Principal risks and uncertainties

Smiths Group is exposed to a wide range of risks in running its businesses. We regularly review these risks and ensure we have the appropriate processes and policies in place to manage them.

Viability statement

In accordance with the requirements of the 2014 revision of the UK Corporate Governance Code, the directors have assessed the longer-term prospects of the Group, taking into account the current position of the Group and a range of internal and external factors, including the principal risks detailed on pages 55 to 60 (the 'viability assessment').

The directors have determined that a three-year period to 31 July 2019 is an appropriate time frame for the viability assessment. The selected period is considered to be appropriate as, based on the historic performance of the Group, a three-year outlook represents an optimum balance of long-term projection and acceptable forecasting accuracy. This time period also takes into account considerations such as the maturity of the Group's borrowing facilities and the cyclicality of the performance of the Group's underlying markets.

In making this viability assessment, the directors have considered the current financial position and prospects of the Group, including the current year business performance, the detailed budget for 2017 and the Strategic Plan. Against these financial projections the directors took into account the principal risks (as outlined on pages 55 to 60) to develop a set of plausible scenarios with potentially high-impact outcomes including:

- Product liability and litigation;
- Product liability and programme delivery;
- Supply chain disruption and business continuity;
- Fraud and corruption;
- Compliance with laws and regulations.

Consideration was then given to the magnitude of the gross risks and their potential impact, directly or indirectly, on the Group's future performance and liquidity. The assessment included stress testing of the Group's financial capacity to absorb the impact of such adverse events, either individually or in combination, and what mitigating actions the Group could take to respond to them in order to protect its business. The directors also considered the Group's ability to raise additional liquidity. In performing this assessment the directors have taken comfort from the diversity of the Group's businesses across different markets, industries, geographies, products and customers.

Based on the robust assessment, the directors confirm that they have a reasonable expectation the Group will remain viable for the period being assessed and will continue to operate and meet its liabilities as they fall due. The directors have no reason to doubt that the Group will continue in business beyond the period under assessment.

Introduction

The Group operates in global markets. In pursuing growth targets and strategic objectives we are prepared to accept certain levels of risk. We are very clear about the specific risks faced by our businesses and have robust actions in place to manage them. Our approach to each risk will vary over time and will depend on changing circumstances and the external environment.

Risk governance

The Board and its committees set the 'tone at the top' and approve the strategy of the business. On behalf of the Board, the Audit Committee is responsible for reviewing and assessing the effectiveness of the Group's risk management policies and processes, and the effectiveness of internal controls. The review covers all material controls, including financial, operational and compliance controls, as well as the Group's principal risks.

The Board ensures appropriate oversight and monitoring through a number of Board processes (strategy reviews, disclosures, Committee meetings, management reports and deep dives of selected risk areas). The Board is supported with input from a number of functions. Internal Audit is one of them and facilitates the Group's risk management processes, assesses the effectiveness of internal controls and identifies areas for improvement.

The Executive Committee is responsible for designing the system of internal control and risk management, and ensuring it is in place and effectively deployed throughout the business. It is responsible for ensuring the risk appetite of the Board is understood by risk owners and decision makers in the business. It is also responsible for conducting an annual assessment of strategic risk.

Divisional and functional teams are responsible for the day-to-day management and reporting of risks. They will identify new and emerging risks, ensure they are escalated where appropriate and take action to manage risks as required.

Tone at the top Set the strategy	Design the system	Complete risk reviews
Board and Audit Committee	**Executive Committee**	**Divisional and Functional Teams**
Review and assess risk management processes	Identify and assess strategic and operational risks	Management of risk/ risk registers

How we manage risks

Running any business involves constant risk management. It is an integral and often implicit part of day-to-day operations.

For the purposes of review and assessment we draw out the principal risks and uncertainties using the Enterprise-wide Risk Management (ERM) process.

