code

The UK Corporate Governance Code (the Code) contains broad principles and specific provisions which set out standards of good practice in relation to **leadership, effectiveness, remuneration, accountability and relations with shareholders.** This Corporate Governance Report is structured to report against the 2014 version of the Code (as well as the provisions of the 2016 revised version of the Code) by reference to each of these key areas. Together with the Nomination Committee Report, the Audit Committee Report and the Remuneration Report, it describes how we have complied with the relevant provisions of the Code and applied its main principles during the year.

Leadership

Governance Framework

The group's principal decision making body is the board. It has responsibility for setting the group's strategic direction and for ensuring that the group manages risk effectively. The board is accountable to shareholders for the group's financial and operational performance. Responsibility for implementing operational decisions and the day to day management of the business is delegated to the Chief Executive who is supported by the Group Management Committee (GMC). The GMC is supported by three sub-committees – the Group Policy and Compliance Committee, the Finance and Administration Committee, and the Contracts Review Committee.

There is a clear division of responsibilities between the running of the board and the executive responsibility for running the business. The board has identified certain matters which only it can approve. These are set out in a schedule of matters reserved for the board. The Chairman's and Chief Executive's roles are separate and this division of responsibilities is clearly established in a written statement. Further information is set out on our website.

> Read more on page 77.

Go online: www.matthey.com/investor/governance

Board Meetings

Each year the board agrees an annual agenda plan. This year, in particular, the board has sought to ensure there is sufficient time to discuss strategy so that the Non-Executive Directors have the opportunity to challenge and help develop strategy proposals.

Our board usually meets formally six times a year. These are shown below for this year.

Date of board meeting	Location	Additional activities
7th April 2016	Royston, UK	Tour of Emission Control Technologies' plant
31st May 2016	London, UK	–
19th July 2016	London, UK	–
4th October 2016	West Deptford and Riverside, US	Tour of Precious Metal Products' Services and Fine Chemicals' sites
15th November 2016	London, UK	–
31st January 2017	London, UK	–

During the year, board members also participated in two scheduled conference calls to give the Executive Directors the opportunity to update the Non-Executive Directors on key matters between board meetings.

Chairman

Tim Stevenson

Key responsibilities

- Leads the board.
- Ensures an effective board, including effective contribution from the directors.
- Ensures that Johnson Matthey maintains effective communications with its shareholders.

Board

Membership

Nine directors (Chairman, three Executive Directors and five independent Non-Executive Directors).

Role

- Provides entrepreneurial leadership of the company and direction for management.
- Has collective responsibility and accountability to shareholders for the long term success of the group.
- Reviews the performance of management and the operating and financial performance of the group.
- Sets strategy.
- Determines risk appetite.
- Ensures that appropriate risk management and internal control systems are in place.
- Sets the company's values and standards.
- Ensures good governance and promotes good behaviour.

Executive Directors

Robert MacLeod
Anna Manz
John Walker

Key responsibilities

- Have specific executive responsibilities.
- Discharge duties in respect of the group as a whole.

Senior Independent Director

Alan Ferguson

Key responsibilities

- Provides a sounding board for the Chairman.
- Acts, if necessary, as a focal point and intermediary for the other directors.
- Ensures that any key issues not addressed by the Chairman or the executive management are taken up.
- Available to shareholders should they have concerns.
- Leads the annual appraisal of the Chairman's performance.
- Ensures an orderly succession process for succession to the chairmanship of the company.

Non-Executive Directors

Odile Desforges
Alan Ferguson
Jane Griffiths
Colin Matthews
Chris Mottershead

Key responsibilities

- Constructively challenge the Executive Directors in all areas.
- Scrutinise management's performance.
- Help develop proposals on strategy.
- Satisfy themselves on the integrity of financial information and on the effectiveness of financial controls and risk management systems.
- Determine appropriate level of remuneration for executive directors.

Chief Executive

Robert MacLeod

Key responsibilities

- Has day to day responsibility for running the group's operations.
- Recommends to the board and implements group strategy.
- Applies group policies.
- Promotes the company's culture and standards.

Company Secretary

Simon Farrant

Key responsibilities

- Acts as secretary to the board and its committees.
- Together with the Chairman, keeps the efficacy of the company's and the board's governance processes under review.
- Has responsibility for compliance with board procedures.
- Provides advice on corporate governance issues.

Audit Committee

Membership

Five independent Non-Executive Directors.
Chaired by Alan Ferguson.

Role

Assists the board in carrying out its oversight responsibilities in relation to financial reporting, internal controls and risk management and in maintaining an appropriate relationship with our external auditor, including recommending reappointment or a requirement to tender.

Nomination Committee

Membership

Five independent Non-Executive Directors and the group Chairman.
Chaired by Tim Stevenson.

Role

- Considers structure, size, composition and succession needs of the board.
- Oversees succession planning for senior executives.

Remuneration Committee

Membership

Five independent Non-Executive Directors and the group Chairman.
Chaired by Colin Matthews.

Role

- Sets remuneration policy for executive directors and the Chairman and determines the application of that policy.
- Reviews and monitors the level and structure of remuneration for senior executives.

Disclosure Committee

Membership

The Chief Executive, Chief Financial Officer and the Company Secretary.
Chaired by Robert MacLeod.

Role

To identify and control inside information or information which could become inside information, and to determine how or when that information is disclosed in accordance with applicable legal and regulatory requirements.

Ethics Panel

Membership

The Company Secretary and three executive heads of functions.
Chaired by Simon Farrant.

Role

To oversee the concerns raised pursuant to the speak up policy, including the effective review and investigation of these concerns.

Group Management Committee

Membership

Chief Executive, Chief Financial Officer, Sector Chief Executives, Chief HR Officer, Chief Technology Officer, General Counsel and Company Secretary.

Role

Has responsibility for the executive management of the group's businesses. Recommends strategic and operating plans to the board.

Group Policy and Compliance Committee

Chaired by John Walker.

Role

Provides leadership, oversight and assurance in relation to certain environment, health and safety, sustainability, human resources and ethics and compliance matters.

Finance and Administration Committee

Chaired by Anna Manz.

Role

Has responsibility for certain of the group's finance and corporate restructuring matters.

Contracts Review Committee

Chaired by Simon Farrant.

Role

Reviews contract and litigation risk for the group.

4. Governance

During the year, the board focused on a number of specific areas which are outlined in the following table. Links to the group's 12 principal risks (below) are also highlighted in the table.

1. Existing Market Outlook
2. Future Revenue Growth
3. Maintaining our Competitive Advantage
4. Environment, Health and Safety
5. Sourcing of Strategic Materials
6. People
7. Security of Metal and Highly Regulated Substances
8. Intellectual Capital Management
9. Failure of Significant Sites
10. Ethics and Compliance
11. Business Transition
12. Product Quality

Principal Board Activities

Activities	Key outcomes	Page reference	Link to principal risks
Strategy			
• Reviewed proposed strategic plans in detail.	Approved refreshing of strategy.	6	1 2 3 4 5 6 7 8 9 10 11 12
• Reviewed Battery Technologies (including battery materials) strategy.	Approved strategy.	42	1 2 3
• Reviewed Precious Metal Products' strategy.	Approved strategy.	38	1 3 7
• Considered Process Technologies' strategic planning.	Elements of plan challenged for further review.	34	1 3
• Reviewed Emission Control Technologies' strategy.	Approved strategy and reviewed investment opportunities to support growth.	30	1 3
• Reviewed innovation.	Endorsed the approach being taken to develop the research and development portfolio and the growth initiatives to build on technical competences.	13	1 2 3
• Considered sustainability goals beyond 2017.	Approved the sustainable business goals to 2025.	51	3 4 5 6
• Reviewed brand proposals.	Considered brand refresh and the programme of delivery to support Johnson Matthey's 200th anniversary.	6	3 6 11
• Reviewed the implications of the UK leaving the EU.	Assessed areas of potential impact and identified issues of unique importance to Johnson Matthey.	18	1 2 4 5 6 8 11 12
• Received a half day deep dive teach-in on Process Technologies.	Helped to facilitate board strategic review and discussion.	75	1 8
Environment, Health and Safety (EHS)			
• Reviewed EHS performance at each board meeting.	Reviewed significant incidents including management response and actions and the outcomes of safety audits.	61	4
• Considered significant EHS incidents. • Reviewed key areas of focus and effectiveness of EHS reporting and management processes.	Reviewed progress on the launch of a new EHS reporting tool.	62	4

Activities	Key outcomes	Page reference	Link to principal risks
Risk and Governance			
• Reviewed board's responsibilities in relation to risk assessment and monitoring of risk management and internal control systems. • Reviewed principal risks, mitigating actions, key assurance activities and risk appetite.	Agreed processes. Assessed and agreed principal risks and the management and mitigation of these risks.	16	1 2 3 4 5 6 7 8 9 10 11 12
• Reviewed key findings of board, committee and Chairman performance evaluation.	Actions agreed.	83	–
• Reviewed directors' conflicts of interest and Non-Executive Directors' independence. • Reviewed the key features of the EU Market Abuse Regulations.	Approved a new inside information policy and established a Disclosure Committee to assist the board in identifying and controlling inside information.	77	
• Considered a recommendation in respect of the creation and governance of a new committee to oversee concerns raised pursuant to the speak up policy.	Agreed that the Ethics Panel be created, reporting to the Board.	77	10
Financial and Operational			
• Reviewed group budget and three year plan. • Reviewed full year results, half-yearly results, trading updates and the annual report.	Approved.	84	1 2 3 4 5 6 8 9 11 12
• Reviewed the group's going concern and viability statements.		47	
• Reviewed the group's dividend policy and proposals in respect of dividends.		46	
Reviewed progress on the development and implementation of groupwide IT and business information systems, including KPMG assurance.	Challenged progress and reviewed the scope of the project.		8 9 10 11 12
• Considered capital investment proposals.	Approved capital investment for battery materials business.	42	1 2 3 5
Shareholder Engagement			
• Reviewed analyst and investor feedback following full year and half-yearly results announcements. • Reviewed proposed results presentations to investors and analysts. • Received an update from one of our brokers, JP Morgan Cazenove, regarding share price performance, market perceptions and relevant macroeconomic factors.	Key reflections taken into account.	51 and 85	–
Our Values			
• Received a legal, ethics and compliance and intellectual property risk update.	Reviewed risks and mitigations.	20-21	8 10
• Reviewed the Modern Slavery and Transparency Statement.	Approved.	53	
Leadership and People			
• Reviewed our people strategy in relation to recruitment, development and support, reward and retention, culture and values and supporting change.	Considered the key actions required by the HR function to implement the people strategy.	55	6 10 11
• Reviewed the results of a global employee survey.	Agreed priority themes to determine actions.	56	
• Considered board succession.	Approved the appointments of Anna Manz as Chief Financial Officer and Jane Griffiths as a Non-Executive Director.	88	

> Read more about our strategy on pages 8 and 9.

> Read more about our principal risks on pages 16 to 21.

Board Committees

Our board has three principal committees: the Nomination Committee, the Audit Committee and the Remuneration Committee.

Go online: www.matthey.com/investor/governance

Board Attendance

The attendance of members at board meetings during the year was as follows:

	Role	Date of appointment to board	Number of meetings eligible to attend	Number of meetings attended	% attended
Tim Stevenson	Chairman	29th March 2011[1]	6	6	100%
Odile Desforges	Non-Executive Director	1st July 2013	6	6	100%
Alan Ferguson	Non-Executive Director	13th January 2011	6	6	100%
Jane Griffiths	Non-Executive Director	1st January 2017	1	1	100%
Den Jones	Group Finance Director	5th June 2014	3[3]	3	100%
Robert MacLeod	Chief Executive	22nd June 2009[2]	6[2]	6	100%
Anna Manz	Chief Financial Officer	17th October 2016	2	2	100%
Colin Matthews	Non-Executive Director	4th October 2012	6	6	100%
Chris Mottershead	Non-Executive Director	27th January 2015	6	6	100%
Dorothy Thompson	Non-Executive Director	1st September 2007	3[4]	3	100%
John Walker	Executive Director	9th October 2013	6	6	100%

1 Tim Stevenson was appointed Chairman on 19th July 2011.

2 Robert MacLeod was appointed Chief Executive on 5th June 2014.

3 Den Jones stepped down from the board at the Annual General Meeting on 20th July 2016.

4 Dorothy Thompson retired from the board on 20th July 2016.

Where directors are unable to attend a board or committee meeting, they communicate their comments and observations on the matters to be considered in advance of the meeting via the group Chairman, the Senior Independent Director or the relevant board committee chairman. Since the end of the year, the board has met twice. Tim Stevenson was unable to attend one meeting due to illness. In his absence, Alan Ferguson, Senior Independent Director, chaired the board meeting. Tim Stevenson reviewed all meeting papers and shared his thoughts, comments and questions with Alan Ferguson, who raised these at the meeting. All other board members attended both meetings.

The attendance of members at committee meetings in the year is set out in the Audit Committee Report, the Nomination Committee Report and the Remuneration Report (in respect of the Remuneration Committee) on pages 91, 87 and 108 respectively.

Individuals' attendance at board and board committee meetings is considered, as necessary, as part of the formal annual review of their performance.

Effectiveness

Our Board's Composition

As at 31st March 2017 and as at the date of approval of this annual report, our board comprised the Chairman, three Executive Directors and five Non-Executive Directors.

Our board seeks to ensure that both it and its committees have the appropriate range and balance of skills, experience, knowledge and independence to enable them to carry out their duties and responsibilities effectively. The board is of the view that it is the right size to meet the requirements of the business; that changes to its composition and that of its committees can be managed without undue disruption; and that it is not so large as to be unwieldy. It also believes that it includes an appropriate combination of Executive and Non-Executive Directors (and, in particular, independent Non-Executive Directors). The size and composition of the board is regularly reviewed by the Nomination Committee.

Independence of the Non-Executive Directors

The board formally reviews Non-Executive Director independence annually, most recently at its meeting in May 2017. The board considers all relevant relationships and circumstances, including those set out in the Code. It considers, for example, whether the director has, or has had within the last three years, a material business relationship with Johnson Matthey, holds cross directorships or has significant links with fellow directors through involvement in other companies or bodies, or represents or has a material connection to a controlling or significant shareholder or is nominated by a shareholder.

The board considers that there are no business or other relationships or circumstances which are likely to affect, or may appear to affect, the judgment of any Non-Executive Director. Each Non-Executive Director is determined by the board to be independent in character and judgment.

Information on the company's procedures for authorising potential conflicts of interest is set out under 'Directors' Conflicts of Interest' on page 82.

Board and Committee Appointments

The board, through the Nomination Committee, follows a formal, rigorous and transparent procedure to select and appoint new board directors. The processes are similar for the appointment of Executive and Non-Executive Directors. The Nomination Committee leads the process and makes recommendations to the board. The board recognises the importance of developing internal talent for board appointments, as well as recruiting externally, and Johnson Matthey has a variety of mentoring arrangements and a wide range of management development programmes for all employee levels, as described on page 55. The board also recognises the need to recruit Non-Executive Directors with the right technical skills and knowledge for its committees and who have the potential to chair them.

Terms of Appointment of the Non-Executive Directors

Our Non-Executive Directors are appointed for specified terms subject to annual election and to the provisions of the Companies Act 2006 (the 2006 Act) relating to the removal of a director. In accordance with the Code, any term beyond six years for a Non-Executive Director is subject to particularly rigorous review. Odile Desforges and Alan Ferguson, two of our Non-Executive Directors who will be proposed for re-election at the 2017 AGM, have served on our board for three years and six years respectively. Their terms of appointment were reviewed and extended during the year.

The term of appointment of Tim Stevenson as Chairman was reviewed in May 2017. After full review, this was extended to 31st December 2018.

Succession Planning

The board recognises that good succession planning is not only a fundamental component of board effectiveness but is also integral to the delivery of Johnson Matthey's strategic plans. It is essential in ensuring a consistent level of quality in management, in avoiding instability by helping mitigate the risks which may be associated with any unforeseen events (such as the departure of a key individual), and in promoting diversity. The board, through the Nomination Committee, is actively engaged in succession planning to ensure plans are in place for the orderly and progressive refreshing of its membership and to identify and develop senior management with potential for board and GMC positions through a pipeline of talented and capable individuals from within Johnson Matthey.

Each of our sectors and corporate functions prepare and maintain succession plans, assisted by sectoral and group Human Resources. A key aim is to ensure that we have the right mix of talent capability to support our business strategies whilst also encouraging broad experiences through movement of talent across our sectors and corporate functions. The GMC reviews these plans each year and the identification and development of high potential individuals is also considered. The GMC's review of succession plans generally leads to further refinement and changes, resulting in the final plans which are submitted to the Nomination Committee. Each year the Nomination Committee, with input from the Chief HR Officer, reviews the management development and succession planning processes for the directors and senior executives, approves succession plans for the board and considers succession plans for senior executives. Key initiatives continued this year are our executive development programme with London Business School, aimed at developing senior level talent and boosting their capabilities around strategy and leadership; our global management development programme, aimed at developing our middle level talent identified as having potential for future strategic leadership roles; and a global training curriculum to support the group's Manufacturing Excellence programme.

Succession planning at board and senior management level for Johnson Matthey includes potential succession to all senior roles, including that of Chief Executive, and considers the identification, development and readiness of potential internal successors. The board (through the Nomination Committee) will continue to focus during the coming year on the key issues of active talent management, mobility across the group and diversity.

Boardroom Diversity

Our board believes that diversity is important for board effectiveness.

Our board has adopted a diversity policy and this is set out in full on our website. We have not set express diversity quotas or measurable objectives for implementing the policy. However, in recent Non-Executive Director selection processes the board has encouraged applications from women subject to the objective selection criteria being met and to the appointment of the best qualified candidate.

As at the date of approval of this annual report we had three women on our board, which represented 33% of our total board membership.

The company has taken several steps to promote diversity and inclusion both at senior management level and in the boardroom. Developing policies and processes that prevent bias in relation to recruitment and promotion form the basis of this. These include requiring balanced shortlists when recruiting, actively discussing diversity in succession planning and talent management, promoting industrial and scientific careers to women and flexible employment policies. There remain challenges to overcome, particularly in respect of gender diversity given the sector in which Johnson Matthey operates, but we are making good progress.

>
Read more about diversity and inclusion across the group on page 57.

Go online: www.matthey.com/investor/governance

Under the Code, evaluation of the board should consider board diversity (including gender), how the board works together as a unit and other factors relevant to its effectiveness. Our board followed this principle in its board and committee evaluation process in 2016/17. Further information is set out under 'Evaluation of the Board, Board Committees and Directors' on page 82.

Time Commitment of the Chairman and the Non-Executive Directors

The board recognises that it is vital that all directors should be able to dedicate sufficient time to Johnson Matthey to effectively discharge their responsibilities. The time commitment required by Johnson Matthey is considered by the board and by individual directors on appointment. The letters of appointment of the Chairman and of each Non-Executive Director set out the expected minimum time commitment for their roles. Each undertake that they will have sufficient time to meet what is expected of them for the proper performance of their duties and acknowledge that there may, on occasion, be a need to devote additional time. The minimum time commitment considered by the board to be necessary for a Non-Executive Director, who does not chair a Committee, is two days per calendar month following induction.

The other significant commitments of the Chairman and of each Non-Executive Director are disclosed to the board before appointment, with an indication of the time involved. The board requires to be informed of subsequent changes as they arise. There were no changes to Tim Stevenson's other significant commitments during the year. Details of these, together with the significant commitments of the other board members can be found on page 73.

Director's Induction and Development

Johnson Matthey puts full, formal and tailored induction programmes in place for all its new board directors. These are intended to give a broad introduction to the group's businesses and its areas of significant risk. Key elements are meeting the executive directors and senior and middle management and visiting the group's major sites in order to gain an understanding of group strategy and of individual businesses.

Our intention is that all directors are familiar with, and gain an appropriate knowledge of, Johnson Matthey through visits to our operations and meeting with employees. The board ensures that the company provides the necessary resources to allow this to happen. We take various steps to ensure that all of our directors continually refresh their knowledge and skills so that they can effectively fulfil their roles and so that their contributions remain informed and relevant.

> Read more on page 75.

The board has processes in place to ensure that it receives the right information in the right form and at the right time to enable it to effectively discharge its duties. The Chairman, through the Company Secretary and with the support of the Executive Directors and management, ensures that this information is of a high quality. Directors are able to seek clarification or amplification from management where necessary. Our directors have access to independent external professional advice at the company's expense where they judge this necessary.

Indemnification of Directors and Insurance

Under Deed Polls dated 20th July 2005, which were replaced during the year by updated Deed Polls dated 31st January 2017, Johnson Matthey has granted indemnities in favour of each director of the company and of its subsidiaries in respect of any liability that he or she may incur to a third party in relation to the affairs of the company or any group member. These were in force during the year for the benefit of all persons who were directors of the company or of its subsidiaries at any time during the year. They remain in force as at the date of approval of this annual report. The company has appropriate directors' and officers' liability insurance cover in place in respect of legal action against, amongst others, its executive and non-executive directors. Neither the company nor any subsidiary has indemnified any director of the company or a subsidiary in respect of any liability that he or she may incur to a third party in relation to a relevant occupational pension scheme.

Directors' Conflicts of Interest

We have established procedures in place in accordance with our Articles of Association to ensure we comply with the directors' conflicts of interest duties under the 2006 Act and for dealing with situations in which a director may have a direct or indirect interest that conflicts with, or may conflict with, the interests of the company. Johnson Matthey has complied with these procedures during the year.

In April 2017, the board undertook an annual review of potential conflict matters including in respect of directors' external appointments (both current and pending). In each case, the review was undertaken by directors who were genuinely independent of the matter. The board concluded that there were no matters which constituted a conflict. Potential conflicts will continue to be reviewed by the board on an annual basis.

The board confirms that Johnson Matthey complies with its procedures to authorise conflict situations and is satisfied that its powers to authorise conflict situations are being exercised properly and effectively and in accordance with its Articles of Association.

Evaluation of the Board, Board Committees and Directors

Our board carries out a formal annual evaluation of its own performance and that of its committees and individual directors with the aim of improving effectiveness. This is led by the Chairman and seeks to be as rigorous and objective as possible. The process considers the board's strengths and weaknesses, its range and balance of skills, experience, independence and knowledge of the company, its gender diversity, how the board works together as a unit and any other factors considered to be relevant. Individual evaluation aims to show whether each director continues to contribute effectively and to demonstrate commitment to the role. The Chairman acts on the results of the performance evaluation. Strengths are recognised and any weaknesses addressed.

This year, our Chairman led an internal review process supported by the committee chairs and the Company Secretary. In January and February 2017, the Chairman had individual discussions with each member of the board, the Company Secretary, the Chief HR Officer and the KPMG lead audit partner regarding the board. The conversations were open, confidential and unattributed, using a questionnaire devised by Independent Audit, a specialist corporate governance consultancy, to steer but not prescribe the topics.

Areas discussed covered board composition and dynamics and the key board responsibilities of strategy, risk management and succession.

The 2016/17 review echoed the key findings of the prior year that the board was well founded in terms of composition, organisation and culture and working effectively to support the business. Since an external review in 2014/15, the Chairman and the board have sought to make continuous improvements and enhance focus in order to make the board even more useful both as a monitor of executive performance and, more importantly, a contributor to that performance.

The Chairman discussed his findings of the 2016/17 review with the Chief Executive and presented them to the board in April 2017, together with a number of ideas and recommendations for consideration. These were then discussed and follow up actions and responsibilities considered. The board also discussed the evaluation process itself and agreed that this had been appropriate and effective.

A summary of findings and actions undertaken following the 2015/16 review and the key findings and recommendations from this year's review are outlined on the following page.

Board Evaluation

Strategy > Read more on pages 8 and 9.	The 2015/16 review found that the board's agendas allocated appropriate time to consideration of strategic issues and the continuing development of strategy as circumstances evolve. In the 2016/17 review, the board felt that the balance of board discussion between operational issues, strategy and governance was appropriate (with the right balance of time devoted to each) but that there could be more discussion of the shape and strategy for the group overall and its business model in order for the board to address the medium to long term options for continued growth. The need for a good understanding of all the group's businesses was emphasised in order to ensure effective board contribution to debate.
Risk management > Read more on pages 16 to 21.	The 2015/16 review found that, in general, progress was being made in the way in which risk in the business was identified and managed, but that there was further work to do in this area, including in enhancing and developing processes. Proposals for improvements were made in respect of risk reviews by the board. The 2016/17 review found that the proposals for board risk reviews had been well executed but there remained work to do to embed an appropriately robust process throughout the group.
Board composition > Read more on pages 72 and 73.	In the 2015/16 review, the board felt its size and the balance of non-executive and executive members was appropriate. It was also felt the mix of skills, experience and diversity (including of style and approach) across the Non-Executive Directors should continue to serve the board and the company well. The 2016/17 review confirmed that, taking into account some change in composition, the group of Non-Executive Directors still had good diversity of experience, background and gender and knowledge about the group's major markets.
Board dynamics > Read more on page 75.	In 2015/16 the review found good engagement, strong and open contribution to discussion and decisions and constructive challenge to the executive. However, more challenge from the non-executive members would be welcome and valuable. The 2016/17 review found the board to be a cooperative and supportive space, with the executive open and transparent, including on raising and discussing issues of concern, and ready to listen to Non-Executive Directors' challenge and comments. It was felt that opportunities to work together, not only within the board but importantly when visiting businesses and meeting senior colleagues, were valuable, particularly in enabling the cementing of board relationships. There was still scope for greater contribution and input from the Non-Executive Directors, particularly on key strategy issues and on areas where they could identify what good looks like. Suggestions considered in 2014/15 had been implemented on gaining full value from presentations to the board, more agenda free discussion and continued use of 'teach-ins' on major business areas explicitly separated from consideration of strategy.
Succession management > Read more on pages 55 to 57 and 88.	In 2015/16, the review reflected that a key role of the board, and particularly its Nomination Committee, was to ensure that there is a viable and effective process for management of succession to key positions and that this is backed up by processes for management of individual careers through development of skills (management moves and appropriate training). It was felt that excellent progress was being made in this critical area. However, there were some important areas for focus on key succession strength and the development of individual talent. Several proposals were put forward to enable more to be achieved in this area. The 2016/17 review again emphasised that oversight of Johnson Matthey's people management processes i.e. hiring, training, developing and career management, is an essential board role. It was felt that this was being done well, with the Non-Executive Directors in particular valuing the open and regular updates on key people moves from the Chief Executive and the opportunity to express their views on issues that arise.

The board's intention remains to undertake an externally facilitated evaluation process at least every three years. In the intervening years, the review will be led by the Chairman supported by the committee chairs and the Company Secretary. As the last external evaluation was undertaken in 2014/15, the board intends to conduct an external process next year.

Review of the Chairman's Performance

The Non-Executive Directors recognise that the Chairman's effectiveness is vital to that of the board. Led by Alan Ferguson, the Senior Independent Director, the Non-Executive Directors are responsible for performance evaluation of the Chairman and for providing a fair and balanced assessment to shareholders.

In April 2017, the Non-Executive Directors, led by Alan, met without Tim Stevenson being present to discuss Tim's performance. Key considerations were his overall leadership of the board, the setting of tone, the setting of appropriate agendas and the effectiveness of structuring and facilitating discussions. The views of Executive Directors were also taken into account. Alan subsequently reported the outcome to the board that Tim's leadership of the board continued to be effective and engendered openness and constructive challenge.

Review of Executive Director Performance

The Chairman met with the Non-Executive Directors without the Executive Directors being present in November 2016 in order to review the Executive Directors' performance. Each of the directors was considered to be effective in discharging their responsibilities.

Annual Re-Election of Directors

In accordance with the Code, all directors retire at each Annual General Meeting (AGM) and offer themselves for re-election by shareholders.

On 17th October 2016, Anna Manz joined the board as Chief Financial Officer and Dr Jane Griffiths was appointed to the board as a Non-Executive Director with effect from 1st January 2017. As required by our Articles of Association, Anna and Jane will retire at the 2017 AGM and offer themselves for election. All other directors will be offering themselves for re-election.

Our five Non-Executive Directors are each determined by the board to be independent directors in accordance with the criteria set out in the Code.

The board considers that their skills, experience, independence and knowledge of the company enable them to discharge their respective duties and responsibilities effectively. Biographies of each of the directors standing for re-election can be found on pages 72 and 73.

Our 2017 AGM circular details why the board believes each director should be re-elected based on continued satisfactory performance in the role. In the circular, the Chairman confirms to shareholders that, following formal performance evaluation, the performance of each Non-Executive Director continues to be effective and that they demonstrate commitment to the role (including commitment of time for board and board committee meetings).

Remuneration

The board has established a Remuneration Committee. The composition and role of the Remuneration Committee is set out in the Annual Report on Remuneration.

>
See pages 97 to 116.

Accountability

Financial and Business Reporting

In its reporting to shareholders, the board recognises its responsibility to present a fair, balanced and understandable assessment of the group's position and prospects. This responsibility covers the annual report and accounts and extends to half year and other price sensitive public reports and reports to regulators, as well as to information required by statutory requirements.

The directors are responsible for preparing this annual report and consider it, taken as a whole, to be fair, balanced and understandable and provides the information necessary for shareholders to assess the company's position and performance, business model and strategy.

For the year ended 31st March 2017, the group was organised into five divisions: Emission Control Technologies, Process Technologies, Precious Metal Products, Fine Chemicals and New Businesses. The group reports results for these five divisions. The divisions were managed by executive management teams reporting to the GMC. The GMC reviewed monthly summaries of financial results from each division through a standardised reporting process. From April 2017, the group has restructured into four sectors: Clean Air, Efficient Natural Resources, Heath and New Markets. Results will be reported for the four sectors and each is managed by executive management teams reporting to the GMC. The group has a comprehensive annual budgeting and planning process including plans for the following two years. Budgets are approved by the board. Variances from budget are closely monitored. In addition to the annual budgeting process, there is a ten year strategy review process.

>
Read more about our five divisions on pages 28 to 43.

Risk Management and Internal Control

The board is ultimately responsible for maintaining sound risk management and internal control systems (including financial controls, controls in respect of the financial reporting process and controls of an operational and compliance nature).

The company's internal control systems are on a groupwide basis and the review of their effectiveness (including of the application of the Guidance on Risk Management, Internal Control and Related Financial and Business Reporting issued by the FRC in September 2014 – FRC Guidance) is implemented and reported from a groupwide perspective, covering the company and its subsidiaries. There are no material joint ventures or associates which have not been dealt with as part of the group for the purposes of applying the FRC Guidance.

Our risk management systems and internal control systems are designed to meet the group's needs and to manage the risks to which it is exposed, including the risks of failure to achieve business objectives and of material misstatement or loss. However, such risks cannot be eliminated. Our systems can only provide reasonable, but not absolute, assurance. They can never completely protect against such factors as unforeseeable events, human fallibility or fraud.

The board confirms that there is an ongoing process in place (established in accordance with the FRC Guidance) for identifying, evaluating and managing the principal risks faced by the group. This process is regularly reviewed by the GMC, the board and the Audit Committee as appropriate and has been in place during the year and up to the date of approval of this annual report.

The board is responsible for determining the nature and extent of the principal risks it is willing to take in achieving its strategic objectives. The board's view of Johnson Matthey's key strategic and operating risks and how the company seeks to manage those risks is set out in this report.

The directors confirm that they have carried out a robust assessment of the principal risks facing the company, including those that would threaten its business model, future performance, solvency or liquidity.

>
Read more about our principal risks on pages 16 to 21.

Risk Management and Internal Control Systems

The group's risk management and internal control systems comprise group policies, procedures and practices covering a range of areas including the appropriate authorisation and approval of transactions, the application of financial reporting standards and the review of financial performance and significant judgments.

Review of Effectiveness of the Group's Risk Management and Internal Control Systems

The board has important responsibilities in respect of the group's risk management and internal control systems (including financial controls, controls in respect of the financial reporting process and controls of an operational and compliance nature). The board monitors these carefully throughout the year and carries out an annual review of their adequacy and effectiveness. The board has delegated part of this responsibility to the Audit Committee. The role and work of the Audit Committee in this regard and the role of the group's internal audit function are described in the Audit Committee Report page 93.

The board, through setting its own annual agenda plan, defines the review process to be undertaken, including the scope and frequency of assurance reports received throughout the year. The board agenda plan, together with that of the Audit Committee, are designed to ensure that all significant areas of risk and the related risk management and internal control systems are reported on and considered during the course of the year. In addition to determining risk appetite, the board specifically reviews, amongst other things, risks relating to EHS, innovation, human resources, legal and compliance and intellectual capital.

The board, in part through the Audit Committee, has conducted an overarching review of the effectiveness of the company's risk management and internal control systems, covering all material controls, including financial, operational and compliance controls, and financial reporting processes, for the year. The review process accords with the FRC Guidance.

The Audit Committee

The composition of the Audit Committee is set out in the Audit Committee Report (pages 90 to 96), which describes the work of the Audit Committee in discharging its responsibilities.

The board is satisfied that at least one member of the Audit Committee, Alan Ferguson, has recent and relevant financial experience, including competence in accounting and that the Audit Committee as a whole has competence relevant to the sectors in which the company operates.

Relations with Shareholders

Dialogue with Our Shareholders

Our board welcomes the opportunity to openly engage with shareholders as it recognises the importance of a continuing effective dialogue, whether with major institutional investors, private shareholders or employee shareholders. The board takes responsibility for ensuring that such dialogue takes place.

Reporting of Results and Capital Markets Day

We report formally to our shareholders when we publish our full year results in June and our half-yearly results in November. When we publish the results, our Executive Directors give presentations in face to face meetings with institutional investors, analysts and the media in London. Live webcasts and transcripts of these presentations are available on our website.

In addition, we hold a Capital Markets Day for our institutional investors and analysts. The last of these was held in February 2016 and the next is planned for September 2017. A live webcast of the presentation to investors, a transcript of the event and a downloadable copy of the slides are made available on our website.

Go online: www.matthey.com/investor/presentations

Contact with Our Shareholders

Our Chairman takes overall responsibility for ensuring that the views of our shareholders are communicated to the board and that our directors are made aware of major shareholders' issues and concerns. However, contact with major shareholders is principally maintained by the Chief Executive and the Chief Financial Officer. They have a regular dialogue with institutional shareholders on performance, plans and objectives through a programme of one to one and group meetings and ensure that shareholders' views are communicated to the board. Our Investor Relations Department acts as a focal point for contact with investors throughout the year.

The Chairman is available to meet with institutional investors to hear their views and discuss any issues or concerns, including on governance and strategy. The Senior Independent Director and the other Non-Executive Directors are similarly available if requested, but no such meetings were held or requested during the year.

Overall, the board believes that appropriate steps have been taken during the year to ensure that the members of the board, and in particular the Non-Executive Directors, develop an understanding of the views of major shareholders. These have included, for example, analysts' and brokers' briefings, consideration by the board of six-monthly brokers' reports and of feedback from shareholder meetings on a six monthly basis. Major shareholders' views are canvassed for the board in a detailed investor survey which is usually conducted every two years by external consultants. The purpose of these surveys is to obtain the views and opinions of a broad range of shareholders and non-shareholders. A survey will be undertaken in early 2018 and the results will be discussed by the board.

The Remuneration Committee undertakes detailed consultation exercises with a selection of major institutional shareholders and institutional investor bodies as part of its comprehensive review of Executive Director and senior management remuneration arrangements within the group.

The board believes that these methods, taken together, are a practical and efficient way for all our directors to keep in touch with shareholders' opinions and views and to reach a balanced understanding of major shareholders' objectives, issues and concerns.

While the board recognises that the company is primarily accountable to its shareholders, it also recognises the contribution made by other providers of capital and confirms its interest in listening to their views, where relevant, to the company's overall approach to governance.

Annual General Meetings

The AGM is an important part of effective communication with shareholders. Our AGM takes place in London. Notice is sent to shareholders at least 20 working days beforehand and is published on our website. The circular sent to shareholders with the notice aims to set out a balanced and clear explanation of each proposed resolution. All directors who are able to attend our AGMs do so. In 2016, the entire board attended. Our board welcomes the opportunity for face to face communication with our shareholders. Shareholders are encouraged to participate and all directors are available to answer questions, formally through the Chairman during the meeting and informally afterwards.

At the AGM, we propose separate resolutions on each substantially separate issue. For each resolution, shareholders may direct their proxy to vote either for or against or to withhold their vote. The proxy form and the announcement of the results make it clear that a 'vote withheld' is not legally a vote and is not counted in the calculation of the proportion of the votes cast. All valid proxy appointments received are recorded and counted.

All resolutions at the AGM are decided on a poll carried out by electronic means. The results are announced as soon as possible and posted on our website. This shows votes for and against as well as votes withheld.

Our 2017 AGM will be held on 28th July 2017. The notice, together with an explanation of the resolutions to be considered, is set out in a circular to shareholders.

Compliance with the UK Corporate Governance Code

Code provision E.1.1 states that the Senior Independent Director should attend sufficient meetings with a range of major shareholders to listen to their views in order to help develop a balanced understanding of the issues and concerns of major shareholders. We have not complied with this provision throughout the year. The board considers that there are appropriate mechanisms in place to listen to the views of shareholders and communicate them to the board without it being necessary for the Senior Independent Director to attend meetings with major shareholders. However, he is available to attend any such meetings if requested by shareholders. The board believes that this approach is consistent with the relevant main principle of the Code on dialogue with shareholders and is consistent with good governance and the promotion of delivery of the company's objectives. This approach will continue throughout the current year but the board will keep the matter under review.

Nomination Committee Report

Our role is to ensure that Johnson Matthey has the right leadership, including a board with the right mix of attributes and skills to effectively develop, and support delivery of, the company's strategy.

Tim Stevenson
Chairman of the Nomination Committee

The year under review saw changes to our board composition. Anna Manz was appointed our Chief Financial Officer in October 2016 following the stepping down of Den Jones in July. Following the retirement of Dorothy Thompson, also in July, Dr Jane Griffiths was selected as a new Non-Executive Director and appointed in January 2017. During the year, we continued our focus on succession planning and talent management, recognising the importance these play in supporting the group's strategic aspirations.

Role

The principal role of our Nomination Committee is to keep under review the structure, size and composition of the board and to make appropriate recommendations to the board with respect to any necessary changes. We also consider the adequacy and effectiveness of management development and succession planning processes for board members and senior executives and ensure the adequacy and effectiveness of the group's processes for identifying and developing the future senior management pipeline.

Go online: www.matthey.com/investor/governance

Composition

Our committee has six members, myself as Chairman and all the independent Non-Executive Directors. Only members of the committee have the right to attend meetings. The Chief Executive and the Chief HR Officer, as well as external advisers and others, attend for all or part of our meetings by invitation when appropriate. Simon Farrant, our Company Secretary, is secretary to the committee.

Committee Meetings During the Year

Our committee usually meets immediately prior to or following board meetings, and also on other occasions as may be needed.

We met seven times during the year ended 31st March 2017. I also kept committee members up to date between meetings. Several members of the committee, led by me, also met as a working group during the year to progress Non-Executive Director recruitment. The attendance of members at meetings during the year was:

	Date of appointment to committee	Number of meetings eligible to attend	Number of meetings attended	% attended
Tim Stevenson	29th March 2011[1]	7	7	100%
Odile Desforges	1st July 2013	7	7	100%
Alan Ferguson	13th January 2011	7	7	100%
Jane Griffiths	1st January 2017	1	1	100%
Colin Matthews	4th October 2012	7	6[3]	86%
Chris Mottershead	27th January 2015	7	7	100%
Dorothy Thompson	1st September 2007	4[2]	3[3]	75%

1 Tim Stevenson was appointed group Chairman on 19th July 2011.

2 Dorothy Thompson retired from the board and the committee on 20th July 2016.

3 The meeting not attended was a telephone meeting convened at short notice in July 2016. Colin Matthews was unable to attend due to a coinciding commitment at Renewi plc where he is Chairman. Dorothy Thompson was unable to attend due to conflicting travel commitments.

Since the end of the year, the committee has met twice. Tim Stevenson was unable to attend one meeting due to illness. In his absence, Alan Ferguson, Senior Independent Director, chaired the committee meeting. Tim Stevenson reviewed all meeting papers and shared his thoughts, comments and questions with Alan Ferguson, who raised these at the meeting. All other committee members attended both meetings.

Committee Activities During the Year

Our committee has been active in addressing several key matters in the course of the year:

Non-Executive Director succession	Having conducted a search process for a new Non-Executive Director with the assistance of The Zygos Partnership in the prior year, recommended to the board the appointment of Dr Jane Griffiths as a new Non-Executive Director. Also began a search process for an additional Non-Executive Director.
Executive Director succession	Considered succession to the role of Chief Financial Officer and recommended to the board the appointment of Anna Manz as Chief Financial Officer.
Renewal of appointment terms – Odile Desforges and Alan Ferguson	Having considered their performance and ability to continue to contribute to the board, as well as their independence and the need for progressive refreshing of the board, recommended to the board that the terms of appointment as Non-Executive Directors of Odile Desforges be renewed for a second three year term to 30th June 2019 and of Alan Ferguson for a three year term to 13th January 2020, bringing his total appointment term to nine years.
Talent management framework	Received a presentation from the Chief HR Officer and the Group Talent and Learning Director on the group's integrated talent management process, addressing the talent requirements for delivery of its strategic aspirations and feedback from the recent employee engagement survey.
Succession planning and senior management changes	Reviewed the 2017 succession and development plans in respect of the Group Management Committee (GMC) including the Chief Executive, and other senior executives in each division. Discussed GMC membership, responsibility changes and senior (non-GMC) moves.
Review of performance and effectiveness during 2016/17	Led by the committee Chairman, reviewed our committee's performance and effectiveness.
Nomination Committee Report	Reviewed and approved the draft Nomination Committee Report for 2016/17.

Board Appointments

In considering board composition, we assess the range and balance of skills, experience, knowledge and independence on the board, identify any gaps or issues and consider any need to refresh the board. If, after this evaluation, we feel that it is necessary to appoint a new director we then prepare a description of the role and the capabilities required for the appointment and set objective selection criteria accordingly. The benefits of diversity on the board are carefully considered. We consider any proposed recruitment in the context of the company's strategic priorities, plans and objectives, as well as the prevailing business environment. We also take into account relevant succession plans already in place.

In appointing Non-Executive Directors we seek individuals who can make positive contributions to the board and its committees and who have the capability to challenge on strategic and other matters. This is balanced with the need to maintain board cohesiveness.

We use external search consultancies to help with the appointment process and appointments are ultimately made on merit against the agreed objective selection criteria, having due regard, amongst other things, to the benefits of diversity, including gender.

While the board has not set express diversity quotas or measurable objectives, in Non-Executive Director selection, the board seeks to encourage applications from women, subject to the selection, criteria being met.

Succession Planning

A key role of the Nomination Committee is to ensure that plans are in place for the orderly and progressive refreshing of the board and to identify and develop individuals with potential for board and GMC positions. As announced on 20th April 2017, there have been several changes in the leadership of our group and the Nomination Committee played a key role in supporting the Chief Executive in making these changes. The Nomination Committee will continue to focus during the coming year on active talent management, mobility across the group and diversity.

We considered a presentation from our Chief HR Officer in respect of Johnson Matthey's leadership pipeline in the context of the group's talent strategy. This covered both assessment and development of internal talent as well as external recruitment. We also considered a presentation on the company's integrated talent strategy and talent focus for 2017. This included discussion of further strengthening of performance management across the group.

Non-Executive Director Succession

Having considered board size and balance, we decided that it was desirable to seek a replacement Non-Executive Director following Dorothy Thompson's retirement from the board in July 2016. The preference expressed to the head hunters was for a candidate with sound executive experience directly relevant to Fine Chemicals. In terms of fit, there was a desire for difference while maintaining the collegiality of the board. It was also agreed that consideration would be given to those without FTSE 100 board experience. We established a working group comprising myself and Alan Ferguson working with the Chief Executive and our Chief HR Officer. We engaged The Zygos Partnership in a search process which led to the appointment of Jane Griffiths. Jane's appointment, which was announced on 1st June 2016, took effect on 1st January 2017.

To further enhance board balance, we also decided to seek an additional Non-Executive Director. The selection process is underway, with a preference expressed to the head hunters for a candidate with a current executive role. The Chairman is again leading a working group as described above and The Zygos Partnership have been engaged.

The term of my appointment as Chairman was reviewed in May 2017. After full review, this was extended to 31st December 2018. Given my intention to step down as Chairman by this date, Alan Ferguson has commenced a process on behalf of the Committee to search for my successor, working with The Zygos Partnership. The Zygos Partnership has no other connection with the company.

