

HALMA

Halma plc
Annual Report and Accounts 2017

Global strength

Our financial strength comes from building an international, diversified portfolio of businesses in long-term growth markets. Our expertise in understanding these markets ensures that we invest our energy where there will be sustainable returns.

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Local agility

With autonomous businesses positioned at the heart of key markets, we have the expertise, innovation and agility to respond to changing dynamics and unlock opportunity in changing market environments.

Our purpose and strategy

Our business is protecting life and improving quality of life for people worldwide.

Our companies have a core focus on safety, health and the environment and our products provide innovative solutions for many of the key problems facing the world today.

Our strategy is to acquire and grow businesses in relatively non-cyclical, specialised global niche markets. The technology and application know-how in each company delivers strong competitive advantage to sustain growth and high returns.

Strategic Report

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Highlights

Continuing operations	2017	2016	Change
Revenue	£961.7m	£807.8m	+19%
Adjusted Profit before Taxation ¹	£194.0m	£166.0m	+17%
Adjusted Earnings per Share ²	40.21p	34.26p	+17%
Statutory Profit before Taxation	£157.7m	£136.3m	+16%
Statutory Earnings per Share	34.25p	28.76p	+19%
Total Dividend per Share ³	13.71p	12.81p	+7%
Return on Sales ⁴	20.2%	20.6%	
Return on Total Invested Capital ⁵	15.3%	15.6%	
Net Debt	£196.4m	£246.7m	

Pro-forma information:

- 1 Adjusted to remove the amortisation and impairment of acquired intangible assets, acquisition items, restructuring costs and profit or loss on disposal of operations, totalling £36.3m (2016: £29.7m). See note 1 to the Accounts.
- 2 Adjusted to remove the amortisation and impairment of acquired intangible assets, acquisition items, restructuring costs, profit or loss on disposal of operations and the associated taxation thereon. See note 2 to the Accounts.
- 3 Total dividend paid and proposed per share.
- 4 Return on Sales is defined as adjusted¹ profit before taxation from continuing operations expressed as a percentage of revenue from continuing operations.
- 5 Organic growth rates and Return on Total Invested Capital (ROTIC) are non-GAAP performance measures used by management. See note 3 to the Accounts.

Business at a Glance

Our sectors

**Revenue and profit growth
with high returns in all sectors.**

Process Safety

Products which protect people and assets at work. Specialised interlocks that control critical processes safely. Instruments that detect flammable and hazardous gases. Explosion protection and pressure relief systems, and corrosion monitoring products.

[Read more p30](#)

Infrastructure Safety

Products and services that improve the safety and mobility of people and protect commercially and publicly owned infrastructure. Fire detection systems, smoke detectors, specialist fire suppression systems, people and vehicle flow solutions, security systems and elevator safety products.

[Read more p36](#)

Medical

Products which enhance the quality of life for patients and improve the quality of care delivered by providers. Devices that assess eye health, assist with eye surgery and primary care applications. Critical fluidic components used by medical diagnostic OEMs and laboratories. Sensor technologies used in hospitals to track assets and support patient and staff safety.

[Read more p42](#)

Environmental & Analysis

Products and technologies for analysis in environmental safety and life sciences markets. Market-leading opto-electronic technology and sensors. Flow measurement instruments and gas conditioning products. Products for environmental data recording, water quality testing and water distribution network monitoring, and UV water treatment.

[Read more p48](#)

Financial highlights

£167m

Revenue

£40m

Operating profit

Contribution to sector total

17%

of revenue

19%

of operating profit

Primary growth drivers

- population growth
- increasing health, safety and environmental regulation
- demand for life critical resources

£315m

Revenue

£65m

Operating profit

33%

of revenue

30%

of operating profit

- population growth
- urbanisation
- increasing health, safety and environmental regulation

£261m

Revenue

£67m

Operating profit

27%

of revenue

31%

of operating profit

- population growth
- ageing and increased life expectancy
- demand for healthcare, particularly in developing economies

£219m

Revenue

£42m

Operating profit

23%

of revenue

20%

of operating profit

- population growth
- increasing environmental regulation
- demand for life critical resources

Our Business Model and Strategy

Inputs

Financial

Our operations are inherently cash generative and the Group has access to competitively priced finance, which provides good liquidity and support for the growth ambitions of Halma.

[Read more p60](#)

Product innovation

Investing in new product development and making complementary acquisitions enable Halma to develop the range and quality of its products.

[Read more p9](#)

Human capital

Developing talent and diversity across our businesses gives us a competitive advantage and ensures that we have motivated leaders to deliver our goals in an innovative and collaborative way.

[Read more p52](#)

Intellectual assets

Empowering our businesses to invest in new products and work collaboratively with each other to share knowledge and experience creates a culture where innovation can flourish.

[Read more p9](#)

Relationships

Interacting with our customers, suppliers and other strategic partners is key to developing market-leading positions in each of our businesses.

[Read more p9](#)

Sustainability

Halma is committed to promoting sustainable business practices and works to improve the Group's environmental performance.

[Read more p56](#)

How we increase value

We have a portfolio of market-leading companies within our four sectors: Process Safety, Infrastructure Safety, Medical, and Environmental & Analysis.

We place our operational resources close to our customers through autonomous locally managed businesses. We have central resources to increase innovation, international expansion and leadership talent. Each business builds strong application knowledge and technology by focusing on its specific market niche where there are often barriers to entry. We re-invest cash into acquiring high performance businesses in, or close to, our existing markets.

Competitive strengths

**Agile & close
to customers**

**Proven M&A
capabilities**

**Valuable
application
knowledge &
technology**

**Long-term
market
growth
drivers**

**Global
expansion
expertise**

**Strategy-led
talent
management**

**Innovation
through
collaboration**

Read more:

[Market Review p11](#)

[Principal Risks and Uncertainties p22](#)

[Sector Reviews p30 to 51](#)

[Financial Review p60](#)

Our strategic model is to double every five years. We aim to achieve this through a mix of acquisitions and organic growth. We ensure that cash generation is strong enough to sustain investment for growth and increase dividends without the need for high levels of external funding.

→ The value created

We create value for our stakeholders and our business by carefully managing the use of and return on inputs.

Revenue

£961.7m

Return on Sales

20.2%

Return on Total Invested Capital

15.3%

Global direct employment

5,811

Adjusted Operating Cash Flow

£175.5m

→ The value shared

We manage our resources to deliver a profitable, sustainable and responsible business. We create value which is retained in our business, making it stronger, and shared with our stakeholders.

Communities

Our products protect life and improve quality of life for people worldwide. We manage our business activities in a sustainable way, minimising the environmental impact of our operations.

Customers

Our businesses focus on market segments where our technical know-how and inter-company collaboration can deliver innovative solutions for our customers.

Shareholders

By effectively leveraging the inputs to our business, we create profits that benefit shareholders through increasing dividend returns and capital appreciation.

Employees

We develop and reward our people both financially and through personal and professional development.

Suppliers

As we grow our revenue and develop new products, we support other businesses and their stakeholders.

Governments

Through payment of taxes worldwide, we share our value creation with the countries in which our businesses operate.

How we maximise value through our strategy

Our strategy

To acquire and grow businesses in relatively non-cyclical, specialised global niche markets. The technology and application know-how in each company delivers strong competitive advantage to sustain growth and high returns.

How we reward our value creation

Our Remuneration Policy creates a strong alignment between the creation of value and management's financial rewards.

Remuneration **p88**

Our values

- Achievement
- Innovation
- Empowerment
- Customer satisfaction

Our investment priorities

- Innovation
- International expansion
- Talent development
- Acquisitions

Chief Executive's Strategic Review

Halma makes a positive difference to people's lives worldwide

Halma performed strongly over the past year, achieving its fourteenth consecutive year of record revenue and profit.

Andrew Williams
Chief Executive

Adjusted pre-tax profit up
17% on revenue up **19%**

7% increase in total
dividend per share

38th consecutive year
of growing dividend
payments by **5%** or more

Strong cash generation

M&A resource added to each
of our sectors and increased
financial resources support
further strategic investment

Halma's purpose is to protect life and improve the quality of life through innovative safety, health and environmental solutions. This provides us with exciting opportunities for growth in a diverse range of markets and with a strong motivation to make a positive difference to people's lives worldwide.

We have a clear growth strategy, a simple financial model and a unique organisational structure, which is customer-focused and enables us to adapt quickly to market changes.

Halma has had a well-established financial target that aims to double our earnings every five years, without becoming highly geared or seeking further equity, provided there are similar rates of organic, acquisitive and dividend growth. This aspiration pushes our businesses to deliver sustainable revenue growth by increasing investment in innovation, talent and international expansion rather than limiting their focus only on operational efficiency and short-term profitability.

Over the past five years, we have achieved compound annual growth rates of 10% for revenue and 11% for profit with a good balance between organic, acquisition and dividend growth. This strong performance reflects not only our sound growth strategy but also the exceptional commitment, abilities and dedication of talented individuals in every part of Halma. I thank all of them for their contribution to this financial success and, in the process, realising our shared purpose and making a positive difference to people's lives worldwide.

Record revenue and profit

Halma performed strongly over the past year, achieving its fourteenth consecutive year of record revenue and profit.

Revenue increased by 19% to £962m (2016: £808m) including 4% organic constant currency growth and 10% favourable currency impact. Adjusted¹ profit increased by 17% to £194m (2016: £166m), also including 4% organic constant currency growth and 10% favourable currency impact. There were 52 weeks trading in this year compared with 53 weeks trading last year.

Returns were maintained at a high level with Return on Sales of 20.2% (2016: 20.6%) well within our targeted range of 18% to 22%. Return on Capital Employed for our operating companies remained high at 72% (2016: 72%). The Group's Return on Total Invested Capital was 15.3% (2016: 15.6%).

Cash generation and balance sheet supports future growth

Cash generation was good and we ended the year with net debt of £196m (2016: £247m) after spending £10m on current year acquisitions (2016: £193m), £24m on capital expenditure (2016: £24m), £50m on dividends to shareholders (2016: £47m), and paying £33m of tax (2016: £27m).

With gearing at the year end (net debt to EBITDA) of 0.86 times (2016: 1.27 times), we have a strong balance sheet which can support further strategic investment. In November 2016, we increased and extended our revolving credit facilities from £360m until 2018 to £550m until 2021.

Final dividend to increase by 7%

The Board is recommending a final dividend increase of 7%, giving a final dividend of 8.38p (2016: 7.83p) and a total dividend for the year of 13.71p (2016: 12.81p). The final dividend per share is subject to approval by shareholders at the AGM on 20 July 2017 and will be paid on 16 August 2017 to shareholders on the register on 14 July 2017.

Growth in all major regions

A major benefit for businesses within Halma is the support they receive to build their business in key export markets. This year, once again, this was reflected in the widespread revenue growth achieved in both developing and developed regions.

There was impressive growth in Asia Pacific where revenue increased 21% to £152m (2016: £125m), including 9% organic constant currency growth. Revenue from China was up by 25% to £68m (2016: £54m), with 11% organic constant currency growth. Revenue from Other regions grew by 16% to £99m (2016: £86m) with good growth in Canada.

Revenue from Mainland Europe grew by 17% to £210m (2016: £179m) including 6% organic constant currency growth while UK revenue was up by 7% to £155m (2016: £145m) with 5% organic constant currency growth. The USA remained our largest regional market with revenue increasing by 27% to £345m (2016: £273m) and 1% organic constant currency growth.

Growth in all four sectors

There was revenue and profit growth in all four sectors. All sectors achieved record revenue and all, except Process Safety, also generated record profit.

The **Medical** sector became our largest profit sector for the first time, with profit² up by 29% to £66.7m (2016: £51.7) including 6% organic constant currency growth. Revenue grew by 31% to £261m (2016: £199m) with organic constant currency growth of 4%. Return on Sales remained strong at 25.6% (2016: 26.0%).

Regionally, the highest rate of organic constant currency revenue growth was in Asia Pacific and there was good progress in China. There were lower rates of organic growth in the UK and the USA, which is the largest region representing 52% of the sector. There was a small organic constant currency decline in Mainland Europe. Visiometrics and CenTrak, acquired in December 2015 and February 2016 respectively, delivered improved performances as the year progressed.

Infrastructure Safety profit² grew by an impressive 17% to £65.1m (2016: £55.6m) and revenue rose by 19% to £315m (2016: £265m). Both included organic constant currency growth of 7%. Return on Sales was 20.7% (2016: 21.2%).

There was strong organic constant currency revenue growth in Asia Pacific, the UK and Mainland Europe (the largest region at 30% of the sector) supported by excellent progress from our Fire and Door Safety businesses. There was organic constant currency revenue decline in the USA, partly due to a weaker performance from our Fire businesses, including Firetrace which we acquired in October 2015. We have continued to strengthen Firetrace's management team from within Halma and we expect its performance to improve as we move through 2017. We remain confident in its longer-term growth potential, especially in international markets.

The **Environmental & Analysis** sector increased profit² substantially by 21% to £41.7m (2016: £34.5m), which continued the excellent progress made last year and included 6% organic constant currency growth. Revenue grew by 16% to £219m (2016: £189m) with organic constant currency growth of 4%. Return on Sales improved from 18.3% to 19.0%.

Chief Executive's Strategic Review continued

The highest rates of organic constant currency revenue growth were achieved in Asia Pacific, with China achieving double-digit growth and now contributing 12% of sector revenue. There was good growth in the USA and solid progress in the UK. Mainland Europe saw organic revenue decline after weaker demand from certain OEM customers headquartered in the region.

During the year we completed the restructuring of our photonics coatings business, Pixelteq. The exceptional costs associated with this project were reported in our first half results. The profitability benefits started to emerge in the final quarter of 2016/17 and are expected to make a positive contribution to profit growth in the 2017/18 financial year, despite the small revenue reduction arising from this consolidation.

The **Process Safety** sector's performance improved as the year progressed, benefiting from sustained increased investment in market diversification and improving demand from the US onshore energy market in the second half of the year. Revenue increased by 7% to a record £167m (2016: £155m) with a relatively

encouraging 1% organic constant currency growth. Profit² rose by 2% to £40.2m (2016: £39.6m). Although there was a 4% organic constant currency decline for the full year, there was organic constant currency profit growth of 4% in the second half of the year. Return on Sales for the year remained strong at 24.1% (2016: 25.4%).

There was impressive organic constant currency growth in the Near and Middle East and modest improvements in the USA and Mainland Europe. There was a small organic revenue decline in the UK and reduced demand in our pipeline management sub-sector contributed to organic revenue decline in Asia Pacific.

In overall terms this was an encouraging year and Process Safety is now much better placed to sustain growth, with less reliance on energy and resources markets than one year ago.

One acquisition completed; M&A resource strengthened

Our core acquisition strategy is to find privately-owned businesses operating in niches within safety, health or environmental markets. Our search efforts are typically focused on our core, or closely adjacent, market niches

although each Halma sector has the freedom to find new niches which possess the right product, market and financial characteristics. In almost all cases we acquire 100% of an entity but we will consider a minority investment to gain access to potentially valuable intellectual property if an outright purchase is not appropriate or possible.

Our sector-focused organisation model gives us the scalability to continue acquiring small-to-medium sized businesses to achieve our strategic growth objectives. We are also able to sell and merge businesses relatively easily should specific market dynamics change. This active portfolio management has meant the number of businesses within Halma has been relatively stable, reducing the potential for concerns over management's increasing span-of-control as we grow. In 2007, Halma had revenue of £355m from 39 operating companies while today, we have revenue of £962m from 42 operating companies.

During the year, we added further M&A resource to our four sector boards and the benefits of this are becoming apparent in the improved balance of our acquisition pipeline across

sectors and in the increasing number of visits made to targeted businesses. The M&A market continues to be competitive with high multiples being paid for businesses in many of our attractive market niches. This highlights the need for us to build strong relationships with business owners, sometimes over a number of years, so that they already see Halma as a great home for their business when they eventually decide to sell.

Every transaction is approved by the Group Chief Executive and Group Finance Director, with all deals £10m or over requiring Halma plc Board approval.

In January 2017, we acquired FluxData, a New York based manufacturer of advanced multi-spectral and digital imaging systems for multiple market segments including industrial and medical applications. FluxData builds on multi-spectral imaging capabilities that already exist in our Environmental & Analysis sector. Joining Halma offers FluxData the opportunity to access new niches and regions for safety, health and environmental markets. The consideration paid was US\$12m (£9.9m) with further contingent consideration of up to US\$15.5m (£12.8m) based on its performance to 31 March 2019.

Increasing strategic investment for growth and the 4th Industrial Revolution

We have a clear understanding of how we want our businesses to benefit from being part of Halma. We demonstrate this by making targeted central investments and building a strong collaborative culture. Over the past decade, our primary focus has been on Talent Development, Innovation and International Expansion. These central investments have led to individual sector initiatives targeted at opportunities and challenges which are particularly relevant to that sector.

Increasingly, we are seeing the opportunities and challenges of the '4th Industrial Revolution' and we are gaining a better appreciation of the influential role that we can play in the development of our safety, health and environmental markets. Many of our businesses have been using or experimenting with technologies such as robotics and 3D printing for some time. Increasingly our products are sensing, analysing and communicating data either as part of a larger connected system or as stand-alone solutions. In order to be successful in this changing world the ability to combine technologies is increasingly important and we are relentlessly improving our collaborative capabilities.

We have completed the search for the new role of Chief Innovation and Digital Officer for the Halma Executive Board and are pleased to announce that Inken Braunschmidt will be joining the Group in early July 2017. Inken will be joining us from innogy SE, a renewables energy company based in Essen, Germany and spun out of RWE in 2016. In recent years, Inken led the innovation and digital transformation at RWE with a customer and people-centred approach. Prior to that, Inken was MD of RWE's Strategy and Management Consultancy practice. Her role at Halma will similarly be critical in both accelerating the development of innovative digital strategies and in building a stronger collaborative community both inside the Group and with external partners.

In April 2017, we held our biennial innovation, collaboration and experimentation event, HITex in San Diego, USA. Board members from all Halma companies attended a three-day event which included sessions focused on harnessing new technologies, developing more ambitious growth strategies and understanding the value of strategic partnerships. As always, the event highlighted the impressive capabilities and growth potential of our businesses but also reminded us of the need to constantly improve and change in order to be successful in the future.

R&D spend increased to 5.3% of revenue

New product innovation is a vital component of creating organic growth and enables each Halma company to increase its revenue and profitability through market share gain and market expansion.

Our investment in new product development increased substantially, with a record R&D spend up by 23% to £50.6m (2016: £41.2m). This was a 13% increase at constant currency and represented 5.3% of Group revenue (2016: 5.1%), also a new record.

The decentralised nature of Halma means that each Halma company determines its own R&D spend according to its market opportunity. All four sectors increased R&D spend with the relative investment levels ranging from 3.6% of revenue for Process Safety up to 6.9% for Environmental & Analysis.

We track the effectiveness of this investment in a variety of ways including the proportion of revenue generated from new products launched in the past three years. Over the past four years, the average contribution to Group revenue from

products launched in the past three years has been around 22% although the individual company metrics range from single digit to over 50%.

Since 2004, the best examples of innovation in Halma have been celebrated and recognised each year through the Halma Annual Innovation Awards. All employees are able to enter, offering them a first prize of £20,000. This year the winner of the New Product award was BEA's Flatscan laser sensor, which has transformed safety in swinging doors as well as promising further growth opportunities in other markets. First prize in the Process award was Fortress Interlocks' online interactive tool which helps customers easily configure and order customised products from a standard product platform. The Collaboration category was won by Ocean Optics and Fiberguide who co-developed a product to test the authenticity of bank notes in China.

Corporate responsibility and sustainability is at Halma's core

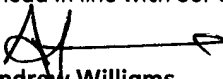
Halma's core strategy is to protect life and improve quality of life for people worldwide. Our primary market growth drivers mean that Halma companies operate in markets in which their products contribute positively to the wider community. These market characteristics and our commitment to health and safety, the environment and people development are reflected in the values held by our employees and our operating culture.

A detailed report on our approach to Corporate Responsibility, including our CO₂ emissions reduction performance, is on pages 56 to 59.

Outlook

Halma operates in a diverse range of market niches where demand is supported by resilient long-term growth drivers. We are able to grow faster than our markets through sustainable and increasing investment in innovation, international expansion and strategy-led talent management. Our growth mind-set extends to our M&A activity where we buy businesses to increase investment for growth rather than reduce costs.

Since the period end, order intake has continued to be ahead of revenue and order intake last year. We expect to make further progress in the year ahead in line with our expectations.


Andrew Williams
Chief Executive

1 See Highlights
2 See note 1 to the Accounts

Chief Executive's Strategic Review continued

Understanding our stakeholders' needs

Chief Executive Q&A

Q What is Halma's financial model?

Halma has a simple financial model. Our aspiration is to double every five years, through a mix of acquisitions and organic growth. Because we generate high returns and strong cash generation, we are able to invest for growth as well paying an increasing dividend to shareholders.

Q What is Halma's strategy?

We choose markets with resilient growth drivers, including increased safety regulation, increasing demand for healthcare and life-critical resources (e.g. water). Within these markets, we select product niches with strong intellectual property that deliver high, sustainable returns. We have an agile, de-centralised operating model which makes sure resources are placed close to customers. We drive organic growth through investment in innovation (e.g. R&D spend has grown from £15.3m to £50.6m since 2007), international expansion (e.g. revenue from outside the UK, Europe and the USA has increased from £67.8m to £251.1m since 2007) and talent (a major priority and competitive differentiator for us). Acquisitions are also an important part of our growth.

Q How do this year's results reflect Halma's strategy?

These results show the benefits of our market and geographic diversity. Having an agile and flexible operating model means our businesses can adjust quickly to their markets, as opportunities change. Having a de-centralised model is at the heart of our financial performance – supporting 14 consecutive years of record revenues, profits and dividends.

Q How has Halma performed over the long term?

Very strongly. Halma's growth and consistency is a key differentiator. The Group has delivered revenue growth in 41 of the past 43 years, and a return on sales higher than 16% for the past 32 years. Over the past decade, revenue has grown every year, from £355m to £962m, a CAGR of c.10%. In the same period, profit has grown from £66m to £194m. This has enabled us to increase our dividend by 5% or more every year for the past 38 years.

Q What does Halma look for in acquisitions?

We typically acquire relatively small businesses, in the £10m to £100m price range, that share Halma's key characteristics. They operate in, and adjacent to, our existing markets and are financially strong. Most of these deals we source ourselves.

Q What is Halma's acquisition track record over the past ten years?

Our strong financial resources have enabled us to spend £645m on 26 acquisitions since 2007. In the last few years, we have added dedicated M&A resources at sector level, making us well placed to continue this successful track record.

Q How will Halma sustain its future growth?

Halma's strategy is based on growth, organically and through acquisitions. In 2014 we created four sectors, 'mini Halmas' – Process Safety, Infrastructure Safety, Medical and Environmental & Analysis – each with the potential to be the size of Halma today. This gives us a structure to support growth over the medium to long term, while retaining the unique, decentralised operating model that has driven our success. The sector set-up means we can maintain the current pace of acquisitions and continue to focus on relatively small companies. It is also helping to drive organic growth – for example, through sharing technology, pooling information on our customers and collaborating for international expansion.

Market Review

Understanding and responding to changes in market trends

Macro-economic, regulatory and competitive environment

Halma's strategy is to develop market positions primed for growth over 10 years or more. Our operating companies have growth strategies with three to five year horizons.

Our focus is on supplying safety, health and environmental products that protect life and improve the quality of life worldwide. We position our businesses in relatively resilient markets. Our chosen markets benefit from resistance to cyclical economic downturn, high barriers to entry and long-term growth driven by:

- increasing health and safety regulation
- increasing demand for healthcare
- increasing demand for life-critical resources

Most of our markets are underpinned by regulation. This drives sustained demand throughout economic cycles and often makes customer spending non-discretionary. Our companies' strong market positions deliver upgrade and replacement sales opportunities as customers seek to maintain regulatory compliance and conform with best practice.

Our competitive environment is influenced by global, regional and national product approvals and technical validations. Compliance with new and updated product regulations is a steadily increasing cost and technical challenge, but

our expertise in this area enables us to respond quickly and build competitive advantage.

Halma is exposed to a very diverse range of carefully selected niche markets, each with its own unique drivers. As a result, macro-economic

factors affect our businesses' competitive environment very differently depending on their market segment and geographic exposure.

Our operating companies develop and execute their own growth strategies and respond to changes in their specific markets. Sector management teams provide strategic support and oversight for wider-reaching and longer-term market dynamics. More detail about our market segments and competitive environment is given in the sector reviews on pages 30 to 51.

Our strategy of focusing on non-cyclical niche markets with growth underpinned by resilient regulatory drivers and product approvals provides our businesses with genuine stability: resilience in challenging economic conditions and organic growth above prevailing market rates. This underlying intrinsic strength enables us to plan and to invest for the longer-term with confidence.

Market Review continued

In 2017 global economic growth is forecast to rise moderately to 3.4%. In the advanced economies growth is expected to edge up to 1.9%. Growth in our largest market, the USA, is forecast at 2.5% but government fiscal stimulus could raise growth higher. Steady growth is anticipated in both Europe and Central Asia during 2017 with a forecast of 2.4%. The strongest economic growth in 2017 is expected in emerging markets and developing economies, where it should rise to 4.5%. The fast-growing Chinese and Indian economies are predicted to grow by 6.5% and 7.2% respectively during 2017.

Growth trends in the global economy for 2017/18, in both developed and developing economies, are broadly favourable for our businesses. We expect developing socio-economic conditions in Asia and South America to drive rising demand for our products used to make workplaces safer, provide healthcare, improve infrastructure safety and manage life-critical resources.

Increasing health and safety regulation

Most of the world's work-related deaths, injuries and illnesses are preventable and employers must comply with increasingly strict government laws and regulations to protect their workers, the environment and their assets from workplace hazards.

Each year more countries give higher priority to occupational safety and health, and the prevention of accidents and work-related illness. Governments and employers increasingly recognise the major impact that workplace accidents and disease have on productivity, competitiveness and business reputation, as well as on the health and livelihoods of workers and their families.

Alongside increasing regional, country and industry-specific laws and regulations, globalisation has encouraged many multinational employers to extend workplace health and safety practice across their worldwide operations, particularly

in developing economies. These factors drive demand for our Process Safety and Infrastructure Safety products.

Every year more than 2.3 million workers die from occupational accidents or work-related disease; a death every 15 seconds. 317 million non-fatal work accidents occur annually. Workplace fatalities, injuries and illness are a serious human and financial problem for workers and their families and a social and economic burden for businesses, communities and national economies.

There is a global trend for governments and employers to recognise the significant social and economic impact of poor occupational safety and health practice. In addition to the effects of work accidents and illness on individuals, the resulting absence, disability benefits, compensation, interruption of production and medical expenses are a financial burden.

The macro-economic cost of occupational injuries, illness, disability and incapacity is estimated to average

4% of global GDP. In countries with less developed occupational health and safety, a far higher proportion of GDP is spent on work-related injury and illness, reducing capital resources for productive economic investment. The International Labor Organization estimates that work-related illness and accidents cost up to 10% of GDP in Latin America, compared with under 4% in the EU. In the USA, worker illness and injury now costs employers US\$225 billion each year.

Safety and health at work standards and practices vary considerably between countries, economic sectors and social groups. However, they are generally improving and becoming more closely aligned. Deaths and injuries take a particularly heavy toll in developing countries, where a large part of the population may work in hazardous conditions. However, greater investment and advances in occupational safety are reducing the number of fatal accidents at work.

Governments around the world are prompted by deaths and injuries caused by accidents to introduce new and tougher regulations to protect people from harm in commercial buildings and public places. The continuous introduction of new, mandatory building codes affecting fire protection, building security, automated doors and elevators drives demand for our Infrastructure Safety products.

Increasing demand for healthcare

The continuous rise in healthcare demand and spending worldwide is driven by a combination of factors:

- growth and ageing of the global population
- rising life expectancy
- increasing chronic disease
- medical innovations
- rising incomes
- increasing patient expectations

Population ageing, together with a rising prevalence of age-related chronic disease, is affecting all regions of the world in both the developed and developing economies. These demographic changes combine to form a strong long-term driver for healthcare services and products in our Medical and Environmental & Analysis sectors. Continuous advances in medical technology and therapies stimulate demand for new equipment.

Driven by a global trend of declining fertility and rising longevity, the number of people aged over 65 is forecast to more than triple between 2010 and 2050. Life expectancy is expected to rise from 72.7 years in 2013 to 73.7 years by 2018. As a result,

over 10% of the world's population will be over 65. In the USA, the world's largest healthcare market, increasing life expectancy is predicted to double the number of people over 65 by 2050.

Although developed countries have the oldest population profiles (about 20% of people in Japan, Germany and Italy are aged 65 or over), the large majority of older people, and the fastest rates of population ageing, are in the less developed economies. About 9% of China's population is currently aged over 65, but the proportion is expected to rise to around 12% in 2020. By that time health services for the elderly will account for nearly 23% of China's total healthcare spending. Almost two thirds of the world's older people will live in Asia by 2050.

As fertility rates fall globally, the pace of population growth is slowing in almost every region except Africa. In 2015 the global population reached 7.3 billion, almost three times higher than in 1950. Despite the falling rate of growth, world population is still projected to rise to 8.5 billion by 2030. Almost 40% of growth in the global population during 2015 to 2030 is expected in Africa.

Global healthcare spending – about 10% of global GDP – is forecast to grow faster than the global economy over the next few years, rising from US\$7 trillion in 2015 to US\$8.8 trillion by 2020. While the global healthcare market is still dominated by the developed world, government spending as a proportion of GDP is projected to rise at the fastest rate in the developing economies. Advanced economies such as the USA, Europe and Japan spend about 12% of GDP on healthcare; developing economies average about 6% of GDP. Almost two thirds of the world's total healthcare expenditure occurs in the developed economies, with the USA alone responsible for 40% of the global spend.

In addition to the powerful demographic healthcare demand drivers of global population ageing and population growth, rising affluence is also a strong driver in the developing world. Healthcare spending in emerging nations is forecast to rise dramatically. The strongest growth forecast of 15% is India, with annual growth in China estimated at over 12% supported by government investment and initiatives to improve the accessibility and quality of healthcare.

Market Review continued

The incidence rates of cancer, heart disease, stroke, respiratory disease, diabetes and hypertension have risen sharply in the past decade, particularly in developing regions. These chronic diseases are the leading cause of mortality worldwide due to population ageing, more sedentary lifestyles, changing diets and rising obesity. Halma's focus on ophthalmology and advanced blood pressure monitoring products directly relates to the diagnosis and treatment of these chronic and age-related diseases.

Increasing demand for life-critical resources

Continuous growth in demand for life-critical resources is the result of social and economic development. According to the United Nations, almost 3 billion people in 48 countries will be facing water shortages within 10 years that could cause conflict and political destabilisation. By 2030 there will be a global freshwater deficit of 40%. Global electricity demand is forecast to double by 2060.

Rising energy consumption and water usage is driven by four key trends:

- population growth
- economic growth
- rising living standards
- dietary and agricultural changes

During the 20th century water consumption grew twice as fast as the world population. Water scarcity is now highlighted by the World Economic Forum as the most serious risk that our planet faces.

Water consumption is driven by long-term trends: growing populations, rising affluence, industrialisation and urbanisation in emerging markets, and outdated water infrastructure in industrialised countries. These same trends have led to the pollution of water resources, further reducing the capacity of the natural water cycle to meet the world's growing water demand.

The problem with access to fresh water is not its finite volume but inadequate distribution which is largely dependent on economic resources. Affluent countries manage water resources to meet demand, but developing economies often lack basic infrastructure to deliver clean, safe water.

Over 4 billion people (about two thirds of the global population) currently live with severe water scarcity for at least one month a year. Half a billion people live in regions where water consumption from underground aquifers is continuously depleted because abstraction is double the volume of water replenished by rain every year. By 2025, 1.8 billion people are predicted to face absolute water scarcity.

Climate change and global warming also raise pressure on the world's freshwater resources. Rising temperatures in agricultural areas increase the rate of water evaporation from soil and crop transpiration, raising irrigation demand. Higher temperatures also raise energy consumption through increasing use of air conditioning.

Current water consumption patterns are unsustainable. By 2050, the United Nations expects global agriculture to produce 60% more food (100% more in developing countries), but the current growth rate of agricultural water consumption cannot be sustained. Industrial demand for water is predicted to rise by 400% between 2000 to 2050, with the highest increases in emerging economies.

Competition for water resources is forecast to increase between industries and economic sectors, and between countries in both developed and developing regions. The rising value of finite water resources drives demand for our water conservation, treatment and testing products.

Rising affluence in developing economies lets people change their diet from starch-based foods to meat and dairy, which significantly raises agricultural water consumption. Producing one kilo of rice uses 3,500 litres of water but it takes 15,000 litres to produce a kilo of beef. Dietary change has been the primary driver of global water consumption over the past 30 years, a trend which is expected to continue well into the middle of the 21st century.

Rising demand for energy and water is strongly linked. Power generation, fossil fuel extraction, transport and processing, and biofuel crop irrigation all consume large volumes of water. Water used in energy production can also degrade freshwater resources by reducing the downstream volume and quality. Energy is vital to provide fresh water, powering the systems that collect, transport, distribute and treat it. After agriculture, energy production is the second largest water consumer worldwide. Energy uses about 15% of the world's total water withdrawal, but this is expected to rise by 20% by 2035.

In recent years water shortages have shut down thermal power plants in India, affected energy production in US power plants and threatened hydropower electricity generation in many countries, including Sri Lanka, China and Brazil.

The World Energy Council reports that energy demand growth is slowing and that per capita energy demand will peak before 2030. New technology, government policies and reduced expectations of economic growth will significantly affect the energy sector in coming decades. Despite a levelling of the per capita energy demand, global energy consumption will continue to rise due to population growth, rising affluence and urbanisation.

While global GDP is forecast to double over the next 20 years, total energy demand is predicted to rise by only 30% due to technological improvements in energy use and environmental concerns. The large majority of the extra energy will be consumed in fast-growing emerging economies; energy use within developed economies is predicted to remain largely unchanged.

The oil and gas segment of the energy market consists of three sectors: upstream (exploration and production), midstream (storage, processing and distribution), and downstream (oil refining and raw gas processing). Although industry analysts predict that oil prices will rise gradually during the next few years, the impact of the heavy price downturn in 2014 is continuing to limit capital investment by the oil majors in most regions. During 2016 capital investment in upstream projects remained under extreme pressure. The deepest upstream spending cuts have been in the USA, but capital investment is largely unchanged in Saudi Arabia and most of the Middle East. Investment continues in midstream and downstream oil and gas storage and refinery projects where our Process Safety products have most exposure.

The oil price downturn is expected to have a long-term effect on capital investment in the oil and gas sector and the recent capital allocation trend has shifted towards shorter-cycle projects. It is estimated that around US\$620 billion of projects through to 2020 have been deferred or cancelled.

We expect several of our businesses will see a continued fall in revenue from upstream oil and gas projects. However, a combination of long-term growth in energy demand, rising capital expenditure in refining, petrochemicals and pipelines in the oil and gas midstream/downstream sectors, and in alternative energy markets like wind farm power generation, will offer growth and diversification opportunities for our businesses affected by the short-term oil price fall.

As global demand for water resources becomes unsustainable, the value of conservation, improving efficiency and effective monitoring is growing. Several of our Environmental & Analysis sector businesses operate in markets driven by the global trends of rising demand for life-critical resources such as energy and water. Rising energy demand, and continued global investment in the key sectors of traditional and unconventional energy sources, also drives demand for our Process Safety products.

Key Performance Indicators

Strategic focus	Strategy	Key performance indicator
Through careful selection of our market niches and strategic investment in people development, international expansion and innovation we aim to achieve organic growth in excess of our blended market growth rate, broadly matching revenue and profit growth in the medium term. We buy companies with business and market characteristics similar to those of existing Halma operations. Acquired businesses have to be a good fit with our operating culture and strategy in addition to being value-enhancing financially.		4% performance ≥5% target
		1% performance ≥5% target
The measure of how successful we are in growing our business organically and by acquisition coupled with strong financial disciplines, including those related to tax and capital allocation, is captured in the Group's adjusted earnings per share.		17% performance ≥10% target
Through careful selection of our market niches and strategic investment in people development, international expansion and innovation we aim to achieve organic growth in excess of our blended market growth rate, broadly matching revenue and profit growth in the medium term.		4% performance ≥5% target
We choose to operate in markets which are capable of delivering high returns. The ability to maintain these returns is a result of maintaining strong market and product positions sustained by continuing product and process innovation.		20.2% performance ≥18% target
		15.3% performance ≥12% target

Definition	Comment	2018 target	Remuneration linkage
Organic profit growth is calculated at constant currency and measures the change in adjusted profit achieved in the current year compared with the prior year from continuing Group operations. The effect of acquisitions and disposals made during the current or prior financial year has been eliminated.	Organic profit growth at constant currency was just below our target, however adjusting for the shorter accounting period in 2016/17 it is estimated to be above target. There were strong performances in Environmental & Analysis, Infrastructure Safety and Medical sectors, with a good recovery in Process Safety.	The Board has established a long-term organic growth target of 5% per annum, slightly above the blended long-term average growth rate of our markets.	Growth in organic profit is a key element of the economic value added performance which forms the basis of the annual bonus plan, requiring consistent annual and longer-term growth, rewarding disciplined financial performance.
Acquisition profit growth measures the annualised profit (net of financing costs) from acquisitions made in the year, measured at the date of acquisition, expressed as a percentage of prior year profit.	Acquisition profit fell short of our target of 5% for the year, with only one acquisition completed. Sector acquisition resource has been increased further and the acquisition pipeline is more balanced across the sectors.	Acquisitions must meet our demanding criteria and we continue to have a strong pipeline of opportunities to meet our 5% growth target.	Growth in acquired profit is the second key element of the Economic Value Added performance which forms the basis of the annual bonus plan, requiring consistent annual and longer-term growth, rewarding disciplined financial performance.
Adjusted earnings are calculated as earnings from continuing operations excluding the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; profit or loss on disposal of operations; the effects of closure to future benefit accrual of the defined benefit pension plans net of associated costs (2014 only); and associated tax thereon.	Performance was strong and exceeded our target. Currency translation had a positive impact on the year's result.	We aim for the combination of organic and acquisition growth to exceed 10% per annum over the long term. The Directors consider that adjusted earnings represent a more consistent measure of underlying performance.	EPS provides a clear link to the aims of the business growth strategy. It is a key financial driver for our business and provides a clear line of sight for our executives. EPS is 50% of the performance condition attaching to the Executive Share Plan introduced in 2015.
Organic revenue growth is calculated at constant currency and measures the change in revenue achieved in the current year compared with the prior year from continuing Group operations. The effect of acquisitions and disposals made during the current or prior financial year has been eliminated.	Organic growth at constant currency in revenue was just below our target, however adjusting for the shorter accounting period in 2016/17 it is estimated to be above target. There was growth in all sectors and all major geographic regions.	The Board has established a long-term minimum organic growth target of 5% per annum, slightly above the blended long-term average growth rate of our markets.	Organic growth in revenue contributes to the Economic Value Added performance which forms the basis of the annual bonus plan, requiring consistent annual and longer-term growth, rewarding disciplined financial performance.
Return on Sales is defined as adjusted profit before taxation from continuing operations expressed as a percentage of revenue from continuing operations.	Return on Sales was well above target. Environmental & Analysis continued to deliver Return on Sales above 18% with a further increase this year. Infrastructure Safety and Medical sustained a strong performance. Process Safety demonstrated its resilience despite tough market conditions.	We aim to achieve a Return on Sales within the 18% to 22% range while continuing to deliver profit growth.	Return on Sales is a measure of the value our customers place on our products and of our operational efficiency. High profitability supports the generation of high economic value.
ROTIC is defined as the post-tax return from continuing operations before amortisation and impairment of acquired intangible assets; acquisition items; profit or loss on disposal of operations; and the effects of closure to future benefit accrual of the defined benefit pension plans net of associated costs (2014 only) as a percentage of average shareholders' funds.	Consistently high returns are in excess of our long-term Weighted Average Cost of Capital (WACC) of 7.1% (2016: 8.1%). ROTIC was once again above our target. Our focus continues to be on delivering organic and acquisition growth whilst maintaining high returns.	A range of 12% to 17% is considered representative of the Board's expectations over the long term to ensure a good balance between growth and returns.	ROTIC performance, averaged over three financial years, is 50% of the performance condition attaching to the Company's Performance Share Plan and the 2015 Executive Share Plan.

Key Performance Indicators continued

Strategic focus	Strategy	Key performance indicator
Strong cash generation provides the Group with freedom to pursue its strategic goals of organic growth, acquisitions and progressive dividends without becoming highly-leveraged.		86% performance ≥85% target
The safety, health and environmental markets in Asia and other developing regions are evolving quickly. We continue to invest in establishing local selling, technical and manufacturing resources to meet this current and future need.		19% performance ≥10% target
We have maintained high levels of R&D investment and spending on innovation. The successful introduction of new products is a key contributor to the Group's ability to build competitive advantage and grow organically and internationally.		5.3% performance ≥4% target
Halma conducts an annual survey of its employees to assess engagement across the Group.		74% performance 74% target
Safety is critical and a major priority for the Group. Halma collects details of its worldwide reported , health and safety incidents and encourages all Group companies to seek continuous improvement in their health and safety records and culture.		0.12 performance <0.09 target
Halma development programmes provide key personnel with the necessary skills they need in their current and future roles; new programmes include non-executive director opportunities, enterprise programmes and sales management development, alongside our refreshed executive, manager and graduate programmes.		60% performance >50% target

Definition	Comment	2018 target
Cash generation is calculated using adjusted operating cash flow as a percentage of adjusted operating profit.	Cash generation of 86% (2016: 86%) was in excess of the 85% target in the current year with strong cash performances across the Group.	The goal of Group cash inflow exceeding 85% of profit is a metric that has relevance at all levels of the organisation and aligns management action with Group needs. We ensure that strong internal cash flow and availability of external funding underpin our strategic goals of organic growth, acquisitions and progressive dividends.
Total sales to markets outside the UK, the USA and Mainland Europe compared with the prior year. This KPI replaces the previous International Expansion KPI which measured these sales as a percentage of total Group revenue.	Revenue outside the UK, the USA and Mainland Europe increased by 19% which is well above the KPI target with strong growth in both developed and developing markets. Very good progress was made in Asia Pacific, with strong growth in China across all sectors. We saw some recovery in South and Central America.	The emphasis on international revenue growth at twice the rate of overall organic growth reinforces the importance of emerging markets and our strategy of establishing operations close to our end markets.
Total research and development expenditure in the financial year (both that expensed and capitalised) as a percentage of revenue from continuing operations.	Total spend in the year increased by 23% to a record level of £50.6m (2016: £41.2m) and as a percentage of revenue increased to 5.3%. All sectors increased R&D expenditure.	New products contribute strongly to organic growth, maintaining high returns and building strong market positions. The 4% minimum investment target is appropriate to the mix of product life cycles and technologies within Halma.
Engagement of Group employees as measured through an externally facilitated survey over nine dimensions: engagement, empowerment, accountability, collaboration & teamwork, communication, development, ethics & fair treatment, innovation and leadership.	2017 saw our inaugural engagement survey (building on our previous values survey) and established a baseline engagement level which sets our future target. It is pleasing that the Group's results were on par with the external normative data.	The results will be communicated throughout the Group and used to inform organisational goals; we aim to ensure that our results match or improve on our target of 74% and are comparable or better than the external peer group benchmark.
The year-to-date Accident Frequency Rate (AFR) is the total number of reportable* incidents in the period divided by the number of hours worked in that period by employees (including temporary staff and any overtime) multiplied by 100,000 hours (representing the estimated number of working hours in an employee's work lifetime). The AFR figure represents an indication of how many incidents employees will have in their working lives.	The Health & Safety AFR performance this year was 0.12 (2016: 0.11) representing a slight increase on last year. We continue to review all reported incidents and there are no specific underlying patterns which cause concern.	The target is maintained at 0.09 to match the health and safety performance which was achieved in 2014, with a view to ultimately setting a reportable incident target rate of zero.
* Specified major injury incidents are reportable incidents which result in more than three working days lost		
Number of current employees having attended an in-house development programme compared with the estimated pool of qualifying participants.	We exceeded our target, with 60% of our qualifying participants having attended one of our development programmes. The performance metric is influenced by the introduction of new courses and new eligible employees joining the Group through acquisitions. We are pleased with our performance and progress.	Our range of new programmes, and the refreshment of existing programmes, indicate our continued commitment to achieving this KPI.

Risk Management and Internal Controls

Maintaining a robust risk and control framework

Internal control

The Board meets regularly throughout the year with agenda planning looking forward at least one year designed to ensure all significant topics are scheduled for discussion. This is within the framework of an adopted schedule of matters which are required to be brought to it for decision. This procedure ensures that the Directors maintain full and effective control over all significant strategic, financial and organisational issues and is subject to routine review.

During the year, actions to strengthen the control environment continue to be taken centrally by Group management. The sector structure provides additional, dedicated personnel who supplement and reinforce our controls and the culture in which we operate within the subsidiaries themselves. The duties and responsibilities of management are continually refreshed as well as documented. The Group's policies and procedures were relaunched on a secure web-based portal and have been updated to be in a more user-friendly format. The portal also includes links to the additional guidance given to all subsidiary managing directors and subsidiary finance directors. Such guidance not only includes compliance

and financial policies but also includes aspects ranging from our Group benefits and incentives to information related to the internal financial review procedures conducted to complement the operating control environment. We continue to strengthen the internal and external resources utilised in the identification of, and investigation into, potential acquisitions. Our approach and policies are particularly designed to ensure a rapid and successful integration following acquisition. The scope of the Group's policies and the programme of compliance audits are regularly reviewed to ensure they are sufficient to address current risks. The Group placed additional emphasis on updating our business continuity plans over recent years ensuring that they are mutually complementary to our insurance programme.

The Group's treasury-related policies are kept under review to ensure that appropriate accounting and banking arrangements are aligned with the Group's growth and to ensure continued compliance with covenants and accounting requirements.

The Internal Audit function operates independently, reporting to the Audit Committee. Reporting to the Director

of Risk and Internal Audit, the team of three internal auditors, residing in the UK, the USA and China, schedule visits to Group companies to conduct internal audit procedures which have recently been benchmarked to reflect changing circumstances, specific requirements and to enhance effectiveness. The results of each internal audit are documented for internal distribution and action, with an executive summary going to the Audit Committee; any significant shortcomings identified are subject to an escalation process to ensure matters are assessed and disclosed to the Committee on a timely basis. The team may also be involved in any special investigations that may arise at the direction of the Company Secretary.

Group risk is mitigated by means of an operating structure which spreads the Group's activities across a number of autonomous subsidiary companies. Each of these companies is overseen by sector executives and led by a high-quality board of directors including a finance executive. The introduction of internal non-executive director opportunities within the Group during 2017 will provide further, mutually beneficial, oversight of operations.

Group internal control system

The processes which the Board has applied in reviewing the effectiveness of the Group's system of internal control are summarised below:

Operating companies, with the oversight of their sector boards, carry out a detailed risk assessment each year and identify mitigating actions in place or proposed for each significant risk. A risk register is compiled from this information, against which operational risk action is monitored through to resolution and strategic risks are reported to the Group. Management also compiles a summary of significant Group risks, documenting existing or planned actions to mitigate, manage or avoid risks.

Each month the board of every operating company meets, discusses and reports on its operating performance, its opportunities, the risks facing it and the resultant actions. The relevant Sector Chief Executive or Sector Vice President chairs this meeting. Sector Chief Executives meet regularly with the Chief Executive and Finance Director and report on sector progress to the Executive Board.

Financial and trading 'warning signs' are reported to Group and sector management. Weekly data on cash management, sales and orders are also reported directly to the Chief Executive, the Finance Director and the Group finance team. This framework is designed to provide an early warning of potential risks and to direct appropriate action where necessary.

The Chief Executive submits a report to each Halma plc Board meeting which includes the main features of Group operations and an analysis of the significant risks and opportunities facing the Group. The papers also cover progress against strategic objectives and shareholder-related issues. The Finance Director also submits a separate financial report to each Halma plc Board meeting.

Regular Director visits to Group companies are scheduled and open access to the subsidiary company boards is encouraged; periodic and risk-based internal control visits are carried out by internal audit or senior finance staff resulting in actions being fed back to each company and followed up by senior finance executives and Sector Chief Executives. Reviews are coded in terms of risk and a summary of all such reviews is given to the Audit Committee, with any significant control failings being reported directly to the Audit Committee; senior finance staff also conduct financial reviews at each operating company before publication of half-year and year end results. We have a Group-wide IT policy supported by a programme of IT health checks. Group IT manages aspects of our cyber security risks and IT development needs.

The Chief Executive, Finance Director and Internal Audit function report to the Audit Committee on all aspects of internal control, and the Company Secretary reports any significant matters raised through the whistleblowing channels with the Audit Committee and the Board. Regular reports are received by the Board from the Audit Committee Chairman and the papers and minutes of the Audit Committee meetings are used as a basis for its annual review of internal control.

Embedding internal control and risk management within the operations of the business and dealing with areas of improvement which come to management's and the Board's attention is a continuous process and one which is subject to rigorous scrutiny.

Group companies operate under a system of controls which includes but is not limited to:

- a defined organisational structure with an appropriate delegation of authority to operational management which ensures appropriate segregation of key duties
- the identification and appraisal of risks both formally, through the annual process of preparing business plans and budgets, through an annual detailed risk assessment carried out at local and sector level and informally through close monitoring of operations

- a comprehensive financial reporting system, regularly enhanced, within which actual and forecast results are compared with approved budgets and the previous year's figures on a monthly basis. Weekly cash/sales/orders reporting, including details of financial institutions, is also maintained within the financial reporting system, all of which is reviewed at both local, sector and Group level
- an investment evaluation procedure to ensure an appropriate level of approval for all capital expenditure and other capitalised costs
- self-certification by operating company and sector management of compliance and control issues with additional verification performed centrally
- a robust structure for electronic communication and conducting e-commerce to ensure that the Group is not adversely impacted by threats to its IT infrastructure and to minimise potential for business

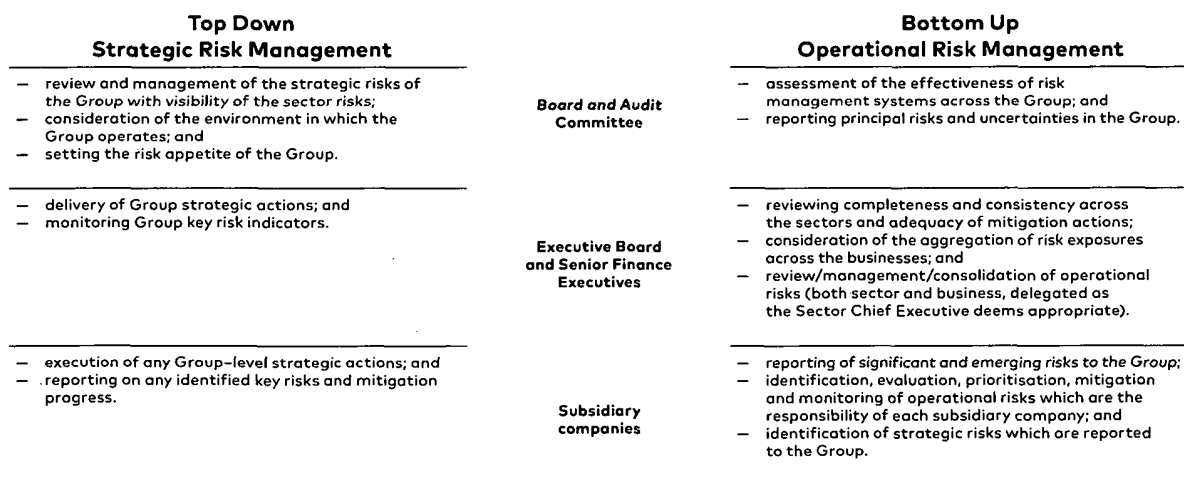
disruptions. The Group has a wide range of measures and policies and a framework in place which includes a virtual private network covering over 100 sites worldwide, secure firewalls, an IT security and threat monitoring system, information management audits, disaster recovery and a mobile devices management system

- an acquisitions and disposals framework which governs the due diligence, negotiation, approval and integration processes to ensure that value-enhancing, quality investments are made in order to meet our strategic objectives.

See Viability Statement on page 82.

Group risk management

The diagram below summarises our complementary integrated approach to risk management which is consistent with the Group's structure. Halma has also refined the timings of the Group-wide risk assessment as well as the division of responsibility for the risk review cycle throughout the year.



Principal Risks and Uncertainties

Strategic objective	Risk description	Potential impact
	Globalisation The global interconnectedness of operations poses wide-ranging challenges across the Group especially where businesses manage operational matters via remote locations; the increasing global spread of our businesses, particularly in China, requires additional vigilance over communication, culture, training and export controls/sanctions in order to anticipate and contain any vulnerabilities.	– Weakening of financial, tax, audit and legal control and divergence from overall Group strategy in remote operations, leading to businesses taking on more risks than intended or unexpected financial outcomes. – Failure to comply with local laws and regulations in unfamiliar territories, leading to reputational issues and legal or regulatory disputes. – Continued international growth increases risk. – Missed opportunities due to failure to mobilise resources efficiently.
	Competition The Group faces competition in the form of pricing, service, reliability and substitution.	– Loss of market share due to price pressure and changing markets. – Reduced financial performance arising from competitive threats both from third parties and customers bringing production in-house.
	Economic conditions In times of uncertain economic conditions, businesses face additional or elevated levels of risk. These include market and customer risk, customer default, fraud, supply chain risk and liquidity risk. The decision made in the UK to leave the EU (Brexit) creates additional uncertainty.	– Reduced financial performance. – Loss of market share. – Unforeseen liabilities. – Disruption of service to customers. – Breaches of legal or regulatory requirements resulting in fines/penalties impacting the Group financially and reputationally. – Potential impairment of goodwill.
	Financial Funding A key risk is that the Group may run out of cash or not have access to adequate funding. In addition, cash deposits are required to be held in a secure form and location.	– Constraints on trading and/or acquiring new companies limiting the Group's growth aspirations. – Availability of additional funding in traditional debt markets. – Permanent loss of shareholders' funds and/or restrictions on dividend payments.
	Financial Treasury Breaches of banking/US Private Placement covenants and foreign currency risk are the most significant treasury-related risks for the Group. In times of increased volatility this can have a significant impact on performance. The Group is exposed to a lesser extent to other treasury risks such as interest rate risk and liquidity risk.	– Volatile financial performance arising from translation of earnings from the Group's increasing proportion of overseas operations or poorly-managed foreign exchange exposures. – Deviation from core strategy through the use of speculative or overly complex financial instruments. – Financial penalties, reputational damage and withdrawal of facilities arising from breach of banking/US Private Placement covenants. – Increased interest rate risk on higher borrowings. – Currency markets continue to be volatile causing uncertainty.

Movements indicate management's perception of how the pre-mitigation risk has moved year on year.

Mitigation	Risk appetite	Risk rating	Movement
- Control is exercised locally in accordance with the Group's policy of autonomous management. We seek to employ local high-quality experts. - The increasing geographic diversity of operating personnel emphasises the importance the Group places on local knowledge and experience. - The Group's acquisition model supports retention of management and staff in acquired businesses, meaning that local expertise is retained. - Sector Chief Executives ensure that overall Group strategy is fulfilled through ongoing review of the businesses. The right balance between autonomy and adherence to the overall objectives of the Group is a key function of the Sector Chief Executives, Sector Vice Presidents and Senior Finance Executives. - Regular visits to remote operations and maintenance of key adviser relationships by senior management, finance staff and Internal Audit support local control. - The Group's geographic and product diversity reduces risk. - By empowering and resourcing innovation in local operations to respond to changing market needs, the potential adverse impact of downward price pressure and competition can be mitigated and growth maintained. - We recognise the competitive threat coming from emerging economies and by operating within these economies, typically using local staff, we are better placed to make fast progress ourselves. - The Group operates in specialised global niche markets offering high barriers to entry. - Risks are primarily managed at the operating company level where local knowledge is situated. The financial strength and availability of pooled finances within the Group mitigates local risks faced by operating companies as does the robust credit management processes in place across the Group. - The Halma Executive Board identifies any wider trends which require action. - A Brexit Committee has been created to assess, monitor and publish guidance on potential impacts due to Brexit. The agility of Group operations is expected to help mitigate any adverse impacts of Brexit. - The Group's geographic diversity limits its exposure to economic risk arising in any one territory. The Group does not have significant operations, cash deposits or sources of funding in economically uncertain regions. - The strong cash flow generated by the Group provides financial flexibility. Cash needs are monitored regularly. Gearing has reduced during the year. - The Group increased its funding capacity in January 2016 via a US\$250m US Private Placement. In addition to short-term overdraft facilities, the Group renewed and increased to £550m its five-year revolving credit facility in November 2016 providing security of funding and sufficient headroom for its current needs. - Cash deposits are monitored centrally and spread amongst a number of high credit-rated banks. - The risk has increased because more of the Group's profits are derived from non-Sterling currencies. Currency profits are not hedged. Currency hedging must fit with the commercial needs of the business and we have in place a hedging strategy to manage Group exposures. This requires the hedging of a substantial proportion of expected future transactions up to 12 months (and in exceptional cases 24 months) ahead. Longer-term currency trends can only be covered through a wide geographic spread of operations. - The Group does not use overly complex derivative financial instruments and no speculative treasury transactions are undertaken. - We closely monitor performance against the financial covenants on our revolving credit facility and US Private Placement and operate well within these covenants.			

Principal Risks and Uncertainties continued

Strategic objective	Risk description	Potential impact
	Financial Pension deficit To meet our pension obligations, we must adequately fund our closed UK defined benefit pension plans.	– Excessive consumption of cash, limiting investment in operations. – Unexpected variability in the Company's financial results.
	Cyber security/Information Technology/Business interruption/Natural disasters Group and operational management depend on timely and reliable information from our IT systems to run their businesses. We seek to ensure continuous availability, security and operation of those information systems. Cyber threats continue to show an increasing trend. We also aim to have wider business continuity plans in place should one or more of our premises suddenly become unavailable.	– Delay or impact on decision making through lack of availability of sound data or disruption in/denial of service. – Reduced service to customers due to poor information handling or interruption of business. – Loss of commercially sensitive and/or personal information. – Intended and unintended actions of employees cause disruption, including fraud.
	Acquisitions The identification and purchase of suitable businesses which are an important part of our strategy for developing the Group, as is ensuring the new businesses are rapidly integrated into the Group.	– Failure to attract sufficient numbers of high-quality businesses to meet our strategic growth target. – Failure to deliver expected results resulting from poor acquisition selection. – Failure to identify new markets in which to expand. – Reduced financial performance arising from failure to integrate acquisitions into the Group. – Unforeseen liabilities arising from a failure to understand acquisition targets fully.

Movements indicate management's perception of how the pre-mitigation risk has moved year on year.