The 'three lines of defence' approach is an industry-recognised best practice model supporting ERM and an effective controls framework. It can help increase clarity regarding roles and responsibilities and improve the effectiveness of risk management systems. It is a model we have adopted.

Board/Audit Committee
- Tone at the top
- Setting the strategy
- Ensuring sound system of internal control is in place
- Reviewing effectiveness of Group's risk management system and internal control
- Monitoring through Board processes

Executive Committee and senior management
- Designing and establishing the risk management system and internal control
- Ensuring risk appetite of the Board is understood by decision makers
- Ensuring risks are adequately managed

Regulators

First line of defence
Operational teams
- Establish and apply internal controls systems
- Document and conform to policies and procedures
- Understand roles and responsibilities
- Follow risk process

Functions that own and manage risks

Second line of defence
Risk and compliance
- Financial controls
- Risk management
- Security
- Quality
- Compliance
- Monitoring

Functions that oversee risks

Third line of defence
Internal audit
- Internal audit
- Internal controls assurance
- Programme assurance
- IT assurance
- Fraud risk management

Functions that provide independent assurance

In delivering our strategy it is important to understand and manage the risks that face us. We achieve this through our ERM approach which has been built to identify, evaluate, analyse and manage risks which threaten the successful achievement of our business strategy and objectives.

We do this by combining a top-down strategic view of risks driven by the Executive Committee with a bottom-up divisional process of identifying and managing risks. The process is continuous and is reflected in the chart below.

Our top-down approach involves a review of the internal and external environment, and an assessment by the Executive Committee of the principal risks that face the Group.

In an enhancement of the process during 2016, risk management papers have been presented at four Executive Committee meetings (two in 2015) with two of the sessions facilitated by the Director of Internal Audit. As part of this focus during the year a 'clean sheet of paper' approach was adopted in order to identify and assess strategic business risks, with time dedicated to identifying and discussing emerging risks.

Our bottom-up approach is driven by each of our divisions. They each operate their own risk management process, in line with Group guidelines, in order to manage risks specific to each business. This is an integral part of the Group ERM process.

Another enhancement of the risk management process was an additional Audit Committee meeting, held during May 2016, with a principal focus on reviewing all divisional and corporate risk in one session. This gave members of the Audit Committee the opportunity to assess the effectiveness of risk management processes, as well as strategic business risks and mitigating actions. In addition to the regular attendees of the Audit Committee, the CEO also attended.

In addition to the Audit Committee meeting held in May to consider risk, principal risks and uncertainties were reviewed and discussed at the March and July 2016 Audit Committee meetings. The Chief Executive now attends Audit Committee meetings.

This enhanced process provides a framework such that the Group's strategic, financial and operational risks are adequately considered by the Executive Committee and the Board.

The Board has reviewed the effectiveness of the risk management process, considering the principal risks and uncertainties, actions taken by management to manage those risks and the Board's risk appetite in respect of each risk. The Board considers the risk management process to be effective. It recognises this is an ongoing process and work will continue in 2017 to ensure it remains the case.

The principal risks we have identified

We maintain a detailed register of principal risks and uncertainties covering strategic, operational, financial and compliance risks. We rate them according to likelihood of occurrence and their potential impact. In 2016 we have begun to rate the 'velocity' of each risk. This measure is intended to reflect the time we would have to react to a risk were it to materialise. In the table to the right we provide a summary of each risk, a description of the potential impact and a summary of mitigating actions. We also provide ratings describing the potential impact, the trend versus 2015 and the 'velocity' of each risk.