Executive Director Change

During the year, the committee supported the Chief Executive in searching for and selecting a new Chief Financial Officer following the stepping down of Den Jones last July. Anna Manz's appointment was announced on 14th July 2016 and she joined the board as Chief Financial Officer on 17th October 2016.

Our 2016/17 Performance Review

Last year, I led an internal review of the committee's performance. I sought the views of all committee members, as well as others who regularly attend our meetings, through a questionnaire and face to face meetings. Matters covered included the scope of the agenda and the running of our meetings. The outcome of the review was summarised at our April 2017 meeting and discussed by the board. While the importance of giving continued appropriate attention to succession planning and board balance was emphasised, there were no areas where significant change or improvement was felt necessary.

On behalf of the Nomination Committee:

Tim Stevenson
Chairman of the Nomination Committee

Audit Committee Report

During the year we continued to play a key role in monitoring the integrity of the group's published financial information, assessing the effectiveness of its internal controls and ensuring that our external auditor, KPMG, delivers a high quality effective audit.

Alan Ferguson
Chairman of the Audit Committee

I am pleased to present our report for the year ended 31st March 2017. It has been another busy year for the committee. A new Chief Financial Officer, Anna Manz, was appointed in October 2016, a role of significant importance to this committee. In January, we also welcomed Jane Griffiths as a committee member. We have spent time with both Anna and Jane to ensure a successful induction to the committee whilst helping to support the business during the gap between Anna's predecessor leaving and her joining. Continuing to monitor and review the effectiveness of the group's internal controls and risk management systems has been particularly important during periods of change for the business.

Each year, we look at the control environment of selected individual divisions and this year we focused on Fine Chemicals, Precious Metal Products and Process Technologies, with the Divisional Finance Directors of each division presenting to the committee. The group's significant investment in business information systems has become increasingly important this year and we have worked closely with the board to review the risks and controls associated with this.

We have also looked at the risk management processes across the group and at risk assurance mapping. Last year, the group refined and developed its risk management processes to enhance the way the board reviews principal risks, the associated mitigating controls and how the committee provides assurance to the board on the effectiveness of those controls. These new processes have been embedded during the year. We have also re-assessed and simplified how we articulate the 12 principal risks.

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Read more about our risk management systems on page 16.

Looking ahead to the next 12 months, as well as the business as usual work, we will continue to monitor the group's ongoing investment in business information systems. We will also spend time planning and conducting the external audit tender which will conclude during the first half of 2018.

Role

Our principal role is to assist the board in carrying out its oversight responsibilities in relation to financial reporting, internal controls and risk management and in maintaining an appropriate relationship with our external auditor. More details on our role and responsibilities can be found in our terms of reference which were updated during the year and are available on our website.

Go online: www.matthey.com/investor/governance

Composition

Our committee currently comprises five members; myself as Chairman and all of our independent Non-Executive Directors. This is my sixth year as Chairman of the committee. I am a Chartered Accountant with many years' experience working in finance, having been, over a 12 year period, the Group Finance Director at Inchcape plc, The BOC Group plc and Lonmin Plc. I also chair the audit committees of three other companies. As a committee, we have a broad range of knowledge, skills and experience gained from a variety of backgrounds as detailed on page 73. This is essential to the effective discharging of our duties.

The board has agreed that the committee has experience relevant to the sectors in which we operate and that I have recent and relevant financial experience, including competence in accounting, as required by the provisions of the UK Corporate Governance Code 2016.

The secretary to the committee is Simon Farrant, Company Secretary.

Committee Meetings During the Year

We met five times during the year. Attendance at these meetings was as follows:

	Date of appointment to committee	Number of meetings eligible to attend	Number of meetings attended	% attended
Alan Ferguson	13th January 2011[1]	5	5	100%
Odile Desforges	1st July 2013	5	5	100%
Jane Griffiths	1st January 2017	1	1	100%
Colin Matthews	4th October 2012	5	5	100%
Chris Mottershead	27th January 2015	5	5	100%
Dorothy Thompson	1st September 2007	3[2]	3	100%

1 Alan Ferguson was appointed Chairman of the committee on 19th July 2011.

2 Dorothy Thompson retired from the board and the committee on 20th July 2016.

Since the end of the year, the committee has met twice and all members attended.

In order for us to properly discharge our role, it is critical that we have the opportunity to openly discuss with management any matter which falls within our remit and probe and challenge where necessary. The Chief Executive, the Chief Financial Officer and the Group Assurance and Risk Director attend all of our meetings and other senior managers attend to provide technical or business information as necessary.

In addition, our meetings are attended by the KPMG lead audit partner, Stephen Oxley, and other representatives from KPMG. Their attendance is important as it gives us the opportunity to seek their independent and objective views on matters which they encounter during their audit. At least once a year, we meet separately with Stephen and with the Group Assurance and Risk Director, who manages the internal audit function, to discuss matters without executive management being present.

On a more frequent basis, I meet with the Chief Financial Officer, the Group Assurance and Risk Director, other senior management and with KPMG. This means any issues or concerns can be raised at an early stage allowing me to ensure that sufficient time is devoted to them at the subsequent committee meeting.

There is an open and constructive communication between the committee, management and the internal and external auditors.

How we Discharged our Responsibilities During the Year

Our principal activities during the year, and up to the date of this report, were as follows:

1 Published Financial Information

Role: to monitor the integrity of the reported financial information and to review significant financial issues and judgments.

- Reviewed the group's full year results, half-yearly results and quarterly updates, considered the significant accounting policies, principal estimates and accounting judgments used in their preparation.
- Reviewed the matters, assumptions and sensitivities which informed the board's assessment that it was appropriate to prepare the accounts on a going concern basis.
- Reviewed and challenged the financial modelling and stress testing, based on plausible scenarios arising from selected principal risks in assessing the long term viability of the group.
- Received and considered reports from KPMG on its audit of the full year results and its review of the half-yearly results.
- Reviewed management representation letters requested by KPMG in respect of the full year and half-yearly results prior to them being signed on behalf of the board.
- Reviewed and assessed the process which management put in place to support the board when giving its assurance that the 2017 Annual Report and Accounts, taken as a whole, is fair, balanced and understandable and provided the information necessary for shareholders to assess the company's position and performance, business model and strategy. Confirmed to the board that we had done so and that the process was satisfactory.
- Reviewed the principal findings arising from the inspection of KPMG's 2016 audit by the Financial Reporting Council's (FRC's) Audit Quality Review team (disclosed in more detail on page 94).
- Received an update on new or forthcoming accounting standards that could materially impact the group, including IFRS 15 – 'Revenue from Contracts with Customers'.

Significant Issues Considered by the Committee in Relation to the Group's and Company's Accounts

Ensuring the integrity of the accounts is fundamental to our remit. In preparing the accounts, there are a number of areas requiring the exercise by management of particular judgment or a high degree of estimation. Our role is to assess whether the judgments and estimates made by management are reasonable and appropriate. Set out below are what we consider to be the most significant accounting areas which required the exercise of judgment or a high degree of estimation during the year, together with details of how we addressed these. These are all considered to be recurring issues.

Significant issue considered by the committee in relation to the accounts	Work undertaken by the committee in forming an opinion
Refining process and stock takes When setting process loss provisions, key judgments are made in estimating the amount of precious metal that may be lost during the refining and fabrication processes. In addition, refining stock takes involve key judgments in estimating volumes of precious metal bearing material in the refining system and the subsequent sampling and assaying to assess the precious metal content (note 40 on page 169).	In order to satisfy ourselves on the robustness of the stock take results and the adequacy of process loss provisions, we reviewed the results from the refinery stock takes together with explanatory commentary from management which included whether these results were in line with expectations and historic trends. We also reviewed the results as a percentage of throughput. The refining process and stock takes were also an area of focus for KPMG who reported its findings to us. We considered whether the accounting treatment for refining stock take gains and losses was in accordance with agreed methodology and concurred with management's opinion that it was.
Impairment of goodwill, other intangibles and other assets Key judgments are made in relation to the assumptions used in calculating discounted cash flow projections to value the cash generating units (CGUs) containing goodwill, to value other intangible assets not yet being amortised and to value other assets when there are indications that they may be impaired. The key assumptions are management's estimates of budgets and plans for how the relevant businesses will develop or how the relevant assets will be used in the future, as well as discount rates and long term average growth rates for each CGU (notes 17 and 40 on pages 150 and 169 respectively).	As part of the annual impairment review of goodwill and other intangible assets not yet being amortised, we reviewed a report from management, which explained the methodology used and the rationale for the assumptions made including explanations for any significant changes from those used in prior years. For these annual impairment tests, there was significant headroom over the carrying value of the relevant CGU's net assets. There were no significant impairments of other assets in the year. The impairment reviews were also an area of focus for KPMG who reported its findings to us. We concluded that management's key assumptions were reasonable.
Taxation Key judgments are made in arriving at management's best estimate of the tax charge included in the accounts, where the precise impact of tax laws and regulations is unclear (note 40 on page 169).	We reviewed explanatory papers from management, which included a review of the appropriateness of the tax provisions and relevant disclosures. KPMG also reported its findings in this area to us and we reviewed these. We concluded that the judgments, estimates and disclosures were reasonable and appropriate.
Post-employment benefits Key judgments are made in relation to the assumptions used when valuing post-employment benefits obligations (note 15 on pages 142 to 148).	We reviewed the report from management summarising actuarial valuations and key assumptions for the main post-employment benefit plans. We compared these assumptions with those made by other companies and those used last year. We also considered the opinions expressed by KPMG in this area. We concluded that the assumptions used are appropriate for the group's post-employment benefit plans.

2 Internal Control, Risk Management Systems and Internal Audit

Role: to review the group's internal financial controls and its internal control and risk management systems and to monitor the effectiveness of the group's internal audit function.

- Received reports at every meeting from the Group Assurance and Risk Director on:
  - *Corporate assurance and risk reviews.* These reports summarised the number and type of internal audits and security reviews undertaken during the period and how this compared to the plan, the key findings of those audits and reviews, the number and nature of actions to address the findings and progress made by management in implementing the actions. During the year we paid particular attention to the level of engagement of all our managers, whether at local, divisional or executive level, in implementing corrective actions and in strengthening the control framework across all our sites, irrespective of location, size and activity. At each meeting we tracked progress in completing open actions and challenged management to ensure that actions were being dealt with in a timely manner.
  - *Key control assessment.* Reviewed a report at our November 2016 meeting on the key control questionnaire process. This questionnaire, which forms an important part of our overall assurance programme, is a bottom up process by which managers across all our businesses are required to certify the existence and effectiveness of certain key controls within their areas of responsibility. We assessed the effectiveness of the process and we evaluated the nature and quality of responses, the level of challenge to the responses, significant findings and how management intended to address findings.
  - *Risk management processes.* Working with the board, the risk assurance processes were reviewed and refined. We concentrate primarily on the mitigating controls and the levels of assurance over these. As noted above, the annual plan is mapped to understand the level of coverage provided.
- Monitored progress against the 2016/17 corporate assurance and risk plan and agreed the 2017/18 corporate assurance and risk plan (see above).

Corporate Assurance and Risk Annual Plan

We spend a significant amount of time reviewing the corporate assurance and risk annual plan, which is presented to us by the Group Assurance and Risk Director, to ensure it is comprehensive, well targeted and provides the appropriate level of assurance. In particular, we want to know the factors taken into account in devising the plan, the risk profile of auditable sites and businesses influenced by the key control assessment process, the scope and depth of each type of audit and the plan's coverage across the group. It is just as important for us to understand what is not covered by the plan, either by way of business activity or geographic coverage. Where there is no coverage at certain sites or businesses, we discuss what other mechanisms are in place to check the adequacy of controls, such as sector management oversight or external audit activity. These other sources of assurance are important when assessing the level of assurance we require from this plan. In reviewing the 2017/18 plan, we were pleased to see that additional data had been analysed in building the plan, including concerns raised via speak up (whistleblowing) reports, the results of investigations and legal team health check findings. The plan was also mapped against the principal risks which allowed us to see how much coverage there would be on each risk. We believe the 2017/18 plan addresses Johnson Matthey's key risks and its coverage is appropriate for the size and nature of the group. On that basis, we approved the plan.

- Monitored the effectiveness of the Corporate Assurance and Risk function. We pay close attention to the resourcing of the function, knowing that the calibre, knowledge and experience of individual auditors are critical to achieving an effective audit. We continually assess the effectiveness of the function. At each meeting the Group Assurance and Risk Director is present and we have the opportunity to ask detailed questions and challenge her. We receive regular reports from her as noted above and we seek the views of managers and also of KPMG, all of whom have frequent contact with the function. We also pay attention to whether the function has adequate standing across the group and is free from management or other restrictions. As Chairman of the committee, I occasionally meet with the Corporate Assurance and Risk team and I plan to do so again during 2017/18.
- Reviewed the processes and controls associated with the group's continued investment in business information systems. The committee has been kept informed of progress on the implementation of these systems during the year, including the challenges and risks and how these were being managed. Due to the significance of this project and the value to be delivered on completion, the board has also maintained close oversight, receiving two presentations. The partner from the independent programme assurance provider, KPMG, attended one of our meetings as well as one of our board meetings to provide feedback on the conduct of the project from the programme assurance engagement. The committee also approved the reappointment of KPMG as the independent programme assurance provider for 2017/18.
- Undertook a review of the control environment within three of the five divisions. The committee received updates from the Divisional Finance Directors of Fine Chemicals, Precious Metal Products and Process Technologies. This gave us an opportunity to learn more about key financial risks and how these were being managed, what control enhancements were being carried out, as well as understanding the bench strength of the divisional finance teams. In particular, we heard about the main themes arising from the key control assessment process which gave us an opportunity to better understand the control environment in the divisions and to seek assurance on the progress of actions being taken to address any weaknesses.
- Received an update from the incoming Chief Financial Officer on her impressions of the divisional and group finance teams.
- Reviewed reports from the General Counsel on litigation and on the speak up (whistleblowing) procedures. In particular we heard about enhancements made to speak up procedures during the year and we formalised the responsibilities of the Ethics Panel, which oversees concerns raised and ensures effective reviews or investigations of those concerns. We also reviewed key matters raised via speak up reports.

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Read more on page 56 and 59.

- Reviewed the risk management and control statements in the Annual Report and Accounts before they were approved by the board.

4. Governance

3 External Auditor

Role: to ensure an appropriate relationship with the external auditor, to monitor its independence and objectivity, negotiate and approve its fees, recommend its reappointment or not and to ensure it delivers, based on a sound plan, a high quality effective audit.

How we reviewed KPMG's performance and the effectiveness of the external audit process

Towards the end of the 2016/17 external audit, a feedback questionnaire was circulated to the executive directors and senior management. They were asked to rate how satisfied they were with KPMG, including its level of planning and coordination, ability to meet delivery dates and objectives, industry / specialist knowledge, preparedness and organisation, ability to firmly challenge management, independence, level and quality of communication and value for money.

The results showed an overall level of satisfaction with KPMG and that action had been taken on points arising from last year's feedback. There are areas where further improvements can be made and at our next meeting, Stephen Oxley, our lead audit partner, will explain how he intends to adapt the audit approach for the current year to take into account the findings. We will also consider any relevant issues as part of the external audit tender process which will be conducted in 2017/18.

On a continuous basis throughout the year, we look at the quality of KPMG's reports and the performance of Stephen Oxley both in and outside committee meetings. We pay particular attention to the way Stephen and the team interact with and challenge management as well as the effectiveness of the relationship between the internal and external audit teams. We also obtain feedback from the Chief Executive, the Chief Financial Officer and the Group Reporting Controller, all of whom have extensive interactions with KPMG. As noted earlier, I have regular one to one update meetings with Stephen to discuss agenda items and other matters which either Stephen or I feel are important.

We also reviewed findings from the FRC's Audit Quality Review team on KPMG's audit of Johnson Matthey's Annual Report and Accounts for the year ended 31st March 2016. We were pleased to find that the feedback was reassuring. Points were raised on post-employment benefit plans and, at component level, revenue. These points were fully discussed by the committee and, together with KPMG, we have agreed a number of actions to be taken in order to refine the audit approach. The committee was comfortable that whilst the proposed changes would improve the quality of the audit going forward they were not such as to give us concerns as to the audit of the 2016 accounts.

Following the above, we concluded that KPMG continues to provide an effective audit and therefore we recommended to the board its reappointment for 2017/18. A resolution proposing its reappointment is included in the notice of the 2017 AGM.

- Reviewed KPMG's performance and the effectiveness of the external audit process (see above).
- Took steps to ensure that external auditor objectivity and independence were safeguarded. We did this by:
  - Reviewing compliance against our policy on the provision of non-audit services and considered the continued appropriateness of this policy. We concluded that the policy, as detailed in last year's annual report, remained fit for purpose and no changes were needed in the year. However, we approved an updated policy to reflect changes made to the FRC's Revised Ethical Standard 2016 and this is effective from 1st April 2017 (see box on page 95).
  - Reviewing details of the non-audit services provided by KPMG and associated fees. Non-audit fees in the year were £0.6 million compared to audit fees of £2.1 million. The non-audit fees predominantly comprised expenditure on the provision of independent programme assurance (as discussed in more detail in the paragraph below), and direct and indirect tax compliance advisory services. More information on fees incurred by KPMG for non-audit services, as well as the split between KPMG's audit and non-audit fees, can be found in note 7 on the accounts, page 137.
  - Considering for approval the engagement of KPMG to provide non-audit services above certain monetary thresholds, as set out in the policy. During the year, I approved the engagement of KPMG to provide non-audit services on taxation services and an initial review of IFRS 15.

The committee approved additional accounting advice on the implementation of IFRS 15 and the reappointment of KPMG to provide further independent programme assurance in relation to the implementation of new business information systems. In late 2015, the committee had approved the appointment of KPMG to be our assurance provider on the large systems implementation being carried out by the group. This had followed a full tender process with four participants. KPMG won the tender due to the quality of its tried and tested approach, its style, previous experience and its references. We challenged the decision making process to extend KPMG's involvement, reviewed the scope of work and satisfied ourselves that this appointment did not compromise auditor independence and objectivity. Following discussion, we approved the reappointment of KPMG.

Our Policy on the Provision of Non-Audit Services – Summary

During the year and in light of EU legislation and the FRC's Revised Ethical Standard, the committee adopted a new policy on the provision of non-audit services which is effective from 1st April 2017.

The policy identifies certain types of engagement that the external auditor shall not undertake, including tax services, the preparation of accounting records and risk management procedures. It also includes key controls to ensure that the provision of non-prohibited services does not create a threat to KPMG's independence and objectivity.

KPMG can be invited to provide non-audit services which, in its position as auditor, it must or is best placed to undertake and which do not impact auditor objectivity or independence. The policy sets out how approval should be obtained prior to KPMG being engaged. Services likely to cost £25,000 or less should be approved by the Chief Financial Officer, services likely to cost more than £25,000 but £100,000 or less must be approved by myself as Chairman of the committee and services likely to cost over £100,000 must be approved by the committee.

The policy also sets out the circumstances in which a former employee of KPMG can be employed by Johnson Matthey and the procedure for obtaining approval for such employment.

As a result of the new policy, the tax compliance services work previously carried out by KPMG was put out to tender and awarded to Grant Thornton.

Our Approach to External Audit Tendering

KPMG (and its predecessor entities) has been our external auditor since 1986, following a full tendering process in 1985. We have undertaken a review of KPMG's performance every year since then. Stephen Oxley, our current lead audit partner, was appointed in 2013/14 and each year since then he has taken steps to refresh KPMG's approach to certain aspects of its audit.

As disclosed in last year's annual report, under the EU audit reform transitional arrangements KPMG's last possible audit would be for the year ending 31st March 2020. However, it has always been our intention to put the audit out to tender when Stephen's term expires, which is after completion of the 2017/18 audit. This approach is in line with EU legislation which came into force on 17th June 2016.

Given this, we have started planning the process. The committee has agreed which parties will be invited to tender and the Chief Financial Officer and I will shortly be meeting with those audit firms to discuss the key attributes we would expect to see in the senior members of the group audit team, including the lead audit partner, and the likely structure of that team. The objective of this process is to ensure each firm puts forward the highest quality team to lead the tender that fits best with our requirements.

We have also requested those firms to confirm that they have not carried out any services for us which would cause an issue with audit independence and that they have processes in place to ensure their independence throughout the tender process. In addition, we approved an interim policy on the engagement of those audit firms tendering to ensure they were not precluded from participating in the tender process and to avoid any independence issue arising in the run up to the appointment of a new auditor.

  - Reviewing the procedures followed by KPMG to safeguard its objectivity and independence. We received confirmation from KPMG that it was compliant with APB Ethical Standards in relation to the audit engagement; and
- Approving, after due challenge and discussion, KPMG's proposed terms of engagement, audit plan and fees for 2016/17.
- Took steps to prepare for the forthcoming audit tender (see above).

External Audit Plan

The external audit plan for 2016/17 was presented at our November 2016 meeting. The plan began with a review of significant risks and then an assessment of how those risks impacted on the audit approach which then formed the basis of the plan. In deriving the key audit risks, KPMG considered the internal and external factors impacting the group and the group's own risk assessment. These were then discussed with divisional and group management and translated into audit risks which shaped the audit approach. In line with the prior year, four key audit risks were identified which are referred to in the Independent Auditor's Report on pages 174 to 179. Materiality was set at 5% of profit before tax, and the scope covered 88% of group sales (excluding precious metals), 83% of profit before tax and 81% of total assets. The actual scoping percentages as set out in the Independent Auditor's Report on page 178 are not materially different to those agreed in the plan. In assessing adequacy of coverage, we also looked at local materiality levels, whether local statutory accounts were to be signed off and the number of site visits to be carried out by the group audit team. We also discussed the background and experience of the audit partners responsible for the largest local teams, independence and KPMG's audit quality framework. Following discussion we concluded that the proposed plan was sufficiently comprehensive for the purpose of the audit of the group's accounts and approved the proposed fee after due challenge.

Statement of Compliance

The committee confirms that, during the financial year ended 31st March 2017, the company complied with the applicable provisions of the Competition and Markets Authority's Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014.

4 Other Activities

- Reviewed reports on credit controls and credit risks.
- Reviewed our performance and effectiveness during 2016/17. Our review took the form of a questionnaire circulated to all committee members, as well as others who regularly attend committee meetings, seeking their views on matters such as committee composition, roles and responsibilities, the dynamics and culture of meetings and the interaction with Corporate Assurance and Risk and KPMG.

  I reviewed and summarised the responses and presented them for discussion at a committee meeting. The responses were positive, with just two areas highlighted for improvement. The first was in further enhancing the support for Corporate Assurance and Risk. Significant progress has been made in this area in the last year but there is more to do. The second area, is to continue to enhance the external audit performance evaluation process.
- Reviewed and approved the Audit Committee Report for 2016/17.
- Received reports on, and monitored, key governance and regulatory developments.
- Reviewed the committee's terms of reference in light of the UK Corporate Governance Code 2016 and EU legislation and recommended these to the board for approval.

Our Priorities

In last year's annual report we set out our priorities, over and above our business as usual work, for 2016/17. Below we report on the status of these and set out our priorities for 2017/18.

2016/17	Comments
• Continue to monitor progress of the investment in business information systems.	A presentation was made to the committee on the investment in business information systems. Due to the significance of the matter, the board received regular updates on the investment, including a further two presentations. The committee also approved the reappointment of KPMG as the independent programme assurance provider for 2017/18.
• Work closely with the incoming Chief Financial Officer, when appointed, to help ensure a successful induction to the business, including supporting the business if there is a gap between Den Jones leaving and the new Chief Financial Officer being appointed.	I have held a number of meetings with Anna Manz since she joined Johnson Matthey to help ensure a successful introduction to the workings of the committee and to assist in her induction process.
• Start the detailed planning for the external audit tender which is intended to be undertaken in 2017.	As discussed on page 95.

2017/18
• Continue to monitor progress of the investment in business information systems.
• Plan and conduct the tender of the external audit.

On behalf of the Audit Committee:

Alan Ferguson
Chairman of the Audit Committee

Remuneration Report

Our role is to ensure that Johnson Matthey's remuneration arrangements align with shareholders' interests, reward directors for performance and are well managed in line with good governance.

Colin Matthews
Chairman of the Remuneration Committee

Introduction

As Chairman of the Remuneration Committee, I am pleased to present our report for the year ended 31st March 2017. This report is intended to explain the key matters considered by the committee during the previous 12 months and to indicate the matters we expect to consider over the coming year.

Our current Remuneration Policy was introduced in 2014 with strong shareholder support. As required by regulation, we will resubmit the Remuneration Policy for approval at the 2017 Annual General Meeting (AGM). This Annual Report on Remuneration, which sets out how we applied the Remuneration Policy in 2016/17 and how we intend to apply it in the forthcoming year, will be subject to an advisory vote by shareholders at the AGM.

Our Approach to Remuneration

The overall objective of Johnson Matthey is to deliver sustained superior shareholder value using our world class science and our competitive strengths, contributing to a cleaner, healthier world and so the remuneration strategy focuses on ensuring alignment with long term success and growth. Long term variable reward is tied to growth as measured by increases in underlying earnings per share (EPS). Short term variable reward is tied to the achievement of challenging near term financial targets.

We remain committed to reporting clearly on remuneration and listen carefully to shareholders' views. During the year, the committee reviewed the Remuneration Policy and its operation to ensure that it continues to support the business strategy and remains in line with the best governance practices.

Following this review, we consulted with our major shareholders regarding a number of proposed changes. The feedback from shareholders led to us modifying our original proposals.

Changes to the Remuneration Policy and its Implementation

I summarise below the changes to our Remuneration Policy, taking into account the changes following shareholder consultation, and its implementation for 2017/18:

Shareholding Guidelines

The recommended shareholding level for Executive Directors has been increased from 200% to 250% of base salary for the Chief Executive and from 150% to 200% of base salary for other Executive Directors to support higher levels of executive share ownership and alignment with shareholders.

Annual Bonus

The majority of the bonus will continue to be based on underlying profit before tax but working capital will also be used in 2017/18.

The maximum and target bonus opportunities remain unchanged. However, the level payable at threshold performance has been increased to 15% of the maximum (from 15% of base salary) to align the structure fairly with that applying to other employees below the board.

We will continue to set stretching targets and ensure that no bonus is payable unless the requisite level of performance is achieved. All measures are objective and quantifiable and we will disclose full details of the targets and performance against them on a retrospective basis.

Long Term Incentives

Our current long term incentive plan rules were approved by shareholders at our 2007 AGM for a period of ten years and have operated largely unchanged since then, except for the inclusion of malus and clawback provisions and the introduction of an extended vesting period for Executive Directors. We note the public dialogue over the past year about alternative incentive structures for Executive Director remuneration and their relative merits. However, we believe that our current long term incentive structure remains appropriate for Johnson Matthey.

Our long term incentives reward the achievement of sustainable earnings growth, aligned with our long term business strategy. As such, we are seeking shareholder approval for a new Performance Share Plan (PSP) at the 2017 AGM. Aside from some minor drafting changes to recognise emerging good practice, the one notable change compared to the existing plan is an increase to the maximum individual award level under the rules to 350% of base salary. However, annual awards to Executive Directors will be limited to the lower level specified in the Remuneration Policy, namely 200%, with the higher limit in the rules only being used to structure a replacement or buy-out award, if necessary, on recruitment. Any changes to the award level would be subject to consultation with shareholders.

As mentioned above, the maximum PSP award level for the next three years will remain limited to 200% of base salary under the new Remuneration Policy. Awards will continue to be linked to the achievement of stretching underlying EPS growth targets and subject to the delivery of satisfactory return on invested capital (ROIC) in line with our business strategy. The targets applying to the 2017 awards are the same as those set for the 2016 awards and are considered by the committee to be suitably challenging in light of current forecasts.

In addition to the introduction of a new PSP to replace the existing long term incentive plan, the committee is introducing a new Restricted Share Plan (RSP) for certain senior managers below the board. Executive Directors will not be eligible for any awards under the RSP.

Pensions

The pension policy for existing Executive Directors remains a cash allowance of up to 25% of base salary. As set out in the recruitment section of the new Remuneration Policy, when setting the pension arrangement for a new Executive Director we will seek to align the level of pension benefit more closely with that awarded to other employees in Johnson Matthey.

Salary Reviews

The annual review of Executive Director salaries has normally taken effect on 1st August each year. In future, we will align the review date to the company's financial year such that Executive Director salaries will normally take effect from 1st April each year.

A summary of the key elements of the Remuneration Policy and their application for 2017/18 is set out in the Remuneration Overview on page 99.

2017 Salary Review

Taking into account performance and time in role, each Executive Director received an increase on 1st April 2017 in line with the increase awarded to other UK employees but pro-rated to take account of the period of time since their last salary review. As a result, Robert MacLeod and John Walker received an increase of 1.5% and Anna Manz received an increase of 1%.

Board Changes

Den Jones stood down from the board on 20th July 2016 and left Johnson Matthey on 31st July 2016. Under the terms of the annual bonus plan, he received a pro-rata bonus for the proportion of the year served and any outstanding deferred share bonus awards will vest on the normal release dates. In addition, his outstanding awards under the long term incentive plan will continue to vest on the normal dates subject to performance and a time pro-rata reduction to reflect the proportion of the performance period served.

We welcomed Anna Manz to the board on 17th October 2016. Her remuneration package was set in line with our standard policy and she received no replacement or buy-out awards in connection with her appointment.

The Year Ahead

Looking ahead to the next 12 months, we will monitor the appropriateness of the performance conditions attached to our annual and long term incentive plans and will consider the remuneration and incentive arrangements for senior managers below the board following the implementation of a new global grading structure across the organisation.

2017 Annual General Meeting

I ask you to support our proposed Directors' Remuneration Policy along with our 2016/17 Annual Report on Remuneration at our forthcoming AGM on 28th July 2017. We believe that our policy is simple, transparent and effective, strongly supporting our business strategy. We welcome an open dialogue with our shareholders and I will be available at the meeting to answer any questions about the work of the Remuneration Committee.

Colin Matthews
Chairman of the Remuneration Committee

Remuneration Overview

Remuneration Policy

The table below sets out the remuneration policy for the 2017/18 financial year. Further details are set out in the Directors' Remuneration Policy and the Annual Report on Remuneration.

Remuneration element	Remuneration structure
Base salary	Current salaries as follows: • Robert MacLeod – £798,000 (including 1.5%[1] increase effective from 1st April 2017) • Anna Manz – £490,000 (including 1%[1] increase effective from 1st April 2017) • John Walker – £456,750 (including 1.5%[1] increase effective from 1st April 2017).
Benefits	Medical, life and income protection insurance, medical assessments, a company car (or equivalent), matching shares under the all employee share incentive plan and assistance with tax advice and tax compliance services where appropriate.
Pension contribution	25% of salary cash supplement in lieu of pension.
Annual bonus	180% of salary for Chief Executive and 150% of salary for other Executive Directors. Bonuses for 2017/18 will be based on underlying profit before tax (PBT) and working capital performance. 50% of any bonus earned is deferred in shares for three years.
Long term incentive	200% of salary for the Chief Executive and 175% of salary for other Executive Directors. Awards vest subject to achieving challenging EPS growth targets (with a ROIC underpin). Targets for the 2016 and 2017 awards require 4% to 10% p.a. underlying EPS growth for 15% to 100% vesting. Performance is measured over three years with awards vesting in equal tranches over three, four and five years.
Shareholding guidelines	250% of salary for the Chief Executive and 200% of salary for other Executive Directors. 50% of the shares (net of tax) vesting under the incentive schemes must be retained until the guideline holding has been achieved.

1 2.25% pro-rated to reflect the period of service since last increase.

2016/17 Outcomes

The table below sets out the remuneration outcomes for the Executive Directors for 2016/17.

£'000	Salary	Benefits	Annual bonus[3]	Long term incentive	Pension	**Total**
Robert MacLeod	769	21	569	417	195	**1,971**
Den Jones[1]	156	5	73	176	40	**450**
Anna Manz[2]	222	7	123	–	56	**408**
John Walker	442	20	273	192	110	**1,037**

1 Den Jones stood down from the board on 20th July 2016 and left the company on 31st July 2016.

2 Anna Manz joined the board on 17th October 2016.

3 In accordance with the rules of the plan, 50% of the bonus payable is awarded as shares and deferred for three years.

Annual bonuses for Robert MacLeod, Den Jones and Anna Manz were based solely on the underlying profit before tax of the group and paid out at 40% of the maximum, reflecting a good performance in challenging conditions. The bonus for John Walker was based on the underlying profit before tax of the group, Emission Control Technologies' (ECT's) underlying operating profit and ECT's working capital targets and paid out at 40% of the maximum. 50% of the bonus paid to the Chief Executive and other Executive Directors was paid in shares and deferred for three years.

The long term incentive plan awards were based on underlying EPS performance to 31st March 2017 and vested at 28% of the maximum following underlying EPS growth over the performance period of 7% per annum. The shares will be released in equal tranches in 2017, 2018 and 2019.

Directors' Remuneration Policy

Below we publish the Remuneration Policy table, which includes the elements of directors' remuneration. For each element we describe its purpose and its link to strategy, how it works, the opportunity, boundaries and performance measures and any clawback or withholding conditions which may apply. This Remuneration Policy will, subject to shareholder approval, take effect immediately following the 2017 AGM and apply to all remuneration for the financial year commencing 1st April 2017 onwards.

The previous Remuneration Policy was approved by shareholders in July 2014, with 97.6% votes cast in favour. The only significant changes between the policy presented below and that previously approved by shareholders are:

- A change to the base salary review date from 1st August to 1st April each year. The increase will be pro-rated in the first year to reflect the Executive Director's service since their last increase.
- The annual bonus threshold vesting is changed to 15% of the maximum opportunity, it was previously 15% of base salary for all Executive Directors.
- An increase to the recommended shareholding level from 200% to 250% of base salary for the Chief Executive and from 150% to 200% of base salary for other Executive Directors.
- Dividends will accrue on deferred shares during vesting periods and may be paid in cash or shares at the time of vesting.

Remuneration Policy Table

Purpose and link to strategy	Operation (and changes if appropriate) of the element	Potential value of element and performance measures
Base salary Base salary is the basic pay for doing the job. Its purpose is to provide a fair and competitive level of base pay to attract and retain individuals of the calibre required to lead the business.	Base salaries will be reviewed annually and any changes normally take effect from 1st April each year. In determining salaries and salary increases, the Remuneration Committee will take account of the performance of the individual director against a broad set of parameters including financial, environmental, social and governance issues. The Remuneration Committee will further take into account the length of time in post and the level of salary increases awarded to the wider Johnson Matthey workforce. Salaries across the group are benchmarked against a comparator group of similarly sized companies within the FTSE, with a comparable international presence and geographic spread and operating in relevant industry sectors. New appointments or promotions will be paid at a level reflecting the Executive Director's level of experience in the particular role and experience at board level. New or promoted Executive Directors may receive higher pay increases than typical for the group over a period of time following their appointment as their pay trends toward an appropriate level for their role.	**Maximum opportunity** No salary increase will be awarded which results in a base salary which exceeds the competitive market range. Details of the current salaries for the Executive Directors are shown in the Annual Report on Remuneration on page 116.

Purpose and link to strategy	Operation (and changes if appropriate) of the element	Potential value of element and performance measures
Annual incentive The annual bonus provides a strong incentive aligned to strategy in the short term. The annual bonus allows the board to ensure that the company's plans are properly reflected in stretching but achievable annual budgets. The annual bonus plays a key part in the motivation and retention of Executive Directors, one of the key requirements for long term growth. Bonus deferral as well as malus and clawback provisions ensure that longer term considerations are properly taken into account in the pursuit of annual targets.	The Remuneration Committee sets annual bonus performance measures and targets for each new award cycle. At the end of the year, the Remuneration Committee determines the extent to which these have been achieved. The Remuneration Committee retains the discretion to reduce any bonus award if, in its opinion, the underlying financial performance of the company has not been satisfactory in the circumstances. **Deferral** Of any bonus paid, 50% is paid in cash and the remaining 50% is deferred into shares for a three year period as an award under the deferred bonus plan. No further performance conditions apply to awards under the deferred bonus plan. Dividends that accrue on the deferred shares during the vesting period will be paid in either cash and / or shares at the time of vesting. **Malus and clawback** The cash and deferred elements of the bonus are subject to malus and clawback provisions such that they can be forfeited or recouped in part or in full in the event of a misstatement of results, error in the calculation or misconduct by the individual. **Adjustments** The Remuneration Committee retains discretion to change the performance targets if there is a significant or material event which causes the committee to believe the original targets are no longer appropriate (e.g. to reflect material acquisitions or disposals). The Remuneration Committee also retains discretion to amend the level of annual bonuses determined by the performance condition to seek to ensure that the incentive structure for Executive Directors does not raise environmental, social and governance risks by inadvertently motivating irresponsible behaviour. For example, reducing or eliminating bonuses where the company has suffered reputational damage or where other aspects of performance have been unacceptable. The Remuneration Committee retains the ability to increase bonus awards from the formulaic outcome where there is identifiable and exceptional performance by the Executive Director. Bonus payments in such circumstances would remain within the maximum bonus opportunity and shareholders would be fully informed of the justification.	**Performance measures** Bonuses are based on the achievement of demanding financial and, where appropriate, non-financial targets. The Remuneration Committee may use different performances and weightings for each performance cycle as appropriate to take into account the strategic needs of the business. However, a substantial proportion will be based on key financial measures, including budgeted underlying profit before tax (PBT). The budget is set on a robust bottom up process to achieve full accountability. The target budgeted underlying PBT is retrospectively published in the immediately following Annual Report on Remuneration. Details of last year's bonus awards are on page 110. The performance period for annual bonus purposes matches the financial year (1st April to 31st March). **Maximum opportunity and vesting thresholds** Chief Executive – 180% of base salary. Other Executive Directors – 150% of base salary. Threshold vesting will result in a bonus of 15% of maximum opportunity. On target performance will result in 50% payment of the maximum opportunity.

Purpose and link to strategy	Operation (and changes if appropriate) of the element	Potential value of element and performance measures
Long term incentive The Performance Share Plan (PSP) is a long term incentive plan designed to ensure that executives take decisions in the interest of the longer term success of the group. Having a measure that looks at profitable growth over the longer term ensures that the interests of executives are aligned with shareholder wishes for long term value.	Shares may be awarded each year and are subject to performance conditions over a three year performance period. Subject to performance conditions being met, the shares will vest in equal instalments on the third, fourth and fifth anniversary of the date of award. The performance targets are set by the Remuneration Committee based on internal and external growth forecasts to ensure they remain appropriate and aligned with shareholder expectations. The awards are granted in accordance with the rules of the plan approved by shareholders. Awards may be granted in the form of conditional shares, nil or nominal cost options or cash (where the awards cannot be settled in shares). Dividends that accrue between the third and fifth anniversary of the award date will be paid in either cash and / or shares at the time of vesting. **Malus and clawback** Long term incentive plan awards granted since 2014 are subject to malus and clawback provisions that can apply in the case of a misstatement of results, error in the calculation or misconduct by the individual. **Adjustments** The Remuneration Committee has power to adjust the vesting level of an award based on the underlying performance of the company. The Remuneration Committee may adjust the performance measure to reflect material changes (e.g. significant acquisitions or disposals, share consolidation, share buy-backs or special dividends). Any such change would be fully explained to shareholders.	**Performance measures** PSP vesting is currently based on the compound annual growth rate (CAGR) of underlying EPS over a three year performance period, subject to a discretionary ROIC underpin. However, the Remuneration Committee retains discretion to amend the targets and the performance measures for future awards as appropriate to reflect the business strategy. Wherever possible, the views of major shareholders will be sought when it is proposed to make any substantive changes to the performance measures. The prospective targets and measures for the year commencing 1st April 2017 are shown on page 99. **Maximum opportunity and vesting thresholds** A new long term incentive plan, a Performance Share Plan (PSP), is being put to shareholders for approval at the 2017 AGM. Subject to approval of the plan, the maximum award limit under this policy will be 200% of base salary.
Benefits To provide a market aligned benefits package. The purpose of any benefit is to align with normal market practices and to remove certain day to day concerns from Executive Directors to allow them to concentrate on the task in hand.	Benefits include medical, life and income protection insurance, medical assessments, company sick pay, and a company car (or equivalent). Other appropriate benefits may also be provided from time to time at the discretion of the Remuneration Committee. Directors' and officers' liability insurance is maintained for all directors. Directors who are required to move for a business reason may, where appropriate, also be provided with benefits such as relocation benefits (e.g. the provision of accommodation, transport or medical insurance away from their country of residence) and schooling for dependents. The company may pay the tax on these benefits. Directors may be assisted with tax advice and tax compliance services. The company will reimburse all reasonable expenses (including any tax thereon) which the Executive Director is authorised to incur whilst carrying out executive duties.	Benefits are not generally expected to be a significant part of the remuneration package in financial terms and are there to support the director in his or her performance in the role. In general benefits will be restricted to the typical level in the relevant market for an Executive Director. Car benefits will not exceed a total of £25,000 per annum. The cost of medical insurance for an individual Executive Director and dependents will not exceed £15,000 per annum. Company sick pay is 52 weeks' full pay.

Purpose and link to strategy	Operation (and changes if appropriate) of the element	Potential value of element and performance measures
Pension Provides for post-retirement remuneration, ensures that the total package is competitive and aids retention.	All Executive Directors will be paid a cash supplement in lieu of membership in a pension scheme.	The maximum supplement is 25% of base salary.
All employee share plan Encourages share ownership.	Executive Directors are entitled to participate in the company's all employee share incentive plan under which regular monthly share purchases are made and matched with the award of company shares, subject to retention conditions. Executive Directors would also be entitled to participate in any other all employee arrangements that may be established by the company on the same terms as all other employees.	Executive Directors are entitled to participate up to the same limits in force from time to time for all employees.
Shareholding requirements To encourage Executive Directors to build a shareholding in the company and ensure the interests of management are aligned with those of shareholders.	Executive Directors are expected to build up a shareholding in the company over a reasonable period of time. Shares that count towards achieving these guidelines include: all shares beneficially owned by an Executive Director or a person connected to the executive as recognised by the Remuneration Committee; deferred bonus shares and long term incentive awards which are no longer subject to performance conditions but have not yet vested. Executive Directors are expected to retain at least 50% of the net (after tax) vested shares that are released under the long term PSP and deferred bonus plans until the required levels of shareholding are achieved. Executive Directors are not required to make personal share purchases should awards not meet the performance conditions and so a newly appointed director may take longer to reach the expected level, depending on the company's performance against targets over the period.	The minimum shareholding requirement is as follows: Chief Executive – 250% of base salary. Other Executive Directors – 200% of base salary. The above shareholding requirements are effective as of the date of approval of this policy. The previous shareholding requirement was 200% of base salary for the Chief Executive and 150% of base salary for the other Executive Directors. There is no requirement for Non-Executive Directors to hold shares but they are encouraged to acquire a holding over time.
Non-Executive Director fees Attracts, retains and motivates Non-Executive Directors with the required knowledge and experience.	Non-Executive Director fees are determined by the board. The Non-Executive Directors exclude themselves from such discussions. The fees for the Chairman are determined by the Remuneration Committee taking into account the views of the Chief Executive. The Chairman excludes himself from such discussions. Non-Executive Directors are paid a base fee each year with an additional fee for each committee chairmanship or additional role held. Non-Executive Director fees are reviewed every year. Any increase will take into account the market rate for the relevant positions within a comparator group of similarly sized companies with a comparable international presence and geographic spread and operating in relevant industry sectors, the experience of the individuals and the expected time commitment of the role. In exceptional circumstances, additional fees may be payable to reflect a substantial increase in time commitment. The company will also reimburse the Chairman and Non-Executive Directors for all reasonable expenses (including any tax thereon) incurred whilst carrying out duties for the company.	Details of the current fee levels for the Chairman and Non-Executive Directors are set out in the Annual Report on Remuneration on page 109. The fee levels are set subject to the maximum limits set out in the Articles of Association.

Selection of Performance Targets

Annual incentive	Financial performance targets under the annual bonus plan are set by the Remuneration Committee with reference to the prior year and to the budgets and business plans for the coming year, ensuring the levels to achieve threshold, target or maximum payout are appropriately challenging. The performance targets for 2017/18 are based upon budgeted underlying PBT and working capital to ensure that there is strong attention paid to delivery of current operational plans and operational efficiency. Commercial sensitivity precludes the advance publication of the actual bonus targets but these targets will be retrospectively published in the Annual Report on Remuneration for 2017/18.
Long term incentive	EPS targets under the PSP are set to reflect the company's longer term growth objectives at a level where the maximum represents genuine outperformance. Underlying EPS is considered a simple and clear measure of absolute growth in line with the company's strategy. It is also a key objective of the company to achieve earnings growth only in the context of a satisfactory performance on ROIC. Accordingly, the Remuneration Committee makes an assessment of the group's ROIC over the performance period to ensure underlying EPS growth has been achieved with ROIC in line with the group's planned expectations.