Mitigation	Risk appetite	Risk rating	Movement
– There is regular dialogue with pension fund trustees and pension strategy is a regular Halma Board agenda item. The Group's strong cash flows and access to adequate borrowing facilities mean that the pensions risk can be adequately managed. – The Group has maintained additional pension contributions with the overall objective of paying off the deficit in line with the Actuary's recommendations over an appropriate period. Alternative means of reducing pension risk is evaluated in light of the best long-term interest of shareholders. – There is substantial redundancy and back-up built into Group-wide systems and the spread of business offers good protection from individual events. – A small central resource, Halma IT Services, assists Group companies with strategic IT needs and ensures adequate IT security policies are used across the Group. – An IT security committee exists, comprising central and subsidiary IT personnel. – Halma IT is ISO 27001 certified for its information security management systems. – Regular IT health checks of all companies are conducted by the Group IT team. Comprehensive IT systems monitoring is in place. – Cyber risk and security is a regular Board agenda item addressing the landscape as it evolves. – External penetration testing is utilised and a centralised IT disaster recovery solution is in place to supplement local processes. – Business continuity plans exist for each business unit with ongoing testing. – Education/awareness of cyber threats continues to ensure Group employees protect themselves and Group assets. – The sector management teams provide resource to focus on M&A activities, including a dedicated M&A Director for each sector. Such resources remain under constant review. – We acquire businesses whose technology and markets we know well or who operate in adjacent markets. – Sector Chief Executives are responsible for finding and completing acquisitions in their business sectors, subject to Board approval, supported by sector and central resources, as necessary. We employ detailed post-acquisition integration plans. – Thorough due diligence is performed by a combination of in-house and external experts to ensure that a comprehensive appraisal of the commercial, legal and financial position of every target is obtained. – Incentives are aligned to encourage acquisitions which are value-enhancing from day one.			

Principal Risks and Uncertainties continued

Strategic objective	Risk description	Potential impact
	Laws and regulations Group operations are subject to wide-ranging laws and regulations including business conduct, employment, export controls/sanctions, environmental and health and safety legislation. There is also exposure to product litigation and contractual risk. The laws and regulations we are exposed to as our businesses expand around the world increase each year.	– Unfavourable changes in laws and regulations that restrict the export of our products. – Reputational damage and/or loss arising from non-compliance. – Diversion of management resources resulting in lost opportunities. – Penalties arising from breach of laws and regulations. – Loss of revenue and profit associated with contractual disputes.
	Talent and diversity Group performance is dependent on having high-quality talent and diversity at all levels of the organisation allowing us to continue to grow through acquisition as well as driving organic growth.	– Failure to recruit and to retain key staff leading to reduced innovation and progress in the business. – Acquisition growth limited due to our organisation's and leaders' inability to effectively manage acquisition integration. – International growth increasing the need for high-quality local talent.
	Research & Development and Intellectual Property strategy New, high-quality products are critical to our organic growth and underpin our ability to earn high margins and high returns over the long term.	– Loss of market share resulting from product obsolescence and failure to innovate to meet customer needs. – Loss of market share resulting from a failure to protect key intellectual property. – Diversion of resources to address related matters.
	Product quality The quality and reliability of our products is vital to meet the needs of our customers and ensure compliance with regulations.	– Loss of market share resulting from product quality issues including the necessity to recall/replace product. – Reputational damage and financial loss due to unexpected liability for injuries, fatalities and/or damage to property.

Movements indicate management's perception of how the pre-mitigation risk has moved year on year.

Mitigation	Risk appetite	Risk rating	Movement
– The Group's emphasis on excellent internal controls, high ethical standards, the deployment of high-quality management resources and the strong focus on quality control over products and processes in each operating business help to protect us from product failure, litigation, fraudulent activities and contractual issues. – Each operating company has a health and safety manager responsible for compliance and our performance in this area is good. Health and Safety policies, guidance and monthly reporting requirements are updated to reflect changing reporting and governance requirements and to enhance compliance. Our well-established policies on anti-bribery and corruption have been maintained during the year to ensure continued compliance with best practice internally, via the Group Code of Conduct and externally, via appropriate clauses included in third-party agreements. – Comprehensive insurance covers all standard categories of insurable risk. Contract review and approval processes mitigate exposure to contractual liability. – The Group's whistleblowing policy and externally facilitated hotline assist the timely identification of potential problem areas. – Continued investment in international markets may introduce additional risk while we develop the appropriate commercial infrastructure necessary to build a direct presence. – Group development programmes are under continuous review to ensure they deliver enhanced skills for executives and middle managers as needed in their current and future roles. – Comprehensive recruitment and ongoing evaluation processes assist high-quality hiring and development. – The Group regularly surveys staff to assess the alignment of individuals with Group values. – The Group Talent Director assists the identification and development of Group executives. – Ongoing focus on increasing the diversity of our employees worldwide to better meet our markets' needs and provide sufficient opportunities for advancement as well as clear succession planning. – Considerable time spent assessing senior management talent and establishing better processes to improve the talent pipeline has advanced our succession planning and talent quality. – Devolving control of product development to the autonomous operating businesses spreads risk and ensures that the people best placed to service the customers' needs are driving innovation. – New product development 'best practice' is shared between Group companies and return on investment of past and future innovation projects is tracked monthly. This ensures that the collective experience and expertise of the Group can be utilised to maximum effect. – Large R&D projects, especially those which are capitalised, require Head Office approval, ensuring that the Group's significant projects are aligned to overall strategy. – Workforce quality and retention is a central objective. This focus ensures that intangible resources stay and grow within the business. – Operating businesses are actively encouraged to develop and protect know-how in local jurisdictions. – Innovation is encouraged and fostered throughout the Group and recognised at Halma's Annual Innovation Awards. – Strict product development and testing procedures in place to ensure quality of products and compliance with appropriate regulations. – Rigorous testing of products during development and also during the manufacturing process. – Terms and conditions of sale limit liability as much as practically possible. Insurance is in place.			

Global insight

The global expectation of improvements in workplace health and safety is backed by government occupational programmes and continually increasing regulation.

Key trends:

- increasing and more stringent global health, safety and environmental regulations
- population growth and economic development stimulating rising energy demand
- increasing development, complexity and geographic spread of energy resources and their safety requirements
- automation and digitalisation, requiring connected safety controls systems
- increasing development, complexity and geographic spread of energy resources and their safety requirements

Our strategy

- investment in new products to diversify our end markets and meet local requirements
- geographic market expansion via shared regional sector hubs
- acquisition of businesses that will reinforce our diversification, accelerate our digital transformation and contribute to geographic expansion
- operating efficiency improvement

Local agility

Keeping Chinese workers safe from hazardous gases

Focus on: Crowcon

Hazardous gases can be problematic in industries as diverse as water treatment, oil and gas, construction, food processing and manufacturing. In addition to portable gas detectors, which are worn by workers to keep them safe, we also manufacture fixed gas detectors for installation in confined spaces such as utility tunnels. You may also see these installed in underground car parks to keep you safe.

In response to different requirements, standards and specifications, Crowcon's development team in China specifically tailored the company's fixed gas detector range for the Chinese market. The team identified that the range needed to evolve and added the additional features now expected in the fastest growing sectors of the gas detection market.

**Crowcon's development
team in China specifically
tailored the company's
fixed gas detector range
for the Chinese market**

Business Review

Process Safety

Our Process Safety sector makes products which protect assets and people at work.

Philippe Felten
Sector Chief Executive, Process Safety

Revenue % of Group

17%

Profit % of sector total

19%

Performance

KPIs	2017	Group target
Revenue growth ¹	7.4%	–
Organic revenue growth ¹ (constant currency)	0.8%	≥5%
Profit growth ¹	1.7%	–
Organic profit growth ¹ (constant currency)	(4.3%)	≥5%
Return on Sales ²	24.1%	>18%
R&D % of Revenue ³	3.6%	>4%

Contribution to Group

£m	2017	2016	2015	2014	2013
Revenue	167	155	159	127	126
Profit	40	40	45	35	32

The areas in which we operate



Gas detection
Instruments and systems that detect flammable and hazardous gases.



Safety interlocks
Specialised Interlocks which prevent accidents and ensure that critical processes operate safely.



Pressure relief
Explosion protection devices to protect pressurised vessels and pipework in process industries.



Pipeline management
Valve interlocking and pipeline corrosion monitoring systems that safeguard processes and personnel.

¹ Sector revenue and adjusted⁴ sector profit before finance expense are compared to the equivalent prior year figures.

² Return on Sales is defined as adjusted⁴ sector profit before finance expense and taxation expressed as a percentage of sector revenue.

³ Sector research and development expenditure expressed as a percentage of sector revenue.

⁴ Adjusted to remove the amortisation and impairment of acquired intangible assets and acquisition items (see note 1 to the Accounts).

Sector progress summary

The sector has delivered both revenue and profit growth in difficult market conditions.

In the first half of the year our major market, energy, was still impacted by low oil prices. The second half saw improvements with a combination of stabilised oil prices and positive progress in our diversification strategy.

These factors and investment made during the year have positioned the sector to continue to grow in 2017/18.

Market trends and growth drivers

Population growth and economic development drive demand for life-critical resources. The industrial processes supporting this development are at risk from accidents caused by explosions, radiation, fire, corrosion and other hazards. Workers and assets are exposed to these dangers.

Every year, industrial accidents have significant human, environmental and economic consequences. These accidents have many causes, including component failure, human error or procedure deviations. The consequences vary in severity from minor (such as loss of production) to major (serious injury, death, closure of business).

The companies in Halma's Process Safety sector have a deep understanding of our customers' safety challenges. We offer innovative and reliable products and technology that reduce accidents and enhance the efficiency of industrial processes by isolating, detecting or removing hazards.

Our end markets are diverse and our products can be found in energy (mainly oil and gas), chemical, pharmaceutical, food and beverage, automotive, transport and logistics installations across the globe.

The underlying long term drivers in our Process Safety markets remain relatively unchanged, despite some sectors, such as oil and gas, having faced economic challenges over the last 18 months.

Our main drivers are:

- increasing health, safety and environmental regulations
- industrialisation and population growth, stimulating rising energy demand
- increasing development, complexity and geographic spread of energy resources and their safety requirements
- automation and digitalisation, requiring connected safety controls systems

Governments continue to support increased health and safety regulations to protect people and the environment. This drives the demand for our products at rates that are higher than general economic growth. In a challenging oil and gas environment, the Process Safety sector delivered performance in 2016/17 that demonstrated the robustness of our growth drivers.

Oil prices fell from a high in 2014 due to oversupply and reduced demand as economic growth slowed. The reduction in capital expenditure by the oil majors was significant in the upstream segment, and to a lesser extent in the midstream segment. The sector started to see the impact of this in mid-2015. Chemicals and petrochemicals processing benefited from the low oil price and, in those markets, we saw more resilient demand.

In the first half of 2016/17, market conditions did not change significantly. Oil price stability offered some comfort, but overall, capital expenditure in upstream and midstream markets remained subdued.

Business Review

Process Safety continued

In the second half of 2016/17 the oil and gas market was more active, with oil price stability, cost-efficiency efforts, and non-conventional oil extraction in the US creating a slightly more positive environment for our businesses. Although upstream capital expenditure remained tightly controlled, the need to upgrade and maintain safety products led to higher activity levels. These improvements were, however, modest relative to levels seen a couple of years earlier.

In these challenging and complex market conditions, we adapted our strategy by diversifying into non-oil and gas end markets. This demonstrated our flexibility and deep understanding of the applications in which our products can be used. This ability to use our technologies for new applications and new end markets has been a key factor in our improved performance.

Geographic trends

Revenue increased in most major regions. The US revenue grew by 12% helped by the gradual increase in non-conventional oil extraction in the second half of the year.

Europe revenue rose as we diversified our explosion protection business into chemical and pharmaceutical applications, while our safety interlocks businesses saw good momentum in the automotive, food, beverage and transport/logistics markets. UK market activities were flat compared to last year, with continuing low activity in the North Sea.

In China, our business grew by 18% with good progress in the gas detection and machine automation/sequential safety sub sectors. Stricter safety regulations continue to be enforced, creating growing demand for our products in China.

Sales in the Middle East grew strongly by 37% as oil and gas production has been maintained at reasonable levels.

In South America, economic conditions were still depressed. Supported by our Brazil sector hub, we were able to achieve some growth, mainly in the explosion protection market.

We saw good growth in India particularly in our pipeline management sub-sector.

Strategy

Our strategy of investing in new products in order to diversify our end markets and meet specific local requirements has delivered improving results. We reduced costs in some of our oil and gas-exposed businesses and were able to focus our activities on new application niches in non-oil and gas markets.

At the start of the year we combined some of our businesses in order to raise operating efficiency and support diversification. This strategy has led to faster product innovation, increased geographic market reach and improved customer service. Combining these businesses also allowed us to offer customers an extended product portfolio.

Investment in innovation and application engineering capabilities was increased, providing local markets with quick product adaptation for specific requirements.

Our companies embrace globalisation, diversification and the need to develop connected technology. We are upgrading and developing talent across our businesses.

Greater emphasis has been placed on strategic marketing, with our companies researching new market opportunities.

Our acquisition strategy is to focus on businesses that will reinforce our diversification, accelerate our digital transformation, and contribute to our geographic expansion.

Performance

Sector revenues grew by 7% to £167m and profit grew by 2% to £40m. At constant currency, organic revenue was up by 1% and profit down 4%. Return on Sales was 24.1%.

The first half of the year was challenging, while the second half saw some positive signs in the non-conventional oil market. This welcome increase in activity, combined with our restructuring efforts aimed at increasing diversification, delivered revenue and profit growth through the second half of the year.

Our machine automation, sequential safety and gas safety companies enjoyed good levels of demand for existing safety products, while offering innovative solutions in new, specific niche applications.

The newly combined sequential safety businesses delivered excellent performance thanks to strong regional activity and centrally-located innovation. Our machine automation business continues to perform well, with good progress in North America and China. The gas detection business also made good progress in China.

Case study Castell, Kirk and STI

At the beginning of last year, three of our sequential safety businesses, Castell, Kirk and STI, began collaborating as a single business group, creating a global market leader in trapped key interlocks and other sequential safety products. All three companies were already market leaders and so well known that, in some industries and geographies, safety interlocks are commonly known as 'Castell Locks' or 'Kirk Locks'.

Each business unit now offers products from all three companies and operates in a specific geographic region. Kirk covers the Americas, STI manages Western Europe, the Middle East and Africa, and Castell covers the UK, Asia and the rest of the world, ensuring the companies are closer to their client base and can be responsive to local needs. This has improved the business agility, impacting sales, engineering and technical support to provide a better quality of service for customers. Importantly each business can focus their resources on their specific zone.

In addition, there is now tight collaboration across the companies, with capabilities being shared, enabling co-ordinated and accelerated new common product developments and market diversification. The collaboration of products and resources has enabled higher levels of innovation in smart technologies advancing the progress to industry 4.0.

Sequential safety products such as trapped-key interlocks ensure human error is removed from a potentially dangerous sequence of events, protecting people and assets. They ensure that the next step in a sequence can only be carried out once the previous step has been completed. For example, the key to access a dangerous area can only be released once the power to the area has been turned off. They are used in many different industries including all types of manufacturing, logistics, power, chemical processing and railways.

Our pressure management companies performed better in the second half, due to efforts in chemical and pharmaceutical markets and a slight recovery in the US oil industry.

Our pipeline management businesses had mixed results. The corrosion monitoring business delivered flat profit while our valve interlock businesses faced difficult market conditions, as their products come late in the cycle when capital expenditures are released. Efforts to grasp new opportunities with valve drive units and valve monitoring solutions have started to improve results.

New products (not older than three years) accounted for 29% of sector revenues. R&D spend has remained at good levels, providing new products and innovations to support our growth ambitions.

Outlook

Overall industrial production is expected to increase on the three major continents, with China and the US leading this growth. In parallel, the food and beverage, automotive, and transport and logistics industries will continue to be attractive markets for the sector.

Non-conventional US oil extraction is set to rebound in 2017 and we will benefit from this increased activity. The chemical market will continue to develop further mainly in the USA.

The evolution of smart factories using the internet of things and cloud computing will continue to drive the demand for safety products. We see the possibility to offer extended capabilities as we move to digitalise our products.

We will continue to push on our diversification strategy, constantly looking at specific niche applications.

The combination of market diversification, our newly-combined businesses, and a slow improvement in the oil and gas industry will enable us to make further progress in the coming year.

International Labour Organization's study into safety and health at work

Every 15 seconds

one

worker dies from a work related accident or disease. That is more than

2.3m

deaths per year.

Every 15 seconds

153

workers have a work related accident.

317m

accidents occur on the job annually.

Source: International Labour Organization

Global insight

Population growth, urbanisation and increasing health and safety regulation in both developed and developing regions are the primary drivers in our Infrastructure Safety sector.

Key trends:

- continuing global trends of population growth and increasing urbanisation
- economic growth in the developing world leading to increased investment in infrastructure and modernisation
- the need for increased efficiency in buildings and people movement
- increasing desire for connectivity of devices and systems, enabling automation in 'smart' buildings

Our strategy

- application of our core technology into a broader range of markets such as transport and security
- meet customers' needs by expanding our solutions along the digital value chain
- new product innovation to create additional value for customers in existing and new applications
- acquire companies to strengthen our core technologies and take us into adjacent niche markets

Local agility

A huge advance in automatic swing door safety

Focus on: BEA

Conventional automatic swing door safety sensors can be subject to false detection and activation due to environmental factors such as bunched carpets, stray leaves or snow. They do not protect against the potential of fingers being trapped in the hinge area, meaning hinge areas often need to be covered with physical protection, especially in buildings such as nurseries, schools, hospitals and care homes. This can often be difficult to keep free of bacteria.

BEA has developed the LZR Flatscan, an extremely small, thin door sensor that uses a laser for detection rather than conventional infra-red. It automatically adapts to any door width, scans the whole door area, is not subject to environmental interference and has extra measurement points that cover the hinge area to detect small objects like fingers. It was awarded 'Best Product' at Halma's internal Innovation Awards this year.

**BEA's LZR Flatscan
swing door sensor
uses a laser for
detection rather than
conventional infra-red
and scans the whole
door area, including
the hinge area**

Business Review

Infrastructure Safety

Our Infrastructure Safety sector improves the safety & mobility of people and protects infrastructure.

Paul Simmons
Sector Chief Executive, Infrastructure Safety

Revenue % of Group

33%

Profit % of sector total

30%

Performance

KPIs	2017	Group target
Revenue growth ¹	19.0%	-
Organic revenue growth ¹ (constant currency)	6.9%	≥5%
Profit growth ¹	17.2%	-
Organic profit growth ¹ (constant currency)	7.2%	≥5%
Return on Sales ²	20.7%	>18%
R&D % of Revenue ³	5.7%	>4%

Contribution to Group

£m	2017	2016	2015	2014	2013
Revenue	315	265	234	220	205
Profit	65	56	50	44	42

¹ Sector revenue and adjusted⁴ sector profit before finance expense are compared to the equivalent prior year figures.

² Return on Sales is defined as adjusted⁴ sector profit before finance expense and taxation expressed as a percentage of sector revenue.

³ Sector research and development expenditure expressed as a percentage of sector revenue.

⁴ Adjusted to remove the amortisation and impairment of acquired intangible assets and acquisition items (see note 1 to the Accounts).

The areas in which we operate



Fire detection

Fire and smoke detectors, control panels, audible & visual warning devices, networked fire detection systems.



Fire suppression

Systems to automatically extinguish fires.



Elevator safety

Elevator/lift door safety sensors, emergency communication devices, displays and control panels for elevators.



People and vehicle flow

Sensors used on automatic doors in public, commercial and industrial buildings and transportation.



Security sensors

Security sensors, motion devices and control panels used to protect commercial, residential and public buildings.

Sector progress summary

The Infrastructure Safety sector delivered strong organic revenue and profit growth with revenue growth across all geographic regions and most sub-sectors. Record results in the Fire detection and People and vehicle flow sub-sectors more than compensated for a more challenging year for the Fire suppression sub-sector.

Return on Sales and Return on Capital Employed remained comfortably above the Group's targets with good cash generation. Investment in R&D in absolute terms and as a percentage of sales continued to increase. New sensing technologies, increased product functionality and inter-connectivity were the predominant themes in building the sector's new product pipeline.

Market trends and growth drivers

The long-term growth drivers of global population growth, urbanisation and increasing health and safety regulation worldwide remain central to our strategy. We are also increasingly focusing on two additional drivers:

- the need for increased efficiency in buildings and people movement
- the need for protection from increasing threats to security

These growth drivers provide the potential for each of our sub-sectors to grow at a faster rate than their wider markets.

Technology trends across all sector businesses include the increasing inter-connectivity of devices and systems, wireless technology and an increase in the use of cloud based applications to share data and facilitate data analysis.

The combined effect of the market growth drivers and technology trends are reflected in each sub-sector's market growth rates:

- the global elevator market is expected to grow at around 6% per year. The elevator refurbishment market is forecast to grow above that due to an ever-increasing installed base. Due to the high cost of fixed telephone lines, mobile telecommunications technology is increasingly being utilised to connect elevator cars to call centres for emergency communications and to facilitate data transmission for applications such as predictive maintenance
- the fire detection market is forecast to grow at over 5% annually with premium products such as multi-function sensors, wireless detectors and networked

panels expected to grow beyond the general market growth rate. Increased regulation continues to be important in the fire market. For example, China's fire regulator (CCCF) will introduce more stringent standards in the next few years. A change to Underwriter Laboratories' (UL) fire regulation requirements to deal with new types of fire and to eliminate nuisance alarms will increase detector specifications in 40% of the global market by 2020. The global fire suppression market is expected to grow at 5% per year

- the core of our People and vehicle flow sub-sector is pedestrian sensing. Our strategy of diversification into other applications such as vehicle sensing and people counting is reducing our dependence on the 4% growth global door market and providing higher growth opportunities
- increasingly home owners are looking to integrate their home security systems with the automation of other functions of property management, all controlled and monitored from smart phones. These connected systems are poised to deliver annual growth of 9% as part of the total security market growth of 5% annually

Business Review

Infrastructure Safety continued

Geographic trends

While all sub-sectors enjoy positive market growth worldwide, there are regional variations. These are driven by specific local opportunities (for example vehicle inspection in China), local changes in regulations (for example fire regulations changes) or regional economic growth rates. For example, the fire detection market is due to grow 12% per year in India, 7% in China and below 5% in the USA and Europe.

The sector's regional companies can see changes within a geographic market. For example, the Chinese elevator OEM supply market is very large but highly competitive. The elevator service and refurbishment market in China is much less mature and offers both higher margin and higher growth opportunities. Another example is the opportunity created for people flow technologies created by China's significant investment in its high-speed rail network.

Strategy

The Infrastructure Safety sector is focused on improving the safety and mobility of people and protecting commercially and publicly owned infrastructure worldwide. We target high return, niche markets that have low cyclicity and have high barriers to entry. We build our business globally by developing products and services within our sector companies or by acquiring companies that are already leaders in targeted, adjacent markets.

The trend towards the interconnectivity of devices to form more intelligent systems is playing an increasingly important part in the sector's strategic actions, with the opportunity to offer customers broader solutions than simply detecting hazards. Many sector companies are well placed to generate data and data analysis through their sensor technologies. This trend is driving increased collaboration between our companies as they co-operate on joint development programmes.

Geographic expansion remains a priority. We continue to strengthen our teams and our product offerings in China, India and South East Asia. These geographies are particularly attractive due to their higher growth rates and the support that the Halma hub infrastructure can provide.

Our key strategic objectives to drive growth include:

- acquiring companies to strengthen our core technologies
- acquiring companies in adjacent niche markets
- launching new products to create additional value in existing and new applications
- developing new products to expand our offerings along the digital value chain
- establishing R&D capabilities close to our customers
- developing top talent and hiring a capable and diverse team to meet the changing challenges in our markets
- operational excellence and the sharing of best practice to sustain growth in existing product areas and market segments

Case study

Natural History Museum

The Natural History Museum in London is protected by our fire panels, installed at the heart of its fire system.

Established in 1881, and comprising seven blocks, the museum is the third most popular in the United Kingdom. Its irreplaceable 80 million strong collection of life and earth specimens is of global importance.

Due to their performance, quality and ease-of-use, and the fact that they were backward-compatible with parts of the system that were already installed, a network of 24 fire panels from Advanced Electronics were used to help protect the building, its contents and visitors.

Case study London Underground

There are up to 5 million passenger journeys on London Underground per day and over 1.3 billion a year.

Our lift door safety edges help keep London moving safely and efficiently.

There are almost 200 lifts on the network and the majority of them are now fitted with our edges, produced by Avire. The edges infra-red protection system protects passengers as they enter and exit. They also flash green when opening and red when closing, giving passengers a visual indication

of when it is safe to enter and leave the lift. The edges keep passengers safe, help meet the Equality Act by assisting partially-sighted users, and the visual indicator helps deter people from the path of the doors, ensuring efficiency of lift flight times and passenger service.

Performance

Revenue grew by 19% to £315m (2016: £265m) and profit by 17% to £65m (2016: £56m). Organic constant currency revenue and organic constant currency profit growth were both 7%.

All geographic regions contributed strongly to revenue growth. Mainland Europe grew by 29%, the US grew by 16% and the UK increased by 11%. Growth outside these established markets was particularly encouraging at 20%.

The Fire detection and People and vehicle flow sub-sectors performed very well. The Security and Elevator sub-sectors delivered a solid performance, while the Fire suppression sub-sector declined.

New products played an important role in driving revenue growth. A new generation laser product achieved rapid success in the People and vehicle flow sub-sector and a new Fire detection platform, consisting of multiple products complete with a new operating protocol, was launched.

Our recent acquisitions made a significant impact on the sector's results. Advanced Electronics (Fire detection), acquired in 2014, performed above expectations. In 2015 we acquired Firetrace, our specialist Fire suppression company. The company's performance was below expectations and we made senior management changes to position the business for growth.

Return on Capital Employed remained high and well ahead of the Halma minimum target of 45%. There was significant investment in capitalised R&D programmes and substantial spend on targeted automation of our manufacturing processes. The benefits of the investment in automation contributed immediately in increased capacity and increased labour efficiency.

Gross margins were maintained and Return on Sales was 20.7%, after increased investment in R&D. Cash generation was strong.

Outlook

The strategic growth drivers of population growth, urbanisation and increasing regulation remain key to the sector. Our new product pipeline is strong, with significant products due to be launched across multiple sub-sectors in the next year. As devices are becoming increasingly interconnected, new opportunities are being created which we are positioned to exploit. Consequently, in the medium-term we expect all sub-sectors to grow at, or better than, market rates through the increased penetration of core markets and geographic expansion.

The level of acquisition activity has increased. We expect acquisitions to both enhance our technology offering in our core markets and accelerate our regional growth in core sub-sectors. Acquisitions also provide an opportunity to build platforms in adjacent sub-sectors. The sector is positioned to make further progress in the year ahead.

Global insight

A steady rise in the proportion of the global population aged over 60 drives demand for healthcare, in both developed and developing countries. Population ageing is a key driver for our ophthalmology and hypertension management businesses.

Key trends:

- worldwide population ageing and increasing life expectancy
- increasing prevalence of diabetes, obesity and hypertension
- increasing healthcare access in developing economies
- new medical diagnostic technologies
- new or improved surgical and pharmaceutical therapies

Our strategy

We are focusing on enhancing the quality of life for patients and improving the quality of care delivered by providers. We serve niche applications in global markets. By investing in our current portfolio, and through acquiring additional companies, we aim to deliver growth rates above Group KPI targets.

Local agility

Reducing preventable blindness by enabling ophthalmology anywhere

Focus on: Volk Optical

Diabetic retinopathy is the most common cause of sight loss for people with diabetes and is the leading cause of vision impairment and blindness among adults of working age. Early diagnosis is vital to successful treatment of the condition.

Volk Optical's Pictor Plus is a handheld digital imaging device that enables convenient, portable ophthalmology in any setting. It was developed to enable high resolution images of the retina and anterior segment, the front third of the eye, to be taken by General Practitioners, in off-site clinics or during field work. Significantly, its portability and ease-of-use means it can be used to diagnose conditions such as diabetic retinopathy earlier than can often be the case.

**Volk Optical's Pictor
Plus is a handheld
digital imaging device
that enables convenient
and portable
ophthalmology to be
used in any setting**

Business Review

Medical

**Our Medical sector
is dedicated to
enhancing quality
of life and improving
the quality of care.**

Adam Meyers
Sector Chief Executive, Medical

Revenue % of Group

27%

Profit % of sector total

31%

Performance

KPIs	2017	Group target
Revenue growth ¹	31.1%	–
Organic revenue growth ¹ (constant currency)	4.3%	≥5%
Profit growth ¹	29.0%	–
Organic profit growth ¹ (constant currency)	6.0%	≥5%
Return on Sales ²	25.6%	>18%
R&D % of Revenue ³	4.3%	>4%

Contribution to Group

£m	2017	2016	2015	2014	2013
Revenue	261	199	169	163	136
Profit	67	52	45	42	36

The areas in which we operate

Patient care



Ophthalmology

Surgical instruments and diagnostic devices to assess eye health and assist with eye surgery.



Patient Assessment

Diagnostic devices for everyday and specialised healthcare, including blood pressure monitoring.

Provider solutions



Diagnostics

Pumps, probes, valves and connectors used by OEMs and laboratories for demanding fluid handling applications.



Sensors

Real time location monitoring systems to improve quality of care, safety and operational efficiency in hospitals and healthcare facilities.

¹ Sector revenue and adjusted⁴ sector profit before finance expense are compared to the equivalent prior year figures.

² Return on Sales is defined as adjusted⁴ sector profit before finance expense and taxation expressed as a percentage of sector revenue.

³ Sector research and development expenditure expressed as a percentage of sector revenue.

⁴ Adjusted to remove the amortisation and impairment of acquired intangible assets and acquisition items (see note 1 to the Accounts).

Sector progress summary

The Medical sector delivered record revenue and profit on both an as reported and organic constant currency basis. Revenue grew in all our major geographies.

Including recent acquisitions and currency movement, the sector achieved 31% revenue growth and 29% profit growth. Medical has averaged greater than 15% growth in both revenue and profit since it began reporting as a sector in 2013.

On an organic constant currency basis, revenue grew 4% and profit was ahead 6%.

R&D spending increased again by more than £2m, with continued investment in our core businesses and investment in recent acquisitions adding new capabilities to our research teams.

We continued to focus on talent development, investing in our key people both at the sector level and throughout our subsidiaries.

Return on Sales remained flat at 26% and Return on Capital Employed and cash production continue to be strong.

The performance of our recent acquisitions improved in the second half and we continued to focus on acquiring new businesses.

Market trends and growth drivers

The Medical sector growth driver of increasing demand for healthcare is underpinned by:

- worldwide population ageing and increasing life expectancy
- increasing prevalence of diabetes, obesity and hypertension
- increasing healthcare access in developing economies
- new medical diagnostic technologies
- new or improved surgical and pharmaceutical therapies

Global healthcare spending is forecast to rise over 4% per year through to 2020 with higher rates in Asia Pacific.

The world population is expected to increase by 1 billion by 2025 with 300 million of that increase predicted to come from people over 65. Because eyesight problems and high blood pressure are both age-related, population ageing is a key driver for our businesses, especially in ophthalmology and hypertension management.

With the continued growth of the middle class in developing economies, it is forecast that 65% of the global population will be middle class by 2025. Coupled with increased urbanisation, rising affluence is likely to lead to more sedentary lifestyles which increases obesity and hypertension-related illness and diabetes-related eye disorders.

Currently, one in every three US adults has high blood pressure and only half of these individuals have their condition under control. A further one third have prehypertension which means they should continue to have their blood pressure monitored by the type of products made by our patient assessment companies.

Cataract surgery is one of the most frequent surgical operations carried out worldwide at more than 25 million annually. Continued growth in the number of cataract surgeries and an ongoing shift towards disposable instrumentation will drive global spending on ophthalmic surgical instrumentation over 5% per year through to 2022.

In addition to the prevalence of eye disease with ageing, demand is increasing for improved visual outcomes and premium procedures due to people's lifestyles. By 2020, premium cataract procedures are expected to account for 34% of total cataract surgery revenue as wealthier and younger patients are demanding perfect vision at every stage in life. This market for high-revenue, personal payment premium procedures is of increasing importance to our ophthalmic companies which focus on improved patient outcomes.

Business Review

Medical continued

Hospitals remain under pressure to improve patient outcomes, reduce costs, improve throughput and ensure safety of staff and patients. The global market for the real time location systems that we recently added to our portfolio, is forecast to grow at 24% per year between 2016 and 2022.

The increasing prevalence of lifestyle-connected and chronic disease, along with a growing acceptance of molecular diagnostics in personalised medicine, is driving growth in the in vitro diagnostics and laboratory markets served by our diagnostic companies. This market is projected to grow at 5.5% through to 2021.

We are starting to see other macro trends around healthcare delivery impacting our markets and offering growth opportunities. Telemedicine is growing at almost 19% annually as it offers dramatically different ways to deliver healthcare by sharing information and data across a wide range of service providers. One of our ophthalmology companies is using remote diagnosis via telecoms to help prevent blindness in diabetic patients.

Trends like increasing global healthcare costs are putting pressure on product pricing and government expenditure, increasing market volatility in some geographies.

Globally regulated markets continue to shift as increased medical product and procedure approvals delay product launches, especially in geographies such as China and Brazil, and more recently Europe. Recent changes suggest India is introducing tighter regulation too. Overall, our strong channels and regulatory experience position us well to navigate this environment and provide barriers to entry for new entrants.

Geographic trends

There continues to be considerable geographic variation in the global medical device market due to local economic conditions, government spending programmes and currency fluctuations. Our growth strategies will continue to vary by region.

The global medical device market is expected to continue to grow at 5% through to 2021. North America will remain the largest market for medical device technologies, growing at 4%. In the Asia Pacific market growth is forecast to continue above 7%, with Europe recovering at 5% through to 2021.

US healthcare expenditure continues to have the highest spending per capita, but we may see significant change under the new political administration. Hospitals are seeing relief from covering the uninsured as more Americans benefit from health insurance through the Affordable Care Act, allowing them to invest in new technologies, although, this may change. We expect continued growth for our single-use surgical devices in the USA and growing demand in Europe.

PwC's review into changing demographics

1 bn

expected increase in the world's population by 2025

including

300m

increase in people aged 65 or more

Source: PwC

The Chinese ophthalmology market could double by 2021 and we continue to expand our engineering, sales and marketing staff to drive the development and commercialisation of local products. Changing government restrictions from pricing controls to regulatory tightening continue to make this a dynamic market.

The Latin American market continues to experience volatility although should continue to grow on average across the region. The in vitro diagnostic business, a focus of our diagnostic companies in the region, is forecast to grow 7% annually to 2020.

Case study

Chronic Disease is Growing Worldwide

Chronic diseases, such as heart disease, stroke, cancer, respiratory diseases and diabetes, are growing worldwide due to ageing populations and lifestyle changes. The steady global rise in middle class affluence, combined with urbanisation, means that people are living more sedentary lifestyles which raises obesity and diseases like diabetes. The World Health Organization expects chronic disease prevalence to rise by 57% by 2020, with emerging markets hit hardest by increased demand on healthcare systems due to their faster population growth.

Medical technology has a key role to play in mitigating the impact of chronic disease. Advances in detection and diagnosis will improve patient outcomes and minimise the cost of chronic condition treatment.

Source: PwC

Strategy

The Medical sector is focused on enhancing the quality of life for patients and improving the quality of care delivered by providers.

We serve niche applications in global markets. By investing in our current portfolio, and acquiring additional companies, we aim to continue to deliver growth rates at, or above, Group targets.

We organise our medical businesses into two segments: Patient care and Provider solutions. Patient care includes businesses that develop and market devices to monitor and improve the health of patients. Current focus areas include ophthalmology and patient assessment.

Provider solutions features products sold to diagnostic equipment manufacturers, laboratories and hospitals. Current focus areas include critical fluidic components for instruments such as blood analysers, finished devices for laboratories, and sensor technologies that track assets in healthcare facilities and support patient and staff safety.

Key sector strategic initiatives to increase growth organically and via acquisition include:

- improving talent and increasing diversity
- increasing collaboration to drive geographic expansion and product development
- increasing R&D investment to adapt to quickly changing market needs and respond to consumerisation of healthcare globally
- empowering regional leaders to expand geographic penetration and increase local manufacturing and R&D
- acquisitions in both core and adjacent market niches

We continue to seek and develop higher calibre talent. We have increased our gender and international diversity to drive innovation, collaboration and better meet market needs.

Collaboration between our Medical sector businesses continues to increase with shared R&D projects reaching commercialisation and sales and marketing projects like shared service technicians in Brazil.

R&D spending increased by £2.4m to 4.3% of revenue, which is above Group target.

Case study Telemedicine Prevents Baby Blindness

Louise Allen, Consultant Paediatric Ophthalmologist for Addenbrooke's Hospital in Cambridge, uses our digital ophthalmoscopes, from Keeler, to diagnose babies' eye conditions remotely.

In the past at-risk babies would have to be transferred to Addenbrooke's, sometimes over long distances, to be examined in person. Addenbrooke's Charitable Trust has now provided our indirect ophthalmoscopes to other hospitals throughout the region. Now staff at local hospitals can take high-quality digital images of the insides of babies eyes and send them instantly to a specialist, such as Louise.

With innovative use of technology like this, patients can receive better, faster care and hospitals can avoid unnecessary disruption – and the critical expertise of specialists like Dr. Allen can reach those who need it in the blink of an eye.

This is a 27% increase over last year and 68% higher than two years ago. The increase has come throughout our core businesses as well as new acquisitions.

Our R&D focuses on components and instruments that will be readily accepted by our existing customer base as well as technologies that will advance patient care, reduce cost and improve outcomes. Efforts continue in emerging markets to better satisfy local customer needs including expanding local resources and increasing local R&D and manufacturing capability.

During 2017 we will expand our collaborative efforts in China, jointly marketing a wider range of ophthalmic and diagnostic products.

Performance

The Medical sector grew revenue by 31% to £261m (2016: £199m) and profit by 29% to £67m (2016: £52m). This includes a favourable currency impact of 14%. Organic constant currency revenue growth and organic constant currency profit growth were 4% (2016: 10%) and 6% (2016: 9%) respectively.

We delivered revenue growth in all major regions with the USA ahead 43%, Europe up 13%, the UK 13% higher and Asia Pacific ahead 36%.

Growth outside the UK, the USA and Europe was 29%, contributing 25% of sector revenue.

The sector continues to deliver high returns. Return on Sales remained high at 25.6% (2016: 26.0%). Return on Capital Employed and cash generation remained strong.

We did not complete any acquisitions in 2016/17, but continued the integration of the three businesses acquired in the prior year. These businesses delivered strong second half performances and will continue to contribute to sector growth in the year ahead.

Outlook

In the medium term, we expect our Patient care and Provider solutions segments to outperform the market with rising revenue driven by export growth, new products, increased penetration in existing markets and acquisitions.

We will continue to build our acquisition targets pipeline within existing and adjacent niches, and expect continued growth from the businesses acquired in 2015/16.

Global insight

Water demand worldwide is predicted to increase significantly due to increasing usage by agriculture, manufacturing, domestic consumption and energy production. Outdoor air pollution is a major health risk in both the developed and the developing world. There is increasing demand for environmental protection, safer food and water, and improved health and sanitation.

Key trends:

- increasing demand for life-critical resources such as energy and water**
- increasing governmental policies and environmental regulations**
- technological and scientific advances transferring into new industries**
- worldwide population ageing and increasing standards of living**

Our strategy

Our growth strategy centres on market-led new product development, geographic expansion and collaboration to increase market reach. R&D is focused on applications with long-term drivers and defensible positions. We are increasingly exploring new ways to capture, manage, manipulate and utilise data. We continue to target acquisitions that tie in with our existing technologies and/or market knowledge.

Local agility

Raising the bar on water conservation and leak detection

Focus on: HWM

Water leaks are a problem for all water networks, with billions of litres of drinking water lost globally every day. With demand for water predicted to increase significantly, detecting leaks quickly is becoming more and more important. Working closely with customer Affinity Water, HWM used their in-depth knowledge of the market to develop PermaNET+. The next stage in water leak detection and logging, it is also a step towards data-driven 'smart' water networks.

Located entirely below ground, data generated by the logger is automatically sent to the user, removing the need to visit sites to carry out data collection. It identifies leaks more quickly than traditional methods, significantly reducing both water loss and the cost of identifying leaks.

PermaNET+ recently was awarded the Queen's Award for Enterprise: Innovation.

**HWM's PermaNET+ is
the next stage in water
leak detection and
logging and a step
towards data-driven
'smart' water networks**

Business Review

Environmental & Analysis

Our Environmental & Analysis sector makes products and technologies that improve the quality and efficient use of critical resources.

Chuck Dubois
Sector Chief Executive, Environmental & Analysis

Revenue % of Group

23%

Profit % of sector total

20%

Performance

KPIs	2017	Group target
Revenue growth ¹	16.0%	–
Organic revenue growth ¹ (constant currency)	3.5%	≥5%
Profit growth ¹	20.8%	–
Organic profit growth ¹ (constant currency)	5.9%	≥5%
Return on Sales ²	19.0%	>18%
R&D % of Revenue ³	6.9%	>4%

Contribution to Group

£m	2017	2016	2015	2014	2013
Revenue	219	189	164	167	152
Profit	42	34	27	32	30

¹ Sector revenue and adjusted⁴ sector profit before finance expense are compared to the equivalent prior year figures.

² Return on Sales is defined as adjusted⁴ sector profit before finance expense and taxation expressed as a percentage of sector revenue.

³ Sector research and development expenditure expressed as a percentage of sector revenue.

⁴ Adjusted to remove the amortisation and impairment of acquired intangible assets, reorganisation costs and acquisition items (see note 1 to the Accounts).

The areas in which we operate



Spectroscopy and Photonics

We create world-class spectrometers and spectral imaging systems that are used to determine the nature of a target. Our products are used to both transport and characterise light.



Water analysis and treatment

We help the world improve the quality of drinking water as well as industrial process water.



Environmental monitoring

Our technologies are used to help monitor air and water pollution, as well as to ensure that water networks operate efficiently.

Sector progress summary

The Environmental & Analysis sector achieved record results with good organic revenue and profit growth, continuing the progress made last year.

Global emphasis on climate change and pollution monitoring continues to strengthen the position of our environmental applications. We grew significantly in emerging markets, particularly in the Asia Pacific region, led by environmental monitoring applications. Our water businesses had a successful year with a strong performance in North America. Our photonics businesses continued to find new applications in a variety of diversified markets and industries.

The acquisition of FluxData strengthened our technological capabilities, greatly increasing the number of opportunities for the sector in spectral imaging and sensing.

We completed the restructuring of our photonics coating business, Pixelteq, by transferring key technologies and assets into Ocean Optics, while Ocean Optics Asia was folded back into the Ocean group under a strong leadership team and co-ordinated strategy. We expect to see the benefits of this restructuring in the coming financial year.

Market trends and growth drivers

The Environmental & Analysis sector's long-term growth is sustained by three key drivers:

- rising demand for life-critical resources such as energy, water and food
- increasing environmental monitoring and regulations
- worldwide population growth, urbanisation and rising standards of living

Globally, water demand is predicted to increase significantly over the coming decades in all sectors from agriculture and industry to energy production. Accelerated urbanisation and the expansion of municipal water supply and sanitation systems, particularly in developing regions, also contribute to the rising demand. At the same time, limited water resources are increasingly stressed by over abstraction, pollution and climate change.

Two thirds of the world's population currently live in areas that experience water scarcity for at least one month a year. About 500 million people live in areas where water consumption exceeds the locally renewable water resources by a factor of two. Our products monitor surface, municipal and waste water conditions, helping improve water conservation both in developing and developed countries.

Water quality testing applications use our products to assess the presence of faecal coliforms, which originate from human and animal excreta, and are

used as an indicator of the presence of all potential pathogens in surface waters. This is especially important in developing countries and rural areas. It is estimated that severe pathogen pollution affects around one third of all river stretches in Africa, Asia and Latin America, putting the health of millions of people at risk.

Population growth has outpaced gains in sanitation and drinking water coverage, especially in urban areas. Only 26% of urban sanitation and wastewater services effectively prevent human contact with contaminants along the entire sanitation chain. Our water testing systems help identify the contaminants in these water networks, while our UV systems disinfect drinking and waste water in major cities around the world as well as being the primary method of disinfection for many bottled water plants.

Outdoor air pollution is a major environmental health risk affecting everyone in developing and developed countries alike. In 2014, 92% of the world population lived in places where the World Health Organization air quality guidelines levels were not met, and ambient air quality (outdoor air pollution) in both cities and rural areas was estimated to cause three million premature deaths worldwide. For example, in China only 25 of 190 cities studied could meet the country's National Ambient Air Quality Standards.

Business Review Environmental & Analysis continued

We provide systems that assist in the precise detection of contaminants as well as other products that aid in the calibration of pollution monitoring equipment. Further, our gas conditioning equipment is ideally suited for stack emission monitoring of gases such as SO₂ and NO_x as well as for measuring the fine particles (PM_{2.5}) which are believed to be the greatest risk to health. These applications are also beginning to find success in India, which overtook China in air pollution levels in cities in 2015.

Our recent acquisition of FluxData has strengthened our position in spectroscopy and spectral specific imaging. By looking at specific spectral bands, they provide much more information in far less time than traditional methods, thus allowing for higher efficiency and decreased waste.

Applications include inspection during industrial processes including the production of food and beverages, pharmaceuticals and agriculture. The non-invasive nature of the technology is also best suited for security applications such as detection of explosive or hazardous chemicals, non-invasive medical diagnostics, and environmental and remote sensing

applications. Process spectroscopy is forecasted to grow at 6% annually until 2020, but some of the newer technologies that we employ such as Raman spectroscopy and spectral imaging are forecast to grow at even faster rates.

Geographic trends

We sell into a wide variety of diverse market niches. These niches exhibit different characteristics that vary according to each specific country's requirements, their economy and their regulatory environment.

The China National 13th Five-Year Plan is having a profound impact on the environmental landscape of China. Stricter compliance measures for urban air quality, standardisation of the regulations around industrial pollutant emissions and ultra-low emissions of coal-fired power plants are all aimed at improving the quality of air, especially in urban areas. Similarly, other control plans are being enacted for water and soil pollution. For example, there is continued emphasis on improving rural access to clean water and improving the water distribution network and wastewater treatment.

In India, emissions monitoring and concerns over air pollution are increasing and we have designed products that specifically address the needs of this market. We expect that stronger water monitoring protocols are next. We are ready to supply products suited to their needs, benefiting from our experience in China.

We continue to grow well in the developed countries. While growth in pollution monitoring in some regions might not be as significant as in the emerging markets, there are other niches that we continue to serve through a variety of technologies. Performance in the USA was particularly strong this year, as our life science and research products continued to grow sales, as did some of our water monitoring businesses. Designing products in, and for, emerging markets is important to our growth, although we continue to develop products for our core markets too.

Strategy

Our products improve the quality of air, water and food for everyone on the planet. They enable the development and manufacture of products that improve our health and well-being. Our growth strategy centres on market-led new product development, geographic expansion and collaboration between the companies in the sector. Through this we will enhance our ability to help solve the problems our world faces.

We continue to seek, foster and invest for growth in emerging markets. Revenue from countries outside the UK, the USA and Europe has grown 55% in the past five years, as we have captured larger opportunities thanks to more stringent regulations driven by a demand for environmental protection, safer food and water, and better health and sanitation.

United Nations sanitation facts

783m

people do not have access
to clean water

2.4bn

people worldwide lack
proper sanitation

1,000

children die every day due to
preventable water and sanitation-
related diarrhoeal diseases

1.8bn

people are using a source of drinking
water that is fecally contaminated

Source: United Nations

Most of our companies provide sensors that are a data collection point. Data availability has dramatically changed in the last few years, and our companies are increasing their efforts in exploring new ways to capture, manage, manipulate and utilise data.

Talent management and development has been a major contributor to the continued success of the sector. The introduction of a Sector Talent Director has supported our sector-level initiative to achieve stronger and more diverse company boards across the sector.

We are targeting acquisitions in segments that tie to our existing technologies and/or market knowledge, have good long-term growth drivers and defensible positions through regulations or intellectual property. For example, our most recent acquisition, FluxData, extends our spectroscopic capability into spectral imaging to provide more valuable information to our customers.

Performance

The sector grew revenue by 16% to £219m (2016: £189m) and profit by 21% to £42m (2016: £34m). At constant currency, organic revenue growth was 4% and organic profit growth was 6%. Return on Sales improved to 19.0% (2016: 18.3%) and was within the Group target range.

This year, and following the geographic consolidation of our photonics coatings business (Pixelteq) in 2014/15, we transferred its core technology and assets to Ocean Optics. This restructuring benefited the sector's full year adjusted profit by £0.5m in 2016/17 and will also add £1.5m in 2017/18, while simultaneously improving key returns metrics. This restructuring resulted in exceptional costs amounting to £1.9m, which are included within the adjustments to the Income Statement.

The acquisition of FluxData during the year opens up many new growth opportunities. Prior to joining Halma, FluxData worked with two of our existing businesses and we expect that number to rise as they become fully integrated.

Outlook

Global population growth, population ageing and increasing standards of living will continue to drive demand for basic energy resources, cleaner air, safer water and food, and improved health. Our products and companies are well-positioned to continue to take advantage of these long-term growth drivers both in developing and developed countries.

We will continue to improve collaboration between our sector companies in terms of technology, processes, and sales and marketing, to improve efficiency, innovation and performance.

Our acquisition pipeline is growing and we expect to add complementary businesses in the coming years.

Case study

Intelligent water monitoring for Smart Village project in India

Water is not just needed for drinking, but is vital for all kinds of food production. Sensorex is helping a pioneering 'Smart Village' in India maintain its water quality and improve the efficiency, yield and reliability of its shrimp farming industry.

The aim of the project is to see how the integration of connected, digital technology can help the over 3 billion people who still live in rural communities worldwide.

Although population trends are still moving from rural areas towards cities, we are also seeing the 'urbanisation' of rural areas – bringing modern technology and infrastructure to smaller and more remote locations as the connected world becomes more portable, scalable and accessible.

Our expertise in water quality monitoring, as well as data capture and digital connected technologies, positions us well to help make this future a reality.

Our people

Autonomy. Achievement.

Innovation. Diversity.

Our sustained, high level of performance has been achieved through the commitment, innovation and excellence of our people. The strategic development of leaders across Halma is therefore critical to our long-term success.

Jennifer Ward
Group Talent and
Communications Director

Total number of employees	5,811
Employee engagement	74%
HPD Executive	305
HPD Management	671

Autonomy

We believe in empowerment. Our decentralised management structure allows local managers to be autonomous and responsible for making timely decisions in the best interests of their business. Halma supports personal and professional development through a range of training programmes. These programmes aim to enable and prepare leaders to continue to grow their businesses regardless of changing competitive pressures. The value of this investment is shown both in our financial performance and succession planning. Almost all of the members on our Executive Board have been promoted from our subsidiary companies.

Achievement

Halma employees are highly motivated by the impact that they directly have on the performance of their business, and most importantly, the impact they have on the world. We strive each day to protect life and improve the quality of life of people worldwide. Our culture of achievement is not driven by personal egos but by a relentless ambition to solve life critical problems. We invest a lot of time finding and developing the right people who have the initiative, knowledge and leadership qualities to make such a difference.

To unleash their potential, we provide them with:

- the opportunity to make a difference – our products make the world a safer and healthier place
- an entrepreneurial business opportunity
- a portfolio of cutting edge technologies and the ability to add more
- in-house training for personal and professional development
- international career development opportunities
- performance-linked rewards
- the opportunity to learn from peers tackling similar challenges
- an environment in which success breeds success

Innovation

We are committed to innovation and customer satisfaction. Creating and developing new products and new ways of working gives us a competitive edge, while delivering solutions to some of the world's major problems in safety, health and the environment.

We encourage the sharing of knowledge and technology throughout Halma. This ability to transfer state-of-the-art technology from company to company, from one sector to

another, is something most of our competitors simply do not have. Through collaboration and sharing best practice we continue to deliver market-leading innovations that create benefits for our customers.

Our biennial HITex (Halma Innovation, Technology and Experimentation) Conference was held recently in San Diego, California. This event brought together the leadership teams of all Halma operating companies and provided an inspiring look at the potential future of Halma and the role that each of them can play in realising it. Company leaders came together to learn from one another, identify ways to collaborate, share technologies or simply learn from other's experience. We believe that this combination of empowered business leaders, who also have access to peer companies and thought leaders to accelerate their performance, is unique to Halma and a key part of our current and future success.

Diversity and inclusion

We see diversity and inclusiveness as an essential part of our productivity, creativity, innovation and competitive advantage. It is the foundation of a performance culture that promotes respect, understanding and appreciation of different perspectives, backgrounds and experiences.

By increasing the diversity and inclusion of our workforce and leveraging the insights of our diverse talent through an inclusive environment, we enhance our ability to compete in the world's increasingly diverse marketplace. Our efforts are directed towards developing policies and actions which support our long-term aims, as well as establishing appropriate measurable targets. We believe the former evolves into being embedded into corporate culture more readily.

As part of our Diversity and Inclusion Initiative, we have a new programme, which encourages our operating companies to review the diversity of their directors. Where companies decide that they need greater diversity to enhance their discussions and decision making, they now invite a member of staff to join board meetings as 'co-opted' board members. Co-opted board members are chosen for their ability to make a valuable contribution to board discussions. Their participation is entirely voluntary and they have no legal responsibilities. They usually contribute to board discussions for a year and then another employee is invited to fill the role.

HITex – Igniting an Innovation Culture

We held our biennial Innovation focused event in San Diego, California over three days in April 2017. The goal for HITex 2017 was to launch a new spirit for innovation and collaboration, and to be the start of us creating a living, learning community across Halma.

Collaboration has always been a focus of HITE and it is one of the powerful differentiators that we

can benefit from at Halma – both as individuals and as businesses.

In changing the HITE name from meaning the Halma Innovation and Technology Exposition to Halma Innovation, Technology and Experimentation (HITex), we signified the shift in our focus toward seeing more, excluding less and innovating with speed.

Our people continued

Geographic diversity

As our businesses continue to expand globally, it is imperative that the insights and perspectives of local markets be represented on our leadership teams. Several Group initiatives have been implemented to support and encourage our operating companies to put leaders on the ground in key markets.

We have well-established Halma hubs in China and India and have expanded into Brazil as well. The China hub has introduced innovative R&D programmes to incentivise local product development for local markets.

We continue to seek ways to ensure that local leadership is contributing to the global business strategies.

Diversity and inclusion policy

At Halma we recognise that the diversity of the people in our business and the inclusion of all enriches our products, performance and the lives of our employees. We believe that the diversity of our workforce contributes significantly to our aim to protect and improve the quality of life for people worldwide.

We are building a culture that encourages talented people of all backgrounds, beliefs or any form of personal identity to be involved, respected and inspired to develop to their full potential.

Employee engagement survey

In 2017, we launched our first all-employee engagement survey. The insights provided by this survey will help us to ensure that we motivate, engage and empower employees across Halma and create the culture that will enable our success. Overall we were very pleased with the results, with nearly 8 out of 10 Halma employees providing their feedback and 74% of them reporting to be highly engaged. We were able to identify areas of best practice in the group to leverage and learn from, as well as a few themes to focus our attention and actions.

Grads learn, companies benefit

The class of 2015 Halma Graduates had an opportunity not just for them to learn but to get some real, valuable work done on behalf of a Halma company, Texecom.

Initially the group were led through market scoring tools and how to explore market attractiveness. They then applied these to 5 potentially transformational opportunities for Texecom. The group participated in a workshop on building business model and value proposition canvasses. A series of market sensing exercises followed – getting real input from potential stakeholders in the new business market.

Talent development

We offer challenging personal development programmes to raise the quality of leadership throughout Halma. Our development programmes are designed to promote personal growth, enhance leadership and relationship skills. They also offer the chance for employees from diverse Halma companies to come together and learn from each other.

Our objective is to provide these individuals with the tools and training they need to achieve more in their existing role and potentially to advance through the organisation if their achievements merit it.

Finishing up the module, the graduate group collated all they'd explored, learned and researched, and presented to the Texecom board on the topic, suggesting several potential routes to market and even a couple of product concepts.

Texecom believes that running experiments like this with the grads will become a key part of Halma's future growth, and having ambassadors within the graduate cohorts will help to spread the message.

The following courses are offered in China, the USA and Europe:

- Innovating the Organisation – developing ability at Managing Director and Sector Vice President level to innovate across all aspects of the business
- Talent Mindset – ensuring the Group and company leaders have the capability to maximise the quality of talent on their teams
- HPD Executive – focusing on the leadership skills needed at board level in our operating companies
- HPD Management – personal development, enhancing self-awareness and teamwork skills for managerial roles
- HPD Graduate – our graduate programme recruiting and developing the next generation of leaders and technical specialists

Disabled employees

Applications for employment by disabled people are always fully considered, bearing in mind the aptitudes of the applicant concerned. In the event of members of staff becoming disabled, every effort will be made to ensure that their employment with the Group continues and that appropriate training is arranged. It is the policy of the Group that the training, career development and promotion of disabled people should, as far as possible, be identical to that of other employees.

Employees consultation

The Group places considerable value on the involvement of its employees and has continued to keep them informed on matters affecting them as employees and on the various factors affecting the performance of the Group. This is achieved through formal and informal meetings, internal communications, the Group collaboration platform and our Annual Report.

Employee representatives are consulted routinely on a wide range of matters affecting their current and future interests.

Cumulative number of candidates that have completed each programme

Diversity and Inclusion

According to an August 2014 Harvard Business Review article, women are less likely to apply for roles unless they feel they meet 100% of the job requirements. When Mike asked Jo why she didn't initially apply for the MD role, she shared:

"It was my confidence in believing I was ready for that next step up to MD. I was really fortunate in feeling so supported by Mike and the Halma leadership team. During the time as acting MD I was able to get involved in every area of the business and in doing so I felt more and more confident in the value I was adding as a leader. I enjoyed the additional responsibility and realised I would miss the additional challenges. Mike also worked with me to ensure I could commit to the role without having to compromise on work-life balance, so that my family commitments can be managed without having to compromise on career goals. The final and most important factor in building my confidence was the support and backing I received from the other board members and wider Fortress team – they actively encouraged me to take on the role and I knew that I had earned their trust and respect to become their leader."

Halma encourages diversity and inclusivity, and the benefits that come from considering different perspectives. We strive to work with all individuals to bring their best to work every day.

We are committed to ensuring our best people can thrive at Halma, including enabling female leaders who might otherwise exclude themselves from consideration for promotions and new challenges.

Such was the case when one of our company Managing Director roles was vacated, and remained so for the best part of the year. In the interim, Jo Smith, finance director, (pictured above) had stepped up to lead the team in the void. She proved her ability to influence, create momentum and keep the team aligned. Mike Dakin, the company's Chairman and SVP, noticed that Jo was the right person for the business and the team and over time, convinced her of that!

Sustainability

Our commitment

Health and safety

Our commitment to safeguarding the health and safety of our employees while at work is demonstrated by our culture of safety and our excellent health and safety record.

Corporate responsibility and sustainability

Our commitment to managing our business activities in a sustainable way and minimising the environmental impact is evidenced by our performance against the Group's carbon reduction target.

Human rights and ethics

Our commitment to respecting human rights and operating in an ethical way is embedded throughout our Group and underpins the way that we work.

Halma companies are involved in the manufacture of a wide range of products that protect and improve the quality of life for people worldwide. This section of the Report focuses on areas of progress and our performance for all areas of sustainability which are considered to be material by our stakeholders and are also important to the success of our business. Halma has developed meaningful key performance indicators (KPIs) that reflect the importance that the Group places on sustainability and enables the Board to monitor the Group's progress in meeting its objectives and responsibilities in these areas. The Group's non-financial KPIs are set out on pages 18 and 19.