2016 Highlights

Audit Committee

- An additional Audit Committee meeting in May 2016 with the primary focus of reviewing all divisional risk registers – attended by all divisional presidents and Chief Information Officer
- Attendance by the Chief Executive at all Audit Committee meetings

Executive Committee

- Facilitated risk sessions at two Executive Committee meetings – 'clean sheet of paper' approach to ensure principal risks document accurately reflects the strategic risks of the business, and emerging risks are understood and managed
- Executive Committee meeting sessions dedicated to reviewing specific principal risks

Compliance

- Requirements of the Financial Reporting Council (FRC) changes to the corporate governance code reviewed, understood and addressed
- Annual 'Letter of Assurance' certification on compliance with policies from the divisional executives to the Chief Executive extended to include the topic of risk management. Certification also extended to functional heads

Risk Management Process

- Velocity of principal risks now captured (high-velocity risks leave us little time to react)
- Use of multiple measures for the potential impact of a risk reflecting different types of risk facing the business (eg market value, profit, Health & Safety and reputational)

Our principal risks as assessed by the Board

Risks caused by uncontrollable external factors

Economic outlook and geopolitical environment

Potential impact
High

Trend
No change

Velocity
Medium

Risk and potential impact

Global economic and financial market conditions have stabilised after the turmoil following the 2008 financial crisis, in large part due to the various impacts of quantitative easing and austerity measures. However, there remains continued uncertainty arising from a range of geopolitical and economic issues across the world. Smiths operates in more than 50 countries and is affected by global economic and political conditions. The business is affected by government spending priorities, in particular in the US and UK, and the willingness of governments to commit substantial resources to homeland security and defence.

The change in the leadership of the UK government and the upcoming US presidential election are two notable events that are likely to have an impact on the economic and political conditions in which we operate.

Global security concerns continue to drive uncertainty. These include the continuing situation in Syria and the Middle East and events in Ukraine that have led to economic and political sanctions against Russia and the devaluation of the Russian rouble. With the UK referendum result we will see uncertainty in the UK, Eurozone and elsewhere as the economic and political relationship between the UK and EU is determined.

The global oil price continues to trade at levels well below the average of the past few years which impacts the medium-term capital expenditure plans of a number of our customers, predominantly within the John Crane division.

Mitigation

The Group has a diversified portfolio of businesses that mitigates exposure to any one country or sector.

The divisions regularly monitor their order flows and other leading indicators, where available, so that they may respond quickly to deteriorating trading conditions.

Maintaining our competitiveness and continually improving our product offering for our customers ensures we remain resilient and well placed to take advantage of commercial opportunities.

Compliance with legislation and regulations

Potential impact
Low to medium

Trend
No change

Velocity
High

Risk and potential impact

There is a risk that the Group may not always be in complete compliance with laws, regulations or permits, for example concerning environmental or safety requirements worldwide. The Group could be held responsible for liabilities and consequences arising from past or future environmental damage, including potentially significant remedial costs. There can also be no assurance that any provisions for expected environmental liabilities and remediation costs will adequately cover these liabilities or costs.

The Group operates in highly regulated sectors. Smiths Detection, Smiths Interconnect and Smiths Medical are particularly subject to regulation, with certain customers, regulators or other enforcement bodies routinely inspecting the Group's practices, processes and premises.

Smiths Detection and Smiths Interconnect manufacture security products and components, which are subject to numerous export controls, technology licensing and other government regulations.

In addition, new legislation, regulations or certification requirements may require additional expense, restrict commercial flexibility and business strategies or introduce additional liabilities for the Company or directors.

Should a regulator's approval process take a particularly long time, our products may be delayed in getting to market, which could lead to a loss of revenue or benefit a competitor with a similar product.

Fraud or corruption on the part of a single employee could have severe consequences for the Group.

Failure to comply with certain regulations may result in significant financial penalties, debarment from government contracts and/or reputational damage.

Mitigation

Environmental, health and safety data are reported to the Executive Committee and the Board, along with actions to improve performance.

Smiths Medical has dedicated staff who maintain close contact with the US Food and Drug Administration and other key regulators.

All divisions have ethics and trade compliance training and access to advice. This includes training on the Group's Code of Business Ethics and assessments to support compliance.

Divisional and Group General Counsel monitor legislative changes (assisted by Government Relations staff) and report and monitor actions as necessary. This may require modifications to our supply chains and customer arrangements.