Group Employee Considerations

The Remuneration Committee considers the directors' remuneration in the context of the wider employee population and is kept regularly updated on pay and conditions across the group. The company has not consulted directly with employees with respect to directors' remuneration. Increases in base salary for directors will take into account the level of salary increases granted to all employees within the group.

The general principle for remuneration in Johnson Matthey is to pay a competitive package of pay and benefits in all markets and at all job levels in order to attract and retain high quality employees. The proportion of variable pay increases with progression through management levels with the highest proportion of variable pay at Executive Director level, as defined by the Remuneration Policy.

The key elements of variable pay cascade down through the next tiers of senior management with appropriate reductions in opportunity levels based on seniority. The group's senior executives plus senior and middle managers (1,300 employees) participate in the annual bonus plan (with performance conditions similar to those described in the Remuneration Policy). In addition, the group's senior executives and certain senior management participate in the long term PSP in line with the same EPS based performance conditions (although only Executive Directors are subject to the post-vesting holding period and only the Executive Directors and members of the Group Management Committee are subject to deferral of annual bonus). Certain senior management also participate in a long term Restricted Share Plan (RSP) which has no performance conditions attached. No Executive Director is eligible to participate in this RSP.

There are also a number of country and business dependent arrangements under which bonuses may be paid to the entire business workforce where performance conditions associated with profitability are met.

Johnson Matthey operates a number of pension arrangements around the world, relevant to the local conditions and arrangements.

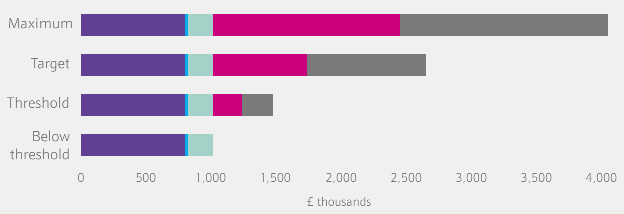
The key element of remuneration for those below senior management grades is base salary and Johnson Matthey's policy is to ensure that base salaries are fully competitive in the local markets. General pay increases take into account local salary norms, local inflation and business conditions.

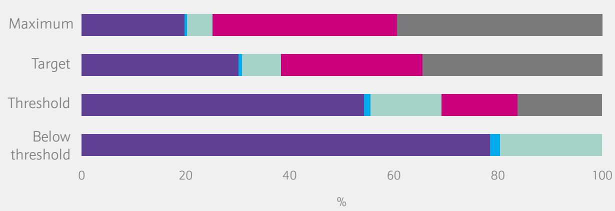
Remuneration Scenarios

Below is an illustration of the potential future remuneration that could be received by each Executive Director for the year commencing 1st April 2017, both in absolute terms and as a proportion of the total package under different performance scenarios. The value of the PSP is based on the award that will be granted in August 2017.

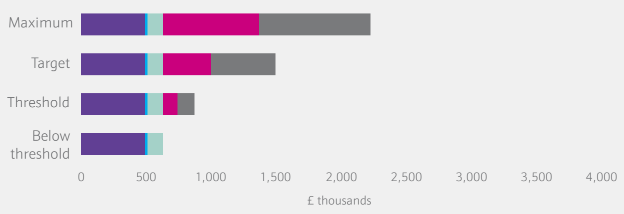
Value of package | **Composition of package**

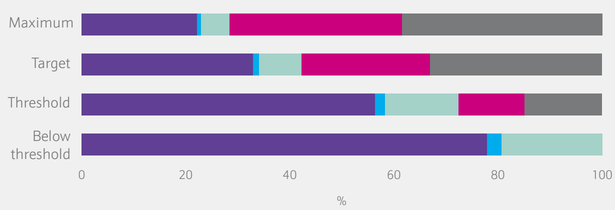
Robert MacLeod



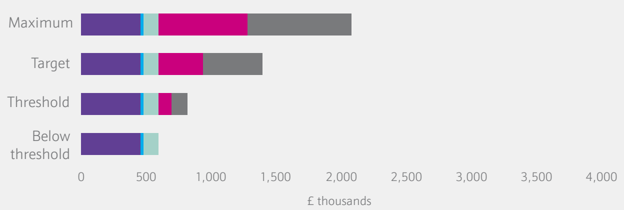


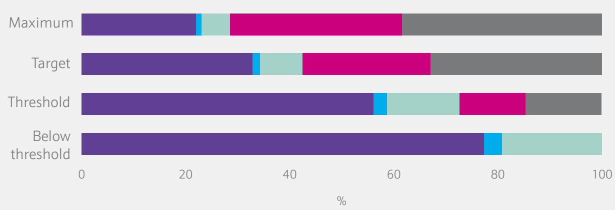
Anna Manz





John Walker





Base salary | Benefits | Pension | Bonus | PSP

Approach to Recruitment Remuneration

The recruitment policy provides an appropriate framework within which to attract individuals of the required calibre to lead a company of Johnson Matthey's size, scale and complexity. The Remuneration Committee determines the remuneration package for any appointment to an Executive Director position, either from within or outside Johnson Matthey.

The following table sets out the various components which would be considered for inclusion in the remuneration package for the appointment of an Executive Director and the approach to be adopted by the Remuneration Committee in respect of each component.

Area	Policy and operation
Overall	The policy of the board is to recruit the best candidate possible for any board position and to structure pay and benefits in line with the Remuneration Policy set out in this report. The ongoing structure of a new recruit's package would be the same as for existing directors, with the possible exception of an identifiable buy-out provision, as set out below.
Base salary or fees	Salary or fees will be determined by the Remuneration Committee in accordance with the principles set out in the policy table on page 100.
Benefits and pension	An Executive Director shall be eligible for benefits and pension arrangements in line with the company's policy for current Executive Directors, as set out in the policy table on pages 102 and 103. For new hires the cash supplement payable will be more aligned to that payable to other employees.
Annual incentive	The maximum level of opportunity is as set out in the policy table on page 101. The Remuneration Committee retains discretion to set different performance targets for a new externally appointed Executive Director, or adjust performance targets and measures in the case of an internal promotion, to be assessed over the remainder of the financial year. In this case any bonus payment would be made at the same time as for existing directors, and any such award would be pro-rated for the time served in the performance period.
Long term incentive	The maximum level of opportunity is as set out in the policy table on page 102. In order to achieve rapid alignment with the company's and shareholder interests, the Remuneration Committee retains discretion to grant a PSP award to a new externally appointed Executive Director on or soon after appointment if they join outside of the normal grant period.
Replacement awards	The Remuneration Committee retains discretion to grant replacement buy-out awards (in cash or shares) to a new externally appointed Executive Director to reflect the loss of awards granted by a previous employer. Where this is the case, the Remuneration Committee will seek to structure the replacement award such that overall it is on an equivalent basis to broadly replicate that foregone, using appropriate performance terms. If granted, any replacement buy-out award would not exceed the maximum set out in the rules of the 2017 Performance Share Plan Rules (350% of base salary). If the Executive Director's prior employer pays any portion of the remuneration that was anticipated to be forfeited, the replacement awards shall be reduced by an equivalent amount.
Other	The Remuneration Committee may agree that the company will meet certain mobility costs, relocation costs, including temporary living and transportation expenses, in line with the company's prevailing mobility policy for senior executives as described in the policy table on page 102.

In the case of an internal promotion to the board, the company will honour any contractual commitments made prior to the promotion.

Service Contracts and Policy on Payment for Loss of Office

The following table summarises relevant key provisions of Executive Directors' service contracts and the treatment of payments on termination of employment. The full contracts of service of the Executive Directors (as well as the terms and conditions of appointment of the Non-Executive Directors) are available for inspection at the registered office of the company during normal business hours as well as prior to and during the forthcoming AGM of the company.

In exceptional circumstances, the Remuneration Committee may authorise, where it considers it to be in the best interests of the company and shareholders, entering into contractual arrangements with a departing Executive Director, for example a settlement, confidentiality, restrictive covenant or other arrangement, pursuant to which sums not set out in the following table may become payable. Full disclosure of the payments will be made in accordance with the remuneration reporting requirements.

The following table describes the contractual conditions pertaining to the contracts for Robert MacLeod, Anna Manz and John Walker and for any future Executive Director.

Summary of Key Provisions of Executive Directors' Service Contracts and Treatment of Payments on Termination

	Robert MacLeod	Anna Manz	John Walker[1]
Date of service agreement	31st January 2014	25th July 2016	31st January 2014
Date of appointment as director	22nd June 2009	17th October 2016	9th October 2013
Employing company	Johnson Matthey Plc		
Contract duration	No fixed term.		
Notice period	No more than 12 months' notice, with equal notice from the company and director except for directors who joined before 1st January 2017 where the director's notice period is six months and the notice period from the company is 12 months.		
Post-termination restrictions	The contracts of employment contain the following restrictions on the director for the following periods from the date of termination of employment: – non-compete – six months; – non-dealing and non-solicitation of client / customers – 12 months; – non-solicitation of suppliers and non-interference with supply chain – 12 months; and – non-solicitation of employees – 12 months.		
Summary termination – payment in lieu of notice (PILON)	The company may, in its absolute discretion, terminate the employment of the director with immediate effect by giving written notice together with payment of a sum equivalent to the director's base salary and the value of their contractual benefits as at the date such notice is given, in respect of the director's notice period, less any period of notice actually worked. The company may elect to pay the PILON in equal monthly instalments. The director is under a duty to seek alternative employment and to keep the company informed about whether they have been successful. If the director commences alternative employment, the monthly instalments shall be reduced. (if appropriate to nil) by the amount of the director's gross earnings from the alternative employment. A PILON paid to a director who is a US taxpayer (John Walker) would be in equal monthly instalments.		
Termination payment – change of control	If, within one year after a change of control, the director's service agreement is terminated by the company (other than in accordance with the summary termination provisions), the company shall pay, as liquidated damages, one year's base salary, together with a sum equivalent to the value of the director's contractual benefits, as at the date of termination, less the period of any notice given by the company to the director.		
Termination – treatment of annual incentive awards	Annual bonus awards are made at the discretion of the Remuneration Committee. Employees, including Executive Directors, leaving the company's employment will receive a bonus, pro-rata to service, unless the reason for leaving is resignation or misconduct. Any bonus awarded would continue to be subject to deferral as set out in the Remuneration Policy. In relation to deferred bonus awards which have already been made, shares will be released on the normal vesting date unless one of the following circumstances applies, and subject to the discretion of the Remuneration Committee: • the participant leaves as a result of misconduct; or • the participant, prior to vesting, breaches one of the post-termination restrictions or covenants provided for their employment contract, termination agreement or similar agreement. In which case the deferred awards will lapse on cessation of employment. The Remuneration Committee has the discretion to accelerate vesting of a deferred award if appropriate to do so to reflect the circumstances of the departure. It is intended that this would only be used in the event of a departure due to ill health (or death).		
Termination – treatment of long term incentive awards	Employees, including Executive Directors, leaving the company's employment will normally lose their long term incentive awards unless they leave for a specified 'good leaver' reason, in which case their shares will be released on the normal release dates, subject to the performance condition. The Remuneration Committee has discretion to accelerate vesting, in which case the performance condition would be assessed based on available information at the time. In either case, unless the Remuneration Committee determines otherwise, the level of vesting shall be pro-rated to reflect the proportion of the performance period which has elapsed to the date of leaving. In the post-vesting deferral period, only those who leave due to misconduct will lose their shares.		
Redundancy scheme	The director is not entitled to any benefit under any redundancy payments scheme operated by the company.		
Holiday	Upon termination for any reason, directors will be entitled to payment in lieu of accrued but untaken holiday entitlement.		

1 John Walker is eligible for continuing post-retirement medical benefits provided he satisfies the conditions of this plan and retires directly from Johnson Matthey.

Chairman and Non-Executive Directors

The Chairman and each of the Non-Executive Directors have letters of appointment. The letters of appointment do not contain any contractual entitlement to a termination payment and the Non-Executive Directors can be removed in accordance with the company's Articles of Association. Directors are required to retire at each AGM and seek re-election by shareholders.

The details of the service contracts, including notice periods, contained in the letters of appointment in relation to the Non-Executive Directors who served during the year are set out in the table below. Neither the Chairman or the Non-Executive Directors has provisions in his or her letter of appointment that relate to a change of control of the company.

Non-Executive Director	Committee appointments	Date of appointment	Expiry of current term	Notice period by the individual	Notice period by the company
Tim Stevenson (Chairman)	R, N	29th March 2011	31st December 2018	6 months	6 months
Odile Desforges	A, R, N	1st July 2013	30th June 2019	1 month	1 month
Alan Ferguson	A, R, N	13th January 2011	13th January 2020	1 month	1 month
Jane Griffiths	A, R, N	1st January 2017	31st December 2019	1 month	1 month
Colin Matthews	A, R, N	4th October 2012	3rd October 2018	1 month	1 month
Chris Mottershead	A, R, N	27th January 2015	26th January 2018	1 month	1 month

A: Audit Committee R: Remuneration Committee N: Nomination Committee

External Appointments

It is the board's policy to allow Executive Directors to accept non-executive appointments provided there is no conflict of interest and that the time spent would not impinge on their work for Johnson Matthey. Details of external directorships held by Executive Directors, together with fees retained during the year are as follows:

Executive Director	Company	Role held	Fees retained £'000
Robert MacLeod	RELX PLC, RELX NV and RELX Group plc	Non-Executive Director	85
Anna Manz	ITV plc	Non-Executive Director	70

Annual Report on Remuneration

This section provides details of how the 2014 Directors' Remuneration Policy was implemented during the year and how we intend to apply the new 2017 Directors' Remuneration Policy in the year ahead (subject to its approval by shareholders at the forthcoming AGM).

About the Remuneration Committee

The Remuneration Committee is a committee of the board and comprises all the independent Non-Executive Directors of the company as set out above including the group Chairman Tim Stevenson. Details of attendance at committee meetings during the year ended 31st March 2017 is shown below.

			Meeting attendance						
	Committee role	Date of appointment	6th April 2016	31st May 2016	19th July 2016	7th September 2016	5th October 2016	14th November 2016	31st January 2017
Dorothy Thompson[1]	Chairman (until 20th July 2016)	1st September 2007	✓	✓	✓	–	–	–	–
Colin Matthews	Chairman (from 20th July 2016)	4th October 2012	✓	✓	✓	✓	✓	✓	✓
Odile Desforges	Member	1st July 2013	✓	✓	✓	✓	✓	✓	✓
Alan Ferguson	Member	13th January 2011	✓	✓	✓	✓	✓	✓	✓
Jane Griffiths	Member	1st January 2017	–	–	–	–	–	–	✓
Chris Mottershead	Member	27th January 2015	✓	✓	✓	✓	✓	✓	✓
Tim Stevenson	Member	29th March 2011	✓	✓	✓	✓	✓	✓	✓

[1] Dorothy Thompson stood down as Chairman of the Remuneration Committee and retired from the board on 20th July 2016.

Since the end of the year, the committee has met. Tim Stevenson was unable to attend one meeting due to illness. He reviewed all meeting papers and shared his thoughts, comments and questions with the committee chairman, who raised these at the meeting. All other committee members attended both meetings.

The Remuneration Committee's terms of reference can be found in the Investor Relations / Corporate Governance section of our website and include determination on behalf of the board of fair remuneration for the Chief Executive, the other Executive Directors and the group Chairman (in which case the group Chairman does not participate). In addition, the committee receives recommendations from the Chief Executive on the remuneration of those reporting to him as well as advice from the Chief Human Resources Officer, who acts as secretary to the committee.

Advisers to the Committee

In determining the remuneration structure, the committee appoints and receives advice from independent remuneration consultants on the latest developments in corporate governance and the pay and incentive arrangements prevailing in comparably sized industrial companies. New Bridge Street (part of Aon Hewitt Limited) was appointed as adviser to the committee in November 2015 following a competitive tender process. The total fees paid to New Bridge Street in respect of its services to the committee during the year were £58,126 plus VAT. Aon Hewitt also provides consultancy services to the company in relation to certain employee benefits to those below the board. New Bridge Street is a signatory to the Remuneration Consultants Group Code of Conduct and the committee is satisfied that the advice that it receives from New Bridge Street is objective and independent.

Herbert Smith Freehills provided advice to the company in connection with the drafting of share plan rules and directors' service contracts in accordance with the policy determined by the Remuneration Committee. This advice was charged on an hourly basis. The committee is aware that Herbert Smith Freehills is one of a number of legal firms that provide legal advice and services to the company on a range of matters.

A statement regarding the use of remuneration consultants for the year ended 31st March 2017 is available on our website in the Investor Relations / Corporate Governance section.

Remuneration for the Year Ended 31st March 2017

Single Figure Table of Remuneration

The table below sets out the total remuneration and breakdown of the elements each director received in relation to the year ended 31st March 2017, together with a prior year comparative. An explanation of how the figures are calculated follows the table.

	Base salary / fees £'000		Benefits £'000		Annual incentive £'000		Long term incentive £'000		Pension £'000		Total £'000	
	2017	2016	**2017**	2016	**2017**	2016	**2017**	2016	**2017**	2016	**2017**	2016
Executive Directors												
Robert MacLeod	**769**	748	**21**	21	**569**	208	**417**	261	**195**	191	**1,971**	1,429
Anna Manz[1]	**222**	–	**7**	–	**123**	–	**–**	–	**56**	–	**408**	–
John Walker	**442**	415	**20**	14	**273**	233	**192**	133	**110**	104	**1,037**	899
Former Executive Directors												
Den Jones[2]	**156**	464	**5**	18	**73**	117	**176**	–	**40**	118	**450**	717
Larry Pentz[3]	**–**	460	**–**	265	**–**	114	**146**	250	**–**	115	**146**	1,204
Non-Executive Directors												
Tim Stevenson	**343**	335	**–**	–	**–**	–	**–**	–	**–**	–	**343**	335
Odile Desforges	**63**	61	**–**	–	**–**	–	**–**	–	**–**	–	**63**	61
Alan Ferguson	**81**	79	**–**	–	**–**	–	**–**	–	**–**	–	**81**	79
Jane Griffiths[4]	**16**	–	**–**	–	**–**	–	**–**	–	**–**	–	**16**	–
Colin Matthews	**73**	61	**–**	–	**–**	–	**–**	–	**–**	–	**73**	61
Chris Mottershead	**63**	61	**–**	–	**–**	–	**–**	–	**–**	–	**63**	61
Dorothy Thompson[5]	**23**	76	**–**	–	**–**	–	**–**	–	**–**	–	**23**	76

1 Anna Manz was appointed to the board on 17th October 2016.

2 Den Jones stood down from the board on 20th July 2016 and left the company on 31st July 2016.

3 Larry Pentz stood down from the board and left the company on 31st March 2016.

4 Jane Griffiths was appointed to the board on 1st January 2017.

5 Dorothy Thompson stood down from the board on 20th July 2016.

Explanation of Figures

Base salary / fees	Salary paid during the year to Executive Directors and fees paid during the year to Non-Executive Directors.
Benefits	All taxable benefits such as medical and life insurance, service and car allowances, matching shares under the all employee share incentive plan and assistance with tax advice and tax compliance services where appropriate.
Annual incentives	Annual bonus awarded for the year ended 31st March 2017. The figure includes any amounts deferred and awarded as shares.
Long term incentives	The 2016 figure represents the value of shares which vested in August 2016. The volume weighted average share price at vest was 3,274 pence. The 2017 figure represents the estimated value of the shares which are due to vest in August 2017 based on achievement of performance conditions over the three years to 31st March 2017, calculated using the average share price from 1st January 2017 to 31st March 2017 which was 3,100 pence.
Pension	The amounts shown represent the value of the increase over the year of any defined benefit pension the Executive Director may have in the Johnson Matthey Employees Pension Scheme (JMEPS) plus any cash supplements paid in lieu of pension membership.

Variable Pay – Additional Disclosures, Including Bases of Calculation and Outcomes

1 Annual Bonus for the Year Ended 31st March 2017

The Executive Directors were eligible for a maximum annual bonus opportunity of 180% of base salary for the Chief Executive and 150% of base salary for the other Executive Directors (pro-rated to reflect the period served in the case of Den Jones and Anna Manz). The on target bonus opportunity was set at 50% of the maximum opportunity and the threshold bonus opportunity was 15% of salary.

The performance measures and weightings for the annual bonus were as follows:

	Percentage of bonus available		
	Group underlying PBT	ECT underlying operating profit	ECT working capital days
Chief Executive	100%	–	–
Chief Financial Officer	100%	–	–
Sector Chief Executive, Clean Air	60%	30%	10%

The annual targets are set when budgets are approved in early April, at the start of the new financial year. Budgets are built from the bottom up and are subject to a rigorous process of challenge before final proposals are considered by the board. Further information is used in the determination, including a consensus of industry analysts' forecasts, provided by Vara Research.

Achievement against targets for the year ended 31st March 2017 is set out in the table below:

Performance measure		Threshold	Target	Maximum	Actual	Actual % of budget
Group underlying PBT[1]	£ million	409.9 (95% budget)	431.5 (100% budget)	474.7 (110% budget)	426.4	98.82
ECT underlying operating profit[1]	£ million	274.9 (95% budget)	289.4 (100% budget)	318.3 (110% budget)	284.9	98.45
ECT working capital days	days	72.7 (105% budget)	69.2 (100% budget)	65.7 (95% budget)	69.4	100.29

[1] For 2016/17 actual performance for group underlying PBT and ECT underlying operating profit is measured using budget foreign exchange rates. Performance at actual exchange rates was £481.7 million and £318.2 million respectively.

Based on performance against the above targets, bonuses for the year ended 31st March 2017 were:

	£'000	% salary
Robert MacLeod, Chief Executive	569	72.35
Anna Manz, Chief Financial Officer[1]	123	25.37
Den Jones, Former Group Finance Director[1]	73	15.22
John Walker, Sector Chief Executive, Clean Air	273	60.57

1 Bonuses for Anna Manz and Den Jones were pro-rated to reflect the proportion of the performance period for which they worked.

In accordance with the rules of the plan, 50% of the bonus payable is awarded as shares and deferred for three years. There are no further performance conditions attached to the deferred element.

2 Long Term Incentive Vesting for the Three Year Performance Period Ended 31st March 2017

The table below sets out the performance targets for the long term incentive awards made in August 2014 with a three year performance period which ended 31st March 2017.

Required underlying EPS performance	Proportion of award which may vest
Threshold 6% CAGR	15%
Maximum 15% CAGR	100%

The awards vest on a straight line basis between threshold and maximum. In addition to the EPS performance condition, the Remuneration Committee considers the performance of ROIC over the performance period to ensure that earnings growth is achieved in a sustainable and efficient manner.

The performance over the period was a compound annual growth in underlying EPS of 7.39% per annum. This growth had been achieved with ROIC in line with the group's expectations.

The table below shows the expected vesting outcomes based on this performance.

	% of base salary awarded	Shares awarded	% of award to vest	Shares to vest	Estimated value on vesting[1] £
Executive Directors					
Robert MacLeod	200	47,709	28.16	13,435	416,537
Anna Manz	–	–	–	–	–
John Walker	175	21,986	28.16	6,191	191,945
Former Executive Directors					
Den Jones[2]	175	20,138	28.16	5,670	175,792
Larry Pentz[3]	175	16,772	28.16	4,723	146,431

1 The value of the 2014 award, which will vest in three equal tranches on 1st August 2017, 1st August 2018 and 1st August 2019, is estimated using the average share price for the period 1st January 2017 to 31st March 2017 which was 3,100 pence.

2 Den Jones stood down from the board on 20th July 2016 and left the company on 31st July 2016. The long term incentive shares awarded to Mr Jones in August 2014 (25,882) were, on leaving, pro-rated to 20,138 based on his completed service since the start of the performance period.

3 Larry Pentz retired from the board on 31st March 2016. The long term incentive shares awarded to Mr Pentz in August 2014 (25,159) were, on leaving, pro-rated to 16,772 based on his completed service since the start of the performance period.

3 Variable Pay Awarded During the Year Ended 31st March 2017 (Long Term Incentive Awards Subject to Future Performance)

In 2016/17 long term incentive awards were made to the Executive Directors in respect of the three year performance period to 31st March 2019. The table below sets out the opportunity and performance targets for these awards.

Required underlying EPS performance	Proportion of award which may vest	Chief Executive	Other Executive Director
Threshold 4% CAGR	15%	30%	26.25%
Maximum 10% CAGR	100%	200%	175%

The table below sets out the details of the actual conditional long term incentive awards made as a percentage of base salary.

	Date of grant	Award size (% of base salary)	Number of shares awarded	Face value[1] £
Robert MacLeod	1st August 2016	200	52,529	£1,537,498
Anna Manz	1st November 2016	175	28,997	£848,728
John Walker	1st August 2016	175	25,387	£743,065

1 Face value is calculated using the award share price of 2,926.95 pence, which is the average closing share price over the four week period commencing on 2nd June 2016.

4 Prior Year Long Term Incentive Awards and Outcomes

The table below shows the history of long term incentive awards granted since 2009.

Year of award	Year of vesting	% salary awarded to Chief Executive	% salary awarded to other Executive Directors	Threshold EPS growth target	Stretch EPS growth target	Compound annual growth in underlying EPS in the period	% of award vested
2009	2012	120	100	3%	10%	19.7%	100
2010	2013	150	120	7%	16%	20.2%	100
2011	2014	175	140	7%	16%	13.3%	75
2012	2015	175	140	7%	16%	6.07%	–
2013	2016	175	140	6%	15%	7.85%	33
2014	2017	200	175	6%	15%	7.39%	28
2015	2018	200	175	6%	12%	n/a	n/a
2016	2019	200	175	4%	10%	n/a	n/a

Pension Entitlements

No director is currently accruing any pension benefit in the group's pension schemes. Instead they receive an annual cash payment in lieu of pension membership equal to 25% of base salary. However, Robert MacLeod and John Walker have each accrued a pension entitlement in respect of a prior period of pensionable service in one or more of the group's pension arrangements.

Robert MacLeod ceased pensionable service in JMEPS on 31st March 2011.

John Walker joined JMEPS on 1st September 2012 and ceased pensionable service in this scheme on 9th October 2013. Prior to joining JMEPS Mr Walker was a member of the US Johnson Matthey Inc. Salaried Employees Pension Plan.

Details of the accrued pension benefits of the Executive Directors as at 31st March 2017 in the UK and US pension schemes are given below:

	Total accrued annual pension entitlement at 31st March 2017 £'000
Robert MacLeod[1]	10
Anna Manz	–
John Walker[2]	89

1 Pension payable from age 65 based on pensionable service in the UK pension scheme up to 31st March 2011.

2 Pension payable in respect of pensionable service in the UK and US pension schemes payable from age 65 and 62 respectively. The pension payable from the US pension scheme will be paid in local currency.

Payments for Loss of Office

Den Jones stood down from the board on 20th July 2016 and left the company on 31st July 2016. Mr Jones received his salary, normal benefits and pension supplement up until 31st July 2016. Mr Jones received a pro-rata bonus for the year reflecting the proportion of the performance period worked, which amounted to £72,566, one half of which will be awarded as shares subject to a three year deferral period.

In accordance with the rules of the deferred share bonus plan and as set out in the Directors' Remuneration Policy, outstanding deferred share awards will be released on the normal vesting date. Mr Jones was awarded 4,864 deferred shares under the annual bonus plan in 2015. These will be released to him on the normal release date in August 2018. He was awarded 2,002 deferred shares under the annual bonus plan in 2016. These will be released to him on the normal release date in August 2019. Dividend equivalent shares will accrue on the deferred bonus awards during the relevant vesting period.

The long term incentive shares awarded to Mr Jones in August 2014 and August 2015 will be released in three equal tranches on the executive release dates in August 2017, August 2018 and August 2019 for the 2014 award and August 2018, August 2019 and August 2020 for the 2015 award. The 2014 and 2015 awards will be pro-rated to 20,138 and 11,746 shares based on his completed service since the start of the relevant performance period. In all cases, final vesting will be determined by reference to the achievement of the relevant performance conditions. Dividend equivalent shares will accrue on the 2015 award between the first and last executive release dates.

Mr Jones received a payment in lieu of notice of £357,610. This comprised of £279,337 in lieu of salary, £8,439 in lieu of car allowance and £69,834 in lieu of pension. Mr Jones continued to receive private medical insurance coverage until 31st December 2016 and thereafter a payment equal to the monthly insurance premiums payable by the company for Mr Jones' medical insurance was paid in cash until 2nd March 2017. On leaving Johnson Matthey, Mr Jones received a lump sum payment equal to the value of his accrued but untaken holiday plus an amount equal to the insurance premiums payable by the company to provide life and income protection insurance for the period up to 2nd March 2017. No other remuneration or loss of office payments will be received by Mr Jones.

Payments to Past Directors

Larry Pentz retired from the board on 31st March 2016. As set out in last year's remuneration report, he was treated as a retiree in respect of his outstanding deferred share bonus and long term incentive awards. 2,421 shares awarded under the deferred share bonus plan in 2014 will be released to him in August 2017. 4,723 long term incentive shares awarded in August 2014 will vest in August 2017, August 2018 and August 2019 following a pro-rata reduction to take into account the proportion of the performance period served and application of the EPS performance condition (as set out on page 111). The face value of these shares is estimated to be £75,060 and £146,431 respectively.

Larry Pentz is also eligible for continuing post-retirement medical benefits provided he continues to satisfy the conditions of this plan.

Recruitment of Anna Manz

Anna Manz was appointed to the board as Chief Financial Officer on 17th October 2016, succeeding Den Jones. Her remuneration package was set in line with the Directors' Remuneration Policy approved by shareholders at the 2014 AGM. Her salary on appointment was £485,000 and she became eligible for an annual bonus (pro-rated to reflect the proportion for the year worked) and a long term incentive award (details of which are set out on pages 111 and 112). She received no other incentive or recruitment awards in connection with her appointment.

Statement of Directors' Shareholding

The table below shows the directors' interests in the shares of the company, together with their unvested scheme interests, as at 31st March 2017.

	Ordinary shares[1]	Subject to ongoing performance conditions[2]	Not subject to further performance conditions[3]
Executive Directors			
Robert MacLeod	36,020	148,947	17,246
Anna Manz	2,184	28,997	–
Den Jones[4]	101	52,294	4,864
John Walker	13,949	70,914	11,841
Non-Executive Directors			
Tim Stevenson	4,958	–	–
Odile Desforges	1,416	–	–
Alan Ferguson	2,078	–	–
Jane Griffiths	–	–	–
Colin Matthews	1,888	–	–
Chris Mottershead	1,330	–	–
Dorothy Thompson[5]	8,762	–	–

1 Includes shares held by the director and / or connected persons, including those in the all employee share matching plan and 401k plan. Shares in the all employee share matching plan may be subject to forfeiture in accordance with the rules of the plan.

2 Represents unvested long term incentive shares awarded.

3 Represents unvested deferred bonus shares.

4 The figures for Den Jones are as at 20th July 2016 when he resigned from the board. As at 31st March 2017, the number of shares subject to ongoing performance conditions was 31,884 and the number of shares not subject to further performance conditions was 6,866.

5 The figures for Dorothy Thompson are as at 20th July 2016 when she stepped down from the board.

Directors' interests as at 1st June 2017 were unchanged from those listed above, other than that the trustees of the all employee share matching plan have purchased on behalf of Robert MacLeod and John Walker a further 24 shares each.

Executive Directors are expected to build up a shareholding in the company. The minimum shareholding requirement for the year ended 31st March 2017 was 200% of base salary for the Chief Executive and 150% of base salary for the other Executive Directors. The table below shows the extent to which the proposed minimum shareholding requirements have been satisfied:

	Shares held as at 31st March 2017 (% of base salary)[1,2]
Robert MacLeod	210%
Anna Manz[3]	14%
John Walker	178%

[1] Value of shares as a percentage of base salary is calculated using a share value of 3,100.39 pence, which was the average share price prevailing between 1st January 2017 and 31st March 2017.

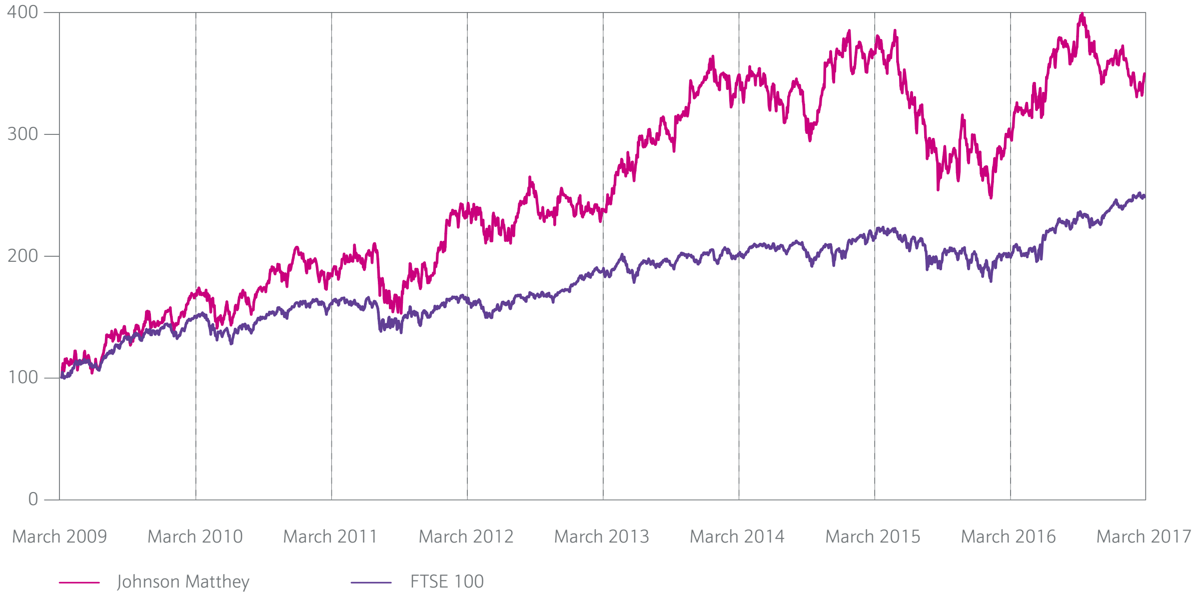
[2] The director's total shareholding for the purposes of comparing it with the minimum shareholding requirement includes shares held beneficially by the director and any connected persons (as recognised by the Remuneration Committee) together with deferred shares awarded under the annual bonus rules for which there are no further performance conditions and any vested but unreleased long term incentive share awards for which there are no further performance conditions.

[3] Anna Manz became an Executive Director on 17th October 2016 and purchased 2,184 shares. She will build her shareholding over time in line with the Remuneration Policy.

Performance Graph and Comparison to Chief Executive's Remuneration

Johnson Matthey and FTSE 100 Total Shareholder Return Rebased to 100

The following chart illustrates the total cumulative shareholder return of the company for the eight year period from 31st March 2009 to 31st March 2017 against the FTSE 100 as the most appropriate comparator group, rebased to 100 at 1st April 2009.



As at 31st March 2017, Johnson Matthey was ranked 73 by market capitalisation in the FTSE 100.

Historical Data Regarding Chief Executive's Remuneration

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15 [1]	2015/16 [1]	2016/17
Single total figure of remuneration	1,596	2,095	1,870	3,025	3,855	1,594	1,429	1,971
Annual incentives (% of maximum)	100	100	75	–	71	54	15	40
Long term incentives (% of award vesting) [2]	–	52	100	100	75	–	33	28

1 The figures for 2014/15 and 2015/16 are in respect of Robert MacLeod who was appointed as Chief Executive on 5th June 2014. Prior to this, the figures shown are for the previous Chief Executive, Neil Carson.

2 Vesting of long term incentive awards whose three year performance period ended in the financial year shown.

The above data is calculated according to the same methodology as applied in the single figure table on page 109.

Change in Chief Executive's Remuneration

The table below shows how the remuneration of the Chief Executive has changed over the year ended 31st March 2017. This is then compared to a group of appropriate employees, being those based in the UK. This comparator group was used because the Remuneration Committee believes it gives a reasonable understanding of the underlying increases, based on similar annual bonus performance measures, while at the same time reducing the distortion from currency fluctuations and the distortions that would arise from including all of the many countries in which the group operates with their different economic conditions.

	Chief Executive	Comparator group [1]
Salary	An increase of 1.5%	An increase of 4.5%
Annual incentives (bonus)	An increase of 174%	An increase of 25.4%
Benefits	No change in benefits policy. No change on overall costs between 2015/16 and 2016/17.	No change in benefits policy. No change on overall costs between 2015/16 and 2016/17.

1 Including promotions.

Relative Spend on Pay

The table below shows the absolute and relative amounts of distributions to shareholders and the total remuneration for the group for the years ended 31st March 2016 and 31st March 2017.

	Year ended 31st March 2017 £ million	Year ended 31st March 2016 £ million	% change
Payments to shareholders – special dividends	**–**	304.5	n/a
Payments to shareholders – ordinary dividends	**139.0**	140.1	-1
Total remuneration (all employees) [1]	**645.5**	603.5	+7

1 Excludes termination benefits.

Implementation of the Directors' Remuneration Policy for 2017/18

The table below sets out how the Remuneration Committee intends to apply the Directors' Remuneration Policy, subject to approval of the Remuneration Policy by shareholders, for the year ended 31st March 2018.

Salary

The salary review date has been moved from 1st August to 1st April. Salaries for the Executive Directors for 2017/18 have been increased in line with the budgeted increase for all other UK employees of 2.25%, albeit pro-rated to reflect the Executive Director's period of service since their last increase. The salaries of Robert MacLeod and John Walker have therefore increased by 1.5% (to £798,000 and £456,750 respectively) and Anna Manz's salary has increased by 1% (to £490,000).

Benefits and pension

No change to policy applied in 2017/18.

The maximum limit on pensions has been retained at 25%, the level paid to the current Executive Directors. However, as set out in the recruitment section of the Directors' Remuneration Policy, it is the committee's intention that pension for future hires would be aligned with the level for other senior managers.

Annual incentives

The maximum bonus opportunity for 2017/18 remains unchanged at 180% of salary for the Chief Executive and 150% of salary for the other Executive Directors.

As explained in the Chairman's introductory letter, bonuses for 2017/18 will be based on underlying profit before tax (80%) and working capital (20%).

Targets for the Chief Executive and Chief Financial Officer will be based on group performance. For the Sector Chief Executive, Clean Air, targets will be based on a mix of group and Clean Air Sector performance.

The addition of a working capital measure into the bonus is new for 2017/18 and is designed to provide a broader framework for assessing the performance of the company. The Remuneration Committee considers the forward looking targets to be commercially sensitive, but full details of the targets and performance against them will be disclosed in next year's report.

As set out in the Policy Report, 50% of any bonus paid will be deferred in shares for three years and the payment of any bonus is subject to appropriate malus and clawback provisions.

Long term incentives

Award levels remain unchanged at 200% of salary for the Chief Executive and 175% of salary for the other Executive Directors. The long term Performance Share Plan awards will be based on EPS growth targets, subject to achieving a satisfactory level of return on capital employed. The EPS targets will be the same as those applying to the 2016 awards, namely 15% vesting for 4% p.a. underlying EPS growth, increasing on a straight line basis to 100% vesting for 10% p.a. underlying EPS growth or above. Vested awards are released in equal tranches over three, four and five years.

Chairman and Non-Executive Director fees

The fee review date has been moved from 1st August to 1st April. Fees for the Non-Executive Directors for 2017/18 have been increased in line with the budgeted increase for all other UK employees of 2.25%, albeit pro-rated to 1.5% to reflect the Non-Executive Director's period of service since their last increase. The fees for each Non-Executive Director are shown below.

Tim Stevenson	£351,060	Chairman
Odile Desforges	£63,880	
Alan Ferguson	£81,900	Senior Independent Director and Chairman of Audit Committee
Jane Griffiths	£63,880	
Colin Matthews	£79,900	Chairman of Remuneration Committee
Chris Mottershead	£63,880	

Statement of Shareholder Voting

We monitor carefully shareholder voting on our Remuneration Policy and its implementation. We recognise the importance of ensuring that our shareholders continue to support our remuneration arrangements.

The table below shows the results of the poll taken on the resolution to receive and approve the Directors' Remuneration Policy at the 2014 AGM and the Annual Report on Remuneration at the July 2016 AGM.

Resolution	Number of votes cast	For	Against	Votes withheld
Remuneration Policy	142,717,124	139,293,726 (97.60%)[1]	3,423,398 (2.40%)[1]	524,316
Remuneration Report	133,637,060	128,663,795 (96.24%)[1]	4,973,265 (3.72%)[1]	455,202

[1] Percentage of votes cast, excluding votes withheld.

The Remuneration Committee believes that the 97.60% vote in favour of the Directors' Remuneration Policy and the 96.24% vote in favour of the Annual Report on Remuneration showed very strong shareholder support for the group's remuneration arrangements at that time.

This Remuneration Report was approved by the Board of Directors on 31st May 2017 and signed on its behalf by:

Colin Matthews
Chairman of the Remuneration Committee

Directors' Report

for the year ended 31st March 2017

Directors

The names of the directors who held office during the year are set out on page 80. The biographies of all the directors serving at the date of this report are shown on page 73.

Indemnification of Directors

Details of indemnities granted in favour of each director of the company and each director of the company's subsidiaries, which were in force during the year and which remain in force as at the date of approval of this annual report, can be found in the Corporate Governance Report on page 82.

Appointment and Replacement of Directors

The rules about the appointment and replacement of directors are contained in our Articles of Association, which are available on our website. These include:

- directors may be appointed by a resolution of the members or a resolution of the directors; and
- if appointed by the directors, the newly appointed director must retire at the next Annual General Meeting (AGM) and is not taken into account in determining the directors who are to retire by rotation at the meeting. At least one third of the board must retire by rotation at each AGM.

The Articles of Association may only be amended by a special resolution at a general meeting of the company.

Notwithstanding the provisions within the Articles of Association, the board has agreed that all directors will seek re-election at each AGM in accordance with the UK Corporate Governance Code 2016.

Powers of the Directors

The powers of the directors are determined by the Articles of Association, UK legislation including the Companies Act 2006 and any directions given by the company in general meeting.

The directors have been authorised by the company's Articles of Association to issue and allot ordinary shares and to make market purchases of its own shares. These powers are referred to shareholders for renewal at each AGM. Further information is set out under 'Purchase by the Company of its Own Shares' opposite.

Directors' Interests in the Company's Shares

The interests of persons who were directors of the company (and of their connected persons) at 31st March 2017 in the issued shares of the company (or in related derivatives or other financial instruments), which have been notified to the company in accordance with the Market Abuse Regulation, are set out in the Remuneration Report on pages 97 to 116. The Remuneration Report also sets out details of any changes in those interests between 31st March 2017 and 31st May 2017.

Directors' Interests in Contracts

Other than service contracts, no director had any interest in any material contract with any group company at any time during the year. There were no contracts of significance (as defined in the Financial Conduct Authority's (FCA) Listing Rules) subsisting during the year to which any group undertaking was a party and in which a director of the company is or was materially interested.

Dividends

The interim dividend of 20.5 pence per share (2016 19.5 pence) was paid in February 2017. The directors recommend a final dividend of 54.5 pence per share in respect of the year (2016 52.0 pence), making a total for the year of 75.0 pence per share (2016 71.5 pence), payable on 1st August 2017 to shareholders on the register at the close of business on 9th June 2017.

Other than as referred to under 'Employee Share Schemes' on page 118, during the year there were no arrangements under which a shareholder has waived or agreed to waive any dividends nor any agreement by a shareholder to waive future dividends.

Dividend Payments and DRIP

Dividends can be paid directly into shareholders' bank accounts. A Dividend Reinvestment Plan (DRIP) is also available. This allows shareholders to purchase additional shares in Johnson Matthey with their dividend payment. Further information and a mandate can be obtained from our registrar, Equiniti, whose details are set out on page 187 and on our website.

Share Capital

Capital Structure

As at 31st March 2017, the issued share capital of the company was 193,533,430 ordinary shares of 110$\frac{49}{53}$ pence each (excluding treasury shares) and the company held 5,407,176 treasury shares. There were no purchases, sales or transfers of treasury shares during the year.