The areas of emphasis include health and safety, employee engagement and development, human rights, ethics and sustainability. Safety is critical to the Group and is a major priority. We recognise the necessity of safeguarding the health and safety of our own employees while at work and operate so as to provide a safe and comfortable working environment for employees, visitors and the public. Our policy is to manage our activities to avoid causing any unnecessary or unacceptable risks to health and safety and the environment. Halma has an excellent health and safety record and a culture of safety is deeply embedded within the Group.

Our core values are Achievement, Innovation, Empowerment and Customer satisfaction, and our culture is one of openness, integrity and accountability. We encourage our employees to act fairly in their dealings with fellow employees, customers, suppliers and business partners.

We recognise that our employees determine our success and we continue to invest in, and encourage further development of, our employees each year, not only utilising the suite of Halma development programmes, but also by providing clear leadership and decisive action. Jennifer Ward, our Group Talent and Communications Director, champions our talent leadership and works with our teams

to ensure that we have the right capabilities and best talent to match Halma's growth ambition.

We support the concept of sustainability and recognise that, in common with all businesses, our activities have an environmental impact. Our strategy is not to have capital-intensive manufacturing processes and to operate close to our end markets in terms of geography, so the environmental impact of our operations is relatively low compared to manufacturers in other sectors. We also recognise that we can improve our own environmental performance and so resources are deployed to actively reduce our own carbon footprint.

The Environment

We have an excellent long-term record and a clear strategy for addressing environmental issues that affect our businesses and for developing products that protect the environment and improve safety at work and in public places.

Our products

Many of our innovative products play a very positive role in monitoring and improving the environment. Halma brands lead the world in a number of technologies which help to minimise environmental damage. Our principal environmental technologies are water leakage detection and wireless monitoring, gas emissions monitoring, water and effluent analysis, UV water treatment and optical sensing. We promote the use of UV water sterilisation which eliminates the need to use dangerous chemicals, as well as making products that minimise the waste of clean water.

Our commitment to the development of equipment for measuring and monitoring environmental changes and controlling the damaging impact of industrial activities is long term. We are the major world supplier in several of these areas.

Our impact

The environmental effect of our operations is relatively low compared to manufacturers in other sectors. Our manufacturing model is decentralised, permitting our operations to be located close to their customers, which helps us to minimise the impact on the environment. The ethos of being close to our customers reflects the importance we place on the quality of our products and the service levels we provide to our customers. It also makes our operations more flexible and responsive to their markets and customers. With operations spread around the globe, our supplier base is understandably fragmented. Therefore, responsibility for vetting and managing suppliers is devolved to local management while meeting the Group's ethical standards.

Environmental Management System (EMS)

We are committed to developing and implementing an EMS throughout the Group to measure, control and reduce our environmental impacts. We have developed performance indicators that assist local management in implementing the policy and ultimately developing an EMS. All Group companies are encouraged to undertake ISO 14001 accreditation, where warranted. The requirement to implement an EMS will be extended to the rest of the Group in the medium term.

Group companies are also encouraged to improve energy efficiency, to reduce waste and emissions and reduce the

use of materials in order to minimise their environmental impact.

The Group has identified its key environmental impacts as emissions to air and water, water and energy consumption, and waste production. In addition to the information set out in this section of the Report, we publish data annually on energy consumption, waste and transportation on our website.

We support innovation and investment that drives environmental performance. Recent examples include:

- Apollo China, BEA, Fiberguide and Perma Pure replacing lighting installations with more energy efficient LED lamps
- Keeler replacing their ageing oil boilers with more efficient gas boilers
- Medical recovering heat from machinery connected to cooling circuits and utilising it for heating

Opportunities are also being explored by some businesses to expand existing solar installations or switch to green energy suppliers.

Carbon Footprint

The Group's policy on carbon is published on our website and has been distributed to all Halma businesses. A senior executive in each of our higher impact businesses is responsible for implementing the carbon policy at local level. Our Finance Director, Kevin Thompson, has principal responsibility for co-ordinating and monitoring the policy.

We are committed to reducing our carbon footprint. The Board recognises that a growing international business such as Halma would struggle to reduce absolute CO₂ emissions year-on-year as it acquires and grows its

portfolio of companies and sales revenue (although we did achieve an absolute reduction in 2015/16). The Group set a target of reducing its total carbon emissions relative to revenues by 10% over the three years from March 2010, which was met in March 2013. The same target was set for the three year period to March 2016 and was significantly exceeded. The Board set a further target to reduce total carbon emissions relative to revenues by a further 10% for the period to March 2019. Our CO₂ emissions reduced between 2016 and 2017 on an intensity basis by 10%, although the impact of currency movements over the period has distorted our underlying performance. On a constant currency basis, the reduction between 2016 and 2017 has been around 3%. We will continue to report on our performance against our 2019 target each year.

GHG emissions data for the period 2 April 2016 to 1 April 2017

	2016/17 CO ₂ e emissions global tonnes	2015/16 CO ₂ e emissions global tonnes
Scope 1: Combustion of fuel and operation of facilities	4,568	3,955
Scope 2: Electricity, heat, steam and cooling purchased for own use	14,458	15,083
Scope 3: Business air travel, WTT (Well to Tank)	16,512	13,883
Total gross emissions	35,628	32,921
Intensity measure of tonnes of CO ₂ e gross emissions per £m revenue	37.0	40.8

Sustainability

Our commitment continued

Since 2010, Halma has worked with external providers of energy efficiency and carbon reduction solutions to ensure compliance with the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) which is the UK's mandatory energy savings scheme administered by the Environment Agency. We are in full compliance with the CRC requirements and will continue to purchase allowances to meet our compliance obligation until the scheme comes to an end in 2019.

Halma has complied with the Energy Savings Opportunity Scheme (ESOS) regulations and submitted its first compliance report to the Environment Agency in November 2015. Observations made following site energy surveys were shared with local management and reviewed centrally at Group level. The next four-year compliance period to 5 December 2019 has commenced and the Group will repeat the exercise of identifying energy saving opportunities over this period.

The Group does not operate a fleet of distribution vehicles although there are a number of company cars. To support the Group's commitment to sustainability, our policy, which is subject to regular review, operates a cap on permissible CO₂ emissions for all company-owned vehicles and vehicles used by employees who have taken a cash allowance in lieu of a company car.

We comply with the mandatory carbon reporting requirements which UK listed companies are subject to and have reported on all of the emission sources required under the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013.

We have employed the Operation Control definition to outline our carbon footprint boundary; included within that boundary are Scope 1 and 2 emissions from manufacturing sites and offices which we own and operate. Excluded from our footprint boundary are

emissions from manufacturing sites and offices which we do not own and control, and emissions considered non-material by the business. We have reported on emissions from Scope 1 and 2 emissions sources with some Scope 3 emissions sources included (business air travel for all years, and Well to Tank emissions from 2013/14).

We have also used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition) and guidance provided by the UK's Department for Environment, Food & Rural Affairs (Defra) on voluntary and mandatory carbon reporting. Emission factors were used from the UK Government's GHG Conversion Factors for Company Reporting 2016. In addition, IEA 2016 factors were used for electricity.

The Group's environmental performance will continue to be reported both in our Annual Report and Accounts and on our website.

Health and Safety

Halma companies are involved in the manufacture of a wide range of products that protect and improve the quality of life for people worldwide. Therefore, safety is critical to the Group and is a major priority for management and to demonstrate the Group's added emphasis on health and safety. The Board has endorsed the inclusion of the Group's Accident Frequency Rate (AFR) as one of our non-financial KPIs on pages 18 and 19.

The Group manages its activities to avoid causing any unnecessary or unacceptable risks to the health and safety of our employees in the workplace or to the public as a result of our activities. Health and safety performance is closely monitored to ensure that adequate processes, procedures and reporting are in place, and operating, to ensure a safe working environment for our employees and visitors to our sites.

Halma has an excellent health and safety record and a culture of safety is deeply embedded within the Group. Health and safety performance is regularly reviewed at multiple levels within the Group – at subsidiary board level, at sector level and by the Halma Board. Each Group company is required to have an

independent health and safety review carried out every three years, with a view to ensuring a consistent approach in the quality of reporting, adherence to internal processes and procedures, adequate reporting and investigation and to further promote our health and safety culture.

The health and safety performance remains above our target to match our lowest ever recorded Accident Frequency Rate of 0.09 in 2014. As we strive to have zero accidents in our businesses, we thoroughly review the root cause of any accidents to ensure that we take preventative measures, including further training and education of our employees. During 2017, we are rolling out a programme of online health & safety training with mandatory and optional modules being offered to all employees across the Group. Topics being covered include:

- health & safety at work
- Control of Substances Hazardous to Health (COSHH) awareness
- display screen equipment & workstation safety
- repetitive strain injury
- slips trips and falls
- manual handling
- working with hazardous substances

Given the autonomous structure of the Group, operational responsibility for compliance with relevant local health and safety regulations resides with the board of each operating company. However, the Halma plc Board sets the tone and minimum standards expected of companies, in addition to its role in monitoring health and safety performance.

Kevin Thompson, Finance Director, is the director responsible for Halma's health and safety compliance and he is provided with sufficient information to routinely monitor health and safety performance across the Group.

We are pleased to report that there were no work-related fatalities in 2016/17 or prior years.

Injuries recorded

	2017	2016	2015	2014
Days lost due to reportable* work-related injuries	236	464	546	118
Total recorded injuries to all employees	314	342	298	323

* Specified major injury incidents are reportable incidents which result in more than three working days lost.

Ethics

The Group's culture is one of openness, integrity and accountability. Halma requires its employees to act fairly in their dealings with fellow employees, customers, suppliers and business partners. Halma has a Code of Conduct which applies to all Group company employees and our external business partners. The Code of Conduct aims to ensure that Halma maintains consistently high ethical standards across the globe, while recognising that our businesses operate in markets and countries with cultural differences and practices. Our Code of Conduct is being updated for 2017 and, once it has been translated into a variety of languages, will be issued to all employees via our businesses and will be published on our website.

Whistleblowing

We require our employees and business partners to maintain the highest standards of integrity and act in good faith. Halma implemented a group-wide whistleblowing policy in 2017 which applies to all employees and Halma operations (including newly acquired businesses) and to joint venture partners, suppliers, customers and distributors relating to our businesses. While we encourage an open culture whereby any issues can be raised and handled locally at business level, we recognise that there will be times when it is not appropriate, or a person will not be comfortable, raising a concern through line management. An independent third party provider, Expolink, has been appointed to operate a confidential reporting service which enables employees to raise any concerns they may have in confidence and, if they wish, anonymously via the telephone or by web-reporting. All reports are treated confidentially and are provided to the Group Company Secretary for review and to ensure that they are appropriately investigated and concluded. Halma is committed to ensuring that anyone raising a concern in good faith is not subject to any victimisation or detrimental treatment, although a malicious allegation may result in disciplinary action.

Anti-bribery and corruption

Halma has a zero-tolerance policy on bribery and corruption which extends to all business dealings and transactions in which we are involved. This includes a prohibition on making political donations, offering or receiving inappropriate gifts or making undue payments to influence the outcome of business dealings. Our robust policy and guidance in this area is routinely reviewed and compliance with the policy is checked as part of the half-year and year-end process.

During 2017, we are rolling out anti-bribery and corruption training to senior management across the Group.

Responsible investment

Investing in Halma shares meets the criteria of many professional and private investors who base their decisions on environmental, ethical and social considerations. The Group is a world leader in several key environmental technologies and has a reputation for honesty and integrity in its relationships with employees, customers, business partners and shareholders.

Halma has been a member of the FTSE4Good UK index since its establishment in July 2001. In 2016, Halma participated in CDP's Climate Change Questionnaire, which assesses how companies are incorporating sustainability into their business strategy and practices, and achieved a score of 'Awareness C'. It is our intention to participate in CDP's 2017 Questionnaire.

Social conditions can be improved for all through the creation of wealth. Halma creates wealth responsibly allowing our employees, customers, business partners and shareholders to determine where this wealth is best distributed.

Human rights

Halma's Human Rights and Labour Conditions Policy reflects the core requirements of the Universal Declaration of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work, including the conventions relating

to forced labour, child labour, non-discrimination, freedom of association and right to collective bargaining. We do not tolerate practices which contravene these international standards. Regulatory demands upon us vary considerably around the world, so Halma establishes the core structure to ensure that Group companies fully comply with legislative and regulatory requirements while permitting them to tailor their approach to their particular needs.

Compliance with, and respect for, these core requirements are integrated within our organisation. Everyone working for Halma is responsible for having due regard for human rights. Managers and supervisors must provide leadership that promotes human rights as an equal priority to other business issues. All employees are responsible for ensuring that their own actions do not impair the human rights of others, and are encouraged to bring forward, in confidence, any concerns they may have about human rights. Our Chief Executive, Andrew Williams, has overall responsibility for ensuring that human rights considerations are integral to the way in which existing operations and new opportunities are developed and managed.

Modern Slavery Act

Halma published its first Modern Slavery Act Statement in September 2016. Since the introduction of the Act, we have worked to raise awareness of this important agenda. During the year, a guidance note was prepared and sent to all businesses raising awareness of the Act and the issue of modern slavery in business and supply chains. Each business was requested to consider the potential issue of modern slavery and human trafficking within their business and supply chain. In addition, we are rolling out Modern Slavery Act training to senior management across the Group during 2017/18 to ensure that our business management understand their responsibilities and consider the Act in their operations.

The Group will publish its next annual Modern Slavery Act Statement for this year in September 2017.

Financial Review

Continued investment delivering growth

Our objective is to achieve long-term sustainable growth. We continue to invest in our businesses to deliver organic growth and we target value-adding acquisitions.

Kevin Thompson
Finance Director

Record results

Halma achieved record revenue and profit for the fourteenth consecutive year. Revenue increased by 19.0% to £961.7m (2016: £807.8m) and adjusted¹ profit was up by 16.9% to £194.0m (2016: £166.0m). Our balance sheet remains strong with increased financial capacity to invest in growth and to acquire. The Board is proposing a dividend increase of 7%, the 38th consecutive year of 5% or more dividend growth.

The 19.0% (£153.9m) increase in revenue included 4.3% organic constant currency revenue growth. Acquisitions contributed 4.9% to growth. There was a significant 9.8% positive currency translation impact.

The adjusted¹ profit increase of 16.9% (£28.0m) included 3.6% organic constant currency profit growth. Acquisitions contributed 2.8% to growth. There was a 10.5% positive currency translation impact.

Revenue and profit growth from organic operations at constant currency plus contribution from acquisitions was 9.2% and 6.4% respectively.

Statutory profit before taxation increased by 15.7% to £157.7m (2016: £136.3m). Statutory profit is calculated after charging the amortisation and impairment of acquired intangible assets of £43.9m (2016: £23.1m) and after crediting acquisition related items, including revisions to provision for acquisition contingent consideration and related foreign exchange movements, of £9.5m (2016: £7.2m charge) arising from current and prior year acquisitions. The reduction in forecast acquisition contingent consideration, and the related impairment of acquired intangible assets are primarily attributable to Visiometrics and are discussed in the Acquisition section below. There was a gain on

Revenue and profit growth

	2017 £m	2016 £m	Increase £m	Total	Percentage growth	
					Organic growth ²	Organic growth ² at constant currency
Revenue	961.7	807.8	153.9	19.0%	14.1%	4.3%
Adjusted ¹ profit	194.0	166.0	28.0	16.9%	14.1%	3.6%

¹ In addition to those figures reported under IFRS Halma uses adjusted figures as key performance indicators as management believe these measures enable them to better assess the underlying trading performance of the business. Adjusted profit excludes the amortisation and impairment of acquired intangible assets; acquisition items; restructuring cost; and profit or loss on disposal of operations. All of these are included in the statutory figures. Note 3 to the Accounts gives further details with the calculation and reconciliation of adjusted figures.

² See Highlights.

"Our balance sheet remains strong with increased financial capacity to invest in growth and to acquire."

disposal of £0.6m in the prior year. Statutory profit is also after charging £1.9m for the restructuring of Pixelteq, within the Environmental & Analysis sector, in the first half of 2016/17. The amount is less than the figure of £2.1m included in the Half Year report.

There were 52 weeks in 2016/17 compared with 53 weeks in the prior year. The extra week fell in the first half of the prior year. We are revising the accounting calendar so that future accounting periods will run from 1 April to 31 March.

Revenue grew by 16.5% in the first half increasing to 21.3% in the second half. There was a significant positive contribution from currency translation in both halves, but this was greater in the second half. Organic revenue growth at constant currency was 2.1% in the first half increasing to 6.2% in the second half with particularly good growth in the two safety sectors.

Geographic revenue growth

	2017		2016				
	£m	% of total	£m	% of total	Change £m	% growth	% Organic growth at constant currency
United States of America	345.3	36%	272.9	34%	72.4	27%	1%
Mainland Europe	210.4	22%	179.3	22%	31.1	17%	6%
United Kingdom	154.9	16%	144.8	18%	10.1	7%	5%
Asia Pacific	151.6	16%	125.0	15%	26.6	21%	9%
Africa, Near and Middle East	60.8	6%	55.7	7%	5.1	9%	(1)%
Other countries	38.7	4%	30.1	4%	8.6	29%	10%
	961.7	100%	807.8	100%	153.9	19%	4%

Financial Review continued

Adjusted¹ profit growth was also higher in the second half at 20.8% compared to 12.0% in the first half. The contribution to profit from currency translation was greater in the second half. Organic profit growth at constant currency was 2.0% in the first half increasing to 5.0% in the second half. The first half/second half split of adjusted¹ profit was 43%/57% slightly more weighted to the second half than our more typical 45%/55% pattern.

All four sectors delivered revenue and profit growth. Process Safety grew strongly in the second half as expected, to deliver revenue and profit growth following a decline in the first half. The highest rates of revenue and profit growth were in the Medical sector boosted by the contribution from acquisitions and currency. Infrastructure Safety grew by less in the second half than in the first half although delivered a strong result for the year. Environmental & Analysis built on the strong performance in the prior year, with high profit growth in the second half.

At organic constant currency all sectors achieved revenue growth. All except Process Safety delivered profit growth for the year, although it did deliver profit growth in the second half.

Central administration costs were £10.5m (2016: £8.3m). As expected there was an increase in investment in talent development, international expansion and improvements in cyber security. In the prior year there was a profit on sale of a Group freehold property. We expect a further increase in the underlying costs in 2017/18 as we continue to invest in the growth of the Group.

Widespread growth

There was strong revenue growth in all regions. Widespread organic growth was boosted by positive currency impacts and the benefit of acquisitions.

The USA continues to be our largest revenue destination increasing by 27% to contribute 36% (2016: 34%) of Group revenue. All sectors grew in the USA with the largest increase in the Medical sector. In Mainland Europe revenue increased by 17% and all sectors grew, with a particularly strong performance by Infrastructure Safety. Asia Pacific was up 21%, with all except Process Safety growing strongly. Asia Pacific revenue is now only 2% lower than revenue in the UK, where revenue rose by 7%. Africa, Near and Middle East grew by 9% and Other countries increased by 29% with good growth in Canada and some recovery in South and Central America.

Revenue from territories outside UK/Mainland Europe/USA grew by 19%, ahead of our 10% growth target. This was in line with growth in revenue in UK/Mainland Europe/USA.

Due to the significant currency and acquisition impacts the underlying performance is better understood when measured at organic constant currency. The USA grew in the year by 1% at organic constant currency with Infrastructure Safety showing a decline. Some larger contracts towards the end of the second half of the prior year did not repeat contributing to a flat second half performance in the USA in 2016/17 for the Group. Mainland Europe grew by 6% in the year, well ahead of the 2% growth in the first half with Infrastructure Safety delivering very strong second half growth. The UK grew by 5% in the year following 1% first half growth again with Infrastructure Safety performing well in the second half together with a good performance in Environmental & Analysis.

Asia Pacific grew by 9% at organic constant currency ahead of the 7% first half growth, with strong growth in Medical and good growth in Environmental & Analysis and Infrastructure Safety. China grew by 11% with growth in all sectors. Africa, Near and Middle East performance was mixed with Process Safety up and Environmental & Analysis down. There was organic constant currency growth in all four sectors in Other countries.

Continued high returns

Halma's Return on Sales² has exceeded 16% for 32 consecutive years. We aim to deliver Return on Sales in the range of 18-22%. This year Return on Sales was 20.2% (2016: 20.6%). Return on Sales for Process Safety reduced this year but strengthened in the second half and remains at the high rate of 24%. Medical and Infrastructure Safety sectors remained broadly in line with last year. Environmental & Analysis improved profitability, building on the increase in the prior year and achieved 19% Return on Sales. Higher financing costs and lower Return on Sales from recent acquisitions contributed to the slightly reduced Return on Sales for the Group.

Adjusted¹ gross margin (revenue less direct material and direct labour costs) remained steady at 64.5% (2016: 64.2%) continuing a long trend of stability and reflecting strong management of pricing and input costs.

Return on Total Invested Capital² (ROTIC), the post-tax return on the Group's total assets including all historic goodwill, remained at the high level of 15.3% (2016: 15.6%).

ROTIC is a relentless metric. Every year the addition of prior year retained earnings to Total Invested Capital mean that high rates of organic constant currency profit and acquisition growth are needed just to maintain ROTIC. Currency movements also have an impact on ROTIC. Total Invested Capital, which includes significant US Dollar and Euro assets, has typically been affected by currency movements more than the post-tax return.

Our objective is to continue to invest in our businesses to deliver growth whilst maintaining a high level of ROTIC. At 15.3% ROTIC was once again ahead of our target of 12% and well in excess of Halma's Weighted Average Cost of Capital (WACC), estimated to be 7.1% (2016: 8.1%).

Significant currency impacts

Halma reports its results in Sterling. Our other key trading currencies are the US Dollar, Euro and to a lesser extent the Swiss Franc. Over 45% of Group revenue is denominated in US Dollars and approximately 15% in Euros.

The Group has both translational and transactional currency exposure. Translational exposures arise on the consolidation of overseas company results into Sterling. Translational exposures are not hedged.

Transactional exposures arise where the currency of sale or purchase transactions differs from the functional currency in which each company prepares its local accounts. After matching currency of revenue with currency costs wherever practical, forward exchange contracts are used to hedge a proportion (up to 75%) of the remaining forecast net transaction flows where there is a reasonable certainty of an exposure.

We hedge up to 12 months and, in certain specific circumstances, up to 24 months forward. At 1 April 2017 over 50% of our next 12 months' currency trading transactions were hedged. There is a good degree of natural hedging within the Group in US Dollars but we typically spend less in Euros than we sell and so have a net exposure of approximately €40m at any time.

We saw continued volatility in currencies throughout the year and this had a significant impact on the results. Average exchange rates are used to translate results in the Income Statement. Sterling weakened in the first half of the year, in particular following the result of the EU referendum in the UK, by an average 11% relative to the US Dollar and 12% against the Euro. For the year as a whole Sterling was on average 13% weaker against both the US Dollar and the Euro. Currency translation therefore had a positive impact of 9.8% on revenue and 10.5% on adjusted¹ profit for 2016/17.

	Weighted average rates used in the Income Statement		Exchange rates used to translate the Balance Sheet	
	2017	2016	2017	2016
	First half	Full year	Year end	Year end
US\$	1.36	1.31	1.25	1.42
Euro	1.21	1.19	1.17	1.25

Based on the current mix of currency denominated revenue and profit, a 1% movement in the US Dollar relative to Sterling changes revenue by £4.4m and profit by £0.8m. Similarly, a 1% movement in the Euro changes revenue by £1.2m and profit by £0.3m.

We expect currency rates to continue to be volatile. If currency rates through the 2017/18 year were as follows: US Dollar 1.30/Euro 1.15 relative to Sterling, and assuming a constant mix of currency results, we would expect approximately 1% positive currency translation impact on revenue and profit in 2017/18 compared with 2016/17. On this basis there would be a positive impact in the first half of the year, mostly reversing in the second half of the year.

Increased financing cost

The net financing cost in the Income Statement of £9.3m was higher than the prior year (2016: £7.1m). The average cost of financing was higher due to the increased interest rate on long-term borrowing following the US Private Placement completed in January 2016. Average debt for the year was also higher, following acquisition expenditure made in the second half of the prior year (see the 'Average debt and interest rates' table on page 65 for more information).

Interest cover (EBITDA as a multiple of net interest expense as defined by our revolving credit facility) was 30 times (2016: 46 times) which was well in excess of the four times minimum required in our banking covenants.

The net pension financing charge under IAS 19 is included within the net financing cost. This year it decreased to £1.6m (2016: £2.0m) due to a combination of a lower net pension deficit at the start of the year and lower discount rate than the prior year.

Steady group tax rate

The Group's approach to tax is to ensure compliance with the tax regulations in all of the countries in which it operates. The key features of this are: (1) Tax compliance – Halma is committed to maintaining good relationships with tax authorities based on cooperation, transparency and paying in full the tax due in each jurisdiction; (2) Tax strategy – our tax arrangements have an underlying business purpose and, where possible, we consider mitigating tax in compliance with local legislation; and (3) Tax policy – the Board of Directors is regularly updated, either directly or through the Audit Committee, on the Group's Tax policy and management of tax risks.

Financial Review continued

The Group has major operating subsidiaries in 10 countries so the Group's effective tax rate is a blend of these national tax rates applied to locally generated profits. A significant proportion (approximately one quarter) of Group profit is generated and taxed in the UK. The Group's effective tax rate on adjusted profit was just below the prior year at 21.5% (2016: 21.9%).

We benefit from widely claimed R&D related tax incentives, exemptions and reliefs (for example under the UK 'Patent Box' rules).

There remains significant uncertainty over potential tax legislation changes in the USA, our largest region. Such changes are not expected to be imminent. We would benefit from a reduction in the rate of corporation tax but the overall impact on Halma would depend on the package of changes. We continue to monitor the position closely.

Strong cash generation

Cash generation is an important component of the Halma model underpinning further investment in our businesses, supporting value enhancing acquisitions and funding an increasing dividend. Our cash conversion in 2016/17 was strong. Adjusted operating cash flow was £175.5m (2016: £148.3m) and represented 86% (2016: 86%) of adjusted operating profit, ahead of our cash conversion KPI target of 85%.

A summary of the year's cash flow is shown in the table on page 66. The largest outflows in the year were in relation to dividends and taxation paid. Working capital outflow, comprising changes in inventory, receivables and creditors, totalled £13.9m (2016: £5.8m). This outflow was higher than typical following

strong revenue growth in the final quarter leading to increased year end debtor balances. Debtor days remain in line with the prior year and outstanding debtor balances are actively reviewed as part of our year end process.

Dividends totalling £49.8m (2016: £46.5m) were paid to shareholders in the year. Taxation paid was £33.2m (2016: £27.2m).

Capital allocation and funding

Halma aims to deliver high returns, measured by Return on Total Invested Capital (ROTIC), well in excess of our cost of capital. Future earnings growth and strong cash returns underpin ROTIC and our capital allocation as follows:

Investment for organic growth
Organic growth is our priority and is driven by investment in our businesses, in particular through capital expenditure, innovation of new products, international expansion and the development of our people.

Regular and increasing returns to shareholders
We have maintained a long-term progressive dividend policy as our preferred route for delivering cash returns to shareholders.

Value enhancing acquisitions
We supplement organic growth with acquisitions in related markets. This brings new technology and intellectual property into the Group and can expand our market reach.

Investment for organic growth

All sectors continue to innovate and invest in new products with R&D spend determined by each individual Halma company. This year R&D expenditure grew by 23% with increased investment through the

year, in particular in the Infrastructure Safety sector. Excluding currency impacts, R&D expenditure increased by 13%. R&D expenditure as a percentage of revenue increased to 5.3% (2016: 5.1%). In the medium term we expect R&D expenditure to increase broadly in line with revenue.

Under IFRS accounting rules we are required to capitalise certain development projects and amortise the cost over an appropriate period, which we determine as three years. In 2016/17 we capitalised £10.7m (2016: £8.6m), and amortised £6.8m (2016: £5.0m). This results in an asset carried on the Consolidated Balance Sheet, after £1.4m of foreign exchange gain, of £28.8m (2016: £23.5m). All R&D projects and particularly those requiring capitalisation, are subject to rigorous review and approval processes.

Capital expenditure on property, plant and computer software this year was £24.4m (2016: £24.1m). The prior year included additional investment of £4m in Group properties. The underlying increase in fixed assets was spread across the four sectors supporting our operating capability, capacity and growth. We anticipate increased capital expenditure in the coming year.

Regular and increasing returns for shareholders

Adjusted¹ earnings per share increased by 17% to 40.21p (2016: 34.26p). Statutory earnings per share increased by 19% to 34.25p (2016: 28.76p). We deliver shareholder value via consistent growth in earnings per share and this is reflected in our senior management share-based incentives.

The Board is recommending a 7.0% increase in the final dividend to 8.38p per share (2016: 7.83p per share), which together with the 5.33p per

share interim dividend gives a total dividend of 13.71p (2016: 12.81p), up 7.0%. This year dividend cover (the ratio of adjusted profit after tax to dividends paid and proposed) is 2.93 times (2016: 2.67 times).

The final dividend for 2016/17 is subject to approval by shareholders at the AGM on 20 July 2017 and will be paid on 16 August 2017 to shareholders on the register at 14 July 2017.

We continue with a long-term progressive dividend policy, maintaining a prudent level of dividend cover. The aim is to deliver consistent, sustainable and affordable dividend growth. Dividend growth has been an important contributor to our Total Shareholder Return over many years.

The Board's determination of recommended annual dividend increases takes into account the medium-term rate of organic constant currency growth, organic investment needs and acquisition opportunities, while maintaining moderate debt levels.

One acquisition in the year

Acquisitions and disposals are an important part of our growth strategy. We buy businesses already successful in, or adjacent to, the niches in which we operate. Sector acquisition resources to support this strategy have been further increased in the year.

In January 2017 we acquired FluxData, based in New York State, which joins our Environmental & Analysis sector. The initial consideration was US\$12m (£9m). Deferred contingent consideration of up to US\$15.5m (£12m) is payable for growth to March 2019. Our current estimate is that

Average debt and interest rates

	2017	2016
Average gross debt (£m)	300.5	208.1
Weighted average interest rate on gross debt	2.00%	1.54%
Average cash balances (£m)	67.3	57.7
Weighted average interest rate on cash	0.32%	0.38%
Average net debt (£m)	233.3	150.4
Weighted average interest rate on net debt	2.49%	1.99%

US\$11m (£9m) will be paid in deferred contingent consideration and this has been provided for in these accounts.

There were three acquisitions completed in the second half of 2015/16. In the first half of 2016/17, in aggregate, these contributed less to revenue and profit than their run rates at acquisition. As expected their contribution increased in the second half of this year with contracts in place at acquisition progressing to plan. An increased contribution is anticipated in the coming year and we expect a good performance from these acquisitions over the long term.

The acquisition of Visiometrics S.L. in the prior year was structured with a high element of deferred contingent consideration to reduce the financial risk to the Group if the vendor's growth forecast targets were not met. Deferred contingent consideration previously provided for of £10m has been released in 2016/17 relating to a specific customer where sales targets will not be achieved. Offsetting this is the £12m impairment of the customer-related intangible asset attributable to the same customer. Both of these items are included in the adjustments to profit detailed in Note 1 to the accounts. Our current estimate is that £12.0m remains to be paid in deferred contingent consideration on this acquisition and this amount is provided for in these accounts.

Funding capacity increased

Halma operations are inherently cash generative and the Group has access to competitively priced debt finance providing good liquidity for the Group. Group treasury policy is conservative and no speculative transactions are undertaken. We continue to fund organic and acquisition growth through our strong cash flow and use of debt facilities.

In November 2016 we increased our Revolving Credit Facility from £360m to £550m for five years to 2021 on favourable terms. This supplements the US\$250m US Private Placement drawn down in January 2016 which provided diversification of Group funding.

At the year end net debt was £196.4m (2016: £246.7m), a combination of £265.2m of debt and £68.8m of cash held around the world to finance local operations. The gearing ratio at year end (net debt to EBITDA) reduced to 0.86 times (2016: 1.27 times) following cash inflows this year. We are comfortable operating at this level of gearing and would increase to 2 times gearing if the timing of acquisitions required it. Net debt represents 5% (2016: 7%) of the Group's year end market capitalisation. The Group continues to operate well within its banking covenants with significant headroom under each financial ratio.

Financial Review continued

Operating cash flow summary

	2017 £m	2016 £m
Operating profit	167.1	142.9
Net acquisition costs and contingent consideration fair value adjustments	(9.5)	7.2
Amortisation and impairment of acquisition-related acquired intangible assets	43.9	23.1
Loss on restructuring of operations	1.9	–
Adjusted operating profit	203.4	173.2
Depreciation and other amortisation	26.3	21.8
Working capital movements	(13.9)	(5.8)
Capital expenditure net of disposal proceeds	(23.1)	(22.1)
Additional payments to pension plans	(10.2)	(7.7)
Other adjustments	(7.0)	(11.1)
Adjusted operating cash flow	175.5	148.3
Cash conversion %	86%	86%

Non-operating cash flow and reconciliation to net debt

	2017 £m	2016 £m
Adjusted operating cash flow	175.5	148.3
Tax paid	(33.2)	(27.2)
Acquisition of businesses including cash/debt acquired	(10.2)	(202.6)
Net movement in loan notes	0.2	0.1
Net finance costs and arrangement fees	(9.5)	(4.7)
Dividends paid	(49.8)	(46.5)
Own shares purchased/issue of shares	(2.4)	(3.0)
Adjustment for cash outflow on share awards not settled by own shares	(3.3)	(2.5)
Disposal of operations	–	0.9
Effects of foreign exchange	(17.0)	(8.6)
Movement in net debt	50.3	(145.8)
Opening net debt	(246.7)	(100.9)
Closing net debt	(196.4)	(246.7)

Net debt to EBITDA

	2017 £m	2016 £m
Adjusted operating profit	203.4	173.2
Depreciation and amortisation (excluding acquired intangible assets)	26.3	21.8
EBITDA	229.7	195.0
Net debt to EBITDA	0.86	1.27

These sources of funding provide Halma with the financial resources to operate within its existing business model for the medium term, continuing investment in our business and with substantial capacity for further acquisitions.

Pensions update

We closed the two UK defined benefit (DB) plans to new members in 2002. In December 2014 we ceased future accrual within these plans with future pension benefits earned within the Group's Defined Contribution (DC) pension arrangements. These changes have reduced Group risk.

The Group accounts for post-retirement benefits in accordance with IAS 19 Employee Benefits. The Consolidated Balance Sheet reflects the net deficit on our pension plans at 1 April 2017 based on the market value of assets at that date and the valuation of liabilities using year end AA corporate bond yields.

On an IAS 19 basis the deficit on the Group's DB plans at the 2016/17 year end has increased to £74.9m (2016: £52.3m) before the related deferred tax asset. The value of plan assets increased to £265.0m (2016: £221.9m). In total, about 50% of plan assets are invested in return seeking assets providing a higher expected level of return over the longer term. Plan liabilities increased to £339.9m (2016: £274.2m) primarily due to the reduction in the discount rate from 3.4% to 2.5%.

The plans' actuarial valuation reviews, rather than the accounting basis, determine any cash deficit payments by Halma. Following the most recent triennial actuarial valuation of the two UK pension plans, cash contributions aimed at eliminating the deficit were agreed with the trustees. In 2016/17 these contributions amounted to £10.2m (2016: £7.7m) with agreed modest future increases. The next triennial valuations are due in late 2017 and early 2018 and following these appropriate revised contribution rates will be set as necessary.

Risk management

Halma has a well-established business and financial model which has delivered success consistently over the long term. The model is based on considerable autonomy and accountability at operating company and sector level, within a robust strategic framework supported by strong policies and clear procedures. In the year we have continued to develop risk and control capability within each sector and we recruited a Director of Risk and Internal Audit at Group level to help support growth of our businesses and our proactive approach to risk management.

Risk is managed closely and is spread across well-resourced companies, each of which manages risk to its individual level of materiality. There are extensive review processes in place including peer financial review and risk-based internal audit. The principal Group risks have been referenced in this Annual Report primarily on pages 22 to 27 and in the Chief Executive's Strategic Review and Sector Reviews. In addition principal risks are highlighted in the Audit Committee Report on page 83 and Auditor's Report on page 114.

The UK Corporate Governance Code issued by the Financial Reporting Council (FRC) requires regular monitoring of risk by the Board. As noted above, for many years we have had comprehensive and regular review of risk taking place at many levels throughout the organisation and this is discussed more fully in the Strategic Report and Corporate Governance Report.

The UK referendum decision in June 2016 to leave the European Union has added a new dimension to the uncertainties surrounding global economic growth. In 2016/17, approximately 10% of Group revenue came from direct sales between the UK and Mainland Europe. Our decentralised model with businesses in diverse markets and locations enables each Halma company to adapt quickly to changing trading conditions, such as weaker Sterling, offering

competitive pricing opportunities for exports from the UK.

Halma has formed an executive working group that is tasked with assessing and monitoring the impacts on our business and to communicate updates and guidance as the Brexit process evolves. To date, the following risks have been identified as having an actual and/or potential impact on our business:

- Economic conditions – increased overall uncertainty including the specific impacts on growth, inflation, interest and currency rates
- Defined benefit pension liability – movements in bond yields affecting discount rates which may increase the liability
- Laws and regulations – potential changes to UK and EU-based law and regulation including product approvals, patents and import/export tariffs

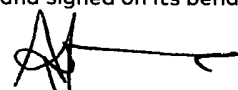
Cyber security represents an ongoing risk to our businesses. This year, in addition to continuing our online employee awareness programme, we have further strengthened the proactive monitoring of threats and our system resilience. We continue to extend our international team and also continue to design cyber security into our products.

The Board considers all of the above factors in its review of 'Going Concern' as described on page 82. In addition the Viability Statement is presented on page 82, extending the Board's review over a three year period. Both reviews have been concluded satisfactorily.

This Annual Report and Accounts is prepared in line with the latest requirements for integrated reporting and the Board has taken care to ensure that it is 'fair, balanced and understandable'. The Audit Committee took a key role in assessing compliance with reporting requirements supported by robust management processes.

Kevin Thompson
Finance Director

The Strategic Report was approved by the Board of Directors on 13 June 2017 and signed on its behalf by:


Andrew Williams
Chief Executive


Kevin Thompson
Finance Director

Cautionary note: this Strategic Report has been prepared solely to assist shareholders to assess the Board's strategies and their potential to succeed. It should not be relied on by any other party, for other purposes. Forward looking statements have been made by the Directors in good faith using information available up until the date that they approved the Report. Forward looking statements should be regarded with caution because of the inherent uncertainties in economic trends and business risks.

Chairman's introduction and compliance statements

Good governance is essential for enabling our Board to operate effectively in the leadership of the Group and in promoting the success of the Company in the long term.

Paul Walker
Chairman

Introduction

On behalf of the Board, I am pleased to present Halma's Corporate Governance Report. This Report aims to provide shareholders and other stakeholders with an appreciation of how our Group is managed and the governance and control framework in which Halma operates. Good governance is essential for enabling our Board to operate effectively in the leadership of the Group and in promoting the success of the Company in the long term.

Our culture of openness, transparency, constructive challenge and support, facilitates management in embedding our governance and control procedures throughout the business.

The Board is committed to maintaining the highest standards of corporate governance and this Report sets out how we have applied the main principles and relevant provisions of the UK Corporate Governance Code 2014.

Leadership

Our focus on improving the quality and performance of Halma's management team continued throughout 2016/17. Senior management appointments have been made in a number of key areas to support Halma's growth strategy, including sector talent, M&A, communications and strategic development in Asia Pacific.

At Board level, we promoted Jennifer Ward in September 2016, to an expanded role and main Board position of Group Talent and Communications Director. In October 2016, Jo Harlow joined the Board as a non-executive Director. Jo offers complementary and new skills to our Board and her global experience in innovation, product development and marketing has been particularly valuable. As I highlighted in last year's Report, Carole Cran assumed the role of Chairman of the Audit Committee in July 2016 and successfully led a competitive audit tender process during the year.

At Executive Board level, Paul Simmons was promoted to Sector Chief Executive, Infrastructure Safety, following Nigel Trodd's retirement. We also created a new Executive Board position of Chief Innovation and Digital Officer to assist our businesses in the development and execution of digital strategies and support them in advancing innovation. The search process for this position has now concluded and Inken Braunschmidt is joining the Group in July 2017 from innogy SE, a renewables energy company spun out of RWE in 2016.

I am proud of our achievements on gender diversity at Board level and am mindful of the need to increase ethnic and cultural diversity at a senior level.

Biographies for each of the Directors and for the Executive Board are set out on pages 70 to 72. You can read about our progress in talent development and diversity in the Our People section on pages 52 to 55.

I believe that we continue to have the right balance of skills, experience and knowledge on our Board to deliver strong leadership, to make clear and effective decisions and to harness the open and transparent culture which encourages our businesses to be innovative and entrepreneurial.

Compliance statements

Throughout the year ended 1 April 2017, the Company has complied with the provisions as set out in the UK Corporate Governance Code 2014 (a copy of which is available on the Financial Reporting Council's website at www.frc.org.uk). The Group's approach to risk management and internal control is set out on pages 20 to 21.

The Directors confirm that they consider the Annual Report and Accounts, 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.

Halma's business model is set out on pages 4 and 5 and an explanation of the strategy and longer-term objectives of the Company is contained within the Strategic Report on pages 1 to 67.

Board priorities

Our priorities for 2017/18 are to: focus on delivering a robust performance across all sectors during a time of political and economic change in many regions; build on the foundations we have established with talent and innovation; continue to encourage our businesses to innovate, collaborate and seek out opportunities that keep pace with digital developments; and seek acquisition opportunities in new and existing markets which complement our strategy and portfolio and can deliver the growth that we expect.

Paul Walker
Chairman
13 June 2017

How the Board supported strategy

Governance at Halma, like its business model, is ingrained in the operating culture throughout the organisation and within the Board of Directors. With a model that has had great success in terms of consistent dividend growth and financial performance, the Board has not needed to oversee any large scale changes but has not been complacent and has continued to improve the discipline around its processes and procedures to ensure that they are fitting for a company that is near the top of the FTSE 250.

Strategy

The Board's governance role

The Board has set a clear strategy for growth and provides businesses with the necessary resources and support to enable them to contribute to the Group's growth objective.

The Board monitors the diversity of the Group's portfolio of businesses to ensure that proposed acquisitions or new market niches of strategic interest complement the strategic objectives of the Group.

The Board empowers local management to operate with relative autonomy, within a clear structured governance framework that provides the necessary tools and guidance without stifling the agile and entrepreneurial approach that underpins Halma's business model.

The Board recognise that part of Halma's fundamental strength is derived not only from its selection of specialist technologies in markets with resilient growth drivers but also in targeting investment in the development of new and existing products and services.

What we have achieved

- Our autonomous, but supportive, business model has enabled our Process Safety sector companies to respond rapidly to changing market conditions and to diversify into new markets, while maintaining a presence in the oil and gas markets.
- The increase in M&A resource within the sectors during 2016/17 has enabled the Group to build more relationships and explore more opportunities to collaborate with other businesses, which will assist us in securing appropriate acquisitions to support our growth objective.
- Our biennial HITEx conference, which encourages innovative thinking and collaboration between our businesses, was attended by over 200 of our business leaders, providing our companies with the tools and insight that they will need to adapt their respective businesses quickly to changes in this digital age.
- Investment in developing new products and services in existing and adjacent markets is a key strength that our businesses can leverage by being part of Halma. Our R&D investment across the Group has been over £50m in the past year.

Board of Directors

Paul Walker Non-executive Chairman

Appointment
12 April 2013

Skills and experience

Paul was appointed non-executive Chairman of Halma plc in July 2013, having been appointed to the Board in April 2013. He was Chief Executive Officer at the Sage Group plc from 1994 to 2010 and qualified as a Chartered Accountant with Ernst & Young. Paul is non-executive Chairman of Perform Group Limited and a non-executive director of Experian plc and Sophos Group plc, having previously served on the boards of Diageo plc and MyTravel Group plc.

Andrew Williams Chief Executive

Appointment
13 July 2004

Skills and experience

Andrew was appointed Chief Executive of Halma plc in February 2005. He is a Chartered Engineer and joined the Group in 1994 as Manufacturing Director of Reten Acoustics (now HWM-Water), becoming Managing Director in 1997. Andrew became a member of the Halma Executive Board in 2002 as Divisional Chief Executive and was promoted to the Halma plc Board in July 2004. Andrew is a non-executive director of Capita plc.

Kevin Thompson Finance Director

Appointment
22 April 1998

Skills and experience

Kevin was appointed to the Halma plc Board in 1998, having been appointed as Finance Director in 1997. He qualified as a Chartered Accountant with Price Waterhouse and joined Halma in the role of Group Financial Controller in 1987. Kevin became a member of the Executive Board in 1995. He has functional responsibility for finance, tax & treasury, risk & internal audit and health & safety.

Carole Cran Non-executive Director

Appointment
1 January 2016

Skills and experience

Carole was appointed a non-executive Director of Halma plc in January 2016. She is Chief Financial Officer at Aggreko plc, having held a number of senior financial roles since joining Aggreko in 2004. Carole qualified as a Chartered Accountant with KPMG and worked for seven years at BAE Systems plc in a range of senior financial positions, including four years in Australia.

Jo Harlow Non-executive Director

Appointment
3 October 2016

Skills and experience

Jo was appointed a non-executive Director of Halma plc in October 2016. She is a non-executive director at InterContinental Hotels Group. Jo has held international positions, most recently at Microsoft and previously at Nokia. Before her move into consumer electronics, Jo worked on strategic marketing at Reebok and Procter & Gamble.

Tony Rice Senior Non-executive Director

Appointment
8 August 2014

Skills and experience

Tony was appointed a non-executive Director of Halma plc in August 2014. He is non-executive chairman of Dechra Pharmaceuticals PLC and was formerly the senior independent director and remuneration committee chairman of Spirit Pub Company plc. Earlier in his career, Tony was chief executive officer of Cable & Wireless Communications plc, CEO of Tunstall Plc and held a number of senior roles in BAE Systems plc (including British Aerospace).

Adam Meyers
Sector Chief Executive, Medical

Appointment
3 April 2008

Skills and experience

Adam was appointed to the Halma plc Board in 2008. He became a member of the Halma Executive Board in 2003, in the position of Divisional Chief Executive. Previously Adam was Assistant Divisional Chief Executive and he joined Halma in 1996 as President of Bio-Chem Valve. Adam is responsible for all companies within Halma's Medical sector and for delivering organic and acquisition growth in that sector.

Jennifer Ward
Group Talent and Communications Director

Appointment
27 September 2016

Skills and experience

Jennifer was appointed to the Halma plc Board in September 2016. She became a member of the Halma Executive Board in March 2014. Prior to joining Halma as Group Talent Director, Jennifer spent over 15 years leading HR, Talent and Organisational Development for divisions of PayPal, Bank of America and Honeywell. Jennifer has global responsibility for talent development and communications across the Group, with a strong focus on Halma's senior management and the boards of its subsidiary businesses.

Daniela Barone Soares
Non-executive Director

Appointment
10 November 2011

Skills and experience

Daniela was appointed a non-executive Director of Halma plc in November 2011. She was previously Chief Executive of Impetus – the Private Equity Foundation and she has held senior roles at Save the Children, BancBoston Capital, Goldman Sachs and Citibank. Daniela is a non-executive Director of Évora S.A., a company listed on the Sao Paulo Exchange which operates businesses in manufacturing and forestry.

Roy Twite
Non-executive Director

Appointment
24 July 2014

Skills and experience

Roy was appointed a non-executive Director of Halma plc in July 2014. He is an executive director at IMI plc, having been appointed to the plc board in February 2007. During his career with IMI, Roy has led all of the divisions including Severe Service (2011), Fluid Power (2009), Beverage and Merchandising (2007) and Indoor Climate (2004).

Carol Chesney
Company Secretary

Appointment
22 April 1998

Skills and experience

Carol was appointed Company Secretary of Halma plc in 1998. She joined Halma in 1995 as Group Finance Manager having spent three years with English China Clays plc. She qualified as a Chartered Accountant with Arthur Andersen. Carol is a non-executive director of Renishaw plc where she chairs the Audit Committee.

Executive Board

Andrew Williams Chief Executive Location: UK	Kevin Thompson Finance Director Location: UK	Adam Meyers Sector Chief Executive, Medical Location: USA	Jennifer Ward Group Talent and Communications Director Location: UK
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The biographies of Andrew Williams, Kevin Thompson, Adam Meyers and Jennifer Ward are on pages 70 and 71.

Chuck Dubois Sector Chief Executive, Environmental & Analysis Location: USA Skills and experience Chuck was appointed to the Executive Board in April 2008. He joined the Group in 1999 as Vice President of Perma Pure LLC and was previously President of Diba Industries. Chuck is responsible for all companies within Halma's Environmental & Analysis sector and for delivering organic and acquisition growth in that sector.	Philippe Felten Sector Chief Executive, Process Safety Location: Belgium Skills and experience Philippe was appointed to the Executive Board in April 2012. He joined the Group as Sales Director of BEA Europe when that company was acquired in 2002 and was later Chief Executive of BEA Group. Philippe is responsible for Halma's Process Safety sector and for delivering organic and acquisition growth in that sector.	Paul Simmons Sector Chief Executive, Infrastructure Safety Location: UK Skills and experience Paul was appointed to the Executive Board in July 2016. He joined Halma in April 2010 and led businesses including Avire and Apollo before becoming Sector Vice President. Prior to joining Halma, Paul spent 13 years at 3M where he held a number of international assignments. Paul is responsible for Halma's Infrastructure Safety sector and for delivering organic and acquisition growth in that sector.
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Key highlights and achievements of the year

Developing and recruiting quality talent at a senior level, including dedicated sector M&A resource

Improving the operation of the sector boards and their interaction with the Executive Board and management

Further enhancements to our risk and control processes which are underpinned by a robust framework

Recommending the appointment of PricewaterhouseCoopers as Auditor, following the conclusion of a competitive audit tender process

The role of the board

The ultimate role of the Board is to promote the long-term success of the Company by delivering sustainable shareholder value. In order to fulfil its duty, the Board must ensure that the Group operates within a clearly defined operating structure which fits within a robust governance and control framework.

The Board has ultimate responsibility for the management, direction and performance of the Group, and sets the strategic goals which the Company's businesses implement through their business plans. The Board is also responsible for ensuring appropriate resources are in place to achieve its strategy and deliver sustainable performance.

The Board's powers are derived from the Company's Articles of Association but certain decisions and oversight roles have been delegated to its committees. The Board has established a formal schedule of matters reserved for its decision and has approved terms of reference where it has delegated responsibilities to its committees.

The chairman of each committee reports to the Board on the activities of their committee. Committee minutes are approved by the committee and then reviewed by the Board.

A summary of the business carried out by the Board during the year, the standing Board agenda items and a summary of the matters that are formally reserved for the Board (as set out in writing) are summarised on pages 76 and 77.

Corporate governance framework

Halma companies benefit from a highly decentralised organisational structure which delivers sustainable competitive advantage while maintaining the benefit of being part of a larger group (through collaboration with other Group companies and central investment in areas such as talent development, innovation and international expansion). A robust corporate governance framework is essential in a decentralised group in order to maintain good oversight and control over: financial and management reporting; compliance and regulatory matters; risk management; and the approval of significant decisions (such as acquisitions, disposals or material agreements). The operation of the Board and the committees is described in this Report and further information on each committee is detailed within the separate committee Reports.

Division of responsibilities**Chairman's responsibilities****Governance**

- promoting high standards of corporate governance;
- leading, chairing and managing the Board;
- ensuring all Board committees are properly structured and operate with appropriate terms of reference;
- regularly considering the composition and succession planning of the Board and its committees;
- ensuring that the Board and its committees' performances are evaluated on a regular basis;
- ensuring adequate time is available for all agenda items and that the Board receives accurate, clear and timely information; and
- ensuring that there is effective communication with shareholders.

Strategy

- leading the Board in developing the strategy of the business and setting its objectives;
- promoting open and constructive debate in Board meetings;
- ensuring effective implementation of Board decisions with the support of the Chief Executive;
- ensuring that the Board manages risk effectively; and
- consulting, where appropriate, with the Senior Independent Director on Board matters.

People

- chairing the Nomination Committee;
- identifying and meeting the induction and development needs of the Board and its committees;
- developing a strong working relationship with the Chief Executive;
- ensuring a strong working relationship between executive and non-executive Directors;
- setting clear expectations concerning the Company's culture, values and behaviours; and
- ensuring effective relationships are maintained with all major stakeholders in the business.

Leadership

Division of responsibilities

Chief Executive	– providing coherent leadership and management of the Company with the Chairman; – developing objectives, strategy and performance standards to be agreed by the Board; – providing input to the Board's agenda; – providing effective leadership of the Executive Board to achieve the agreed strategies and objectives; – securing an Executive Board of the right calibre, with specific responsibility for its composition, and ensuring that its succession plan is reviewed annually with the Chairman and the non-executive Directors; – monitoring, reviewing and managing key risks and strategies with the Board; – ensuring that the assets of the Group are adequately safeguarded and maintained; – building and maintaining the Company's communications and standing with shareholders, financial institutions and the public and effectively communicating the Halma plc investment proposition to all stakeholders; and – ensuring the Board is aware of the view of employees on issues of relevance to Halma plc;
Executive Directors	– implementing and delivering the strategy and operational decisions agreed by the Board; – making operational and financial decisions required in the day-to-day management of the Company; – providing executive leadership to senior management across the business; – championing the Group's values and reinforcing the governance and control procedures; and – promoting talent management, encouraging diversity and inclusion.
Senior Independent Director	– acting as a sounding board for the Chairman; – serving as a trusted intermediary for the other Directors; and – providing an alternative channel for shareholders to raise concerns, independent of executive management and the Chairman.
Independent non-Executive Directors	– contributing independent thinking and judgement, and providing external experience and knowledge, to the Board agenda; – scrutinising the performance of management in delivering the Company's strategy and objectives; – providing constructive challenge to the executive Directors; and – monitoring the reporting of performance and ensuring that the Company is operating within the governance and risk framework approved by the Board.
Company Secretary	– acting as a sounding board for the Chairman and other Directors; – ensuring clear and timely information flow to the Board and its Committees; and – providing advice and support to the Board on matters of corporate governance and risk.

The diagram opposite sets out the top level corporate governance framework for Halma and how the Board and its Committees interact. The interface between the operating companies and this governance framework is described below and is illustrated in the diagram on page 21 in relation to Group risk management.

Each operating subsidiary company within the Group has its own board of directors, which meets regularly to fulfil its legal duties and operational and financial obligations in managing the affairs of the company. The Sector CEO, or a Sector Vice President, is appointed as a director of each subsidiary within their sector and acts as Chairman at each board meeting. Each subsidiary must operate in accordance with the Group's internal procedures, which set out the minimum standards required in the areas of financial reporting, health

and safety, ethics, HR, administration and information technology. These procedures are made available throughout the Group via a centrally managed electronic portal and are subject to regular review and update. By way of example, a new policy has been added during the year relating to the Modern Slavery Act and many policies have been updated to reflect changes in legislation, financial reporting or best practice.

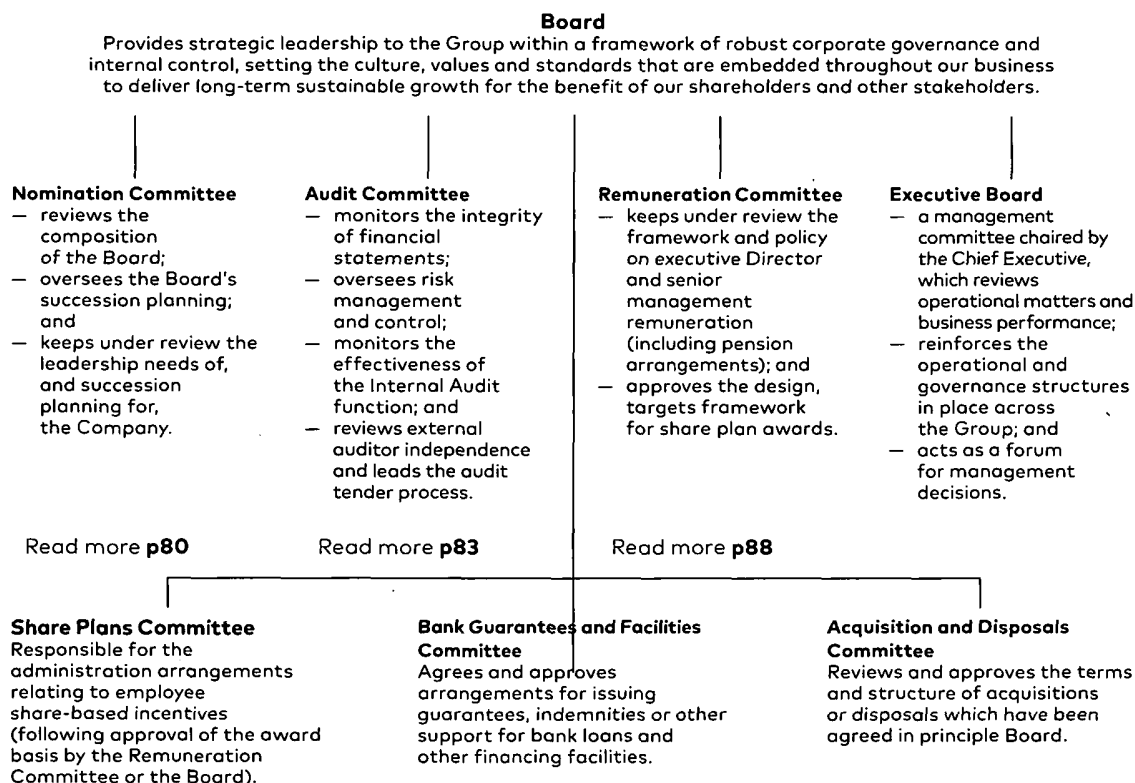
Each of the four sectors has a management board which meets regularly to review financial and operational performance, M&A and governance matters relating to companies within that sector. Reports prepared by each Sector CEO are provided to, and reviewed by, the Executive Board.

Board meetings

The Board has six regular meetings scheduled each year but will meet, as required, to consider urgent or non-routine matters. In March 2017, an additional meeting was held to consider the recommendation from the Audit Committee to propose to shareholders, at the 2017 Annual General Meeting, the appointment of PricewaterhouseCoopers LLP as Auditor for the accounting year ending 31 March 2018.

All Directors are issued with an agenda and meeting papers via an electronic board portal in the week preceding each Board meeting. The Board and each Director has access to the advice and services of the Company Secretary, as well as the option of obtaining independent professional advice at the Company's expense.