Share Allotments

There were no share allotments during the year.

Purchase by the Company of its Own Shares

At the 2016 AGM shareholders authorised the company to make market purchases of up to 19,353,343 ordinary shares of 110$\frac{49}{53}$ pence each, representing 10% of the issued share capital of the company (excluding treasury shares). Any shares so purchased by the company may be cancelled or held as treasury shares. This authority will subsist at the date of the 2017 AGM.

During the year and up until the date of approval of this annual report, the company did not make any purchases of its own shares or propose to, or enter into any options or contracts to, purchase its own shares (either through the market or by an offer made to all shareholders or otherwise), nor did the company acquire any of its own shares other than by purchase.

Rights and Obligations Attaching to Shares

The rights and obligations attaching to the ordinary shares in Johnson Matthey are set out in the Articles of Association.

As at 31st March 2017 and as at the date of approval of this annual report, except as referred to below, there were no restrictions on the transfer of ordinary shares in the company, no limitations on the holding of securities and no requirements to obtain the approval of the company, or of other holders of securities in the company, for a transfer of securities.

The directors may, in certain circumstances, refuse to register the transfer of a share in certificated form which is not fully paid up, where the instrument of transfer does not comply with the requirements of the company's Articles of Association, or if entitled under the Uncertificated Securities Regulations 2001.

Also as at 31st March 2017 and as at the date of approval of this annual report:

- no person held securities in the company carrying any special rights with regard to control of the company;
- there were no restrictions on voting rights (including any limitations on voting rights of holders of a given percentage or number of votes or deadlines for exercising voting rights) except that a shareholder has no right to vote in respect of a share unless all sums due in respect of that share are fully paid;
- there were no arrangements by which, with the company's cooperation, financial rights carried by shares in the company are held by a person other than the holder of the shares; and
- there were no agreements known to the company between holders of securities that may result in restrictions on the transfer of securities or on voting rights.

Nominees, Financial Assistance and Liens

During the year:

- no shares in the company were acquired by the company's nominee, or by a person with financial assistance from the company, in either case where the company has a beneficial interest in the shares (and no person acquired shares in the company in any previous financial year in its capacity as the company's nominee or with financial assistance from the company); and
- the company did not obtain or hold a lien or other charge over its own shares.

Allotment of Securities for Cash and Placing of Equity Securities

During the year the company has not allotted, nor has any major subsidiary undertaking of the company (broadly an undertaking that represents at least 25% of the group's aggregate gross assets or profit) allotted, equity securities for cash. During the year the company has not participated in any placing of equity securities.

Listing of the Company's Shares

Johnson Matthey's shares have a Premium Listing on the London Stock Exchange and trade as part of the FTSE 100 index under the symbol JMAT.

American Depositary Receipt Programme

Johnson Matthey has a sponsored Level 1 American Depositary Receipt (ADR) programme which BNY Mellon administers and for which it acts as Depositary. Each ADR represents two ordinary shares of the company. The ADRs trade on the US over-the-counter market under the symbol JMPLY. When dividends are paid to shareholders, the Depositary converts such dividends into US dollars, net of fees and expenses, and distributes the net amount to ADR holders. Contact details for BNY Mellon are set out on page 187.

Employee Share Schemes

At 31st March 2017, 4,596 current and former employees representing approximately 37% of employees worldwide were shareholders in the company through the group's employee share schemes. Through these schemes, current and former employees held 2,939,456 ordinary shares (1.52% of issued share capital, excluding treasury shares as at 31st March 2017). Also as at 31st March 2017, 2,175,761 ordinary shares had been allocated but had not yet vested under the company's long term incentive plan to 1,385 current and former employees.

Shares acquired by employees through the company's employee share schemes rank equally with the other shares in issue and have no special rights. Voting rights in respect of shares held through the company's employee share schemes are not exercisable directly by employees. However, employees can direct the trustee of the schemes to exercise voting rights on their behalf. The trustee of the company's employee share ownership trust (ESOT) has waived its right to dividends on shares held by the ESOT which have not yet vested unconditionally to employees.

Interests in Voting Rights

The following information has been disclosed to the company under the FCA's Disclosure and Transparency Rules (DTR 5) in respect of notifiable interests in the voting rights in the company's issued share capital:

	Nature of holding	Total voting rights [1]	% of total voting rights [2]
As at 31st March 2017:			
BlackRock, Inc.	Indirect	20,181,149	9.85%
	Financial Instrument (CFD)	209,763	0.10%
Standard Life Investments (Holdings) Limited	Indirect	10,031,851	5.18%
Interests in voting rights notified to the company between 31st March 2017 and 31st May 2017:			
Ameriprise Financial Inc.	Direct	84,408	0.04%
	Indirect	9,727,409	5.03%
Standard Life Investments (Holdings) Limited	Indirect	10,829,249	5.60%

1 Total voting rights attaching to the issued ordinary share capital of the company (excluding treasury shares) at the time of disclosure to the company.

2 % of total voting rights at the date of disclosure to the company.

Other than as stated above, as far as the company is aware, there is no person with a significant direct or indirect holding of securities in the company.

Contracts with Controlling Shareholders

There were no contracts of significance (as defined in the FCA's Listing Rules) subsisting during the year between any group undertaking and a controlling shareholder. There were no contracts for the provision of services to any group undertaking by a controlling shareholder subsisting during the year.

Change of Control

As at 31st March 2017 and as at the date of approval of this annual report, there were no significant agreements to which the company or any subsidiary was or is a party that take effect, alter or terminate on a change of control of the company, whether following a takeover bid or otherwise.

However, the company and its subsidiaries were, as at 31st March 2017 and as at the date of approval of this annual report, party to a number of commercial agreements that may allow the counterparties to alter or terminate the agreements on a change of control of the company following a takeover bid. Other than the matters referred to below, these are not deemed by the company to be significant in terms of their potential effect on the group as a whole.

The group has a number of loan notes and borrowing facilities which may require prepayment of principal and payment of accrued interest and breakage costs if there is change of control of the company. The group has also entered into a series of financial instruments to hedge its currency, interest rate and metal price exposures which provide for termination or alteration if a change of control of the company materially weakens the creditworthiness of the group.

The Executive Directors' service contracts each contain a provision to the effect that if the contract is terminated by the company within one year after a change of control of the company, the company will pay to the director as liquidated damages an amount equivalent to one year's gross base salary and other contractual benefits less the period of any notice given by the company to the director.

The rules of the company's employee share schemes set out the consequences of a change of control of the company on participants' rights under the schemes. Generally such rights will vest and become exercisable on a change of control subject to the satisfaction of relevant performance conditions.

As at 31st March 2017 and as at the date of approval of this annual report, there were no other agreements between the company or any subsidiary and its or their directors or employees providing for compensation for loss of office or employment (whether through resignation, purported redundancy or otherwise) that occurs because of a takeover bid.

Branches

The company and its subsidiaries have established branches in a number of different countries in which they operate.

Political Donations and Expenditure

It is the policy of the group not to make political donations or to incur political expenditure. During the year, there were no political donations made to any EU or non-EU political party, EU or non-EU political organisation or to any EU or non-EU independent election candidate. During the year, no EU or non-EU political expenditure was incurred.

Information Set Out in the Strategic Report

In accordance with section 414C(11) of the 2006 Act, the directors have chosen to set out in the Strategic Report the following information required to be included in the Directors' Report:

- **Employee Involvement**
  A description of the action taken by the company during the year relating to employee involvement.

  Read more on pages 56 and 57.

- **Employment of Disabled Persons**
  Information on the company's policy applied during the year relating to the recruitment, employment, training, career development and promotion of disabled employees.

  Read more on page 57.

- **Research and Development Activities**
  An indication of the activities of the group in the field of research and development.

  Read more in our case studies and on pages 6, 13, 23, 45 and 55.

- **Likely Future Developments**
  An indication on likely future developments in our business.

  Read more on pages 6 and 7.

- **Greenhouse Gas Emissions**
  Disclosures relating to greenhouse gas emissions.

  Read more on pages 67 and 69.

- **Use of Financial Instruments**
  Information on the group's financial risk management objectives and policies, its exposure to credit risk, liquidity risk, interest rate risk and foreign currency risk and its use of financial instruments.

  Read more on pages 155 to 161.

Disclosures Required by Listing Rule 9.8.4R

Disclosures required by the FCA's Listing Rule 9.8.4R, can be found on the following pages:

Information Required	Sub-section of Listing Rule 9.8.4R	Page reference
1. Capitalised interest	(1)	Page 148
2. Publication of unaudited financial information	(2)	Not applicable
3. Details of long term incentive schemes established to specifically recruit or retain a director	(4)	Not applicable
4. Waiver of emoluments by a director	(5) (6)	Not applicable
5. Allotments of equity securities for cash	(7) (8)	Page 118
6. Participation in a placing of equity securities	(9)	Not applicable
7. Contracts of significance	(10)	Not applicable
8. Contracts for the provisions of services by a controlling shareholder	(11)	Not applicable
9. Dividend waiver	(12) (13)	Pages 117-118
10. Agreements with controlling shareholder	(14)	Not applicable

Important Events since 31st March 2017

There have been no important events affecting the company or any subsidiary since 31st March 2017.

2017 Annual General Meeting

Our 2017 AGM will be held at 11.00 am on Friday 28th July 2017 at The Royal Society, 6-9 Carlton House Terrace, London SW1Y 5AG.

The notice of the 2017 AGM, together with an explanation of the resolutions to be considered at the meeting, is set out in a separate circular to shareholders. This circular is published on our website.

Auditor and Disclosure of Information

The auditor of the company is KPMG LLP.

So far as each person serving as a director of the company at the date this Directors' Report was approved by the board is aware, there is no relevant audit information (that is, information needed by the auditor in connection with preparing its report) of which the company's auditor is unaware. Each such director confirms that he or she has taken all the steps that he or she ought to have taken as a director in order to make himself or herself aware of any relevant audit information and to establish that the company's auditor is aware of that information.

Management Report

The Strategic Report and the Directors' Report together include the 'management report' for the purposes of the FCA's Disclosure and Transparency Rules (DTR 4.1.8R).

The Directors' Report was approved by the board on 31st May 2017 and is signed on its behalf by:

S. Farrant

Simon Farrant
Company Secretary

Responsibility of Directors

Statement of Directors' Responsibilities in Respect of the Annual Report and Accounts

The directors are responsible for preparing the annual report and the group and parent company accounts in accordance with applicable law and regulations.

Company law requires the directors to prepare group and parent company accounts for each financial year. Under company law they are required to prepare the group accounts in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and other applicable law and have elected to prepare the parent company accounts on the same basis.

Under company law the directors must not approve the accounts unless they are satisfied that they give a true and fair view of the state of affairs of the group and parent company and of their profit or loss for that period. In preparing each of the group and parent company accounts, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with IFRS as adopted by the EU; and
- prepare the accounts on the going concern basis unless it is inappropriate to presume that the group and the parent company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the parent company's transactions and disclose with reasonable accuracy at any time the financial position of the parent company and enable them to ensure that its accounts comply with the Companies Act 2006. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the directors are also responsible for preparing a Strategic Report, Directors' Report, directors' Remuneration Report and Corporate Governance statement that comply with that law and those regulations.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in the UK governing the preparation and dissemination of accounts may differ from legislation in other jurisdictions.

Responsibility Statement of the Directors in Respect of the Annual Report and Accounts

Each of the directors as at the date of the Annual Report and Accounts, whose names and functions are set out below:

- Tim Stevenson, Chairman
- Robert MacLeod, Chief Executive
- Anna Manz, Chief Financial Officer
- John Walker, Executive Director
- Odile Desforges, Non-Executive Director
- Alan Ferguson, Non-Executive Director
- Jane Griffiths, Non-Executive Director
- Colin Matthews, Non-Executive Director
- Chris Mottershead, Non-Executive Director

states that to the best of his or her knowledge:

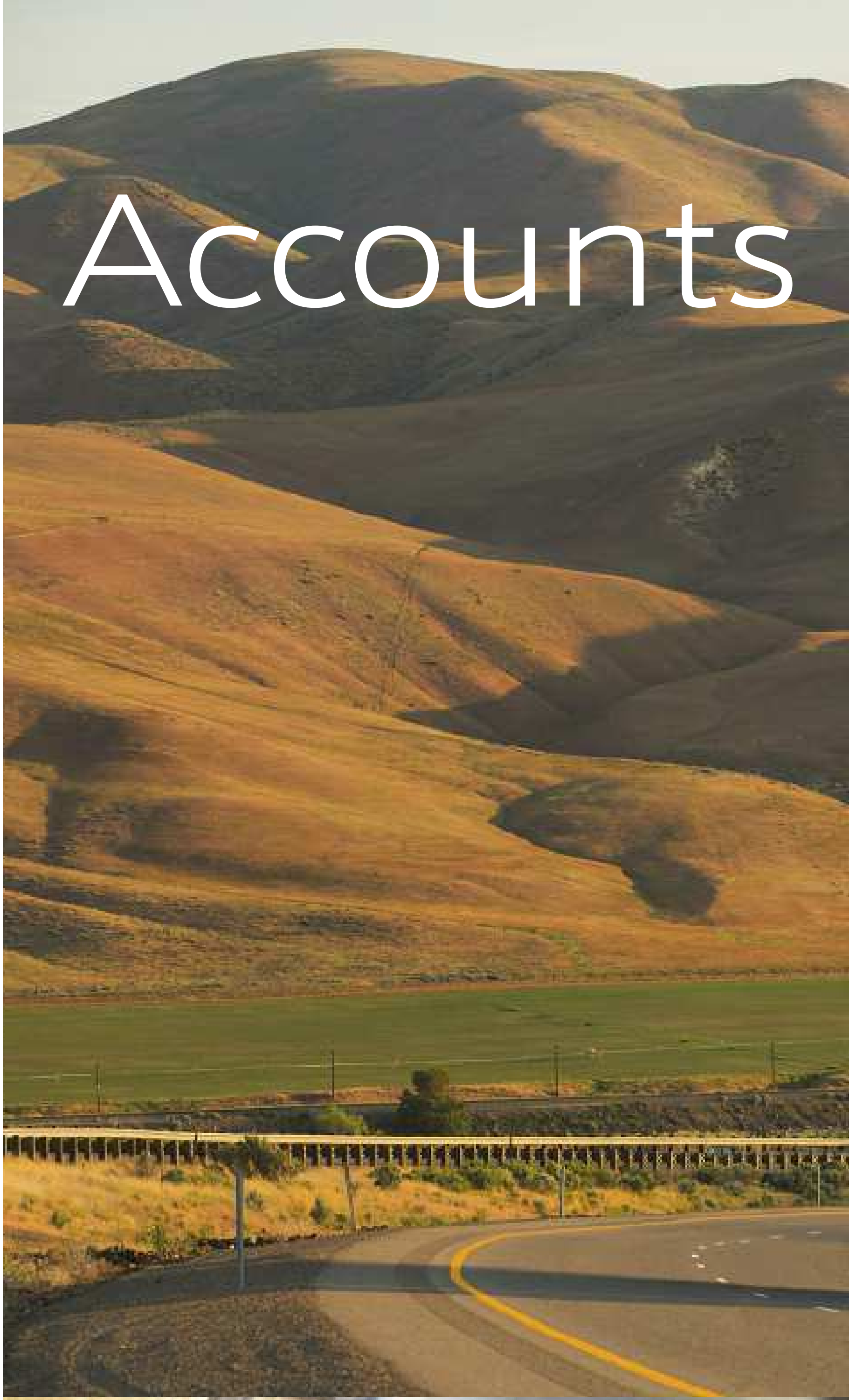
- the group and parent company accounts, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the company and the undertakings included in the consolidation taken as a whole; and
- the management report (which comprises the Strategic Report and the Directors' Report) includes a fair review of the development and performance of the business and the position of the company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

This responsibility statement was approved by the board on 31st May 2017 and is signed on its behalf by:

Tim Stevenson
Chairman

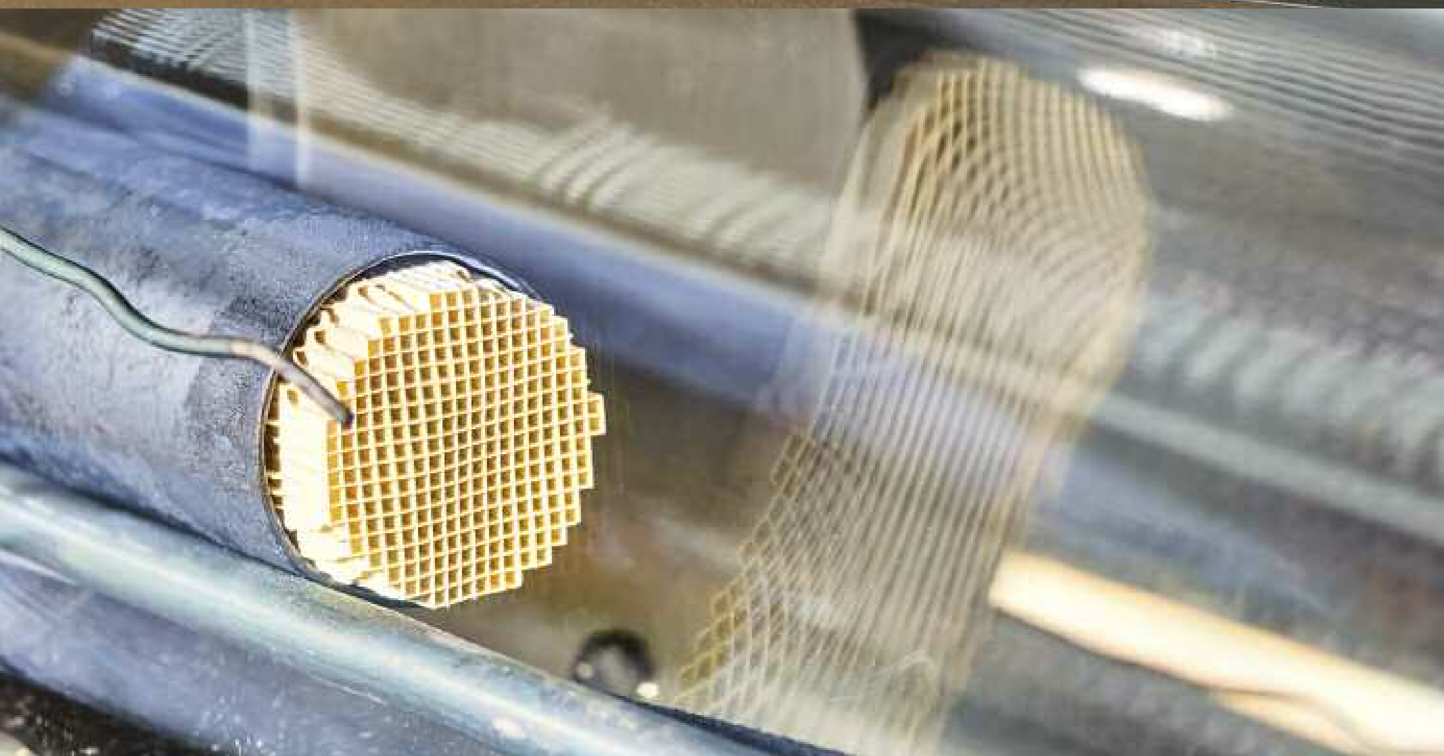
5. Accounts

Accounts



The Accounts include the consolidated and parent company accounts and related notes, prepared in accordance with International Financial Reporting Standards, as well as the independent auditor's report.

Contents



Consolidated Income Statement

for the year ended 31st March 2017

	Notes	2017 £ million	2016 £ million
Revenue	1,2	**12,031.0**	10,713.9
Cost of sales		**(11,188.0)**	(9,947.1)
Gross profit		**843.0**	766.8
Distribution costs		**(126.5)**	(126.1)
Administrative expenses		**(203.2)**	(189.9)
Profit on sale or liquidation of businesses		**–**	130.0
Amortisation of acquired intangibles	3	**(20.1)**	(20.9)
Major impairment and restructuring charges		**–**	(141.0)
Operating profit	1,5,6	**493.2**	418.9
Finance costs	8	**(38.7)**	(40.2)
Finance income	9	**6.9**	7.6
Share of profit of joint venture and associate		**0.2**	–
Profit before tax	5	**461.6**	386.3
Income tax expense	10	**(77.0)**	(60.6)
Profit for the year		**384.6**	325.7
Attributable to:			
Owners of the parent company		**386.0**	333.1
Non-controlling interests		**(1.4)**	(7.4)
		384.6	325.7
		pence	pence
Earnings per ordinary share attributable to the equity holders of the parent company			
Basic	11	**201.2**	166.2
Diluted	11	**200.8**	165.9

Consolidated Statement of Total Comprehensive Income

for the year ended 31st March 2017

	Notes	2017 £ million	2016 £ million
Profit for the year		**384.6**	325.7
Other comprehensive income:			
Items that will not be reclassified to profit or loss:			
Remeasurements of post-employment benefit assets and liabilities	15	**(18.4)**	180.1
Tax on above items taken directly to or transferred from equity	32	**2.0**	(39.1)
		(16.4)	141.0
Items that may be reclassified subsequently to profit or loss:			
Currency translation differences	33	**163.9**	23.8
Share of currency translation differences of joint venture and associate	20	**1.3**	0.3
Cash flow hedges	33	**(1.4)**	5.6
Fair value losses on net investment hedges	33	**(21.0)**	(1.2)
Fair value gains / (losses) on available-for-sale investments		**7.0**	(5.5)
Tax on above items taken directly to or transferred from equity	32	**(0.4)**	(4.7)
		149.4	18.3
Other comprehensive income for the year		**133.0**	159.3
Total comprehensive income for the year		**517.6**	485.0
Attributable to:			
Owners of the parent company		**518.5**	492.8
Non-controlling interests		**(0.9)**	(7.8)
		517.6	485.0

The notes on pages 133 to 172 form an integral part of the accounts.

Consolidated and Parent Company Balance Sheets

as at 31st March 2017

	Notes	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Assets					
Non-current assets					
Property, plant and equipment	16	**1,235.1**	1,086.3	**282.4**	284.1
Goodwill	17	**607.1**	570.0	**123.4**	123.4
Other intangible assets	18	**288.3**	225.0	**137.1**	80.1
Investments in subsidiaries	19	**–**	–	**2,062.4**	2,050.0
Investments in joint venture and associate	20	**21.6**	20.1	**–**	–
Deferred income tax assets	30	**25.6**	22.2	**–**	–
Available-for-sale investments	21	**58.0**	56.6	**7.1**	7.1
Interest rate swaps	26	**17.4**	11.1	**17.4**	11.1
Other receivables	23	**27.7**	15.6	**1,120.4**	1,081.1
Post-employment benefit net assets	15	**116.6**	109.1	**106.4**	100.8
Total non-current assets		**2,397.4**	2,116.0	**3,856.6**	3,737.7
Current assets					
Inventories	22	**772.3**	653.7	**123.8**	123.4
Current income tax assets		**20.4**	21.9	**–**	–
Trade and other receivables	23	**1,139.4**	948.0	**1,139.4**	968.6
Cash and cash equivalents – cash and deposits	26	**330.4**	304.5	**247.7**	226.9
Interest rate swaps	26	**–**	4.6	**–**	4.6
Other financial assets	27	**7.5**	8.5	**7.6**	9.2
Total current assets		**2,270.0**	1,941.2	**1,518.5**	1,332.7
Total assets		**4,667.4**	4,057.2	**5,375.1**	5,070.4
Liabilities					
Current liabilities					
Trade and other payables	24	**(968.3)**	(812.3)	**(2,579.4)**	(2,351.2)
Current income tax liabilities		**(133.5)**	(115.0)	**(14.8)**	(2.3)
Cash and cash equivalents – bank overdrafts	26	**(31.8)**	(20.7)	**(15.5)**	(13.4)
Other borrowings, finance leases and related swaps	26	**(20.2)**	(138.5)	**(2.0)**	(111.0)
Other financial liabilities	27	**(14.9)**	(17.9)	**(15.7)**	(19.0)
Provisions	29	**(21.0)**	(41.3)	**(4.5)**	(11.2)
Total current liabilities		**(1,189.7)**	(1,145.7)	**(2,631.9)**	(2,508.1)
Non-current liabilities					
Borrowings, finance leases and related swaps	26	**(1,011.5)**	(835.9)	**(1,011.3)**	(835.3)
Deferred income tax liabilities	30	**(113.0)**	(99.4)	**(27.2)**	(35.2)
Employee benefit obligations	15	**(111.8)**	(115.1)	**(9.9)**	(10.6)
Provisions	29	**(18.4)**	(20.6)	**(17.8)**	(13.4)
Other payables	24	**(5.9)**	(5.9)	**(508.7)**	(481.1)
Total non-current liabilities		**(1,260.6)**	(1,076.9)	**(1,574.9)**	(1,375.6)
Total liabilities		**(2,450.3)**	(2,222.6)	**(4,206.8)**	(3,883.7)
Net assets		**2,217.1**	1,834.6	**1,168.3**	1,186.7
Equity					
Share capital	31	**220.7**	220.7	**220.7**	220.7
Share premium account		**148.3**	148.3	**148.3**	148.3
Shares held in employee share ownership trust (ESOT)		**(55.5)**	(54.9)	**(55.5)**	(54.9)
Other reserves	33	**146.6**	(2.3)	**(0.7)**	(1.6)
Retained earnings		**1,776.5**	1,541.3	**855.5**	874.2
Total equity attributable to owners of the parent company		**2,236.6**	1,853.1	**1,168.3**	1,186.7
Non-controlling interests		**(19.5)**	(18.5)	**–**	–
Total equity		**2,217.1**	1,834.6	**1,168.3**	1,186.7

The accounts were approved by the Board of Directors on 31st May 2017 and signed on its behalf by:

R J MacLeod
A O Manz Directors

The notes on pages 133 to 172 form an integral part of the accounts.

Consolidated and Parent Company Cash Flow Statements

for the year ended 31st March 2017

	Notes	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Cash flows from operating activities					
Profit before tax		**461.6**	386.3	**149.8**	113.2
Adjustments for:					
Share of profit of joint venture and associate		**(0.2)**	–	**–**	–
Profit on sale of continuing activities		**–**	(130.0)	**–**	–
Depreciation, amortisation, impairment losses and loss / (profit) on sale of non-current assets and investments		**176.6**	252.0	**41.7**	11.6
Share-based payments		**10.6**	(2.8)	**6.5**	(1.6)
(Increase) / decrease in inventories		**(36.7)**	211.6	**(0.4)**	100.7
(Increase) / decrease in receivables		**(111.1)**	153.2	**303.1**	331.4
Increase / (decrease) in payables		**120.7**	47.1	**(136.9)**	446.5
(Decrease) / increase in provisions		**(27.5)**	(0.7)	**(2.7)**	5.0
Contributions in excess of employee benefit obligations charge		**(40.8)**	(21.0)	**(24.4)**	(13.7)
Changes in fair value of financial instruments		**(3.2)**	4.0	**(3.6)**	4.9
Dividends received from subsidiaries		**–**	–	**(37.9)**	(141.1)
Net finance costs		**31.8**	32.6	**(19.0)**	(15.1)
Income tax paid		**(58.9)**	(65.8)	**(9.0)**	(12.1)
Net cash inflow from operating activities		**522.9**	866.5	**267.2**	829.7
Cash flows from investing activities					
Dividends received from joint venture		**–**	0.3	**–**	–
Dividends received from subsidiaries		**–**	–	**37.9**	141.1
Interest received		**4.8**	5.2	**66.1**	53.1
Purchases of non-current assets and investments	34	**(259.5)**	(253.5)	**(113.1)**	(331.6)
Proceeds from sale of non-current assets and investments		**3.9**	4.0	**0.3**	107.2
Purchase of interest in associate		**–**	(16.2)	**–**	–
Purchases of businesses	34	**(19.7)**	(16.6)	**–**	(3.0)
Net proceeds from sale of businesses	34	**–**	244.6	**–**	–
Net cash outflow from investing activities		**(270.5)**	(32.2)	**(8.8)**	(33.2)
Cash flows from financing activities					
Net cost of ESOT transactions in own shares	34	**(6.1)**	(3.1)	**(6.1)**	(3.1)
Proceeds from additional borrowings	34	**80.8**	134.4	**80.8**	126.8
Repayment of borrowings and finance leases	34	**(133.2)**	(211.6)	**(116.3)**	(191.4)
Dividends paid to equity holders of the parent company	12	**(139.0)**	(444.6)	**(139.0)**	(444.6)
Settlement of currency swaps for net investment hedging		**(7.3)**	(4.8)	**(7.3)**	(4.8)
Interest paid		**(42.1)**	(33.9)	**(51.8)**	(39.1)
Net cash outflow from financing activities		**(246.9)**	(563.6)	**(239.7)**	(556.2)
Increase in cash and cash equivalents in the year		**5.5**	270.7	**18.7**	240.3
Exchange differences on cash and cash equivalents		**9.3**	9.2	**–**	–
Cash and cash equivalents at beginning of year		**283.8**	3.9	**213.5**	(26.8)
Cash and cash equivalents at end of year	35	**298.6**	283.8	**232.2**	213.5

	Notes	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Reconciliation to net debt					
Increase in cash and cash equivalents in the year		**5.5**	270.7	**18.7**	240.3
Decrease in borrowings and finance leases		**52.4**	77.2	**35.5**	64.6
Change in net debt resulting from cash flows		**57.9**	347.9	**54.2**	304.9
Borrowings acquired with subsidiaries		**(4.8)**	–	**–**	–
New finance leases		**(0.1)**	–	**–**	–
Exchange differences on net debt		**(93.8)**	(28.4)	**(100.8)**	(41.3)
Movement in net debt in year		**(40.8)**	319.5	**(46.6)**	263.6
Net debt at beginning of year		**(674.9)**	(994.4)	**(717.1)**	(980.7)
Net debt at end of year	26	**(715.7)**	(674.9)	**(763.7)**	(717.1)

The notes on pages 133 to 172 form an integral part of the accounts.

Consolidated Statement of Changes in Equity

for the year ended 31st March 2017

	Share capital £ million	Share premium account £ million	Shares held in ESOT £ million	Other reserves (note 33) £ million	Retained earnings £ million	Total attributable to equity holders £ million	Non-controlling interests £ million	Total equity £ million
At 1st April 2015	220.7	148.3	(54.7)	(21.0)	1,517.3	1,810.6	(10.5)	1,800.1
Profit for the year	–	–	–	–	333.1	333.1	(7.4)	325.7
Remeasurements of post-employment benefit assets and liabilities	–	–	–	–	180.1	180.1	–	180.1
Cash flow hedges	–	–	–	5.6	–	5.6	–	5.6
Net investment hedges	–	–	–	(1.2)	–	(1.2)	–	(1.2)
Available-for-sale investments	–	–	–	(5.0)	–	(5.0)	(0.5)	(5.5)
Currency translation differences	–	–	–	24.0	–	24.0	0.1	24.1
Tax on other comprehensive income	–	–	–	(4.7)	(39.1)	(43.8)	–	(43.8)
Total comprehensive income	–	–	–	18.7	474.1	492.8	(7.8)	485.0
Dividends paid (note 12)	–	–	–	–	(444.6)	(444.6)	(0.2)	(444.8)
Purchase of shares by ESOT	–	–	(3.3)	–	–	(3.3)	–	(3.3)
Share-based payments	–	–	–	–	4.3	4.3	–	4.3
Cost of shares transferred to employees	–	–	3.1	–	(10.1)	(7.0)	–	(7.0)
Tax on share-based payments	–	–	–	–	0.3	0.3	–	0.3
At 31st March 2016	220.7	148.3	(54.9)	(2.3)	1,541.3	1,853.1	(18.5)	1,834.6
Profit for the year	–	–	–	–	386.0	386.0	(1.4)	384.6
Remeasurements of post-employment benefit assets and liabilities	–	–	–	–	(18.4)	(18.4)	–	(18.4)
Cash flow hedges	–	–	–	(1.4)	–	(1.4)	–	(1.4)
Net investment hedges	–	–	–	(21.0)	–	(21.0)	–	(21.0)
Available-for-sale investments	–	–	–	6.5	–	6.5	0.5	7.0
Currency translation differences	–	–	–	165.2	–	165.2	–	165.2
Tax on other comprehensive income	–	–	–	(0.4)	2.0	1.6	–	1.6
Total comprehensive income	–	–	–	148.9	369.6	518.5	(0.9)	517.6
Dividends paid (note 12)	–	–	–	–	(139.0)	(139.0)	(0.1)	(139.1)
Purchase of shares by ESOT	–	–	(6.1)	–	–	(6.1)	–	(6.1)
Share-based payments	–	–	–	–	17.1	17.1	–	17.1
Cost of shares transferred to employees	–	–	5.5	–	(11.9)	(6.4)	–	(6.4)
Tax on share-based payments	–	–	–	–	(0.6)	(0.6)	–	(0.6)
At 31st March 2017	**220.7**	**148.3**	**(55.5)**	**146.6**	**1,776.5**	**2,236.6**	**(19.5)**	**2,217.1**

The notes on pages 133 to 172 form an integral part of the accounts.

Parent Company Statement of Changes in Equity

for the year ended 31st March 2017

	Share capital £ million	Share premium account £ million	Shares held in ESOT £ million	Other reserves (note 33) £ million	Retained earnings £ million	Total equity £ million
At 1st April 2015	220.7	148.3	(54.7)	(8.9)	1,082.6	1,388.0
Profit for the year	–	–	–	–	112.9	112.9
Remeasurements of post-employment benefit assets and liabilities	–	–	–	–	164.9	164.9
Cash flow hedges	–	–	–	4.8	–	4.8
Available-for-sale investments	–	–	–	3.0	–	3.0
Currency translation differences	–	–	–	0.6	–	0.6
Tax on other comprehensive income	–	–	–	(1.1)	(34.2)	(35.3)
Total comprehensive income	–	–	–	7.3	243.6	250.9
Dividends paid (note 12)	–	–	–	–	(444.6)	(444.6)
Purchase of businesses from subsidiaries	–	–	–	–	(1.7)	(1.7)
Purchase of shares by ESOT	–	–	(3.3)	–	–	(3.3)
Share-based payments	–	–	–	–	1.6	1.6
Cost of shares transferred to employees	–	–	3.1	–	(7.3)	(4.2)
At 31st March 2016	220.7	148.3	(54.9)	(1.6)	874.2	1,186.7
Profit for the year	–	–	–	–	133.5	133.5
Remeasurements of post-employment benefit assets and liabilities	–	–	–	–	(21.3)	(21.3)
Cash flow hedges	–	–	–	(1.9)	–	(1.9)
Currency translation differences	–	–	–	2.5	–	2.5
Tax on other comprehensive income	–	–	–	0.3	3.2	3.5
Total comprehensive income	–	–	–	0.9	115.4	116.3
Dividends paid (note 12)	–	–	–	–	(139.0)	(139.0)
Purchase of shares by ESOT	–	–	(6.1)	–	–	(6.1)
Share-based payments	–	–	–	–	15.0	15.0
Cost of shares transferred to employees	–	–	5.5	–	(9.8)	(4.3)
Tax on share-based payments	–	–	–	–	(0.3)	(0.3)
At 31st March 2017	**220.7**	**148.3**	**(55.5)**	**(0.7)**	**855.5**	**1,168.3**

The notes on pages 133 to 172 form an integral part of the accounts.

Accounting Policies

for the year ended 31st March 2017

The group's and parent company's significant accounting policies, together with the judgments made by management in applying those policies which have the most significant effect on the amounts recognised in the accounts, are:

Basis of accounting and preparation

The accounts are prepared in accordance with International Financial Reporting Standards (IFRS) and interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC) or the Standing Interpretations Committee (SIC) as adopted by the European Union. For Johnson Matthey, there are no differences between IFRS as adopted by the European Union and full IFRS as published by the International Accounting Standards Board (IASB) and so the accounts comply with IFRS.

The accounts are prepared on the historical cost basis, except for certain assets and liabilities which are measured at fair value as explained below.

The parent company has not presented its own income statement, statement of total comprehensive income and related notes as permitted by section 408 of the Companies Act 2006.

Basis of consolidation

The consolidated accounts comprise the accounts of the parent company and all its subsidiaries, including the employee share ownership trust, and include the group's interest in joint ventures and associates. Entities the group controls are accounted for as subsidiaries. Entities that are joint ventures or associates are accounted for using the equity method of accounting. Transactions and balances between group companies are eliminated. No profit is taken on transactions between group companies.

The results of businesses acquired or disposed of in the year are consolidated from or up to the effective date of acquisition or disposal respectively. The net assets of businesses acquired are incorporated in the consolidated accounts at their fair values at the date of acquisition.

In the parent company balance sheet, businesses acquired from other group companies are incorporated at book value at the date of acquisition. The difference between the consideration paid and the book value of the net assets acquired is reflected in retained earnings.

Foreign currencies

Foreign currency transactions are recorded in the functional currency of the relevant subsidiary, joint venture, associate or branch at the exchange rate at the date of transaction. Foreign currency monetary assets and liabilities are retranslated into the relevant functional currency at the exchange rate at the balance sheet date.

Income statements and cash flows of overseas subsidiaries, joint ventures, associates and branches are translated into sterling at the average rates for the year. Balance sheets of overseas subsidiaries, joint ventures, associates and branches, including any fair value adjustments and including related goodwill, are translated into sterling at the exchange rates at the balance sheet date.

Exchange differences arising on the translation of the net investment in overseas subsidiaries, joint ventures, associates and branches, less exchange differences arising on related foreign currency financial instruments which hedge the group's net investment in these operations, are taken to other comprehensive income. On disposal of the net investment the cumulative exchange difference is reclassified from equity to operating profit. The group has taken advantage of the exemption allowed in IFRS 1 – 'First-time Adoption of International Reporting Standards' to deem the cumulative translation difference for all overseas subsidiaries and branches to be zero at 1st April 2004.

Other exchange differences are taken to operating profit.

Revenue

Revenue comprises all sales of goods and rendering of services at the fair value of consideration received or receivable after the deduction of any trade discounts and excluding sales taxes. Revenue is recognised when it can be measured reliably and the significant risks and rewards of ownership are transferred to the customer.

With the sale of goods this occurs either:

- when the goods are despatched or delivered in line with the International Chamber of Commerce's International Commercial Terms (Incoterms®) as detailed in the relevant contract;
- when they are made available to the customer and ownership transfers before despatch; or
- on notification that the product has been used when the goods are consignment products located at customers' premises.

With the rendering of services, revenue is recognised by reference to the stage of completion as measured by the proportion that costs incurred to date bear to the estimated total costs.

With royalties and licence income, revenue is recognised in accordance with the substance of the relevant agreement. Where they are part of a long term contract with a single overall profit margin, revenue is recognised by reference to the stage of completion of the contract.

Long term contracts

Where the outcome of a long term contract can be estimated reliably, revenue and costs are recognised by reference to the stage of completion. This is measured by the proportion that contract costs incurred to date bear to the estimated total contract costs.

Where the outcome of a long term contract cannot be estimated reliably, contract revenue is recognised to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognised as expenses in the period in which they are incurred.

When it is probable that the total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Accounting Policies

for the year ended 31st March 2017

Finance costs and finance income

Finance costs that are directly attributable to the construction of an asset that necessarily takes a substantial period of time to get ready for its intended use are capitalised as part of the cost of that asset. Other finance costs and finance income are recognised in the income statement in the year incurred.

Grants

Grants related to assets are included in deferred income and released to the income statement in equal instalments over the expected useful lives of the related assets. Grants related to income are deducted in reporting the related expense.

Research and development

Research expenditure is charged to the income statement in the year incurred. Development expenditure is charged to the income statement in the year incurred unless it meets the IFRS recognition criteria for capitalisation. When the recognition criteria have been met, any further development expenditure is capitalised as an intangible asset.

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and any provisions for impairment. Depreciation is provided at rates calculated to write off the cost less estimated residual value of each asset over its useful life. Certain freehold buildings and plant and equipment are depreciated using the units of production method, as this more closely reflects their expected consumption. All other assets are depreciated using the straight line method. The useful lives vary according to the class of the asset, but are typically: leasehold property 30 years (or the life of the lease if shorter); freehold buildings 30 years; and plant and equipment 4 to 10 years. Freehold land is not depreciated.

Goodwill

Goodwill arises on the acquisition of a business when the fair value of the consideration given exceeds the fair value attributed to the net assets acquired (including contingent liabilities). It is subject to annual impairment reviews. Acquisition-related costs are charged to the income statement as incurred. The group and parent company have taken advantage of the exemption allowed under IFRS 1 and so goodwill arising on acquisitions made before 1st April 2004 is included at the carrying amount at that date less any subsequent impairments.

Other intangible assets

Other intangible assets are stated at cost less accumulated amortisation and any provisions for impairment. Customer contracts are amortised when the relevant income stream occurs using either a straight line method or, where they relate to a long term contract, a stage of completion method. All other intangible assets are amortised by using the straight line method over the useful lives from the time they are first available for use. The estimated useful lives vary according to the specific asset but are typically: 1 to 15 years for customer contracts and relationships; 3 to 10 years for capitalised computer software; 3 to 20 years for patents, trademarks and licences; 4 to 10 years for acquired research and technology; and 3 to 8 years for capitalised development currently being amortised.

Intangible assets which are not yet being amortised are subject to annual impairment reviews.

Investments in subsidiaries

Investments in subsidiaries are stated in the parent company's balance sheet at cost less any provisions for impairment. If a distribution is received from a subsidiary then the investment in that subsidiary is assessed for an indication of impairment.

Leases

Leases are classified as finance leases whenever they transfer substantially all the risks and rewards of ownership to the group. The assets are included in property, plant and equipment and the capital elements of the leasing commitments are shown as obligations under finance leases. The assets are depreciated on a basis consistent with similar owned assets or the lease term if shorter. The interest element of the lease rental is included in the income statement.

All other leases are classified as operating leases and the lease costs are expensed on a straight line basis over the lease term.

Precious metal inventories

Inventories of gold, silver and platinum group metals are valued according to the source from which the metal is obtained. Metal which has been purchased and committed to future sales to customers or hedged in metal markets is valued at the price at which it is contractually committed or hedged, adjusted for unexpired contango and backwardation. Other precious metal inventories owned by the group, which are unhedged, are valued at the lower of cost and net realisable value using the weighted average cost formula.

Other inventories

Non-precious metal inventories are valued at the lower of cost, including attributable overheads, and net realisable value. Except where costs are specifically identified, the first-in, first-out cost formula is used to value inventories.

Accounting Policies

for the year ended 31st March 2017

Cash and cash equivalents

Cash and deposits comprise cash at bank and in hand, including short term deposits with a maturity date of three months or less from the date of acquisition. The group and parent company routinely use short term bank overdraft facilities, which are repayable on demand, as an integral part of their cash management policy. Therefore cash and cash equivalents in the cash flow statements are cash and deposits less bank overdrafts. Offset arrangements across group businesses have been applied to arrive at the net cash and overdraft figures.

Derivative financial instruments

The group and parent company use derivative financial instruments, in particular forward currency contracts and currency swaps, to manage the financial risks associated with their underlying business activities and the financing of those activities. The group and parent company do not undertake any speculative trading activity in derivative financial instruments.

Derivative financial instruments are measured at their fair value. Derivative financial instruments may be designated at inception as fair value hedges, cash flow hedges or net investment hedges if appropriate. Derivative financial instruments which are not designated as hedging instruments are classified under IFRS as held for trading, but are used to manage financial risk.

The vast majority of forward precious metal price contracts are entered into and held for the receipt or delivery of precious metal and so are not recorded at fair value. If a forward precious metal price contract will be settled net in cash then it is designated and accounted for as a cash flow hedge.

Changes in the fair value of any derivative financial instruments that are not designated as or are not determined to be effective hedges are recognised immediately in the income statement.

Changes in the fair value of derivative financial instruments designated as fair value hedges are recognised in the income statement, together with the related changes in the fair value of the hedged asset or liability. Fair value hedge accounting is discontinued if the hedging instrument expires or is sold, terminated or exercised, the hedge no longer meets the criteria for hedge accounting or the designation is revoked.

Changes in the fair value of derivative financial instruments designated as cash flow hedges are recognised in other comprehensive income, to the extent that the hedges are effective. Ineffective portions are recognised in the income statement immediately. If the hedged item results in the recognition of a non-financial asset or liability, the amount previously recognised in other comprehensive income is transferred out of equity and included in the initial carrying amount of the asset or liability. Otherwise, the amount previously recognised in other comprehensive income is transferred to the income statement in the same period that the hedged item is recognised in the income statement. If the hedging instrument expires or is sold, terminated or exercised, the hedge no longer meets the criteria for hedge accounting or the designation is revoked, amounts previously recognised in other comprehensive income remain in equity until the forecast transaction occurs. If a forecast transaction is no longer expected to occur, the amounts previously recognised in other comprehensive income are transferred to the income statement.