Board Governance Structure



Reporting requirement	Location
Description of the business model and strategy.	Chief Executive's Strategic Review and Sector Reviews See pages 6 to 10 and 30 to 51
Description of the significant issues that the Audit Committee considered in relation to the financial statements and how these issues were addressed, having regard to the matters communicated to it by the external audit team.	Audit Committee Report See page 83
Explanation of how the Audit Committee has assessed the effectiveness of the external audit process and details on the tender process undertaken during the year, which has led to the recommendation to appoint a new external auditor.	Audit Committee Report See page 83
Identification of search consultancies used and any connections with the Company.	Nomination Committee report See page 80
Statement that the Directors consider that the Annual Report and Accounts, taken as a whole, is fair, balanced and understandable and provides information necessary for shareholders to assess the Company's position and performance.	Directors' Responsibilities See page 113
Future policy table and notes, performance scenario charts, remuneration obligations in service contracts and statement of shareholder vote on the 2016 remuneration report.	Remuneration Committee Report See page 88
Policy implementation, remuneration paid to service advisers, single total figure tables, CEO pay comparison to Company performance and relative importance of spend on pay.	Remuneration Committee Report See page 88
Directors' shareholdings and variable pay awarded in the year.	Remuneration Committee Report See page 88

Leadership continued

Principal Committees of the Board

The Board has established three principal Committees:

- the Nomination Committee;
- the Audit Committee; and
- the Remuneration Committee.

Details of their constitution, the roles and responsibilities and activities of each Committee during the year are set out in their respective Reports, which follow this Governance Report.

The Board has also established three formal, topic-specific, Committees to which it has delegated certain powers to negotiate, review and administer matters within their area of responsibility:

- the Share Plans Committee;
- the Bank Guarantees and Facilities Committee; and
- the Acquisitions and Disposals Committee.

Each Committee operates under its own terms of reference, which have been approved by the Board.

In addition, the Board has established an informal management committee, the Executive Board, which is chaired by the Chief Executive. This Executive Board provides a forum in which the executives, representing their sector or functional area, can review and take decisions on operational and financial matters that arise in the day-to-day business operations. The Executive Board is also an effective means of implementing actions from the Halma Board and providing oversight of operational matters.

The Board's year

April 2016	June 2016	July 2016
– Budget – Chairman and NED fees – CEO conference objectives – Sector review – NED search and candidate specification – AGM formal business – Review of risk appetite – Review of actions from Board evaluation – India presentation – Approval of terms of reference for Board and Committees	– Preliminary results – Dividend planning – Evaluation of prior year objectives – Annual objectives for the Group – Annual assessment of internal control processes – AGM Notice of Meeting – Update on NED search – Cyber security update – Employee Benefit Trust share purchases – Sector review	– AGM – ESP award review – SIP award review – Sector review – Strategy planning review

Standing board agenda items

In addition to the above Board matters considered over the past year, at each meeting there are standing items, which include:

- Review and approval of the previous minutes;
- Status update on any matters outstanding from previous meetings;
- Updates from each Board Committee on the activities since the last Board meeting;
- Report from the Chief Executive;
- Report from the Finance Director;
- Investor Relations report;
- M&A update;
- Health & Safety review;
- Risk review;
- Corporate governance update;
- Compliance & integrity report; and
- Updates from the Company Secretary on administrative matters.

Matters reserved for decision by the Board

- setting the Group's long-term objectives and commercial strategy;
- approving annual operating and capital expenditure budgets;
- ceasing all or a material part of the Group's business;
- significantly extending the Group's activities into new business or geographic areas;
- changing the share capital or corporate structure of the Company;
- changing the Group's management and control structure;
- approving half year and full year results and reports;
- approving dividend policy and the declaration of dividends;
- approving significant changes to accounting policies;
- approving key policies;
- approving risk management procedures and policies, including anti-bribery and corruption;
- approving major investments, disposals, capital projects or contracts (including bank borrowings and debt facilities);
- approving guarantees and material indemnities (not otherwise delegated to the Bank Guarantees and Facilities Committee);
- approving resolutions to be put to the AGM and documents or circulars to be sent to shareholders; and
- approving changes to the Board structure, size or its composition (following the recommendation of the Nomination Committee).

September 2016

- Group strategic performance and priorities
- Talent assessment and development
- Modern Slavery Statement
- Pension plan review
- PSP award vesting
- Cyber security update

November 2016

- Half year results
- Dividend planning
- Board evaluation planning
- Non-executive Director company visits
- Employee Benefit Trust share purchase update

January 2017

- Audit Tender
- Financial advisers' presentation
- Board effectiveness and Committee evaluation
- Annual review of non-executive Director conflicts, independence and division of responsibilities
- Risk management review
- Sector review
- Intra-group loan restructure
- Cyber security update

Board meeting attendance

During the year attendance by Directors at Board and Committee meetings was as follows:

Board attendance	Committees				Overall attendance %
	Board	Audit	Remuneration	Nomination	
Paul Walker	6/6	–	5/5	3/3	100
Andrew Williams	6/6	–	–	3/3	100
Kevin Thompson	6/6	–	–	–	100
Adam Meyers	6/6	–	–	–	100
Jennifer Ward ¹	2/2	–	–	–	100
Jane Aikman ²	3/3	1/1	2/2	1/1	100
Daniela Barone Soares	6/6	3/3	5/5	3/3	100
Jo Harlow ³	2/2	2/2	2/2	1/1	100
Roy Twite ⁴	5/6	3/3	4/5	2/3	82
Tony Rice	6/6	3/3	5/5	3/3	100
Carole Cran	6/6	3/3	5/5	3/3	100

¹ Jennifer Ward was appointed as executive Director on 27 September 2016

² Jane Aikman retired following the conclusion of the AGM on 21 July 2016.

³ Jo Harlow was appointed as non-executive Director on 3 October 2016.

⁴ Roy Twite was unable to attend the Board, Remuneration Committee and Nomination Committee meetings held on 23 September 2016 as he was attending the Advanced Management Program at Harvard Business School.

Effectiveness

Independence

The Board has reviewed the independence of the Chairman and each non-executive Director and considers the Chairman and all of the non-executive Directors to be independent of management and free from business or other relationships that could interfere with the exercise of independent judgement. The Board believes that any shares in the Company held by the Chairman and non-executive Directors serve to align their interests with those of the shareholders. Tony Rice was appointed as Senior Independent Director in July 2015.

Time allocation

The Board benefits from the wide variety of skills, experience and knowledge that each Director has. However, being available and committing sufficient time to the Company is essential and therefore the number of external directorships that a non-executive Director holds is an important consideration when recruiting and when performing the annual evaluation of non-executive Directors effectiveness.

Executive Directors are permitted to accept one external appointment, subject to the prior approval of the Chairman. Approval will only be given where the appointment does not present a conflict of interest with the Group's activities and where the role is considered to be beneficial to the development of the individual, which will also benefit the Company.

In addition to the scheduled Board meetings (six per year), non-executive Directors are expected to attend the AGM, the annual strategy meeting and certain other Company events and site visits throughout the year. A time commitment of around 20 days per annum is the anticipated requirement for each non-executive Director. Confirmation is obtained on appointment from each non-executive Director that they can allocate sufficient time to the role. Details of Board attendance during the year are

set out on page 77 and biographical details of each Director are set out on pages 70 and 71.

Induction of new Directors

Newly appointed non-executive Directors follow a tailored induction programme, which includes dedicated time with Group executives and visits to companies within each of the four sectors.

Jo Harlow met with the Company Secretary to review the tailored induction materials, which provide a comprehensive overview of: the Group and the legal and organisational structure; the governance framework; the role of non-executive Director; key business contacts at Group, sector and operating company level; and details of the external advisers. In addition to the latest Annual Report and Company announcements, further materials such as recent broker coverage, the last Board evaluation and CEO conference presentations were also provided. Jo met the Chairman, Chief Executive and Finance Director on a one-to-one basis on her appointment and has subsequently met the other members of the Board and Executive Board along with senior managers from Head Office functions and the sectors. A varied programme of site visits to operating companies across the sectors was arranged.

The Chairman reviews training and development needs of the Board, and each individual Director, at least annually. Briefings and presentations from subject specialists form part of the ongoing training needs for the Directors.

Performance evaluation

The Board undertakes a formal evaluation of its performance, and of each Director, on an annual basis. The principal Committees of the Board undertake an annual evaluation of their effectiveness, in accordance with their terms of reference.

As in prior years, the Board met in January 2017 before its scheduled meeting to provide a forum for discussion of the Board evaluation

outside the formal meeting. This forum has proven useful for a number of years. The Chairman and non-executive Directors also meet after each Board meeting without executive Directors present to ensure there is an opportunity to discuss potentially sensitive matters. The Chief Executive will join for part of these meetings at least once per annum.

The Senior Independent Director meets with the non-executive Directors without the Chairman present, at least annually, to evaluate the Chairman's performance. The Executives are also given the opportunity to meet with the Chairman and/or the Senior Independent Director separately. The outcome of these meetings is fed back to individuals by the Chairman, Senior Independent Director or Chief Executive, as appropriate.

Re-election of Directors

All of the current Directors will stand for re-election, and in the case of Jo Harlow and Jennifer Ward, election, at the forthcoming AGM. Following the annual evaluation of the Board and its Committees, all Directors standing for election or re-election at the AGM continue to be effective, hold recent and relevant experience and continue to demonstrate commitment to the role. Biographical details of each Director standing for election or re-election are set out in the Notice of Meeting.

Liability insurance

Each Director is covered by appropriate directors' and officers' liability insurance, at the Company's expense. In addition, there are Deeds of Indemnity in place, which provide an indemnity from the Company to the Director in respect of any proceedings brought by third parties against Directors personally in their capacity as Directors of the Company. The indemnity does not extend to certain areas, including: any liability to pay a fine levied in criminal proceedings; defending criminal proceedings where the Director is convicted and such conviction is final; defending any civil proceedings brought by the Company or an associated company; or in any proceedings for disqualification of the Director.

Governance: Stakeholder engagement in action

Operating companies

The executive members of the Board have frequent contact with our companies and make regular visits across all of the sectors. The non-executive members of the Board carry out company visits as part of their induction and routinely thereafter. The Board members also engage with our current and future business leaders by their personal contributions to our development programmes and their attendance at the annual Leadership Conference and biennial HITEx event. This regular interaction between the Board and the businesses provides a vital channel of communication and forum for open dialogue, which encourages the sharing of knowledge and experience.

Employees

Good communication with employees is a key requirement to support an agile approach to business and encourage innovation. Being part of the Halma group means that all of our businesses benefit from group-wide communications, policies and initiatives, and participation in our annual global engagement survey. The Board engage with employees through a wide range of development programmes and regular site visits. We recognise that our people are a valuable asset and talent development is a key driver of our financial success.

Acquisition prospects and business partners

Our M&A teams are in frequent dialogue with numerous businesses that could be potential acquisition prospects or business partners in the future. The Executive Board take a strategic lead in driving the acquisition pipeline. Our Executives act as the primary contact in M&A discussions – promoting the benefits of working with Halma to business owners and evaluating the cultural and strategic fit with our Group.

Shareholders

We regularly engage with our shareholders through a variety of events and media. Events held during the year include: investor results presentations and roadshows, the Annual General Meeting, investor & analyst site visit, investor conferences and institutional investor meetings. In addition to regulatory news announcements, we provide updates to shareholders via our website, blog, press releases, social media, YouTube channel and our Annual and Half Year Reports.

Strategy in action: Investor & analyst site visit to Apollo Fire Detectors

In September 2016, Andrew Williams hosted a site visit for institutional investors and analysts at Apollo Fire Detectors in Havant, UK.

The objective of the day was to give investors an in-depth view of both Halma's largest sector (Infrastructure Safety) and its largest company. Apollo is one of the world's largest manufacturers of smoke detectors, modules and notification devices. Throughout the day, investors were given an insight into how our businesses have continued to deliver growth and strong returns in competitive global markets and how this has been underpinned by its investment in innovation, talent and international expansion.

A summary of the presentation, including the slides and a video of the investor day, is available on our website: www.halma.com/investors

We keep our stakeholders updated through our website, blog, press releases, social media and YouTube channel: www.youtube.com/halmamedia

Nomination Committee Report

Committee Chairman's overview

As I outlined in last year's Report, our focus for 2016/17 was building the operations and talent in the sector structure. I am pleased to report that during the year we strengthened our M&A resource by completing our recruitment of M&A executives for each sector. The Committee considered the balance of the executive Directors on the Board and determined that the Board would benefit from an additional executive perspective – one that complemented the strengths of our existing team. Accordingly, the Committee promoted Jennifer Ward to the Board, not only in recognition of the importance of the role and the pivotal part that she has played in recruiting and developing talent within our Group, but also her clarity of understanding of Halma's strategic aspirations.

In October 2016, we were delighted to appoint Jo Harlow to the Board as non-executive Director. Jo brings a wealth of experience gained in international organisations and new skills to the Board around innovation, product development and marketing.

Shortly after our financial year end, the Board announced that Kevin Thompson, Finance Director, had indicated his intention to retire during 2018. The Committee will assist the Board in identifying and selecting a successor. The search process, under the direction of the Committee, has now commenced.

Role of the committee

The Committee is appointed by the Board and operates under written terms of reference, which are available on the Group's website. The primary role and responsibilities of the Committee are to:

- review the size, balance and composition (evaluating the skills, knowledge and experience) of the Board and its Committees, ensuring that they remain appropriate and making recommendations to the Board with regard to any changes;
- lead the process for Board appointments;
- oversee the succession planning requirements for the Board and other senior executives, including the identification and assessment of potential candidates and making recommendations to the Board for its approval; and
- keep under review the leadership needs of the Group in relation to both its executive Directors and other senior executives, including any recommendations made by the Chief Executive for changes to the executive membership of the Board.

Composition of the committee

The Committee currently comprises the Chairman, the Chief Executive and five independent non-executive Directors, therefore comprising a majority of non-executive members. The Chairman acts as the Chairman of the Committee but would not chair a meeting which was dealing with

the appointment of a successor to the chairmanship. The following members served on the Committee during the year:

- Paul Walker (Chairman)
- Andrew Williams
- Jane Aikman (retired 21 July 2016)
- Daniela Barone Soares
- Roy Twite
- Tony Rice
- Carole Cran
- Jo Harlow (appointed 3 October 2016)

Activities during the year

During the year, the Committee has undertaken the following activities:

- preparing a non-executive profile and working with Lygon Group to initiate the search, leading to the appointment of Jo Harlow;
- recommending the appointment of Jo Harlow as non-executive Director
- recommending the promotion of Jennifer Ward to the Board;
- evaluating the role and responsibilities of the Group Talent Director and recommending the expansion of the role to include Communications;
- non-executive Director succession planning;
- review of executive succession plans and talent;
- annual self-evaluation and review of Director independence in accordance with the terms of reference; and
- proposing the election and re-election of Directors at the AGM.

Board appointments and process

Prior to making a recommendation to the Board for the appointment of Jo Harlow, the Committee undertook the following process:

- identification of skills, experience and knowledge that would be complementary for the general role of non-executive Director, in particular skills and experience of digitalisation, datafication, new product development and innovation;
- selection and recommendation of global search firm Lygon Group, which has no connection with the Company;
- a shortlist of candidates was reviewed by the Committee based on candidate reports prepared by Lygon Group;
- interviews and meetings were arranged with the Chairman, Chief Executive, Finance Director and several members of the Committee; and
- a full review of the candidates was undertaken by the Committee and a unanimous recommendation made to the Board.

Prior to making a recommendation to the Board for the appointment of Jennifer Ward, the Committee undertook the following process:

- Held regular discussions on the composition and balance of the Board including consideration regarding the reduction in executive Directors on the Board following Neil Quinn's retirement;
- identified the skillset required to contribute most effectively to Halma's strategic discussions balanced with the operational and financial experience within the existing executives;
- recognised the broad perspective Jennifer offers having made enormous strides on talent while demonstrating good commercial skills in terms of her own contribution and her insight into how our businesses can achieve their own strategic aspirations;
- considered wider succession planning amongst the executives;

Non-executive Director tenure

- considered the scope of Jennifer's influence throughout the Group both internally and externally; and
- a full discussion was undertaken by the Committee at its meeting in September and a unanimous recommendation made to the Board.

Diversity

The Board recognises the benefits to an International group of greater diversity on the Board and in management positions throughout the Group. At the year end, and at the date of this Report, the Board comprised ten Directors, including four women (40%).

The spread of nationalities are six British, three American and one Brazilian.

Halma has the ambition to increase the number of operating company executives based outside Europe and the USA to better reflect the revenue generated outside those markets and to embrace diversity and inclusion across the Group. To support this ambition, the Board has adopted a Diversity and Inclusion policy and a programme of training to support the policy has been rolled out to senior executives and head office personnel.

Operating subsidiary company boards are encouraged to invite local personnel with diverse skill sets to attend board meetings to provide a fresh perspective and bring a diverse and inclusive approach to the decision-making body.

Further details on diversity and inclusion are set out in the Our people section on page 52.

Priorities for the coming year

The Committee's priorities for 2017/18 will be:

- to recruit a Finance Director, to fill the vacancy when Kevin Thompson retires in 2018, with the relevant financial experience and business acumen to be able to support the Chief Executive in his leadership of the Company as it continues its growth trajectory; and
- a focus on succession planning and talent development at executive and Board level.

On behalf of the Nomination Committee

Paul Walker
Chairman
13 June 2017

Accountability

Internal control statement

The Board's responsibilities

The Board has overall responsibility to the shareholders for the Group's system of internal control and risk management, and the review of the system's effectiveness is carried out with the assistance of the Audit Committee. Whilst not providing absolute assurance against material misstatements or loss, this system is designed to identify and manage those risks that could adversely impact the achievement of the Group's objectives. The Group's risk management structure and process is detailed on pages 20 and 21. The Group's principal risks and uncertainties are detailed on pages 22 to 27.

The Board confirms that there is an ongoing process for identifying, evaluating and managing the significant risks faced by the Group and for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives. The Board, advised by the Audit Committee, regularly reviews the process, which has been in place for the year under review and up to the date of approval of the Annual Report and Accounts. This process is in accordance with the Guidance on Risk Management, Internal Control and Related Financial and Business Reporting. The Board has continued to improve and embed controls throughout the Group and will continue to keep the systems under review to ensure that the internal control and risk management framework remains fit for purpose.

Review of internal control effectiveness

The Board regularly reviews the effectiveness of the Group's risk management and internal control systems, including financial, operational and compliance controls. The review is principally based on reviewing reports from management to consider whether significant risks have been identified, evaluated, managed and controlled.

The Group's external Auditor, Deloitte LLP, has audited the financial statements and has reviewed the financial control systems to the extent considered necessary to support the audit report.

Going concern

The Group's business activities, together with the main trends and factors likely to affect its future development, performance and position, and the financial position of the Group, its cash flows, liquidity position and borrowing facilities, are set out in the Strategic Report. In addition, note 26 to the financial statements includes the Group's objectives, policies and processes for managing its capital, its financial risk management objectives, details of its financial instruments and hedging activities, and its exposures to currency and liquidity risks.

Having issued the US Private Placement in 2015, and renegotiated its £550m five-year Revolving Credit Facility in November 2016, of which £469m remains undrawn at the date of this report, the Group has considerable financial resources. The Group contracts with a diverse range of customers and suppliers across different geographic areas and

industries and no one customer accounts for more than 2% of Group turnover. As a consequence, the Directors believe that the Group is well placed to manage its business risks successfully.

After conducting a formal review of the Group's financial resources, the Directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis of accounting in preparing the Annual Report and Accounts.

Longer-term viability

In accordance with the UK Corporate Governance Code, the Board has considered the Company's longer-term viability and sets out its Viability Statement below.

VIABILITY STATEMENT

During the year, the Board carried out a robust assessment of the principal risks affecting the Company, including those that would threaten its business model, future performance, solvency or liquidity. The principal risks and uncertainties, including an analysis of the potential impact and mitigating actions, are set out on pages 22 to 27 of the Strategic Report.

The Board has assessed the viability of the Company over a three-year period, taking into account the Group's current position and the potential impact of the principal risks and uncertainties. Whilst the Board has no reason to believe that the Group will not be viable over a longer period, it has determined that three years is an appropriate period. In drawing its conclusion, the Board has aligned the period of viability assessment with the Group's strategic planning process (a three-year period). The Board believes that this approach provides greater certainty over forecasting and, therefore, increases reliability in the modelling and stress testing of the Company's viability. In addition, a three-year horizon is typically the period over which we review our external bank facilities, and is also the performance period over which awards granted under Halma's share-based incentive plan are measured.

In reviewing the Company's viability, the Board has identified the following factors which they believe support their assessment: the Group operates in diverse but relatively non-cyclical markets;

- there is considerable financial capacity under current facilities and the ability to raise further funds;
- the decentralised nature of our Group ensures that risk is spread across our businesses and sectors, with limited exposure to any particular industry or market;
- there is a strong culture of local responsibility and accountability within a robust governance and control framework; and
- an ethical approach to business is set from the top and flows throughout our business.

In making their assessment, the Board carried out a comprehensive exercise of financial modelling and stress-tested the model with various scenarios based on the principal risks identified in the Group's annual risk assessment process. In each scenario, the effect on the Group's KPIs and borrowing covenants was considered, along with any mitigating factors. Based on this assessment, the Board confirms that they have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the three-year period to 31 March 2020.

Audit Committee Report

Committee chairman's overview

It is a pleasure to be presenting my first Report as Chairman of the Audit Committee, in what has been a very busy nine months in the role. During the year, the Committee has continued to focus on the effectiveness of the controls across our Group. The appointment to a newly created role of Director of Risk and Internal Audit has not only strengthened the internal audit resource but also added dedicated resource to help to develop our approach to risk management and further embed our risk processes across the Group. The evolution of our risk management process is an area which the Committee will continue to focus on over the coming year.

The Committee agreed with the Board that the external audit tender process would be brought forward and, under my leadership, a rigorous process was successfully concluded in the first quarter of 2017, with a recommendation being proposed to shareholders at the 2017 AGM to appoint PricewaterhouseCoopers as auditor to the Company. I would like to take this opportunity to thank Deloitte for the work carried out as Halma's auditor over the last 14 years and I look forward to building as strong a relationship with PricewaterhouseCoopers over the coming years.

This Report aims to provide an understanding the work of the Committee over the past year and how it conducted the audit tender process which led to the recommendation to the Board.

Role and responsibilities

The Committee is appointed by the Board and operates under written terms of reference, which were updated in April 2017 and are available to view at www.halma.com. The Committee's primary duties are to:

Financial Reporting

- review significant financial reporting judgements and the application of accounting policies, including compliance with the accounting standards;
- ensure the integrity of the financial statements and their compliance with UK company law and accounting regulation;
- ensure the Annual Report and Accounts are fair, balanced and understandable and recommend their approval to the Board;
- monitor the integrity of announcements containing financial information;

Internal Controls

- monitor the adequacy and effectiveness of the internal financial controls and processes;
- monitor compliance with the UK Corporate Governance Code;

Risk Management

- review and provide oversight, on behalf of the Board, of the processes by which risks are managed;
- review the process undertaken and stress testing required to approve the Group's Viability Statement and Going Concern Statement;

Fraud and Whistleblowing

- monitoring the processes in place throughout the Group to prevent and detect fraud and to enable employees to raise concerns in confidence;
- receive reports on fraud attempts or incidents;

Internal Audit

- review and approve the internal audit work plan and charter;
- regularly review reports arising from internal audits, monitor the status of actions and consider remedial action for overdue items;
- monitor the structure, composition and resourcing of the internal audit function;
- review the role and effectiveness of the internal audit function;
- consider whether an independent third party review of internal audit effectiveness and processes is appropriate;

External Audit

- manage the relationship with the Group's external auditor;
- at least annually, monitor and review the independence and performance of the external auditor and formally evaluate their effectiveness;
- review the policy on non-audit services carried out by the external auditor, taking account of relevant ethical guidance;
- negotiate and approve the external auditor's fee, the scope of the audit and the terms of their engagement;
- lead the audit tender process at least every 10 years; and
- make recommendations to the Board for the appointment or reappointment of the external auditor.

Composition of the Committee

The Committee currently comprises the five independent non-executive Directors. The following members served on the Committee during the year:

- Carole Cran (Chairman)
- Jane Aikman (retired 21 July 2016)
- Daniela Barone Soares
- Jo Harlow (appointed 3 October 2016)
- Tony Rice
- Roy Twite

Audit Committee Report continued

The Chairman, Chief Executive and Finance Director are also in attendance at Committee meetings, along with the Group Financial Controller and Director of Risk and Internal Audit. Representatives from the external Auditor also attend each Committee meeting.

The Committee, and separately the Committee Chairman, meet with the Director of Risk and Internal Audit on a regular basis.

Activities in 2016/17

The Committee spent a considerable amount of time outside formal Committee meetings on the external audit tender process. Details of the main areas of review by the Committee throughout the year are set out in the table opposite.

Governance

The Committee meets at least three times per year and routinely meets with the external Auditor without the executive Directors present. It is chaired by Carole Cran, independent non-executive Director, who is a chartered accountant with recent and relevant financial experience. The Finance Director and Group Financial Controller work closely with the Committee Chairman to facilitate open communication and regular information flow. Each Committee member brings a wealth of professional and practical knowledge and experience which is relevant to the Company's industry. Such abilities ensure that the Committee as a whole functions with competence and credibility. The Committee receives regular updates on changes to financial accounting standards and

The Committee's activities during the year

Financial statements and reports

- reviewed the 2017 Annual Report and Accounts, the 2016 Half Year Report and the trading updates issued in July 2016 and March 2017. As part of these reviews the Committee received a report from the external Auditor on the audit of the Annual Report and Accounts and a report on the ISRE 2410 Interim Review performed on the half-year results;
- reviewed the effectiveness of the Group's risk management and internal controls and disclosures made in the Annual Report and Accounts;
- reviewed the process and stress testing undertaken to support the Group's Viability and Going Concern Statements;
- considered acquisition valuation and accounting methodology;
- reviewed currency exposure and the Group's treasury policies following the UK's decision to leave the EU; and
- reviewed taxation provisions.

Risk management

- considered the output from the Group wide risk review process to identify, evaluate and mitigate risks, the Group's changing risk profile and future risk reports;
- reviewed the resource and requirements for risk management and internal control in the Group; and
- considered export controls and other compliance-related matters.

External auditor and non-audit work

- considered the timing and process for the external Auditor tender;
- conducted a rigorous competitive tender process and recommended the appointment of a new Auditor to the Board;
- agreed the scope and methodology of the audit and non-audit work to be undertaken by the external Auditor;
- evaluated the independence and objectivity of the external Auditor;
- agreed changes to the policy on non-audit services and independence;
- agreed the terms of engagement and fees to be paid to the external Auditor for the audit of the 1 April 2017 financial statements.

Internal audit

- evaluated the effectiveness and the scope of work to be undertaken by the Internal Audit function;
- reviewed management responses to audit reports issued during the year;
- reviewed the Group's whistleblowing policy and procedures; and
- reviewed and strengthened the resource in Internal Audit.

reporting requirements, regulatory and governance changes and developments around risk management, fraud prevention & detection and cyber security.

In its advisory capacity, the Committee confirmed to the Board, that based on its review of the Annual Report and Accounts and internal controls that support the disclosures, that the Annual Report and Accounts, taken as a whole, are fair, balanced and understandable, and provide the necessary information for shareholders to assess the Company's position and performance, its business model and strategy.

Whistleblowing

The Committee has responsibility for ensuring that arrangements are in place for employees to raise concerns or suspicions they may have about possible wrongdoing in financial reporting or other matters. An external organisation, Expolink, operates a 24 hour confidential reporting service for the Group, which provides employees with the choice of making a report via a multilingual

telephone line or by web reporting.

The service allows employees to remain anonymous (subject to local legislation) and also provides a case reporting number which ensures that there is a mechanism for two-way communication between the reporter and the Company, even if they have chosen to remain anonymous. Confidential reports from this service are provided to the Company Secretary for investigation and to report any significant cases to the Committee. The Director of Risk and Internal Audit investigates cases relating to financial matters (including fraud) and the Company Secretary investigates all other matters.

During the year, the Committee carried out a review of the effectiveness of the Group's whistleblowing arrangements.

Engagement of the external auditor

The external Auditor is engaged to express an opinion on the Group and Company financial statements. The audit includes the review and testing of the data contained in the financial statements to the extent necessary

Policy on auditor independence and services

Permitted audit-related services

Audit-related services are non-audit services, as specified in the Ethical Standard, that are largely provided by the external auditor and where the work is closely related to the work performed in the audit and where threats to auditor independence are clearly insignificant and safeguards need not be applied. These audit related services include:

- reporting required by law or regulation to be provided by the auditor;
- reviews of interim financial information;
- reporting on regulatory returns;
- reporting to a regulator on client assets;
- reporting on government grants;
- reporting on internal financial controls when required by law or regulation; and
- extended audit work that is authorised by those charged with governance performed on financial information and/or financial controls where this work is integrated with the audit work and is performed on the same principal terms and conditions.

Prohibited non-audit services

Under this policy, the external auditor must not provide non-audit services to Halma or any of its EU subsidiaries (or to any of Halma's non-EU subsidiaries with effect from 1 April 2018) which fall within the general categories of services listed under the policy (including tax, bookkeeping, payroll, design or implementation of risk management procedures, valuation services, legal services, internal audit services, services relating to financing/capital structure/investment/promotion or dealing in shares, HR services, organisational design or cost control) or any of the specific services as set out in the Ethical Standard and Staff Guidance Note 05/2016.

Fee cap

The external auditor can be engaged to perform audit-related services without the requirement for a separate tender process unless the anticipated fees exceed £150,000. If the anticipated fees are above £150,000, the Audit Committee must approve the decision to engage the external auditor in advance, and always subject to the overall fee cap. The total fees for audit related and non-audit services paid to the external auditor in any year cannot exceed 70% of the average fees for audit services charged over a three-year period. The Audit Committee will be notified of all projects with the external auditor with estimated fees between £75,000 and £150,000 and, at each meeting, the Committee will receive a summary of all fees, audit and non-audit, payable to the external auditor.

for expressing an audit opinion on the truth and fairness of the financial statements.

Deloitte LLP has been the external Auditor of the Group since 2003 and a review of the independence of Deloitte LLP is undertaken each year. At the year end, the Auditor formally confirmed its independence and that objectivity has been maintained. The Committee concluded that the relevant independence continues to be met. In addition, the Senior Statutory Auditor responsible for the Group audit is rotated at least every five years – the most recent Senior Statutory Auditor change, to Nigel Thomas, having taken effect from the financial year ended 2 April 2016.

Deloitte LLP provides the Committee with relevant reports, reviews and advice throughout the year, as set out in their terms of engagement.

External auditor tendering

In accordance with UK Corporate Governance Code, the Committee has primary responsibility recommending to the Board the appointment/

re-appointment of the external Auditor and will lead the process for putting the audit contract out to tender at least every 10 years. As reported last year, Halma was required to re-tender the external audit by June 2023 and it was anticipated the process would be completed before the end of December 2018. The Board, on the recommendation of the Committee, agreed that it was in the best interests of the Company to commence an external audit tender process during the first quarter of 2017. Following a thorough selection process, the Board is recommending to shareholders at the 2017 AGM the appointment of PricewaterhouseCoopers as auditor of the Company for the financial year commencing 2 April 2017 onwards. Accordingly, it is not envisaged, at the date of this Report, that another competitive auditor tender process will be conducted before 2027. The Committee confirms that the Company was in compliance with the provisions of The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and

Audit Committee Responsibilities) Order 2014, during the financial year ended 1 April 2017.

Tender process

In January 2017, the Board, on the recommendation of the Committee, agreed that a tender process for the appointment of the external auditor should be undertaken. Under the direction of Carole Cran, the following process was carried out on behalf of the Committee:

- a desktop review of external audit providers to the FTSE 100 was carried out (the FTSE 100 was considered to be the most suitable benchmark given the global reach, market capitalisation and growth potential of Halma). Based on the review, given their extensive FTSE 100 experience and global reach, the four biggest audit firms (Deloitte, Ernst & Young, PricewaterhouseCoopers and KPMG) were invited to tender for the external audit. Deloitte indicated that they did not intend to participate in the tender process and the tender proceeded with the three firms;
- a Request for Proposal was issued which set out the timetable and process for the tender, scope of the work and key requirements that Halma would assess against, information to be provided in an externally hosted data room, access to key Board and management personnel and details of a data analytical review to be undertaken by each firm;
- data room access granted to each firm providing key management and financial information;
- meetings between each firm and Halma management, including the Chief Executive, Finance Director, Company Secretary, Head Office functions, Sector CEOs and Sector Finance Directors;
- meetings between the audit partner from each firm and Carole Cran;
- external references for each firm taken up personally by Carole Cran;
- audit firm presentations to Halma;
- completion of scorecards for each firm, focusing on audit quality (including the Financial Reporting Council's Audit Quality Review Inspection Reports), strength and experience of the audit team, data analytics offering and their fee proposal;
- the Committee agreed two firms to recommend to the Board, with their preference being PricewaterhouseCoopers; and
- the Board approved the recommendation and announced the outcome of the audit tender in the Company's Trading Update announcement on 23 March 2017.

Audit Committee Report continued

Deloitte will resign as Auditor to the Company and PricewaterhouseCoopers will be recommended to shareholders for appointment as Auditor to the Company at the 2017 AGM.

Auditor independence

The Group's 'Policy on Auditor Independence and Services provided by the External Auditor' sets out restrictions on the categories of non-audit services which the external auditor is allowed to provide to the Group, in order to safeguard auditor objectivity and independence. This Policy was updated to reflect the changes to the FRC's Ethical Standard and approved by the Board in April 2017. A summary of the non-audit services which are permitted and prohibited under the Policy, is set out above.

At each meeting, the Committee receives a summary of all fees, audit and non-audit, payable to the external Auditor.

The audit fees payable to Deloitte LLP for the year ended 1 April 2017 were £1,017,000 (2016: £957,000) and non-audit service fees were £142,000 (2016: £290,000). The principal non-audit service undertaken by Deloitte was tax advisory related. A summary of fees paid to the external Auditor is set out in note 6 to the Accounts.

The external Auditor confirmed its independence as Auditor of the Company, in a letter addressed to the Directors.

External audit effectiveness

The effectiveness of the external audit process is assessed by the Committee, which meets regularly throughout the year with the Senior Statutory Auditor and senior audit manager. A key component to the overall effectiveness of the process is the open approach adopted by the Group and the Auditor, under which each party raises potential accounting and

financial reporting issues when they arise, rather than limiting the exchange to the period in which the formal audit and review are taking place. This approach is supported by a formal annual survey process. Surveys are tailored and issued to three distinct groups of respondents:

- Subsidiary Finance Directors, including Group Finance;
- Sector Chief Executives and Sector Finance Directors; and
- Audit Committee members and attendees.

The survey completed by the first group is divided between questions focusing on audit quality and client service. As this group is involved primarily in the execution phase of the audit, the responses cover practical audit management issues as well as observations made on the integrity and quality of audit field teams. As the second and third group interact mainly with the senior audit team and the Senior Statutory Auditor, the questions are focused more on general audit planning and wider areas of the audit relationship.

In addition to assessing the effectiveness of the external Auditor, the Committee recognises that Group management has an important role to play in the overall effectiveness of the external audit process and the Auditor is therefore asked to conduct its own survey of both subsidiary and head office companies with which Deloitte interacts. This survey addresses items such as the timeliness, quality and reliability of data provided to the Auditor.

Taken together, the Committee believes that sufficient and appropriate information is obtained to form an overall judgement on the effectiveness of the external audit process. The external audit effectiveness process findings from last year's review were incorporated into the audit processes for this year, to maintain the process of continuous improvement.

During the year, Halma's financial statements for the period ended 2 April 2016 were selected by the Audit Quality Review (AQR) team at the Financial Reporting Council (FRC) for a cyclical review of the quality of Deloitte's audit. While disclosure of the audit quality category awarded is not permitted in this Report, the

Committee can confirm that it received and reviewed the FRC's report and noted its findings. Furthermore, Carole Cran carried out a separate review of the findings with the Audit partner and has confirmed that there is nothing raised in the report which should be of concern to the Committee. The actions which Deloitte proposed in response to the FRC's report were supported by the Committee.

Taking into account the internal review of the Auditor's effectiveness, along with the findings of the FRC's AQR report, the Committee is satisfied that Deloitte remains effective as auditor to the Company. As Deloitte will be resigning as Auditor, no recommendation for their re-appointment will be made at the forthcoming AGM and, following the audit tender process described above, the Board will be recommending the appointment of PricewaterhouseCoopers as Auditor.

Risk management and internal controls

Through monitoring of the effectiveness of its internal controls and risk management processes, the Committee is able to maintain a good understanding of business performance and key areas of judgement and decision-making within the Group.

Details of risk management and internal controls are set out on pages 20 and 21.

Significant issues in relation to financial reporting matters in 2016/17

During the year, the Committee considered significant risks and issues in relation to the Group's financial statements and disclosures relating to:

- the assessment of the carrying value of goodwill due to the significance of the amounts recorded on the Consolidated Balance Sheet and the judgements involved in assessing goodwill for impairment;
- the risk that acquisitions are not accounted for correctly in line with IFRS 3 'Business combinations' including the recording of fair value adjustments and the identification and valuation of acquired intangible assets;
- the valuation of any contingent consideration arising on acquisitions in current and prior periods;

- the judgements involved in valuing defined benefit pension plans including the discount rate, the mortality assumption and the inflation rate; and
- risk that revenue is incorrectly recognised for significant contracts which have unusual elements.

These issues were discussed with management at various stages during the year and during the preparation and finalisation of the financial statements. After reviewing the presentations and reports from management, the Committee is satisfied that the financial statements appropriately address the critical judgements and key estimates, both in respect of the amounts reported and the disclosures made. The Committee is also satisfied that the significant assumptions used for determining the value of assets and liabilities have been appropriately scrutinised, challenged and are sufficiently robust. The Committee has discussed these issues with the Auditor during the audit planning process and at the finalisation of the year-end audit and is satisfied that its conclusions are in line with those drawn by the Auditor in relation to these issues.

The Committee's process for challenging the assumptions of management and addressing the risks identified includes the following activities:

- assessing treatments of contingent consideration payment arrangements against the requirements of IFRS 3 and IFRS 13;
- focusing on, monitoring regularly and constructively challenging, the reasonableness of the assumptions used in impairment calculations by management; challenging the appropriateness of judgements and forecasts used including discount rates, growth rates, the level of aggregation of individual cash generating units and methodology applied, and any other associated disclosures in note 11 to the Accounts;
- assessing capitalisation of development costs in line with the accounting policy and standards;

- assessing the assumptions in determining the pension obligations, particularly given market volatility and determining whether the key assumptions were reasonable. These assumptions were also benchmarked against other listed companies and variances highlighted for consideration; and
- considering the appropriateness and reasonableness of stated judgements and conclusions and that reporting was accurate.

As part of the above process the Committee specifically considered the following:

- the treatment and valuation of the contingent consideration payable in relation to FluxData;
- the fair value of acquired intangible assets and carrying values;
- management's assessment and reasons for the lower than expected returns at Visiometrics, CenTrak and Firetrace, and the likelihood of contract delays at the latter two companies being resolved and fulfilled;
- composition of the cash generating units and related calculations;
- the evidence supporting the going concern basis of accounts preparation, the Viability Statement and the risk management and internal control disclosure requirements;
- the terms of two significant contracts which have elements of revenue which would require appropriate deferral under ISA 240; and
- accounting assumptions and disclosures of the defined benefit pension plans.

Fair, balanced and understandable report and accounts

One of the key governance requirements is for the report and accounts to be fair, balanced and understandable. Ensuring that this standard is met requires continuous assessment of the financial reporting issues affecting the Group on a year-round basis in addition to a number of focused exercises that take place during the Annual Report and Accounts production process.

These focused exercises can be summarised as follows:

- a qualitative review, performed by the Group's finance and secretarial functions, of disclosures and a review of internal consistency throughout the Annual Report and Accounts. This review assesses the Annual Report and Accounts against objective criteria drawn up for each component of the requirement (individual criteria that indicate 'fairness', 'balance' and 'understandability' as well as criteria that overlap two or more components);
- a risk comparison review, which assesses the consistency of the presentation of risks and significant judgements throughout the main areas of risk disclosure in the Annual Report and Accounts;
- a formal review of all Board and Committee meeting minutes by the Company Secretary to ensure that all significant issues are appropriately reflected and given due prominence in narrative reporting; and
- preparation and issue to the Audit Committee of the key working papers and results for each of the significant issues and judgements considered by the Audit Committee in the period.

The Directors' statement on a fair, balanced and understandable Annual Report and Accounts is set out on page 113.

On behalf of the Audit Committee

Carole Cran
Chairman
13 June 2017

Remuneration Committee Report

Committee Chairman's overview

On behalf of the Board, I am pleased to present the Directors' Remuneration Report for the year ended 1 April 2017.

Our executive remuneration framework operates within a culture of strong governance, a discipline which is reflected throughout the Company's activities. Halma's strategy is to build a strong competitive advantage in specialised safety, health and environmental technology markets with resilient growth drivers. This strategy has long been underpinned by the remuneration framework which balances a short-term incentive related to improvements in the Economic Value Added (EVA) in a financial year – including an element deferred for two years in the form of shares – with a longer-term share incentive related to Return on Total Invested Capital (ROTIC), Earnings per Share (EPS) and, formerly, Total Shareholder Return (TSR).

The Committee undertook a significant review of the remuneration policy in 2015 leading to a new policy receiving the support of 98% of shareholders at our 2015 AGM. This represented our first full policy review for 10 years and coincided with the need to seek shareholder approval for a new long-term equity incentive plan to replace the previous time-expired plan.

Having now had two years following the implementation of the policy, I remain pleased to say that no structural changes are considered necessary to the policy or its implementation for the forthcoming year.

Internal appointments in 2016/17

As referenced in Paul Walker's Nomination Committee narrative, Jennifer Ward was appointed to the Board mid-year, at which time the Committee considered her remuneration and set it in accordance with our policy. In this case, her salary was elevated to £300,000 per annum and her incentive opportunities aligned with those of her fellow Executive Director, Adam Meyers.

Remuneration outcomes in 2016/17

The Company has delivered another year of solid performance against our KPIs.

In particular, revenue grew by 19%, adjusted EPS grew by 17% and the Board is proposing a further 7% increase in dividend per share for shareholders. With tight controls on capital, the Economic Value Added performance condition generated total annual bonus payments to executive Directors of between 42% and 65% of base salary. Of these amounts one third will be deferred for two years and is payable in shares.

Performance was similarly robust over the three-year performance period for the performance share awards granted in 2014, with averaged ROTIC of 15.7% and Total Shareholder Return of 79% putting Halma in the top quartile of its comparator group.

Accordingly, 91.58% of the performance share awards is expected to vest. The Committee is satisfied that there has been a robust link between reward and performance over these periods.

Implementation of the policy for 2017/18

As mentioned, there are no structural changes proposed to the implementation of the policy for 2017/18. Base salaries for executive Directors have been increased by 1.8% to 4.0%, in line with the average increase for the workforce generally.

The Committee has determined appropriately stretching economic profit based targets for the annual bonus and has determined that the range of EPS and ROTIC targets for the performance share awards should be unchanged from the prior year.

As reported last year, the Committee is also responsible for determining the fee level for the Chairman and in 2016, we reviewed the fee level against market positions in peer companies. The shortfall in the fee level in relation to our assessment of an appropriate mid-market positioning, resulted in the Committee determining that Paul Walker's fee should be increased to a mid-market level in two stages. The initial increase to £210,000 occurred effective 1 April 2016 and we anticipate this could be increased further in one years' time, coincident with the next triennial policy review, subject to the Committee considering this to be appropriate in the circumstances.

The next review of the remuneration policy will occur during 2017/18 with a policy vote at the 2018 AGM. We do not anticipate the necessity to make any significant changes and will concentrate on ensuring the most appropriate metrics are set for incentive arrangements.

Shareholder voting at the 2017 AGM

As we are not making any further changes to our remuneration policy as approved by shareholders at the 2015 annual general meeting, there is no vote to approve the remuneration policy this year. There will be the usual advisory resolution to approve the Annual Report on Remuneration, which focuses on the remuneration outcomes for the year under review and how the Remuneration Committee intends to implement the policy next year.

The Committee is aware of the latest developments in the executive pay arena, particularly those from institutional shareholders and we monitor these closely.

My colleagues on the Remuneration Committee and I hope that you will support the resolution approving the Remuneration Report.

Tony Rice
Remuneration Committee Chairman
13 June 2017

Remuneration Policy

This section of the report details the remuneration policy for executive and non-executive Directors which shareholders approved at the 2015 annual general meeting. This policy formally came into effect from 23 July 2015, being the date of the 2015 AGM, and is effective for up to three years.

Compliance statement

This report has been prepared in accordance with the provisions of the Companies Act 2006 (the Act) and Regulation 11 and Schedule 8 of the Large and Medium-Sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013. The report also meets the relevant requirements of the Listing Rules of the Financial Conduct Authority and describes how the Board has applied the principles relating to directors' remuneration in the UK Corporate Governance Code. As required by the Act, a resolution to approve the Annual Report on Remuneration will be proposed at the AGM of the Company at which the financial statements will be approved.

In line with the Regulations, the following parts of the Annual Report on Remuneration are audited: the single figure for total remuneration for each Director, including annual bonus and performance share plan outcomes for the financial year ending 1 April 2017; plan interests awarded during the year; pension entitlements; payments to past Directors and payments for loss of office; and Directors' shareholdings and share interests. All other parts of the Annual Report on Remuneration are unaudited.

Element and objective

Executive Directors

Salary

A fair, fixed remuneration reflecting the size and scope of the executive's responsibilities which attracts and retains high calibre talent necessary for the delivery of the Group's strategy.

Benefits

To provide benefits that are competitive within the relevant market.

Pension

To provide competitive post-retirement benefits, or the cash allowance equivalent, to provide the opportunity for executives to save for their retirement.

Operation and process

Reviewed annually or following a material change in responsibilities. Salary is benchmarked periodically against appropriate comparators of a similar size and operating in a similar sector, and is linked to individual performance and contribution.

Salary is the only element of remuneration that is pensionable.

Benefits are appropriate to the location of the executive and typically comprise (but are not limited to) a company car, life insurance, permanent disability insurance, private medical insurance, relocation and tax advice for international assignments.

Executive Directors participate in either a Group Defined Contribution pension plan or the US 401k money purchase arrangement.

Cash supplements in lieu of Company pension contributions may be made to some individuals at a level dependent upon seniority and length of service. Cash supplements may be reduced to reflect the additional employer social costs thereon.

To the extent the pension contributions exceed the local tax allowance, the contributions may be paid to the executive, subject to taxes and social charges.

Some executives are deferred members of the Group defined benefit pension plan which closed to future accrual in December 2014.

Remuneration Policy

The remuneration policy is designed to promote the long-term interests of the Company by securing the high calibre executives needed to manage the Group successfully, and to align their interests with those of our shareholders by rewarding them for enhancing shareholder value. The policy also seeks to reward achievement of stretching performance targets without driving unacceptable behaviours or encouraging excessive risk-taking.

The Committee carried out a comprehensive review of remuneration during the 2014/15 year coincident with the expiry of the life of the 2005 Performance Share Plan. It noted that there were aspects of the previous policy that work well and were therefore retained. However, it also noted that both the Company and market practice have moved on in the 10 years since the last formal review. Accordingly, it introduced changes to the policy to reinforce the link between executive remuneration and the Company's long-term performance enhancing the executives' alignment with the long-term interests of shareholders.

There are six elements of the remuneration policy for executive Directors, which are summarised in the table below.

Opportunity	Performance measures
Base salary increases will be applied in line with the outcome of annual reviews (normally with effect from 1 April). Salaries for the financial year under review (and the following year) are disclosed in the Annual Report on Remuneration.	Not applicable
Salary increases for executive Directors will not normally exceed the average of the wider employee population other than in exceptional circumstances. Where increases are awarded in excess of the wider employee population, for example where there is a material change in the responsibility, size or complexity of the role, the Committee will provide the rationale in the relevant year's Annual Report on Remuneration.	
Benefits may vary by role, and the level is determined to be appropriate for the role and circumstances of each individual executive Director. The maximum value will equate to the reasonable market cost of such benefits.	Not applicable
It is not anticipated that the current cost of benefits (as set out in the Annual Report on Remuneration) would increase materially over the period for which this policy applies.	
The Committee retains the discretion to approve a higher cost in exceptional circumstances (e.g. relocation expenses or an expatriation allowance on recruitment, etc.) or in circumstances where factors outside the Company's control have changed materially (e.g. market increases in insurance costs).	
The rationale behind the exercise of such discretion will be provided in the relevant year's Annual Report on Remuneration.	
Defined Contribution: maximum contribution of 20% of pensionable salary which is capped at £155,528 (2015/16: £155,528). The cap increases annually relative to CPI. The maximum contribution rate for executives joining prior to 2014/15 was 27.5%.	Not applicable
Cash supplement: Halma contributes up to 26% of full salary if the executive Director is a former active member of the defined benefit pension plan. Defined Contribution members whose contributions exceed the local tax allowance are paid the excess contributions, on the capped pensionable salary, as a cash supplement, net of employer social costs.	
401k: contributions of 3% of salary with a discretionary 2% profit share component subject to IRS caps.	
Defined benefit: now closed to future accrual, but provides a maximum pension equivalent to two thirds of final pensionable salary, up to a CPI-indexed cap; £155,528 for 2016/17 and £157,083 for 2017/18.	

Remuneration Policy continued

Element and objective Executive Directors

Annual Incentive

To incentivise and focus management on the achievement of an objective annual target which is set to support the short-to medium-term strategy of the Group.

Executive Share Plan (ESP)

To incentivise executives to achieve superior returns to shareholders over a three-year period rewarding them for sustained performance against challenging long-term targets; to retain key individuals and align interests with shareholders, reflecting the sustainability of the business model over the long term and the creation of shareholder value.

Share Incentive Plan (SIP)

To encourage share ownership across all UK-based employees using HMRC-approved schemes.

Chairman and non-executive Director fees

To attract individuals with the requisite skills, experience and knowledge to contribute to the Board.

Operation and process

The structure of the Annual Incentive is reviewed at the start of the year to ensure that the performance measures and their weightings remain appropriately aligned with the Group's strategy and are sufficiently challenging.

Performance targets are calibrated and set at the start of the year, with reference to a range of relevant reference points including the annual budget agreed by the Board. At the end of the year, the Committee determines the extent to which these targets have been achieved.

Payment of one third of any bonus is in the form of an award of shares that is deferred for two years, with vesting normally subject to continued service.

Dividend equivalents accrue over the vesting period. Dividend equivalents are paid in cash or shares at the end of the vesting period.

Deferral into shares provides a link to the long-term strategy of the Group and enhances the retentiveness of the policy.

A recovery and withholding provision enables the Company to recoup overpayments in the event of misstatement, error or misconduct, either through withholding future remuneration or requiring the executive to repay the requisite amount.

Executive Directors are granted annual awards over Halma plc shares or a cash equivalent where required by regulations as determined by the Committee; awards vest after a period of at least three years based on Group performance.

Dividend equivalents accrue over the vesting period. Dividend equivalents are paid in cash or shares at the end of the vesting period, and only on those shares which vest.

A recovery and withholding provision enables the Company to recoup overpayments in the event of misstatement, error or misconduct, either through withholding future remuneration or requiring the executive to repay the requisite amount.

The SIP is an HMRC-approved arrangement. It entitles all UK-based employees to receive Halma shares in a potentially tax-advantageous manner.

Non-executive Director fees are determined by the Board and may comprise a base fee, committee chairmanship fee and Senior Independent Director fee.

The Chairman's fee is determined by the Committee.

Notes to the Policy Table

Payments from Existing Awards

The Committee will honour any commitment entered into, and executive Directors will be eligible to receive payment from any award made, prior to the approval and implementation of the Remuneration Policy on 23 July 2015. Details of these awards are disclosed in the Annual Report on Remuneration.

Selection of Performance Measures

The performance measures used in Halma's executive incentives have been selected to ensure incentives are challenging and reinforce the Group's strategy and align executive interests closely with those of our shareholders.

In the annual bonus, the use of EVA, in summary, profit less a charge for capital employed (definition is provided on page 100) reinforces the Group's business objective to double every five years through a mix of acquisitions and organic growth. Profit is a function of the extent to which the Company has achieved both its organic growth target and its success in identifying appropriate acquisition targets in current and past years. Ensuring that the cost of funding acquisitions is reflected in the bonus model means that executives share the benefit of an acquisition that outperforms expectations, but equally bear the cost of overpaying for an acquisition. Good or poor management of working capital is also reflected in the calculation of EVA. In the ESP, EPS provides a disciplined focus on increasing profitability and thereby provides close shareholder alignment through incentivising shareholder value creation, and ROTIC reinforces the focus on capital efficiency and delivery of strong returns, thereby further strengthening the alignment of remuneration with the Group strategy. Performance targets are set to be stretching yet achievable, taking into account the Company's strategic priorities and the economic environment in which it operates. Targets are calibrated taking into account a range of reference points, but are based primarily on the Group's strategic plan.

Opportunity

Maximum opportunity: 150% of base salary for the Chief Executive and Finance Director and 125% of base salary for other Directors.

Target opportunity: 60% of maximum.

Bonus payable at threshold: 0% of salary.

In exceptional circumstances, the Committee has the ability to exercise discretion to override the formulaic bonus outcome within the limits of the scheme where it believes the outcome is not truly reflective of performance and to ensure fairness to both shareholders and participants.

Maximum opportunity: Up to 200% of salary.

In exceptional circumstances, such as to facilitate the recruitment of an external candidate, the Committee may, in its absolute discretion, exceed this maximum annual opportunity, subject to a limit of 250% of salary.

Threshold performance will result in the vesting of 25% of the maximum award.

Participation limits are in line with those set by HMRC from time to time.

Fees are normally reviewed annually in April, but typically only reset triennially. Increases are effective from 1 April.

The fee paid to the Chairman is determined by the Committee, and fees to NEDs are determined by the Board. The fees are calculated by reference to market levels and take account of the time commitment and the responsibilities of the NEDs.

Performance measures

The bonus is based 100% on the achievement of financial performance targets. The primary measure used to determine bonus outcomes is EVA, although the Committee may, at its discretion and from time to time, supplement EVA with additional financial measures that reflect Halma's strategic priorities for the year, provided any such additional measure accounts for no more than 30% of the overall bonus opportunity.

Vesting of performance share awards is subject to continued employment and the Company's performance over a three-year performance period. To the extent performance conditions are not met, awards will lapse.

Not applicable

Not applicable

Remuneration Policy for Other Employees

Our approach to salary reviews is consistent across the Group, with consideration given to the level of responsibility, experience, individual performance, market levels and the Company's ability to pay. The Committee considers remuneration surveys to establish market rates, as appropriate, but uses such data carefully so as to avoid an upward ratchet.

Remuneration Policy continued

External appointments

In the case of appointing a new executive Director, the Committee may make use of any of the existing elements of remuneration, as follows:

Component	Approach
Salary	The base salaries of new appointees will be determined by reference to relevant market data, experience and skills of the individual, internal relativities and the current salary of any incumbent in the same role. Where a new appointee has an initial base salary set below market, the Committee may make phased increases over a period of several years to achieve the desired position, subject to the individual's development and performance in the role.
Benefits	New appointees will be eligible to receive benefits in line with the current policy, as well as expatriation allowances and any necessary expenses relating to an executive's relocation on appointment.
Pension	New appointees will be eligible to participate in the Company's Defined Contribution pension plan, receive a cash supplement or local equivalent.
Annual bonus	The scheme as described in the policy table will apply to new appointees with the relevant maximum being pro-rated to reflect the proportion of the year employed.
ESP	New appointees will be granted performance awards under the ESP on the same terms as other executives, as described in the policy table.
SIP	New appointees in the UK will be eligible to participate on identical terms to other employees.

In addition to the elements of remuneration set out in the policy table, in exceptional circumstances the Committee may consider it appropriate to grant an incentive award under a different structure in order to facilitate the recruitment of an individual or to replace incentive arrangements forfeited on leaving a previous employer. In making such awards, the Committee will look to replicate the arrangements being forfeited as closely as possible and in doing so consider relevant factors including any performance conditions attached to these awards, the payment mechanism, expected value and the remaining vesting period of these awards.

Internal Appointments

Remuneration for new executive Directors appointed by way of internal promotion will similarly be determined in line with the policy for external appointees, as detailed above. Where an individual has contractual commitments made prior to their promotion to the Board, the Company will continue to honour those commitments. Incentive opportunities for below-Board level employees are generally no higher than for executive Directors, and incentive measures vary to ensure they are appropriate.

Share Ownership Guidelines

To ensure alignment between the interests of executive Directors and those of shareholders, the Company requires executive Directors to progressively build up and maintain a beneficial holding of Halma plc shares equivalent to a minimum of 200% of salary (2014/15: 100%). Until such time as this threshold is achieved, executive Directors are required to retain no less than 50% of the net of tax value of any vested performance share award or deferred bonus share award.

Executive Director service contracts and exit payment policies

It is the Company's policy that executive Directors should have contracts with an indefinite term providing for a maximum of one year's notice. The details of the Directors' contracts are summarised in the table below. Contracts will be available for inspection at the AGM and throughout the year at the Company's registered office.

Executive Director	Date of service contract	Date of service contract
Andrew Williams	April 2003	One year
Kevin Thompson	April 2003	One year
Adam Meyers	July 2008	One year
Jennifer Ward	January 2014	One year

The Company's policy is to limit payments on cessation to pre-established contractual arrangements. In the event that the employment of an executive Director is terminated, any amount payable will be determined in accordance with the terms of the service contract between the Company and the employee, as well as the rules of any incentive plans. No predetermined amount is provided for in the Directors' contracts. The UK executive Director contracts enable the Company to pay up to one year's salary in lieu of notice, with no contractual entitlement to any other benefits, and, under the rules, the Remuneration Committee may determine the individual's leaving status for share plan vesting purposes. If the financial year end has passed, any bonus earned is payable to the individual. Adam Meyers' service contract permits him to remain an employee for the entire period of notice enjoying any benefits related to employment. The share plan and bonus provisions are identical to the UK. Both contracts contain appropriate non-compete restrictions for a suitable period post-employment.

When considering termination payments under incentive schemes, the Committee reviews all potential incentive outcomes to ensure they are fair to both shareholders and participants. The table below summarises how the awards under the annual bonus and share plans are treated in specific circumstances under the rules of the relevant plan and the extent to which the Committee has discretion:

	Reason for leaving	Timing of payment/vesting	Calculation of payment/vesting
Annual bonus	Death, injury or disability, redundancy, retirement, or any other reasons the Committee may determine	After the end of the financial year, although the Committee has discretion to accelerate (e.g. in relation to death)	Performance against targets will be assessed at the end of the year in the normal way and any resulting bonus normally will be pro-rated for time served during the year
	All other reasons	No bonus is payable	—
Deferred bonus	Death, injury or disability, redundancy, retirement, or any other reasons the Committee may determine	On the second anniversary of the award	Awards vest in full
	All other reasons	Awards lapse	—
Share Plans	Injury or disability, redundancy, or any other reason the Committee may, at its discretion, determine	On the third anniversary of the award	Awards will normally be pro-rated for time to the date of cessation of employment and performance metrics assessed as at the third anniversary
	Death	Immediately (unless otherwise determined by the Committee at its discretion)	Any outstanding awards normally will be pro-rated for time and performance up to the point of death
	All other reasons	Awards lapse	—

Remuneration Policy continued

Pay-for-performance

The following charts provide an estimate of the potential future rewards for executive Directors, and the potential split between different elements of pay, under three different performance scenarios: 'Fixed', 'On-target' and 'Maximum'.