For hedges of net investments in foreign operations, the effective portion of the gain or loss on the hedging instrument is recognised in other comprehensive income, while the ineffective portion is recognised in the income statement. Amounts taken to other comprehensive income are reclassified from equity to the income statement when the foreign operations are sold or liquidated.

Other financial instruments

All other financial instruments are initially recognised at fair value plus transaction costs. Subsequent measurement is as follows:

- Borrowings are measured at amortised cost unless they are designated as being fair value hedged, in which case they are remeasured for the fair value changes in respect of the hedged risk with these changes recognised in the income statement.
- Available-for-sale investments which are investments in equity instruments that have a quoted market price in an active market are fair valued at that price with the gain or loss recognised in other comprehensive income. Investments in equity instruments that do not have a quoted market price in an active market are valued at fair value if it can be measured reliably with the gain or loss recognised in other comprehensive income. If the fair value cannot be measured reliably, they are measured at cost.
- Other available-for-sale investments are measured at fair value with interest calculated using the effective interest method recognised in financial income and the remaining gain or loss recognised in other comprehensive income until the investment is derecognised. At that time the cumulative gain or loss recognised in other comprehensive income will be transferred from equity to operating profit.
- All other financial assets and liabilities, including short term receivables and payables, are measured at amortised cost less any impairment provision.

Taxation

Current and deferred tax are recognised in the income statement, except when they relate to items recognised directly in equity when the related tax is also recognised in equity.

Current tax is the amount of income tax expected to be paid in respect of taxable profits using the tax rates that have been enacted or substantively enacted at the balance sheet date.

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amount in the balance sheet. It is provided using the tax rates that are expected to apply in the period when the asset or liability is settled, based on tax rates that have been enacted or substantively enacted at the balance sheet date.

Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. No deferred tax asset or liability is recognised in respect of temporary differences associated with investments in subsidiaries and branches where the group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Accounting Policies

for the year ended 31st March 2017

Provisions and contingencies

Provisions are recognised when the group has a present obligation as a result of a past event and a reliable estimate can be made of a probable adverse outcome, for example warranties, environmental claims and restructurings. Otherwise, material contingent liabilities are disclosed unless the transfer of economic benefits is remote. Contingent assets are only disclosed if an inflow of economic benefits is probable.

The parent company considers financial guarantees of its subsidiaries' borrowings and precious metal leases to be insurance contracts. These are treated as contingent liabilities unless it becomes probable that it will be required to make a payment under the guarantee.

Share-based payments and employee share ownership trust (ESOT)

The fair value of outstanding shares allocated to employees under the long term incentive plan is calculated by adjusting the share price on the date of allocation for the present value of the expected dividends that will not be received. The resulting cost is charged to the income statement over the relevant vesting periods, adjusted to reflect actual and expected levels of vesting where appropriate.

The group and parent company provide finance to the ESOT to purchase company shares in the open market. Costs of running the ESOT are charged to the income statement. The cost of shares held by the ESOT is deducted in arriving at equity until they vest unconditionally with employees.

Pensions and other post-employment benefits

The costs of defined contribution plans are charged to the income statement as they fall due.

For defined benefit plans, the group and parent company recognise the net assets or liabilities of the plans in their balance sheets. Obligations are measured at present value using the projected unit credit method and a discount rate reflecting yields on high quality corporate bonds. Assets are measured at their fair value at the balance sheet date. The changes in plan assets and liabilities, based on actuarial advice, are recognised as follows:

- The current service cost is deducted in arriving at operating profit.
- The net interest cost, based on the discount rate at the beginning of the year, contributions paid in and the present value of the net defined benefit liabilities during the year, is included in finance costs.
- Past service costs and curtailment gains and losses are recognised in operating profit at the earlier of when the plan amendment or curtailment occurs and when any related restructuring costs or termination benefits are recognised.
- Gains or losses arising from settlements are included in operating profit when the settlement occurs.
- Remeasurements, representing returns on plan assets excluding amounts included in interest and actuarial gains and losses arising from changes in demographic and financial assumptions, are recognised in other comprehensive income.

Standards and interpretations adopted in the year

IFRS 14 – 'Regulatory Deferral Accounts', Amendments to IFRS 11 – 'Accounting for Acquisitions of Interests in Joint Operations', Amendments to International Accounting Standard (IAS) 16 and IAS 38 – 'Clarification of Acceptable Methods of Depreciation and Amortisation', Amendments to IAS 16 and IAS 41 – 'Agriculture: Bearer Plants', Amendments to IAS 27 – 'Equity Method in Separate Financial Statements', Amendments to IFRS 10 and IAS 28 – 'Sale or Contribution of Assets between an Investor and its Associate or Joint Venture', Amendments to IFRS 10, IFRS 12 and IAS 28 – 'Investment Entities: Applying the Consolidation Exception', Amendments to IAS 1 – 'Disclosure Initiative' and 'Annual Improvements to IFRSs 2012-2014 Cycle' were adopted during the year. There was no material impact on the reported results or financial position of the group and parent company.

Standards and interpretations issued but not yet applied

IFRS 9 – 'Financial Instruments' will be adopted from 1st April 2018. The group's evaluation of the effect of the adoption of this standard is ongoing but it is not currently anticipated that it will have a material effect on the reported results and financial position of the group and parent company.

IFRS 15 – 'Revenue from Contracts with Customers' will be adopted from 1st April 2018. The group has performed initial reviews of some of its major contracts spread across its divisions. Based on the results of this review the group believes that IFRS 15 will not have a significant impact on the timing and recognition of revenue, although it is anticipated that there will be some impact as a result of allocating revenue to the various performance obligations. The group has now commenced a systematic review of all existing major contracts to ensure that the impact is fully understood in advance of the effective date.

IFRS 16 – 'Leases' will be adopted from 1st April 2019. The effect on the reported results and financial position of the group and parent company is still being evaluated.

The effects of any standards and interpretations amended or issued after 30th April 2017 have not yet been evaluated.

The group and parent company do not consider that any other standards or interpretations issued by the IASB but not yet applicable will have a significant impact on their reported results or net assets.

Notes on the Accounts

for the year ended 31st March 2017

1 Segmental information

For management purposes, the group is organised into five operating divisions – Emission Control Technologies, Process Technologies, Precious Metal Products, Fine Chemicals and New Businesses. Each division is represented by a director on the Board of Directors. These operating divisions represent the group's segments. Their principal activities are described on pages 28 to 43. The performance of the divisions is assessed by the Board of Directors on underlying operating profit, which is before amortisation of acquired intangibles, major impairment and restructuring charges and profit or loss on sale or liquidation of businesses. Each division is also assessed on sales excluding the value of precious metals including inter-segment sales (referred to as sales excluding precious metals below). Sales between segments are made at market prices, taking into account the volumes involved.

The group received £1,835.0 million of revenue from one external customer (2016: £1,685.0 million) which is 15% (2016: 16%) of the group's revenue from external customers. The revenue is reported in Precious Metal Products as it is generated by the group's precious metal management activities and so has a very low return on sales.

Year ended 31st March 2017

	Emission Control Technologies £ million	Process Technologies £ million	Precious Metal Products £ million	Fine Chemicals £ million	New Businesses £ million	Eliminations £ million	Total £ million
Revenue from external customers	3,779.5	537.8	7,206.1	308.9	198.7	–	12,031.0
Inter-segment revenue	175.0	63.7	1,688.0	6.0	2.5	(1,935.2)	–
Total revenue	3,954.5	601.5	8,894.1	314.9	201.2	(1,935.2)	12,031.0
External sales excluding precious metals	2,223.1	523.4	363.4	278.7	188.9	–	3,577.5
Inter-segment sales	0.4	63.4	39.7	4.8	2.4	(110.7)	–
Sales excluding precious metals	2,223.5	586.8	403.1	283.5	191.3	(110.7)	3,577.5
Segmental underlying operating profit / (loss)	318.2	90.4	86.4	64.5	(14.4)	–	545.1
Unallocated corporate expenses							(31.8)
Underlying operating profit							513.3
Amortisation of acquired intangibles (note 3)							(20.1)
Operating profit							493.2
Net finance costs							(31.8)
Share of profit of joint venture and associate							0.2
Profit before tax							461.6
Segmental net assets	1,090.2	802.4	347.9	554.1	162.4	–	2,957.0
Net debt							(715.7)
Post-employment benefit net assets and liabilities							4.8
Deferred income tax assets and liabilities							(87.4)
Provisions and non-current other payables							(45.3)
Investments in joint venture and associate							21.6
Unallocated corporate net assets							82.1
Net assets							2,217.1
Segmental capital expenditure	88.5	27.4	29.4	61.2	18.3	–	224.8
Other additions to non-current assets (excluding financial, deferred tax and post-employment benefit net assets)	3.5	–	–	–	24.0	–	27.5
Segmental total additions to non-current assets	92.0	27.4	29.4	61.2	42.3	–	252.3
Corporate capital expenditure							39.9
Total additions to non-current assets							292.2
Segment depreciation and amortisation	68.4	29.2	20.9	21.0	6.1	–	145.6
Corporate depreciation							6.1
Amortisation of acquired intangibles (note 3)							20.1
Total depreciation and amortisation							171.8

5. Accounts

Notes on the Accounts

for the year ended 31st March 2017

1 Segmental information (continued)

Year ended 31st March 2016

	Emission Control Technologies £ million	Process Technologies £ million	Precious Metal Products £ million	Fine Chemicals £ million	New Businesses £ million	Eliminations £ million	Total £ million
Revenue from external customers	3,262.8	519.4	6,454.1	318.5	159.1	–	10,713.9
Inter-segment revenue	221.0	31.3	1,213.3	6.4	1.6	(1,473.6)	–
Total revenue	3,483.8	550.7	7,667.4	324.9	160.7	(1,473.6)	10,713.9
External sales excluding precious metals	1,912.7	510.0	307.9	291.4	155.0	–	3,177.0
Inter-segment sales	0.4	31.2	34.6	4.8	1.5	(72.5)	–
Sales excluding precious metals	1,913.1	541.2	342.5	296.2	156.5	(72.5)	3,177.0
Segmental underlying operating profit / (loss)	272.2	73.6	66.3	82.3	(17.9)	–	476.5
Unallocated corporate expenses							(25.7)
Underlying operating profit							450.8
Profit on sale or liquidation of businesses							130.0
Amortisation of acquired intangibles (note 3)							(20.9)
Major impairment and restructuring charges							(141.0)
Operating profit							418.9
Net finance costs							(32.6)
Profit before tax							386.3
Segmental net assets	903.2	756.2	313.5	457.3	100.8	–	2,531.0
Net debt							(674.9)
Post-employment benefit net assets and liabilities							(6.0)
Deferred income tax assets and liabilities							(77.2)
Provisions and non-current other payables							(67.8)
Investment in joint venture							20.1
Unallocated corporate net assets							109.4
Net assets							1,834.6
Segmental capital expenditure	68.9	37.0	39.8	54.5	7.4	–	207.6
Other additions to non-current assets (excluding financial, deferred tax and post-employment benefit net assets)	2.0	16.2	16.2	2.6	17.3	–	54.3
Segmental total additions to non-current assets	70.9	53.2	56.0	57.1	24.7	–	261.9
Corporate capital expenditure							49.4
Total additions to non-current assets							311.3
Segment depreciation and amortisation	61.3	29.0	17.8	18.7	7.9	–	134.7
Corporate depreciation							4.6
Amortisation of acquired intangibles (note 3)							18.3
Total depreciation and amortisation							157.6

The group's country of domicile is the UK. Revenue from external customers is based on the customer's location. Non-current assets are based on the location of the assets and exclude financial assets, deferred tax assets and post-employment benefit net assets.

	Revenue from external customers		Non-current assets	
	2017 £ million	2016 £ million	**2017 £ million**	2016 £ million
UK	**3,639.8**	3,511.5	**838.8**	775.4
Germany	**1,118.1**	983.5	**260.4**	211.8
Rest of Europe	**1,654.6**	1,302.2	**239.6**	221.7
USA	**2,216.4**	2,044.5	**494.9**	413.9
Rest of North America	**319.2**	171.4	**38.0**	28.8
China (including Hong Kong)	**1,123.7**	1,024.8	**163.7**	137.7
Rest of Asia	**1,320.3**	1,199.1	**124.5**	110.6
Rest of World	**638.9**	476.9	**19.7**	17.0
Total	**12,031.0**	10,713.9	**2,179.6**	1,916.9

Notes on the Accounts

for the year ended 31st March 2017

2 Revenue

	2017 £ million	2016 £ million
Sale of goods	**11,853.2**	10,547.5
Rendering of services	**128.6**	126.3
Royalties and licence income	**49.2**	40.1
Total revenue	**12,031.0**	10,713.9

3 Amortisation of acquired intangibles

The amortisation of intangible assets which arise on the acquisition of businesses, together with any subsequent impairment of these intangible assets, is shown separately on the face of the income statement. It is excluded from underlying operating profit.

4 Effect of exchange rate changes on translation of foreign subsidiaries' sales excluding precious metals and operating profit

	2017	2016
US dollar / £	**1.308**	1.510
Euro / £	**1.191**	1.367
Chinese renminbi / £	**8.79**	9.60

The main impact of exchange rate movements on the group's sales and operating profit comes from the translation of foreign subsidiaries' results into sterling.

	Year ended 31st March 2017 £ million	Year ended 31st March 2016 At last year's rates £ million	At this year's rates £ million	Change at this year's rates %
Sales excluding precious metals				
Emission Control Technologies	**2,223.5**	1,913.1	2,139.1	+4
Process Technologies	**586.8**	541.2	588.6	–
Precious Metal Products	**403.1**	342.5	380.5	+6
Fine Chemicals	**283.5**	296.2	325.6	-13
New Businesses	**191.3**	156.5	173.8	+10
Elimination of inter-segment sales	**(110.7)**	(72.5)	(79.9)	
Sales excluding precious metals	**3,577.5**	3,177.0	3,527.7	+1
Less Research Chemicals	**–**	(38.3)	(43.9)	
Sales excluding precious metals for continuing businesses	**3,577.5**	3,138.7	3,483.8	+3
Underlying operating profit				
Emission Control Technologies	**318.2**	272.2	313.2	+2
Process Technologies	**90.4**	73.6	83.0	+9
Precious Metal Products	**86.4**	66.3	74.1	+17
Fine Chemicals	**64.5**	82.3	91.6	-30
New Businesses	**(14.4)**	(17.9)	(16.3)	+12
Unallocated corporate expenses	**(31.8)**	(25.7)	(25.7)	
Underlying operating profit	**513.3**	450.8	519.9	-1
Less Research Chemicals	**–**	(7.5)	(8.3)	
Underlying operating profit for continuing businesses	**513.3**	443.3	511.6	–

Fine Chemicals' Research Chemicals business was sold on 30th September 2015.

Notes on the Accounts

for the year ended 31st March 2017

5 Underlying profit reconciliation

	2017 £ million	2016 £ million
Underlying operating profit, continuing businesses at constant rates (note 4)	**513.3**	511.6
Underlying operating profit of Research Chemicals	**–**	8.3
Translation exchange effect to this year's rates	**–**	(69.1)
Underlying operating profit (note 4)	**513.3**	450.8
Profit on sale or liquidation of businesses	**–**	130.0
Amortisation of acquired intangibles (note 3)	**(20.1)**	(20.9)
Major impairment and restructuring charges	**–**	(141.0)
Operating profit	**493.2**	418.9
Underlying profit before tax	**481.7**	418.2
Profit on sale or liquidation of businesses	**–**	130.0
Amortisation of acquired intangibles (note 3)	**(20.1)**	(20.9)
Major impairment and restructuring charges	**–**	(141.0)
Profit before tax	**461.6**	386.3
Tax on underlying profit before tax	**(82.0)**	(67.4)
Tax on profit on sale or liquidation of businesses	**–**	(15.5)
Tax on amortisation of acquired intangibles (note 3)	**5.0**	4.9
Tax on major impairment and restructuring charges	**–**	17.4
Income tax expense	**(77.0)**	(60.6)

6 Operating profit

	2017 £ million	2016 £ million
Operating profit is arrived at after charging / (crediting):		
Total research and development expenditure	**200.7**	188.0
less development expenditure capitalised	**(18.9)**	(13.2)
Research and development charged	**181.8**	174.8
less external funding received – from government grants	**(9.5)**	(8.7)
– from other organisations	**(4.6)**	(5.5)
Net research and development	**167.7**	160.6
Other government grants	**(0.3)**	(0.1)
Inventories recognised as an expense	**10,275.4**	9,117.4
Write-down of inventories recognised as an expense	**11.8**	15.6
Reversal of write-down of inventories arising from increases in net realisable value	**(8.0)**	(2.4)
Net losses on foreign exchange	**16.5**	3.1
Net gains on foreign currency forwards held for trading	**(5.8)**	(5.3)
Depreciation of property, plant and equipment	**138.9**	127.9
Amortisation of internally generated intangible assets included in cost of sales	**7.7**	6.7
Amortisation of other intangible assets included in – cost of sales	**2.6**	2.1
– distribution costs	**0.8**	–
– administrative expenses	**1.7**	2.6
– amortisation of acquired intangibles (note 3)	**20.1**	18.3
Operating lease rentals payable – minimum lease payments	**19.2**	18.1
– sublease payments received	**(0.1)**	–

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7 Fees payable to auditors

	2017 £ million	2016 £ million
Fees payable to the company's auditor and its associates for:		
The audit of these accounts	**0.7**	0.6
The audit of the accounts of the company's subsidiaries	**1.4**	1.4
Total audit	**2.1**	2.0
Audit-related assurance services	**0.1**	0.1
Total audit and audit-related services	**2.2**	2.1
Taxation compliance services	**0.1**	0.1
Taxation advisory services	**–**	0.1
All other assurance services	**0.4**	0.3
All other services	**0.1**	0.1
Total fees payable to the company's auditor and its associates	**2.8**	2.7

Fees payable for services to the group's pension plans for the audit of the pension plan accounts were £0.1 million (2016: £ nil).

Audit fees paid to other auditors were £0.1 million (2016: £ nil).

8 Finance costs

	2017 £ million	2016 £ million
Net loss on remeasurement of foreign currency swaps held for trading	**4.9**	0.1
Net losses on financial assets and liabilities classified as held for trading	**4.9**	0.1
Net loss on remeasurement of fair value hedges and related hedged items to fair value	**0.9**	–
Interest payable on financial liabilities measured at amortised cost	**31.9**	33.3
Interest on post-employment benefits	**–**	6.6
Unwinding of discount on provisions and non-current payables	**1.0**	0.2
Total finance costs	**38.7**	40.2

9 Finance income

	2017 £ million	2016 £ million
Interest receivable on interest rate swaps	**3.9**	2.1
Net gains on financial assets and liabilities classified as held for trading	**3.9**	2.1
Net gain on remeasurement of fair value hedges and related hedged items to fair value	**–**	0.5
Interest receivable on available-for-sale investments, loans and receivables	**3.0**	5.0
Total finance income	**6.9**	7.6

10 Taxation

	2017 £ million	2016 £ million
Current tax		
Corporation tax on profits for the year	**81.9**	104.0
Benefit from previously unrecognised tax losses, tax credits or temporary differences	**(0.6)**	(5.1)
Adjustment for prior years	**(11.8)**	(21.1)
Total current tax	**69.5**	77.8
Deferred tax		
Origination and reversal of temporary differences	**8.9**	(15.1)
Changes in tax rates and laws	**(3.9)**	(5.6)
Write-downs, or reversal of previous write-downs, of deferred tax assets	**0.5**	1.5
Adjustment for prior years	**2.0**	2.0
Total deferred tax	**7.5**	(17.2)
Income tax expense	**77.0**	60.6

Notes on the Accounts

for the year ended 31st March 2017

10 Taxation (continued)

The tax charge for the year can be reconciled to the profit per the income statement as follows:

	2017 £ million	2016 £ million
Profit before tax	**461.6**	386.3
Tax expense at UK corporation tax rate of 20% (2016: 20%)	**92.3**	77.3
Effects of:		
Overseas tax rates	**13.3**	12.3
Expenses not deductible for tax purposes	**4.5**	12.3
Unutilised losses	**2.8**	6.9
Utilisation of tax losses and tax incentives	**(9.5)**	(11.1)
Adjustments for prior years	**(9.8)**	(19.1)
Innovation – tax incentives	**(16.7)**	(11.1)
Reduction in deferred tax resulting from decrease in UK tax rates	**(3.4)**	(5.6)
Disposals	**–**	(8.1)
Irrecoverable withholding tax	**4.5**	8.8
Other	**(1.0)**	(2.0)
Tax expense for the year	**77.0**	60.6

Expenses not deductible for tax purposes in 2016 included certain non-deductible costs related to the group's restructuring activities. Utilisation of tax losses and tax incentives is mainly the benefit of the tax incentives in Macedonia. Adjustments for prior years includes some overseas tax provision releases following the successful conclusion of negotiations with the relevant tax authorities and the decreasing risk of questions as time passes (2016: the impact of successful resolution of overseas tax audits and the expiry of relevant statute of limitations). Other includes the movement on certain global tax provisions whose ultimate outcome cannot be ascertained with certainty.

In October 2015 the UK government substantively enacted changes in the UK corporation tax rate from 20% to 19% from 1st April 2017 and to 18% from 1st April 2020 and so the UK deferred tax balances at 31st March 2016 had been recalculated at those new rates. In September 2016 a further change to 17% from 1st April 2020 was enacted and so the UK deferred tax balances at 31st March 2017 have been recalculated at this new rate.

11 Earnings per ordinary share

	2017 pence	2016 pence
Basic	**201.2**	166.2
Diluted	**200.8**	165.9

Earnings per ordinary share have been calculated by dividing the profit attributable to owners of the parent company by the weighted average number of shares in issue during the period.

	2017	2016
Weighted average number of shares in issue		
Basic	**191,850,710**	200,470,481
Dilution for share options and long term incentive plans	**350,862**	274,966
Diluted	**192,201,572**	200,745,447

Underlying earnings per ordinary share are calculated as follows:

	2017 £ million	2016 £ million
Profit for the year attributable to equity holders of the parent company	**386.0**	333.1
Profit on sale or liquidation of businesses	**–**	(130.0)
Amortisation of acquired intangibles (note 3)	**20.1**	20.9
Major impairment and restructuring charges	**–**	141.0
Tax thereon	**(5.0)**	(6.8)
Underlying profit for the year	**401.1**	358.2

	pence	pence
Underlying earnings per share		
Basic	**209.1**	178.7
Diluted	**208.7**	178.4

Notes on the Accounts

for the year ended 31st March 2017

12 Dividends

	2017 £ million	2016 £ million
2014/15 final ordinary dividend paid – 49.5 pence per share	**–**	100.5
Special dividend paid – 150.0 pence per share	**–**	304.5
2015/16 interim ordinary dividend paid – 19.5 pence per share	**–**	39.6
2015/16 final ordinary dividend paid – 52.0 pence per share	**99.7**	–
2016/17 interim ordinary dividend paid – 20.5 pence per share	**39.3**	–
Total dividends	**139.0**	444.6

A final dividend of 54.5 pence per ordinary share has been proposed by the board which will be paid on 1st August 2017 to shareholders on the register at the close of business on 9th June 2017, subject to shareholders' approval. The estimated amount to be paid is £104.5 million and has not been recognised in these accounts.

13 Employee and key management personnel costs

13a Employee numbers

	2017	2016
The average monthly number of employees during the year was:		
Emission Control Technologies	**4,911**	4,929
Process Technologies	**2,095**	2,377
Precious Metal Products	**2,139**	2,195
Fine Chemicals	**1,274**	1,367
New Businesses	**1,101**	993
Corporate and Central Research	**694**	633
Average number of employees	**12,214**	12,494
Actual number of employees at 31st March	**12,306**	12,325

The number of temporary employees included above at 31st March 2017 was 547 (2016: 627).

The actual number of staff was:

	At 31st March 2017			At 31st March 2016		
	Actual employees	Agency staff	Total headcount	Actual employees	Agency staff	Total headcount
Emission Control Technologies	**4,948**	**416**	**5,364**	4,963	483	5,446
Process Technologies	**2,068**	**29**	**2,097**	2,226	46	2,272
Precious Metal Products	**2,137**	**112**	**2,249**	2,180	127	2,307
Fine Chemicals	**1,292**	**6**	**1,298**	1,238	6	1,244
New Businesses	**1,125**	**201**	**1,326**	1,047	248	1,295
Corporate and Central Research	**736**	**46**	**782**	671	56	727
Total	**12,306**	**810**	**13,116**	12,325	966	13,291

13b Employee benefits expense

	2017 £ million	2016 £ million
Wages and salaries	**526.2**	478.0
Social security costs	**56.3**	50.7
Pension and other post-employment costs	**45.9**	70.5
Termination benefits	**5.0**	37.9
Share-based payments	**17.1**	4.3
Total employee benefits expense	**650.5**	641.4

Notes on the Accounts

for the year ended 31st March 2017

13 Employee and key management personnel costs (continued)

13c Key management personnel

The key management of the group and parent company consist of the Board of Directors and the members of the Group Management Committee (GMC). During the year ended 31st March 2017 the GMC had an average of 10 members (2016: 10 members). Their compensation charged in the year was:

	2017 £ million	2016 £ million
Short term employee benefits	**5.6**	5.6
Pension and other post-employment costs	**0.1**	0.2
Share-based payments	**3.0**	(0.3)
Termination benefits	**1.5**	0.6
Non-executive directors' fees and benefits	**0.7**	0.7
Total compensation of key management personnel	**10.9**	6.8

The compensation above are the only transactions with key management personnel. Balances outstanding at the year end were termination benefits of £1.5 million. Information on the directors' remuneration is given in the Remuneration Report on pages 97 to 116.

14 Share-based payments

Long Term Incentive Plan (LTIP)

Under the LTIP, shares are allocated to approximately 1,300 of the group's executive directors, senior managers and middle managers based on a percentage of salary and are subject to performance targets over a three year period. At 31st March 2017, shares allocated in 2014, 2015 and 2016 (at 31st March 2016: shares allocated in 2013, 2014 and 2015) were outstanding in respect of which the performance period has not expired. For the 2016 allocations, the minimum release of 15% of the allocation is subject to achieving underlying earnings per share (uEPS) growth of 4% compound per annum over the three year period and the full release is subject to uEPS growing by at least 10% compound per annum. For the 2015 allocations, the minimum release of 15% is subject to achieving uEPS growth of 6% compound per annum and the full release is subject to uEPS growing by at least 12% compound per annum. For allocations prior to 2015, the minimum release of 15% is subject to achieving uEPS growth of 6% compound per annum and the full release is subject to uEPS growing by at least 15% compound per annum. The number of allocated shares released will vary on a straight line basis between these points. Allocations will lapse if the uEPS growth is less than the minimum. Allocations in 2014 onwards to the executive directors only are also subject to a deferred release whereby a third is released on the third anniversary of the allocation date and the remaining vested shares are released in equal instalments on the fourth and fifth anniversaries of the allocation date; plus the Remuneration Committee is entitled to claw back the allocations in cases of misstatement or misconduct. Of the 2013 allocations, 32.51% were released during the year.

Share options

Prior to 31st March 2007 equity settled share options were granted to employees at the average of the market value of the company's shares over the three days prior to the date of grant and had a maximum life of ten years. The number of shares over which options were granted was based on a percentage of the employee's salary and approximately 800 employees were granted options each year. Options granted were subject to a minimum three year performance target of uEPS growth of UK RPI plus 3% per annum. Other performance targets were uEPS growth of UK RPI plus 4% per annum and uEPS growth of UK RPI plus 5% per annum. If the performance targets were not met at the end of the three year performance period, the options would lapse. The 3% and 4% targets were met and so these options were exercisable. The 5% target was not met and so these options lapsed. Gains were capped at 100% of the grant price.

Deferred bonus

A proportion of the bonus payable to executive directors and members of the Group Management Committee is awarded as shares and deferred for three years. The Remuneration Committee is entitled to claw back the deferred element in cases of misstatement or misconduct or other relevant reason as determined by it.

All employee share incentive plan (SIP) – UK and Overseas

Under the SIP, all employees with at least one year of service with the group and who are employed by a participating group company are entitled to contribute up to 2.5% of base pay each month, subject to a £125 per month limit. The SIP trustees buy shares (partnership shares) at market value each month with the employees' contributions. For each partnership share purchased, the group purchases two shares (matching shares) which are allocated to the employee. In the UK SIP, if the employee sells or transfers partnership shares within three years from the date of allocation, the linked matching shares are forfeited. In the Overseas SIP, partnership shares and matching shares are subject to a three year holding period and cannot be sold or transferred during that time.

401k approved savings investment plans (401k plans)

In the US there are two 401k plans, one for salaried employees and one for hourly employees. Salaried employees may contribute up to 50% of their base pay and hourly employees up to 20% of their base pay, both subject to a statutory limit. Salaried employees choosing Johnson Matthey Plc shares matching are matched 100% of the first 4% contributed and hourly employees are matched 50% of the first 6% contributed. Employees may contribute after one month of service and are eligible for matching after one year of service.

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for the year ended 31st March 2017

14 Share-based payments (continued)

Further details of the directors' remuneration under share-based payment plans are given in the Remuneration Report on pages 97 to 116.

Share options were exercised on a regular basis throughout the first four months of the year. The average share price during this period was 2,930.3 pence (2016: exercised on a regular basis over the year and the average share price over that year was 2,801.1 pence). Activity relating to share options was:

	2017 Number of options	**2017** Weighted average exercise price pence	2016 Number of options	2016 Weighted average exercise price pence
Outstanding at the start of the year	**5,845**	**1,282.0**	19,967	1,246.5
Forfeited during the year	**(1,312)**	**1,282.0**	(2,240)	1,129.3
Exercised during the year	**(4,533)**	**1,282.0**	(11,882)	1,251.1
Outstanding and exercisable at the end of the year	**–**		5,845	1,282.0

Details of share options outstanding at the end of the year are:

	2017 Number of options	**2017** Weighted average remaining life years	2016 Number of options	2016 Weighted average remaining life years
Range of exercise price				
1,200 pence to 1,300 pence	**–**	**–**	5,845	0.3

The fair value of the shares allocated during the year under the LTIP was 3,066.3 pence per share allocation (2016: 2,718.8 pence per share allocation). The fair value was based on the share price at the date of allocation of 3,273.0 pence (2016: 2,915.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.18% (2016: 2.33%).

Activity relating to the LTIP was:

	2017 Number of allocated shares	2016 Number of allocated shares
Outstanding at the start of the year	**2,138,725**	2,262,365
Allocated during the year	**881,548**	807,172
Forfeited during the year	**(144,373)**	(124,364)
Released during the year	**(226,858)**	(105,881)
Expired during the year	**(473,281)**	(700,567)
Outstanding at the end of the year	**2,175,761**	2,138,725

The fair value of the shares awarded during the year under the deferred bonus was 3,000.4 pence per share award (2016: 2,656.3 pence per share award), based on the share price at the date of award of 3,273.0 pence (2016: 2,915.0 pence) adjusted for the present value of the expected dividends that will not be received at an expected dividend rate of 2.18% (2016: 2.33%).

Activity relating to the deferred bonus was:

	2017 Number of awarded shares	2016 Number of awarded shares
Outstanding at the start of the year	**69,237**	57,844
Awarded during the year	**16,008**	43,868
Released during the year	**(1,289)**	(32,475)
Outstanding at the end of the year	**83,956**	69,237

196,276 (2016: 227,014) matching shares under the SIP and 14,870 (2016: 34,684) shares under the 401k plans were allocated to employees during the year. They are nil cost awards on which performance conditions are substantially completed at the date of grant. Consequently the fair value of these awards is based on the market value of the shares at that date.

The total expense recognised during the year in respect of equity settled share-based payments, taking into account expected lapses due to leavers and the probability that EPS performance conditions will not be met, was £17.1 million (2016: £4.3 million).

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15 Post-employment benefits

15a Group

The group operates a number of post-employment retirement and medical benefit plans around the world, the forms of which vary with conditions and practices in the countries concerned. The retirement plans in the UK, US and other countries include both defined contribution and defined benefit plans.

For defined contribution plans, retirement benefits are determined by the value of funds arising from contributions paid in respect of each employee and the investment returns on those contributions prior to retirement. The group also makes payments to employees' personal pension plans.

For defined benefit plans, which include final salary, career average and other types of plans with committed pension payments, the retirement benefits are based on factors such as the employee's pensionable salary and length of service. The majority of the group's final salary and career average defined benefit retirement plans are now closed to new entrants but remain open to ongoing accrual for current members.

The group's principal defined benefit retirement plans are funded through separate fiduciary or trustee administered funds that are independent of the sponsoring company. The contributions paid to these arrangements are jointly agreed by the sponsoring company and the relevant trustee or fiduciary body after each funding valuation and in consultation with independent qualified actuaries. The plans' assets together with the agreed funding contributions should be sufficient to meet the plans' future pension obligations.

The group's principal post-employment medical plans are in the UK and US and are unfunded arrangements that have been closed to new entrants for over ten years.

Regulatory framework and governance

The UK pension plan, the Johnson Matthey Employees Pension Scheme (JMEPS), is a registered arrangement and established under trust law and, as such, is subject to UK pension, tax and trust legislation. It is managed by a corporate trustee, JMEPS Trustees Limited. The trustee board includes representatives appointed by both the parent company and employees and includes an independent chairman.

Although the parent company bears the financial cost of the plan, the trustee directors are responsible for the overall management and governance of JMEPS, including compliance with all applicable legislation and regulations. The trustee directors are required by law to act in the interest of all relevant beneficiaries and to set certain policies; to manage the day to day administration of the benefits; and to set the plan's investment strategy following consultation with the parent company.

UK pensions are regulated by the Pensions Regulator whose statutory objectives and regulatory powers are described on its website: www.thepensionsregulator.gov.uk.

The US pension plans are qualified pension arrangements and are subject to the requirements of the Employee Retirement Income Security Act, the Pension Protection Act 2006 and the Department of Labor and Internal Revenue. The plans are managed by a pension committee which acts as the fiduciary and, as such, is ultimately responsible for the management of the plans' investments; compliance with all applicable legislation and regulations; and overseeing the general management of the plans.

Other trustee or fiduciary arrangements that have similar responsibilities and obligations are in place for the group's other funded defined benefit pension plans outside of the UK and US.

Benefits

The UK pension plan is segregated into two sections – a legacy section which provides final salary and career average pension benefits and a cash balance section. The final salary element of the legacy section was closed to future accrual of benefits from 1st April 2010 and the career average element of the legacy section was closed to new entrants on 1st October 2012 but remains open to future accrual for existing members. All new entrants join the cash balance section of the plan.

The legacy section provides benefits to members in the form of a set level of pension payable for life based on the member's length of service and final pensionable salary at retirement or averaged over their career with the parent company. The benefits attract inflation-related increases both before and after retirement.

The cash balance section provides benefits to members at the point of retirement in the form of a cash lump sum. The benefits attract inflation-related increases before retirement but following the payment of the retirement lump sum benefit the plan has no obligation to pay any further benefits to the member.

The group operates two defined benefit pension plans in the US. The hourly pension plan is for unionised employees and provides a fixed retirement benefit for life based upon years of service. The salaried pension plan provides retirement benefits for life based on the member's length of service and final pensionable salary (averaged over the last five years). The salaried plan benefits attract inflation-related increases before leaving but are non-increasing thereafter. On retirement, members in either plan have the option to take the cash value of their benefit instead of a lifetime annuity in which case the plan has no obligation to pay any further benefits to the member.

The US salaried pension plan was closed to new entrants on 1st September 2013 but remains open to future accrual for existing members. All new non-unionised US employees now join a defined contribution plan.

Notes on the Accounts

for the year ended 31st March 2017

15 Post-employment benefits (continued)

15a Group (continued)

Funding

UK legislation requires that pension plans are funded prudently and that when undertaking a funding valuation (every three years) assets are taken at their market value and the liabilities are determined based on a set of prudent assumptions set by the trustee following consultation with their appointed actuary. The assumptions used for funding valuations may therefore differ to the actuarial assumptions used for IAS 19 accounting purposes.

The last funding valuation of JMEPS was carried out as at 1st April 2015. This valuation showed that there was a deficit of £69 million in the legacy section of the plan, or £28 million after taking account of the future additional deficit funding contributions from the special purpose vehicle (SPV) set up in January 2013. To address the deficit, the parent company agreed to continue to make deficit contributions of £23.1 million per year up to 31st December 2019. The valuation also revealed a surplus of £2 million in the defined benefit cash balance section.

The SPV was set up to provide additional deficit reduction contributions and to provide greater security to the trustee. The group invested £50.0 million in a bond portfolio which is beneficially held by the SPV. The income generated by the SPV is used to make annual distributions of £3.5 million to JMEPS for a period of up to 25 years. These annual distributions are only payable if the legacy section of JMEPS continues to be in deficit. This bond portfolio is held as a non-current available-for-sale investment (note 21) and the group's liability to pay the income to the plan is not a plan asset under IAS 19, although it is for actuarial funding valuation purposes. The SPV is exempt from the requirement to prepare audited annual accounts as it is included on a consolidated basis in these accounts.

In accordance with the governing documentation of JMEPS, any future plan surplus would be returned to the parent company by way of a refund assuming gradual settlement of the liabilities over the lifetime of the plan. As such, there are no adjustments required in respect of IFRIC 14 – 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction'.

The last annual review of the US defined benefit pension plans was carried out by a qualified actuary as at 1st July 2016 which showed a surplus of US $2.2 million. The assumptions used for funding valuations may differ to the actuarial assumptions used for IAS 19 accounting purposes.

Similar funding valuations are undertaken on the group's other defined benefit pension plans outside of the UK and US in accordance with prevailing local legislation.

Risk management

The group is exposed to a number of risks relating to its post-retirement pension plans, the most significant of which are:

Risk	Mitigation
Market (investment) risk Asset returns may not move in line with the liabilities and may be subject to volatility.	The group's various plans have highly diversified investment portfolios, investing in a wide range of assets that provide reasonable assurance that no single security or type of security could have a material adverse impact on the plan. A de-risking strategy is in place to reduce volatility in the plans as a result of the mismatch between the assets and liabilities. As the funding level of the plans improve and hit pre-agreed triggers, plan investments are switched from return seeking assets to liability matching assets. The plans also implement partial currency hedging on their overseas assets to mitigate currency risk.
Interest rate (discount rate) risk Liabilities are sensitive to movements in bond yields (interest rates), with lower interest rates leading to an increase in the valuation of liabilities, albeit the impact on the plan's funding level will be partially offset by an increase in the value of its bond holdings.	The group's defined benefit plans hold a high proportion of their assets in government or corporate bonds, which provide a natural hedge against falling interest rates. In the UK, this interest rate hedge is extended by the use of interest rate swaps. The swaps are held with several banks to reduce counterparty risk.
Inflation risk Liabilities are sensitive to movements in inflation, with higher inflation leading to an increase in the valuation of liabilities.	Where plan benefits provide inflation-related increases, the plan holds some inflation-linked assets which provide a natural hedge against higher than expected inflation increases. In the UK, this inflation hedge is extended by the use of inflation rate swaps. The swaps are held with several banks to reduce counterparty risk.
Longevity risk The majority of the group's defined benefit plans provide benefits for the life of the member, so the liabilities are sensitive to life expectancy, with increases in life expectancy leading to an increase in the valuation of liabilities.	The group has closed most of its defined benefit pension plans to new entrants replacing them with either a cash balance plan or defined contribution plans, both of which are unaffected by life expectancy. For the plans where a benefit for life continues to be payable, prudent mortality assumptions are used that appropriately allow for a future improvement in life expectancy. These assumptions are reviewed on a regular basis to minimise the risk of using an inappropriate assumption.

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15 Post-employment benefits (continued)

15a Group (continued)

Financial assumptions

Qualified independent actuaries have updated the funding valuations under IAS 19 of the group's major defined benefit plans to 31st March 2017. The assumptions used are chosen from a range of possible actuarial assumptions which, due to the long term nature of the plans, may not necessarily be borne out in practice. The main financial assumptions used were:

	2017 UK plans %	2017 US plans %	2017 Other plans %	2016 UK plans %	2016 US plans %	2016 Other plans %
First (2016: first 2) year's rate of increase in salaries	**3.10**	**3.00**	**2.59**	3.00	3.00	2.50
Ultimate rate of increase in salaries	**3.85**	**3.00**	**2.59**	3.75	3.00	2.50
Rate of increase in pensions in payment	**3.05**	**–**	**1.12**	2.90	–	1.05
Discount rate	**2.60**	**4.10**	**2.15**	3.70	4.00	2.43
Inflation		**2.20**	**1.61**		2.20	1.53
– UK RPI	**3.10**			3.00		
– UK CPI	**2.10**			2.20		
Current medical benefits cost trend rate	**5.40**	**2.95**	**–**	5.40	6.90	–
Ultimate medical benefits cost trend rate	**5.40**	**2.95**	**–**	5.40	4.50	–

Demographic assumptions

The mortality assumptions are based on country-specific mortality tables and where appropriate include an allowance for future improvements in life expectancy. In addition, where credible data exists, actual plan experience is taken into account. The group's most substantial pension liabilities are in the UK and the US where, using the mortality tables adopted, the expected future lifetime of average members currently at age 65 and average members at age 65 in 25 years' time (i.e. members who are currently aged 40 years) is respectively:

	Currently age 65		Age 65 in 25 years	
	UK plan	US plans	UK plan	US plans
Male	**21.6**	**21.4**	**23.8**	**23.5**
Female	**24.2**	**23.4**	**26.5**	**25.4**

Sensitivities

The calculations of the defined benefit obligations are sensitive to the assumptions used. The following summarises the estimated impact of a change in the assumption on the group's main plans while holding all other assumptions constant. This sensitivity analysis may not be representative of the actual change as it is unlikely that the change in assumptions would occur in isolation of one another.

A 0.1% change in the discount rate and rate of increase in salaries would have the following increases / (decreases) on the pension plans' defined benefit obligations at 31st March 2017:

	0.1% increase		0.1% decrease	
	UK plan £ million	US plans £ million	UK plan £ million	US plans £ million
Effect of discount rate	**(36.7)**	**(4.0)**	**37.7**	**4.2**
Effect of inflation	**35.4**	**–**	**(34.5)**	**–**
Effect of rate of increase in salaries	**2.9**	**1.2**	**(3.0)**	**(1.1)**

A one year increase in life expectancy would have the following increase on:

	UK plan £ million	US plans £ million
Pension defined benefit obligation	**61.1**	**5.4**

A 1% point change in the assumed medical cost trend rates would have the following increase / (decrease) on:

	1% point increase		1% point decrease	
	UK plan £ million	US plan £ million	UK plan £ million	US plan £ million
Post-retirement medical plan defined benefit obligation	**1.3**	**–**	**(1.1)**	**–**

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for the year ended 31st March 2017

15 Post-employment benefits (continued)

15a Group (continued)

Estimated effect on future cash flows

It is estimated that the group will contribute about £70 million to the post-employment defined benefits plans during the year ending 31st March 2018.