Potential reward opportunities are based on Halma's remuneration policy, applied to salaries as at 1 April 2017. In the case of the Chief Executive, Finance Director and other executive Directors this assumes a performance share award level of 200%, 175% and 150% of salary respectively (which is the basis on which the policy will be applied in 2017/18). The projected values exclude the impact of any share price movements and dividend equivalents.

The 'Fixed' scenario shows base salary, pension and benefits only.

The 'On-target' scenario shows fixed remuneration as above, plus a target level of 60% of the maximum under the annual bonus and vesting of 50% of a single year's award under the ESP.

The 'Maximum' scenario reflects fixed remuneration, plus maximum level of annual bonus and ESP awards.

Non-executive Directors

Unless otherwise indicated, all non-executive Directors (NEDs) have a specific three-year term of engagement, subject to annual re-election at the AGM, which may be renewed for up to two further three-year terms if both the Director and the Board agree. The remuneration of the Chairman and the NEDs is determined by the Committee and the Board respectively, in accordance with the remuneration policy approved by shareholders.

The contract in respect of the Chairman's services provides for termination, by either party, by giving not less than six months' notice.

The non-executive Directors have contracts in respect of their services, which can be terminated, by either party, by giving not less than three months' notice. Contracts are available for inspection at the AGM and throughout the year at the Company's registered office. Summary details of terms and notice periods for NEDs are included below.

Non-executive Director	Date of appointment	Notice period
Paul Walker	April 2013	6 months
Daniela Barone Soares	November 2011	3 months
Roy Twite	July 2014	3 months
Tony Rice	August 2014	3 months
Carole Cran	January 2016	3 months
Jo Harlow	October 2016	3 months

NEDs do not receive benefits from the Company and they are not eligible to join the Company's pension plan or participate in any incentive schemes. Any reasonable expenses that they incur in performing their duties are reimbursed by the Company.

Paul Walker's personal assistant is an employee of the Company.

Details of the policy on NED fees are set out in the table on pages 92 and 93.

NED recruitment

In recruiting a new Chairman or NED, the Committee will use the policy as set out in the table on pages 92 and 93.

Consideration of conditions elsewhere in the Group

The Committee considers the remuneration and employment conditions elsewhere in the Group when determining remuneration for executive Directors. However, the Committee does not currently consult specifically with employees on the executive remuneration policy.

Consideration of shareholder views

When determining remuneration, the Committee takes into account the views of our shareholders and 'best practice' guidelines set by shareholder representative bodies. As part of their consideration of the new remuneration policy, the Committee consulted widely with the Company's major institutional shareholders and their representative bodies. The Committee always welcomes feedback from shareholders on the Company's remuneration policy. Detail on the votes received on the remuneration policy and Annual Report on Remuneration at the previous annual general meeting is provided on page 98.

External directorships

The Committee acknowledges that executive Directors may be invited to become independent non-executive directors of other listed companies which have no business relationship with the Company and that these roles can broaden their experience and knowledge to Halma's benefit.

Executive Directors are permitted to accept one such appointment with the prior approval of the Chairman. Approval will only be given where the appointment does not present a conflict of interest with the Group's activities and the wider exposure gained will be beneficial to the development of the individual. Where fees are payable in respect of such appointments, these are retained by the executive Director.

Andrew Williams is a non-executive director of Capita plc. Fees paid to him during the period to 1 April 2017 were £64,500 (2016: £64,000).

Annual Remuneration Report

The following section provides details of how Halma's remuneration policy was implemented during the financial year ending 1 April 2017, and how it will be implemented in 2017/18.

Role and responsibilities

The primary responsibilities of the Remuneration Committee are to:

- make recommendations to the Board on the framework for executive Directors' and senior executives' remuneration based on proposals formulated by the CEO;
- determine and agree with the Board the policy and framework for the remuneration of the Chairman, CEO, other executive Directors, the Company Secretary and members of the Executive Board;
- approve the design of, and determine targets for, any performance-related pay plans operated by the Company and agree the total annual payments made under such plans;
- review the design of all share incentive plans for approval by the Board and shareholders, and determine, each year, whether awards will be made, and if so, the overall amount of such awards, the individual awards to executive Directors and other senior executives and the performance targets to be set; and
- determine the policy for, and scope of, pension arrangements for each executive Director and other senior executives.

The Committee also monitors and considers, with the CEO, the framework of remuneration for sector and subsidiary executives and ensures a consistent approach is applied.

The Committee terms of reference can be found on the Company's website.

As at 1 April 2017, the Committee comprised the following non-executive Directors:

- Tony Rice (Chairman)
- Paul Walker
- Daniela Barone Soares
- Roy Twite
- Carole Cran
- Jo Harlow (from 3 October 2016)

Jane Aikman was a member of the Committee during part of the year, until her retirement from the Board at the July 2016 annual general meeting.

All members of the Committee are considered independent within the definition set out in the Code. None of the Committee has any personal financial interest in Halma (other than as shareholders), conflicts of interests arising from cross directorships or day-to-day involvement in running the business.

During the year the Committee met formally three times. Attendance by individual members of the Committee is disclosed in the Corporate Governance Report on page 77. In addition, Jo Harlow met with senior executives at the Company as part of her induction process when joining the Committee.

Only members of the Committee have the right to attend Committee meetings. The CEO, Group Talent & Communications Director and Company Secretary attend the Committee's meetings by invitation, but are not present when their own remuneration is discussed. The Committee also takes independent professional advice as required.

External advisers

New Bridge Street (NBS) acted as the independent remuneration adviser to the Committee during the year, having been appointed by the Committee in October 2014. NBS attends Committee meetings, as appropriate, and provides advice on remuneration for executives, analysis on all elements of the remuneration policy and regular market and best practice updates. NBS reports directly to the Committee Chairman and is a signatory to the Code of Conduct for Remuneration Consultants of UK-listed companies (which can be found at www.remunerationconsultantsgroup.com). NBS provides no other services to the Company, and is therefore considered independent. NBS's fees for the year were £7,000 (2016: £72,000).

Shareholder vote at 2016 Annual General Meeting

The following table shows the results of the voting at the 2015 (policy) and 2016 (report) annual general meetings.

	For	Against	Total	Withheld
Remuneration Policy (2015)				
Number of votes cast	268,394,004	5,594,080	273,988,084	4,260,712
% of votes cast	98.0%	2.0%	100%	
Directors' Remuneration Report (2016)				
Total number of votes	267,766,411	10,025,535	277,791,946	313,606
% of votes cast	96.4%	3.6%	100%	

Single figure of total remuneration for Directors

The tables below set out the single figure of total remuneration received by Directors for the year to 1 April 2017 and the prior year.

							2017
	Salary £000	Benefits ¹ £000	Pension ² £000	Annual bonus ³ £000	PSP ⁴ £000	SIP ⁵ remuneration £000	Total remuneration £000
Executive Directors							
Andrew Williams	612	33	159	307	1,038	3	2,152
Kevin Thompson	383	15	100	192	686	3	1,379
Adam Meyers ⁶	367	12	13	239	554	–	1,185
Jennifer Ward ⁷	150	8	15	63	112	3	351
Non-executive Directors							
Paul Walker	210	–	–	–	–	–	210
Daniela Barone Soares	52	–	–	–	–	–	52
Roy Twite ⁷	52	–	–	–	–	–	52
Tony Rice ⁷	68	–	–	–	–	–	68
Carole Cran ⁷	59	–	–	–	–	–	59
Jo Harlow	26	–	–	–	–	–	26
Past Directors							
Jane Aikman ⁸	20	–	–	–	–	–	20
							5,554
							2016
	Salary £000	Benefits ¹ £000	Pension ² £000	Annual bonus ³ £000	PSP ⁴ £000	SIP ⁵ remuneration £000	Total remuneration £000
Executive Directors							
Andrew Williams	600	31	156	480	1,152	4	2,423
Kevin Thompson	375	14	218	307	713	4	1,631
Adam Meyers ⁶	311	15	12	326	630	–	1,294
Non-executive Directors							
Paul Walker	180	–	–	–	–	–	180
Daniela Barone Soares	48	–	–	–	–	–	48
Roy Twite ⁷	48	–	–	–	–	–	48
Tony Rice ⁷	56	–	–	–	–	–	56
Carole Cran ⁷	12	–	–	–	–	–	12
Past Directors							
Stephen Pettit ⁸	20	–	–	–	–	–	20
Jane Aikman	56	–	–	–	–	–	56
Neil Quinn ⁸	30	2	–	–	–	–	32
							5,800

¹ Benefits: company car and private medical insurance.

² Pension: value based on increase in accrued pensions (net of inflation) multiplied by a factor of 20, and/or the Company's pension contribution during the year.

³ Annual bonus: payment for performance during the year; from 2016, two thirds is payable in cash and one third is payable in shares which vest two years from award. Table shows total bonus including amounts to be deferred.

⁴ PSP: the value of awards vesting on performance during the years ending 1 April 2017 (estimated) and 2 April 2016 (actual).

⁵ SIP: valued based on the face value of shares at grant.

⁶ Remunerated in US dollars and translated at the average exchange rate for the year (2017: US\$1.307; 2016: US\$1.51).

⁷ Jennifer Ward was appointed to the Board on 27 September 2016; Carole Cran on 1 January 2016; Tony Rice on 8 August 2014; and Roy Twite on 24 July 2014.

⁸ Neil Quinn retired from the Board on 14 May 2015 and remained employed until 31 March 2016; the table shows his salary and benefits to 14 May 2015 only; Jane Aikman retired from the Board effective 21 July 2016 and Stephen Pettit retired from the Board effective 23 July 2015.

Annual Remuneration Report continued

Other payments

No payments were made to former Directors after their retirement, nor were any payments made on cessation during the year under review. In August 2016, Neil Quinn received vested share awards of £494,000 (2016: £398,000). Mr Quinn's unvested share award will vest at the usual vesting date subject to the performance targets being met and pro-rated for employment as a proportion of the total vesting period.

Incentive outcomes for 2017

Annual bonus in respect of 2017

In 2017, the maximum bonus opportunity for executive Directors was 125% to 150% of salary, solely linked to performance as measured by an Economic Value Added (EVA) calculation.

For the CEO and FD (150% maximum) and Group Talent and Communications Director (125% maximum), bonuses are calculated based on Group profit exceeding a target calculated from the profits for the three preceding financial years after charging cost of capital, including the cost of acquisitions. As the EVA for each year is utilised for a further three years in the comparator calculations, executives must consider the medium-term interests of the Group otherwise there is the potential for an adverse impact on their capacity to earn a bonus.

EVA calculation:

Profit for each year	Minus a charge on cost of acquisitions	Minus a charge on working capital	Plus / minus unrealised profit in inventory	Minus the resultant bonus itself (to make it self-financing)	Equals the EVA for each year
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In the case of a Sector CEO (125% maximum), a bonus is earned if the profit of the sector for which they are responsible exceeds a target calculated from the profits of the three preceding financial years. The profits calculated for this purpose regard each sector as a stand-alone group of companies charging it with the cost of capital it utilises including the cost of acquisitions.

Bonuses for 2017 are based on the sectoral allocation that existed throughout 2017. Transitional provisions exist for restructuring to ensure Sector CEOs remain appropriately incentivised. Subsidiary executives participate in bonus arrangements similar to those established for senior executives.

Further details of the bonuses payable (cash and deferred share awards) and performance against targets are provided in the tables below.

Executive Director	EVA threshold 000	EVA actual 000	Overall bonus outcome (% of salary)	EVA maximum 000
Andrew Williams	£163,286	£173,188	50%	£189,110
Kevin Thompson	£163,286	£173,188	50%	£189,110
Adam Meyers	\$74,508	\$83,014	65%	\$88,232
Jennifer Ward	£163,286	£173,188	42%	£193,983

No discretion was applied by the Committee in determining the annual bonus outcome calculation for 2017. The EVA maximum column represents the EVA performance at which the maximum bonus is payable for each individual.

Performance Share Plan (PSP): 2014 Awards (vesting during the year to 31 March 2018)

In August 2014, the executive Directors received awards of performance shares under the PSP. The performance targets for the 2014 awards are illustrated below and the vesting criteria are 50% TSR-related and 50% ROTIC-related.

Performance conditions for awards made in 2013/14 and 2014/15

Percentage of award which vests	TSR (percentile)		
	<50%	50%	≥75%
ROTIC (post-tax)			
≤ 9.5%	0%	16.7%	50.0%
12.0%	16.7%	33.3%	66.7%
14.5%	33.3%	50.0%	83.3%
17.0%	50%	66.7%	100%

The three-year period over which these two independent performance metrics is measured ends on 1 August 2017. ROTIC is 15.7% (the average ROTIC for financial years 2015, 2016 and 2017) and TSR relative to the FTSE 250 excluding financial companies was 79th percentile through year end, which results in vesting of 91.58% of the maximum award. The vesting estimate included in the single figure of Total Remuneration for Directors for 2017 is detailed in the table below:

Executive Director	Interest held	Face value at grant £000	Vesting %	Interest vesting	Three-month average price at year end	Vesting value £000
Andrew Williams	117,748	657	91.58%	107,834	962.17p	1,038
Kevin Thompson	77,829	434		71,276		686
Adam Meyers	62,821	350		57,531		554
Jennifer Ward	25,337	141		23,204		223*

* Pro-rated to £112,000 for the period since appointment to the Board.

Vested awards are satisfied in shares with sufficient shares being sold to meet tax and social costs owing, at the recipient's direction, and the net balance of shares transferred to the individual. Awards lapse if they do not vest on the third anniversary of their award.

Executive Share Plan: Performance Share Awards (granted during the year to 1 April 2017)

On 26 July 2016, the executive Directors were granted performance share awards under the ESP.

Executive Director	Awards made during the year	Five-day average market price at date of award	Face value at date of award	Face value at date of award (% of salary)	Maximum award permitted
Andrew Williams	117,527	1038.4p	£1,220,400	199.4%	200%
Kevin Thompson	64,200		£666,653	174.1%	175%
Adam Meyers	45,918		£437,887	150.0%	150%
Jennifer Ward*	25,665		£266,505	118.4%	120%
Jennifer Ward*	18,097	994.6p	£179,993	148.8%	150%

* The first grant was awarded prior to Jennifer Ward's appointment to the Board and the second award reflects the promotional element in terms of the higher Director salary and the higher permitted maximum; the second face value percentage represents the combined awards.

The percentages above are relative to base salaries. UK executive Directors had part of their award delivered by the Share Incentive Plan.

The three-year performance period over which ROTIC and EPS performance will be measured is April 2016 to March 2019. The ROTIC element will be based on the average ROTIC for 2017, 2018 and 2019. The EPS element will be based on EPS growth from April 2016 to March 2019. The award is eligible to vest in its entirety on the third anniversary of the date of grant (26 July 2019), subject to 50% on ROTIC performance and 50% on EPS performance.

Annual Remuneration Report continued

Executive Share Plan: Deferred Share Awards (granted during the year to 1 April 2017)

On 26 July 2016, the executive Directors were granted merit deferred share awards under the ESP in respect of one third of the bonus earned for the financial year ended 2 April 2016.

Executive Director	Awards made during the year	Five-day average market price at date of award	Face value at date of award	Bonus to 2 April 2016	Amount Awarded in shares (%)
Andrew Williams	15,422	1038.4p	£160,142	£480,429	33.3%
Kevin Thompson	9,870		£102,490	£307,475	33.3%
Adam Meyers ¹	10,600		£110,070	£325,450	33.8%
Jennifer Ward ²	4,283		£44,475	£133,448	33.3%

¹ Adam Meyers' award would represent 33.3% if the exchange rate used on his dollar denominated bonus was the same as at the award date.

² This grant was awarded prior to Jennifer Ward's appointment to the Board.

The two-year performance period over which performance will be measured is 26 July 2016 to 26 July 2018. The award is eligible to vest in its entirety on the second anniversary of the date of grant (26 July 2018), subject to ongoing service.

Implementation of remuneration policy for the year to 1 April 2017

Salary

The Committee approved the following salary increases with effect from 1 April 2017. By way of comparison, the average salary increase across the sectors for 2017 was between 2% and 4%.

Executive Director	Salary from 1 April 2017	Salary from 1 April 2016	% change
Andrew Williams	£625,000	£612,000	2.1%
Kevin Thompson	£390,000	£383,000	1.8%
Adam Meyers	\$490,000	\$480,000	2.1%
Jennifer Ward	£306,000	£300,000*	4.0%

* From 1 October 2016.

Pension and benefits

No change to the executive Directors' current pension and benefits arrangements is planned for 2018.

Annual bonus

The maximum annual bonus opportunity for 2018 will remain at 150% of salary for the Group CEO and FD and 125% of salary for other executive Directors with one third of the bonus earned being payable in shares which are deferred for two years.

Bonuses will continue to be based on EVA performance against a weighted average target of EVA for the past three years for an executive's sector, in the case of a Sector CEO, or the Group, in the case of the Group CEO, FD and Group Talent and Communications Director.

Bonus payments will be subject to recovery and withholding provisions during a period of three years from the date of payment.

ESP

Under the ESP, performance share awards and deferred bonus awards will be made in June 2017. The number of shares over which awards will be made is determined by the share price leading up to the award.

The value of each performance share award, relative to salary has been fixed as follows:

Executive Director	Salary for 2017/18	Performance share award	Value of award
Andrew Williams	£625,000	200%	£1,250,000
Kevin Thompson	£390,000	175%	£682,500
Adam Meyers	\$490,000	150%	\$735,000
Jennifer Ward	£306,000	150%	£459,000

The performance share awards to be granted in July 2017 will be subject to an earnings per share performance target for 50% of the award and a ROTIC target for 50% of the award measured over the three financial years 2018, 2019 and 2020. The performance targets are set out below:

Performance targets for 2016, 2017 and 2018 PSP awards

ROTI [*] (post tax)	% of award vesting ^{**}
<11.0%	0%
11.0%	12.5%
17.0% or more	50%

^{*} Average ROTIC over the performance period.

^{**} There is straight line vesting in between threshold and maximum vesting.

EPS [*]	% of award vesting ^{**}
<5%	0%
5%	12.5%
12% or more	50%

^{*} Adjusted earnings per share growth over the three-year performance period.

^{**} There is straight line vesting in between threshold and maximum vesting.

The deferred bonus awards are derived as one third of the bonus earned for the 2017 year. The number of shares over which awards will be made is determined by the share price leading up to the award, but the value of each award, relative to the bonus has been fixed as follows:

	Bonus for 2017	Cash-settled	Value of 2017 deferred bonus award
Executive Director			
Andrew Williams	£307,000	£205,000	£102,000
Kevin Thompson	£192,000	£128,000	£64,000
Adam Meyers	\$313,000	\$209,000	\$104,000
Jennifer Ward [*]	£110,000	£63,000	£37,000

^{*} Representing Jennifer Ward's bonus entitlement for the full financial year.

Awards vest in full on their second anniversary.

Chairman and non-executive Director fees

The Chairman's and the NEDs' fees, as detailed below, were last increased by the Board in April 2016. Fees are subject to an annual review each April, but resetting is normally expected to be triennial. The next resetting is anticipated to be in 2018 to align with the executive review.

Fees	Fees from 1 April 2017	Fees from 1 April 2016
Chairman	£210,000	£210,000
Base fee	£52,000	£52,000
Senior Independent Director	£7,500	£7,500
Audit Committee Chairman	£10,000	£10,000
Remuneration Committee Chairman	£8,000	£8,000
Committee Member	£nil	£nil

Annual Remuneration Report continued

Percentage change in CEO remuneration

The table below shows the percentage change in the CEO's remuneration from the prior year compared to the average percentage change in remuneration for other employees. To provide a meaningful comparison, the analysis includes only salaried management employees and is based on a consistent set of employees.

	2017	2016		
	CEO	CEO	CEO	Other
	£000	£000	% change	employees
				% change
Salary	612	600	2.0%	2.1%
Taxable benefits	33	31	6.5%	-
Annual bonus	308	480	(35.8)%	(0.8)%

Relative importance of spend on pay

The table below shows the percentage change in total employee pay expenditure and shareholder distributions (i.e. dividends and share buybacks) from the financial year ended 2 April 2016 to the financial year ended 1 April 2017.

	2017	2016	
	£m	£m	% change
Distribution to shareholders	51.9	48.5	7.0%
Employee remuneration (gross)	272.2	225.6	20.7%
Employee remuneration (pro-rated)	272.2	232.3	17.2%

The Directors are proposing a final dividend for the year ended 1 April 2017 of 8.38p per share (2016: 7.83p).

Pro-rated employee remuneration represents a restatement of the prior year employee remuneration for the current year number of employees.

Pay-for-performance

The eight-year graph below shows the Company's TSR performance over the eight years to 1 April 2017 as compared to the FTSE 250 and the FTSE 350 Electronic & Electrical Equipment indices. Over the period indicated, the Company's TSR was 781% compared to 379% for the FTSE 250 and 692% for the FTSE 350 Electronic & Electrical Equipment Index.

The FTSE 250 has been selected as a broad market comparator, and the FTSE 350 Electronic & Electrical Equipment index has been selected because the Company believes that the constituent companies of this index are the most appropriate for this comparison as they are affected by similar commercial and economic factors to Halma. The table below the chart details the CEO's single figure remuneration and actual variable pay outcomes over the same period.

	2010	2011	2012	2013	2014	2015	2016	2017
CEO single figure remuneration (£000)	£1,472	£1,999	£1,715	£1,958	£1,543	£2,006	£2,423	£2,152
Annual bonus outcome (% of maximum)	19%	100%	40%	48%	37%	53%	53%	34%
PSP vesting outcome (% of maximum)	96%	100%	100%	98%	74%	78%	95%	92%

Directors' interests in Halma shares

The interests of the Directors in office at 1 April 2017 (and their connected family members) in the ordinary shares of the Company at the following dates were as follows:

	Shares 1 April 2017	Shares 2 April 2016
Paul Walker	30,000	30,000
Andrew Williams	561,969	551,626
Kevin Thompson	385,951	377,608
Adam Meyers	333,480	328,480
Jennifer Ward*	1,358	1,041
Daniela Barone Soares	2,473	1,319
Roy Twite	2,000	2,000
Tony Rice	7,665	7,665
Carole Cran	-	-
Jo Harlow	-	-

* Shares in the second column are as at appointment on 27 September 2016.

The executive Directors, excluding Jennifer Ward, each meet the new guideline from 2016 of holding Company shares to the value of at least two times salary (2015 and prior: one times salary). Jennifer Ward will progressively build up her shareholding through share vestings commencing in August 2017. Jo Harlow held no interest in the Company's shares upon her appointment. There are no other non-beneficial interests of Directors. There were no changes in Directors' interests from 1 April 2017 to 12 June 2017.

Details of Directors' interests in shares and options under Halma's long-term incentives are set out in the sections below.

Directors' interests in Halma share plans

Details of Directors' outstanding performance shares and deferred shares under the ESP and PSP and free shares under the SIP are outlined in the tables below.

		Date of grant	As at 2 April 2016	Granted/ (vested) in the year	Five-day average share price on grant (p)	As at 1 April 2017
Executive and Performance Share Plans						
Andrew Williams	PSP	6 Aug 13	114,646	(108,558)	557.60	-
	PSP	12 Aug 14	117,748		569.90	117,748
	PSP	31 July 15	160,547		745.20	160,547
	PSP	26 July 16		117,527	1,038.40	117,527
	DSA	26 July 16		15,422	1,038.40	15,422
Kevin Thompson	PSP	6 Aug 13	71,041	(67,268)	557.60	-
	PSP	12 Aug 14	77,829		569.90	77,829
	PSP	31 July 15	87,580		745.20	87,580
	PSP	26 July 16		64,200	1,038.40	64,200
	DSA	26 July 16		9,870	1,038.40	9,870
Adam Meyers	PSP	6 Aug 13	62,767	(59,434)	557.60	-
	PSP	12 Aug 14	62,821		569.90	62,821
	PSP	31 July 15	58,761		745.20	58,761
	PSP	26 July 16		45,918	1,038.40	45,918
	DSA	26 July 16		10,600	1,038.40	10,600
Jennifer Ward	PSP	12 Aug 14	25,337		569.90	25,337
	PSP	31 July 15	31,757		745.20	31,757
	PSP	26 July 16	25,665		1,038.40	25,665
	DSA	26 July 16		4,283	1,038.40	4,283
	PSP	23 Nov 16		18,097	994.60	18,097

The performance conditions attached to the 2013 and 2014 awards are outlined on page 101 and those attaching to the 2015 and 2016 awards are set out on page 103. As at year end, the vesting expectations for PSP grants made in 2014 is 91.35%; for grants made 2015, 90.0%, and for grants made in 2016, 88.75%.

The performance conditions of the Deferred Share Awards (DSA) are on page 102.

Annual Remuneration Report continued

	Date of grant	As at 2 April 2016	Granted/ (withdrawn) in the year	Share price on award (p)	As at 1 April 2017
Share Incentive Plan					
Andrew Williams	>3 years	3,001		387.81	3,001
	1 Oct 14	601		598.50	601
	1 Oct 15	496		724.50	496
	1 Oct 16		343	1049.00	343
Kevin Thompson	>3 years	3,054		386.59	3,054
	1 Oct 14	601		598.50	601
	1 Oct 15	496		724.50	496
	1 Oct 16		343	1049.00	343
Jennifer Ward	>3 years	–		–	–
	1 Oct 14	559		598.50	559
	1 Oct 15	482		724.50	482
	1 Oct 16		317	1049.00	317

The SIP shares are held in an external trust and become the employee's absolutely after three years. There are tax benefits for retaining the shares in the trust for at least five years. Adam Meyers does not participate in the SIP as he is not UK based.

There have been no variations to the terms and conditions or performance criteria for share options during the financial year.

Directors' pensions

As noted below, two UK executive Directors are deferred members of the Halma Group Pension Plan (Plan). Their benefit is a funded final salary occupational pension from a plan registered with HMRC providing a maximum pension of two thirds of final pensionable salary after 25 or more years' service at normal pension age (60). Up to 5 April 2006, final pensionable salary was the greatest salary of the last three complete tax years immediately before retirement or leaving service. From 6 April 2011, final pensionable salary was capped at £139,185 and is increased annually thereafter by CPI (£155,528 for 2016/17).

Bonuses and other fluctuating emoluments and benefits-in-kind are not pensionable nor subject to any pension supplement. The Plan also provides pensions in the event of early retirement through ill-health and dependants' pensions of one-half of the member's prospective pension. Where an executive has a form of pension protection, life cover is provided by a separate trust.

Early retirement pensions, currently possible from age 55 with the consent of the Company and the trustees of the Plan, are subject to actuarial reduction. Pensions in payment increase by 3% per annum for service up to 5 April 1997, by price inflation (subject to a maximum of 5%) through to 31 March 2007 and 3% thereafter.

Two UK executive Directors receive pension supplements to compensate them for the fact that their pension accrual entitlement under the Halma Group Pension Plan is limited by the pensionable salary cap introduced from 6 April 2006 or the Lifetime Allowance. The Company introduced a pensionable salary cap in order to address changes affecting the Plan made in the Pension Act 2006.

The Company closed the DB section to future accrual with effect from 1 December 2014. The Company obtains external advice regarding the changes to the Plan and executive pension arrangements and provides educational seminars on the impact of pension legislation changes (annual and lifetime allowances) on individuals. Otherwise, executive Directors are responsible for obtaining advice specific to their circumstances.

Prior to drawing his pension, to the extent that a DB executive's current salary exceeds the Plan salary cap, the Company compensates him at an annual rate of 26% of the excess. In April 2006, Kevin Thompson chose to cease future service accrual in the Plan in return for the pension supplement on his full salary. In April 2014, Andrew Williams chose to cease future service accrual in the Plan in return for the pension supplement on his full salary. This change is, broadly, cost neutral.

Two Directors accrued benefits under the Company's defined benefit pension plan during the year as follows.

Executive Director	Age at 1 April 2017	Years of pensionable service at 1 April 2017	Increase in accrued benefits £000	Increase in accrued benefits net of inflation £000	Accrued benefits at 1 April 2017 £000
Andrew Williams	49	20	1	–	62
Kevin Thompson	57	18	2	–	126

The accrued pension shown is that which would be paid annually on retirement at age 60 based on service to the end of the year.

Executive Director	Transfer value at 2 April 2016 £000	Transfer value at 1 April 2017 £000	Director contribution in the year £000	Transfer value increase/ (decrease) £000
Andrew Williams	1,250	1,520	–	270
Kevin Thompson	2,917	3,385	–	468

The transfer values disclosed above do not represent a sum paid or payable to the individual Director. Instead they represent a potential liability of the pension plan. The transfer values are Gilt-related and depend upon the relative standings of the Gilt market at the respective valuation dates. The increase in transfer values in recent years is predominantly due to the significant reduction in the yields available on UK Gilts. Other factors that have increased the transfer values are the impact of any additional service, revaluation in line with inflation and any real salary increases as well as the anticipated ageing of the member. These values have been calculated on the basis of actuarial advice in accordance with Actuarial Guidance Note GN11.

Adam Meyers is a member of the US 401k money purchase scheme. Company contributions paid in the year were US\$16,761 (£12,824) (2016: US\$18,156 (£12,024)).

Other Statutory Information

Activities

Halma plc is a holding company. A list of its subsidiary companies is set out on pages 187 to 193. Our businesses by sector and their activities are set out on pages 200 to 205.

Ordinary dividends

The Directors recommend a final dividend of 8.38p per share and, if approved, this dividend will be paid on 16 August 2017 to ordinary shareholders on the register at the close of business on 14 July 2017. Together with the interim dividend of 5.33p per share already paid, this will make a total of 13.71p (2016: 12.81p) per share for the financial year.

Share capital and capital structure

Details of the share capital, together with details of the movements in the share capital during the year, are shown in note 22 to the accounts. The Company has one class of ordinary shares which carry no right to fixed income. Each share carries the right to one vote at general meetings of the Company.

There are no other classes of share capital. There are no specific restrictions on the size of a holding nor on the transfer of shares, with both governed by the general provisions of the Articles of Association and prevailing legislation. No person has any special rights of control over the Company's share capital and all issued shares are fully paid.

Rights and obligations of ordinary shares

Holders of ordinary shares are entitled to attend and speak at general meetings of the Company and to appoint one or more proxies or, if the holder of shares is a corporation, one or more corporate representatives. On a show of hands, each holder of ordinary shares who (being an individual) is present in person or (being a corporation) is present by a duly appointed corporate representative, not themselves being a member, shall have one vote, as shall proxies (unless they are appointed by more than one holder, in which case they may vote both for and against the resolution in accordance with the holders' instructions). On a poll every holder of ordinary shares present in person or by proxy shall have one vote for every share of which they are the holder. Electronic and paper proxy appointments and voting instructions must be received not later than 48 hours before the meeting. A holder of ordinary shares can lose the entitlement to vote at general meetings where that holder has been served with a disclosure notice and has failed to provide the Company with information concerning interests held in those shares. Except as set out above and as permitted under applicable statutes, there are no limitations on voting rights of holders of a given percentage, number of votes or deadlines for exercising voting rights.

The Company has established an Employee Benefit Trust and the trustee has waived its right to all dividends.

Restrictions on transfer of shares

The Directors may refuse to register a transfer of a certificated share that is not fully paid, provided that the refusal does not prevent dealings in shares in the Company from taking place on an open and proper basis or where the Company has a lien over that share. The Directors may also refuse to register a transfer of a certificated share unless the instrument of transfer is: (i) lodged, duly stamped (if necessary), at the registered office of the Company or any other place as the Board may decide accompanied by the certificate for the share(s) to be transferred and/or such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer; (ii) in respect of only one class of shares; (iii) in favour of a person who is not a minor, infant, bankrupt or a person of unsound mind; or (iv) in favour of not more than four persons jointly.

Transfers of uncertificated shares must be carried out using CREST and the Directors can refuse to register a transfer of an uncertificated share in accordance with the regulations governing the operation of CREST.

There are no other restrictions on the transfer of ordinary shares in the Company except certain restrictions which may from time to time be imposed by laws and regulations (for example insider trading laws); or where a shareholder with at least a 0.25% interest in the Company's certificated shares has been served with a disclosure notice and has failed to provide the Company with information concerning interests in those shares. The Directors are not aware of any agreements between holders of the Company's shares that may result in restrictions on the transfer of securities or on voting rights.

Treasury shares

Shares held in treasury do not have voting rights and are not eligible for dividends.

Employee share plans

Details of employee share plans are set out in note 23 to the accounts.

The Company introduced a new Executive Share Plan, which was approved by shareholders at the 2015 AGM, and reflects current legislation, best practice and corporate governance requirements including recovery and withholding provisions. In addition, the new Plan includes flexibility to grant performance-related share awards, other share awards and deferred bonus awards.

The Plan will be used primarily to grant performance-related awards and deferred bonus awards to executive Directors and selected senior employees. The Remuneration Committee believes that the ability to continue to grant long term share-based incentives as part of a balanced remuneration package will create a strong alignment of long term interest between senior management and shareholders.

Initial performance awards were made to executive Directors and selected senior management in July 2015, following shareholder approval of the Plan. The first grants of the merit deferred bonus awards were made in July 2016, shortly after the payment of the cash element of the bonus.

Dilution limits

The Company operates three share plans: the 2005 Performance Share Plan, under which no further awards can be made; the 2015 Executive Share Plan, under which all new discretionary awards are made; and the Company's Share Incentive Plan (SIP), a tax approved share plan for UK employees.

Overall dilution through the issuance of new shares for employee share schemes (including treasury shares) may not exceed an amount equivalent to 10% of the Company's issued share capital over a 10-year period and for discretionary share awards to senior management, 5% over a 10-year period. Over the last 10 years, the Company has granted discretionary awards over 3.3% of the Company's issued share capital and a further 0.5% in respect of the SIP. All awards under these three plans have been settled by treasury shares or market-purchased shares held via a trust.

Appointment and replacement of directors

With regard to the appointment and replacement of Directors, the Company is governed by its Articles of Association, the UK Corporate Governance Code, the Companies Act and related legislation. Directors can be appointed by the Company by ordinary resolution at a general meeting or by the Board. If a Director is appointed by the Board, such Director will hold office until the next annual general meeting and shall then be eligible for election at that meeting. In accordance with the UK Corporate Governance Code each of the Directors, being eligible, will offer themselves for election or re-election at this year's Annual General Meeting. The Company can remove a Director from office, including by passing a special resolution or by notice being given by all the other Directors. The Articles themselves may be amended by special resolution of the shareholders.

Power of Directors

The powers of Directors are described in the Matters Reserved for the Board, copies of which are available on request from the Company Secretary, and are summarised in the Corporate Governance Report on page 76.

Essential contracts and change of control

There are a number of agreements that take effect, alter or terminate upon a change of control of the Company, principally bank loan agreements, private placement debt and employee share plans.

There are two significant agreements, in terms of the likely impact on the business of the Group as a whole, containing such provisions:

- the £550m syndicated revolving credit facility which, if within 10 days of a change of control notice to the Loan agent, can result in 30 days' notice being given to the Company by any Lender, for all amounts outstanding to that Lender, to be immediately due and payable, at which time the commitment of that Lender will be cancelled. If all of the Lenders give this notice the whole facility would be cancelled; and
- the US\$250m US Private Placement Note Purchase Agreement under which, in the event of a change of control, the Company is required to make an offer to the holders of the US Private Placement notes to prepay the principal amount of the notes together with interest accrued.

The Group has contractual arrangements with a wide range of suppliers. The Group is not unduly dependent upon contractual arrangements with any particular customer. Whilst the loss or disruption to certain of these arrangements could temporarily affect the Group's business, none is considered to be essential.

The Company's share plans contain provisions as a result of which options and awards may vest and become exercisable on a change of control of the Company in accordance with the rules of the plans.

The Directors are not aware of any agreements between the Company and its Directors or employees that provide for compensation for loss of office or employment that occurs because of a takeover bid.

Other Statutory Information continued

Allotment authority

Under the Companies Act 2006 the Directors may only allot shares if authorised by shareholders to do so. At the Annual General Meeting an ordinary resolution will be proposed which, if passed, will authorise the Directors to allot and issue new shares up to an aggregate nominal value of £12,500,000 (up to 125,000,000 new ordinary shares of 10p each), being just less than one third of the issued share capital of the Company (excluding treasury shares) as at 12 June 2017 (the latest practicable date prior to the publication of the Notice of Meeting).

In accordance with the Directors' stated intention to seek annual renewal, the authority will expire at the conclusion of the annual general meeting of the Company in 2018. Passing this resolution will give the Directors flexibility to act in the best interests of shareholders, when opportunities arise, by issuing new shares.

As at 12 June 2017 (the latest practicable date prior to the publication of the Notice of Meeting), the Company had 379,645,332 ordinary shares of 10p each in issue of which 462,188 were held as treasury shares, which is equal to approximately 0.12% of the issued share capital of the Company (excluding treasury shares) as at that date.

The Companies Act 2006 also requires that, if the Company issues new shares for cash or sells any treasury shares, it must first offer them to existing shareholders in proportion to their current holdings. At the Annual General Meeting a special resolution will be proposed which, if passed, will authorise the Directors to issue a limited number of shares for cash and/or sell treasury shares without offering them to shareholders first. The authority is for an aggregate nominal amount of up to 10% of the aggregate nominal value of the issued share capital of the Company as at 12 June 2017 (the latest practicable date prior to the publication of the Notice of Meeting) of £3,780,000. The resolution will also modify statutory pre-emption rights to deal with legal, regulatory or practical problems that may arise on a rights issue or other pre-emptive offer or issue. The authority will expire at the same time as the resolution conferring authority on the Directors to allot shares. The Directors consider this authority necessary in order to give them flexibility to deal with opportunities as they arise, subject to the restrictions contained in the resolution. There are no present plans to issue shares, other than the release of treasury shares under share plans previously approved in general meeting.

Purchase of the Company's own shares

The Company was authorised at the 2016 annual general meeting to purchase up to 37,800,000 of its own 10p ordinary shares in the market. This authority expires at the end of the 2017 Annual General Meeting. In accordance with the Directors' stated intention to seek annual renewal, a special resolution will be proposed at the Annual General Meeting to renew this authority until the end of next year's annual general meeting, in respect of up to 37,900,000 ordinary shares, which is approximately 10% of the Company's issued share capital (excluding treasury shares) as at 12 June 2017 (the latest practicable date prior to the publication of the Notice of Meeting).

The Directors consider it desirable that the possibility of making such purchases, under appropriate circumstances, is available. The authority, if granted, will only be exercised if market conditions make it advantageous to do so. The Directors will only make purchases under the authority where they believe that to do so would result in an increase in earnings per share for the remaining shareholders, or where the purchased shares are used to satisfy awards made under employee share plans, and such purchases are considered to be in the best interests of shareholders generally.

Their present intention is that the shares purchased under the authority will be held in treasury for future cancellation, sale for cash or transfer for the purposes of, or pursuant to, an employee share plan, although in the light of circumstances at the time it may be decided to cancel them immediately on repurchase. The effect of any cancellation would be to reduce the number of shares in issue. For most purposes, while held in treasury, shares are treated as if they have been cancelled (for example, they carry no voting rights and do not rank for dividends).

Following approval of the Performance Share Plan (PSP) at the 2005 annual general meeting, the Directors made routine purchases of Halma shares in the market for holding in treasury until required for vesting under the PSP. In the year to 1 April 2017, no shares were purchased in the market for treasury. Under the Executive Share Plan approved at the 2015 annual general meeting, shares vesting may be satisfied with market purchased shares held in trust or in treasury or with new issue shares. Otherwise, the Directors have no present intention of using this authority.

In reaching a decision to purchase shares, the Directors will take into account the Company's cash resources, capital requirements and the effect of any purchase on the Company's earnings per share. It is anticipated that renewal of the authority will be requested at subsequent annual general meetings.

Annual General Meeting

The Company's Annual General Meeting will be held on 20 July 2017. The Notice of Meeting, together with an explanation of the proposed resolutions, is enclosed with this Annual Report and Accounts and is also available on the Company's website at www.halma.com.

Substantial shareholdings

As at 12 June 2017, the Company had been notified, in accordance with chapter 5 of the Disclosure and Transparency Rules, of the following voting rights as a shareholder of the Company.

	1 April 2017		12 June 2017		
	No. of ordinary shares	Percentage of voting rights and issued share capital	No. of ordinary shares	Percentage of voting rights and issued share capital	Nature of holdings
Massachusetts Financial Services Company	37,848,103	9.98	37,848,103	9.98	Indirect
Capital Group	22,865,085	6.04	22,865,085	6.04	Indirect
Mawer Investment Management	18,943,311	5.00	18,943,311	5.00	Direct
Sprucegrove Investment Management Ltd	18,776,510	4.96	18,776,510	4.96	Indirect
BlackRock Inc	14,646,007	3.87	14,646,007	3.87	Indirect

Special Business

The Board will propose four special resolutions under Special Business at the Annual General Meeting. One of these is to permit the Company to retain the ability to call general meetings (other than annual general meetings) at 14 days' notice rather than 21 days' notice, in accordance with Section 307A of the Companies Act 2006 (as amended).

Auditor

Each of the persons who is a Director at the date of approval of this Annual Report and Accounts confirms that:

- so far as the Director is aware, there is no relevant audit information of which the Company's Auditor is unaware; and
- the Director has taken all the steps that he/she ought to have taken as a director in order to make himself/herself aware of any relevant audit information and to establish that the Company's Auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of Section 418 of the Companies Act 2006.

Following an audit tender process, the Board is recommending to shareholders the appointment of PricewaterhouseCoopers LLP as Auditor and a resolution to appoint PricewaterhouseCoopers will be proposed at the forthcoming Annual General Meeting.

Other Statutory Information continued

Scope of the reporting in this Annual Report and Accounts

The Directors present their annual report on the affairs of the Group, together with the financial statements and Auditor's Report, for the year ended 1 April 2017. The Corporate Governance Report set out on page 68, which includes details of the Directors who served during the year, forms part of this report.

There have been no significant events since the balance sheet date. An indication of the likely future developments in the business of the Company and details of research and development activities are included in the Strategic Review on pages 1 to 67. Details related to employee matters are in the Our people section on page 52. Environmental matters, including greenhouse gas emissions reporting, are included within the Sustainability report on pages 56.

Information about the use of financial instruments by the Company and its subsidiaries is given in note 26 to the financial statements.

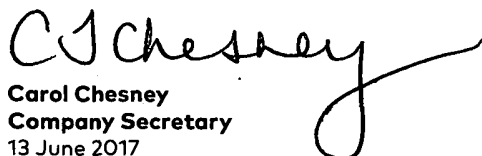
For the purposes of compliance with DTR 4.1.5 R(2) and DTR 4.1.8 R, the required content of the management report can be found in the Strategic Report and these Regulatory disclosures, including the sections of the Annual Report and Accounts incorporated by reference.

For the purposes of LR 9.8.4C R, the following items are not applicable:

- (1) interest capitalised;
- (2) publication of unaudited financial information;
- (5) waiver of emoluments by a Director;
- (6) waiver of future emoluments by a Director;
- (7) non-preemptive issues of equity for cash;
- (8) non-preemptive issues of equity for cash in relation to major subsidiary undertakings;
- (9) parent participation in a placing by a listed subsidiary;
- (11) provisions of services by a controlling shareholder; and
- (14) agreements with controlling shareholders.

Applicable items can be located as follows: (4) details of long-term incentive schemes – note 23 to the financial statements; (10) contracts of significance; (12) shareholder waiver of dividends; and (13) shareholder waivers of future dividends – Other Statutory Information, pages 108 to 112.

By order of the Board



Carol Chesney
Company Secretary
13 June 2017

Directors' Responsibilities

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors are required to prepare the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and Article 4 of the IAS Regulation and have chosen to prepare the parent company financial statements in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework. 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 Company and of the profit or loss of the Company for that period.

In preparing the parent company financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether Financial Reporting Standard 101 Reduced Disclosure Framework has been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

In preparing the Group financial statements, International Accounting Standard 1 requires that Directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the Company's ability to continue as a going concern.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

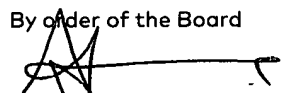
The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

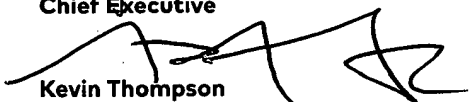
Directors' responsibility statement

We confirm that to the best of our knowledge:

- the financial statements, prepared in accordance with International Financial Reporting Standards as adopted by the EU, 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;
- the Strategic 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; and
- the Annual Report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the Company's position, performance, business model and strategy.

By order of the Board


Andrew Williams
Chief Executive


Kevin Thompson
Finance Director
13 June 2017

Independent Auditor's Report

Opinion on financial statements of Halma plc

In our opinion:

- the financial statements give a true and fair view of the state of the group's and of the parent company's affairs as at 1 April 2017 and of the group's profit for the 52 week period then ended;
- the group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including FRS 101 "Reduced Disclosure Framework"; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

The financial statements that we have audited comprise:

- the Consolidated Income Statement;
- the Consolidated Statement of Comprehensive Income and Expenditure;
- the Consolidated and Parent Company Balance Sheets;
- the Consolidated Cash Flow Statement;
- the Consolidated and Parent Company Statements of Changes in Equity; and
- the related notes 1 to 31 and C1 to C13.

The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law and IFRSs as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice), including FRS 101 "Reduced Disclosure Framework".

Summary of our audit approach

Key risks

The key risks that we identified in the current year were:

- Impairment of goodwill and acquired intangibles with a focus on discount factors and growth rates utilised in management's assessment of impairment of goodwill, specifically in relation to the Sensor Technologies cash generating unit (CGU) and significant acquired intangibles with a potential impairment trigger;
- Acquisition accounting for material acquisitions (in the current year this is focused on the provision for deferred contingent consideration on the FluxData acquisition); and
- Discount and inflation rate assumptions applied in determining the defined benefit pension scheme liabilities.

No new key risk areas have been identified in the current year.

Materiality

The materiality that we used in the current year was £7.5 million which was determined on the basis of 5% of statutory profit before taxation.

Scoping

We focused our Group audit primarily on the full scope and specified procedures audits at 60 locations. These locations accounted for 68% of the Group's revenue and 76% of the Group's profit before taxation.

Significant changes in our approach

There have been no significant changes in our approach.

Going concern and the directors' assessment of the principal risks that would threaten the solvency or liquidity of the group

As required by the Listing Rules we have reviewed the directors' statement regarding the appropriateness of the going concern basis of accounting contained within the Accounting Policies note to the financial statements and the directors' statement on the longer-term viability of the group contained within the governance section on page 82.

We are required to state whether we have anything material to add or draw attention to in relation to:

- the directors' confirmation on page 82 that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity;
- the disclosures on pages 21-27 that describe those risks and explain how they are being managed or mitigated;
- the directors' statement in the Accounting Policies note to the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them and their identification of any material uncertainties to the group's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements; and

- the directors' explanation on page 82 as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We confirm that we have nothing material to add or draw attention to in respect of these matters.

We agreed with the directors' adoption of the going concern basis of accounting and we did not identify any such material uncertainties. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's ability to continue as a going concern.

Independence

We are required to comply with the Financial Reporting Council's Ethical Standards for Auditors and confirm that we are independent of the group and we have fulfilled our other ethical responsibilities in accordance with those standards.

We confirm that we are independent of the group and we have fulfilled our other ethical responsibilities in accordance with those standards. We also confirm we have not provided any of the prohibited non-audit services referred to in those standards.

Our assessment of risks of material misstatement

The assessed risks of material misstatement described below are those that had the greatest effect on our audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team.

Risk description	How the scope of our audit responded to the risk	Key observations
Impairment of the carrying value of goodwill and acquired intangible assets		
At 1 April 2017, the net book value of goodwill was £604m (2016: £542m) and net book value of acquired intangible assets was £200m (2016: £208m).	We challenged the reasonableness of the short term forecast growth rates with reference to the budgets approved by the Board, evidence of secured contracts, historical performance and post period trading data.	From our work performed, we are satisfied with the carrying value of the goodwill attributable to the Sensor Technologies CGU, and the acquired intangible assets associated with CenTrak, Firetrace and Visiometrics.
On an annual basis, management are required to perform an impairment assessment for goodwill, and to assess for indicators of impairment in respect of other intangible assets.	We assessed the long term growth rates by reference to market specific GDP growth rates based on third party sources.	We are also satisfied with the related disclosures in the financial statements.
Assessment of the carrying value of goodwill and acquired intangible assets is a key risk due to the quantum of the balance and the judgements involved in setting the key assumptions and assertions used by management to support their assessment of the carrying value. In testing the carrying value for impairment, management has made a number of key assumptions including short-term and long-term growth rates and discount rates.	We performed a specific review and challenge, involving Deloitte's valuation specialists, of the discount rates applied to the forecast cash flows. We assessed the Group's weighted average cost of capital and specific risk premiums using external input data and benchmarking the discount rates against published peer group rates.	
Our risk in the current period has been focused specifically on the goodwill associated with the Sensor Technologies cash generating unit and the acquired intangible assets arising in CenTrak, Firetrace and Visiometrics due to there being slower than expected growth in these businesses.	We recalculated management's sensitivity analysis on key assumptions and replaced key assumptions with alternative scenarios, for example applying further changes to discount rates and forecast growth rates.	
	We reviewed the disclosures made in the financial statements and assessed compliance with IAS 36.	
<i>The associated disclosure is included in note 11. The Audit Committee has included their assessment of this risk on page 86 and it is included in the key accounting estimates and judgements on page 130.</i>		

Independent Auditor's Report continued

Risk description	How the scope of our audit responded to the risk	Key observations
Acquisition accounting There was one acquisition completed during the period. FluxData Incorporated ("FluxData") was acquired in January 2017 for an initial consideration of £10.0m. There is a risk that acquisitions are not accounted for correctly in line with IFRS 3 'Business combinations' where material judgements exist. We focused this risk to the judgement associated with the estimate of deferred contingent consideration, which pays up to a maximum of \$15.5m (£12.8m). This is dependent on management's estimate of the performance of FluxData through the earn-out period which runs to 30 March 2019, and management has recorded a provision of £9.4m on acquisition in respect of this. <i>Details of the acquisitions are disclosed in note 24 to the accounts. The Audit Committee has included their assessment of this risk on page 86 and it is included in the key accounting estimates and judgements on page 130.</i>	We challenged management's judgement over the fair value of the deferred contingent consideration by obtaining management's calculation, understanding the forecast growth drivers, and assessing the assumptions made including sales to date for key customers, performance post acquisition, and evidence of future sales. We further challenged management's judgement through sensitivity over the key growth assumptions to determine alternative scenarios, and therefore a range of possible outcomes.	From our work performed, we deem management's estimate of deferred contingent consideration to be at the optimistic end of a range of possible outcomes, and therefore the provision of £9.4m recorded on the balance sheet could be considered prudent but is not materially misstated.
Defined benefit pension scheme assumptions At 1 April 2017 the net retirement benefit liability recognised in the Consolidated Balance Sheet related to the Group's defined benefit pension schemes was £75m (2016: £52m). There is a risk relating to the application by management of the key assumptions that impact the valuation of the defined benefit pension scheme liability, specifically the discount rate and inflation rate assumptions. These variables can have a material impact on calculating the quantum of the retirement benefit liability. Management utilise the services of third party actuarial advisers to determine their key assumptions. <i>Details of the defined benefit pension scheme are disclosed in note 28 to the accounts. The Audit Committee has included their assessment of this risk on page 86 and it is included in the key accounting estimates and judgements on page 130.</i>	We used our internal actuarial experts to assess the assumptions applied in accounting for the defined benefit pension liability and determined whether the key assumptions are reasonable. This included reviewing available yield curves and inflation data to recalculate a reasonable range for the key assumptions. We challenged management to understand the sensitivity of changes in assumptions and quantify a range of reasonable rates that could be used in their calculation. We discussed the output of sensitivity analysis with management and their third party actuarial advisers. Additionally we benchmarked key assumptions against other listed companies to check for any outliers in the data used. We also considered the adequacy of the Group's disclosures in respect of the sensitivity of the deficit to changes in these key assumptions.	From the work performed, we are satisfied that the significant assumptions applied in respect of the valuation of the scheme liabilities are appropriate and lie in the middle of the range of reasonable assumptions. We are also satisfied with the related disclosures in the financial statements.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

Group materiality
£7.5m (2016: £7.3m)

Basis for determining materiality
5% (2016: 5%) of statutory profit before taxation.

Rationale for the benchmark applied

Consistent with the prior period, profit before taxation was used as the benchmark for materiality, as we consider it to be one of the main measures used by management to monitor the performance of the business.

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £375,000 (2016: £365,000), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

An overview of the scope of our audit

Our Group audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group level. Based on that assessment, we focused our Group audit scope primarily on the audit work at 60 out of 100 trading entities (2016: 53 out of 98). The increase in the total trading entities in the period was a result of the FluxData acquisition and the internal reorganisation at Avire. 58 (2016: 51) of these were subject to a full audit, whilst the remaining 2 (2016: 2) were subject to specified audit procedures where the extent of our testing was based on our assessment of the risks of material misstatement and of the materiality of the Group's operations at those locations. The full scope and specified audit procedures entities represent the principal business units and account for 68% (2016: 68%) of the Group's revenue and 76% (2016: 77%) of the Group's profit before tax. They were also selected to provide an appropriate basis for undertaking audit work to address the risks of material misstatement identified above. Our audit work on the 58 entities was executed at levels of materiality applicable to each individual entity which were lower than Group materiality and ranged from £17,000 to £1,760,000 (2016: £15,000 to £1,972,000).

The Group audit team have established a programme of planned component visits based on their risk assessment. As a minimum, each year a senior member of the Group audit team will visit the significant components (defined as contributing greater than 10% of Group profit or revenue, of which only Apollo UK met these criteria in the period), in addition to visiting the US component auditor and selected US components. Furthermore all 28 UK components are directly overseen by the Group engagement partner or Group director. In years when we do not visit a component that is in scope, we will include the component audit team in our team briefing, discuss their risk assessment, and review documentation of the findings from their work.

At the parent entity level we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specified account balances. These procedures also included, at a minimum, obtaining the bank reconciliations and statements for all entities above a £375,000 threshold. For a selection of relevant entities, based on a risk threshold criteria, we also performed revenue cut off, subsequent cash receipt and inventory provision tests necessary to conclude on these balances.

Independent Auditor's Report continued

Opinion on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006;
- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- 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 financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of directors' remuneration have not been made or the part of the Directors' Remuneration Report to be audited is not in agreement with the accounting records and returns.

We have nothing to report arising from these matters.

Corporate Governance Statement

Under the Listing Rules we are also required to review part of the Corporate Governance Statement relating to the company's compliance with certain provisions of the UK Corporate Governance Code.

We have nothing to report arising from our review.

Our duty to read other information in the Annual Report

Under International Standards on Auditing (UK and Ireland), we are required to report to you if, in our opinion, information in the annual report is:

- materially inconsistent with the information in the audited financial statements; or
- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the group acquired in the course of performing our audit; or
- otherwise misleading.

In particular, we are required to consider whether we have identified any inconsistencies between our knowledge acquired during the audit and the directors' statement that they consider the annual report is fair, balanced and understandable and whether the annual report appropriately discloses those matters that we communicated to the audit committee which we consider should have been disclosed.

We confirm that we have not identified any such inconsistencies or misleading statements.

Respective responsibilities of directors and auditor

As explained more fully in the Directors' Responsibilities Statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). We also comply with International Standard on Quality Control 1 (UK and Ireland). Our audit methodology and tools aim to ensure that our quality control procedures are effective, understood and applied. Our quality controls and systems include our dedicated professional standards review team and independent partner reviews.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the group's and the parent company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the annual report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

Nigel Thomas

Nigel Thomas
Senior statutory auditor
for and on behalf of Deloitte LLP
 Statutory Auditor
 London, UK
 13 June 2017

Consolidated Income Statement

		52 weeks to 1 April 2017			53 weeks to 2 April 2016		
		Before adjustments*	Adjustments* (note 1)	Total	Before adjustments*	Adjustments* (note 1)	Total
	Notes	£000	£000	£000	£000	£000	£000
Continuing operations							
Revenue	1	961,662	–	961,662	807,805	–	807,805
Operating profit		203,371	(36,301)	167,070	173,225	(30,282)	142,943
Share of results of associate	14	(81)	–	(81)	(159)	–	(159)
Profit on disposal of operations	29	–	–	–	–	556	556
Finance income	4	494	–	494	217	–	217
Finance expense	5	(9,780)	–	(9,780)	(7,269)	–	(7,269)
Profit before taxation	6	194,004	(36,301)	157,703	166,014	(29,726)	136,288
Taxation	9	(41,734)	13,720	(28,014)	(36,373)	8,926	(27,447)
Profit for the year attributable to equity shareholders	1	152,270	(22,581)	129,689	129,641	(20,800)	108,841
Earnings per share	2						
From continuing operations							
Basic and diluted		40.21p		34.25p	34.26p		28.76p
Dividends in respect of the year	10						
Paid and proposed (£000)				51,916			48,449
Paid and proposed per share				13.71p			12.81p

* Adjustments include the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; profit or loss on disposal of operations; and the associated taxation thereon.

Consolidated Statement of Comprehensive Income and Expenditure

Strategic Report

Governance

Financial Statements

	Notes	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Profit for the year		129,689	108,841
Items that will not be reclassified subsequently to the Consolidated Income Statement:			
Actuarial (losses)/gains on defined benefit pension plans	28	(31,059)	8,841
Tax relating to components of other comprehensive income that will not be reclassified	9	6,082	(2,304)
Items that may be reclassified subsequently to the Consolidated Income Statement:			
Effective portion of changes in fair value of cash flow hedges	26	1,197	(990)
Exchange gains on translation of foreign operations and net investment hedge		74,810	30,036
Exchange losses transferred to Income Statement on disposal of operation		-	22
Tax relating to components of other comprehensive income that may be reclassified	9	(233)	209
Other comprehensive income for the year		50,797	35,814
Total comprehensive income for the year attributable to equity shareholders		180,486	144,655

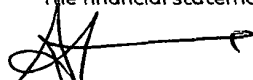
The exchange gain of £74,810,000 (2016: gain of £30,036,000) includes gains of £21,305,000 (2016: gains of £9,336,000) which relate to net investment hedges as described on page 134.

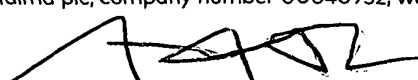
Consolidated Balance Sheet

	Notes	1 April 2017 £000	(Restated)* 2 April 2016 £000
Non-current assets			
Goodwill	11	603,553	542,097
Other intangible assets	12	234,430	235,654
Property, plant and equipment	13	106,016	96,562
Interest in associate	14	3,553	3,722
Deferred tax asset	21	56,866	44,424
		1,004,418	922,459
Current assets			
Inventories	15	118,780	105,283
Trade and other receivables	16	212,236	184,126
Tax receivable		124	190
Cash and bank balances		66,827	53,938
Derivative financial instruments	26	598	1,131
		398,565	344,668
Total assets		1,402,983	1,267,127
Current liabilities			
Trade and other payables	17	134,816	122,791
Borrowings	18	1,351	4,748
Provisions	19	6,776	4,789
Tax liabilities		16,055	15,158
Derivative financial instruments	26	315	2,196
		159,313	149,682
Net current assets		239,252	194,986
Non-current liabilities			
Borrowings	18	261,918	295,908
Retirement benefit obligations	28	74,856	52,323
Trade and other payables	20	11,221	10,153
Provisions	19	16,917	19,355
Deferred tax liabilities	21	100,121	93,366
		465,033	471,105
Total liabilities		624,346	620,787
Net assets		778,637	646,340
Equity			
Share capital	22	37,965	37,965
Share premium account		23,608	23,608
Own shares		(7,263)	(8,219)
Capital redemption reserve		185	185
Hedging reserve		354	(610)
Translation reserve		150,197	75,387
Other reserves		(6,323)	(5,831)
Retained earnings		579,914	523,855
Shareholders' funds		778,637	646,340

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

The financial statements of Halma plc, company number 00040932, were approved by the Board of Directors on 13 June 2017.