The maturity profile of the defined benefit obligations will also affect future cash flows. The estimated weighted average durations of the defined benefit obligations of the main plans at 31st March 2017 are:

	UK pension years	UK post-retirement medical benefits years	US pensions years	US post-retirement medical benefits years
Weighted average duration	**20.1**	**13.3**	**13.0**	**14.4**

Financial information

Movements in the fair value of the plan assets during the year were:

	UK pension £ million	UK post-retirement medical benefits £ million	US pensions £ million	US post-retirement medical benefits £ million	Other £ million	Total £ million
At 1st April 2015	1,538.9	–	249.9	–	40.5	1,829.3
Interest income	52.6	–	9.3	–	0.8	62.7
Return on plan assets excluding interest	(27.6)	–	(8.6)	–	(5.0)	(41.2)
Employee contributions	4.1	–	0.8	0.3	0.2	5.4
Company contributions	59.9	0.4	8.2	1.0	1.6	71.1
Benefits paid	(47.1)	(0.4)	(12.1)	(1.3)	(1.2)	(62.1)
Exchange adjustments	–	–	7.4	–	2.5	9.9
At 31st March 2016	1,580.8	–	254.9	–	39.4	1,875.1
Interest income	58.6	–	11.1	–	1.1	70.8
Return on plan assets excluding interest	303.3	–	(1.5)	–	1.4	303.2
Employee contributions	4.0	–	0.8	0.4	0.3	5.5
Company contributions	56.2	0.4	9.6	1.2	2.4	69.8
Benefits paid	(55.0)	(0.4)	(21.2)	(1.6)	(1.5)	(79.7)
Exchange adjustments	–	–	38.5	–	4.2	42.7
At 31st March 2017	**1,947.9**	**–**	**292.2**	**–**	**47.3**	**2,287.4**

The fair values of plan assets were:

	2017 UK pension £ million	**2017 US pensions £ million**	**2017 Other £ million**	2016 UK pension £ million	2016 US pensions £ million	2016 Other £ million
Quoted corporate bonds	**1,068.6**	**143.3**	**0.4**	896.9	124.8	4.3
Inflation and interest rate swaps	**73.1**	**–**	**–**	31.2	–	–
Quoted government bonds	**25.6**	**96.8**	**–**	14.5	82.2	–
Cash and cash equivalents	**52.2**	**0.7**	**0.4**	34.3	1.1	0.4
Quoted equity	**654.0**	**51.4**	**1.9**	535.5	46.8	1.7
Unquoted equity	**16.9**	**–**	**–**	10.9	–	–
Property	**57.5**	**–**	**0.2**	57.5	–	0.2
Insurance policies	**–**	**–**	**44.4**	–	–	32.8
	1,947.9	**292.2**	**47.3**	1,580.8	254.9	39.4

The defined benefit pension plans do not invest directly in Johnson Matthey Plc shares and no property or other assets owned by the pension plans are used by the group.

The assets for the cash balance section of the UK plan are held separately from the assets of the legacy section. At 31st March 2017 the defined benefit obligation related to the contributory cash balance section was £32.7 million and the fair value of the plan assets was £32.3 million.

Past service costs in the UK pension plan were pension enhancements for eligible employees who have been made redundant. A past service credit arose in the US post-retirement medical benefits plan due to plan amendments capping the group's contribution towards medical coverage by limiting the increase in medical inflation to a cost of living increase and giving retirees a choice between the current Platinum plan and a Gold plan.

Notes on the Accounts

for the year ended 31st March 2017

15 Post-employment benefits (continued)

15a Group (continued)

Financial information (continued)

Movements in the defined benefit obligation during the year were:

	UK pension £ million	UK post-retirement medical benefits £ million	US pensions £ million	US post-retirement medical benefits £ million	Other £ million	Total £ million
At 1st April 2015	(1,616.1)	(11.0)	(276.5)	(52.7)	(72.8)	(2,029.1)
Current service cost – in operating profit	(37.4)	–	(9.8)	(1.3)	(2.4)	(50.9)
Current service cost – capitalised	(0.6)	–	–	–	–	(0.6)
Past service costs	(5.4)	–	(0.5)	7.1	–	1.2
Interest cost	(55.5)	(0.4)	(10.4)	(1.9)	(1.3)	(69.5)
Curtailment gains	–	–	1.2	–	–	1.2
Employee contributions	(4.1)	–	(0.8)	(0.3)	(0.2)	(5.4)
Remeasurements due to changes in:						
Demographic assumptions	73.4	(0.2)	1.5	2.3	0.2	77.2
Financial assumptions	118.6	0.7	14.8	(1.8)	11.5	143.8
Benefits paid	47.1	0.4	12.1	1.3	1.2	62.1
Transferred from liabilities classified as held for sale	–	–	–	–	(0.7)	(0.7)
Exchange adjustments	–	–	(7.9)	(1.3)	(5.0)	(14.2)
At 31st March 2016	(1,480.0)	(10.5)	(276.3)	(48.6)	(69.5)	(1,884.9)
Current service cost – in operating profit	(28.5)	–	(10.1)	(0.8)	(2.2)	(41.6)
Current service cost – capitalised	(1.0)	–	–	–	–	(1.0)
Past service costs	(2.5)	–	–	16.8	–	14.3
Interest cost	(55.0)	(0.4)	(12.2)	(1.8)	(1.7)	(71.1)
Employee contributions	(4.0)	–	(0.8)	(0.4)	(0.3)	(5.5)
Remeasurements due to changes in:						
Demographic assumptions	76.8	2.2	5.8	0.5	2.1	87.4
Financial assumptions	(402.3)	(1.3)	1.8	(2.8)	(4.7)	(409.3)
Benefits paid	55.0	0.4	21.2	1.6	1.5	79.7
Exchange adjustments	–	–	(41.7)	(6.7)	(6.8)	(55.2)
At 31st March 2017	**(1,841.5)**	**(9.6)**	**(312.3)**	**(42.2)**	**(81.6)**	**(2,287.2)**

Under the US Medicare legislation, a government subsidy is receivable as the US post-retirement medical benefits plan is actuarially equivalent to the Medicare Prescription Drug Act. Also, there is an insurance policy taken out to reinsure the pension commitments of one of the other small pension plans which does not meet the definition of a qualifying insurance policy. These are accounted for as reimbursement rights and are shown on the balance sheet in post-employment benefits net assets.

Movements in the reimbursement rights during the year were:

	UK pension £ million	UK post-retirement medical benefits £ million	US pensions £ million	US post-retirement medical benefits £ million	Other £ million	Total £ million
At 1st April 2015	–	–	–	6.1	–	6.1
Interest income	–	–	–	0.2	–	0.2
Return on assets excluding interest	–	–	–	0.3	–	0.3
Reimbursement to company	–	–	–	(0.1)	–	(0.1)
Transferred from assets classified as held for sale	–	–	–	–	0.5	0.5
Exchange adjustments	–	–	–	0.2	–	0.2
At 31st March 2016	–	–	–	6.7	0.5	7.2
Interest income	–	–	–	0.3	–	0.3
Return on assets excluding interest	–	–	–	0.3	–	0.3
Reimbursement to company	–	–	–	(0.1)	–	(0.1)
Exchange adjustments	–	–	–	1.1	0.2	1.3
At 31st March 2017	**–**	**–**	**–**	**8.3**	**0.7**	**9.0**

Notes on the Accounts

for the year ended 31st March 2017

15 Post-employment benefits (continued)

15a Group (continued)

Financial information (continued)

The net post-employment benefit assets and liabilities were:

	UK pension £ million	UK post-retirement medical benefits £ million	US pensions £ million	US post-retirement medical benefits £ million	Other £ million	Total £ million
At 31st March 2017						
Defined benefit obligation	**(1,841.5)**	**(9.6)**	**(312.3)**	**(42.2)**	**(81.6)**	**(2,287.2)**
Fair value of plan assets	**1,947.9**	**–**	**292.2**	**–**	**47.3**	**2,287.4**
Reimbursement rights	**–**	**–**	**–**	**8.3**	**0.7**	**9.0**
Net post-employment benefit assets and liabilities	**106.4**	**(9.6)**	**(20.1)**	**(33.9)**	**(33.6)**	**9.2**
At 31st March 2016						
Defined benefit obligation	(1,480.0)	(10.5)	(276.3)	(48.6)	(69.5)	(1,884.9)
Fair value of plan assets	1,580.8	–	254.9	–	39.4	1,875.1
Reimbursement rights	–	–	–	6.7	0.5	7.2
Net post-employment benefit assets and liabilities	100.8	(10.5)	(21.4)	(41.9)	(29.6)	(2.6)

These are included in the balance sheet as:

	2017 Post-employment benefit net assets £ million	2017 Employee benefit obligations £ million	2017 Total £ million	2016 Post-employment benefit net assets £ million	2016 Employee benefit obligations £ million	2016 Total £ million
UK pension plan	**106.4**	**–**	**106.4**	100.8	–	100.8
UK post-retirement medical benefits plan	**–**	**(9.6)**	**(9.6)**	–	(10.5)	(10.5)
US pension plans	**–**	**(20.1)**	**(20.1)**	–	(21.4)	(21.4)
US post-retirement medical benefits plan	**8.3**	**(42.2)**	**(33.9)**	6.7	(48.6)	(41.9)
Other plans	**1.9**	**(35.5)**	**(33.6)**	1.6	(31.2)	(29.6)
Total post-employment plans	**116.6**	**(107.4)**	**9.2**	109.1	(111.7)	(2.6)
Other long term employee benefits		**(4.4)**			(3.4)	
Total long term employee benefit obligations		**(111.8)**			(115.1)	

Amounts recognised in the income statement for long term employment benefits were:

	2017 £ million	2016 £ million
Operating profit		
Current service cost	**(41.6)**	(50.9)
Past service costs	**14.3**	1.2
Curtailment gains	**–**	1.2
Defined benefit post-employment costs charged to operating profit	**(27.3)**	(48.5)
Defined contribution plans' expense	**(17.6)**	(14.9)
Other long term employee benefits	**(1.0)**	(0.5)
Charge to operating profit	**(45.9)**	(63.9)
Finance costs		
Interest on plan liabilities	**(71.1)**	(69.5)
Interest income on plan assets	**70.8**	62.7
Interest income on reimbursement rights	**0.3**	0.2
Charge to finance costs	**–**	(6.6)
Charge to consolidated income statement	**(45.9)**	(70.5)

Notes on the Accounts

for the year ended 31st March 2017

15 Post-employment benefits (continued)

15b Parent company

The parent company is the sponsoring employer of the group's UK defined benefit pension plan and the UK post-retirement medical benefits plan. There is no contractual agreement or stated policy for charging the net defined benefit cost for the plans to the individual group entities. The parent company recognises the net defined benefit cost for these plans and information is disclosed in note 15a.

16 Property, plant and equipment

16a Group

	Freehold land and buildings £ million	Long and short leasehold £ million	Plant and machinery £ million	Assets in the course of construction £ million	Total £ million
Cost					
At 1st April 2015	492.2	17.4	1,529.6	110.5	2,149.7
Additions	3.6	3.0	58.8	125.1	190.5
Acquisitions	–	0.1	2.7	–	2.8
Reclassifications	14.0	1.7	68.2	(83.9)	–
Disposals	(0.8)	–	(25.0)	(0.1)	(25.9)
Sale of business	–	–	–	(0.2)	(0.2)
Exchange adjustments	14.7	0.6	25.9	2.8	44.0
At 31st March 2016	523.7	22.8	1,660.2	154.2	2,360.9
Additions	3.2	0.3	38.3	156.0	197.8
Acquisitions (note 36)	0.1	–	0.8	–	0.9
Reclassifications	15.3	1.7	70.1	(87.1)	–
Disposals	(0.6)	(0.2)	(22.8)	(0.4)	(24.0)
Exchange adjustments	46.4	2.6	136.1	13.9	199.0
At 31st March 2017	588.1	27.2	1,882.7	236.6	2,734.6
Accumulated depreciation and impairment					
At 1st April 2015	167.7	7.6	892.3	1.3	1,068.9
Charge for the year	16.7	1.4	109.8	–	127.9
Impairment losses	16.6	2.3	56.2	3.6	78.7
Disposals	(0.8)	–	(24.1)	–	(24.9)
Sale of business	–	0.1	0.7	–	0.8
Exchange adjustments	6.3	0.4	16.4	0.1	23.2
At 31st March 2016	206.5	11.8	1,051.3	5.0	1,274.6
Charge for the year	18.4	2.3	118.2	–	138.9
Impairment losses	–	0.2	0.1	–	0.3
Reversal of impairment losses	–	–	(1.5)	–	(1.5)
Disposals	(0.5)	(0.2)	(21.4)	–	(22.1)
Exchange adjustments	19.8	1.4	87.5	0.6	109.3
At 31st March 2017	244.2	15.5	1,234.2	5.6	1,499.5
Carrying amount at 31st March 2017	**343.9**	**11.7**	**648.5**	**231.0**	**1,235.1**
Carrying amount at 31st March 2016	317.2	11.0	608.9	149.2	1,086.3
Carrying amount at 1st April 2015	324.5	9.8	637.3	109.2	1,080.8

The carrying amount of plant and machinery includes £0.2 million (2016: £0.5 million) in respect of assets held under finance leases.

Compensation received for impaired or lost property, plant and equipment was £0.3 million (2016: £0.2 million).

Finance costs capitalised were £4.7 million (2016: £2.2 million) and the capitalisation rate used to determine the amount of finance costs eligible for capitalisation was 3.5% (2016: 4.0%).

The impairment losses and reversal of impairment losses are adjustments made to last year's major impairment and restructuring charges (2016: all the impairment losses were included in major impairment and restructuring charges, except for £0.1 million of plant and equipment and £0.3 million of assets in the course of construction that were impaired as a result of the sale of Fine Chemicals' Research Chemicals business and so were included in profit on sale or liquidation of businesses).

Notes on the Accounts

for the year ended 31st March 2017

16 Property, plant and equipment (continued)

16b Parent company

	Freehold land and buildings £ million	Long and short leasehold £ million	Plant and machinery £ million	Assets in the course of construction £ million	Total £ million
Cost					
At 1st April 2015	121.3	1.4	473.2	16.6	612.5
Additions	1.2	–	36.7	13.2	51.1
Acquisitions	–	–	0.4	–	0.4
Reclassifications	1.5	0.2	10.7	(12.4)	–
Disposals	–	–	(6.5)	–	(6.5)
At 31st March 2016	124.0	1.6	514.5	17.4	657.5
Additions	2.5	–	13.1	20.7	36.3
Reclassifications	(0.2)	0.5	7.1	(7.4)	–
Disposals	(0.3)	–	(6.5)	(0.2)	(7.0)
At 31st March 2017	126.0	2.1	528.2	30.5	686.8
Accumulated depreciation and impairment					
At 1st April 2015	46.3	0.5	276.1	–	322.9
Charge for the year	3.5	0.2	31.6	–	35.3
Impairment losses	–	–	20.5	0.6	21.1
Disposals	–	–	(5.9)	–	(5.9)
At 31st March 2016	49.8	0.7	322.3	0.6	373.4
Charge for the year	4.2	0.1	32.4	–	36.7
Disposals	(0.3)	–	(5.4)	–	(5.7)
At 31st March 2017	53.7	0.8	349.3	0.6	404.4
Carrying amount at 31st March 2017	**72.3**	**1.3**	**178.9**	**29.9**	**282.4**
Carrying amount at 31st March 2016	74.2	0.9	192.2	16.8	284.1
Carrying amount at 1st April 2015	75.0	0.9	197.1	16.6	289.6

The carrying amount of plant and machinery includes £0.1 million (2016: £0.4 million) in respect of assets held under finance leases.

Finance costs capitalised were £2.2 million (2016: £1.8 million) and the capitalisation rate used to determine the amount of finance costs eligible for capitalisation was 3.5% (2016: 4.0%).

17 Goodwill

	Group £ million	Parent company £ million
Cost		
At 1st April 2015	547.2	121.1
Acquisitions	8.4	2.3
Exchange adjustments	14.4	–
At 31st March 2016	570.0	123.4
Acquisitions (note 36)	7.4	–
Exchange adjustments	29.7	–
At 31st March 2017	607.1	123.4
Impairment		
At 1st April 2015, 31st March 2016 and 31st March 2017	–	–
Carrying amount at 31st March 2017	**607.1**	**123.4**
Carrying amount at 31st March 2016	570.0	123.4
Carrying amount at 1st April 2015	547.2	121.1

Notes on the Accounts

for the year ended 31st March 2017

17 Goodwill (continued)

Goodwill arising on the acquisition of businesses is allocated, at acquisition, to the cash-generating units (CGUs) that are expected to benefit from that business combination. Goodwill is allocated as follows:

	Group		Parent company	
	2017 £ million	2016 £ million	**2017 £ million**	2016 £ million
Emission Control Technologies – Non-light Duty Catalysts	**84.7**	77.5	**–**	–
Process Technologies	**324.5**	309.3	**112.6**	112.6
Precious Metal Products	**9.1**	8.2	**–**	–
Fine Chemicals				
Macfarlan Smith	**117.1**	117.1	**–**	–
Pharmaceutical Materials and Services	**28.6**	25.1	**1.7**	1.7
Other	**1.4**	1.3	**0.6**	0.6
New Businesses				
Battery Technologies	**21.8**	21.5	**8.2**	8.2
Other	**19.9**	10.0	**0.3**	0.3
	607.1	570.0	**123.4**	123.4

The group and parent company test goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired. The recoverable amounts of the CGUs are determined using value in use calculations which use cash flow projections based on financial budgets and plans approved by management, covering a three year period. The budgets and plans are based on a number of key assumptions. Assumptions on the likelihood and timing of new product launches are based on management's best estimate of what may happen. Foreign exchange rates are based on actual forward rates at the time the budgets were prepared and are held constant over the budget and plan years. Other assumptions such as market share, expected changes to selling prices, product profitability, precious metal prices and other direct input costs are based on past experience and management's expectations of future changes in the markets using external sources of information where appropriate. These cash flows are then extrapolated using the long term average growth rates for the relevant products, industries and countries in which the CGUs operate. The cash flows are discounted at the group's estimated pre-tax weighted average cost of capital adjusted for the estimated tax cash flows and risk applicable to each CGU.

The key assumptions were:

	Discount rate		Long term growth rate	
	2017	2016	**2017**	2016
Emission Control Technologies – Non-light Duty Catalysts	**9.5%**	9.2%	**1.6%**	3.0%
Process Technologies	**9.9%**	9.3%	**2.9%**	2.9%
Fine Chemicals				
Macfarlan Smith	**7.4%**	7.5%	**3.2%**	3.2%
Pharmaceutical Materials and Services	**9.2%**	9.1%	**3.2%**	3.2%
New Businesses – Battery Technologies	**12.6%**	11.6%	**5.0%**	5.0%

For the Emission Control Technologies – Non-light Duty Catalysts CGU the growth rate for years four to ten is expected to be 3.0% (2016: 3.0%). After that growth is expected to slow and so the long term growth rate above is used for year eleven onwards.

For the Battery Technologies CGU the long term growth rate above is used for year eleven onwards. Over the next decade management expects the business to grow rapidly as its portfolio of battery materials is developed and so the cash flow projections for years four to ten have been extrapolated using a 15.0% (2016: 15.0%) growth rate.

All the impairment tests result in headroom of more than 40% over the carrying value of the relevant CGU's net assets and so it is unlikely that a reasonably possible change in a key assumption would result in an impairment of goodwill.

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18 Other intangible assets

18a Group

	Customer contracts and relationships £ million	Computer software £ million	Patents, trademarks and licences £ million	Acquired research and technology £ million	Development expenditure £ million	Total £ million
Cost						
At 1st April 2015	133.2	68.9	39.8	57.9	123.7	423.5
Additions	–	53.2	0.1	–	13.2	66.5
Acquisitions	7.9	(0.3)	–	0.8	–	8.4
Disposals	–	(6.5)	–	(0.5)	–	(7.0)
Exchange adjustments	8.8	0.6	1.1	2.5	4.6	17.6
At 31st March 2016	149.9	115.9	41.0	60.7	141.5	509.0
Additions	–	34.6	13.4	–	18.9	66.9
Acquisitions (note 36)	1.3	0.3	13.4	0.5	–	15.5
Disposals	–	(1.2)	–	–	–	(1.2)
Exchange adjustments	12.5	4.3	3.2	3.5	15.5	39.0
At 31st March 2017	163.7	153.9	71.0	64.7	175.9	629.2
Accumulated amortisation and impairment						
At 1st April 2015	72.8	46.4	20.3	17.9	78.6	236.0
Charge for the year	9.0	4.0	3.2	6.8	6.7	29.7
Impairment losses	2.1	0.9	–	0.5	11.9	15.4
Disposals	–	(6.4)	–	(0.5)	–	(6.9)
Exchange adjustments	4.6	0.3	0.9	1.1	2.9	9.8
At 31st March 2016	88.5	45.2	24.4	25.8	100.1	284.0
Charge for the year	9.2	4.7	3.7	7.6	7.7	32.9
Disposals	–	(1.1)	–	–	–	(1.1)
Exchange adjustments	8.2	3.3	2.0	1.7	9.9	25.1
At 31st March 2017	105.9	52.1	30.1	35.1	117.7	340.9
Carrying amount at 31st March 2017	**57.8**	**101.8**	**40.9**	**29.6**	**58.2**	**288.3**
Carrying amount at 31st March 2016	61.4	70.7	16.6	34.9	41.4	225.0
Carrying amount at 1st April 2015	60.4	22.5	19.5	40.0	45.1	187.5

Notes on the Accounts

for the year ended 31st March 2017

18 Other intangible assets (continued)

18b Parent company

	Customer contracts and relationships £ million	Computer software £ million	Patents, trademarks and licences £ million	Acquired research and technology £ million	Development expenditure £ million	Total £ million
Cost						
At 1st April 2015	–	32.7	6.9	11.4	10.1	61.1
Additions	–	47.6	0.1	–	1.1	48.8
Acquisitions	0.4	–	–	–	–	0.4
Disposals	–	(0.9)	–	–	–	(0.9)
At 31st March 2016	0.4	79.4	7.0	11.4	11.2	109.4
Additions	–	33.2	26.8	–	1.2	61.2
Disposals	–	(0.2)	–	–	–	(0.2)
At 31st March 2017	0.4	112.4	33.8	11.4	12.4	170.4
Accumulated amortisation and impairment						
At 1st April 2015	–	17.7	0.4	0.4	7.6	26.1
Charge for the year	–	1.5	0.6	1.0	0.5	3.6
Impairment losses	–	0.5	–	–	–	0.5
Disposals	–	(0.9)	–	–	–	(0.9)
At 31st March 2016	–	18.8	1.0	1.4	8.1	29.3
Charge for the year	0.1	1.5	1.2	1.0	0.4	4.2
Disposals	–	(0.2)	–	–	–	(0.2)
At 31st March 2017	0.1	20.1	2.2	2.4	8.5	33.3
Carrying amount at 31st March 2017	**0.3**	**92.3**	**31.6**	**9.0**	**3.9**	**137.1**
Carrying amount at 31st March 2016	0.4	60.6	6.0	10.0	3.1	80.1
Carrying amount at 1st April 2015	–	15.0	6.5	11.0	2.5	35.0

19 Investments in subsidiaries

	Cost of investments in subsidiaries £ million	Accumulated impairment £ million	Carrying amount £ million
At 1st April 2015	2,067.4	(186.2)	1,881.2
Additions	225.7	–	225.7
Impairment loss	–	(6.2)	(6.2)
Disposals	(50.7)	–	(50.7)
At 31st March 2016	2,242.4	(192.4)	2,050.0
Additions	12.4	–	12.4
At 31st March 2017	**2,254.8**	**(192.4)**	**2,062.4**

The subsidiaries are shown in note 41.

Notes on the Accounts

for the year ended 31st March 2017

20 Investments in joint venture and associate

	2017 £ million	2016 £ million
Investment in joint venture	**5.6**	4.2
Investment in associate	**16.0**	15.9
At end of year	**21.6**	20.1

The movements in the year were:

	Joint venture £ million	Associate £ million	Total £ million
At 1st April 2015	3.9	–	3.9
Group's share of profit / (loss) for the year	0.6	(0.6)	–
Group's share of other comprehensive income – currency translation differences	–	0.3	0.3
Group's share of total comprehensive income	0.6	(0.3)	0.3
Dividends	(0.3)	–	(0.3)
Additions	–	16.2	16.2
At 31st March 2016	4.2	15.9	20.1
Group's share of profit / (loss) for the year	1.0	(0.8)	0.2
Group's share of other comprehensive income – currency translation differences	0.4	0.9	1.3
Group's share of total comprehensive income	1.4	0.1	1.5
At 31st March 2017	**5.6**	**16.0**	**21.6**

The group has an 11.1% interest in the ordinary share capital of Shanghai Bi Ke Clean Energy Technology Co Ltd (CECC). In addition, Johnson Matthey Plc has a revenue share agreement with CECC. This agreement and the requirement for unanimous board decisions ensure that the group has a significant influence in CECC and so it is accounted for as an investment in associate. In the parent company, the revenue share agreement is accounted for as a non-current available-for-sale investment (note 21).

21 Non-current available-for-sale investments

	Group		Parent company	
	2017 £ million	2016 £ million	2017 £ million	2016 £ million
Quoted bonds purchased to fund pension deficit	**54.1**	49.9	**–**	–
Other quoted investments	**0.3**	0.8	**–**	–
Unquoted investments	**3.6**	5.9	**7.1**	7.1
	58.0	56.6	**7.1**	7.1

The quoted bonds and other quoted investments are measured at fair value using level 1 inputs (note 27). There is no active market for the unquoted investments since they are investments in a company that is in the start up phase and in investment vehicles that invest in start up companies and are categorised as level 3 (note 27). The parent company's investment is the revenue share agreement with CECC (note 20). Movements in the unquoted investments in the year are shown below but, given their size, it would be overly onerous to provide additional detail.

	Group £ million	Parent company £ million
At 1st April 2015	8.4	–
Purchases	–	4.1
Fair value (loss) / gain recognised in other comprehensive income	(2.5)	3.0
At 31st March 2016	5.9	7.1
Impairment loss	(2.3)	–
At 31st March 2017	**3.6**	**7.1**

Notes on the Accounts

for the year ended 31st March 2017

22 Inventories

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Raw materials and consumables	**235.2**	195.1	**28.2**	27.2
Work in progress	**257.2**	203.7	**27.1**	33.5
Finished goods and goods for resale	**279.9**	254.9	**68.5**	62.7
	772.3	653.7	**123.8**	123.4

The group also holds customers' materials in the process of refining and fabrication and for other reasons.

23 Trade and other receivables

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Current				
Trade receivables	**951.0**	774.1	**164.2**	147.2
Amounts receivable from long term contract customers	**13.9**	17.3	**1.1**	–
Amounts receivable from subsidiaries	**–**	–	**907.6**	706.0
Prepayments and accrued income	**73.3**	69.3	**16.2**	25.3
Value added tax and other sales tax receivable	**44.5**	44.2	**13.8**	10.5
Other receivables	**56.7**	43.1	**36.5**	79.6
Current trade and other receivables	**1,139.4**	948.0	**1,139.4**	968.6
Non-current				
Amounts receivable from subsidiaries	**–**	–	**1,080.5**	1,040.2
Prepayments and accrued income	**27.5**	15.4	**39.9**	40.9
Other receivables	**0.2**	0.2	**–**	–
Non-current trade and other receivables	**27.7**	15.6	**1,120.4**	1,081.1

24 Trade and other payables

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Current				
Trade payables	**529.1**	454.2	**159.6**	144.1
Amounts payable to long term contract customers	**31.0**	40.7	**–**	–
Amounts payable to subsidiaries	**–**	–	**2,295.0**	2,095.0
Accruals and deferred income	**314.6**	254.9	**96.2**	88.5
Other payables	**93.6**	62.5	**28.6**	23.6
Current trade and other payables	**968.3**	812.3	**2,579.4**	2,351.2
Non-current				
Amounts payable to subsidiaries	**–**	–	**505.4**	478.1
Accruals and deferred income	**0.2**	0.2	**–**	–
Other payables	**5.7**	5.7	**3.3**	3.0
Non-current trade and other payables	**5.9**	5.9	**508.7**	481.1

Notes on the Accounts

for the year ended 31st March 2017

25 Long term contracts

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Contract revenue recognised	**60.6**	79.4	**1.1**	–
Contracts in progress at the year end:				
Costs incurred plus recognised profits less recognised losses to date	**265.0**	337.7	**0.8**	–
Amount of advances received	**27.6**	42.8	**0.5**	–

26 Net debt

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Non-current borrowings, finance leases and related swaps				
Bank, other loans and related swaps				
3.39% US Dollar Bonds 2028	**148.2**	125.1	**148.2**	125.1
3.14% US Dollar Bonds 2025	**104.3**	90.6	**104.3**	90.6
3.565% KfW IPEX-Bank GmbH (KfW) US dollar loan 2024	**40.1**	–	**40.1**	–
3.57% Sterling Bonds 2024	**65.0**	65.0	**65.0**	65.0
2.44% Euro Bonds 2023	**17.2**	15.8	**17.2**	15.8
2.99% US Dollar Bonds 2023	**132.4**	115.0	**132.4**	115.0
3.26% US Dollar Bonds 2022	**122.9**	110.9	**122.9**	110.9
Euro European Investment Bank (EIB) loan 2022	**142.1**	130.8	**142.1**	130.8
4.66% Euro Bonds 2021	**85.8**	79.0	**85.8**	79.0
KfW US dollar loan 2020	**40.1**	–	**40.1**	–
1.945% EIB loan 2019	**106.4**	97.9	**106.4**	97.9
Cross currency interest rate swaps designated as net investment hedges	**6.8**	1.4	**6.8**	1.4
Other repayable from two to three years	**–**	1.8	**–**	1.8
Other repayable from one to two years	**0.1**	2.4	**–**	1.8
Finance leases repayable				
From one to two years	**0.1**	0.2	**–**	0.2
Non-current borrowings, finance leases and related swaps	**1,011.5**	835.9	**1,011.3**	835.3
Current borrowings, finance leases and related swaps				
5.67% US Dollar Bonds 2016	**–**	108.3	**–**	108.3
Other bank and other loans	**20.0**	29.6	**1.8**	2.1
Other interest rate swaps held for trading	**–**	0.2	**–**	0.2
Finance leases	**0.2**	0.4	**0.2**	0.4
Current borrowings, finance leases and related swaps excluding bank overdrafts	**20.2**	138.5	**2.0**	111.0
Bank overdrafts	**31.8**	20.7	**15.5**	13.4
Current borrowings, finance leases and related swaps	**52.0**	159.2	**17.5**	124.4
Total borrowings and finance leases	**1,063.5**	995.1	**1,028.8**	959.7
Less interest rate swaps designated as fair value hedges	**2.5**	7.5	**2.5**	7.5
Less interest rate swaps designated as fair value hedges – short term	**–**	2.3	**–**	2.3
Less cross currency interest rate swaps designated as cash flow hedges	**14.9**	3.6	**14.9**	3.6
Less other interest rate swaps classified as held for trading – short term	**–**	2.3	**–**	2.3
Less cash and deposits	**330.4**	304.5	**247.7**	226.9
Net debt	**715.7**	674.9	**763.7**	717.1

The 3.26% US Dollar Bonds 2022 have been swapped into floating rate US dollars. US $100.0 million of the 3.14% US Dollar Bonds 2025 have been swapped into sterling at 2.83%. The interest rate implicit in the finance leases is 5.9% and the lease term ends in 2017. Apart from the bonds, the 2024 KfW loan, the 2019 EIB loan and finance leases shown separately above, plus two loans with a book value of £2.0 million and an average interest rate of 6.3%, all the loans, overdrafts and bank deposits are denominated in various currencies and bear interest at commercial floating rates.

The cross currency and interest rate swaps are measured at fair value using level 2 inputs (note 27). The bonds which are designated as being fair value hedged are remeasured for the fair value changes in respect of the hedged risk using level 2 inputs. The fair values are estimated by discounting the future contractual cash flows using appropriate market sourced data at the balance sheet date.

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for the year ended 31st March 2017

27 Other financial assets and liabilities

	Group		Parent company	
	2017 £ million	2016 £ million	**2017 £ million**	2016 £ million
Other financial assets				
Forward foreign exchange contracts and options designated as cash flow hedges	**3.8**	2.7	**3.8**	3.5
Forward precious metal price contracts designated as cash flow hedges	**–**	3.1	**–**	3.1
Forward foreign exchange contracts and currency swaps held for trading	**3.7**	2.6	**3.8**	2.6
Embedded derivatives	**–**	0.1	**–**	–
Other financial assets	**7.5**	8.5	**7.6**	9.2
Other financial liabilities				
Forward foreign exchange contracts and options designated as cash flow hedges	**(6.3)**	(11.6)	**(7.0)**	(12.4)
Forward precious metal price contracts designated as cash flow hedges	**(1.5)**	–	**(1.5)**	–
Forward foreign exchange contracts and currency swaps held for trading	**(6.4)**	(5.8)	**(7.2)**	(6.6)
Foreign exchange swaps designated as hedges of a net investment in foreign operations	**(0.7)**	(0.5)	**–**	–
Other financial liabilities	**(14.9)**	(17.9)	**(15.7)**	(19.0)

Fair values are measured using a hierarchy where the inputs are:
- Level 1 – quoted prices in active markets for identical assets or liabilities.
- Level 2 – not level 1 but are observable for that asset or liability either directly or indirectly.
- Level 3 – not based on observable market data (unobservable).

Of the other financial assets listed above, all are measured at fair value using level 2 inputs. All other financial liabilities are measured at fair value using level 2 inputs.

The fair value of forward foreign exchange contracts, forward precious metal price contracts and currency swaps is estimated by discounting the future contractual cash flows using appropriate market sourced data at the balance sheet date.

28 Financial risk management

The group's and parent company's activities expose them to a variety of financial risks including credit risk, market risk and liquidity risk. Market risk includes currency risk, interest rate risk and price risk. The main financial risks managed by the group and parent company, under policies approved by the board, are foreign currency risk, interest rate risk, liquidity risk and credit risk. The group and parent company use derivative financial instruments, in particular forward currency contracts and currency swaps, to manage their financial risks associated with their underlying business activities and the financing of those activities. Some derivative financial instruments used to manage financial risk are not designated as hedges and so are classified as 'held for trading'. The group and parent company do not undertake any speculative trading activity in financial instruments.

28a Credit risk

Within certain businesses, the group and parent company derive a significant proportion of their revenue from sales to major customers. Sales to individual customers are frequently high if the value of precious metals is included in the price. The failure of any such company to honour its debts could materially impact the group's and parent company's results. The group and parent company derive significant benefit from trading with their large customers and manage the risk at many levels. Each business and division has a credit committee that regularly monitors its exposure. The Audit Committee receives a report every six months that details all significant credit limits, amounts due and amounts overdue within the group and the relevant actions being taken. At 31st March 2017 trade receivables for the group amounted to £951.0 million (2016: £774.1 million) (parent company £164.2 million (2016: £147.2 million)). £690.7 million (2016: £561.7 million) of these receivables at group level (£101.3 million (2016: £102.9 million) at parent company level) arose in Emission Control Technologies (ECT) which mainly supplies the automotive industry including car and truck manufacturers and component suppliers. Although ECT has a wide spread of the available customers, the concentrated nature of this industry means that amounts owed by individual customers can be large. Other parts of the group tend to sell to a larger number of customers and amounts owed tend to be lower. As at 31st March 2017 (and at 31st March 2016) for the group as a whole, no single outstanding balance exceeded 2% of the group's revenue. No assets have been taken possession of as collateral.

The credit profiles of the group's and parent company's customers are obtained from credit rating agencies and are closely monitored. The scope of these reviews includes amounts overdue and credit limits. Generally, payments in the automotive industry and in the other markets in which the group operates are made promptly.

Notes on the Accounts

for the year ended 31st March 2017

28 Financial risk management (continued)

28a Credit risk (continued)

Trade receivables are considered impaired when the amount is in dispute, customers are in financial difficulty or for other reasons which imply there is doubt over the recoverability of the debt. Trade receivables can be analysed as:

	Group		Parent company	
	2017 £ million	2016 £ million	**2017 £ million**	2016 £ million
Amounts neither past due nor impaired	**885.1**	711.9	**148.9**	132.1
Amounts past due but not impaired				
less than 30 days	**50.0**	45.9	**11.2**	10.4
30 – 90 days	**9.1**	9.6	**1.7**	3.5
more than 90 days	**6.6**	7.4	**1.9**	1.2
Total past due but not impaired	**65.7**	62.9	**14.8**	15.1
Amounts impaired	**6.9**	6.6	**1.7**	1.2
Specific allowances for bad and doubtful debts	**(6.3)**	(6.6)	**(1.2)**	(1.2)
Carrying amount of impaired receivables	**0.6**	–	**0.5**	–
Other allowances for bad and doubtful debts	**(0.4)**	(0.7)	**–**	–
Trade receivables net of allowances	**951.0**	774.1	**164.2**	147.2

Movements in the allowances for impairments were:

	Group		Parent company	
	2017 £ million	2016 £ million	**2017 £ million**	2016 £ million
At beginning of year	**7.3**	4.9	**1.2**	1.0
Charge for year	**2.5**	4.9	**0.2**	0.4
Acquisitions	**0.1**	–	**–**	–
Released	**(2.4)**	(1.2)	**(0.2)**	(0.2)
Utilised	**(1.5)**	(1.4)	**–**	–
Exchange adjustments	**0.7**	0.1	**–**	–
At end of year	**6.7**	7.3	**1.2**	1.2

The group's financial assets included in sundry receivables are all current and not impaired. Of the parent company's amounts receivable from subsidiaries £127.7 million is impaired (2016: £127.7 million).

The credit risk on cash and deposits and derivative financial instruments is limited because the counterparties with significant balances are banks with high credit ratings. The exposure to individual banks is monitored frequently against internally defined limits together with the bank's credit ratings and credit default swap prices. As at 31st March 2017, the maximum exposure with a single bank for deposits was £48.5 million (2016: £45.9 million) for the group and £21.9 million (2016: £12.0 million) for the parent company, whilst the largest mark to market exposure for derivative financial instruments to a single bank was £9.6 million (2016: £7.9 million) for the group and parent company. The group and parent company also use money market funds to invest surplus cash thereby further diversifying credit risk and at 31st March 2017 the group's and parent company's exposure to these funds was £211.0 million (2016: £210.8 million). The amounts on deposit at the year end represent the group's and parent company's maximum exposure to credit risk on cash and deposits.

The parent company also guarantees some of its subsidiaries' borrowings, partly through interest netting arrangements, payables and precious metal leases and its exposure at 31st March 2017 was £28.2 million (2016: £27.5 million).

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for the year ended 31st March 2017

28 Financial risk management (continued)

28b Foreign currency risk

The group operates globally with a significant amount of its profit earned outside the UK. In order to protect the group's sterling balance sheet and reduce cash flow risk, the group has financed most of its investment in the USA and Europe by borrowing US dollars and euros respectively. Although much of this funding is obtained by directly borrowing the relevant currency, a part is achieved through currency swaps which can be more efficient and reduce costs. To a lesser extent the group has also financed a portion of its investment in China using a currency swap. The group has designated the currency swaps, a US dollar loan and a euro loan (fair value of the loans was £66.6 million (2016: a US dollar loan and a euro loan with fair value of £58.7 million)) as hedges of net investments in foreign operations as they hedge the changes in values of the subsidiaries' net assets against movements in exchange rates.

The main currencies of the net debt after taking into account the effect of the currency swaps were:

	Group		Group		Parent company		Parent company	
	Borrowings 2017 £ million	Borrowings 2016 £ million	**Cash 2017 £ million**	Cash 2016 £ million	**Borrowings 2017 £ million**	Borrowings 2016 £ million	**Cash 2017 £ million**	Cash 2016 £ million
Sterling	**153.8**	156.2	**955.8**	737.0	**140.7**	142.6	**967.0**	745.5
US dollar	**910.5**	764.3	**111.0**	79.4	**913.8**	766.1	**97.2**	72.9
Euro	**740.7**	609.2	**5.7**	5.8	**740.6**	609.2	**0.3**	–
Hong Kong dollar	**78.4**	62.8	**–**	–	**78.4**	65.4	**–**	–
Chinese renminbi	**40.4**	38.0	**66.3**	60.4	**40.3**	37.7	**25.8**	19.2
Swedish krona	**0.9**	–	**66.2**	63.8	**0.9**	–	**66.0**	63.7
Canadian dollar	**–**	0.1	**24.1**	8.6	**–**	–	**24.0**	8.5
Indian rupee	**14.2**	6.2	**16.0**	10.9	**–**	–	**–**	–
South African rand	**14.8**	18.3	**5.8**	9.4	**14.8**	18.3	**0.4**	0.1
Brazilian real	**3.1**	7.0	**12.7**	9.9	**–**	–	**11.7**	8.3
Swiss franc	**7.3**	10.3	**0.4**	0.5	**7.3**	10.3	**–**	–
Japanese yen	**5.6**	2.7	**0.5**	7.6	**5.6**	2.6	**0.5**	5.3
Argentinian peso	**5.4**	10.4	**0.7**	0.1	**–**	–	**–**	–
Polish zloty	**4.0**	5.3	**–**	–	**4.0**	5.3	**–**	–
Malaysian ringgit	**0.7**	0.5	**1.8**	19.5	**0.7**	–	**–**	18.1
Other currencies	**11.8**	5.1	**8.9**	8.6	**9.8**	3.6	**0.3**	2.4
	1,991.6	1,696.4	**1,275.9**	1,021.5	**1,956.9**	1,661.1	**1,193.2**	944.0

The group and parent company use forward exchange contracts, and occasionally purchased currency options, to hedge foreign exchange exposures arising on forecast receipts and payments in foreign currencies. These are designated and accounted for as cash flow hedges. The majority of the cash flows are expected to occur and the hedge effect realised in the income statement in the year ending 31st March 2018.

The main impact of movements in exchange rates on the group's results arises on translation of overseas subsidiaries' profits into sterling. The group's largest exposure is to the US dollar and a 5% (6.5 cent (2016: 7.6 cent)) movement in the average exchange rate for the US dollar against sterling would have had a £10.4 million (2016: £9.8 million) impact on operating profit. The group is also exposed to the euro and a 5% (6.0 cent (2016: 6.8 cent)) movement in the average exchange rate for the euro against sterling would have had a £9.5 million (2016: £6.8 million) impact on operating profit. This exposure is part of the group's economic risk of operating globally which is essential to remain competitive in the markets in which the group operates.

For financial instruments the main exposures are to the US dollar and euro and are due to loans, swaps and cash flow hedges on forecast receipts and payments. A 5% (6.2 cent (2016: 7.2 cent)) movement in the closing exchange rate for the US dollar against sterling would have had a £2.1 million (2016: £4.5 million) impact on operating profit and a £42.3 million (2016: £36.6 million) impact on equity for these instruments. A 5% (5.8 cent (2016: 6.3 cent)) movement in the closing exchange rate for the euro against sterling would have had a £6.8 million (2016: £6.0 million) impact on operating profit and a £43.0 million (2016: £36.9 million) impact on equity for these instruments. However, the impact on operating profit relates primarily to the cash flow hedging instruments hedging the forecast receipts and payments whose cash flows have occurred in the year and so would be offset by similar movements in the hedged items. Similarly, the impact on equity relates primarily to foreign exchange positions used to hedge the subsidiaries' net assets and so would be offset by an equal and opposite movement in the value of the relevant subsidiaries' net assets. The remaining impact on equity of £2.4 million (2016: £2.1 million) for the US dollar and £6.3 million (2016: £6.8 million) for the euro relates to cash flow hedging instruments hedging the forecast receipts and payments whose cash flows have yet to occur.

Notes on the Accounts

for the year ended 31st March 2017

28 Financial risk management (continued)

28c Interest rate risk

The group's and parent company's interest rate risk arises from their fixed rate borrowings (fair value risk) and floating rate borrowings (cash flow risk). Their policy is to optimise interest cost and reduce volatility in reported earnings and equity. They manage their risk by reviewing the profile of their debt regularly and by selectively using interest rate and cross currency swaps to maintain borrowings in appropriate currencies and at competitive rates. The group and parent company have designated one (2016: three) US dollar fixed rate to US dollar floating rate swap as a fair value hedge as it hedges the changes in fair value of bonds attributable to changes in interest rates. The losses on the interest rate swaps in the year ended 31st March 2017 were £7.5 million (2016: £0.2 million) and the gains on the bonds attributable to the hedged risk were £6.4 million (2016: £0.6 million). The group and parent company have designated the US dollar fixed interest rate to sterling fixed interest rate cross currency swap as a cash flow hedge as it hedges the movement in the cash flows of the hedged bond attributable to changes in the US dollar / sterling exchange rate. Its cash flows are expected to occur in 2025 when the bond which it hedges matures and so the exchange effect on it is expected to be realised in the income statement in 2025. The interest element is realised in the income statement each year. At 31st March 2017, 99% (2016: 96%) of the group's net debt and 92% (2016: 90%) of the parent company's net debt were at fixed rates with an average interest rate of 3.07% (2016: 2.99%). The remaining debt is funded on a floating rate basis. Based on the group's net debt funded at floating rates, after taking into account the effect of the swaps, a 1% change in all interest rates would have a £0.1 million (2016: £0.2 million) impact on the group's profit before tax. This is within the range the board regards as acceptable.