A. Williams
Director


K J Thompson
Director

Consolidated Statement of Changes in Equity

	Share capital £000	Share premium account £000	Own shares £000	Capital redemption reserve £000	Hedging reserve £000	Translation reserve £000	Other reserves £000	Retained earnings £000	Total £000
At 2 April 2016	37,965	23,608	(8,219)	185	(610)	75,387	(5,831)	523,855	646,340
Profit for the year	-	-	-	-	-	-	-	129,689	129,689
Other comprehensive income and expense:									
Exchange differences on translation of foreign operations	-	-	-	-	-	74,810	-	-	74,810
Actuarial losses on defined benefit pension plans	-	-	-	-	-	-	-	(31,059)	(31,059)
Effective portion of changes in fair value of cash flow hedges	-	-	-	-	1,197	-	-	-	1,197
Tax relating to components of other comprehensive income	-	-	-	-	(233)	-	-	6,082	5,849
Total other comprehensive income and expense	-	-	-	-	964	74,810	-	(24,977)	50,797
Dividends paid	-	-	-	-	-	-	-	(49,788)	(49,788)
Share-based payment charge	-	-	-	-	-	-	6,076	-	6,076
Deferred tax on share-based payment transactions	-	-	-	-	-	-	65	-	65
Excess tax deductions related to share-based payments on exercised awards	-	-	-	-	-	-	-	1,135	1,135
Purchase of Own shares	-	-	(2,368)	-	-	-	-	-	(2,368)
Performance share plan awards vested	-	-	3,324	-	-	-	(6,633)	-	(3,309)
At 1 April 2017	37,965	23,608	(7,263)	185	354	150,197	(6,323)	579,914	778,637

Own shares are ordinary shares in Halma plc purchased by the Company and held to fulfil the Company's obligations under the Group's share plans. At 1 April 2017 the number of treasury shares held was 462,188 (2016: 940,421) and the number of shares held by the Employee Benefit Trust was 512,417 (2016: 311,444). The market value of Own shares was £9,980,000 (2016: £11,417,000).

The Translation reserve is used to record the difference arising from the retranslation of the financial statements of foreign operations. The Hedging reserve is used to record the portion of the cumulative net change in fair value of cash flow hedging instruments that are deemed to be an effective hedge.

The Capital redemption reserve was created on repurchase and cancellation of the Company's own shares. The Other reserves represent the provision for the value of the Group's equity-settled share plans.

Consolidated Statement of Changes in Equity continued

	Share capital £000	Share premium account £000	Own shares £000	Capital redemption reserve £000	Hedging reserve £000	Translation reserve £000	Other reserves £000	Retained earnings £000	Total £000
At 28 March 2015	37,965	23,608	(8,450)	185	171	45,329	(4,073)	454,213	548,948
Profit for the year	-	-	-	-	-	-	-	108,841	108,841
Other comprehensive income and expense:									
Exchange differences on translation of foreign operations	-	-	-	-	-	30,036	-	-	30,036
Exchange losses transferred to Income Statement on disposal of operations	-	-	-	-	-	22	-	-	22
Actuarial gains on defined benefit pension plans	-	-	-	-	-	-	-	8,841	8,841
Effective portion of changes in fair value of cash flow hedges	-	-	-	-	(990)	-	-	-	(990)
Tax relating to components of other comprehensive income	-	-	-	-	209	-	-	(2,304)	(2,095)
Total other comprehensive income and expense	-	-	-	-	(781)	30,058	-	6,537	35,814
Dividends paid	-	-	-	-	-	-	-	(46,473)	(46,473)
Share-based payment charge	-	-	-	-	-	-	3,845	-	3,845
Deferred tax on share-based payment transactions	-	-	-	-	-	-	109	-	109
Excess tax deductions related to share- based payments on exercised awards	-	-	-	-	-	-	-	737	737
Purchase of Own shares	-	-	(3,003)	-	-	-	-	-	(3,003)
Performance share plan awards vested	-	-	3,234	-	-	-	(5,712)	-	(2,478)
At 2 April 2016	37,965	23,608	(8,219)	185	(610)	75,387	(5,831)	523,855	646,340

Consolidated Cash Flow Statement

	Notes	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Net cash inflow from operating activities	25	172,493	149,273
Cash flows from investing activities			
Purchase of property, plant and equipment	13	(21,875)	(22,418)
Purchase of computer software	12	(2,479)	(1,669)
Purchase of other intangibles	12	(281)	(535)
Proceeds from sale of property, plant and equipment		1,495	2,364
Proceeds from sale of capitalised development costs		–	166
Development costs capitalised	12	(10,731)	(8,579)
Interest received		211	217
Acquisition of businesses, net of cash acquired	24	(9,972)	(202,575)
Disposal of operations, net of cash disposed	29	–	907
Net cash used in investing activities		(43,632)	(232,122)
Financing activities			
Dividends paid		(49,788)	(46,473)
Purchase of Own shares		(2,368)	(3,003)
Interest paid		(7,023)	(4,149)
Loan arrangement fee paid		(2,656)	(770)
Proceeds from bank borrowings		–	74,788
Repayment of bank borrowings	25	(54,761)	(97,000)
Proceeds on issue of loan notes	26	–	167,473
Net cash (used in)/generated from financing activities		(116,596)	90,866
Increase in cash and cash equivalents	25	12,265	8,017
Cash and cash equivalents brought forward		49,526	39,525
Exchange adjustments		3,846	1,984
Cash and cash equivalents carried forward		65,637	49,526
	Notes	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Reconciliation of net cash flow to movement in net debt			
Increase in cash and cash equivalents		12,265	8,017
Net cash outflow from repayment of bank borrowings	25	54,761	22,212
Proceeds from issue of loan notes		–	(167,473)
Loan notes issued in respect of acquisitions		–	(288)
Loan notes repaid in respect of acquisitions	25	241	367
Exchange adjustments		(16,991)	(8,659)
		50,276	(145,824)
Net debt brought forward		(246,718)	(100,894)
Net debt carried forward		(196,442)	(246,718)

Accounting Policies

Basis of accounting

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted for use in the European Union (EU) and therefore comply with Article 4 of the EU IAS legislation and with those parts of the Companies Act 2006 that are applicable to companies reporting under IFRS. The financial statements have also been prepared in accordance with IFRS and International Financial Reporting Interpretations Committee (IFRIC) interpretations issued and effective at the time of preparing these accounts.

The principal Group accounting policies are explained below and have been applied consistently throughout the years ended 1 April 2017 and 2 April 2016 other than those noted below.

The Group accounts have been prepared under the historical cost convention, except as described below under the heading 'Derivative financial instruments and hedge accounting'.

New Standards and Interpretations not yet applied

At the date of authorisation of these financial statements, the following Standards and Interpretations that are potentially relevant to the Group, and which have not been applied in these financial statements, were in issue but not yet effective (and in some cases had not yet been adopted by the EU):

- IFRS 9 'Financial Instruments: Classification and measurement' – effective for accounting periods beginning on or after 1 January 2018.
- IFRS 15 'Revenue from Contracts with Customers' – effective for accounting periods beginning on or after 1 January 2018.
- IFRS 16 'Leases' – effective for accounting periods beginning on or after 1 January 2019.
- Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses – effective for accounting periods beginning on or after 1 January 2017.
- Amendments to IAS 7: Disclosure Initiative – effective for accounting periods beginning on or after 1 January 2017.
- Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions – effective for accounting periods beginning on or after 1 January 2018.
- Annual Improvements 2014-2016 Cycle – effective for accounting periods beginning on or after 1 January 2018.
- IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration – effective for accounting periods beginning on or after 1 January 2018.

The Directors anticipate that the adoption of these Standards and Interpretations in future periods will have no material impact on the financial statements of the Group except for IFRS 9 'Financial Instruments', IFRS 15 'Revenue from Contracts with Customers', and IFRS 16 'Leases'.

IFRS 9 'Financial Instruments'

For the Group, transition to IFRS 9 will take effect from 1 April 2018. The half year results for FY18/19 will be IFRS 9 compliant with the first Annual Report published in accordance with IFRS 9 being the 31 March 2019 report.

IFRS 9 provides a new model expected losses impairment model and includes amendments to classification and measurement of financial instruments.

The Group does not expect that the adoption of IFRS 9 will have a material impact on the financial statements but it will impact both the measurement and disclosure of financial instruments.

IFRS 15 'Revenue from Contracts with Customers'

For the Group, transition to IFRS 15 will take effect from 1 April 2018. The half year results for FY18/19 will be IFRS 15 compliant with the first Annual Report published in accordance with IFRS 15 being the 31 March 2019 report. The Group plans to adopt a fully retrospective transition approach and so comparatives for the year ended 31 March 2018 will be restated.

IFRS 15 sets out the requirements for recognising revenue from contracts with customers. The standard requires entities to apportion revenue earned from contracts to individual promises, or performance obligations, on a stand-alone selling price basis, based on a five-step model.

The Group is still in the process of quantifying the full impact of this standard; however, having carried out an impact assessment, we expect the following parts of the standard could result in changes to the timing or quantum of revenue recognition.

- Certain companies across the Group provide a product which involves an element of customisation and for which they have an enforceable right to payment for work performed to date. Currently under IAS 18 the revenue recognition for such product is at a point in time on transfer of the risk and reward of the transaction to the customer. IFRS 15 requires that for such transactions revenue is recognised over time and as such the adoption of IFRS 15 may result in the revenue for the contracts being brought forward to the extent that control has passed to the customer at the balance sheet date.
- The contract duration across the Group varies between companies and the extent to which the pattern of revenue recognition is changed will increase with the length of the contract. The quantum of any such change will depend on the number of open contracts and the stage of completion at any one balance sheet date.
- A number of companies offer extended warranties that offer service type assurance. Under IFRS 15 revenue is apportioned to the provision of the warranty and recognised over the period of the warranty resulting in what is known as a contract liability.
- There are examples across the Group of variable contract consideration including sales returns, rebates, discounts and other types where the accounting treatment may differ from that under the current standard.
- Sales commissions and other third party sales acquisition costs resulting directly from securing contracts with customers are currently expensed when incurred. IFRS 15 will require these costs of acquiring contracts to be recognised as an asset when incurred to be recognised over the associated contract period.

IFRS 16 'Leases'

For the Group, transition to IFRS 16 will take effect from 1 April 2019. The half year results for FY19/20 will be IFRS 16 compliant with the first Annual Report published in accordance with IFRS 16 being for the year ending 31 March 2020.

IFRS 16 provides a single model for lessees which recognises a right of use asset and lease liability for all leases which are longer than one year or which are not classified as low value. The distinction between finance and operating leases for lessees is removed.

The Group is currently assessing the impact of the new standard. The most significant impact currently identified will be that the Group's land and buildings leases will be brought on to the balance sheet. Further assessment of other leases is currently ongoing. The Group's future lease commitments for land and buildings at the balance sheet date, which provides an indicator of the value to be brought on to the balance sheet, is £45m.

New Standards and Interpretations applied for the first time

The following Standards with an effective date of 1 January 2016 have been adopted without any significant impact on the amounts reported in these financial statements:

- IAS 16 and IAS 38 (amended) 'Clarification of Acceptable Methods of Depreciation and Amortisation'.
- Annual Improvements 2012-2014 Cycle, specifically amendments to IAS 34 'Interim Financial Reporting'.
- Amendments to IAS 1.
- Amendments to IAS 27 'Equity Method in Separate Financial Statements'.
- Amendments to IFRS 11 'Accounting for Acquisitions of Interests in Joint Operations'.

Use of non-GAAP measures

In the reporting of the financial information, the Group uses certain measures that are not required under IFRS, the Generally Accepted Accounting Principles ('GAAP') under which the Group reports. The Directors believe that Return on Total Invested Capital (ROTIC), Return on Capital Employed (ROCE), Organic growth at constant currency, adjusted profit measures and earnings per share and Adjusted operating cash flow provide additional and more relevant information on underlying trends to shareholders. These and other non-GAAP measures are used by the Directors for internal performance analysis and incentive compensation arrangements for employees. The terms ROTIC, ROCE, organic growth at constant currency and 'Adjusted' are not defined terms under IFRS and may therefore not be comparable with similarly titled measures reported by other companies. They are not intended to be a substitute for, or superior to, GAAP measures.

Definitions of the Group's non-GAAP measures along with reconciliation to their IFRS equivalent measure are included in note 3.

The separate reporting of non-recurring exceptional items, which are presented as adjusting items within their relevant income statement category, helps provide an indication of the Group's underlying business performance. The principal items which are included in adjusting items are set out below in the Group's accounting policy and in note 1.

The term 'adjusted' refers to the relevant measure being reported for continuing operations excluding adjusting items as defined on page 132.

Accounting Policies continued

Key accounting policies

Below we set out our key accounting policies, with a list of all other accounting policies thereafter.

Going concern

The Directors believe, at the time of approving the financial statements, that the Group is well placed to manage its business risks successfully. The Group's forecasts and projections, taking account of reasonably possible changes in trading performance, show that the Group should be able to operate within the level of its current committed facilities, which includes a £550m five-year Revolving Credit Facility completed on 4 November 2016 of which £469m remains undrawn at the date of this report. With this in mind, the Directors have a reasonable expectation that the Company and Group have adequate resources to continue in operational existence for the foreseeable future. Thus they continue to adopt the going concern basis in preparing these financial statements. Further detail is contained on page 82.

Business combinations and goodwill

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group. The Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- the fair value of the existing equity interest in the acquiree; less
- the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

Costs related to the acquisition, other than those associated with the issue of debt or equity securities, are expensed as incurred. Any contingent consideration payable may be accounted for as either:

- a) Consideration transferred, which is recognised at fair value at the acquisition date. If the contingent purchase consideration is classified as equity, it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes to the fair value of the contingent purchase consideration are recognised in the Consolidated Income Statement; or
- b) Remuneration, which is expensed in the Income Statement over the associated period of service. An indicator of such treatment includes when payments to employees of the acquired company are contingent on a post-acquisition event, but may be automatically forfeited on termination of employment.

For acquisitions between 4 April 2004 (the date from which the financial statements were reported under IFRS) and 2 April 2010, goodwill represents the difference between the cost of the acquisition, including acquisition costs and the fair value of the net identifiable assets acquired. Goodwill is not amortised, but is tested annually for impairment.

Goodwill is recognised as an intangible asset in the Consolidated Balance Sheet. Goodwill therefore includes non-identified intangible assets including business processes, buyer-specific synergies, know-how and workforce-related industry-specific knowledge and technical skills. Negative goodwill arising on acquisitions would be recognised directly in the Consolidated Income Statement. On closure or disposal of an acquired business, goodwill would be taken into account in determining the profit or loss on closure or disposal.

As permitted by IFRS 1, the Group elected not to apply IFRS 3 'Business Combinations' to acquisitions prior to 4 April 2004 in its consolidated accounts. As a result, the net book value of goodwill recognised as an intangible asset under UK GAAP at 3 April 2004 was brought forward unadjusted as the cost of goodwill recognised under IFRS at 4 April 2004 subject to impairment testing on that date; and goodwill that was written off to reserves prior to 28 March 1998 under UK GAAP will not be taken into account in determining the profit or loss on disposal or closure of previously acquired businesses from 4 April 2004 onwards.

Intangible assets

(a) Acquired intangible assets

An intangible resource acquired with a subsidiary undertaking is recognised as an intangible asset if it is separable from the acquired business or arises from contractual or legal rights, is expected to generate future economic benefits and its fair value can be measured reliably. Acquired intangible assets, comprising trademarks, technology and know-how and customer relationships, are amortised through the Consolidated Income Statement on a straight-line basis over their estimated economic lives of between three and fifteen years.

(b) Product development costs

Research expenditure is written off in the financial year in which it is incurred.

Development expenditure is written off in the financial year in which it is incurred, unless it relates to the development of a new or substantially improved product, is incurred after the technical feasibility and economic viability of the product has been proven and the decision to complete the development has been taken, and can be measured reliably. Such expenditure is capitalised as an intangible asset in the Consolidated Balance Sheet at cost and is amortised through the Consolidated Income Statement on a straight-line basis over its estimated economic life of three years.

Pensions

The Group makes contributions to various pension plans.

For defined benefit plans, the asset or liability recorded in the Consolidated Balance Sheet is the difference between the fair value of the plan's assets and the present value of the defined obligation at that date. The defined benefit obligation is calculated separately for each plan on an annual basis by independent actuaries using the projected unit credit method.

Actuarial gains and losses are recognised in full in the period in which they occur, and are taken to other comprehensive income.

Current and past service costs, along with the impact of any settlements or curtailments, are charged to the Consolidated Income Statement. The net interest expense on pension plans' liabilities and the expected return on the plans' assets is recognised within finance expense in the Consolidated Income Statement.

Contributions to defined contribution plans are charged to the Consolidated Income Statement when they fall due.

Accounting Policies continued

Critical accounting judgements and key sources of estimation uncertainty

The preparation of Group accounts in conformity with IFRS requires the Directors to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experiences and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The following four areas of key estimation uncertainty and critical accounting judgement have been identified as having significant risk of causing a material adjustment to the carrying amounts of assets and liabilities in the next financial year:

Critical accounting judgements

Goodwill impairment

Determining whether goodwill is impaired requires an estimation of the value in use of cash generating units (CGUs) to which goodwill has been allocated. In turn, the value in use calculation involves an estimation of the present value of future cash flows of CGUs. The future cash flows are based on annual budgets, as approved by the Board, to which the management's expectation of market-share and long-term growth rates are applied. The present value is then calculated based on management's judgement of future discount rates. The Board reviews these key assumptions (market-share, long-term growth rates, and discount rates) and the sensitivity analysis around these assumptions. Further details are provided in note 11.

Intangible assets

IFRS 3 (revised) 'Business Combinations' requires that goodwill arising on the acquisition of subsidiaries is capitalised and included in intangible assets. IFRS 3 (revised) also requires the identification and valuation of other separable intangible assets at acquisition. The assumptions involved in valuing these intangible assets require the use of estimates and judgements.

IAS 38 'Intangible Assets' requires that development costs, arising from the application of research findings or other technical knowledge to a plan or design of a new or substantially improved product, are capitalised, subject to certain criteria being met. Determining the technical feasibility and estimating the future cash flows generated by the products in development requires judgements which may differ from the actual outcome.

The estimates and judgements made in relation to both acquired intangible assets and capitalised development costs, cover future growth rates, expected inflation rates and the discount rate used.

Key sources of estimation uncertainty

Contingent consideration

Determining the value of contingent consideration recognised as part of the acquisition of subsidiaries requires assumptions to determine the expected performance of the acquired business and the amount of contingent consideration that will therefore become payable. Initial estimates of expected performance are made by the Directors responsible for completing the acquisition and form a key component of the financial due diligence that takes place prior to completion. Subsequent measurement of contingent consideration is based on the Directors' appraisal of the acquired business' performance in the post-acquisition period with any required adjustments to the amount payable recognised in the Consolidated Income Statement as required under IFRS 3. Further details are provided in note 24.

Defined benefit pension plan liabilities

Determining the value of the future defined benefit obligation requires judgement in respect of the assumptions used to calculate present values. These include future mortality, discount rate and inflation. Management makes these judgements in consultation with an independent actuary. Details of the judgements made in calculating the defined benefit obligation are disclosed in note 28.

Other accounting policies**Basis of consolidation**

The Group accounts include the accounts of Halma plc and all of its subsidiary companies made up to 1 April 2017, adjusted to eliminate intra-Group transactions, balances, income and expenses. The results of subsidiary companies acquired or discontinued are included from the month of their acquisition or to the month of their discontinuation.

Investments in associates

An associate is an entity over which the Group is in a position to exercise significant influence, but not control or joint control, through participation in the financial and operating policy decisions of the investee. Significant influence is the power to participate in the financial and operating policy decisions of the investee but without control or joint control over those policies.

The results and assets and liabilities of associates are incorporated in these financial statements using the equity method of accounting. Investments in associates are carried in the Consolidated Balance Sheet at cost as adjusted by post-acquisition changes in the Group's share of the net assets of the associate, less any impairment in the value of individual investments. Losses of an associate in excess of the Group's interest in that associate (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate) are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

Any excess of the cost of acquisition over the Group's share of the fair values of the identifiable net assets of the associate at the date of acquisition is recognised as goodwill. The goodwill is included within the carrying amount of the investment and is assessed for impairment as part of that investment. Any deficiency of the cost of acquisition below the Group's share of the fair values of the identifiable net assets of the associate at the date of acquisition (i.e. discount on acquisition) is credited in profit or loss in the year of acquisition.

Where a Group company transacts with an associate of the Group, profits and losses are eliminated to the extent of the Group's interest in the relevant associate. Losses may provide evidence of an impairment of the asset transferred in which case appropriate provision is made for impairment.

Other intangible assets**(a) Computer software**

Computer software that is not integral to an item of property, plant or equipment is recognised separately as an intangible asset, and is amortised through the Consolidated Income Statement on a straight-line basis over its estimated economic life of between three and five years.

(b) Other intangibles

Other intangibles are amortised through the Consolidated Income Statement on a straight-line basis over their estimated economic lives of between three and five years.

Impairment of non-current assets

All non-current assets are tested for impairment whenever events or circumstances indicate that their carrying value may be impaired. Additionally, goodwill and capitalised development expenditure relating to a product that is not yet in full production are subject to an annual impairment test.

An impairment loss is recognised in the Consolidated Income Statement to the extent that an asset's carrying value exceeds its recoverable amount, which represents the higher of the asset's net realisable value and its value in use. An asset's value in use represents the present value of the future cash flows expected to be derived from the asset or from the cash generating unit to which it relates. The present value is calculated using a discount rate that reflects the current market assessment of the time value of money and the risks specific to the asset concerned.

Impairment losses recognised in previous periods for an asset other than goodwill are reversed if there has been a change in the estimates used to determine the asset's recoverable amount, but only to the extent that the carrying amount of the asset does not exceed its carrying amount had no impairment loss been recognised in previous periods. Impairment losses in respect of goodwill are not reversed.

Accounting Policies continued

Segmental reporting

An operating segment is a distinguishable component of the Group that is engaged in business activities from which it may earn revenues and incur expenses, and whose operating results are reviewed regularly by the Chief Operating Decision Maker (the Chief Executive) to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available.

Reportable segments are operating segments that either meet the thresholds and conditions set out in IFRS 8 or are considered by the Board to be appropriately designated as reportable segments. Segment result represents operating profits and includes an allocation of Head Office expenses. Segment result excludes tax and financing items. Segment assets comprise goodwill, other intangible assets, property, plant and equipment (excluding land and buildings), inventories, trade and other receivables. Segment liabilities comprise trade and other payables, provisions and other payables. Unallocated items represent land and buildings, corporate and deferred taxation balances, defined benefit plan liabilities, contingent purchase consideration, all components of net cash/borrowings and derivative financial instruments.

Inventories

Inventories and work in progress are included at the lower of cost and net realisable value. Cost is calculated either on a 'first in, first out' or an average cost basis and includes direct materials and the appropriate proportion of production and other overheads considered by the Directors to be attributable to bringing the inventories to their location and condition at the year end. Net realisable value represents the estimated selling price less all estimated costs to complete and costs to be incurred in marketing, selling and distribution.

Revenue

Revenue represents sales, less returns, by subsidiary companies to external customers excluding value added tax and other sales related taxes. Transactions are recorded as revenue when the delivery of products or performance of services takes place in accordance with the contracted terms of sale.

Revenue on long-term contracts is recognised while the contracts are in progress. Revenue is recognised proportionally to the stage of completion of the contract, based on the fair value of goods and services provided to date, taking into account the sign-off of milestone delivery by customers. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Adjusting items

When items of income or expense are material and they are relevant to an understanding of the entity's financial performance, they are disclosed separately within the financial statements. Such adjusting items include material costs or reversals arising from acquisitions or disposals of businesses, including acquisition costs, material creation or reversals of provisions related to changes in estimates for contingent consideration on acquisition, amortisation of acquired intangible assets, and other one-off items that may arise.

Taxation

Taxation comprises current and deferred tax. Tax is recognised in the Consolidated Income Statement except to the extent that it relates to items recognised directly in Shareholders' funds, in which case it too is recognised in Shareholders' funds. Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, along with any adjustment to tax payable in respect of previous years. Taxable profit differs from net profit as reported in the Consolidated Income Statement because it excludes items that are never taxable or deductible.

Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes and is accounted for using the balance sheet liability method, apart from the following differences which are not provided for: goodwill not deductible for tax purposes; the initial recognition of assets or liabilities that affect neither accounting nor taxable profit; and differences relating to investments in subsidiaries to the extent they will probably not reverse in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amounts of assets and liabilities, using tax rates and laws, which are expected to apply in the year when the liability is settled or the asset is realised. Deferred tax assets are only recognised to the extent that recovery is probable.

Foreign currencies

The Group presents its accounts in Sterling. Transactions in foreign currencies are recorded at the rate of exchange at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are reported at the rates prevailing at that date. Any gain or loss arising from subsequent exchange rate movements is included as an exchange gain or loss in the Consolidated Income Statement.

Net assets of overseas subsidiary companies are expressed in Sterling at the rates of exchange ruling at the end of the financial year, and trading results and cash flows at the average rates of exchange for the financial year. Goodwill arising on the acquisition of a foreign business is treated as an asset of the foreign entity and is translated at the rate of exchange ruling at the end of the financial year. Exchange gains or losses arising on these translations are taken to the Translation reserve within Shareholders' funds.

In the event that an overseas subsidiary is disposed of or closed, the profit or loss on disposal or closure will be determined after taking into account the cumulative translation difference held within the Translation reserve attributable to that subsidiary. As permitted by IFRS 1, the Group has elected to deem the Translation to be £nil at 4 April 2004. Accordingly, the profit or loss on disposal or closure of foreign subsidiaries will not include any currency translation differences which arose before 4 April 2004.

Derivative financial instruments and hedge accounting

The Group enters into derivative financial instruments to manage its exposure to foreign exchange rate risk using forward exchange contracts. Further details of derivative financial instruments are disclosed in note 26.

Derivative financial instruments are classified as fair value through profit and loss (held for trading) unless they are in a designated hedge relationship.

Derivatives are initially recognised at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each balance sheet date. The resulting gain or loss is recognised in the Consolidated Income Statement, unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in the Consolidated Income Statement depends on the nature of the hedge relationship. The Group designates certain derivatives as hedges of highly probable forecast transactions or hedges of foreign currency risk of firm commitments (cash flow hedges), or hedges of net investments in foreign operations.

A derivative with a positive fair value is recognised as a financial asset whereas a derivative with a negative fair value is recognised as a financial liability. A derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the instrument is more than 12 months and it is not expected to be realised or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

Cash flow hedge accounting

The Group designates certain hedging instruments as cash flow hedges.

At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument has been or is expected to be highly effective in offsetting changes in fair values or cash flows of the hedged item.

Note 26 sets out details of the fair values of the derivative instruments used for hedging purposes and the movements in the Hedging reserve in equity.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The gain or loss relating to the ineffective portion as a result of being over hedged is recognised immediately in the Consolidated Income Statement.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to the Consolidated Income Statement in the periods when the hedged item is recognised in the Consolidated Income Statement. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

Hedge accounting is discontinued when the Group revokes the hedging relationship, the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting. Any gain or loss recognised in other comprehensive income at that time is accumulated in equity and is recognised, when the forecast transaction is ultimately recognised, in the Consolidated Income Statement. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in the Consolidated Income Statement.

Accounting Policies continued

Net investment hedge accounting

The Group uses foreign currency denominated borrowings as a hedge against the translation exposure on the Group's net investment in overseas companies. Where the hedge is fully effective at hedging, the variability in the net assets of such companies caused by changes in exchange rates and the changes in value of the borrowings are recognised in the Consolidated Statement of Comprehensive Income and accumulated in the Translation reserve. The ineffective part of any change in value caused by changes in exchange rates is recognised in the Consolidated Income Statement.

Employee share plans

Share-based incentives are provided to employees under the Group's share incentive plan, the performance share plan and the executive share plan.

(a) Share incentive plan

Awards of shares under the share incentive plan are made to qualifying employees depending on salary and service criteria. The shares awarded under this plan are purchased in the market by the plan's trustees at the time of the award, and are then held in trust for a minimum of three years. The costs of this plan are recognised in the Consolidated Income Statement over the three-year vesting period of the awards.

(b) Performance share plan

Awards under this plan are partly equity-settled and partly cash-settled. Grants were subject to both market-based and non-market-based vesting criteria. No further grants will be made under this plan.

The fair value of the equity-settled portion at the date of grant is established by using an appropriate simulation method to reflect the likelihood of market-based performance conditions being met. The fair value is charged to the Consolidated Income Statement on a straight-line basis over the three-year vesting period, with appropriate adjustments being made during this period to reflect expected and actual forfeitures arising from the non-market-based performance conditions only. The corresponding credit is to Shareholders' funds.

(c) Executive share plan

During the year ended 2 April 2016, Halma plc introduced the Executive Share Plan, in which executive Directors and certain senior employees participate. Grants under this Plan are in the form of Performance Awards or Deferred Share Awards.

Performance Awards are subject to non-market-based vesting criteria, and Deferred Share Awards are subject only to continuing service of the employee. Share awards are equity-settled. The fair value of the awards at the date of grant, which is estimated to be equal to the market value, is charged to the Consolidated Income Statement on a straight-line basis over the vesting period, with appropriate adjustments being made during this period to reflect expected and actual forfeitures. The corresponding credit is to Shareholders' funds.

(d) Cash settled

For cash-settled awards, a liability equal to the portion of the services received is recognised at the current fair value determined at each balance sheet date.

Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of the cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Deferred government grant income

Government grant income that is linked to capital expenditure is deferred to the Consolidated Balance Sheet and credited to the Consolidated Income Statement over the life of the related asset. In addition, the Group claims research and development expenditure credits arising on qualifying expenditure in its UK-based subsidiaries and shows these 'above the line' in Operating profit. Where the credits arise on expenditure that is capitalised as part of internally generated capitalised development costs, the income is deferred to the Consolidated Balance Sheet and credited to the Consolidated Income Statement over the life of the related asset in line with the policy stated above.

Operating profit

Operating profit is stated after charging restructuring costs but before the share of results of associates, profit or loss on disposal of operations, finance income and finance costs.

Cash and cash equivalents

Cash and cash equivalents comprise cash balances, deposits with an initial maturity of less than three months, and bank overdrafts that are repayable on demand.

Dividends

Dividends payable to the Company's shareholders are recognised as a liability in the period in which the distribution is approved by the Company's shareholders.

Property, plant and equipment

Property, plant and equipment is stated at historical cost less provisions for impairment and depreciation which, with the exception of freehold land which is not depreciated, is provided on a straight-line basis over each asset's estimated economic life. The principal annual rates used for this purpose are:

Freehold property	2%
Leasehold properties:	
Long leases (more than 50 years unexpired)	2%
Short leases (less than 50 years unexpired)	Period of lease
Plant, equipment and vehicles	8% to 33.3%

Leases

Leases that confer rights and obligations similar to those that attach to owned assets are classified as finance leases, of which the Group has none. All other leases are classified as operating leases.

Operating lease rentals, and any incentives receivable, are charged to the Consolidated Income Statement on a straight-line basis over the lease term.

Notes to the Accounts

1 Segmental analysis

Sector analysis

The Group has four reportable segments (Process Safety, Infrastructure Safety, Medical, and Environmental & Analysis), which are defined by markets rather than product type. Each segment includes businesses with similar operating and marketing characteristics. These segments are consistent with the internal reporting as reviewed by the Chief Executive.

Segment revenue and results

	Revenue (all continuing operations)	
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Process Safety	167,007	155,467
Infrastructure Safety	315,219	264,843
Medical	260,576	198,715
Environmental & Analysis	219,118	188,928
Inter-segmental sales	(258)	(148)
Revenue for the year	961,662	807,805

Inter-segmental sales are charged at prevailing market prices and have not been disclosed separately by segment as they are not considered material. Revenue derived from the rendering of services was £39,011,000 (2016: £25,134,000). All revenue was otherwise derived from the sale of products.

	Profit (all continuing operations)	
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Segment profit before allocation of adjustments*		
Process Safety	40,243	39,557
Infrastructure Safety	65,129	55,579
Medical	66,704	51,695
Environmental & Analysis	41,698	34,527
	213,774	181,358
Segment profit after allocation of adjustments*		
Process Safety	36,243	36,095
Infrastructure Safety	60,342	50,376
Medical	45,804	34,747
Environmental & Analysis	35,084	30,413
Segment profit	177,473	151,631
Central administration costs	(10,484)	(8,291)
Net finance expense	(9,286)	(7,052)
Group profit before taxation	157,703	136,288
Taxation	(28,014)	(27,447)
Profit for the year	129,689	108,841

* Adjustments include the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; and profit or loss on disposal of operations.

1 Segmental analysis continued

The accounting policies of the reportable segments are the same as the Group's accounting policies. Acquisition transaction costs, adjustments to contingent consideration and release of fair value adjustments to inventory (collectively 'acquisition items') are recognised in the Consolidated Income Statement. Segment profit, before these acquisition items and the other adjustments, is disclosed separately above as this is the measure reported to the Chief Executive for the purpose of allocation of resources and assessment of segment performance. These adjustments are analysed as follows:

52 weeks to 1 April 2017

	Amortisation and impairment of acquired intangible assets £000	Acquisition items				Disposal of operations and restructuring (note 29) £000	Total £000
		Transaction costs £000	Adjustments to contingent consideration £000	Release of fair value adjustments to inventory £000	Total amortisation charge and acquisition items £000		
Process Safety	(4,000)	–	–	–	(4,000)	–	(4,000)
Infrastructure Safety	(4,784)	(3)	–	–	(4,787)	–	(4,787)
Medical	(30,702)	(95)	10,687	(790)	(20,900)	–	(20,900)
Environmental & Analysis	(4,412)	(265)	14	(41)	(4,704)	(1,910)	(6,614)
Total Segment & Group	(43,898)	(363)	10,701	(831)	(34,391)	(1,910)	(36,301)

Included within amortisation and impairment of acquired intangible assets in the Medical sector is £12,429,000 impairment to a customer relationship asset of Visiometrics S.L. (Visiometrics), acquired in the prior year. Related to this impairment, included within the Medical sector, there is a credit arising from a revision to the estimate of the associated deferred contingent consideration payable for Visiometrics of £10,087,000 (€12,002,000). The majority of this revision relates to deferred contingent consideration payable on sales to the related customer. See also note 12 and 19.

The transaction costs arose mainly on the acquisition of FluxData, Inc. (FluxData) on 6 January 2017.

The £10,701,000 credit to contingent consideration comprises mainly the revision to estimate of the payable for Visiometrics discussed above. The remaining credit relates to the change in estimate to the payable for Value Added Solutions LLC (VAS) by £356,000 from £704,000 (US\$1,000,000) to £427,000 (US\$535,000), and for ASL Holdings Limited (ASL) by £14,000 on final settlement of the payable, and a credit of £244,000 arising from exchange differences on the Visiometrics payable which is denominated in Euros.

The £831,000 charge relates to the release of the fair value adjustment on revaluing the inventories of CenTrak Inc. (CenTrak) (£790,000) and FluxData (£41,000) on acquisition. All amounts have now been released in relation to CenTrak.

The £1,910,000 charge relates to inventory and fixed asset write downs and severance costs arising on the restructuring of non-core operations in one of the Group's subsidiaries, Pixelteq, Inc. (Pixelteq).

53 weeks to 2 April 2016

	Amortisation of acquired intangible assets £000	Acquisition items				Disposal of operations and restructuring (note 29) £000	Total £000
		Transaction costs £000	Adjustments to contingent consideration £000	Release of fair value adjustments to inventory £000	Total amortisation charge and acquisition items £000		
Process Safety	(3,462)	–	–	–	(3,462)	–	(3,462)
Infrastructure Safety	(2,398)	(1,101)	(827)	(842)	(5,168)	(34)	(5,202)
Medical	(13,018)	(2,926)	(826)	(768)	(17,538)	590	(16,948)
Environmental & Analysis	(4,225)	–	111	–	(4,114)	–	(4,114)
Total Segment & Group	(23,103)	(4,027)	(1,542)	(1,610)	(30,282)	556	(29,726)

Notes to the Accounts continued

1 Segmental analysis continued

The transaction costs arose mainly on the acquisitions of VAS, Firetrace USA, LLC (Firetrace), Visiometrics, and CenTrak.

The £827,000 charge in the Infrastructure Safety sector related to a revision in the estimate of the remaining contingent consideration payable on Advanced Electronics Limited (Advanced). The £826,000 charge in the Medical sector related to exchange differences arising on the revaluation of Visiometric's contingent consideration which is denominated in Euros. The remaining £111,000 credit to contingent consideration related to a revision in the estimate of the remaining payable on a prior year acquisition (ASL) from £197,000 to £86,000.

The release of fair value adjustments to inventory arose from revaluing the inventories of Firetrace and CenTrak at acquisition.

The £590,000 profit on disposal in the Medical sector relates to the disposal of 8.8% of the Group's ownership interest in Optomed Oy (Optomed).

Segment assets and liabilities

	Assets		Liabilities	
	(Restated)*		(Restated)*	
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
Before goodwill, interest in associate and acquired intangible assets are allocated to specific segment assets/liabilities				
Process Safety	75,319	66,582	16,831	19,104
Infrastructure Safety	134,258	122,093	49,127	43,761
Medical	110,050	90,649	40,433	39,383
Environmental & Analysis	94,199	81,726	35,037	31,237
Total segment assets/liabilities excluding goodwill, interest in associate and acquired intangible assets	413,826	361,050	141,428	133,485
Goodwill	603,553	542,097	-	-
Interest in associate	3,553	3,722	-	-
Acquired intangible assets	200,071	207,996	-	-
Total segment assets/liabilities including goodwill, interest in associate and acquired intangible assets	1,221,003	1,114,865	141,428	133,485

	Assets		Liabilities	
	(Restated)*		(Restated)*	
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
After goodwill, interest in associate and acquired intangible assets are allocated to specific segment assets/liabilities				
Process Safety	172,521	156,351	16,831	19,104
Infrastructure Safety	304,502	283,189	49,127	43,761
Medical	500,406	470,974	40,433	39,383
Environmental & Analysis	243,574	204,351	35,037	31,237
Total segment assets/liabilities including goodwill, interest in associate and acquired intangible assets	1,221,003	1,114,865	141,428	133,485
Cash and bank balances/borrowings	66,827	53,938	263,269	300,656
Derivative financial instruments	598	1,131	315	2,196
Other unallocated assets/liabilities	114,555	97,193	219,334	184,450
Total Group	1,402,983	1,267,127	624,346	620,787

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Segment assets and liabilities, excluding the allocation of goodwill, interest in associate and acquired intangible assets, have been disclosed separately above as this is the measure reported to the Chief Executive for the purpose of monitoring segment performance and allocating resources between segments. Other unallocated assets include land and buildings and tax assets, and unallocated liabilities include contingent purchase consideration, retirement benefit obligations and tax liabilities.

Other segment information

	Additions to non-current assets		Depreciation, amortisation and impairment	
	(Restated)*			
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
Process Safety	5,865	4,480	8,635	7,651
Infrastructure Safety	10,350	70,542	13,166	9,806
Medical	11,080	169,889	37,133	17,367
Environmental & Analysis	26,460	8,645	10,903	9,336
Total segment additions/depreciation, amortisation and impairment	53,755	253,556	69,837	44,160
Unallocated	616	700	670	738
Total Group	54,371	254,256	70,507	44,898

Non-current asset additions comprise acquired and purchased goodwill, other intangible assets and property, plant and equipment.

An impairment loss on intangible assets of £12,429,000 was recognised during the year in Medical and £98,000 in Infrastructure Safety.

An impairment loss on tangible assets of £334,000 was recognised during the year in Environmental & Analysis.

Geographic information

The Group's revenue from external customers (by location of customer) and its non-current assets by geographic location are detailed below:

	Revenue by destination		Non-current assets	
	52 week to 1 April 2017 £000	53 weeks to 2 April 2016 £000	(Restated)* 1 April 2017 £000	2 April 2016 £000
United States of America	345,295	272,933	644,258	529,642
Mainland Europe	210,342	179,290	216,669	203,646
United Kingdom	154,920	144,821	51,057	111,697
Asia Pacific	151,626	124,992	35,494	33,002
Africa, Near and Middle East	60,765	55,712	49	-
Other countries	38,714	30,057	25	48
	961,662	807,805	947,552	878,035

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Non-current assets comprise goodwill, intangible assets, interest in associate and property, plant and equipment.

Information about major customers

No single customer accounts for more than 2% of the Group's revenue.

Notes to the Accounts continued

2 Earnings per ordinary share

Basic and diluted earnings per ordinary share are calculated using the weighted average of 378,685,730 shares in issue during the year (net of shares purchased by the Company and held as Own shares) (2016: 378,412,359). There are no dilutive or potentially dilutive ordinary shares.

Adjusted earnings are calculated as earnings from continuing operations excluding the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; profit or loss on disposal of operations; and the associated taxation thereon. The Directors consider that adjusted earnings, which constitute a non-GAAP measure, represent a more consistent measure of underlying performance. A reconciliation of earnings and the effect on basic and diluted earnings per share figures is as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	Per ordinary share	
			52 weeks to 1 April 2017 pence	53 weeks to 2 April 2016 pence
Earnings from continuing operations	129,689	108,841	34.25	28.76
Amortisation of acquired intangible assets (after tax)	21,452	16,102	5.66	4.26
Impairment of acquired intangible assets (after tax)	9,322	–	2.46	–
Acquisition transaction costs (after tax)	240	2,941	0.06	0.78
Release of fair value adjustments to inventory (after tax)	569	998	0.15	0.26
Adjustments to contingent consideration (after tax)	(10,650)	1,315	(2.81)	0.35
Disposal of operations and restructuring (after tax)	1,648	(556)	0.44	(0.15)
Adjusted earnings	152,270	129,641	40.21	34.26

3 Non-GAAP measures

The Board uses certain non-GAAP measures to help it effectively monitor the performance of the Group. These measures include Return on Total Invested Capital, Return on Capital Employed, Organic growth at constant currency, Adjusted operating profit and Adjusted operating cash flow.

Return on Total Invested Capital

	(Restated)*	
	1 April 2017 £000	2 April 2016 £000
Post-tax profit before adjustments²	152,270	129,641
Total shareholders' funds	778,637	646,340
Add back retirement benefit obligations	74,856	52,323
Less associated deferred tax assets	(13,947)	(9,619)
Cumulative amortisation of acquired intangible assets	168,031	112,478
Historical adjustments to goodwill ³	89,549	89,549
Total Invested Capital	1,097,126	891,071
Average Total Invested Capital¹	994,099	833,616
Return on Total Invested Capital (ROTIC)	15.3%	15.6%

3 Non-GAAP measures continued**Return on Capital Employed**

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Operating profit before adjustments², but after share of results of associate	203,290	173,066
Computer software costs within intangible assets	4,466	3,215
Capitalised development costs within intangible assets	28,782	23,540
Other intangibles within intangible assets	1,111	903
Property, plant and equipment	106,016	96,562
Inventories	118,780	105,283
Trade and other receivables	212,236	184,126
Trade and other payables	(135,257)	(122,791)
Current provisions	(6,776)	(4,789)
Net tax liabilities	(15,931)	(14,968)
Non-current trade and other payables	(10,780)	(10,153)
Non-current provisions	(16,917)	(19,355)
Add back contingent purchase consideration	16,444	17,075
Capital Employed	302,174	258,648
Average Capital Employed¹	280,411	238,898
Return on Capital Employed (ROCE)	72.5%	72.4%

¹ The ROTIC and ROCE measures are expressed as a percentage of the average of the current period's and prior year's Total Invested Capital and Capital Employed respectively. Using an average as the denominator is considered to be more representative. The March 2015 Total Invested Capital and Capital Employed balances were £776,160,000 and £219,148,000 respectively.

² Adjustments include the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; and profit or loss on disposal of operations.

³ Includes goodwill amortised prior to 3 April 2004 and goodwill taken to reserves.

* Comparatives have been restated as described in note 24.

Organic growth

Organic growth measures the change in revenue and profit from continuing Group operations. This measure equalises the effect of acquisitions by:

- removing from the year of acquisition their entire revenue and profit before taxation, and
- in the following year, removing the revenue and profit for the number of months equivalent to the pre-acquisition period in the prior year.

The resultant effect is that the acquisitions are removed from organic results for one full year of ownership.

The results of disposals are removed from the prior period reported revenue and profit before taxation. The effects of currency changes are removed through restating the current year revenue and profit before taxation at the prior year exchange rates.

Organic growth at constant currency has been calculated for the Group as follows:

Group	Revenue			Adjusted profit* before taxation		
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth
Continuing operations	961,662	807,805		194,004	166,014	
Acquired and disposed revenue/profit	(40,303)			(4,544)		
Organic growth	921,359	807,805	14.1%	189,460	166,014	14.1%
Constant currency adjustment	(78,982)			(17,427)		
Organic growth at constant currency	842,377	807,805	4.3%	172,033	166,014	3.6%

Notes to the Accounts continued

3 Non-GAAP measures continued

Sector Organic growth at constant currency

Organic growth at constant currency is calculated for each segment using the same method as described above.

Process Safety	Revenue			Adjusted* segment profit		
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth
Continuing operations	167,007	155,467		40,243	39,557	
Acquisition and currency adjustments	(10,317)			(2,406)		
Organic growth at constant currency	156,690	155,467	0.8%	37,837	39,557	(4.3%)

Infrastructure Safety	Revenue			Adjusted* segment profit		
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth
Continuing operations	315,219	264,843		65,129	55,579	
Acquisition and currency adjustments	(32,050)			(5,549)		
Organic growth at constant currency	283,169	264,843	6.9%	59,580	55,579	7.2%

Medical	Revenue			Adjusted* segment profit		
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth
Continuing operations	260,576	198,715		66,704	51,695	
Acquisition and currency adjustments	(53,335)			(11,908)		
Organic growth at constant currency	207,241	198,715	4.3%	54,796	51,695	6.0%

Environmental & Analysis	Revenue			Adjusted* segment profit		
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000	% growth
Continuing operations	219,118	188,928		41,698	34,527	
Acquisition and currency adjustments	(23,583)			(5,140)		
Organic growth at constant currency	195,535	188,928	3.5%	36,558	34,527	5.9%

* Adjustments include the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; and profit or loss on disposal of operations.

3 Non-GAAP measures continued

Adjusted operating profit

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Operating profit	167,070	142,943
Add back:		
Acquisition items (note 1)	(9,507)	7,179
Loss on restructuring	1,910	–
Amortisation of acquired intangible assets	31,469	23,103
Impairment of acquired intangible assets	12,429	–
Adjusted operating profit	203,371	173,225
Adjusted operating cash flow		
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Net cash from operating activities (note 25)	172,493	149,273
Add back:		
Net acquisition costs	363	–
Taxes paid	33,188	27,186
Proceeds from sale of property, plant and equipment	1,495	2,364
Proceeds from sale of capitalised development costs	–	166
Share awards vested not settled by own shares*	3,309	2,478
Less:		
Purchase of property, plant and equipment	(21,875)	(22,418)
Purchase of computer software and other intangibles	(2,760)	(2,204)
Development costs capitalised	(10,731)	(8,579)
Adjusted operating cash flow	175,482	148,266
Cash conversion % (adjusted operating cash flow/adjusted operating profit)	86%	86%

* See Consolidated Statement of Changes in Equity

Notes to the Accounts continued

4 Finance income

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Interest receivable	211	217
Fair value movement on derivative financial instruments	283	–
	494	217

5 Finance expense

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Interest payable on borrowings	6,977	4,104
Amortisation of finance costs	1,040	561
Net interest charge on pension plan liabilities	1,553	2,013
Other interest payable	126	45
	9,696	6,723
Fair value movement on derivative financial instruments	53	508
Unwinding of discount on provisions	31	38
	9,780	7,269

6 Profit before taxation

Profit before taxation comprises:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Revenue	961,662	807,805
Direct materials/direct labour	(342,514)	(290,650)
Production overhead	(108,838)	(95,218)
Selling costs	(133,896)	(107,854)
Distribution costs	(19,768)	(17,059)
Administrative expenses	(189,576)	(154,081)
Operating profit	167,070	142,943
Share of results of associate	(81)	(159)
Profit on disposal of operations	–	556
Net finance expense	(9,286)	(7,052)
Profit before taxation	157,703	136,288

Included within administrative expenses are the amortisation and impairment of acquired intangible assets, impairment of fixed assets on restructuring, transaction costs and adjustments to contingent consideration. Included within direct materials/direct labour are both the release of fair value adjustments to inventory and the impairment of inventory on restructuring.

6 Profit before taxation continued

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Profit before taxation is stated after charging/(crediting):		
Depreciation	17,798	15,245
Amortisation	39,848	29,653
Impairment of intangible assets	12,527	–
Restructuring costs (note 29)	1,910	–
Research and development*	39,851	32,651
Foreign exchange loss/(gain)	773	(1,673)
Profit on disposal of operations	–	(556)
Loss/(profit) on sale of property, plant and equipment and computer software	138	(1,345)
Cost of inventories recognised as an expense	458,588	388,899
Staff costs (note 7)	272,758	225,636
Auditor's remuneration		
Audit services to the Company	211	201
Audit of the Company's subsidiaries	806	756
Total audit fees	1,017	957
Interim review	61	19
Tax compliance services	2	6
Tax advisory services	58	231
Other services	4	18
Total non-audit fees	125	274
Audit of Group pension plans	17	16
Total fees	1,159	1,247
Operating lease rentals:		
Property	12,671	10,123
Other	835	770

* A further £10,731,000 (2016: £8,579,000) of development costs has been capitalised in the year. See note 12.

7 Employee information

The average number of persons employed by the Group (including Directors) by entity location was:

	52 weeks to 1 April 2017 Number	53 weeks to 2 April 2016 Number
United States of America	1,917	1,813
Mainland Europe	848	839
United Kingdom	2,000	1,985
Asia Pacific	984	948
Other countries	22	19
	5,771	5,604

Notes to the Accounts continued

7 Employee information continued

The average number of persons employed by the Group (including Directors) by employee location was:

	52 weeks to 1 April 2017 Number	53 weeks to 2 April 2016 Number
United States of America	1,779	1,802
Mainland Europe	814	815
United Kingdom	2,135	1,946
Asia Pacific	984	968
Other countries	59	73
	5,771	5,604

Group employee costs comprise:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Wages and salaries	224,852	185,688
Social security costs	31,304	25,852
Pension costs (note 28)	9,864	8,213
Share-based payment charge (note 23)	6,738	5,883
	272,758	225,636

8 Directors' remuneration

The remuneration of the Directors is set out on pages 98 to 107 within the Remuneration Report described as being audited and forms part of these financial statements.

Directors' remuneration comprises:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Wages, salaries and fees	2,859	3,165
Pension costs	16	12
Share-based payment charge	1,781	1,092
	4,656	4,269

9 Taxation

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Current tax		
UK corporation tax at 20% (2016: 20%)	9,282	9,093
Overseas taxation	27,525	25,014
Adjustments in respect of prior years	(2,041)	(3,422)
Total current tax charge	34,766	30,685
Deferred tax		
Origination and reversal of timing differences	(7,365)	(4,833)
Adjustments in respect of prior years	613	1,595
Total deferred tax credit	(6,752)	(3,238)
Total tax charge recognised in the Consolidated Income Statement	28,014	27,447
Reconciliation of the effective tax rate:		
Profit before tax	157,703	136,288
Tax at the UK corporation tax rate of 20% (2016: 20%)	31,541	27,258
Overseas tax rate differences	9,230	9,970
Effect of intra-group financing	(6,095)	(3,062)
Tax incentives, exemptions and credits (including patent box, R&D and High-Tech status)	(3,461)	(2,902)
Permanent differences	(1,773)	(1,990)
Adjustments in respect of prior years	(1,428)	(1,827)
	28,014	27,447
Effective tax rate	17.8%	20.1%

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Adjusted* profit before tax	194,004	166,014
Total tax charge on adjusted* profit	41,734	36,373
Effective tax rate	21.5%	21.9%

* Adjustments include the amortisation and impairment of acquired intangible assets; acquisition items; restructuring costs; and profit or loss on disposal of operations.

The Group's future Effective Tax Rate (ETR) will mainly depend on the geographic mix of profits and whether there are any changes to tax legislation in the Group's most significant countries of operations. Phased reductions in the UK corporation tax rate to 19% (from 1 April 2017) and 17% (from 1 April 2020) have been substantively enacted which we would expect to impact the ETR in due course. In the US, proposed tax reform measures include a reduction in the US corporate income tax rate from 35% to as low as 15%. The US rate change is a proposal only at this stage and the Group is actively monitoring developments to evaluate its potential impact. No reliable estimate of the impact of these tax reform proposals can be made at this time. The Group does not expect the future rate to be materially impacted by the changes to the international tax landscape resulting from the package of measures developed under the OECD Base Erosion and Profit Shifting project and the investigations and proposals of the European Commission.

Notes to the Accounts continued

9 Taxation continued

In addition to the amount charged to the Consolidated Income Statement, the following amounts relating to tax have been recognised directly in the Consolidated Statement of Comprehensive Income and Expenditure:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Deferred tax (note 21)		
Retirement benefit obligations	(6,082)	2,304
Short-term timing differences	233	(209)
	(5,849)	2,095

In addition to the amounts charged to the Consolidated Income Statement and the Consolidated Statement of Comprehensive Income and Expenditure, the following amounts relating to tax have been recognised directly in equity:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Current tax		
Excess tax deductions related to share-based payments on exercised awards	1,135	737
Deferred tax (note 21)		
Change in estimated excess tax deductions related to share-based payments	65	109
	1,200	846

10 Dividends

	Per ordinary share			
	52 weeks to	53 weeks to	52 weeks to	53 weeks to
	1 April 2017 pence	2 April 2016 pence	1 April 2017 £000	2 April 2016 £000
Amounts recognised as distributions to shareholders in the year				
Final dividend for the year to 2 April 2016 (28 March 2015)	7.83	7.31	29,605	27,629
Interim dividend for the year to 1 April 2017 (2 April 2016)	5.33	4.98	20,183	18,844
	13.16	12.29	49,788	46,473
Dividends declared in respect of the year				
Interim dividend for the year to 1 April 2017 (2 April 2016)	5.33	4.98	20,183	18,844
Proposed final dividend for the year to 1 April 2017 (2 April 2016)	8.38	7.83	31,733	29,605
	13.71	12.81	51,916	48,449

The proposed final dividend is subject to approval by shareholders at the Annual General Meeting on 20 July 2017 and has not been included as a liability in these financial statements.

11 Goodwill

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Cost		
At beginning of year	542,097	406,190
Additions (note 24)	5,273	112,692
Exchange adjustments	56,183	23,215
At end of year	603,553	542,097
Provision for impairment		
At beginning and end of year	-	-
Carrying amounts	603,553	542,097

The Group identifies cash generating units (CGUs) at the operating company level as this represents the lowest level at which cash inflows are largely independent of other cash inflows. Goodwill acquired in a business combination is allocated, at acquisition, to the groups of CGUs that are expected to benefit from that business combination.

Before recognition of any impairment losses, the carrying amount of goodwill has been allocated to CGU groups as follows:

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Process Safety		
Gas Detection	-	-
Bursting Discs	9,251	8,157
Safety Interlocks and Corrosion Monitoring	60,975	54,147
	70,226	62,304
Infrastructure Safety		
Fire	53,664	48,919
Doors, Security and Elevators	71,859	67,609
	125,523	116,528
Medical		
Health Optics	172,923	157,358
Fluid Technology	41,333	37,368
Sensor Technologies	73,857	65,118
	288,113	259,844
Environmental & Analysis		
Water	30,405	28,757
Photonics	74,430	61,565
Environmental Monitoring	14,856	13,099
	119,691	103,421
Total Group	603,553	542,097

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Goodwill values have been tested for impairment by comparing them against the 'value in use' in perpetuity of the relevant CGU group. The value in use calculations were based on projected cash flows, derived from the latest budget approved by the Board, discounted at CGU specific, risk adjusted, discount rates to calculate their net present value. Further details are overleaf.

Notes to the Accounts continued

11 Goodwill continued

Key assumptions used in 'value in use' calculations

The calculation of 'value in use' is most sensitive to the following assumptions:

- CGU specific operating assumptions that are reflected in the budget period for the financial year to March 2018;
- Discount rates; and
- Growth rates used to extrapolate risk adjusted cash flows beyond the budget period.

CGU specific operating assumptions are applicable to the budgeted cash flows for the year to March 2018 and relate to revenue forecasts, expected project outcomes and forecast operating margins in each of the operating companies. The relative value ascribed to each assumption will vary between CGUs as the budgets are built up from the underlying operating companies within each CGU group. A short-term growth rate is applied to the March 2018 budget to derive the cash flows arising in the years to March 2019 and March 2020. A long-term rate is applied to these values for the year to March 2021 and onwards.

Short-term growth rates for years 2019 and 2020 for all CGU groups, with the exception of Sensor Technologies, are based on sector strategic plans. Long-term growth rates are capped at the weighted average GDP growth rates of the markets that the Group sells into.

Short-term growth rates for Sensor Technologies are applied out to 2022, based on CGU specific revenue growth rates and margins which reflect the acquisition case updated for latest expectations of performance. These CGU specific growth rates reflect the rapid growth potential of this early stage life-cycle, technology-based business through further penetration into the USA, internationally and, in the longer term, through new applications in other sectors. Long-term growth rates thereafter are capped at the weighted average GDP growth rates of the markets that the Group sells into.

Discount rates are based on estimations of the assumptions that market participants operating in similar sectors to Halma would make, using the Group's economic profile as a starting point and adjusting appropriately. The Directors do not currently expect any significant change in the present base discount rate of 9.04% (2016: 10.79%). The base discount rate, which is pre-tax and is based on short-term variables, may differ from the Weighted Average Cost of Capital (WACC). Discount rates are adjusted for economic risks that are not already captured in the specific operating assumptions for each CGU group. This results in the impairment testing using discount rates ranging from 8.75% to 12.50% (2016: 9.86% to 14.00%) across the CGU groups.

CGU groups to which 10% or more of the total goodwill balance is allocated are deemed to be significant. The assumptions used to determine 'value in use' for these CGU groups are:

Significant CGU groups	Risk adjusted discount rate		Short-term growth rates		Long-term growth rates	
	1 April 2017	2 April 2016	1 April 2017	2 April 2016	1 April 2017	2 April 2016
Safety Interlocks and Corrosion Monitoring	11.15%	12.29%	8.23%	8.25%	2.60%	2.33%
Doors, Security and Elevators	11.08%	12.95%	6.93%	7.32%	1.98%	1.92%
Health Optics	12.50%	14.00%	5.15%	7.00%	2.14%	2.06%
Sensor Technologies	12.46%	12.93%	20.00%	13.70%	2.00%	2.31%
Photonics	9.67%	11.26%	19.29%	14.57%	1.85%	1.86%

Sensitivity to changes in assumptions

In Sensor Technologies, if future growth was not as currently forecast this could result in the value in use of goodwill falling below its carrying value. For this to happen, forecast revenue growth to 2022 would have to fall to 6% and to 2% thereafter. For all other CGU groups, management believes that no reasonably possible change in any of the above key assumptions would cause the carrying value of any unit to exceed its recoverable amount.