28d Fair value of financial instruments

The fair value of financial instruments is approximately equal to book value except for:

Group	**2017** Carrying amount £ million	**2017** Fair value £ million	2016 Carrying amount £ million	2016 Fair value £ million
US Dollar Bonds 2016, 2022, 2023, 2025 and 2028	**(507.8)**	**(503.2)**	(549.9)	(550.8)
Euro Bonds 2021 and 2023	**(103.0)**	**(119.6)**	(94.8)	(111.8)
Euro EIB loan 2019	**(106.4)**	**(111.8)**	(97.9)	(103.1)
Sterling Bonds 2024	**(65.0)**	**(73.8)**	(65.0)	(69.4)
KfW US dollar loan 2024	**(40.1)**	**(41.7)**	–	–
Other	**(2.0)**	**(2.0)**	(6.4)	(6.1)

Parent company	**2017** Carrying amount £ million	**2017** Fair value £ million	2016 Carrying amount £ million	2016 Fair value £ million
Amounts receivable from subsidiaries	**1,988.1**	**2,076.8**	1,746.2	1,835.2
US Dollar Bonds 2016, 2022, 2023, 2025 and 2028	**(507.8)**	**(503.2)**	(549.9)	(550.8)
Euro Bonds 2021 and 2023	**(103.0)**	**(119.6)**	(94.8)	(111.8)
Euro EIB loan 2019	**(106.4)**	**(111.8)**	(97.9)	(103.1)
Sterling Bonds 2024	**(65.0)**	**(73.8)**	(65.0)	(69.4)
KfW US dollar loan 2024	**(40.1)**	**(41.7)**	–	–
Other	**(2.0)**	**(2.0)**	(5.7)	(5.7)

The fair values are calculated using level 2 inputs (note 27) by discounting future cash flows to net present values using appropriate market interest rates prevailing at the year end.

There were no transfers of any financial instrument between the levels of the fair value hierarchy (note 27) during the year.

28e Liquidity risk

The group's and parent company's policy on funding capacity is to ensure that they always have sufficient long term funding and committed bank facilities in place to meet foreseeable peak borrowing requirements. At 31st March 2017 the group and parent company had borrowings under committed bank facilities of £ nil (2016: £ nil). The group and parent company also have a number of uncommitted facilities, including metal leases, and overdraft lines at their disposal.

	Group **2017** £ million	Group 2016 £ million	Parent company **2017** £ million	Parent company 2016 £ million
Undrawn committed bank facilities				
Expiring in more than one year but not more than two years	**398.6**	372.1	**398.6**	372.1
Expiring in more than two years	**100.0**	100.0	**100.0**	100.0
	498.6	472.1	**498.6**	472.1

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for the year ended 31st March 2017

28 Financial risk management (continued)

28e Liquidity risk (continued)

The maturity analyses for financial liabilities showing the remaining contractual undiscounted cash flows, including future interest payments but excluding unamortised transaction costs, were:

Group as at 31st March 2017	Within 1 year £ million	1 to 2 years £ million	2 to 5 years £ million	After 5 years £ million	Total £ million
Bank overdrafts	**31.8**	**–**	**–**	**–**	**31.8**
Bank and other loans – principal	**20.0**	**1.5**	**232.4**	**760.1**	**1,014.0**
Bank and other loans – interest payments	**25.6**	**62.7**	**61.6**	**61.6**	**211.5**
Finance lease obligations	**0.2**	**0.1**	**–**	**–**	**0.3**
Financial liabilities in trade and other payables	**890.4**	**0.1**	**2.0**	**0.9**	**893.4**
Total non-derivative financial liabilities	**968.0**	**64.4**	**296.0**	**822.6**	**2,151.0**
Foreign exchange forwards, options and swaps – payments	**990.4**	**0.3**	**–**	**–**	**990.7**
Foreign exchange forwards, options and swaps – receipts	**(976.6)**	**(0.3)**	**–**	**–**	**(976.9)**
Total derivative financial liabilities	**13.8**	**–**	**–**	**–**	**13.8**

Group as at 31st March 2016	Within 1 year £ million	1 to 2 years £ million	2 to 5 years £ million	After 5 years £ million	Total £ million
Bank overdrafts	20.7	–	–	–	20.7
Bank and other loans – principal	134.4	1.9	178.8	644.3	959.4
Bank and other loans – interest payments	29.8	22.0	62.7	61.6	176.1
Finance lease obligations	0.4	0.2	–	–	0.6
Financial liabilities in trade and other payables	736.4	0.4	1.2	1.2	739.2
Total non-derivative financial liabilities	921.7	24.5	242.7	707.1	1,896.0
Foreign exchange forwards, options and swaps – payments	793.3	–	–	–	793.3
Foreign exchange forwards, options and swaps – receipts	(773.0)	–	–	–	(773.0)
Total derivative financial liabilities	20.3	–	–	–	20.3

Parent company as at 31st March 2017	Within 1 year £ million	1 to 2 years £ million	2 to 5 years £ million	After 5 years £ million	Total £ million
Bank overdrafts	**15.5**	**–**	**–**	**–**	**15.5**
Bank and other loans – principal	**1.8**	**1.5**	**232.4**	**760.1**	**995.8**
Bank and other loans – interest payments	**22.0**	**62.7**	**61.6**	**61.6**	**207.9**
Finance lease obligations	**0.2**	**–**	**–**	**–**	**0.2**
Financial liabilities in trade and other payables	**2,574.1**	**0.1**	**1.6**	**506.1**	**3,081.9**
Total non-derivative financial liabilities	**2,613.6**	**64.3**	**295.6**	**1,327.8**	**4,301.3**
Foreign exchange forwards, options and swaps – payments	**1,050.0**	**1.9**	**–**	**–**	**1,051.9**
Foreign exchange forwards, options and swaps – receipts	**(1,038.3)**	**(1.9)**	**–**	**–**	**(1,040.2)**
Total derivative financial liabilities	**11.7**	**–**	**–**	**–**	**11.7**

Parent company as at 31st March 2016	Within 1 year £ million	1 to 2 years £ million	2 to 5 years £ million	After 5 years £ million	Total £ million
Bank overdrafts	13.4	–	–	–	13.4
Bank and other loans – principal	106.7	1.8	178.8	644.3	931.6
Bank and other loans – interest payments	26.2	22.0	62.7	61.6	172.5
Finance lease obligations	0.4	0.2	–	–	0.6
Financial liabilities in trade and other payables	2,342.9	0.1	1.0	479.1	2,823.1
Total non-derivative financial liabilities	2,489.6	24.1	242.5	1,185.0	3,941.2
Foreign exchange forwards, options and swaps – payments	825.9	–	–	–	825.9
Foreign exchange forwards, options and swaps – receipts	(809.7)	–	–	–	(809.7)
Total derivative financial liabilities	16.2	–	–	–	16.2

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for the year ended 31st March 2017

28 Financial risk management (continued)

28f Offsetting financial assets and liabilities

The group and parent company only offset financial assets and liabilities when they currently have a legally enforceable right to offset the recognised amounts and they intend to either settle on a net basis or realise the asset and settle the liability simultaneously. The following financial assets and liabilities are subject to offsetting, enforceable master netting arrangements or similar agreements:

Group as at 31st March 2017	**Gross financial assets / (liabilities) £ million**	**Amounts set off £ million**	**Net amounts in balance sheet £ million**	**Related amounts not set off £ million**	**Net £ million**
Cash and cash equivalents – cash and deposits	**401.7**	**(71.3)**	**330.4**	**–**	**330.4**
Other financial assets	**7.5**	**–**	**7.5**	**(6.4)**	**1.1**
Cash and cash equivalents – bank overdrafts	**(103.1)**	**71.3**	**(31.8)**	**–**	**(31.8)**
Other financial liabilities	**(14.9)**	**–**	**(14.9)**	**6.4**	**(8.5)**

Group as at 31st March 2016	Gross financial assets / (liabilities) £ million	Amounts set off £ million	Net amounts in balance sheet £ million	Related amounts not set off £ million	Net £ million
Cash and cash equivalents – cash and deposits	362.6	(58.1)	304.5	–	304.5
Other financial assets	8.5	–	8.5	(4.9)	3.6
Cash and cash equivalents – bank overdrafts	(78.8)	58.1	(20.7)	–	(20.7)
Other financial liabilities	(17.9)	–	(17.9)	4.9	(13.0)

Parent company as at 31st March 2017	**Gross financial assets / (liabilities) £ million**	**Amounts set off £ million**	**Net amounts in balance sheet £ million**	**Related amounts not set off £ million**	**Net £ million**
Cash and cash equivalents – cash and deposits	**267.0**	**(19.3)**	**247.7**	**–**	**247.7**
Other financial assets	**7.6**	**–**	**7.6**	**(7.5)**	**0.1**
Cash and cash equivalents – bank overdrafts	**(34.8)**	**19.3**	**(15.5)**	**–**	**(15.5)**
Other financial liabilities	**(15.7)**	**–**	**(15.7)**	**7.5**	**(8.2)**

Parent company as at 31st March 2016	Gross financial assets / (liabilities) £ million	Amounts set off £ million	Net amounts in balance sheet £ million	Related amounts not set off £ million	Net £ million
Cash and cash equivalents – cash and deposits	243.1	(16.2)	226.9	–	226.9
Other financial assets	9.2	–	9.2	(5.1)	4.1
Cash and cash equivalents – bank overdrafts	(29.6)	16.2	(13.4)	–	(13.4)
Other financial liabilities	(19.0)	–	(19.0)	5.1	(13.9)

28g Capital management

The group's policy for managing capital is to maintain an efficient balance sheet to ensure that the group always has sufficient resources to be able to invest in future growth. The group has a long term target of a return on invested capital (underlying operating profit divided by average capital employed over the year) of 20% to ensure focus on efficient use of the group's capital. See the section on return on invested capital in the Financial Review on page 46 for more information. The group also has a long term target of net debt (including post tax pension deficits) to EBITDA of between 1.5 and 2.0 times although in any given year it may fall outside this range depending on future plans. See the section on capital structure in the Financial Review on page 46 for more information.

Net debt (including post tax pension deficits) is reduced for the quoted bonds purchased to fund the UK pension deficit. Since the UK pension plan is in surplus, the pension deficits do not include the UK plan and so an amendment has been made to the definition of net debt (including post tax pension deficits) to reduce it for these bonds (net of the related deferred tax) only when the UK pension plan is in deficit. As a result, the 2016 net debt (including post tax pension deficits) to EBITDA has been restated.

Notes on the Accounts

for the year ended 31st March 2017

28 Financial risk management (continued)

28g Capital management (continued)

	Group 2017 £ million	Group 2016 restated £ million
Average net debt	**878.5**	691.0
Average equity	**1,937.1**	1,909.2
Average capital employed	**2,815.6**	2,600.2
Net debt	**715.7**	674.9
Pension deficits	**55.6**	52.6
Bonds purchased to fund pensions (excluded when UK pension plan is in surplus)	**–**	–
Related deferred taxation	**(12.8)**	(28.4)
Net debt (including post tax pension deficits)	**758.5**	699.1
Operating profit	**493.2**	418.9
Add back depreciation and amortisation	**171.8**	157.6
Impairment of acquired intangibles	**–**	2.6
Profit on sale or liquidation of businesses	**–**	(130.0)
Major impairment and restructuring charges	**–**	141.0
Earnings before interest, tax, depreciation and amortisation (EBITDA)	**665.0**	590.1
Return on invested capital	**18.2%**	17.3%
Net debt (including post tax pension deficits) to EBITDA	**1.1 times**	1.2 times

29 Provisions and contingent liabilities

29a Group

	Restructuring provisions £ million	Warranty and technology provisions £ million	Other provisions £ million	Total £ million
At 1st April 2016	26.4	17.2	18.3	61.9
Charge for year	4.0	1.1	0.1	5.2
Acquisitions (note 36)	–	0.2	0.7	0.9
Utilised	(18.9)	(0.5)	(2.9)	(22.3)
Released	(0.6)	(7.2)	(2.6)	(10.4)
Unwinding of discount	–	–	0.7	0.7
Exchange adjustments	1.3	0.7	1.4	3.4
At 31st March 2017	**12.2**	**11.5**	**15.7**	**39.4**

	2017 £ million	2016 £ million
Current	**21.0**	41.3
Non-current	**18.4**	20.6
Total provisions	**39.4**	61.9

The restructuring provisions arise across the group and are expected to be fully spent by 31st March 2018.

The warranty and technology provisions represent management's best estimate of the group's liability under warranties granted and remedial work required under technology licences, based on past experience in Emission Control Technologies, Process Technologies and New Businesses. Warranties generally cover a period of up to three years.

The other provisions include environmental, onerous contracts and legal provisions arising across the group. Amounts provided reflect management's best estimate of the expenditure required to settle the obligations at the balance sheet date. They are expected to be fully spent over the next 16 years.

Notes on the Accounts

for the year ended 31st March 2017

29 Provisions and contingent liabilities (continued)

29b Parent company

	Restructuring provisions £ million	Other provisions £ million	Total £ million
At 1st April 2016	8.1	16.5	24.6
Charge for year	1.5	4.3	5.8
Utilised	(6.3)	(1.6)	(7.9)
Released	(0.6)	–	(0.6)
Unwinding of discount	–	0.4	0.4
At 31st March 2017	**2.7**	**19.6**	**22.3**

	2017 £ million	2016 £ million
Current	**4.5**	11.2
Non-current	**17.8**	13.4
Total provisions	**22.3**	24.6

The restructuring provisions arise across the company and are expected to be fully spent by 31st March 2018.

The other provisions include onerous contracts, legal provisions and provisions to buy metal to cover positions created by the parent company selling metal belonging to subsidiaries. Amounts provided reflect management's best estimate of the expenditure required to settle the obligations at the balance sheet date.

Details of guarantees given by the parent company are disclosed in note 28a.

30 Deferred taxation

30a Group

	Property, plant and equipment £ million	Post-employment benefits £ million	Provisions £ million	Inventories £ million	Intangibles £ million	Other £ million	Total deferred tax (assets) / liabilities £ million
At 1st April 2015	67.6	(39.3)	(21.8)	(15.6)	39.6	17.9	48.4
(Credit) / charge to income	(15.8)	(1.3)	4.4	2.9	(5.1)	(2.3)	(17.2)
Acquisitions	–	–	–	–	1.4	0.8	2.2
Tax on items taken directly to or transferred from equity	–	39.1	–	–	–	2.0	41.1
Exchange adjustments	0.6	(1.1)	0.3	0.2	2.1	0.6	2.7
At 31st March 2016	52.4	(2.6)	(17.1)	(12.5)	38.0	19.0	77.2
(Credit) / charge to income	(5.1)	8.4	(0.9)	0.3	(9.0)	13.8	7.5
Acquisitions (note 36)	(0.1)	–	(0.7)	(0.1)	0.5	(0.9)	(1.3)
Tax on items taken directly to or transferred from equity	–	(2.0)	–	–	–	0.7	(1.3)
Exchange adjustments	6.8	(3.6)	(2.7)	(0.7)	4.3	1.2	5.3
At 31st March 2017	**54.0**	**0.2**	**(21.4)**	**(13.0)**	**33.8**	**33.8**	**87.4**

	2017 £ million	2016 £ million
Deferred tax assets	**(25.6)**	(22.2)
Deferred tax liabilities	**113.0**	99.4
	87.4	77.2

Deductible temporary differences, unused tax losses and unused tax credits not recognised on the balance sheet total £119.8 million (2016: £113.9 million) of which £22.0 million is expected to expire within 5 years, £2.7 million within 5 to 10 years and £95.1 million carry no expiry date.

Deferred tax liabilities have not been recognised on temporary differences of £1,327.7 million (2016: £936.5 million) associated with investments in subsidiaries.

Notes on the Accounts

for the year ended 31st March 2017

30 Deferred taxation (continued)

30b Parent company

	Property, plant and equipment £ million	Post-employment benefits £ million	Provisions £ million	Inventories £ million	Intangibles £ million	Other £ million	Total deferred tax (assets) / liabilities £ million
At 1st April 2015	20.0	(7.0)	(0.4)	(10.5)	0.4	7.3	9.8
(Credit) / charge to income	(11.9)	(1.6)	–	3.4	0.1	0.1	(9.9)
Tax on items taken directly to or transferred from equity	–	34.2	–	–	–	1.1	35.3
At 31st March 2016	8.1	25.6	(0.4)	(7.1)	0.5	8.5	35.2
(Credit) / charge to income	(6.0)	2.6	(1.0)	0.1	–	(0.6)	(4.9)
Tax on items taken directly to or transferred from equity	–	(3.2)	–	–	–	0.1	(3.1)
At 31st March 2017	**2.1**	**25.0**	**(1.4)**	**(7.0)**	**0.5**	**8.0**	**27.2**

Deductible temporary differences, unused tax losses and unused tax credits not recognised on the balance sheet are £2.0 million (2016: £3.0 million) and have no expiry date.

31 Share capital

	Number	£ million
Issued and fully paid ordinary shares		
At 1st April 2015	210,642,995	220.7
Effect of share consolidation	(11,702,389)	–
At 31st March 2016 and 31st March 2017	**198,940,606**	**220.7**

Details of outstanding share options, allocations under the company's long term incentive plan and awards under the deferred bonus which have yet to mature are disclosed in note 14.

At the last annual general meeting on 20th July 2016, shareholders approved a resolution for the company to make purchases of its own shares up to a maximum number of 19,353,343 ordinary shares of 110$\frac{49}{53}$ pence each. The resolution remains valid until the conclusion of this year's annual general meeting. The company will purchase its own shares when the board believes it to be in the best interests of the shareholders generally and will result in an increase in earnings per share.

The group and parent company's employee share ownership trust (ESOT) also buys shares on the open market and holds them in trust for employees participating in the group's executive share option schemes and long term incentive plan. At 31st March 2017 the ESOT held 1,743,333 shares (2016: 1,789,390 shares) which had not yet vested unconditionally in employees. Computershare Trustees (CI) Limited, as trustee for the ESOT, has waived its dividend entitlement.

The total number of treasury shares held was 5,407,176 (2016: 5,407,176) at a total cost of £91.7 million (2016: £91.7 million).

32 Tax effects relating to other comprehensive income

	2017			2016		
	Before tax £ million	**Tax £ million**	**Net of tax £ million**	Before tax £ million	Tax £ million	Net of tax £ million
Currency translation differences	**165.2**	**(0.6)**	**164.6**	24.1	–	24.1
Cash flow hedges	**(1.4)**	**0.2**	**(1.2)**	5.6	(2.0)	3.6
Fair value losses on net investment hedges	**(21.0)**	**–**	**(21.0)**	(1.2)	(2.7)	(3.9)
Fair value gains / (losses) on available-for-sale investments	**7.0**	**–**	**7.0**	(5.5)	–	(5.5)
Remeasurements of post-employment benefit assets and liabilities	**(18.4)**	**2.0**	**(16.4)**	180.1	(39.1)	141.0
Total other comprehensive income	**131.4**	**1.6**	**133.0**	203.1	(43.8)	159.3

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33 Other reserves

33a Group

	Capital redemption reserve £ million	Foreign currency translation £ million	Available-for-sale reserve £ million	Hedging reserve £ million	Total other reserves £ million
At 1st April 2015	6.5	(20.3)	5.4	(12.6)	(21.0)
Cash flow hedges – losses taken to equity	–	–	–	(4.0)	(4.0)
Cash flow hedges – transferred to income statement	–	–	–	10.0	10.0
Cash flow hedges – transferred to non-financial liabilities	–	–	–	(0.4)	(0.4)
Fair value losses on net investment hedges taken to equity	–	(11.7)	–	–	(11.7)
Fair value losses on net investment hedges transferred to income statement	–	10.5	–	–	10.5
Fair value losses on available-for-sale investments	–	–	(5.0)	–	(5.0)
Currency translation differences on foreign currency net investments and related loans taken to equity	–	32.5	–	–	32.5
Currency translation differences transferred to income statement	–	(8.5)	–	–	(8.5)
Tax on items taken directly to or transferred from equity	–	(2.7)	–	(2.0)	(4.7)
At 31st March 2016	6.5	(0.2)	0.4	(9.0)	(2.3)
Cash flow hedges – losses taken to equity	–	–	–	(8.1)	(8.1)
Cash flow hedges – transferred to income statement	–	–	–	6.8	6.8
Cash flow hedges – transferred to non-financial assets	–	–	–	(0.1)	(0.1)
Fair value losses on net investment hedges taken to equity	–	(21.0)	–	–	(21.0)
Fair value gains on available-for-sale investments	–	–	4.5	–	4.5
Fair value losses on available-for-sale investments transferred to income statement	–	–	2.0	–	2.0
Currency translation differences on foreign currency net investments and related loans taken to equity	–	165.2	–	–	165.2
Tax on items taken directly to or transferred from equity	–	(0.6)	–	0.2	(0.4)
At 31st March 2017	**6.5**	**143.4**	**6.9**	**(10.2)**	**146.6**

Cash flow hedges transferred to the income statement are included in:

	2017 £ million	2016 £ million
Revenue	**9.2**	1.4
Cost of sales	**(3.0)**	8.2
Administrative expenses	**0.2**	–
Finance costs	**0.4**	0.4
	6.8	10.0

33b Parent company

	Capital redemption reserve £ million	Foreign currency translation £ million	Available-for-sale reserve £ million	Hedging reserve £ million	Total other reserves £ million
At 1st April 2015	6.5	(3.4)	–	(12.0)	(8.9)
Cash flow hedges – losses taken to equity	–	–	–	(0.5)	(0.5)
Cash flow hedges – transferred to income statement	–	–	–	5.3	5.3
Fair value gains on available for sale investments	–	–	3.0	–	3.0
Currency translation differences on foreign operations taken to equity	–	0.6	–	–	0.6
Tax on items taken directly to or transferred from equity	–	–	–	(1.1)	(1.1)
At 31st March 2016	6.5	(2.8)	3.0	(8.3)	(1.6)
Cash flow hedges – losses taken to equity	–	–	–	(3.2)	(3.2)
Cash flow hedges – transferred to income statement	–	–	–	1.3	1.3
Currency translation differences on foreign operations taken to equity	–	2.5	–	–	2.5
Tax on items taken directly to or transferred from equity	–	–	–	0.3	0.3
At 31st March 2017	**6.5**	**(0.3)**	**3.0**	**(9.9)**	**(0.7)**

Notes on the Accounts

for the year ended 31st March 2017

34 Gross cash flows

34a Purchases of non-current assets and investments

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Purchases of property, plant and equipment	**193.6**	191.0	**35.8**	50.1
Purchases of intangible assets	**65.9**	62.5	**64.9**	48.7
Investment in subsidiaries	**–**	–	**12.4**	225.7
Purchases of available-for-sale investments	**–**	–	**–**	7.1
	259.5	253.5	**113.1**	331.6

34b Purchases of businesses

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Purchases of businesses	**21.1**	22.8	**–**	2.6
Cash acquired with businesses	**(1.4)**	(4.9)	**–**	–
Consideration refunded for prior years' acquisitions	**–**	(1.8)	**–**	–
Consideration paid for prior years' acquisitions	**–**	0.5	**–**	0.4
	19.7	16.6	**–**	3.0

34c Net proceeds from sale of businesses

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Sale of businesses	**–**	246.9	**–**	–
Cash disposed of with businesses	**–**	(2.3)	**–**	–
	–	244.6	**–**	–

34d Net cost of ESOT transactions in own shares

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Purchase of own shares by ESOT	**(6.2)**	(3.3)	**(6.2)**	(3.3)
Release of own shares by ESOT	**0.1**	0.2	**0.1**	0.2
	(6.1)	(3.1)	**(6.1)**	(3.1)

34e Proceeds from additional borrowings

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Proceeds from borrowings falling due within one year	**–**	9.7	**–**	2.1
Proceeds from borrowings falling due after more than one year	**80.8**	124.7	**80.8**	124.7
	80.8	134.4	**80.8**	126.8

34f Repayment of borrowings and finance leases

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Repayment of borrowings falling due within one year	**128.9**	211.2	**115.9**	191.0
Repayment of borrowings falling due after more than one year	**3.9**	–	**–**	–
Capital element of finance lease rental payments	**0.4**	0.4	**0.4**	0.4
	133.2	211.6	**116.3**	191.4

Notes on the Accounts

for the year ended 31st March 2017

35 Cash and cash equivalents

	Group		Parent company	
	2017 £ million	2016 £ million	**2017 £ million**	2016 £ million
Cash and deposits	**330.4**	304.5	**247.7**	226.9
Bank overdrafts	**(31.8)**	(20.7)	**(15.5)**	(13.4)
Cash and cash equivalents	**298.6**	283.8	**232.2**	213.5

36 Acquisitions

If all the acquisitions in the year had been completed on 1st April 2016, the revenue for the group would have been £12,032.0 million and its profit for the year £384.3 million.

The group's long term strategy is to establish new businesses in adjacent markets with strong growth potential that align to the group's technology competences. Therefore from time to time the group acquires businesses in order to further that aim and better understand the technologies in that market. One of these new businesses is its Water Technologies business and two acquisitions for this business were made during the year. On 1st April 2016, the group acquired 100% of the share capital of MIOX Corporation, a developer and supplier of advanced water disinfectant technology. On 31st May 2016, the group acquired 100% of the share capital of Finex Oy, a supplier of advanced polymer resin technology. The goodwill arising on these acquisitions is attributable to opportunities to access expertise in this area and anticipated future synergies.

The fair value of the net assets acquired, consideration paid, goodwill arising on these transactions, acquisition-related expenses and contribution to the group's results since acquisition were:

	MIOX £ million	**Finex £ million**
Net assets acquired		
Property, plant and equipment	**0.2**	**0.7**
Intangible assets	**14.3**	**1.2**
Inventories	**1.1**	**0.6**
Trade and other receivables	**0.6**	**1.1**
Cash and cash equivalents	**0.7**	**0.7**
Current other borrowings	**(0.7)**	**–**
Trade and other payables	**(2.4)**	**(1.0)**
Current income tax assets	**–**	**0.1**
Deferred income tax assets / (liabilities)	**1.5**	**(0.2)**
Provisions	**(0.9)**	**–**
Non-current other borrowings	**(3.7)**	**(0.4)**
Total net assets acquired	**10.7**	**2.8**
Goodwill on acquisition	**4.2**	**3.2**
	14.9	**6.0**
Satisfied by		
Purchase consideration – cash	**14.9**	**6.0**
Acquisition-related costs charged to administrative expenses	**0.2**	**0.2**
Revenue since acquisition	**4.3**	**6.0**
(Loss) / profit since acquisition	**(1.6)**	**0.2**
Trade and other receivables – gross contractual amounts receivable	**0.7**	**1.1**
Trade and other receivables – estimate of amounts not expected to be collected	**0.1**	**–**

None of the goodwill arising on acquisitions completed during the year is expected to be deductible for tax purposes.

37 Precious metal operating leases

The group leases, rather than purchases, precious metals to fund temporary peaks in metal requirements provided market conditions allow. These leases are from banks for specified periods (typically a few months) and for which the group pays a fee. These arrangements are classified as operating leases. The group holds sufficient precious metal inventories to meet all the obligations under these lease arrangements as they fall due. At 31st March 2017 precious metal leases were £77.0 million (2016: £70.3 million).

Notes on the Accounts

for the year ended 31st March 2017

38 Commitments

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Future capital expenditure contracted but not provided	**18.9**	39.6	**2.2**	12.8
Future minimum amounts payable under non-cancellable operating leases				
Within one year	**18.9**	19.3	**2.9**	2.6
From one to five years	**38.4**	30.6	**8.7**	8.1
After five years	**39.4**	42.8	**11.2**	13.1
	96.7	92.7	**22.8**	23.8
Future minimum sublease payments expected to be received under non-cancellable operating leases	**0.1**	–	**–**	–
Future minimum amounts payable under finance leases				
Within one year	**0.2**	0.4	**0.2**	0.4
From one to five years	**0.1**	0.2	**–**	0.2
Present value of finance lease obligations	**0.3**	0.6	**0.2**	0.6

The group and parent company lease some of its property, plant and equipment which are used by the group and parent company in their operations.

39 Transactions with related parties

Transactions between the parent company and its subsidiaries, which are related parties, have been eliminated on consolidation and so are only disclosed for the parent company's accounts. The group's joint venture and associate are related parties. Guarantees of subsidiaries' liabilities are disclosed in note 28a.

	Group 2017 £ million	Group 2016 £ million	Parent company 2017 £ million	Parent company 2016 £ million
Trading transactions with joint venture				
Purchases of goods	**4.5**	3.2	**4.5**	1.5
Trading transactions with associate				
Rendering of services	**0.7**	1.8	**–**	–
Amounts receivable from long term contract customers	**–**	1.8	**–**	–
Trade payables	**(0.1)**	(0.3)	**–**	(0.3)
Trading transactions with subsidiaries				
Sale of goods	**–**	–	**1,848.2**	1,645.0
Purchases of goods	**–**	–	**502.5**	375.5
Income from service charges	**–**	–	**34.8**	37.7
Amounts receivable from subsidiaries	**–**	–	**198.7**	152.4
Amounts payable to subsidiaries	**–**	–	**192.7**	35.0
Loans to subsidiaries	**–**	–	**1,789.4**	1,593.8
Loans from subsidiaries	**–**	–	**2,607.7**	2,538.1

The group's post-employment benefits plans are related parties and the group's and parent company's transactions with them are disclosed in note 15.

The transactions with key management personnel are described in note 13c.

Notes on the Accounts

for the year ended 31st March 2017

40 Key sources of estimation uncertainty

Determining the carrying amounts of some assets and liabilities requires estimation of the effects of uncertain future events on those assets and liabilities at the balance sheet date. The group and parent company have made appropriate estimates when applying the accounting policies, but the actual outcome may differ from those calculated.

The key sources of estimation uncertainty at the balance sheet date which have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are:

Post-employment benefits

The group's and parent company's defined benefit plans are assessed annually by qualified independent actuaries. The details of the plans and assumptions used are described in note 15.

Goodwill, other intangible assets and other assets

Annual impairment reviews of goodwill of £607.1 million (parent company £123.4 million) are performed which require various assumptions (note 17). Other intangible assets which are not yet being amortised are also subject to annual impairment reviews. Other assets are assessed for impairment when there is a triggering event that provides evidence that an asset may be impaired. Impairment reviews are based on discounted cash flow projections. Actual outcomes could vary significantly from such estimates. Factors such as changes in discount rates, long term growth rates, presence of competition, technical obsolescence and lower than anticipated sales could lead to shorter lives or impairment.

Taxation

The tax payable on profits is determined based on tax laws and regulations that apply in each of the numerous jurisdictions in which the group operates. Where the precise impact of these laws and regulations is unclear then reasonable estimates may be used to determine the tax charge and associated tax provisions included in the accounts. The group faces a number of audits in jurisdictions around the world and, in some cases, is in dispute with the tax authorities. The issues under discussion are often complex and can require many years to resolve. If the tax eventually payable or reclaimable differs then the difference will be charged or credited in the accounts for the year in which it is determined. Management believes its position on all its audits and disputes is robust and its tax provisions are appropriate. It is possible that some of these provisions may reduce in the future to the extent that any tax authority challenge is unsuccessful, or matters lapse following expiry of the relevant statutes of limitation.

Refining process and stock takes

The group's and parent company's refining and fabrication businesses process significant quantities of precious metal and, similar to many industrial activities, losses may arise during processing. The refining businesses alone process over four million oz of platinum group metals each year. The extent of process losses depends on many factors, including the nature of material being refined, the specific refining processes applied and the processes' efficiency. Judgment is therefore required in estimating the amount of such losses when setting process loss provisions. Also stock takes, particularly at the refining businesses, involve estimation of volumes in the refining system and the subsequent sampling and assaying of material to assess the precious metal content. In addition, the results of sampling and assaying and therefore the stock take itself are only available some time after the date of the stock take. In setting process loss provisions and assessing the stock take results, management takes account of the complexity of the stock take process, past experience, the ability to extract precious metals from the refining process and other factors when estimating losses and gains.

5. Accounts

Notes on the Accounts

for the year ended 31st March 2017

41 Related undertakings

A full list of related undertakings at 31st March 2017 (comprising subsidiaries, joint ventures and associates) is set out below. Those held directly by the parent company are marked with an asterisk (*) and those held jointly by the parent company and a subsidiary are marked with a cross (+). All the companies are wholly owned unless otherwise stated. All the related undertakings are involved in the principal activities of the group. Unless otherwise stated, the share class of each related undertaking comprises ordinary shares only.

Entity	Registered address
+Johnson Matthey Argentina S.A.	Tucumán 1 Piso 4, CP 1049, Buenos Aires, Argentina
Johnson Matthey (Aust) Ltd	64 Lillee Crescent, Tullamarine VIC 3043, Australia
+Johnson Matthey Holdings Limited	64 Lillee Crescent, Tullamarine VIC 3043, Australia
Johnson Matthey Belgium BVBA	Pegasuslaan 5, 1831 Diegem, Belgium
Tracerco Europe BVBA	1731 Zellik, Z3 Doornveld 115, Belgium
The Argent Insurance Co. Limited	Clarendon House, 2 Church Street, Hamilton, HM11, Bermuda
Johnson Matthey Brasil Ltda	Avenida Macuco, 726, 12th Floor, Edifício International Office, CEP04523-001, Brazil
Stepac Brazil Ltda	Rua Itapolis, n° 1921, Pacaembu, São Paulo, 01245-000, Brazil
Tracerco do Brasil – Diagnosticos de Processos Industriais Ltda	Rua Victor Civita, 66, bloco 2, salas 501/502, Condomínio Rio Office Park, Barra da Tijuca, Rio de Janeiro, CEP 22775-044, Brazil
Johnson Matthey Battery Materials Ltd.	280 Liberté Ave, Candiac Québec J5R 6X1, Canada
Tracerco Radioactive Diagnostic Services Canada Inc.	1173 Michener Road, Sarnia, Ontario N7S 5G5, Canada
Johnson Matthey Argillon (Shanghai) Emission Control Technologies Ltd.	No. 298, East Rong Le Road, Songjiang District, Shanghai, China
Johnson Matthey Battery Materials (Changzhou) Co., Ltd.	1 Xin Wei Liu Road, Changzhou Export Processing Zone, Changzhou, Jiangsu Province, China
Johnson Matthey Chemical Process Technologies (Shanghai) Company Limited	Room 1066, Building 1, No 215 Lian He Bei Lu, Fengxian District, Shanghai, China
Johnson Matthey Formox (Beijing) Trading Ltd	2007C, 20th Floor, No. 21 Building, No.5 Community, Shu Guang Xi Lane, Chaoyang District, Beijing, China
Johnson Matthey Process Technologies (Beijing) Co., Ltd.	Unit No. 2001-2007A, No. 21 Building, Shuguangxi Lane A5, Chaoyang District, Beijing, China
Johnson Matthey Research & Development (Yantai) Co., Ltd.	No. 9 Wuxi Road, Yantai Economic and Technology Development Zone, Yantai, Shandong Province, China
Johnson Matthey (Shanghai) Catalyst Co., Ltd.	586 Dongxing Road, Songjiang Industry Zone, Shanghai, 201613, China
Johnson Matthey (Shanghai) Chemicals Limited	588 Dongxing Road, Songjiang Industry Zone, Shanghai, 201613, China
Johnson Matthey (Shanghai) Trading Limited	Room 1615B, No. 118 Xinling Road, Waigaoqiao Free Trade Zone, Shanghai, China
Johnson Matthey (Tianjin) Chemical Co., Ltd.	Suite 1-1201, BoRun Commercial Plaza, Tianjin Development Zone, China
Johnson Matthey (Zhangjiagang) Precious Metal Technology Co., Ltd.	Rm. 1116-1117, The Petrochemical Trading Edifice, Zhangjiagang Free Trade Zone, Jiangsu Province, China
Qingdao Johnson Matthey Hero Catalyst Company Limited (51.0%)	New Material Industrial Park, Shiyuan Road, Qinda Industrial Park, Chengyang District, Qingdao, 200331, China
Shanghai Bi Ke Clean Energy Technology Co Ltd (11.1%)	Room 427 Building 2 No 351 Guo Shou Jing Road, China (Shanghai) Pilot Free Trade Zone, China
Shanghai Johnson Matthey Applied Materials Technologies Co., Ltd	Area A, 1st Floor, Building 7, 298 East Rong Le Road, Songjiang District, Shanghai, China
Tracerco China Process Diagnostics & Instrumentation (Shanghai) Co., Ltd.	Building 15, No 16, Lane 193, Nanlu Road, Pudong District, Shanghai, China
Johnson Matthey A/S	Frederikssundvej 274D, DK-2700 Brønshøj, Copenhagen, Denmark
*AG Holding Ltd	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Cascade Biochem Limited[1]	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Fuel Cell Today Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Ilumink Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*JMEPS Trustees Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Johnson Matthey Battery Systems Engineering Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Johnson Matthey (CM) Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Johnson Matthey Davy Technologies International Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Johnson Matthey Davy Technologies Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Johnson Matthey Fuel Cells Limited (82.5%)	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Johnson Matthey Investments Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Johnson Matthey (Nominees) Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Johnson Matthey Precious Metals Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Johnson Matthey South Africa Holdings Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Johnson Matthey Tianjin Holdings Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England

Notes on the Accounts

for the year ended 31st March 2017

41 Related undertakings (continued)

Entity	Registered address
*Katalco Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Matthey Finance Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Matthey Holdings Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Synetix Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
*Tracerco Limited	5th Floor, 25 Farringdon Street, London, EC4A 4AB, England
Finex Oy	Seppolantie 1, Kotka, 48230, Finland
Johnson Matthey Finland Oy	Autokatu 6, 20380 Turku, Finland
Kiinteistö Oy Kotkan Huumantie 5 (70%)	c/o Finex Oy, Seppolantie 1, Kotka, 48230, Finland
Johnson Matthey SAS	Les Diamants – Immeuble B, 41 rue Delizy, 93500 Pantin, France
Johnson Matthey Battery Materials GmbH	Ostenriederstr. 15, 85368 Moosburg a.d. Isar, Germany
Johnson Matthey Catalysts (Germany) GmbH	Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany
Johnson Matthey Chemicals GmbH	Wardstrasse 17, D-46446 Emmerich am Rhein, Germany
Johnson Matthey GmbH & Co. KG[2]	Otto-Volger-Strasse 9b, 65843 Sulzbach, Germany
Johnson Matthey Holding GmbH	Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany
Johnson Matthey Management GmbH	Otto-Volger-Strasse 9b, 65843 Sulzbach, Germany
Johnson Matthey Piezo Products GmbH	Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany
Johnson Matthey Redwitz Real Estate (Germany) B.V. & Co. KG[2]	Bahnhofstrasse 43, 96257 Redwitz an der Rodach, Germany
Johnson Matthey Argillon Power Plant Catalysts Holdings (Hong Kong) Limited	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Johnson Matthey Hong Kong Limited	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Johnson Matthey Pacific Limited[3]	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Johnson Matthey Process Technologies Holdings Hong Kong Limited	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Johnson Matthey Tracerco Holdings Hong Kong Limited	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Johnson Matthey Yantai Holdings (Hong Kong) Limited	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Macfarlan Smith (Hong Kong) Limited	Unit 2-6, 8/F, 909 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon, Hong Kong
Intercat Equipment (Mumbai) Private Limited	Plot No 6A, MIDC Industrial Estate, Taloja, District Raigad, Maharashtra 410208, India
Johnson Matthey Chemicals India Private Limited	Plot No 6A, MIDC Industrial Estate, Taloja, District Raigad, Maharashtra 410208, India
Johnson Matthey India Private Limited	103, Ashoka Estate, 24, Barakhamba Road, New Delhi – 110 001, India
Johnson Matthey Limited	1 Stokes Place, St Stephen's Green, Dublin 2, Ireland
Stepac L.A. Ltd.	Tefen Industrial Park Bldg. #12, Post Box 73, Tefen, Western Galilee, 2495900, Israel
Johnson Matthey Italia S.r.l.	No 2, Via Talucchi, Turin, Italy
Johnson Matthey Fuel Cells Japan Limited (82.5%)	5123-3 Kitsuregawa, Sakura-shi, Tochigi, 329-1412, Japan
Johnson Matthey Japan Godo Kaisha	5123-3 Kitsuregawa, Sakura-shi, Tochigi, 329-1412, Japan
Johnson Matthey DOOEL Skopje	TIDZ Skopje 1, 1041 Ilinden, Macedonia
*Johnson Matthey Sdn. Bhd.	Suite 16-8, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia
Johnson Matthey Services Sdn. Bhd.	Suite 16-10, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia
Tracerco Asia Sdn. Bhd.	Suite 16-8, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia
Tracerco Asia Services Sdn. Bhd.	Suite 16-8, Level 16, Wisma UOA II, 21 Jalan Pinang, 50450 Kuala Lumpur, Malaysia
Johnson Matthey de Mexico, S. de R.L. de C.V.	Av. de Margues y Av. de la Canada, 2a Etapa Parque Industrial Bernardo Quintana, El Marques, Queretaro C.P., 76246, Mexico
Johnson Matthey Servicios, S. de R.L. de C.V.	Av Ramon Rivera Lara 6620, Parque Industrial Juarez, Chihuahua, Mexico
Intercat Europe B.V.	Stationsstraat 50, 3451 BZ, Vleuten, Netherlands
Johnson Matthey Advanced Glass Technologies B.V.	Fregatweg 38, 6222 NZ Maastricht, Netherlands
Johnson Matthey B.V.	Otto-Volger-Strasse 9b, 65843 Sulzbach/Ts., Germany
Johnson Matthey Holdings B.V.	Fregatweg 38, 6222 NZ Maastricht, Netherlands
Johnson Matthey Netherlands B.V.	Fregatweg 38, 6222 NZ Maastricht, Netherlands
Johnson Matthey Netherlands 2 B.V.	Fregatweg 38, 6222 NZ Maastricht, Netherlands
Matthey Finance B.V.[1]	Fregatweg 38, 6222 NZ Maastricht, Netherlands
Tracerco Norge AS	Folke Bernadottes vei 38, 5147 Fyllingsdalen, Norway
Johnson Matthey Battery Systems Spólka z ograniczoną odpowiedzialnocścią	PL 44-109 Gliwice, ul. Einsteina 36, Poland
Johnson Matthey Poland Spólka z ograniczoną odpowiedzialnocścią	Złota 59, 00-120 Warszawa, Warsaw, Poland
Macfarlan Smith Portugal, Lda	Largo de São Carlos 3, 1200-410 Lisboa, Portugal
Johnson Matthey Catalysts LLC	1 Transportny Proezd, 660027 Krasnoyarsk, Russia
*Anipel Limited	10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland
*Bitrex Limited	10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland

Notes on the Accounts

for the year ended 31st March 2017

41 Related undertakings (continued)

Entity	Registered address
Johnson Matthey Battery Systems Limited	Pinsent Masons LLP, 13 Queen's Road, Aberdeen, AB15 4YL, Scotland
*Johnson Matthey General Partner (Scotland) Limited	10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland
*Johnson Matthey (Scotland) Limited Partnership[2]	10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland
Macfarlan Smith Limited	Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland
*Meconic Limited	10 Wheatfield Road, Edinburgh, Midlothian, EH11 2QA, Scotland
Johnson Matthey Singapore Private Limited	80 Robinson Road, #02-00 Singapore 068898
Johnson Matthey (Proprietary) Limited	Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa
Johnson Matthey Research South Africa (Proprietary) Limited	Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa
Johnson Matthey Salts (Proprietary) Limited	Corner Henderson and Premier Roads, Germiston South Ext 7, Gauteng, South Africa
Johnson Matthey Catalysts Korea Limited	A-dong 2906-ho, 13 Heungdeok 1-ro, Giheung-gu, Yongin-si, Gyeonggi-do, South Korea
Johnson Matthey Korea Limited	418, Ideok-ro, Iwol-myeon, Jincheon-gun, Chungcheongbuk-do, South Korea
Johnson Matthey AB	Viktor Hasselblads gata 8, 421 31 Västra Frölunda, Göteborg, Sweden
Johnson Matthey Formox AB	SE-284 80, Perstorp, Sweden
Johnson Matthey & Brandenberger AG	Glatttalstrasse 18, 8052 Zurich, Switzerland
Johnson Matthey Finance GmbH	Hertensteinstrasse 51, 6004 Lucerne, Switzerland
Johnson Matthey Finance Zurich GmbH	Glatttalstrasse 18, 8052 Zurich, Switzerland
LiFePO4+C Licensing AG	Hertensteinstrasse 51, 6004 Lucerne, Switzerland
Johnson Matthey (Thailand) Limited	1858/12 Interlink Tower, 5th Floor, Bangna-Trad Road, Bangna Sub-District, Bangna District, Bangkok, Thailand
Johnson Matthey Holdings (Thailand) Limited	1858/12 Interlink Tower, 5th Floor, Bangna-Trad Road, Bangna Sub-District, Bangna District, Bangkok, Thailand
Johnson Matthey Services (Trinidad and Tobago) Limited	Queen's Park Place, 17-20 Queens Park West, Port of Spain, Trinidad and Tobago
Stepac Ambalaj Malzemeleri Sanayi Ve Ticaret Anonim Sirketi	Mehmetçik Mahallesi Termessos Bulvarı, Ofis 24 İş Merkezi No:18 A1 Blok Kat:3, Daire No: 302 Muratpaşa – Antalya, 07300, Turkey
JM Holdings UK LLC	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
JM Holdings US LLC	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Fuel Cells, Inc. (82.5%)	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Holdings, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Inc.[4]	2595 Interstate Drive, Suite 103, Harrisburg, Dauphin County, PA 17110, USA
Johnson Matthey Japan, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Materials, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey North America, Inc.	Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, USA
Johnson Matthey Overseas Holdings Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Pharmaceutical Materials, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Process Technologies, Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Stationary Emissions Control LLC	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey US 2 LLC	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Johnson Matthey Vehicle Testing & Development, LLC	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Matthey Pharmaceutical Alkaloids, LLC (50.0%)	Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, USA
MIOX Corporation	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA
Red Maple LLC (50.0%)	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA

In some jurisdictions in which the group operates, share classes are not defined and in these instances, for the purpose of disclosure, these holdings have been classified as ordinary shares.

1 Ordinary and preference shares

2 Limited partnership, no share capital

3 Ordinary and non-cumulative redeemable preference shares

4 Ordinary and series A preferred stock

Reconciliation of Non-GAAP Measures to GAAP Measures

for the year ended 31st March 2017

The group uses various measures to manage its business which are not defined by generally accepted accounting principles (GAAP). The group's management believes these measures provide valuable additional information to users of the accounts in understanding the group's performance.

Sales excluding precious metals (sales)

The group believes that sales excluding precious metals is a better measure of the growth of the group than revenue. Total revenue can be heavily distorted by year on year fluctuations in the market prices of precious metals. In addition, in many cases, the value of precious metals is passed directly on to our customers.

Underlying profit

These are the equivalent GAAP measures adjusted to exclude amortisation of acquired intangibles (note 3), major impairment and restructuring charges, profit or loss on disposal of businesses, significant tax rate changes and, where relevant, related tax effects. The group believes that these measures provide a better guide to the underlying performance of the group. These are reconciled in note 5.

Working capital (excluding precious metals)

	2017 £ million	2016 £ million
Inventories	**772.3**	653.7
Trade and other receivables	**1,139.4**	948.0
Trade and other payables	**(968.3)**	(812.3)
Total working capital	**943.4**	789.4
Less precious metal working capital	**(335.5)**	(256.5)
Working capital (excluding precious metals)	**607.9**	532.9

Cash flow conversion

	2017 £ million	2016 £ million
Adjusted operating cash flow	**352.8**	709.4
Income tax paid	**(58.9)**	(65.8)
Pension deficit funding contributions	**(26.6)**	(26.6)
Less net purchases of non-current assets and investments	**255.6**	249.5
Net cash flow from operations	**522.9**	866.5
Adjusted operating cash flow	**352.8**	709.4
Precious metal working capital increase / (decrease)	**79.0**	(341.9)
Adjusted operating cash flow (excluding precious metal)	**431.8**	367.5
Cash flow conversion	**84%**	82%

Free cash flow

	2017 £ million	2016 £ million
Net cash flow from operations	**522.9**	866.5
Interest received	**4.8**	5.2
Interest paid	**(42.1)**	(33.9)
Purchases of non-current assets and investments	**(259.5)**	(253.5)
Proceeds from sale of non-current assets and investments	**3.9**	4.0
Dividends received from joint venture	**–**	0.3
Free cash flow	**230.0**	588.6

Other

Other non-GAAP measures are reconciled in the relevant note.

Independent Auditor's Report

to the members of Johnson Matthey Plc only

KPMG

Opinions and conclusions arising from our audit

1. Our opinion on the accounts is unmodified

We have audited the accounts of Johnson Matthey Plc for the year ended 31st March 2017 set out on pages 124 to 173. In our opinion:

- the accounts give a true and fair view of the state of the group's and of the parent company's affairs as at 31st March 2017 and of the group's profit for the year then ended;
- the group accounts have been properly prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU);
- the parent company accounts have been properly prepared in accordance with IFRS as adopted by the EU and as applied in accordance with the provisions of the Companies Act 2006; and
- the accounts have been prepared in accordance with the requirements of the Companies Act 2006; and, as regards the group accounts, Article 4 of the IAS Regulation.

Overview		
Materiality: group accounts as a whole	£22.0 million (2016: £20.5 million) 5% (2016: 5%) of profit before tax (2016: adjusted profit before tax)	
Coverage	84% (2016: 83%) of group profit before tax	
Risks of material misstatement		**vs 2016**
Recurring risks	Refinery process and stock takes	◀ ▶
	Carrying value of goodwill and other intangibles	▲
	Taxation accounting	◀ ▶
	Post-employment benefits	◀ ▶

Independent Auditor’s Report

to the members of Johnson Matthey Plc only

2. Our assessment of risks of material misstatement

We summarise below the risks of material misstatement (unchanged from 2016) that had the greatest effect on our audit, in decreasing order of audit significance (order of significance changed from 2016 with taxation accounting considered more significant than post-employment benefits), our key audit procedures to address those risks and our findings (our results) based on those procedures in order that the company's members as a body may better understand the process by which we arrived at our audit opinion. These procedures were undertaken in the context of, and solely for the purposes of, our statutory audit opinion on the accounts as a whole and consequently the results of these procedures are incidental to that opinion. We do not express discrete opinions on separate elements of the accounts.

	The Risk	Our Response
Refinery process and stock takes *Refer to page 92 (Audit Committee Report) and page 169 (financial disclosures).*	**Physical quantities:** The group refines a significant amount of metal as set out in note 40. The year end metal inventory quantity is determined from: (i) assay estimates of the metal contained in the carrier material entering and refined metal leaving the refining process, and (ii) estimates of process losses, rolled forward from (iii) assay estimates of the metal content in the plants at the time of stock takes which take place at different times earlier than the financial year end. The year end metal inventory is dependent, first, upon the physical quantities measured in the assay samples in (i) and (iii). The risks of quantity and estimates apply to the group’s own metal and material at (ii) being processed for third parties, such that a small variation in estimates could have a material effect on the valuation of inventory in the accounts. **Subjective estimate:** Second, the group’s inventory quantities are also subject to a significant degree of estimation, including consideration of process loss provisions at (iii), and stock take results, derived from assay samples. Furthermore, the plants process material on behalf of third parties, whereby the group must return pre-agreed recoverable quantities of refined metal to those parties; under recovery or other loss directly impacts the group’s own metal inventory.	Our procedures included: – **Controls:** Assessing through observation, interview and reperformance on a sample basis the adequacy of group controls over metal processing and inventory including physical security, metal receipt and dispatch, metal recording, assaying and stock takes; – **Count attendance and design:** Attending physical stock takes to verify adherence to stock take processes and physical quantities counted; – **Count vs system reconciliation:** Seeking to understand and corroborate the reasons for significant or unusual movements in inventory quantities between the accounting records and the physical stock takes. Evaluating the roll forward of inventory from the point of stock take to the year end to assess the potential for misstatement; – **Historical comparisons:** Assessing provisions for inventory loss compared to historical trends and stock take results to assess the likelihood and quantum of processing loss (if any) of metal between the date of the stock take and the year end date; and – **Assessing transparency:** Considering the adequacy of the group’s disclosures about the degree of estimation involved in arriving at the measured inventory. **Our results:** As a result we found that the valuation of inventory is appropriately stated.

Independent Auditor's Report

to the members of Johnson Matthey Plc only

2. Our assessment of risks of material misstatement (continued)

	The Risk	Our Response
Carrying value of goodwill and other intangible assets *Refer to page 92 (Audit Committee Report), page 130 (accounting policy) and pages 149 to 152 and 169 (financial disclosures).*	**Forecast-based valuation:** The group has significant intangible assets and goodwill arising from the acquisition of businesses and investments in new products and technologies. Some investments and recent acquisitions are still at an early stage of commercial development and as such, carry a greater risk that they will not be commercially viable. Recoverability of these assets is based on forecasting and discounting future cash flows, which are inherently judgmental.	Our procedures included: – **Assessing methodology:** Obtaining the discounted cash flow models and assessing the principles and integrity of each model; – **Benchmarking assumptions:** Challenging the group's valuation assumptions for its cash flow projections such as discount rates and cost inflation, with reference to internally and externally derived sources; – **Our valuations expertise:** Assessing the inputs based on our own insights and experience and challenging the appropriateness of the discount rate with the assistance of our own valuation specialists; – **Sensitivity analysis:** Performing breakeven analysis on the assumptions noted above; – **Historical comparisons:** Assessing the group's historical forecasting accuracy; and – **Assessing transparency:** Considering the adequacy of the group's disclosures in respect of impairment testing and whether disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions properly reflected the risks inherent in the valuations; and **Our results:** As a result of our testing we found that management's assessment that no impairments were required was supported by reasonable assumptions.
Taxation accounting *Refer to page 92 (Audit Committee Report), page 131 (accounting policy) and page 169 (financial disclosures).*	**Subjective estimate:** The group operates in multiple jurisdictions governed by national tax laws and regulations and is required to estimate the tax effect of cross border transactions including transfer pricing arrangements. Where the precise impact of these laws and regulations on indirect taxes and the tax payable on profits arising in those jurisdictions is unclear, the group seeks to make reasonable estimates to determine the tax charge arising.	Our procedures included: – **Test of details:** Assessed correspondence with the relevant tax authorities including the status of recent and current tax authority audits and enquiries; – **Our taxation expertise:** With the assistance of our own local and international tax specialists, who have knowledge of the relevant indirect and direct tax regimes and experience in their application, analysing and challenging the assumptions used to determine the tax charge and provisioning; and benchmarking assumptions; and – **Assessing transparency:** Considering the adequacy of the group's disclosures in respect of tax and uncertain tax positions. **Our results:** From the evidence obtained, we found the level of tax provisioning to be appropriate.

Independent Auditor's Report

to the members of Johnson Matthey Plc only

2. Our assessment of risks of material misstatement (continued)

	The Risk	Our Response
Post-employment benefits *Refer to page 92 (Audit Committee Report), page 132 (accounting policy) and pages 142 to 148 (financial disclosures).*	**Subjective valuation:** Small changes in assumptions and estimates used to value the group's post-employment benefit obligations would have a significant effect on the group's financial position.	Our procedures included: – **Our pensions expertise:** Challenging the key assumptions, being the discount rates, inflation rates, and mortality / life expectancies supporting the group's post-employment benefit obligations valuations, with the support of our own actuarial specialists; – **Benchmarking assumptions:** Comparing these key assumptions used against externally derived data; – **Sensitivity analysis:** Performing breakeven analysis on the assumptions noted above; and – **Assessing transparency:** Considering the adequacy of the group's disclosures in respect of the sensitivity of the liabilities to these assumptions. **Our results:** As a result of our testing we found that the post-employment benefit obligations were appropriately stated.

5. Accounts

Independent Auditor's Report

to the members of Johnson Matthey Plc only

3. Our application of materiality and an overview of the scope of our audit

Materiality for the group accounts as a whole was set at £22.0 million (2016: £20.5 million), determined with reference to a benchmark of group profit before tax (2016: adjusted profit before tax), of which it represents 5% (2016: 5%).

We agreed to report to the Audit Committee any corrected or uncorrected identified profit misstatements exceeding £0.5 million (2016: £0.5 million), in addition to other identified misstatements warranting reporting on qualitative grounds.

In establishing the overall approach to our audit, we considered the decentralised nature of the group's operations, the risk profile of countries where the group operates, our historical audit findings and changes taking place within the business. We also considered the financial significance and risks associated with each business together with any local statutory audit requirements.

Of the group's 57 (2016: 55) reporting components, we subjected 44 (2016: 43) to audits for group reporting purposes and 10 (2016: 10) to specified risk focused audit procedures over revenue, inventory and receivables, and 3 (2016: 2) to specified risk focused procedures over inventory including in China, Germany, India, Macedonia, South Africa, the UK and the US. The components for which we performed specified risk focused procedures were not individually financially significant enough to require an audit for group reporting purposes, but did present specific individual risks that needed to be addressed. The components within the scope of our work accounted for 90% of group revenue, 84% of group profit before tax and 84% of group total assets.

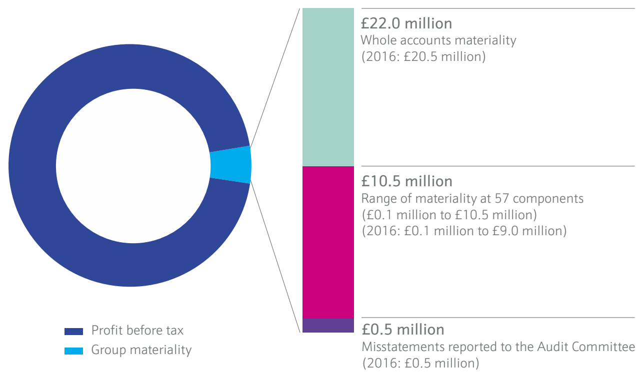
For the remaining components, we performed analysis at an aggregated group level to re-examine our assessment that there were no significant risks of material misstatement within these including through examining reports from local auditors on the results of their statutory audit work. This enables us to consider whether there is a risk of significant misstatement to the group's results that could arise from these businesses. In total these statutory audits comprise 7% of group revenue, 8% of group profit before tax and 9% of group total assets.

The group audit team instructed component auditors as to the significant areas to be covered, including the relevant risks detailed above and the information to be reported back. The group team approved component materiality, which ranged from £0.1 million to £10.5 million (2016: £0.1 million to £9.0 million), having regard to the mix of size and risk profile of the group across the components. The work on 44 of the 57 components was performed by the component auditors and the rest by the group team.

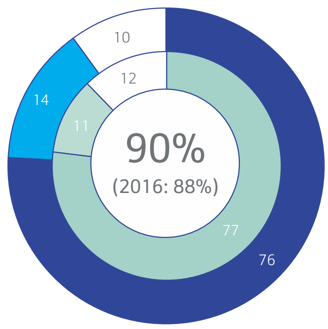
The group audit team visited six component locations (2016: seven) in China, India, Sweden, the Netherlands, UK and the US, including to assess the audit risk and strategy. Telephone conference meetings were also held with these component auditors and all others that were not physically visited. At these visits and meetings, the findings reported to the group audit team were discussed in more detail, and any further work required by the group audit team was then performed by the component auditor.

Profit before tax (2016 adjusted profit before tax)
£460.4 million
(2016: £397.3 million)

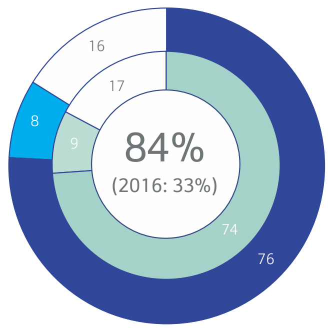
Materiality
£22.0 million
(2016: £20.5 million)



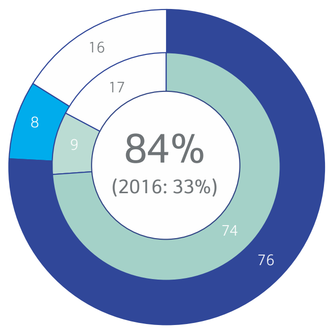
Group revenue



Group profit before tax



Group total assets



Full scope for group audit purposes 2017
Specified risk focused audit procedures 2017
Full scope for group audit purposes 2016
Specified risk focused audit procedures 2016
Residual components

Independent Auditor's Report

to the members of Johnson Matthey Plc only

4. Our opinion on other matters prescribed by the Companies Act 2006 is unmodified

The part of the director's Remuneration Report to be audited extends from the Single Figure Table of Remuneration on page 109 to, and including, the Statement of Director's Shareholding on page 113; and in addition comprises the Explanation of Figures on page 110, the Variable Pay – Additional Disclosures, Including Bases of Calculation and Outcomes on pages 110 to 111, long term incentive vesting outcomes on pages 111 and 112, the Pension Entitlements on page 112 and the Payments for Loss of Office on page 113.

In our opinion:

- the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006; and
- the information given in the Strategic Report and the Directors' Report for the financial year is consistent with the accounts.

Based solely on the work required to be undertaken in the course of the audit of the accounts and from reading the Strategic Report and the Directors' Report:

- we have not identified material misstatements in those reports; and
- in our opinion, those reports have been prepared in accordance with the Companies Act 2006.

5. We have nothing to report on the disclosures of principal risks

Based on the knowledge we acquired during our audit, we have nothing material to add or draw attention to in relation to:

- the directors' statement of longer term viability on page 47, concerning the principal risks, their management, and, based on that, the directors' assessment and expectations of the group's continuing in operation over the three years to 31st March 2020.

6. We have nothing to report in respect of the matters on which we are required to report by exception

Under ISAs (UK and Ireland) we are required to report to you if, based on the knowledge we acquired during our audit, we have identified other information in the annual report that contains a material inconsistency with either that knowledge or the accounts, a material misstatement of fact, or that is otherwise misleading.

In particular, we are required to report to you if:

- we have identified material inconsistencies between the knowledge we acquired during our audit and the directors' statement that they consider that the annual report and accounts taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the group's position and performance, business model and strategy; or
- the Audit Committee Report does not appropriately address matters communicated by us to the Audit Committee.

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company accounts and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Under the Listing Rules we are required to review:

- the directors' statements, set out on page 47, in relation to going concern and longer term viability; and
- the part of the Corporate Governance Statement on page 86 relating to the company's compliance with the 11 provisions of the 2014 UK Corporate Governance Code specified for our review.

We have nothing to report in respect of the above responsibilities.

Scope and Responsibilities

As explained more fully in the directors' responsibilities statement set out on page 121, the directors are responsible for the preparation of the accounts and for being satisfied that they give a true and fair view. A description of the scope of an audit of accounts is provided on the Financial Reporting Council's website at www.frc.org.uk/auditscopeukprivate. This report is made solely to the company's members as a body and is subject to important explanations and disclaimers regarding our responsibilities, published on our website at www.kpmg.com/uk/auditscopeukco2014b, which are incorporated into this report as if set out in full and should be read to provide an understanding of the purpose of this report, the work we have undertaken and the basis of our opinions.

Stephen Oxley (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
15 Canada Square
London E14 5GL

31st May 2017

6. Other Information

Our five year performance record, basis of reporting and information for shareholders.

Also includes a summary of our Global Reporting Initiative disclosures, a glossary and an index.

Contents

Other Information

Five Year Record – Financial Data

	2013 £ million	2014 £ million	2015 £ million	2016 £ million	**2017 £ million**
Revenue	10,728.8	11,155.2	10,059.7	10,713.9	**12,031.0**
Sales excluding the value of precious metals (adjusted)	2,695.4	3,017.8	3,164.0	3,177.0	**3,577.5**
EBITDA	542.7	596.3	611.8	590.1	**665.0**
Depreciation	(111.2)	(115.1)	(122.3)	(127.9)	**(138.9)**
Amortisation	(15.4)	(12.3)	(12.4)	(11.4)	**(12.8)**
Underlying operating profit	416.1	468.9	477.1	450.8	**513.3**
Net finance costs	(33.2)	(42.1)	(37.5)	(32.6)	**(31.8)**
Share of profit of joint venture	–	0.5	0.5	–	**0.2**
Underlying profit before tax	382.9	427.3	440.1	418.2	**481.7**
Amortisation of acquired intangibles	(16.9)	(20.7)	(17.3)	(20.9)	**(20.1)**
Profit on sale or liquidation of businesses, major impairment and restructuring charges	(17.4)	–	73.0	(11.0)	**–**
Profit before tax	348.6	406.6	495.8	386.3	**461.6**
Income tax expense	(77.5)	(67.9)	(68.5)	(60.6)	**(77.0)**
Profit after taxation	271.1	338.7	427.3	325.7	**384.6**
Non-controlling interests	0.7	1.5	1.4	7.4	**1.4**
Profit attributable to owners of the parent company	271.8	340.2	428.7	333.1	**386.0**
Underlying earnings per ordinary share	147.7p	170.6p	180.6p	178.7p	**209.1p**
Earnings per ordinary share	132.3p	167.7p	211.2p	166.2p	**201.2p**
Dividend per ordinary share	57.0p	62.5p	68.0p	71.5p	**75.0p**
Summary Balance Sheet					
Assets employed:					
Goodwill	584.6	571.0	547.2	570.0	**607.1**
Property, plant and equipment / other intangible assets	1,205.3	1,206.7	1,268.3	1,311.3	**1,523.4**
Non-current investments / associates / joint venture	61.0	60.8	66.7	76.7	**79.6**
Inventories	664.3	672.5	858.8	653.7	**772.3**
Receivables / current investments / tax assets / financial assets	915.6	1,032.2	1,353.4	1,016.2	**1,220.6**
Payables / provisions / tax liabilities / financial liabilities	(960.4)	(1,095.5)	(1,103.4)	(1,112.4)	**(1,275.0)**
Post-employment benefit net assets / employee benefit obligations	(243.9)	(165.3)	(196.5)	(6.0)	**4.8**
	2,226.5	2,282.4	2,794.5	2,509.5	**2,932.8**
Financed by:					
Net debt	835.6	729.2	994.4	674.9	**715.7**
Retained earnings	1,029.7	1,271.1	1,517.3	1,541.3	**1,776.5**
Share capital, share premium, shares held in ESOTs and other reserves	365.5	288.4	293.3	311.8	**460.1**
Non-controlling interests	(4.3)	(6.3)	(10.5)	(18.5)	**(19.5)**
Capital employed	2,226.5	2,282.4	2,794.5	2,509.5	**2,932.8**
Return on invested capital (Underlying operating profit / average monthly capital employed)	19.8%	20.8%	18.8%	17.3%	**18.2%**

In 2014, 2013 was restated for the adoption of IFRS 10 – 'Consolidated Financial Statements', IFRS 11 – 'Joint Arrangements', IFRS 12 – 'Disclosure of Interests in Other Entities' and the revisions to IAS 19 – 'Employee Benefits', IAS 27 – 'Separate Financial Statements' and IAS 28 – 'Investments in Associates and Joint Ventures'. In 2016, 2015 was restated for changes to the fair values of the battery materials business of Clariant AG at acquisition.

Five Year Record – Non-Financial Data

		2013	2014	2015	2016	**2017**
Social						
Average employee numbers		10,498	11,331	12,148	12,494	**12,214**
Total employee turnover[1]	%	9.1	9.0	8.7	12.1	**12.3**
Voluntary employee turnover[1]	%	6.5	5.6	6.0	6.9	**8.9**
Employee gender (female)	%	25	24	25	25	**25**
New recruits gender (female)	%	25	27	30	28	**28**
Trade union representation	%	31	29	28	24	**26**
Internal promotions	% of all recruitment in year	36	26	33	30	**39**
Attendance	days lost per employee	5.2	5.3	4.9	5.6	**4.8**
Sickness absence rate	%	2.2	2.0	1.9	2.2	**1.9**
Charitable donations	£ thousands	615	626	612	679	**738**
Health and Safety						
Lost time injury and illness rate		0.58	0.65	0.50	0.37	**0.49**
Total recordable injury and illness rate		1.41	1.77	1.13	0.85	**1.05**
Occupational illness cases	per 1,000 employees	2.5	2.2	1.03	0.90	**1.00**
Environment						
Energy consumption	thousands GJ	4,648	5,015	5,366	5,064	**5,136**
Carbon footprint	thousands tonnes CO_2 equivalent	413	463	510	482[2]	**509**
Electricity consumption	('000 GJ)	1,679	1,817	1,885	1,801	**1,955**
Natural gas consumption	('000 GJ)	2,644	2,805	3,052	2,948	**2,868**
Waste to landfill	tonnes	3,218	3,819	3,482	1,953	**6,894**[3]
Water withdrawal	thousands m^3	2,444	2,564	2,529	2,605	**2,643**

1 Calculated by reference to the total number of leavers during the year expressed as a percentage of the average number of people employed during the year. Does not include agency workers not directly employed by Johnson Matthey.

2 Restated to account for a miscalculation in the carbon intensity of electricity at Redwitz, Germany.

3 Excludes 17,682 tonnes of uncontaminated soil from a construction project in Redwitz, Germany, which was classified as non-hazardous waste to landfill under local law (see page 67).

Basis of Reporting – Non-Financial Data

This annual report is written in accordance with the Global Reporting Initiative (GRI) core standards. Johnson Matthey has applied these in an appropriate context to the group by examination of the definition, explanatory notes and self diagnosis tests to ensure a fair, balanced and understandable description when assessed against the reporting criteria. This report covers the period from 1st April 2016 to 31st March 2017. Our last annual report was published in June 2016.

This report has been developed to incorporate the group's significant economic, environmental and social impacts and is set within the context of the United Nations Brundtland definition of sustainability (1987) and our own sustainable business goals. An understanding of the relevant local, national, regional and global issues, regulation and legislation is taken into account during reporting. The principles of inclusivity, materiality and responsiveness help to shape the structure of the report and in setting priorities for reporting.

Performance data covers all sites which are under the financial control of the group, including all manufacturing, research and warehousing operations of the parent company and its subsidiaries. Data from new facilities is included from the point at which the facility becomes owned by the company and operational. The report also explains how we are continuing to build sustainability into our business planning and decision making processes and how, through our governance processes, we manage social, environmental and ethical matters across the group.

Data measurement techniques, including calculations for social, environmental and health and safety performance, are applied to internationally recognised protocols such as the Corporate Accounting and Reporting Standard (Revised Edition) and the GRI indicator protocols as appropriate. Any exceptions are noted.

All non-financial performance data is reported on a financial year basis unless otherwise stated. Baseline year data has been restated, where necessary, to take account of changes in best practice methodologies for reporting. For employee data, percentage calculations are made in relation to the number of permanent and temporary employees in the group but do not include agency or self-employed workers not directly employed by Johnson Matthey (unless otherwise stated).

Certain employee data is included in the accounts and is also subject to separate external audit. The group's social, health and safety and environmental data is collected annually at a group level. It is completed by each business and approved by a senior manager for each global division. Data reported at a site level combines actual measurement and estimates. The processes in place to internally and externally verify the reported data are described on page 185.

Environmental Data Calculation Definitions

Our operational carbon footprint, reported in tonnes of carbon dioxide (CO_2) equivalent, includes Scope 1 and Scope 2 emissions and Scope 3 electricity transmission and distribution losses. Our Scope 2 emissions are calculated according to the Greenhouse Gas (GHG) Protocol corporate standard 2015 revision, www.ghgprotocol.org.

We report GHG emissions from processes and energy use and convert the total group energy use to tonnes CO_2 equivalent using conversion factors for each emissions source as published by Defra in October 2016.

For the location based method of Scope 2 accounting, for all facilities outside of the US, we use national carbon intensity factors related to the consumption of grid electricity in 2014 made available in the 2016 edition of the world CO_2 emissions database of the International Energy Agency. They were purchased under license in November 2016 for sole use in company reporting. For US facilities we use regional carbon factors published by the Environmental Protection Agency in January 2017, eGRID data 2014. For the market based method of Scope 2 accounting, we have applied the hierarchy of sources for determination of appropriate carbon intensity factors, as outlined in Table 6.3 on page 48 of the GHG Protocol 2015 edition guidance. We have successfully obtained carbon intensity factors directly from our grid electricity suppliers in the EU, US and Australia. However, it has not been possible to obtain this from suppliers in China, India, South Africa and non-OECD Europe.

Under the UK mandatory GHG reporting requirements, we are required to ensure that the quantification of GHG emissions and data reliability is sufficient to meet our obligation under the UK Companies Act 2006 (Strategic and Directors' Reports) Regulations 2013. The data we have presented for our carbon footprint in this report contains all Johnson Matthey's material GHG emissions and therefore meets the requirements of this legislation. We have included a mandatory GHG report in the table on page 69.

Injury and Illness Calculation Definitions

The following metrics are used in this report. Lost time injury and illness rate (LTIIR) is defined as the number of lost workday cases per 200,000 hours worked in a rolling year.

A lost workday case is defined as an incident where an employee or contractor is unable to work for more than one scheduled working day as a result of a work related injury or illness.

Total recordable injury and illness rate (TRIIR) is defined as the number of recordable cases per 200,000 hours worked in a rolling year.

A recordable case (as defined under the OSHA Regulations) is defined as a work related accident or illness that results in one or more of the following; absence of more than one day, medical treatment beyond first aid, death, loss of consciousness and restricted work or transfer to another job.

200,000 is the base for 100 full time equivalent workers working 40 hours per week for 50 weeks per year.

LTIIR by Event Type Definitions

Slip, trip or fall: Injury occurring where there is too little friction or traction between an individual's footwear and the walking surface. Trip injury occurs when the foot hits an object causing a person to lose balance. A fall injury is recorded when someone falls from an elevated surface (e.g. roof), object or temporary work platform (e.g. ladder) or into an opening in a floor or a hole in the ground.

Struck against: injury occurring as a result of coming into contact with a surface or object in which the action was initiated by the person (for example when a screwdriver slips).

Calculation of Occupational Illness Rates

Incidence rate for occupational illnesses in the year = (number of new occupational illnesses diagnosed in the year) x 1,000 ÷ (average number of employees in the year).

Verification of Non-Financial Data

For a number of years, the group has sought to collect and present certain non-financial data in respect of human resources, health and safety and environmental metrics as a means to demonstrate our performance as a responsible business. We have continued to review the metrics we present, the basis of measurement and the processes of collection and consolidation with a view to standardising and improving the relevance and quality of the metrics presented, and to further improve our processes in this area.

Certain human resources data forms part of Johnson Matthey's accounts which are subject to limited audit. Other human resources data, community investment data and information relating to charitable donations is reviewed and verified by internal experts.

Health and safety data is reviewed by group health and safety experts and as part of the group environment, health and safety (EHS) internal audit programme. Environmental data is reviewed by group environmental experts and as part of the group EHS audit programme.

All data is reviewed by internal sustainability experts and at appropriate levels of management up to and including the Group Management Committee.

Johnson Matthey uses external specialists on specific sustainability issues. Over the past year this has included external audits or reviews of people management systems, health and safety (OHSAS 18001) and environmental management systems (such as ISO 14001, ISO 50001 and RC 14001).

The board reviews corporate social responsibility (CSR) and broader sustainability issues as part of its risk management process.

Johnson Matthey compiles, assesses and discloses non-financial information for a number of reasons:

- where there is a legal obligation (UK Companies Act, mandatory carbon reporting);
- to help drive improved business performance;
- to demonstrate to institutional investors that Johnson Matthey's business approach is responsible, ethical, sustainable and offers a sound value proposition;
- to demonstrate to our customers that Johnson Matthey's business conduct meets or exceeds all of the required standards;
- to demonstrate to other stakeholders that Johnson Matthey conducts its business in an ethical, responsible and sustainable manner; and
- to benchmark our corporate performance against peer group companies.

Our information disclosures take many forms including investor interviews, customer questionnaires, independent CSR / sustainability / assurance surveys and the non-financial data and other information described within our annual report.

Since 2007/08 our annual non-financial reports have been subject to periodic third party assurance / assessment provided by independent consultants / auditors.

In 2016/17 we commissioned Corporate Citizenship to provide external assurance and commentary on the company's sustainability reporting of our Sustainability 2017 key performance indicators and data pertaining to our 2016/17 environment, health and safety performance. We also requested a review of our approach to stakeholder engagement and materiality as well as ensuring that the core disclosures are in accordance with GRI standards. Corporate Citizenship has subsequently provided the following summary assurance report:

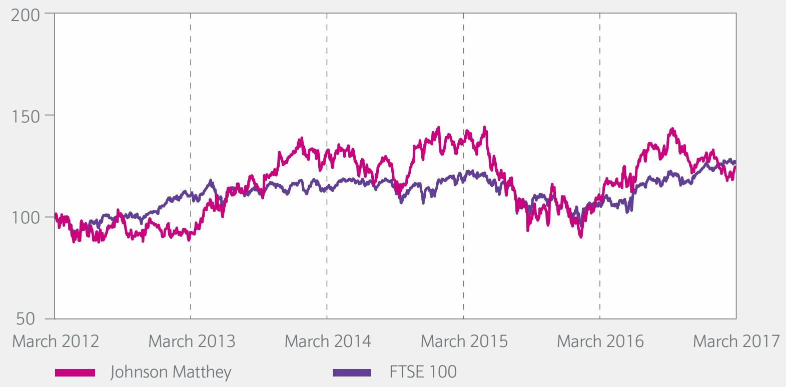
"Johnson Matthey commissioned Corporate Citizenship to provide limited assurance of its Sustainability 2017 key performance indicators and an evaluation of its approach to stakeholders and materiality. Johnson Matthey has chosen to use the ISAE 3000 standard, and the relevant subject-matter specific ISAE for GHG data (ISAE 3410), as the reference standards with regard to the key performance indicators. For evaluating the stakeholder and materiality approach, Johnson Matthey has chosen to use the AA1000 (2008) principles of inclusivity, materiality and responsiveness as the reference standard.

Based on the scope of work and assurance procedures performed, nothing came to our attention that causes us to believe that the Sustainability 2017 key performance indicators are not prepared, in all material respects, in accordance with the GRI Principles for Defining Report Quality and the WRI / WBCSD GHG Corporate Accounting and Reporting Standard (Revised).

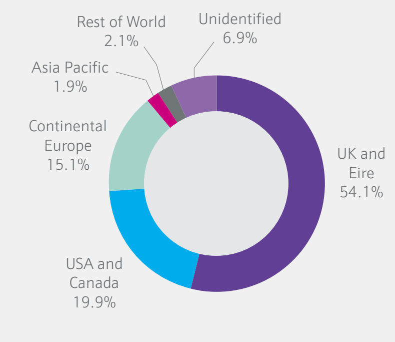
This assurance conclusion should be read in conjunction with the full assurance statement published online at www.matthey.com/assurance-statement-16-17. This contains a description of the scope of our work, our detailed findings and a commentary upon the stakeholder and materiality approach of Johnson Matthey assessed against the AA1000 principles of inclusivity, materiality and responsiveness."

Shareholder Information

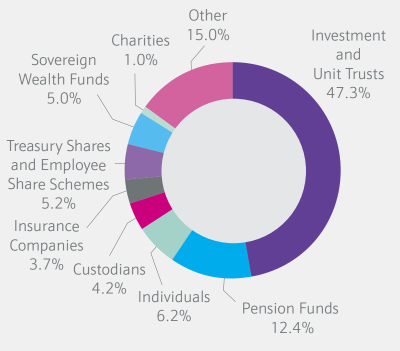
Johnson Matthey Share Price Five Year Performance versus FTSE 100



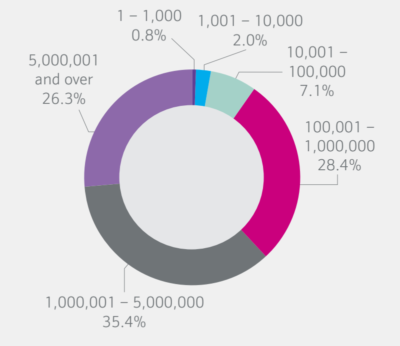
By Location



By Category



By Size of Holding



Johnson Matthey Share Price as at 31st March

2012	2013	2014	2015	2016	2017
2,359p	2,300p	3,271p	3,386p	2,744p	3,080p

Analysis of Ordinary Shareholders as at 28th April 2017

By location	Number of shares	Percentage
UK and Eire	107,615,749	54.1
USA and Canada	39,598,045	19.9
Continental Europe	30,141,718	15.1
Asia Pacific	3,728,699	1.9
Rest of World	4,164,865	2.1
Unidentified	13,691,530	6.9
Total	198,940,606	100.0

By category	Number of shares	Percentage
Investment and Unit Trusts	94,031,199	47.3
Pension Funds	24,820,643	12.4
Individuals	12,276,615	6.2
Custodians	8,388,727	4.2
Insurance Companies	7,385,778	3.7
Treasury Shares and Employee Share Schemes	10,391,433	5.2
Sovereign Wealth Funds	9,863,469	5.0
Charities	1,974,110	1.0
Other	29,808,632	15.0
Total	198,940,606	100.0

By size of holding	Number of holdings	Percentage	Number of shares	Percentage
1 – 1,000	5,517	72.7	1,707,531	0.8
1,001 – 10,000	1,415	18.6	4,031,551	2.0
10,001 – 100,000	425	5.6	14,095,242	7.1
100,001 – 1,000,000	189	2.5	56,500,487	28.4
1,000,001 – 5,000,000	35	0.5	70,360,863	35.4
5,000,001 and over	6	0.1	52,244,932	26.3
Total	7,587	100.0	198,940,606	100.0

Share Dealing Services

A telephone and internet dealing service for UK shareholders is provided by the company's registrars, Equiniti. For further information, including Equiniti's terms and conditions and details of their fees, log on to www.shareview.co.uk/dealing or call 03456 037 037.

Dividend History – Pence per Share

	2013	2014	2015	2016	2017
Interim	15.5	17.0	18.5	19.5	20.5
Final	41.5	45.5	49.5	52.0	54.5
Total ordinary	57.0	62.5	68.0	71.5	75.0
Special	–	–	–	150.0	–

Dividend Policy

It is Johnson Matthey's policy to grow ordinary dividends over time, broadly in line with underlying earnings per share while maintaining dividend cover at about two and a half times to ensure sufficient funds are retained to support organic growth. Over the last five years from 2012/13, underlying earnings per share have grown at a compound annual growth rate of 9.1% p.a. The board is proposing a final dividend for 2016/17 of 54.5 pence to take the total for the year to 75.0 pence, which is 5% up. The dividend will be covered 2.8 times by underlying earnings.

Dividend Payments and DRIP

Dividends can be paid directly into shareholders' bank or building society accounts. Shareholders wishing to take advantage of this facility should contact the company's registrars, Equiniti, or complete the dividend mandate form attached to their dividend cheque. A Dividend Reinvestment Plan (DRIP) is also available which allows shareholders to purchase additional shares in the company. Further information can be obtained from Equiniti, Aspect House, Spencer Road, Lancing, West Sussex BN99 6DA. Telephone 0371 384 2268*. They can also be contacted via their website at www.shareview.co.uk.

American Depositary Receipts

Johnson Matthey has a sponsored Level 1 American Depositary Receipt (ADR) programme which BNY Mellon administers and for which it acts as Depositary. Each ADR represents two Johnson Matthey ordinary shares. The ADRs trade on the US over-the-counter (OTC) market under the symbol JMPLY. When dividends are paid to shareholders, the Depositary converts such dividends into US dollars, net of fees and expenses, and distributes the net amount to ADR holders. For enquiries, BNY Mellon can be contacted on 1-888-BNY-ADRS (1-888-269-2377) toll free if you are calling from within the US. Alternatively, they can be contacted by e-mail at shrrelations@cpushareownerservices.com or via their website at www.adrbnymellon.com.

Share Price and Group Information

Information on the company's current share price together with copies of the group's annual and half-yearly reports and major presentations to analysts and institutional shareholders are available on the Johnson Matthey website: www.matthey.com.

The website's Investor Relations section contains extensive information and a number of tools which will be of assistance to investors including historic share price information downloads and a share price charting facility.

For capital gains tax purposes the mid-market price of the company's ordinary shares on 31st March 1982 was 253 pence.

Enquiries

Shareholders who wish to contact Johnson Matthey Plc on any matter relating to their shareholding are invited to contact the company's registrar, Equiniti, Aspect House, Spencer Road, Lancing, West Sussex BN99 6DA. Telephone 0371 384 2344* or via their website: www.shareview.co.uk.

Shareholders may also telephone the company on 020 7269 8400 or write to:

The Company Secretary
Johnson Matthey Plc
5th Floor
25 Farringdon Street
London
EC4A 4AB

For other enquiries shareholders may contact the Investor Relations team at the above address and telephone number.

* Lines are open 8.30am to 5.30pm Monday to Friday excluding public holidays in England and Wales.

6. Other Information

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6. Other Information

Glossary of Terms

2006 Act	The Companies Act 2006
Adjusted operating cash flow	Net cash flow from operating activities before tax and pension deficit funding contributions and after net purchases of non-current assets and investments
ADHD	Attention Deficit Hyperactivity Disorder
ADR	American Depositary Receipt
AGM	Annual general meeting
APB	Auditing Practices Board
API	Active pharmaceutical ingredient
CAGR	Compound annual growth rate
Capital expenditure to depreciation ratio	Capital expenditure divided by depreciation. Depreciation is the depreciation charge of property, plant and equipment plus the amortisation charge of other intangible assets excluding amortisation of acquired intangibles
Cash flow conversion	Adjusted operating cash flow as a percentage of underlying operating profit
CCT	Catalysis and Chiral Technologies
CDP	Carbon Disclosure Project
CEFIC	The Council of European Chemical Industry
CGU	Cash-generating unit
CO_2	Carbon dioxide
CPI	Consumer price index
CSR	Corporate social responsibility
DRIP	Dividend Reinvestment Plan
EBITDA	Earnings before interest, tax, depreciation and amortisation
ECT	Emission Control Technologies
EHS	Environment, health and safety
EIB	European Investment Bank
EPS	Earnings per share
ESG	Environment, social and governance
ESOT	Employee Share Ownership Trust
EU	European Union
FCA	Financial Conduct Authority
FRC	Financial Reporting Council
Free cash flow	Net cash flow from operating activities, after net interest paid, net purchases of non-current assets and investments and dividends received from joint venture
Fuel cell	Technology which converts hydrogen or other fuels (methanol, natural gas) into clean electricity
GAAP	Generally accepted accounting principles
GHG	Greenhouse gas
GMC	Group Management Committee
GRI	Global Reporting Initiative
GWP	Global warming potential
HDD	Heavy duty diesel
HR	Human resources
HSRG	Health Science Research Group
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
Incoterms®	The International Chamber of Commerce's International Commercial Terms
ISA	International Standards on Auditing
ISO 9000	Internationally recognised series of standards which specify the requirements for a quality management system
ISO 14000	Internationally recognised series of standards which specify the requirements for an environmental management system
ISO 50001	International standard giving guidelines on an energy management system
JMEPS	Johnson Matthey Employees Pension Scheme
KfW	KfW IPEX – Bank GmbH
KPI	Key performance indicator
LDV	Light duty vehicle
LFP	Lithium iron phosphate, a cathode material
LTIIR	Lost time injury and illness rate
LTIP	Long term incentive plan
NOx	Oxides of nitrogen
NPI	New product introduction
OHSAS 18001	Internationally recognised standard on occupational health and safety management
OSHA	Occupational Safety and Health Administration
OTC	Over-the-counter
PBT	Profit before tax
Pgm	Platinum group metal
PILON	Payments in lieu of notice
PMM	Precious Metals Management
PMP	Precious Metal Products
PPE	Personal protective equipment
PSP	Performance share plan
PSRM	Process safety risk management
PT	Process Technologies
R&D	Research and development
RC 14001	An internationally recognised standard, an expansion of ISO 14001
RDE	Real world driving emissions standards
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation. EU chemical control legislation which came into force in June 2007

Return on sales	Underlying operating profit divided by sales excluding precious metals
ROIC	Return on invested capital
RPI	Retail price index
RSP	Restricted share plan
SAICM	Strategic Approach to International Chemicals Management
Sales	Sales excluding the value of precious metals
SCR	Selective catalytic reduction
SIC	Standing Interpretations Committee
SIP	Share incentive plan
SPV	Special purpose vehicle
Syngas, synthesis gas	A mixture of hydrogen and carbon oxides
The Code	The UK Corporate Governance Code, issued by the FRC
TRIIR	Total recordable injury and illness rate
TSCA	Toxic Substances Control Act
UN	United Nations
UN SDG	United Nations Sustainable Development Goals
Working capital days	Non-precious metal related inventories, trade and other receivables and trade and other payables (including any classified as held for sale) divided by sales excluding precious metals for the last three months multiplied by 90 days

6. Other Information

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Financial Calendar 2017/18

2017

8th June
Ex dividend date

9th June
Final dividend record date

28th July
126th Annual General Meeting (AGM)

1st August
Payment of final dividend subject to declaration at the AGM

21st November
Announcement of results for the six months ending
30th September 2016

30th November
Ex dividend date

1st December
Interim dividend record date

2018 (provisional)

6th February
Payment of interim dividend

31st May
Announcement of results for year ending 31st March 2018

7th June
Ex dividend date

8th June
Final dividend record date

26th July
127th AGM

7th August
Payment of final dividend subject to declaration at the AGM

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