12 Other intangible assets

	Acquired intangible assets				Internally generated capitalised development costs ⁴	Computer software	Other intangibles ⁵	Total
	Customer and supplier relationship ¹	Technical know-how ²	Trademarks, brands and patents ³	Total				Total
	£000	£000	£000	£000	£000	£000	£000	£000
Cost								
At 28 March 2015	140,912	25,052	37,535	203,499	45,487	13,150	966	263,102
Transfer between category	–	–	–	–	–	(16)	–	(16)
Assets of businesses acquired (restated)*	68,713	24,098	10,915	103,726	3,600	–	64	107,390
Additions at cost	–	–	–	–	8,579	1,669	535	10,783
Disposals and retirements	–	–	–	–	(1,620)	(176)	–	(1,796)
Exchange adjustments	9,074	1,829	2,346	13,249	1,429	427	56	15,161
At 2 April 2016 (restated)*	218,699	50,979	50,796	320,474	57,475	15,054	1,621	394,624
Transfer between category	–	–	–	–	(161)	18	–	(143)
Assets of businesses acquired (note 24)	7,240	6,250	–	13,490	–	25	–	13,515
Additions at cost	–	–	–	–	10,731	2,479	281	13,491
Disposals and retirements	–	–	–	–	(122)	(662)	–	(784)
Exchange adjustments	23,409	5,158	5,571	34,138	2,940	1,007	179	38,264
At 1 April 2017	249,348	62,387	56,367	368,102	70,863	17,921	2,081	458,967
Accumulated amortisation								
At 28 March 2015	56,296	9,134	18,528	83,958	29,622	10,315	516	124,411
Charge for the year	15,833	3,317	3,953	23,103	5,020	1,348	182	29,653
Disposals and retirements	–	–	–	–	(1,455)	(174)	–	(1,629)
Exchange adjustments	3,367	568	1,482	5,417	748	350	20	6,535
At 2 April 2016	75,496	13,019	23,963	112,478	33,935	11,839	718	158,970
Transfer between category	–	–	–	–	(38)	4	–	(34)
Charge for the year	21,851	5,224	4,394	31,469	6,768	1,432	179	39,848
Impairment	12,429	–	–	12,429	98	–	–	12,527
Disposals and retirements	–	–	–	–	(98)	(646)	–	(744)
Exchange adjustments	8,351	895	2,409	11,655	1,416	826	73	13,970
At 1 April 2017	118,127	19,138	30,766	168,031	42,081	13,455	970	224,537
Carrying amounts								
At 1 April 2017	131,221	43,249	25,601	200,071	28,782	4,466	1,111	234,430
At 2 April 2016 (restated)*	143,203	37,960	26,833	207,996	23,540	3,215	903	235,654

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Notes to the Accounts continued

12 Other intangible assets (continued)

- 1 Customer and supplier relationship assets are amortised over their useful economic lives estimated to be between three and fifteen years. Within this balance individually material balances relate to RCS: £13,910,000 (2016: £13,996,000), Firetrace: £14,637,000 (2016: £14,010,000) and £15,380,000 (2016: £15,295,000), Visiometrics: £Nil (2016: £12,936,000) and CenTrak: £20,782,000 (2016 (restated)*: £19,749,000). The remaining amortisation periods for these assets are seven years, eleven years, eight years, nine years and fourteen years respectively.
- 2 Technical know-how assets are amortised over their useful economic lives, estimated to be between three and ten years. Within this balance individually material items relate to RCS which has a carrying value of £9,648,000 (2016: £9,708,000) and CenTrak with a carrying value of £17,672,000 (2016 (restated)*: £17,313,000). The remaining amortisation periods for these assets are seven years and nine years respectively.
- 3 Trademarks, brands and patents (which include protected intellectual property) are amortised over their useful economic lives estimated to be between eight and fifteen years. There are no individually material items within this balance.
- 4 Internally generated capitalised development costs are amortised over their useful economic lives estimated to be three years. There are no individually material items within this balance, which comprises capitalised costs arising from the development phase of the R&D projects undertaken by the Group.
- 5 Other intangibles comprise licence and product registration costs amortised over their useful economic lives estimated to be between three and five years.

During the year, the customer relationship intangible related to a particular customer of Visiometrics, a prior year acquisition, was impaired in full as result of a change in strategic focus by the customer away from their Visiometrics based product. See also notes 1 and 19.

13 Property, plant and equipment

	Land and buildings			Plant, equipment and vehicles	Total
	Freehold £000	Long leases £000	Short leases £000	£000	£000
Cost					
At 28 March 2015	39,756	5,157	7,973	134,945	187,831
Transfer between category	-	-	7	9	16
Assets of businesses acquired	-	-	79	894	973
Additions at cost	4,397	123	2,962	14,936	22,418
Disposals and retirements	(444)	-	(595)	(4,312)	(5,351)
Exchange adjustments	1,590	160	277	4,341	6,368
At 2 April 2016	45,299	5,440	10,703	150,813	212,255
Transfer between category/from inventory	-	-	129	403	532
Assets of businesses acquired (note 24)	-	-	31	186	217
Additions at cost	2,063	212	590	19,010	21,875
Disposals and retirements	-	(1)	(174)	(8,425)	(8,600)
Exchange adjustments	2,609	515	737	10,624	14,485
At 1 April 2017	49,971	6,166	12,016	172,611	240,764
Accumulated depreciation					
At 28 March 2015	10,134	1,749	4,456	85,189	101,528
Charge for the year	679	416	905	13,245	15,245
Disposals and retirements	(158)	-	(566)	(3,632)	(4,356)
Exchange adjustments	391	67	94	2,724	3,276
At 2 April 2016	11,046	2,232	4,889	97,526	115,693
Transfer between category	-	-	15	137	152
Charge for the year	885	567	1,162	15,184	17,798
Impairment	-	-	-	334	334
Disposals and retirements	-	7	(169)	(6,899)	(7,061)
Exchange adjustments	709	219	293	6,611	7,832
At 1 April 2017	12,640	3,025	6,190	112,893	134,748
Carrying amounts					
At 1 April 2017	37,331	3,141	5,826	59,718	106,016
At 2 April 2016	34,253	3,208	5,814	53,287	96,562

During the year assets under construction included within freehold land and buildings were completed and depreciation commenced. Their carrying value at the prior year end was £8,269,000.

During the year demonstration equipment with a net book value of £271,000 (2016: £nil) was transferred from inventory to plant, equipment and vehicles.

Notes to the Accounts continued

14 Interest in associate

	1 April 2017 £000	2 April 2016 £000
Interest in associate		
At beginning of the year	3,722	4,236
Disposal cost of investments	–	(386)
Exchange adjustments	(13)	(25)
Group's share of loss of associate before Group eliminations	(156)	(103)
At end of year	3,553	3,722
	1 April 2017 £000	2 April 2016 £000
Aggregated amounts relating to associate		
Total assets	8,147	7,488
Total liabilities	(4,563)	(4,129)
Net assets	3,584	3,359
Group's share of net assets of associate	957	897
Total revenue	5,554	4,352
Loss	(584)	(313)
Loss after group eliminations*	(307)	(838)
Group's share of loss of associate	(156)	(103)
Group's share of loss of associate after Group eliminations*	(81)	(159)

* Group eliminations relate to profit on inventory held by the Group on product sold by Optomed.

Optomed has a 31 December year end. However, results coterminous with the Group's year end have been included based on the Group's share of the associate.

Details of the Group's associate held at 1 April 2017 are as follows:

Name of associate	Country of incorporation	Proportion of ownership interest	Principal activity
Optomed Oy	Finland	26.7%	Design, manufacture and selling

The Group owns 95,034 (2016: 95,034) Class A shares in Optomed out of a total of 355,932 (2016: 355,932) shares in issue (Class A and B shares). Each A and B share entitles the holder to one vote.

15 Inventories

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Raw materials and consumables	60,132	54,901
Work in progress	13,202	9,907
Finished goods and goods for resale	45,446	40,475
	118,780	105,283

The above is stated net of provision for slow-moving and obsolete stock, movements of which are shown below:

	1 April 2017 £000	(Restated)* 2 April 2016 £000
At beginning of the year	15,447	12,600
Write downs of inventories recognised as an expense	3,602	1,248
Recognition of provisions for businesses acquired	185	1,803
Amounts reversed against inventories previously impaired and utilisation	(3,017)	(789)
Transfers between categories	(118)	–
Exchange adjustments	1,287	585
At end of the year	17,386	15,447

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

During the year, as described in note 29, inventory with a carrying value of £1,300,000 was written down and subsequently disposed of as part of the restructuring of non-core operations in Pixelteq.

Previous write-downs against inventory have been reversed as a result of increased sales in certain markets or where previously written down inventories have been disposed.

There is no material difference between the balance sheet value of inventories and their cost of replacement. None of the inventory has been pledged as security.

16 Trade and other receivables

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Trade receivables	192,066	164,249
Allowance for doubtful debts	(5,099)	(4,238)
	186,967	160,011
Other receivables	6,628	8,015
Prepayments	18,299	16,023
Accrued income	342	77
	212,236	184,126

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Notes to the Accounts continued

16 Trade and other receivables continued

The movement in the allowance for doubtful debts in respect of trade receivables during the year was as follows:

	1 April 2017 £000	2 April 2016 £000
At beginning of the year	4,238	2,802
Net impairment loss recognised	1,045	1,494
Amounts recovered against trade receivables previously written down	(371)	(828)
Recognition of provisions for businesses acquired	(46)	649
Exchange adjustments	233	121
At end of the year	5,099	4,238

Impairment charges are recorded against the trade receivables which the Group believes may not be recoverable. In the case of trade receivables that are past due, management makes an assessment of the risk of non-collection, taking into account factors such as previous default experience, any disputes or other factors delaying payment and the risk of bankruptcy or other failure of the customer to meet their obligations. For trade receivables that are not past due, taking into account good historical collection experience, management records an impairment charge only where there is a specific risk of non-collection.

The fair value of trade and other receivables approximates to book value due to the short-term maturities associated with these items. There is no impairment risk identified with regards to prepayments and accrued income or other receivables where no amounts are past due.

The ageing of trade receivables was as follows:

	Gross trade receivables		Trade receivables net of doubtful debts	
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
Not yet due	139,447	120,236	138,899	119,773
Up to one month overdue	30,386	26,125	30,251	26,101
Up to two months overdue	8,025	6,387	7,709	6,210
Up to three months overdue	3,166	3,746	3,077	3,180
Over three months overdue	11,042	7,755	7,031	4,747
	192,066	164,249	186,967	160,011

17 Trade and other payables: falling due within one year

	1 April 2017 £000	2 April 2016 £000
Trade payables	73,422	68,049
Other taxation and social security	6,454	4,998
Other payables	4,468	4,737
Accruals	42,626	38,204
Deferred income	7,731	6,679
Deferred government grant income	115	124
	134,816	122,791

18 Borrowings

	1 April 2017 £000	2 April 2016 £000
Loan notes falling due within one year	161	336
Overdrafts	1,190	4,412
Total borrowings falling due within one year	1,351	4,748
Unsecured loan notes falling due after more than one year	181,157	172,112
Unsecured bank loans falling due after more than one year	80,761	123,796
Total borrowings falling due after more than one year	261,918	295,908
	263,269	300,656

The loan notes falling due within one year, which relate to the previous acquisition of Advanced, were converted at par to cash on 19 May 2017. The remaining Advanced loan notes outstanding at the balance sheet date, totalling £176,000, are convertible at par to cash on each anniversary of the acquisition date until May 2019 and are classified as due after more than one year.

The remainder of the loan notes falling due after more than one year relate to the United States Private Placement completed in November 2015.

Information concerning the security, currency, interest rates and maturity of the Group's borrowings is given in note 26.

19 Provisions

Provisions are presented as:

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Current	6,776	4,789
Non-current	16,917	19,355
	23,693	24,144

	Contingent purchase consideration £000	Dilapidations and empty property £000	Product warranty £000	Legal, contractual and other £000	Total £000
At 2 April 2016 (restated)*	17,075	1,765	4,023	1,281	24,144
Unwinding of discount	31	-	-	-	31
Additional provision in the year	-	236	917	333	1,486
Arising on acquisition (note 24)	9,407	84	21	-	9,512
Utilised during the year	(349)	(19)	(638)	(421)	(1,427)
Released during the year	(10,456)	(115)	(718)	(75)	(11,364)
Exchange adjustments	736	75	327	173	1,311
At 1 April 2017	16,444	2,026	3,932	1,291	23,693

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Notes to the Accounts continued

19 Provisions continued

Contingent purchase consideration

The provision at the beginning of the year comprised £84,000 falling due within one year relating to the previous acquisition of ASL and £16,991,000 falling due after one year, mainly relating to the acquisition of Visiometrics.

The £9,407,000 addition arising on acquisition relates to the acquisition of FluxData Inc. during the year. See note 24.

The amount utilised during the year relates mainly to amounts owed by the Visiometrics vendors on agreement of the closing net tangible asset adjustment at acquisition totalling £272,000 which was recorded against the deferred contingent consideration payable as the balance is to be settled net. £70,000 was also paid as final settlement of the payable due for ASL.

The £10,457,000 release of provision relates to revisions to the estimates of the earn outs for Visiometrics, VAS and ASL by £10,087,000, £356,000 and £14,000 respectively.

The Visiometrics earn out comprises a Royalty and Core element. The Royalty element which is payable based on gross margin on sales to one particular customer has been revised downwards to nil as at the year end as a result of a change of strategic focus by that customer. The associated customer relationship intangible was also impaired in full as discussed in note 12. The Core element which is payable on a multiple of EBITDA for each calendar year to December 2018 has been revised downwards based on current estimates of future trading. £2,700,000 of the €9,000,000 (£6,558,000) payment made into escrow on acquisition was released to the vendors during the year following the company successfully meeting the €2,000,000 EBITDA Reserve Goal at the end of December 2016. The balance is to be released to the vendors subject to collection of all related outstanding debtors no later than 30 June 2017.

Of the closing total provision of £16,444,000, £427,000 payable for the acquisition of VAS was settled in April 2017; £287,000 (£336,000) was paid, representing the first year Royalty earn out for Visiometrics on sales made prior to the change in focus by the customer, offset by the £272,000 net tangible asset receivable; and £321,000 was settled in May 2017 for the first FluxData earn out covering the three month period to March 2017. As discussed above, there is nothing further expected to be paid under the Royalty element of the Visiometrics earn out. The balance due after more than one year comprises £4,703,000 payable for the year to March 2018 for the acquisition of FluxData and £10,693,000 payable for the year to March 2019 for FluxData and for the core earn out element of Visiometrics.

Dilapidations and empty property

Dilapidations and empty property provisions exist where the Group has lease contracts under which the unavoidable costs of meeting its obligations under the contracts exceed the economic benefits expected to be received under them. The provisions comprise the Directors' best estimates of future payments:

- a) to restore the fabric of buildings to their original condition where it is a condition of the leases prior to return of the properties; and
- b) on vacant properties, the rental costs of which are not expected to be recoverable from subleasing the properties.

These commitments cover the period from 2017 to 2028 though they predominantly fall due within five years.

Product warranty

Product warranty provisions reflect commitments made to customers on the sale of goods in the ordinary course of business and included within the Group companies' standard terms and conditions. Warranty commitments cover a period of between one and five years and typically apply for a 12-month period. The provision represents the Directors' best estimate of the Group's liability based on past experience.

Legal, contractual and other

Legal, contractual and other provisions comprise mainly amounts reserved against open legal and contractual disputes. The Company has on occasion been required to take legal or other actions to defend itself against proceedings brought by other parties. Provisions are made for the expected costs associated with such matters, based on past experience of similar items and other known factors, taking into account professional advice received, and represent Directors' best estimate of the likely outcome. The timing of utilisation of these provisions is frequently uncertain reflecting the complexity of issues and the outcome of various court proceedings and negotiations. Contractual and other provisions represent the Directors' best estimate of the cost of settling future obligations. Unless specific evidence exists to the contrary, these reserves are shown as current.

However, no provision is made for proceedings which have been or might be brought by other parties against Group companies unless the Directors, taking into account professional advice received, assess that it is more likely than not that such proceedings may be successful.

20 Trade and other payables: falling due after one year

	1 April 2017 £000	2 April 2016 £000
Other payables	516	931
Accruals	845	825
Deferred income	9,234	7,656
Deferred government grant income	626	741
	11,221	10,153

21 Deferred tax

	Retirement benefit obligations £000	Acquired intangible assets £000	Accelerated tax depreciation £000	Short-term timing differences £000	Share- based payment £000	Goodwill timing differences £000	Total £000
At 2 April 2016 (restated)*	9,619	(68,136)	(6,326)	1,219	2,639	12,043	(48,942)
(Charge)/credit to Consolidated Income Statement	(1,754)	13,111	426	(154)	419	(5,296)	6,752
(Charge)/credit to Consolidated Statement of Comprehensive Income	6,082	-	-	(233)	-	-	5,849
Credit to equity	-	-	-	-	65	-	65
Acquired (note 24)	-	(5,126)	-	273	-	4,838	(15)
Exchange adjustments	-	(7,836)	(691)	313	-	1,250	(6,964)
At 1 April 2017	13,947	(67,987)	(6,591)	1,418	3,123	12,835	(43,255)
At 28 March 2015	13,085	(35,066)	(5,519)	356	2,330	1,548	(23,266)
(Charge)/credit to Consolidated Income Statement	(1,162)	6,989	(514)	785	200	(3,060)	3,238
(Charge)/credit to Consolidated Statement of Comprehensive Income	(2,304)	-	-	209	-	-	(2,095)
Credit to equity	-	-	-	-	109	-	109
Acquired (restated)*	-	(37,488)	(62)	(119)	-	12,799	(24,870)
Exchange adjustments	-	(2,571)	(231)	(12)	-	756	(2,058)
At 2 April 2016 (restated)*	9,619	(68,136)	(6,326)	1,219	2,639	12,043	(48,942)

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Notes to the Accounts continued

21 Deferred tax continued

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the deferred tax balances (after offset) for financial reporting purposes:

	1 April 2017 £000	(Restated)* 2 April 2016 £000
Deferred tax liability	(100,121)	(93,366)
Deferred tax asset	56,866	44,424
Net deferred tax liability	(43,255)	(48,942)

Movement in net deferred tax liability:

	1 April 2017 £000	(Restated)* 2 April 2016 £000
At beginning of year	(48,942)	(23,266)
(Charge)/credit to Consolidated Income Statement:		
UK	(2,392)	(1,407)
Overseas	9,144	4,645
Credit/(charge) to Consolidated Statement of Comprehensive Income	5,849	(2,095)
Credit to equity	65	109
Acquired (note 24)	(15)	(24,870)
Exchange adjustments	(6,964)	(2,058)
At end of year	(43,255)	(48,942)

* Comparatives have been restated, as required by IFRS 3 (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Phased reductions in the UK corporation tax rate to 19% (effective from 1 April 2017) and 17% (effective from 1 April 2020) were substantively enacted in the UK Finance (No. 2) Act 2015 and UK Finance Act 2016, respectively.

It is likely that the unremitted earnings of overseas subsidiaries would qualify for the UK dividend exemption such that no UK tax would be due upon remitting those earnings to the UK. However, £35,788,000 (2016: £29,155,000) of those earnings may still result in a tax liability, principally as a result of the dividend withholding taxes levied by the overseas jurisdictions in which those subsidiaries operate. These tax liabilities are not expected to exceed £3,595,000 (2016: £3,192,000) of which only £801,000 has been provided as the Group is able to control the timing of the dividends. It is not expected that further amounts will crystallise in the foreseeable future. Temporary timing differences in connection with the interest in associate are insignificant.

At 1 April 2017 the Group had unused capital tax losses of £318,000 (2016: £155,000) for which no deferred tax asset has been recognised.

22 Share capital

	Issued and fully paid	
	1 April 2017 £000	2 April 2016 £000
Ordinary shares of 10p each	37,965	37,965

The number of ordinary shares in issue at 1 April 2017 was 379,645,332 (2016: 379,645,332), including treasury shares of 462,188 (2016: 940,421) and shares held by the Employee Benefit Trust of 512,417 (2016: 311,444).

23 Share-based payments

The total cost recognised in the Consolidated Income Statement in respect of share-based payment plans (the 'employee share plans') was as follows:

	52 weeks to 1 April 2017			53 weeks to 2 April 2016		
	Equity-settled £000	Cash-settled £000	Total £000	Equity-settled £000	Cash-settled £000	Total £000
Share incentive plan	691	–	691	724	–	724
Performance share plan	2,207	392	2,599	3,522	1,302	4,824
Executive share plan	3,211	237	3,448	323	12	335
	6,109	629	6,738	4,569	1,314	5,883

The Group has recorded liabilities of £nil (2016: £1,130,000) in respect of the cash-settled portion of the awards granted under the performance share plan.

Share incentive plan

Shares awarded under this Plan are purchased in the market by the Plan's trustees at the time of the award and are held in trust until their transfer to qualifying employees; vesting is conditional upon completion of three years' service. The costs of providing this Plan are recognised in the Consolidated Income Statement over the three-year vesting period.

Performance share plan (PSP)

The PSP was approved by shareholders on 3 August 2005 and replaced the previous share option plans. During the prior year the PSP was replaced with the Executive share plan.

Awards made under this Plan vest after three years on a sliding scale subject to the Group's relative Total Shareholder Return against the FTSE 250 excluding financial companies, combined with an absolute Return on Total Invested Capital measure. Awards which do not vest, lapse on the third anniversary of their award.

A summary of the movements in share awards granted under the PSP is as follows:

	2017 Number of shares awarded	2016 Number of shares awarded
Outstanding at beginning of year	1,857,263	3,111,344
Converted to equity during the year	28,308	–
Vested during the year (pro-rated for 'good leavers')	(839,393)	(867,910)
Lapsed during the year	(85,524)	(386,171)
Outstanding at end of year	960,654	1,857,263
Exercisable at end of year	–	–

The weighted average share price at the date of awards vesting during the year was 1061.0p (2016: 759.0p).

The performance shares outstanding at 1 April 2017 had a weighted average remaining contractual life of 5 months (2016: 11 months).

Executive share plan (ESP)

During the year ended 2 April 2016 the Group introduced the ESP, in which executive Directors and certain senior employees participate.

Deferred share awards are made under this Plan as either performance awards or deferred awards. Performance awards vest after three years based on Earnings Per Share and Return on Total Invested Capital (ROTIC) targets, and after two or three years for deferred share awards based on continuing service of the employee only. Awards which do not vest, lapse on the second or third anniversary of their grant.

Notes to the Accounts continued

23 Share-based payments continued

	2017 Number of shares awarded	2016 Number of shares awarded
Outstanding at beginning of year	772,947	–
Granted during the year	1,005,986	786,805
Vested during the year (pro-rated for 'good leavers')	–	(982)
Lapsed during the year	(84,121)	(12,876)
Outstanding at end of year	1,694,812	772,947
Exercisable at end of year	–	–

The performance shares outstanding at 1 April 2017 had a weighted average remaining contractual life of 23 months (2016: 34 months).

The fair value of the awards was calculated using an appropriate simulation method.

	2017	2016	2015
Expected volatility (%)	–	–	21%
Expected life (years)	2	3	3
Share price on date of grant (p)	1,046.0	757.0	569.9
Option price (p)	Nil	Nil	Nil
Fair value per option (%)	100%	100%	62.4%
Fair value per option (p)	1,036.0	745.2	355.9
Awarded under	ESP	ESP	PSP

The expected volatility was determined by calculating the historical volatility of the Group's share price over the previous three years.

Cash settled

Awards under the above plans are normally settled in shares but may be settled in cash at the Board's discretion or where required by local regulations. Cash settled awards follow the same vesting conditions as the plans under which they are awarded.

24 Acquisitions

In accounting for acquisitions, adjustments are made to the book values of the net assets of the companies acquired to reflect their fair values to the Group. Acquired inventories are valued at fair value adopting Group bases and any liabilities for warranties relating to past trading are recognised. Other previously unrecognised assets and liabilities at acquisition are included and accounting policies are aligned with those of the Group where appropriate.

Below are summaries of the assets acquired and liabilities assumed and the purchase consideration of:

- the total of FluxData Inc. and adjustments to prior year acquisitions;
- FluxData Inc., on a stand-alone basis;
- the adjustments to prior year acquisitions, on a stand-alone basis; and
- the total of FluxData Inc. and adjustments to prior year acquisitions, allocated between restated and not restated.

Due to their contractual dates, the fair value of receivables acquired (shown below) approximate to the gross contractual amounts receivable. The amount of gross contractual receivables not expected to be recovered is immaterial.

There are no material contingent liabilities recognised in accordance with paragraph 23 of IFRS 3 (revised).

The combined fair value adjustments made for the acquisition of FluxData and for prior year acquisitions within the goodwill measurement window under IFRS 3, excluding acquired intangible assets recognised and deferred tax thereon, resulted in net adjustments to goodwill of negative £541,000.

As at the date of approval of the financial statements, the acquisition accounting for all prior year acquisitions is complete. The accounting for FluxData is provisional; relating to finalisation of the valuation of acquired intangibles and the initial consideration, which is subject to agreement of the net tangible asset adjustment.

24 Acquisitions continued

a) Total of FluxData Inc. and adjustments to prior year acquisitions

	Total £000
Non-current assets	
Intangible assets	17,366
Property, plant and equipment	217
Current assets	
Inventories	340
Trade and other receivables	512
Total assets	18,435
Current liabilities	
Trade and other payables	(464)
Provisions	(453)
Non-current liabilities	
Provisions	(834)
Deferred tax	(1,016)
Total liabilities	(2,767)
Net assets of businesses acquired	15,668
Initial cash consideration paid	9,878
Initial cash consideration payable*	77
Initial consideration adjustment on prior year acquisitions	(555)
Contingent purchase consideration estimated to be paid (FluxData)	9,407
Total consideration	18,807
Goodwill arising on acquisitions (current year & prior year (not restated))	5,273
Goodwill arising on prior year acquisitions (restated)	(2,134)
Total goodwill	3,139

* Estimate in respect of net tangible asset adjustment.

Analysis of cash outflow in the Consolidated Cash Flow Statement

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Initial cash consideration paid	9,878	187,601
Cash acquired on acquisitions	–	(1,830)
Initial cash consideration adjustment on prior year acquisitions	(496)	–
Contingent consideration paid in relation to current year acquisitions	–	6,558
Contingent consideration paid and loan notes repaid in cash in relation to prior year acquisitions*	590	10,246
Net cash outflow relating to acquisitions (per Consolidated Cash Flow Statement)	9,972	202,575

* The £590,000 comprises £241,000 loan notes and £349,000 contingent consideration paid in respect of prior period acquisitions all of which had been provided in the prior period's financial statements.

Notes to the Accounts continued

24 Acquisitions continued

b) FluxData Inc.

	Total £000
Non-current assets	
Intangible assets	13,515
Property, plant and equipment	217
Current assets	
Inventories	456
Trade and other receivables	711
Total assets	14,899
Current liabilities	
Trade and other payables	(458)
Provisions	(21)
Total liabilities	(479)
Net assets of businesses acquired	14,420
Initial cash consideration paid	9,878
Additional cash consideration payable*	77
Contingent purchase consideration estimated to be paid	9,407
Total consideration	19,362
Goodwill arising on acquisition	4,942

* Estimate in respect of net tangible asset adjustment.

The Group acquired the entire share capital of FluxData Inc. on 6 January 2017 for an initial cash consideration of US\$12,000,000 (£9,878,000). The maximum contingent consideration payable is US\$15,500,000 (£12,759,000). The current provision of US\$11,428,000 (£9,407,000) represents the fair value of the estimated payable based on performance to date and the expectation of future cash flows. The earn out is payable on gross margin in excess of a target threshold for the period ending March 2017 and then annually until March 2019.

FluxData designs and manufactures advanced multispectral and digital imaging systems across multiple sectors including industrial and medical applications. Based in New York State, USA, it has become part of the Environmental & Analysis sector, building on the existing multispectral imaging capabilities within those companies. Existing management will remain in place.

The excess of the fair value of the consideration paid over the fair value of the assets acquired is represented by customer related intangibles of £7,240,000; and technology related intangibles of £6,250,000; with residual goodwill arising of £4,942,000. The goodwill represents:

- a) the technical expertise of the acquired workforce;
- b) the ability to exploit the Group's existing customer base; and
- c) the opportunity to leverage the technical expertise across Halma's businesses and through new products.

The FluxData acquisition contributed £1,017,000 of revenue and £213,000 of profit after tax for the year ended 1 April 2017.

If this acquisition had been held since the start of the financial year, it is estimated that the Group's reported revenue and profit after tax would have been £3,518,000 and £928,000 higher respectively.

Acquisition costs totalling £264,000 were recorded in the Consolidated Income Statement.

£17,798,000 of goodwill arising on the FluxData acquisition is expected to be deductible for tax purposes.

24 Acquisitions continued

c) Adjustments to prior year acquisitions

	Total £000
Non-current assets	
Intangible assets	3,851
Current assets	
Inventories	(116)
Trade and other receivables	(199)
Total assets	3,536
Current liabilities	
Trade and other payables	(6)
Provisions	(432)
Non-current liabilities	
Provisions	(834)
Deferred tax	(1,016)
Total liabilities	(2,288)
Net assets of businesses acquired	1,248
Initial cash consideration adjustment	(555)
Goodwill arising on acquisition	(1,803)

During the year adjustments were made to the fair values of acquired assets and liabilities included in the provisional accounting for the prior year acquisitions of Firetrace, Visiometrics and CenTrak.

The provisional accounting was updated for the external valuation of the acquired intangibles of CenTrak which was incomplete at the prior year end, for changes to certain provisions and inventory valuations across all three acquisitions, and for adjustments to the related deferred tax balances. The initial consideration for CenTrak was also adjusted following the finalisation of the working capital adjustment payable. The combined adjustments made for each acquisition resulted in a net adjustment to goodwill of £1,803,000.

The net increase of £3,851,000 in intangible assets arising on the acquisition of CenTrak included a decrease in the technology asset by £7,198,000 and an increase in the customer relationship asset and trademark asset by £4,851,000 and £6,198,000 respectively.

All adjustments to the provisional accounting were made within the goodwill measurement period, relevant to each acquisition, as defined by IFRS 3 (revised) 'Business Combinations'. As required by IFRS 3, comparatives have been restated to reflect the changes to the fair values of assets acquired and liabilities assumed for CenTrak, which, totalling a net adjustment to goodwill of negative £2,134,000, are considered material, as if they'd occurred at the date of acquisition. The comparatives have not been restated for the non-material changes to Firetrace and Visiometrics, totalling a net adjustment to goodwill of £331,000. The table overleaf sets out the total assets acquired and liabilities assumed arising on current acquisitions and adjustments to prior year acquisitions split between those which have been treated as current year adjustments and those as prior year for which comparatives have been restated.

Notes to the Accounts continued

24 Acquisitions continued

d) The total of FluxData Inc. and adjustments to prior year acquisitions, allocated between restated and not restated

	Not restated £000	Restated £000	Total £000
Non-current assets			
Intangible assets	13,515	3,851	17,366
Property, plant and equipment	217	-	217
Current assets			
Inventories	375	(35)	340
Trade and other receivables	554	(42)	512
Total assets	14,661	3,774	18,435
Current liabilities			
Trade and other payables	(464)	-	(464)
Provisions	(105)	(348)	(453)
Non-current liabilities			
Provisions	-	(834)	(834)
Deferred tax	(15)	(1,001)	(1,016)
Total liabilities	(584)	(2,183)	(2,767)
Net assets of businesses acquired	14,077	1,591	15,668
Initial cash consideration paid	9,878	-	9,878
Initial cash consideration payable*	77	-	77
Initial consideration adjustment on prior year acquisitions	(12)	(543)	(555)
Contingent purchase consideration estimated to be paid (FluxData)	9,407	-	9,407
Total consideration	19,350	(543)	18,807
Goodwill arising on acquisition	5,273	(2,134)	3,139

* Estimate in respect of net tangible asset adjustment.

25 Notes to the Consolidated Cash Flow Statement

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Reconciliation of profit from operations to net cash inflow from operating activities:		
Profit on continuing operations before finance income and expense, share of results of associate and profit on disposal of operations	167,070	142,943
Depreciation of property, plant and equipment	17,798	15,245
Amortisation of computer software	1,432	1,348
Amortisation of capitalised development costs and other intangibles	6,947	5,202
Impairment of intangibles	98	-
Amortisation of acquired intangible assets	31,469	23,103
Impairment of acquired intangible assets	12,429	-
Share-based payment expense in excess of amounts paid	1,880	1,899
Additional payments to pension plans	(10,213)	(7,728)
Loss on restructuring of operations	1,252	-
Loss/(profit) on sale of property, plant and equipment and computer software	138	(1,345)
Operating cash flows before movement in working capital	230,300	180,667
Increase in inventories	(5,406)	(4,809)
Increase in receivables	(14,262)	(8,786)
Increase in payables and provisions	5,750	7,844
Revision to estimate of, and exchange differences arising on, contingent consideration payable	(10,701)	1,543
Cash generated from operations	205,681	176,459
Taxation paid	(33,188)	(27,186)
Net cash inflow from operating activities	172,493	149,273
	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Analysis of cash and cash equivalents		
Cash and bank balances	66,827	53,938
Overdrafts (included in current borrowings)	(1,190)	(4,412)
Cash and cash equivalents	65,637	49,526

Notes to the Accounts continued

25 Notes to the Consolidated Cash Flow Statement continued

	At 2 April 2016 £000	Reclass £000	Cash flow £000	Loan notes repaid £000	Exchange adjustments £000	At 1 April 2017 £000
Analysis of net debt						
Cash and bank balances	53,938	–	9,043	–	3,846	66,827
Overdrafts	(4,412)	–	3,222	–	–	(1,190)
Cash and cash equivalents	49,526	–	12,265	–	3,846	65,637
Loan notes falling due within one year	(336)	(66)	–	241	–	(161)
Loan notes falling due after more than one year	(172,112)	66	–	–	(9,111)	(181,157)
Bank loans falling due after more than one year	(123,796)	–	54,761	–	(11,726)	(80,761)
Total net debt	(246,718)	–	67,026	241	(16,991)	(196,442)

The net cash outflow from loan notes relates to £241,000 repayment of existing loan notes issued in relation to the previous acquisition of Advanced.

26 Financial instruments

Policy

The Group's treasury policies seek to minimise financial risks and to ensure sufficient liquidity for the Group's operations and strategic plans. No complex derivative financial instruments are used, and no trading or speculative transactions in financial instruments are undertaken. Where the Group does use financial instruments these are mainly to manage the currency risks arising from normal operations and its financing. Operations are financed mainly through retained profits and, in certain geographic locations, bank borrowings. Foreign currency risk is the most significant aspect for the Group in the area of financial instruments. It is exposed to a lesser extent to other risks such as interest rate risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and these policies are summarised below. The Group's policies have remained unchanged since the beginning of the financial year.

Details of the significant accounting policies and methods adopted (including the criteria for recognition, the basis of measurement and the bases of recognition of income and expenses) for each class of financial asset, financial liability and equity instrument are disclosed in the Accounting Policies note.

Capital risk management

The Group manages its capital to ensure that entities in the Group will be able to continue as going concerns while maximising the return to stakeholders through the optimisation of the debt and equity balance. The capital structure of the Group consists of debt, which includes the borrowings disclosed in note 18 to the Accounts, cash and cash equivalents and equity attributable to equity holders of the parent, comprising issued capital, reserves and retained earnings as disclosed in the Consolidated Statement of Changes in Equity.

The Group is not subject to externally imposed capital requirements.

26 Financial instruments continued

Foreign currency risk

The Group is exposed to foreign currency risk as a consequence of both trading with foreign companies and owning subsidiaries located in foreign countries.

The Group earns a significant proportion of its profit in currencies other than Sterling. This gives rise to translational currency risk, where the Sterling value of profits earned by the Group's foreign subsidiaries fluctuates with the strength of Sterling relative to their operating (or 'functional') currencies. The Group does not hedge this risk, so its reported profit is sensitive to the strength of Sterling, particularly against the US Dollar and Euro. The Group also has transactional currency exposures. These arise on sales or purchases by operating companies in currencies other than the companies' operating (or 'functional') currency. Significant sales and purchases are matched where possible and a proportion of the net exposure is hedged by means of forward foreign currency contracts.

The Group has significant investments in overseas operations in the USA and EU, with further investments in Australia, New Zealand, Singapore, Switzerland, China and India. As a result, the Group's balance sheet can be affected by movements in these countries' exchange rates. Where significant and appropriate, currency denominated net assets are hedged by currency borrowings. These currency exposures are reviewed regularly.

Interest rate risk

The Group is exposed to interest rate fluctuations on its borrowings and cash deposits. Where bank borrowings are used to finance operations they tend to be short term with floating interest rates. Longer-term funding is provided by the Group's bank loan facilities which are at floating rates, or by the Group's fixed rate United States Private Placement completed in November 2015.

Surplus funds are placed on short-term fixed rate deposit or in floating rate deposit accounts.

Credit risk

Credit risk is defined as the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group has adopted a policy of only dealing with creditworthy counterparties, as a means of mitigating the risk of financial loss from defaults. Credit ratings are supplied by independent agencies where available, and if not available, the Group uses other publicly available financial information and its own trading records to rate its major customers. The Group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties. Credit exposure is controlled by counterparty limits that are reviewed regularly.

Trade receivables consist of a large number of customers, spread across diverse industries and geographic areas. Ongoing credit evaluation is performed on the financial condition of accounts receivable and, where appropriate, credit guarantee insurance cover is purchased.

The carrying amount of trade, tax and other receivables, derivative financial instruments and cash of £261,486,000 (2016 (restated)*: £223,362,000) represents the Group's maximum exposure to credit risk as no collateral or other credit enhancements are held.

The credit risk on liquid funds and derivative financial instruments is limited because the counterparties are banks with high credit ratings assigned by international credit-rating agencies.

* Comparatives have been restated, as required by IFRS (revised) Business Combinations, for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Liquidity risk

The Group has a syndicated multi-currency revolving credit facility (RCF) which was refinanced on 4 November 2016 and increased from £360,000,000 to £550,000,000. The facility, in Sterling, US Dollar, Euro, and Swiss Franc, runs to October 2021 with the potential for a further two years extension with the agreement of the syndicate of banks.

In addition, in November 2015 the Group completed a United States Private Placement and issued US\$250,000,000 of loan notes in January 2016, repayable at five, seven and ten year intervals. These facilities are the main sources of long-term funding for the Group.

The Group has a strong cash flow and the funds generated by operating companies are managed regionally based on geographic location.

Funds are placed on deposit with secure, highly-rated banks. For short-term working capital purposes, most operating companies utilise local bank overdrafts. These practices allow a balance to be maintained between continuity of funding, security and flexibility. Because of the nature of their use, the facilities are typically 'on demand' and as such uncommitted. Overdraft facilities are typically renewed annually.

Notes to the Accounts continued

26 Financial instruments continued

Currency exposures

Translational exposures

It is estimated, by reference to the Group's US Dollar and Euro denominated profits, that a one per cent change in the value of the US Dollar relative to Sterling would have had a £823,000 (2016: £673,000) impact on the Group's reported profit before tax; and a one per cent change in the value of the Euro relative to Sterling would have had a £286,000 (2016: £196,000) impact on the Group's profit before tax for the year ended 1 April 2017.

Transactional exposures

The Group has net foreign currency monetary assets and liabilities that are assets and liabilities not denominated in the functional currency of the underlying company. These comprise cash and overdrafts as well as certain trade receivable and payable balances. These foreign currency monetary assets and liabilities give rise to the net currency gains and losses recognised in the Consolidated Income Statement as a result of movement in exchange rates. The exposures are predominantly US Dollar and Euro. Group policy is for a significant portion of foreign currency exposures, including sales and purchases, to be hedged by forward foreign exchange contracts in the company in which the transaction is recorded.

Interest rate risk profile

The Group's financial assets which are subject to interest rate fluctuations comprise interest bearing cash equivalents which totalled £2,974,000 at 1 April 2017 (2016: £3,318,000). These comprised Sterling denominated deposits of £187,000 (2016: £115,000), and Euro, US Dollar and Renminbi deposits of £2,787,000 (2016: £3,203,000) which are placed on local money markets and earn interest at market rates. Cash balances of £63,853,000 (2016: £50,620,000) earn interest at local market rates.

The financial liabilities which are subject to interest rate fluctuations comprise bank loans, bank overdrafts, and certain unsecured loans, which totalled £81,951,000 at 1 April 2017 (2016: £128,208,000). All bank loans bear interest at floating rates where the fixed period is typically no more than three months. Interest rates are based on the LIBOR of the currency in which the liabilities arise plus a small margin. Bank overdrafts bear interest at local base rates.

The loan notes related to the acquisition of Advanced Electronics Limited outstanding at 1 April 2017 attract interest at a fixed rate of 1%. The loan notes related to the United States Private Placement attract interest at a weighted average fixed rate of 2.5%.

The Group's weighted average interest cost on net debt for the year was 2.49% (2016: 1.99%).

	1 April 2017 £000	2 April 2016 £000
Analysis of interest bearing financial liabilities		
Sterling denominated bank loans	6,000	35,000
US Dollar denominated bank loans	65,895	80,634
Swiss Franc denominated bank loans	8,866	8,162
Total bank loans	80,761	123,796
Overdrafts (principally Sterling and US Dollar denominated)	1,190	4,412
Sterling denominated loan notes	82,337	82,578
US Dollar denominated loan notes	51,118	45,070
Euro denominated loan notes	47,863	44,800
Total interest bearing financial liabilities	263,269	300,656

For the year ended 1 April 2017 it is estimated that a general increase of one percentage point in interest rates would reduce the Group's profit before tax by £1,233,000 (2016: £1,658,000).

26 Financial instruments continued**Maturity of financial liabilities**

The gross contractual maturities of the Group's non-derivative financial liabilities that are neither current nor on demand are as follows:

	One to two years £000	Two and five years £000	After more than five years £000	Gross maturities £000	Effect of discounting /financing rates £000	Total £000
At 1 April 2017						
Accruals	150	505	190	845	–	845
Deferred income	3,307	3,612	2,315	9,234	–	9,234
Deferred government grant income	16	47	563	626	–	626
Other creditors	461	51	4	516	–	516
Contingent purchase consideration	4,703	10,805	–	15,508	(111)	15,397
Other provisions	346	739	435	1,520	–	1,520
Bank loans	–	80,761	–	80,761	–	80,761
Loan notes	4,537	86,370	116,567	207,474	(26,317)	181,157
	13,520	182,890	120,074	316,484	(26,428)	290,056

	One to two years £000	Two and five years £000	After more than five years £000	Gross maturities £000	Effect of discounting /financing rates £000	Total £000
At 2 April 2016						
Accruals	147	522	156	825	–	825
Deferred income	6,579	1,077	–	7,656	–	7,656
Deferred government grant income	115	47	579	741	–	741
Other creditors	892	36	3	931	–	931
Contingent purchase consideration	1,862	15,931	–	17,793	(804)	16,989
Other provisions	631	475	415	1,521	–	1,521
Bank loans	–	123,796	–	123,796	–	123,796
Loan notes	4,397	81,103	111,887	197,387	(25,275)	172,112
	14,623	222,987	113,040	350,650	(26,079)	324,571

The Group's bank loans are revolving credit facilities and the amount and timing of future payments and drawdowns is unknown. It is therefore not possible to calculate the interest arising on these loans and we have therefore not disclosed the maturity of the gross cash flows (including interest) in relation to these liabilities.

Notes to the Accounts continued

26 Financial instruments continued

Borrowing facilities

The Group's principal sources of long-term funding are its unsecured five-year £550,000,000 revolving credit facility. The revolving credit facility was refinanced in November 2016 and runs to October 2021 with the potential for a further two years extension with the agreement of the syndicate of banks. A United States Private Placement of US\$250,000,000 completed in November 2015. The unsecured loan notes under the United States Private Placement were drawn on 6 January 2016 as £82,000,000, €56,000,000 and US\$64,000,000 at a weighted average fixed interest rate of 2.5%. The loan notes mature at five, seven and ten year intervals. Interest is payable half yearly.

The Group has additional short-term unsecured and committed US bank facilities of £19,968,000, which mature in November 2018 and were undrawn at 1 April 2017.

Other short-term operational funding is provided by cash generated from operations and by local bank overdrafts. These overdraft facilities are uncommitted and are generally renewed on an annual or ongoing basis and hence the facilities expire within one year or less.

The Group's undrawn committed facilities available at 1 April 2017 were £469,239,000 (2016: £253,810,000) of which £nil (2016: £nil) matures within one year and £469,239,000 (2016: £253,810,000) between two and five years.

UK companies have cross-guaranteed £15,305,000 (2016: £15,305,000) of overdraft facilities of which £1,190,000 (2016: £4,412,000) was drawn.

Fair values of financial assets and financial liabilities

As at 1 April 2017, with the exception of the Group's fixed rate loan notes, there were no significant differences between the book value and fair value (as determined by market value) of the Group's financial assets and liabilities. As at 2 April 2016, there were no significant differences.

The fair value of floating borrowings approximates to the carrying value because interest rates are reset to market rates at intervals of less than one year.

The fair value of the Group's fixed rate loan notes arising from the United States Private Placement completed in January 2016 is estimated to be £182,936,000. The fair value is estimated by discounting the future contracted cash flow using readily available market data and represents a level 2 measurement in the fair value hierarchy under IFRS 7.

The fair value of derivative financial instruments is estimated by discounting the future contracted cash flow, using readily available market data, and represents a level 2 measurement in the fair value hierarchy under IFRS 7.

The fair value of deferred contingent consideration arising on acquisitions is estimated by discounting the possible future cash flows using probability adjusted forecasts for the acquired company, and represents a level 3 measurement in the fair value hierarchy under IFRS 7. The fair value is sensitive to the weighting assigned to the expected future cash flows. A change in weighting of 10 percentage points towards the higher expectations would result in an increase in the undiscounted estimate of future cash flows of €1,110,000 for Visiometrics S.L. Attributing more weighting to a downside expectation would result in a decrease in the estimate of future cash flows of US\$1,628,000 for FluxData Inc.

Hedging

As explained previously, the Group's policy is to hedge significant sales and purchases denominated in foreign currency using forward currency contracts. These instruments are initially recognised at fair value, which is typically £nil, and subsequent changes in fair value are taken to the Consolidated Income Statement, unless hedge accounted.

The following table details the forward foreign currency contracts outstanding as at the year end, which mostly mature within one year and therefore the cash flows and resulting effect on profit and loss are expected to occur within the next 12 months:

26 Financial instruments continued

Hedging continued

	Average exchange rate/£		Foreign currency		Contract value		Fair value	
	1 April 2017	2 April 2016	1 April 2017 000	2 April 2016 000	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
Forward contracts not in a designated cash flow hedge								
US Dollars	1.24	1.43	600	3,100	484	2,169	4	(15)
Euros	1.17	1.29	3,040	450	2,608	349	(10)	(11)
Other currencies					13,413	4,877	(123)	(4)
					16,505	7,395	(129)	(30)
Forward contracts in a designated cash flow hedge								
US Dollars	1.26	1.50	11,869	7,665	9,433	5,126	(20)	(202)
Euros	1.14	1.33	25,244	18,213	22,078	13,714	424	(790)
Other currencies					420	3,069	8	(43)
					31,931	21,909	412	(1,035)
Total forward contracts								
US Dollars	1.26	1.48	12,469	10,765	9,917	7,295	(16)	(217)
Euros	1.15	1.33	28,284	18,663	24,686	14,063	414	(801)
Other currencies					13,833	7,946	(115)	(47)
					48,436	29,304	283	(1,065)
Amounts recognised in the Consolidated Income Statement							(177)	(328)
Amounts recognised in the Consolidated Statement of Comprehensive Income and Expenditure							460	(737)
							283	(1,065)

The fair values of the forward contracts are disclosed as a £598,000 (2016: £1,131,000) asset and £315,000 (2016: £2,196,000) liability in the Consolidated Balance Sheet. Of the £13,413,000 (2016: £4,877,000) of open contracts not in a designated cash flow hedge £12,894,000 (2016: £4,357,000) relates to a Swiss Franc contract for expected cash flows between two subsidiaries within the Group.

Any movements in the fair values of the contracts are recognised in equity until the hedge transaction occurs, when gains/losses are recycled to finance income or finance expense.

	1 April 2017 £000	2 April 2016 £000
Analysis of movement in the Hedging reserve		
Amounts removed from Consolidated Statement of Changes in Equity and included in Consolidated Income Statement during the year	737	(253)
Amounts recognised in the Consolidated Statement of Comprehensive Income and Expenditure	460	(737)
Net movement in the Hedging reserve in the year in relation to the effective portion of changes in fair value of cash flow hedges	1,197	(990)

There was no ineffectiveness arising with regards to forward contracts in a designated cash flow hedge.

With the exception of currency exposures, the disclosures in this note exclude short-term receivables and payables.

Notes to the Accounts continued

26 Financial instruments continued

Market risk

The Group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates.

The Group enters into derivative financial instruments to manage its exposure to foreign currency risk, including:

- forward foreign exchange contracts to hedge the exchange rate risk arising on the export of goods to and from the USA, Mainland Europe and the UK; and
- foreign exchange loans to hedge the exchange rate risk arising on translation of the Group's investment in foreign operations which have the Euro, US Dollar and Swiss Franc as their functional currencies.

Market risk exposures are measured using sensitivity analysis as described below.

There has been no change to the Group's exposure to market risks or in the manner in which these risks are managed and measured.

Foreign currency sensitivity analysis

The Group is mainly exposed to the currency of the USA (US Dollar) and the currency of Mainland Europe (Euro).

The carrying amount of the Group's US Dollar and Euro denominated monetary assets and monetary liabilities at the reporting date are as follows:

	Assets		Liabilities	
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
US Dollar	750,301	666,035	263,247	237,877
Euro	183,415	175,148	72,956	66,820

If Sterling increased by 10% against the US Dollar and the Euro, profits before taxation and other equity would decrease as follows:

	US Dollar		Euro	
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
Profit	7,557	6,183	2,622	1,796
Other equity	44,278	38,923	10,042	9,848

The profit sensitivity arises mainly from the translation of overseas profits earned during the year. 10% is the sensitivity rate which management assesses to be a reasonably possible change in foreign exchange rates. The Group's profit sensitivity has increased against the US Dollar and Euro because more of the Group's profits are earned in these currencies.

27 Commitments**Capital commitments**

Capital expenditure authorised and contracted at 1 April 2017 but not recognised in these accounts amounts to £998,000 (2016: £2,776,000).

Commitments under operating leases

The Group has entered into commercial leases on properties and other equipment. The former expire between April 2017 and November 2028 and the latter between April 2017 and July 2022. Only certain property agreements contain an option for renewal at rental prices based on market prices at the time of exercise.

Total payments under non-cancellable operating leases will be made as follows:

	Land and buildings		Other	
	1 April 2017 £000	2 April 2016 £000	1 April 2017 £000	2 April 2016 £000
Within one year	11,590	9,095	409	396
Within two to five years	21,875	19,448	762	629
After five years	11,422	8,377	–	–
	44,887	36,920	1,171	1,025

28 Retirement benefits

Group companies operate both defined benefit and defined contribution pension plans. The Halma Group Pension Plan and the Apollo Pension and Life Assurance Plan (both UK) have defined benefit sections with assets held in separate trustee administered funds. Both of these sections had already closed to new entrants in 2002/03 and closed to future benefit accruals for 2014/15. From that date, the former defined benefit members joined the existing defined contribution section within the Halma Group Pension Plan.

Overseas subsidiaries have adopted mainly defined contribution plans, with the exception of two small defined benefit plans in the Swiss entities of Medice AG, and Robutec AG. A third scheme belonging to Robutec GmbH was merged into that of Robutec AG during the prior year.

Total pension costs of £9,864,000 (2016: £8,213,000) recognised in employee costs (note 7), comprise £9,463,000 (2016: £7,901,000) related to defined contribution plans and £401,000 (2016: £312,000) related to defined benefit plans.

Defined contribution plans

The amount charged to the Consolidated Income Statement in respect of defined contribution plans was £9,463,000 (2016: £7,901,000) and represents contributions payable to these plans by the Group at rates specified in the rules of the plans. The assets of the plans are held separately from those of the Group in funds under the control of trustees. Where there are employees who leave the plans prior to vesting fully in the contributions, the ancillary contributions payable by the Group may be reduced by the amount of forfeited contributions.

Defined benefit plans

The Group's significant defined benefit plans are for qualifying employees of its UK subsidiaries. Under the plans, the employees are entitled to retirement benefits of up to two thirds of final pensionable salary on attainment of a retirement age of 60, for members of the Executive Board, and 65, for all other qualifying employees. No other post-retirement benefits are provided. The plans are funded plans.

The most recent actuarial valuation of the Halma Group Pension Plan assets and the present value of the defined benefit obligation was carried out at 1 December 2014 by Mr. Adrian Gibbons, Fellow of the Institute and Faculty of Actuaries. The present value of the defined benefit obligation, was measured using the projected unit credit method. The projected unit credit method is an accrued benefits valuation method in which the plan liabilities make allowance for projected earnings. Mr. Gibbons also carried out the 1 April 2015 actuarial valuation of the Apollo Pension and Life Assurance Plan on the same basis.

Notes to the Accounts continued

28 Retirement benefits continued

An alternative to the projected unit credit method is a valuation on a solvency basis, often estimated using the cost of buying out benefits at the balance sheet date with a suitable insurance company. This amount represents the amount that would be required to settle the plan liabilities at the balance sheet date rather than the Group continuing to fund the ongoing liabilities of the plan. The Group estimates that this would amount to £508,000,000 (2016: £450,000,000).

	1 April 2017	2 April 2016	28 March 2015
Key assumptions used (UK plans):			
Discount rate	2.50%	3.40%	3.25%
Expected return on plan assets	2.50%	3.40%	3.25%
Expected rate of salary increases	3.10%	2.80%	3.00%
Pension increases LPI 2.5%	2.10%	2.00%	2.20%
Pension increases LPI 3.0%	2.30%	2.20%	2.50%
Inflation – RPI	3.10%	2.80%	3.00%
Inflation – CPI	2.10%	1.80%	2.00%

Mortality assumptions:

Investigations have been carried out within the past three years into the mortality experience of the Group's UK defined benefit plans. These investigations concluded that the current mortality assumptions include sufficient allowance for future improvements in mortality rates. The assumed life expectations on retirement at age 65 are:

	1 April 2017 Years	2 April 2016 Years	28 March 2015 Years
Retiring today:			
Males	22.5	22.5	23.4
Females	24.5	24.5	26.0
Retiring in 20 years:			
Males	24.4	24.3	25.3
Females	26.5	26.4	27.9

The sensitivities regarding the principal assumptions used to measure the UK plan liabilities are set out below:

Assumption	Change in assumption	Impact on plan liabilities
Discount rate	Increase/decrease by 0.5%	Decrease/increase by 9.3%
Rate of inflation	Increase/decrease by 0.5%	Increase/decrease by 5.8%
Rate of salary growth	Increase/decrease by 0.5%	Increase/decrease by 0.2%
Rate of mortality	Increase by one year	Increase by 2.8%

28 Retirement benefits continued

Amounts recognised in the Consolidated Income Statement in respect of the UK and Swiss defined benefit plans are as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Current service cost	401	312
Net interest charge on pension plan liabilities	1,553	2,013
	1,954	2,325

Actuarial gains and losses have been reported in the Consolidated Statement of Comprehensive Income and Expenditure.

The actual return on plan assets was a gain of £40,071,000 (2016: loss of £2,914,000).

The cumulative amount of actuarial losses recognised in the Consolidated Statement of Comprehensive Income and Expenditure since the date of transition to IFRSs is £100,059,000 (2016: £69,000,000).

The amount included in the Consolidated Balance Sheet arising from the Group's obligations in respect of its UK and Swiss defined benefit retirement benefit plans is as follows:

	1 April 2017* £000	2 April 2016 £000	28 March 2015 £000
Present value of defined benefit obligations	(339,889)	(274,186)	(291,596)
Fair value of plan assets	265,033	221,863	224,806
Liability recognised in the Consolidated Balance Sheet	(74,856)	(52,323)	(66,790)

* At 1 April 2017, the fair value of the obligations and assets of the UK plans were £334,499,000 (2016: £269,044,000) and £261,083,000 (2016: £218,410,000) respectively and of the Swiss plans were £5,390,000 (2016: £5,142,000) and £3,950,000 (2016: £3,453,000) respectively.

Under the current arrangements, cash contributions in the region of £11,300,000 per year will be made for the immediate future with the objective of eliminating the pension deficit.

Movements in the present value of the UK and Swiss defined benefit obligations were as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
At beginning of year	(274,186)	(291,596)
Service cost	(401)	(312)
Interest cost	(9,014)	(9,227)
Actuarial (losses)/gains	(63,669)	18,969
Contributions from plan members	(387)	(439)
Benefits paid	8,207	8,646
Foreign exchange	(439)	(227)
At end of year	(339,889)	(274,186)

Notes to the Accounts continued

28 Retirement benefits continued

Movements in the fair value of the UK and Swiss plan assets were as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
At beginning of year	221,863	224,806
Expected return on plan assets	7,461	7,214
Actuarial gains/(losses)	32,610	(10,128)
Contributions from the sponsoring companies	10,827	8,041
Contributions from plan members	172	439
Benefits paid	(8,207)	(8,646)
Foreign exchange	307	137
At end of year	265,033	221,863

The net movement on actuarial gains and losses of the UK and Swiss plans was as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Defined benefit obligations	(63,669)	18,969
Fair value of plan assets	32,610	(10,128)
Net actuarial (losses)/gains	(31,059)	8,841

The analysis of the UK plan assets and the expected rate of return at the balance sheet date were as follows:

	Expected rate of return			Fair value of assets		
	1 April 2017 %	2 April 2016 %	28 March 2015 %	1 April 2017 £000	2 April 2016 £000	28 March 2015 £000
Equity instruments	2.50	3.40	3.25	131,244	111,112	114,314
Debt instruments	2.50	3.40	3.25	112,453	90,829	89,743
Property	2.50	3.40	3.25	17,386	16,469	16,274
	2.50	3.40	3.25	261,083	218,410	220,331

The overall expected rate of return is a weighted average.

In conjunction with the trustees, the Group conducts asset-liability reviews for its defined benefit pension plan. The results of these reviews are used to assist the trustees and the Group to determine the optimal long-term asset allocation with regard to the structure of the liabilities of the plan. They are also used to assist the trustees in managing the volatility in the underlying investment performance and risk of a significant increase in the defined benefit deficit by providing information used to determine the plan's investment strategy.

As a consequence, the Group is progressively giving more emphasis to a closer return matching of plan assets and liabilities, both to ensure the long-term security of its defined benefit commitment and to reduce earnings and balance sheet volatility.

28 Retirement benefits continued

The five-year history of experience adjustments was as follows:

	1 April 2017 £000	2 April 2016 £000	28 March 2015 £000	29 March 2014 £000	30 March 2013 £000
Present value of defined benefit obligations	(339,889)	(274,186)	(291,596)	(227,358)	(223,447)
Fair value of plan assets	265,033	221,863	224,806	190,509	176,275
Deficit in the plan	(74,856)	(52,323)	(66,790)	(36,849)	(47,172)
Experience adjustments on plan liabilities					
Amount	(527)	2,709	(4,271)	–	(246)
Percentage of plan liabilities	0%	(1)%	1%	–	–
Experience adjustments on plan assets					
Amount	32,610	(10,128)	22,031	(30)	10,756
Percentage of plan assets	12%	(5)%	10%	–	5%

Based on the most recent actuarial valuation, the estimated amount of contributions expected to be paid to the UK and Swiss plans during the year ending 1 April 2018 is £11,300,000.

The levels of contributions are based on the current service cost and the expected future cash flows of the defined benefit pension plans. The Group estimates the plan liabilities on average to fall due over 20 and 25 years, respectively, for the Halma and Apollo plans.

29 Disposal of operations and restructuring

During the year the Group restructured non-core operations in its subsidiary, Pixelteq. The £1,910,000 loss on restructuring included in operating profit comprises fixed asset and inventory write downs and severance costs.

The total profit on disposal of operations shown in the prior year of £556,000 comprises a charge of £34,000 related to the previous disposal of Monitor Elevator Products, Inc arising from a claim under the warranty arrangement, and £590,000 credit for the partial disposal of shares in the Group's associate, Optomed. The Group disposed of 9,176 shares in Optomed, representing 8.8% of its ownership interest in the associate. Consideration received was €1,236,000 (£907,000). Further details are provided on page 158 of the Annual Report and Accounts 2016.

30 Events after the balance sheet date

There were no events after the balance sheet date.

Notes to the Accounts continued

31 Related party transactions

Trading transactions

	1 April 2017 £000	2 April 2016 £000
Associated companies		
Purchases from associated companies	384	1,254
Amounts due to associated companies	51	153
Amounts due from associated companies	-	-

Other related parties

Rent charged by other related parties	-	121
Amounts due to other related parties	-	2

Other related parties in the prior year comprised one company with a Halma employee on the board and from which the Halma subsidiary rented property. All the transactions above are on an arm's length basis and on standard business terms.

Remuneration of key management personnel

The remuneration of the Directors and Executive Board members, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24 'Related Party Disclosures'. Further information about the remuneration of individual Directors is provided in the audited part of the Directors' Remuneration Report on pages 98 to 107.

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Wages and salaries	4,886	5,658
Pension costs	112	180
Share-based payment charge	2,470	2,341
	7,468	8,179

Company Balance Sheet

	Notes	1 April 2017 £000	2 April 2016 £000
Fixed assets			
Intangible assets	C3	82	60
Tangible assets	C4	3,265	3,126
Investments	C5	173,185	166,502
Deferred tax asset	C10	11,280	8,016
		187,812	177,704
Current assets			
Debtors (amounts falling due within one year)	C6	69,435	45,533
Debtors (amounts falling due after more than one year)	C6	564,300	602,135
Short-term deposits		92	92
Cash at bank and in hand		2,035	10
		635,862	647,770
Creditors: amounts falling due within one year			
Borrowings	C7	10,524	13,782
Creditors	C8	40,197	41,939
Current tax payable		3,556	3,443
		54,277	59,164
Net current assets		581,585	588,606
Total assets less current liabilities		769,397	766,310
Creditors: amounts falling due after more than one year			
Borrowings	C7	261,918	295,908
Retirement benefit obligations	C13	51,314	35,628
Creditors	C9	12,319	11,827
Net assets		443,846	422,947
Capital and reserves			
Share capital	C11	37,965	37,965
Share premium account		23,608	23,608
Own shares		(7,263)	(8,219)
Capital redemption reserve		185	185
Other reserves		(15,181)	(12,673)
Profit and loss account		404,532	382,081
Shareholders' funds		443,846	422,947

The Company reported a profit for the financial year ended 1 April 2017 of £89,299,000 (2016: £95,803,000).

The financial statements of Halma plc, company number 00040932, were approved by the Board of Directors on 13 June 2017.


 A J Williams
 Director


 K J Thompson
 Director

Company Statement of Changes in Equity

	Share capital £000	Share premium account £000	Own shares £000	Capital redemption reserve £000	Other reserves £000	Profit and loss account £000	Total £000
At 2 April 2016	37,965	23,608	(8,219)	185	(12,673)	382,081	422,947
Profit for the year	-	-	-	-	-	89,299	89,299
Other comprehensive income and expense:							
Actuarial losses on defined benefit pension plan	-	-	-	-	-	(21,681)	(21,681)
Tax relating to components of other comprehensive income and expense	-	-	-	-	-	4,179	4,179
Total comprehensive expense for the year	-	-	-	-	-	(17,502)	(17,502)
Dividends paid	-	-	-	-	-	(49,788)	(49,788)
Share-based payment charge	-	-	-	-	4,122	-	4,122
Deferred tax on share-based payment transactions	-	-	-	-	3	-	3
Excess tax deductions related to exercised share awards	-	-	-	-	-	442	442
Purchase of Own shares	-	-	(2,368)	-	-	-	(2,368)
Performance share plan awards vested	-	-	3,324	-	(6,633)	-	(3,309)
At 1 April 2017	37,965	23,608	(7,263)	185	(15,181)	404,532	443,846
At 29 March 2015 (restated)*	37,965	23,608	(8,450)	185	(9,999)	328,069	371,378
Profit for the year	-	-	-	-	-	95,803	95,803
Other comprehensive income and expense:							
Actuarial gains on defined benefit pension plan	-	-	-	-	-	5,926	5,926
Tax relating to components of other comprehensive income	-	-	-	-	-	(1,541)	(1,541)
Total comprehensive income for the year	-	-	-	-	-	4,385	4,385
Dividends paid	-	-	-	-	-	(46,473)	(46,473)
Share-based payment charge	-	-	-	-	2,920	-	2,920
Deferred tax on share-based payment transactions	-	-	-	-	118	-	118
Excess tax deductions related to exercised share awards	-	-	-	-	-	297	297
Purchase of Own shares	-	-	(3,003)	-	-	-	(3,003)
Performance share plan awards vested	-	-	3,234	-	(5,712)	-	(2,478)
At 2 April 2016	37,965	23,608	(8,219)	185	(12,673)	382,081	422,947

* The restatement of the 2 March 2016 opening balances related to the adoption of Financial Reporting Standard 101 'Reduced Disclosure Framework' in the prior year.

Notes to the Company Accounts

C1 Accounting policies

Basis of preparation

The separate Company financial statements are presented as required by the Companies Act 2006 and have been prepared on the historical cost basis, and in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' except for the revaluation of certain financial instruments at fair value as permitted by the Companies Act 2006.

The principal accounting policies have been applied consistently in both the current and prior year.

Financial reporting standard 101 – reduced disclosure exemptions

The Company has taken advantage of the following disclosure exemptions under FRS 101:

- the requirements of paragraphs 45(b) and 46-52 of IFRS 2 Share based-payment;
- the requirements of IFRS 7 Financial Instruments: Disclosures;
- paragraph 79(a)(iv) of IAS 1;
- paragraph 73(e) of IAS 16 Property, Plant and Equipment;
- paragraph 118(e) of IAS 38 Intangible Assets;
- the requirements of paragraphs 10(d), 10(f), 16, 38A, 38B, 38C, 38D, 40A, 40B, 40C, 40D, 111 and 134-136 of IAS 1 Presentation of Financial Statements;
- the requirements of IAS 7 Statement of Cash Flows;
- the requirements of paragraphs 30 and 31 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors; and
- the requirements in IAS 24 Related Party Disclosures to disclose related party transactions entered into between two or more members of a group, provided that any subsidiary which is a party to the transaction is wholly owned by such a member.

Significant accounting judgements and estimates

In preparing the financial statements, management has made judgements, estimates and assumptions that affect the application of the Company's accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and assumptions are reviewed on an ongoing basis and are based on historical experience and various other factors that are believed to be reasonable under the circumstances.

The most significant area of estimate is determining whether there is impairment of the Company's investments which requires estimation of the investments' values in use. The value in use calculation requires the Company to estimate the future cash flows expected to arise from the investments and apply suitable discount rates in order to calculate present values.

Summary of significant accounting policies

Foreign currencies

Transactions in foreign currency are recorded at the rate of exchange at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are reported at the rates prevailing at that date. Any gain or loss arising from subsequent exchange rate movements is included as an exchange gain or loss in the Profit and Loss Account.

Financial Instruments

The Company recognises financial instruments when it becomes a party to the contractual arrangements of the instrument. Financial instruments are de-recognised when they are discharged or when the contractual terms expire. The Company's accounting policies in respect of financial instruments transactions are explained below:

Financial assets

The Company recognises its financial assets into one of the categories discussed below, depending on the purpose for which the asset was acquired.

Other than the financial assets in a qualifying hedging relationship, the Company's accounting policy for each category is as follows:

Fair value through profit or loss – This category comprises only in-the-money derivatives. These are carried in the balance sheet at fair value with changes in fair value recognised in the Profit and Loss Account.

Loans and receivables – Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise principally through the provision of goods and services to customers (e.g. trade receivables), but also incorporate other types of contractual monetary asset. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Notes to the Company Accounts continued

C1 Accounting policies continued

Financial assets continued

Impairment provisions are recognised when there is objective evidence (such as significant financial difficulties on the part of the counterparty or default or significant delay in payment) that the company will be unable to collect all of the amounts due under the terms receivable, the amount of such a provision being the difference between the net carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

Financial liabilities

The Company classifies its financial liabilities into one of the categories discussed below, depending on the purpose for which the liability was acquired.

Fair value through profit or loss – These comprise only out-of-the-money derivatives. They are carried in the balance sheet at fair value with changes in fair value recognised in the Profit and Loss Account.

At amortised cost – Financial liabilities at amortised cost including bank borrowings are initially recognised at fair value. Such interest bearing liabilities are subsequently measured at amortised cost using the effective interest rate method.

Share-based payments

The Company has adopted IFRS 2 and the accounting policies followed are in all material respects the same as the Group's policy. This policy is shown on page 134.

Investments

Investments are stated at cost less provision for impairment.

Fixed assets and depreciation

Fixed assets are stated at cost less provisions for impairment and depreciation which, with the exception of freehold land which is not depreciated, is provided on all fixed assets on the straight-line method, each item being written off over its estimated life. The principal annual rates used for this purpose are:

Freehold property	2%
Plant, equipment and vehicles	8% to 33.3%

Leases

The costs of operating leases of property and other assets are charged on a straight-line basis over the life of the lease.

Pensions

The Company makes contributions to defined contribution pension plans, which are charged against profits when they become payable. The Company also operates a Group-wide defined benefit pension plan. For defined benefit plans, the asset or liability recorded in the Company Balance Sheet is the difference between the fair value of the plan's assets and the present value of the defined obligation at that date. The defined benefit obligation is calculated separately for the plan on an annual basis by an independent actuary using the projected unit credit method.

Actuarial gains and losses are recognised in full in the year in which they occur, and are taken to other comprehensive income.

Current and past service costs, along with the impact of settlements or curtailments, are charged to profit and loss.

The unwinding of the discounting on the net liability is recognised within finance income or expense as appropriate.

C1 Accounting policies continued**Taxation**

Tax on the profit or loss for the year comprises both current and deferred tax. Tax is recognised in the Profit and Loss Account except to the extent that it relates to items recognised either in other comprehensive income or directly in equity.

Current tax is the expected tax payable, on the taxable income for the year, using tax rates enacted, or substantively enacted, at the balance sheet date, and any adjustments to tax payable in respect of previous years.

Deferred taxation is provided on taxable temporary differences between the carrying amounts of assets and liabilities in the financial statements and their corresponding tax bases. Deferred tax is measured at the tax rates that are expected to apply in the periods in which the temporary differences are expected to reverse, based on tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax assets are only recognised if recovery is considered more likely than not on the basis of all available evidence.

The recognition of deferred tax assets is dependent on assessments of future taxable income.

C2 Result for the year

As permitted by Section 408(3) of the Companies Act 2006, the Profit and Loss Account of Halma plc is not presented as part of these accounts. The Company has reported a profit after taxation for the financial year of £89,299,000 (2016: £95,803,000).

Auditor's remuneration for audit services to the Company was £211,000 (2016: £201,000).

Total employee costs (including Directors) were:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Wages and salaries	11,004	9,345
Social security costs	827	683
Pension costs	386	414
	12,217	10,442

Included within wages and salaries are share-based payment charges under IFRS 2 of £2,560,000 (2016: £1,721,000).

	52 weeks to 1 April 2017 Number	53 weeks to 2 April 2016 Number
Number of employees (all in the UK)	55	48

Details of Directors' remuneration are set out on pages 98 to 107 within the Remuneration Report and form part of these financial statements.

Notes to the Company Accounts continued

C3 Fixed assets – intangible assets

	Computer Software £000
Cost	
At 2 April 2016	777
Additions at cost	57
At 1 April 2017	834
Accumulated depreciation	
At 2 April 2016	717
Charge for the year	35
At 1 April 2017	752
Carrying amounts	
At 1 April 2017	82
At 2 April 2016	60

C4 Fixed assets – tangible assets

	Freehold properties £000	Plant equipment and vehicles £000	Total £000
Cost			
At 2 April 2016	3,043	1,540	4,583
Additions at cost	–	403	403
Disposals	–	(101)	(101)
At 1 April 2017	3,043	1,842	4,885
Accumulated depreciation			
At 2 April 2016	527	930	1,457
Charge for the year	46	209	255
Disposals	–	(92)	(92)
At 1 April 2017	573	1,047	1,620
Carrying amounts			
At 1 April 2017	2,470	795	3,265
At 2 April 2016	2,516	610	3,126

C5 Investments

Shares in Group companies

	1 April 2017 £000	2 April 2016 £000
At cost less amounts written off at beginning of year	166,502	163,986
Increase in investments	6,692	2,516
Disposal of investments	(9)	-
At cost less amounts written off at end of year	173,185	166,502

The increase of £6,692,000 in the year mostly comprises additions from restructuring within the group:

- £2,120,000 for the 100% acquisition of Rohrback Cosasco Systems UK Limited, the UK company of the Group's RCS business, from Rohrback Cosasco Systems, Inc., another wholly owned subsidiary;
- £3,894,000 for the 100% acquisition of Avire Trading Limited, a new subsidiary, following restructuring of the Group's Avire business;
- £692,000 increase in investment in an existing subsidiary, Halma Euro Trading Limited; and
- offsetting this is £14,000 reduction in investment in ASL, a previous acquisition, on full and final settlement of the related contingent consideration.

The disposal of investment of £9,000 relates to the sale of the company's wholly owned subsidiary Avire Limited to Avire Trading Limited on restructuring of the Avire business.

The increase of £2,516,000 in the prior year comprised £991,000 for the 100% acquisition of Firetrace International Limited (Firetrace), £809,000 increase in investment in an existing subsidiary, Halma Euro Trading Limited, and an increase of £827,000 in the investment of Advanced, offset by a decrease of £111,000 in the investment of ASL. The latter two were due to changes in the estimate of contingent considerations payable.

Subsidiaries

Details of the company's subsidiaries at 1 April 2017 are below.

Name	Registered Address	Country	Class	Group %
A & G Security Electronics Limited	(1)	United Kingdom	Ordinary Shares	100*
Accudynamics, LLC	240 Kenneth Welch Drive, Lakeville MA 02347	United States	Common Stock	100
Accutome, Inc.	3222 Phoenixville Pike, Malvern PA 19355	United States	Ordinary Shares	100
Adler Diamant BV	Simon Homburgstraat 21, 5431 NN Cuijk	Netherlands	Ordinary Shares	100
Advanced Electronics Limited	34 Moorland Way, Nelson Park, Cramlington, Northumberland NE23 1WE	United Kingdom	Ordinary Shares	100*
Advanced Fire Systems Inc.	100 South Street, Hopkinton MA 01748	United States	Common Stock	100*
Alicat Scientific, Inc.	7641 N Business Park Drive, Tucson AZ 85743	United States	Common Stock	100
Analytical Development Company Limited	(1)	United Kingdom	Ordinary Shares	100*
Apollo (Beijing) Fire Products Co. Ltd	Block A5, Jinghai Industrial Park, No. 156 Jinghai Fourth Road, BDA Beijing	China	Ordinary Shares	100
Apollo America, Inc.	25 Corporate Drive, Auburn Hills MI 48326	United States	Common Stock	100
Apollo Fire Detectors Limited	36 Brookside Road, Havant, Hampshire PO9 1JR	United Kingdom	Ordinary & Deferred Shares	100*
Apollo GmbH	Am Anger 31, D-33332 Gütersloh	Germany	Ordinary Shares	100
Aquionics, Inc.	1455 Jamike Avenue, Suite 100, Erlanger Kentucky 41018	United States	Ordinary Shares	100

Notes to the Company Accounts continued

Name	Registered Address	Country	Class	Group %
ASL Holdings Limited	Ty Coch House, Llantarnam Park Way, Cwmbran, Gwent NP44 3AW	United Kingdom	Ordinary Shares	100*
Avire Elevator Technology India Pte. Ltd	Plot A/147, Road No. 24, Wagle Industrial Estate, Thane West, 400604	India	Ordinary & Preference Shares	100
Avire Elevator Technology Shanghai Ltd	4 Floor, Buling 75, No.1066, Qinzhou Road, Shanghai, 200233	China	Ordinary Shares	100
Avire Global Pte. Ltd	80 Raffles Place, #32-01 UOB Plaza, 048624	Singapore	Ordinary Shares	100
Avire Inc.	415 Oser Avenue, Suite G, Hauppauge NY 11788	United States	Ordinary Shares	100
Avire Limited	Unit 1 The Switchback Gardner Road, Maidenhead, Berkshire SL6 7RJ	United Kingdom	Ordinary Shares	100
Avire Trading Limited	Unit 1 The Switchback Gardner Road, Maidenhead, Berkshire SL6 7RJ	United Kingdom	Ordinary Shares	100*
Avire s.r.o.	Okružní 2615, české Budějovice, 370 01	Czech Republic	Ordinary Shares	100
Avo Photonics (Canada) Inc.	20 Mural Street, Unit 7, Richmond Hill, Ontario L4B 1K3	Canada	A & B Shares	100
Avo Photonics, Inc.	700 Business Center Drive, Suite 125, Harsham PA 19044	United States	A & B Preferred Stock & Common Stock	100
B.E.A. Holdings, Inc.	100 Enterprise Drive, RIDC West, Pittsburgh PA 15275	United States	Ordinary Shares	100
B.E.A. Inc.	100 Enterprise Drive, RIDC West, Pittsburgh PA 15275	United States	Ordinary Shares	100
B.E.A. Investments, Inc.	100 Enterprise Drive, RIDC West, Pittsburgh PA 15275	United States	Ordinary Shares	100
Baoding Longer Precision Pump Co., Ltd	Building A, Chuangye Center, Baoding National High-Tech Development Zone, Baoding, Hebei, 071051	China	Ordinary Shares	100
BEA Electronics (Beijing) Co Ltd	Room 5959, Shenchang Building, No.51, Zhichun Road, Haidian District, Beijing	China	Ordinary Shares	100
BEA Japan KK	154-0012 Komazawa, Setagaya-ku 3-28-11, Tokyo	Japan	Ordinary Shares	100
Beijing Ker'Kang Instrument Limited Company	Unit 316, Area 1 Tower B, Chuangxin Building, 12 Hongda North Rd, Beijing, 100176	China	Ordinary Shares	100
Berson Milieutechniek BV	PO Box 90, 5670 AB Nuenen	Netherlands	Ordinary Shares	100
Bio-Chem Fluidics, Inc.	85 Fulton Street, Boonton New Jersey 07005	United States	Ordinary Shares	100
Bureau d'Electronique appliquée S.A.	Allée des Noisetiers 5, Liege Science Park B-4031 LIEGE-Angleur	Belgium	Ordinary Shares	100
Castell Interlocks, Inc.	Suite 865, 150 N Michigan Avenue, Chicago Illinois 60601	United States	Ordinary Shares	100
Castell Locks Limited	(1)	United Kingdom	Ordinary Shares	100*

Name	Registered Address	Country	Class	Group %
Castell Safety China Ltd	Section A, Floor 2, Block 23, No. 1 Factory Building, No. 123, Lane 1165, Jindu Road, Minhang District, Shanghai, 201108	China	Ordinary Shares	100
Castell Safety International Limited	The Castell Building, 217 Kingsbury Road, London NW9 9PQ	United Kingdom	Ordinary Shares	100*
Castell Safety Technology Limited	(1)	United Kingdom	Ordinary Shares	100*
CEF Safety Systems BV	Delftweg 69, 2289 BA Rijswijk	Netherlands	Ordinary Shares	100
CenTrak, Inc.	125 Pheasant Run, Newton PA 18940	United States	Common Stock	100
Cosasco Canada Ltd	Olser, Hoskin & Harcourt LLP 2500, 450 - 1st St. S.W., Calgary AB T2P 5Z1	Canada	Ordinary Shares	100
Cosasco Middle East (FZE)	PO Box 8186, SAIF Zone, Sharjah	UAE	Common Stock	100
Crowcon Detection Instruments Limited	172 Brook Drive, Milton Park, Milton, Abingdon, Oxfordshire OX14 4SD	United Kingdom	A & Ordinary Shares	100*
Diba Industries Limited	2 College Park, Coldhams Lane, Cambridge CB1 3HD	United Kingdom	Ordinary Shares	100*
Diba Industries, Inc.	4 Precision Road, Danbury CT 06810	United States	Common Stock	100
Diba Japan K.K.	Urban Komazawa, 3-28-11 Komazawa, Setagaya-ku, Tokyo	Japan	Ordinary Shares	100
Eco Rupture Disc Limited	(1)	United Kingdom	Ordinary Shares	100*
Eiffel Investments Ltd	2 Grand Canal Square, Grand Canal Harbour, Dublin 2	Ireland	Ordinary Shares	100
Eiffel Lux S.a.r.l.	20 Rue des Peupliers, L-2328	Luxembourg	Ordinary Shares	100
Elfab Hughes Limited	(1)	United Kingdom	Ordinary Shares	100*
Elfab Limited	Alder Road, West Chirton Industrial Estate, North Shields, Tyne & Wear NE29 8SD	United Kingdom	Ordinary Shares	100*
Fabrication de Produits de Sécurité SoRL	21 Rue du Cuir, ZI Sidi Rezig, Mégrine, 2033	Tunisia	Ordinary Shares	100
FFE Holdings Limited	(1)	United Kingdom	Deferred, A & Ordinary Shares	100*
FFE Limited	9 Hunting Gate, Hitchin, Hertfordshire SG4 0TJ	United Kingdom	Ordinary Shares	100*
Fiberguide Industries, Inc.	1 Bay Street, Stirling NJ 07980	United States	Ordinary Shares	100
Fire Fighting Enterprises Limited	(1)	United Kingdom	Ordinary Shares	100*
Firetrace Aerospace, LLC	15690 N 83rd Way #B, Scottsdale AZ 85260-1844	United States	Ordinary Shares	100
Firetrace International Asia Pte. Ltd	16 Callyer Quay, #11-01, Hitachi Tower, Singapore, 049318	Singapore	Ordinary Shares	100
Firetrace International Limited	(1)	United Kingdom	Ordinary Shares	100*
Firetrace USA, LLC	8435 N. 90th Street, Scottsdale AZ 85258	United States	Ordinary Shares	100

Notes to the Company Accounts continued

Name	Registered Address	Country	Class	Group %
Fluid Conservation Systems, Inc.	502 Technecenter Drive, Suite B, Milford OH 45150	United States	Ordinary Shares	100
FluxData Inc.	176 Anderson Ave, STE F304, Rochester, NY 14607	United States	Ordinary Shares	100
Fortress Interlocks Limited	2 Inverclyde Drive, Wolverhampton, West Midlands WV4 6FB	United Kingdom	Ordinary & Preferred Shares	100*
Fortress Interlocks Pty Ltd	Ross Wadeson Accountants, Unit 13, 20-30 Malcolm Road, Braeside VIC 3195	Australia	Ordinary Shares	100
Halma (China) Group	Block 1, 3rd Floor, No. 123, Lane 1165, Jindu Road, Minghang District, Shanghai, 201108	China	Ordinary Shares	100
Halma Do Brasil – Equipamentos De Segurança Ltda	Av. Tancredo Neves 620, Salas 1003/1004, Caminho das Árvores, Salvador, Bahia, 41.820-020	Brazil	Ordinary Shares	100
Halma Euro Trading Limited	(1)	United Kingdom	Ordinary Shares	100*
Halma Financing Limited	(1)	United Kingdom	Ordinary Shares	100
Halma Holding GmbH	PO Box 35, Bruckstrasse 31, D-72417 Jungingen	Germany	Ordinary Shares	100
Halma Holdings, Inc.	11500 Northlake Drive, Suite 306, Cincinnati Ohio 45249	United States	Ordinary Shares	100
Halma India Private Ltd	'Prestige Shantiniketan', Gate 2, Tower C, 7th Floor, Whitefield Main Road, Mahadevapura, Bengaluru, Bangalore, Karnataka, 560048	India	Ordinary Shares	100
Halma International BV	De Huufkes 23, 5674TL Nuenen	Netherlands	Ordinary Shares	100
Halma International Limited	(1)	United Kingdom	A & Ordinary Shares	100*
Halma Investment Holdings Limited	(1)	United Kingdom	Ordinary Shares	100
Halma IT Services Limited	(1)	United Kingdom	Ordinary Shares	100*
Halma Overseas Funding Limited	(1)	United Kingdom	Ordinary Shares	100
Halma PR Services Limited	(1)	United Kingdom	Ordinary Shares	100*
Halma Resistors Unlimited	(1)	United Kingdom	Ordinary Shares	100
Halma Safety Limited	(1)	United Kingdom	Ordinary Shares	100*
Halma Saúde e Otica do Brasil – Importação, Exportação e Distribuição Ltda	Avenida Marcos Penteado de Ulhoa Rodrigues, n. 1119, 11th Floor, Suite 1102, Tambore, Barueri/São Paulo, 06.460-040	Brazil	Ordinary Shares	100
Halma Services Limited	(1)	United Kingdom	Ordinary Shares	100*
Hanovia Limited	780/781 Buckingham Avenue, Slough, Berkshire SL1 4LA	United Kingdom	Ordinary Shares	100*
HFT Shanghai Co., Ltd	Floor 2, No. 1 Factory Building, No. 123, Lane 1165, Jindu Road, Minghang District, Shanghai, 201108	China	Ordinary Shares	100
HWM-Water Limited	Ty Coch House, Llantarnam Park Way, Cwmbran, Gwent NP44 3AW	United Kingdom	Ordinary Shares	100*
Hydreka SAS	1 Chemin des Vergers, Batiment 2A, 69760, Limonest	France	Ordinary Shares	100
Iso-Lok Limited	(1)	United Kingdom	Ordinary Shares	100*

Name	Registered Address	Country	Class	Group %
Keeler Instruments, Inc.	456 Parkway, Lawrence Park Ind. Estate, Broomall PA 19008	United States	Ordinary Shares	100
Keeler Limited	Clewer Hill Road, Windsor, Berkshire SL4 4AA	United Kingdom	Ordinary Shares	100*
Kerry Ultrasonics Sdn Bhd	10th Floor, Wisma Havela Thakardas, No. 1, Jalan Tiong Nam, Off Jalan Raja Laut, 50350 Kuala Lumpur, Wilayah Persekutuan	Malaysia	Ordinary Shares	100
Kirk Key Interlock Company, LLC	9048 Meridian Circle NW, North Canton OH 44720	United States	Ordinary Shares	100
Klaxon Signals Limited	(1)	United Kingdom	Ordinary Shares	100*
Labsphere, Inc.	231 Shaker Street, North Sutton NH 03260	United States	Ordinary Shares	100
Langer Instruments Corporation	85 Fulton Street, Unit 12, Boonton NJ 07005	United States	Ordinary Shares	100
Meadowbridge Holdings Limited	(1)	United Kingdom	Ordinary Shares	100*
Medicel AG	Dornierstrasse 11, CH – 9423 Altenrhein	Switzerland	A & B Preference & C Ordinary Shares	100
MicroSurgical Technology, Inc.	8415 154th Avenue NE, Redmond WA 98052	United States	Common Stock	100
Mistura Systems Limited	(1)	United Kingdom	Ordinary Shares	100*
Morley Electronics Limited	Unit 34 Moorland Way, Nelson Park, Cramlington, Northumberland NE23 1WE	United Kingdom	Ordinary Shares	100*
Netherlocks Safety Systems BV	J Keplerweg 14, 2408 AC Alphen aan den Rijn	Netherlands	Ordinary Shares	100
Netherlocks Safety Systems GmbH	Hahnenkammstrasse 12, 63811 Stockstadt	Germany	Ordinary Shares	100
Ocean Optics (Shanghai) Co., Ltd	Block B, 3rd Floor, No. 123, Lane 1165, Jindu Road, Minghang District, Shanghai	China	Ordinary Shares	100
Ocean Optics Asia LLC	Suite 601, Kirin Tower, 666 Gubei Road, Shanghai, 200336	United States	Common Stock	100
Ocean Optics BV	Geograaf 24, 6921EW Duiven	Netherlands	Ordinary Shares	100
Ocean Optics Germany GmbH	Maybachstrasse 11, D-73760 Ostfildern-Stuttgart	Germany	Ordinary Shares	100
Ocean Optics, Inc.	830 Douglas Avenue, Dunedin Florida 34698	United States	Ordinary Shares	100
Oklahoma Safety Equipment Co, Inc.	PO Box 1327, 1701 West Tacoma, Broken Arrow OK 74013	United States	Ordinary Shares	100
Palintest Limited	Palintest House, Kingsway, Team Valley Trading Estate, Gateshead Tyne & Wear NE11 0NS	United Kingdom	Ordinary & Deferred Shares	100*
Palmer Environmental Limited	(1)	United Kingdom	Ordinary Shares	100*
Palmer Environmental Services Limited	(1)	United Kingdom	A & Ordinary Shares	100*
Perma Pure India Pte Ltd	Plot No. A/147, Road No. 24, Wagle Industrial Estate, Thane West, Maharashtra, THANE 400064	India	Ordinary Shares	100
Perma Pure, LLC	1001 New Hampshire Ave., Lakewood NJ 08701	United States	Ordinary Shares	100

Notes to the Company Accounts continued

Name	Registered Address	Country	Class	Group %
Pixelteq, Inc.	8060A Bryan Dairy Road, Largo Florida 33777	United States	Ordinary Shares	100
Power Equipment Limited	(1)	United Kingdom	Preference & Ordinary Shares	100*
Radcom (Technologies) Limited	Ty Coch House, Llantarnam Park Way, Cwmbran, Gwent NP44 3AW	United Kingdom	Ordinary Shares	100*
Radio-Tech Limited	(1)	United Kingdom	Ordinary Shares	100*
RCS Corrosion Services Sdn. Bhd	Level 21, Suite 21.01, The Garden South Tower, Mid Valley City, Lingkaran Syed Putra, 59200 Kuala Lumpur, Wilayah Persekutuan	Malaysia	Ordinary Shares	100
Research Engineers Limited	(1)	United Kingdom	Ordinary Shares	100*
Reten Acoustics Limited	(1)	United Kingdom	Ordinary Shares	100*
Riester USA, LLC	507 Airport Blvd Ste 113, Morrisville NC 27560-8200	United States	Ordinary Shares	100
Robutec AG	Dornierstrasse 11, CH – 9423 Altenrhein	Switzerland	Ordinary Shares	100
Robutec Wolfhalden GmbH	Luchten 1262, CH-9427 Wolfhalden	Switzerland	Ordinary Shares	100
Rohrback Cosasco International Limited	OIL (Offshore Inc Limited) PO Box 957, Offshore Incorporations Centre, Road Town, Tortola	British Virgin Islands	Ordinary Shares	100
Rohrback Cosasco System China Corporation	No. A, Apartment 15F, Building 1, Tianchen Plaza, Yi-12 Chaoyangmen North Street, Chaoyang District, Beijing, 100020	China	Common Stock	100
Rohrback Cosasco Systems LLC	Gulf Consulting House	Saudi Arabia	Common Stock	100
Rohrback Cosasco Systems Pte Ltd	Ardent Business Advisory, 146, Robinson Road, #12-01, Singapore, 068909	Singapore	Ordinary Shares	100
Rohrback Cosasco Systems Pty Ltd	Unit 5, 17 Caloundra Road, Clarkson WA	Australia	Ordinary Shares	100
Rohrback Cosasco Systems UK Limited	(1)	United Kingdom	Ordinary Shares	100*
Rohrback Cosasco Systems, Inc	11841 Smith Ave, Santa Fe Springs CA 90670	United States	Common Stock	100
Rudolf Riester GmbH	Bruckstrasse 31, D-72417 Jungingen	Germany	Ordinary Shares	100
S.E.R.V. Trayvou Interferrouillage SA	1 Ter, Rue du Marais Bat B, 93106 Montreuil, Cedex	France	Ordinary Shares	100
Sensorex s.r.o	Okružní 2615, české Budějovice, 370 01	Czech Republic	Ordinary Shares	100
Sensorex Corporation	11751 Markon Drive, Garden Grove CA 92841	United States	Common Stock	100
Shanghai Labsphere Optical Equipments Co., Ltd	Block 1, No. 123, Lane 1165, Jindu Road, Minhang District, Shanghai, 201108	China	Ordinary Shares	100
Smith Flow Control (Australia) Pty Ltd	Ross Wadeson Accountants, 20-30 Malcolm Road, Braeside VIC 3195	Australia	Ordinary Shares	100
Smith Flow Control Limited	6 Waterside Business Park, Eastways Industrial Estate, Witham, Essex CM8 3YQ	United Kingdom	Ordinary Shares	100*

Name	Registered Address	Country	Class	Group %
Smith Flow Control, Inc.	1390 Donaldson Rd, Suite B, Erlanger Kentucky 41018	United States	Ordinary Shares	100
Sonar Research & Development Limited	(1)	United Kingdom	Ordinary Shares	100*
SunTech Group EB Trustee Limited	(1)	United Kingdom	Ordinary Shares	100
SunTech Medical (USA), LLC	507 Airport Boulevard, Suite 117, Morrisville NC 27560-8200	United States	Common Stock	100
SunTech Medical Devices (Shenzhen) Co. Ltd	2-3/F, Block A, Jinxiongda Technology Park, Guanlan, Bao'an District, Shenzhen, Guangdong, 518110	China	Ordinary Shares	100
SunTech Medical Group Limited	Oakfield Industrial Estate, Eynsham, Witney, Oxfordshire OX29 4TS	United Kingdom	Ordinary Shares	100
SunTech Medical Limited	Oakfield Industrial Estate, Eynsham, Witney, Oxfordshire OX29 4TS	United Kingdom	Ordinary Shares	100
SunTech Medical Ltd (Hong Kong)	8th Floor, Gloucester Tower, The Landmark, 15 Queen's Road Central	Hong Kong	Ordinary Shares	100
SunTech Medical, Inc.	507 Airport Boulevard, Suite 117, Morrisville NC 27560-8200	United States	Common Stock	100
Swift 943 Limited	(1)	United Kingdom	Ordinary Shares	100*
T.L. Jones Ltd	50 Hazeldean Road, Addington, Christchurch, 8024	New Zealand	Ordinary Shares	100
Talentum Developments Limited	9 Hunting Gate, Hitchin, Hertfordshire SG4 0TJ	United Kingdom	Ordinary Shares	100*
Telegan Gas Monitoring Limited	(1)	United Kingdom	Ordinary Shares	100*
Texecom Limited	Bradwood Court, St. Crispin Way, Haslingden, Rossendale, Lancashire BB4 4PW	United Kingdom	Ordinary Shares	100*
Thinketron Precision Equipment Company Ltd	Room 813 8/F Tai Yau Building, 181 Johnston Road, Wan Chai	Hong Kong	Ordinary Shares	100
Value Added Solutions LLC	26 Duane Lane, Burlington CT 06013	United States	Common Stock	100
Visionmetrics S.L.	Argenters, 8. Edifici 3, Parc Tecnològic del Vallès, 08290 Cerdanyola	Spain	Ordinary Shares	100
Visual Performance Diagnostics, Inc.	26895 Aliso Creek Rd, Suite B223, Aliso Viejo CA 92656	United States	Common Stock	100
Volk Optical Inc.	7893 Enterprise Drive, Mentor Ohio 44060	United States	Common Stock	100
Wilkinson & Simpson Limited	(1)	United Kingdom	Deferred & Ordinary Shares	100*

* Directly held by the Company

(1) Misbourne Court, Rectory Way, Amersham, Buckinghamshire HP7 0DE

Notes to the Company Accounts continued

C6 Debtors

	1 April 2017 £000	2 April 2016 £000
Amounts falling due within one year:		
Amounts due from Group companies	58,872	37,545
Other debtors	48	2
Prepayments and accrued income	10,515	7,986
	69,435	45,533
Amounts falling due after more than one year:		
Amounts due from Group companies	564,300	602,135

C7 Borrowings

	1 April 2017 £000	2 April 2016 £000
Falling due within one year:		
Overdrafts	10,363	13,446
Loan notes	161	336
	10,524	13,782
Falling due after more than one year:		
Unsecured loan notes	181,157	172,112
Unsecured bank loans	80,761	123,796
	261,918	295,908
Total borrowings	272,442	309,690

The Company has two sources of long-term funding, which comprise:

- an unsecured five-year £550,000,000 revolving credit facility, which, having refinanced during the year, expires in October 2021 and is therefore classified as expiring within two to five years (2016: within two to five years). At 1 April 2017 £469,239,000 (2016: £236,204,000) remained committed and undrawn, and
- unsecured loan notes agreed on 2 November 2015 in a mix of Sterling, US Dollars and Euro with borrowing periods of five, seven and ten years. At 1 April 2017 the outstanding loan notes totalled £180,981,000 (2016: £171,870,000). The loan notes are classified as falling due after more than one year.

Further details are included in note 26 to the Group accounts.

Included in loan notes due after more than one year is £176,000 (2016: £242,000) of unsecured loan notes issued in respect of the Advanced acquisition. These attract interest at 1% and are convertible at par into cash on each anniversary of the acquisition date until 14 May 2019.

The bank overdrafts, which are unsecured, at 1 April 2017 and 2 April 2016 were drawn on uncommitted facilities which all expire within one year, and were held pursuant to a Group pooling arrangement which offsets them against credit balances in subsidiary undertakings.

The Company is part of an arrangement between UK subsidiaries whereby overdraft facilities of £15,305,000 (2016: £15,305,000) are cross-guaranteed. Of these facilities £1,190,000 (2016: £4,412,000) was drawn.

C8 Creditors: amounts falling due within one year

	1 April 2017 £000	2 April 2016 £000
Trade creditors	1,988	2,011
Amounts owing to Group companies	32,266	35,117
Other taxation and social security	1,272	1,009
Other creditors	302	517
Accruals and deferred income	4,369	3,199
Provision for contingent consideration	-	86
	40,197	41,939

The final contingent consideration payable for the acquisition of ASL was settled during the year. The final agreed payment was £70,000.

C9 Creditors: amounts falling due after more than one year

	1 April 2017 £000	2 April 2016 £000
Amounts owing to Group companies	12,131	11,050
Other creditors	188	777
	12,319	11,827
These liabilities fall due as follows:		
Within one to two years	188	777
Within two to five years	-	-
After more than five years	12,132	11,050

C10 Deferred tax

	Retirement benefit obligations £000	Short-term timing differences £000	Total £000
At 2 April 2016	6,766	1,250	8,016
(Charge)/credit to Profit and loss account	(1,199)	281	(918)
Credit to comprehensive income	4,179	-	4,179
Credit to equity	3	-	3
At 1 April 2017	9,749	1,531	11,280
At 29 March 2015	9,344	860	10,204
(Charge)/credit to Profit and loss account	(1,037)	272	(765)
Charge to comprehensive income	(1,541)	-	(1,541)
Credit to equity	-	118	118
At 2 April 2016	6,766	1,250	8,016

Notes to the Company Accounts continued

C11 Share capital

	Issued and fully paid	
	1 April 2017	2 April 2016
	£000	£000
Ordinary shares of 10p each	37,965	37,965

The number of ordinary shares in issue at 1 April 2017 was 379,645,332 (2016: 379,645,332), including treasury shares of 462,188 (2016: 940,421) and 512,417 shares (2016: 311,444) held by the Employee Benefit Trust.

C12 Reserves

The Capital redemption reserve was created on the repurchase and cancellation of the Company's own shares. The Other reserves represent the provision being established in respect of the value of equity-settled share awards made by the Company. Own shares are ordinary shares in Halma plc purchased by the Company and held to fulfil the its obligations under the Group's share plans.

C13 Retirement benefit plan

The Company participates in, and is the sponsoring employer of, the Halma Group Pension Plan. The plan closed to new entrants in 2002/03 and to future benefit accrual in 2014/15. From that date, the former defined benefit members joined the Company's existing defined contribution plan.

There is no contractual agreement or stated policy for charging the net defined benefit cost within the Group. In accordance with IAS 19 (Revised 2011), the Company contribution made to the defined benefit plan during the year ended 1 April 2017 was £3,154,000 (2016: £2,941,000).

Net interest charge on pension plan liabilities of £1,085,000 (2016: £1,413,000) were recognised in the Profit and Loss Account in respect of the Company defined benefit plan.

The net movement on actuarial gains and losses of the plan reported in the Company Statement of Comprehensive Income and Expenditure was as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
Defined benefit obligations	(48,450)	14,695
Fair value of plan assets	26,769	(8,769)
Net actuarial gains/(losses)	(21,681)	5,926

The actual return on plan assets was a loss of £32,926,000 (2016: gain of £2,783,000).

The amount included in the Company Balance Sheet arising from the Company's obligations in respect of its defined benefit retirement plans is as follows:

	1 April 2017 £000	2 April 2016 £000	28 March 2015 £000
Present value of defined benefit obligations	(266,049)	(217,243)	(230,721)
Fair value of plan assets	214,735	181,615	183,980
Liability recognised in the Company Balance Sheet	(51,314)	(35,628)	(46,741)

Under the current arrangements, cash contributions in the region of £7,560,000 per year will be made for the immediate future with the objective of eliminating the pension deficit.

C13 Retirement benefit plan continued

Movements in the present value of the defined benefit obligation were as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
At beginning of year	(217,243)	(230,721)
Interest cost	(7,242)	(7,399)
Actuarial (losses)/gains	(48,450)	14,695
Benefits paid	6,886	6,182
At end of year	(266,049)	(217,243)

Movements in the fair value of the plan assets were as follows:

	52 weeks to 1 April 2017 £000	53 weeks to 2 April 2016 £000
At beginning of year	181,615	183,980
Expected return on plan assets	6,157	5,986
Actuarial gains/(losses)	26,769	(8,769)
Contributions from the sponsoring companies	7,080	6,600
Benefits paid	(6,886)	(6,182)
At end of year	214,735	181,615

The five-year history of experience adjustments was as follows:

	1 April 2017 £000	2 April 2016 £000	28 March 2015 £000	29 March 2014 £000	30 March 2013 £000
Present value of defined benefit obligation	(266,049)	(217,243)	(230,721)	(182,061)	(182,249)
Fair value of plan assets	214,735	181,615	183,980	156,033	147,055
Deficit in the plan	(51,314)	(35,628)	(46,741)	(26,028)	(35,194)
Experience adjustments on plan liabilities					
Amount	(548)	2,265	(4,271)	-	-
Percentage of plan liabilities	-	(1)%	2%	-	-
Experience adjustments on plan assets					
Amount	26,769	(8,769)	19,364	-	8,815
Percentage of plan assets	12.5%	(5)%	10%	-	6%

Based on the most recent actuarial valuation, the estimated amount of contributions expected to be paid to the plan during the year ending 1 April 2018 is £7,560,000.

Further details of Halma Group Pension Plan, including all disclosures required under FRS 101, are contained in note 28 to the Group accounts.

Summary 2008 to 2017

	2007/08 £000	2008/09 £000	2009/10 £000
Revenue (note 1)	397,955	455,928	459,118
Overseas sales (note 1)	288,701	351,522	360,779
Profit before taxation, and adjustments (note 2)	73,215	79,087	86,214
Net tangible assets/capital employed	134,320	173,128	145,519
Borrowings (excluding overdrafts)	72,393	86,173	21,924
Cash and cash equivalents (net of overdrafts)	28,118	34,987	31,006
Employees (note 1)	3,683	4,018	3,689
Earnings per ordinary share (note 1)	13.49p	14.07p	16.10p
Adjusted earnings per ordinary share (note 2)	13.86p	15.30p	16.89p
Year-on-year increase in adjusted earnings per ordinary share	11.5%	10.4%	10.4%
Return on Sales (notes 1 and 3)	18.4%	17.3%	18.8%
Return on Capital Employed (restated – note 4)	60.6%	53.7%	55.9%
Return on Total Invested Capital (restated – note 4)	14.8%	14.2%	14.0%
Year-on-year increase in dividends per ordinary share (paid and proposed)	5%	5%	7%
Ordinary share price at financial year end	192p	156p	259p
Market capitalisation at financial year end	£717.7m	£583.7m	£978.1m

All years are presented under IFRS.

* Comparatives have been restated, as required by IFRS3 (revised) 'Business Combinations', for material changes arising on the provisional accounting for prior period acquisitions. See note 24.

Notes:

1. Continuing and discontinued operations.
2. Adjusted to remove the amortisation and impairment of acquired intangible assets and acquisition transaction costs, release of fair value adjustments to inventory, adjustments to contingent consideration (collectively 'acquisition items') and restructuring costs. IFRS figures include results of operations up to the date of their sales or closure but exclude material discontinued and continuing profits on sales or closures of operations. In 2013/14 only, the effects of closure to future benefit accrual of the defined benefit pension plans have also been removed.
3. Return on Sales is defined as profit before taxation, the amortisation and impairment of acquired intangible assets; acquisition items (from 2010/11); restructuring costs, profit or loss on disposal of operations; and the effects of closure to future benefit accrual of the defined benefit pension plans net of associated costs (2013/14 only) expressed as a percentage of revenue.
4. See note 3 to the Report and Accounts for the definitions of ROCE and ROTIC. The ROCE and ROTIC measures were restated in 2014/15 and for all prior years to use an average Capital Employed and Total Invested Capital respectively. This measure is considered to be more representative.
5. IAS 19 (as revised in June 2011) 'Employee Benefits' was adopted by the Group in 2013/14. To aid comparison, and as required by IAS 19 (revised), the Consolidated Financial Statements and affected notes for 2012/13 were restated as if IAS 19 (revised) had always applied during that year. Results prior to 2012/13 were not restated.

2010/11 £000	2011/12 £000	2012/13 £000	(Restated) (note 5) 2012/13 £000	2013/14 £000	2014/15 £000	(Restated)* 2015/16 £000	2016/17 £000
518,428	579,883	619,210	619,210	676,506	726,134	807,805	961,662
412,297	454,270	503,635	503,635	548,629	587,822	662,984	806,742
104,551	120,465	130,661	128,543	140,249	153,618	166,014	194,004
146,964	163,283	188,701	188,701	189,707	219,148	258,648	302,174
79,688	64,014	160,013	160,013	107,622	140,419	296,244	262,079
42,610	45,305	49,723	49,723	33,126	39,525	49,526	65,637
3,875	4,347	4,716	4,716	4,999	5,328	5,604	5,771
19.23p	23.01p	25.22p	24.79p	28.14p	27.49p	28.76p	34.25p
20.49p	24.46p	26.22p	25.79p	28.47p	31.17p	34.26p	40.21p
21.3%	19.4%	7.2%	5.4%	10.4%	9.5%	9.9%	17.4%
20.2%	20.8%	21.1%	20.8%	20.7%	21.2%	20.6%	20.2%
72.2%	78.6%	76.4%	75.8%	76.6%	77.6%	72.4%	72.5%
16.0%	17.6%	16.9%	16.6%	16.7%	16.3%	15.6%	15.3%
7%	7%	7%	7%	7%	7%	7%	7%
355p	381p	518p	518p	579p	701p	912p	1024p
£1,342.7m	£1,440.8m	£1,962.6m	£1,962.6m	£2,192.6m	£2,661.3m	£3,462.4m	£3,887.6m

Halma Directory

Businesses by sector	Main products
Process Safety	
Castell Safety International	Safety systems for controlling hazardous industrial processes
Crowcon Detection Instruments	Gas detection instruments for personnel and plant safety
Elfab	Design and manufacture of pressure management products for the protection of people, plants, processes and the environment
Fortress Interlocks	Interlock systems for safeguarding dangerous machines and hazardous processes
Kirk Key Interlock Company	Key interlocks and interlocking systems for the protection of personnel and equipment
Oseco	Design and manufacture of pressure management products for the protection of people, plants, processes and the environment
Cosasco	Design, manufacture and sale of pipeline corrosion monitoring products and systems into diverse industries including oil, gas, petrochemical, pharmaceutical, chemical and utilities
SERV Trayvou Interverrouillage	Safety systems for controlling access to dangerous machines
Sofis	Process safety systems for petrochemical and industrial applications
Infrastructure Safety	
Advanced Electronics	Networked fire detectors and control systems
Apollo Fire Detectors	Smoke and heat detectors, sounders, beacons and interfaces
Avire	Infrared safety systems for elevator doors and elevator emergency communications and visual systems
BEA	Solutions for people and vehicle flow

Principal locations	Telephone	E-mail	Website
Kingsbury, London (Head Office) Shanghai, China	+44 (0)20 8200 1200	uksales@castell.com	www.castell.com
Abingdon, Oxfordshire (Head Office) Beijing, China Erlanger, Kentucky Singapore The Netherlands	+44 (0)1235 557700	sales@crowcon.com	www.crowcon.com
North Shields, Tyne & Wear	+44 (0)191 293 1234	sales@elfab.com	www.elfab.com
Wolverhampton, West Midlands (Head Office) Erlanger, Kentucky Schiedam, Netherlands Melbourne, Australia	+44 (0)1902 349000	sales@fortressinterlocks.com	www.fortressinterlocks.com
North Canton, Ohio	+1 800 438 2442	sales@kirkkey.com	www.kirkkey.com
Broken Arrow, Oklahoma	+1 918 258 5626	info@oseco.com	www.oseco.com
Santa Fe Springs, California (Head Office) Houston, Texas Aberdeen, Scotland Sharjah, UAE Singapore Perth, Australia Edmonton, Canada Beijing, China Kuala Lumpur, Malaysia	+1 562 949 0123	sales@cosasco.com	www.cosasco.com
Paris, France (Head Office) Tunis, Tunisia	+33 (0)1 48 18 15 15	sales@servtrayvou.com	www.servtrayvou.com
Alphen aan den Rijn, The Netherlands (Head Office) Dubai, UAE Gujarat, India Stockstadt, Germany Houston, Texas Witham, Essex Erlanger, Kentucky Victoria, Australia Beijing, China Mumbai, India	+31 (0)172 471 339	support@sofisglobal.com	www.sofisglobal.com
Cramlington, Northumberland (Head Office) Hopkinton, Massachusetts	+44 (0)1670 707111	sales@advancedco.com	www.advancedco.com
Havant, Hampshire (Head Office) Auburn Hills, Michigan Beijing, China	+44 (0)2392 492412	enquiries@apollo-fire.co.uk	www.apollo-fire.co.uk
Maidenhead, Berkshire (Head Office) České Budějovice, Czech Republic Hauppauge, New York Shanghai, China Singapore	+44 (0)1628 540100	sales.uk@avire-global.com	www.avire-global.com
Liège, Belgium (Head Office) Pittsburgh, Pennsylvania Beijing, China	+32 (0)4 361 65 65	info@bea.be	www.bea.be

Halma Directory continued

Businesses by sector	Main products
Infrastructure Safety continued	
FFE	Flame detectors, beam smoke detectors and specialist fire extinguishing systems
Firetrace International	Automatic fire detection and suppression systems
Texecom	Electronic security systems and signalling products
Medical	
Accudynamics	Mechanical and fluidic components primarily used in medical, life science and scientific instruments
Accutome	Ophthalmic diagnostic and surgical equipment, as well as a broad line of pharmaceutical products
Baoding Longer Precision Pump Co.	Peristaltic, syringe, piston and gear pumps for use in laboratory, industrial and medical applications for both end-user and OEM customers
Bio-Chem Fluidics	Miniature valves, micro pumps and fluid components for medical, life science and scientific instruments
CenTrak	Real-time location systems for healthcare facilities
Diba Industries	Specialised components and complete fluid transfer subassemblies for medical, life science and scientific instruments
Keeler	Ophthalmic instruments for diagnostic assessment of eye conditions
Medicel	Instruments for ophthalmic surgery
MicroSurgical Technology	Ophthalmic surgical products, focusing on single-use devices used in cataract surgery
Rudolf Riester	Diagnostic medical devices for ophthalmology, blood pressure measurement and ear, nose and throat diagnostics
SunTech Medical	Clinical grade non-invasive blood pressure monitoring products and technologies
Visiometrics	Ophthalmic diagnostic instruments that objectively measure visual acuity
Volk Optical	Ophthalmic equipment and lenses as aids to diagnosis and surgery
Environmental & Analysis	
Alicat Scientific	Mass flow meters, mass flow controllers and pressure controllers for high-precision fluid flow measurement
Avo Photonics	Opto-electronic solutions and product design, development and manufacturing of exclusive, confidential, private label applications
Berson Milieutechniek	Ultraviolet (UV) disinfection systems for municipal drinking water and wastewater treatment plants
Fiberguide Industries	Large core specialty optical fibre, high temperature metallised fibres for optical power delivery and optical sensing applications
FluxData	Advanced multispectral and digital imaging systems for multiple sectors including industrial and medical applications.

Principal locations	Telephone	E-mail	Website
Hitchin, Hertfordshire	+44 (0)1462 444740	sales@ffeuk.com	www.ffeuk.com
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Rochester, New York	+1 718 874 0218	info@fluxdata.com	www.fluxdata.com

Halma Directory continued

Businesses by sector	Main products
Environmental & Analysis continued	
Hanovia	Ultraviolet (UV) light water treatment equipment used in the manufacture of food, beverages and pharmaceuticals, as well as products for aquaculture, pool and leisure and for marine ballast water treatment
HWM-Water	Multi-utility M2M solutions provider, including data recording and management for water networks, electricity, solar PV and energy conservation
Hydreka	Equipment and software to monitor and analyse the entire clean and dirty water cycle and for leak detection in municipal and large scale industrial applications
Labsphere	Precision radiometric and photometric systems and software for light testing, calibration and measurement
Ocean Optics	Portable spectrometers and spectral sensors for laboratory and field applications in chemical analysis, process control, environmental monitoring, life sciences and medical diagnostics
Palintest	Water and environmental analysis equipment to test drinking water, wastewater and process water, water in pools and spas, as well as farming and irrigation applications
Perma Pure	High precision moisture management products including dryers, humidifiers, and complete sample conditioning systems for emissions monitoring, process analysis, and medical applications
Sensorex	Electrochemical sensors for water analysis applications in the process industry and laboratory markets
Group	
Halma plc	Halma plc Head Office
Halma Holdings Inc.	Halma North American Head Office
Halma International Limited Representative Offices	Halma China hubs in Shanghai, Beijing, Chengdu, Guangzhou and Shenyang
Halma India Pvt Ltd	Halma India hub

Principal locations	Telephone	E-mail	Website
Slough, Berkshire (Head Office) Shanghai, China Erlanger, Kentucky	+44 (0)1753 515300	sales@hanovia.com	www.hanovia.com
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Lyon, France	+33 (0)4 72 53 11 53	hydreka@hydreka.fr	www.hydreka.com
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Shareholder Information

Financial calendar

2016/17 Half year results	22 November 2016
2016/17 Interim dividend paid	8 February 2017
Trading update	23 March 2017
2016/17 Year end	1 April 2017
2016/17 Final results	13 June 2017
2016/17 Report and Accounts issued	21 June 2017
Annual General Meeting	20 July 2017
2016/17 Final dividend payable	16 August 2017
2017/18 Half year end	30 September 2017
2017/18 Half year results	21 November 2017
2017/18 Interim dividend payable	February 2018
2017/18 Year end	31 March 2018
2017/18 Final results	June 2018

Analysis of shareholders at 16 May 2017	Shareholders		Shares	
Number of shares held	(number)	%	(number)	%
1 – 5,000	4,184	78.0	5,192,338	1.4
5,001 – 25,000	647	12.0	6,983,990	1.8
25,001 – 100,000	256	4.8	13,042,943	3.4
100,001 – 750,000	192	3.6	57,543,181	15.2
750,001 and over	87	1.6	296,882,880	78.2
	5,366	100.0	379,645,332	100.0

Share price London Stock Exchange, pence per 10p share	2017	2016	2015	2014	2013
Highest	1126	917	726	623	531
Lowest	887	699	559	471	373

Dividends Pence per 10p share	2017	2016	2015	2014	2013
Interim	5.33	4.98	4.65	4.35	4.06
Final	8.38*	7.83	7.31	6.82	6.37
Total	13.71	12.81	11.96	11.17	10.43

* Proposed.

Investor information

Visit our website, www.halma.com, for investor information and Company news. In addition to accessing financial data, you can view and download Annual and Half Year Reports, analyst presentations, find contact details for Halma senior executives and subsidiary companies and access links to Halma subsidiary websites. You can also download our iPad app or subscribe to an e-mail news alert service to automatically receive an e-mail when significant announcements are made.

Shareholding information

Please contact our Registrar, Computershare, directly for all enquiries about your shareholding. Visit their Investor Centre website www.investorcentre.co.uk for online information about your shareholding (you will need your shareholder reference number which can be found on your share certificate or dividend confirmation), or telephone the Registrar direct using the dedicated telephone number for Halma shareholders: +44 (0)370 707 1046.

Dividend mandate

Shareholders can arrange to have their dividends paid directly into their bank or building society account by completing a bank mandate form. The advantages to using this service are: the payment is more secure than sending a cheque through the post; it avoids the inconvenience of paying in a cheque and there is no risk of lost, stolen or out-of-date cheques. A mandate form can be obtained from Computershare or you will find one on the reverse of your last dividend confirmation.

Dividend reinvestment plan

The Company operates a dividend reinvestment plan (DRIP) which offers shareholders the option to elect to have their cash dividends reinvested in Halma ordinary shares purchased in the market. You can register for the DRIP online by visiting Computershare's Investor Centre website (as above) or by requesting an application form direct from Computershare. Shareholders who wish to elect for the DRIP for the forthcoming final dividend, but have not already done so, should return a DRIP application form to Computershare no later than 26 July 2017.

Electronic communications

All shareholder communications, including the Company's Annual Report and Accounts, are made available to shareholders on the Halma website and you may opt to receive e-mail notification that documents and information are available to view and download rather than to receive paper copies through the post. Using electronic communications helps us to limit the amount of paper we use and assists us in reducing our costs. If you would like to sign up for this service, visit Computershare's Investor Centre website. You may change the way you receive communications at any time by contacting Computershare.

Annual General Meeting

The 123rd Annual General Meeting of Halma plc will be held in the Burdett Suite at The King's Fund, No. 11 Cavendish Square, London W1G 0AN on Thursday 20 July 2017 at 12.00 pm.

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Stay up-to-date

The latest Halma news, share price, webcasts, financial documents and more can be found on the Halma website at www.halma.com. You can download our free investor relations iPad app and follow Halma on the move.