Risks caused by uncontrollable external factors

Pension funding

Potential impact
Low

Trend
Reduced

Velocity
Low

Risk and potential impact

At 31 July 2016, the Group has legacy defined benefit pension plans, with aggregate liabilities of approximately £4.1bn on an accounting basis, with 2016 returning accounting funding to a surplus of £0.2bn.

Changes in discount rates, inflation, asset returns or mortality assumptions could lead to a materially higher deficit. For example, the cost of a buyout on a discontinued basis, and therefore using more conservative assumptions, is likely to be significantly higher than the accounting deficit. In addition, there is a risk that the plan's assets, such as investments in equity and debt securities, will not be sufficient to cover the value of those benefits.

The implications of a worsening position include a direct impact on the Group's valuation and credit rating, and potential additional funding requirements at subsequent triennial reviews.

Mitigation

All major schemes (US/UK) have been closed to new members and future accrual.

Agreed funding plans are in place with the major UK schemes following the last triennial reviews. The Group seeks a good working relationship with the Trustees through regular update meetings.

Pension matters are regularly reported to the Board.

The investment strategies of the three main plans (UK and US) are well hedged against changes in interest rate and inflation movements which has stabilised the overall funded position.

Read more in note 8 on page 155

Financial risks (foreign exchange, funding, tax and insurance)

Potential impact
Low to medium

Trend
No change

Velocity
Low

Risk and potential impact

Exchange rate fluctuations have had, and could continue to have, a material impact on the reported results. The Group is exposed to two types of currency risk: transaction and translation. The Group's reported results will fluctuate as average exchange rates change. The Group's reported net assets will fluctuate as the year-end exchange rate changes.

The Group's ability to refinance its borrowings in the bank or capital markets is dependent on market conditions and the proper functioning of financial markets. The Group may be unable to refinance its debt when due.

The Group's future profitability, particularly in the US where there are higher rates of corporation tax, may cause the headline tax rate to increase over time. Changes in tax and fiscal regulations and transfer pricing rules in the countries in which we operate could affect the Group, particularly at times when public sector debt is high. Taxation costs could rise and earnings per share could deteriorate, which could affect the Group's market valuation.

The Group cannot be certain that it will be able to obtain insurance on acceptable terms or at all. Furthermore, the Group cannot be certain that its insurance will cover losses arising from events or that insurers will not dispute coverage. In addition, even if our coverage is sufficient, the insurance industry is subject to credit risk, particularly in the event of a catastrophe or where an insurer has substantial exposure to a specific risk. If insurance cover is inadequate or does not pay out as expected, the Group could be exposed to an unexpected material cash outflow, which may impact the Group's liquidity and/or share price.

Mitigation

The Group's hedging strategy, whereby larger transactions are hedge accounted, mitigates the risk to profitability to some extent. Net investment hedging of overseas assets of approximately 50%, through borrowing in non-sterling currencies, mitigates the impact of exchange rate fluctuations on net assets.

The Group's debt maturity is staggered so that the refinancing risk is minimised. As at 31 July 2016, the US$800m committed revolving credit facility was undrawn.

The Group's taxation staff co-ordinate tax management to mitigate possible increases in the effective tax rate. Regular reporting to the Board of tax risks and exposures provides good visibility of issues.

Insurance risk is spread across a number of carriers to minimise individual insured risk and counterparty risk.

Read more on page 29

Business challenges / thematic risks

Product liability and litigation

Potential impact
Medium

Trend
No change

Velocity
High

Risk and potential impact

In the ordinary course of its business, the Group is subject to litigation such as product liability claims and lawsuits, including potential class actions, alleging that the Group's products have resulted or could result in an unsafe condition or injury.

In addition, manufacturing flaws, component failures or design defects could require us to recall products. Many of our products are used in critical applications where the consequences of a failure could be extremely serious and, in some cases, potentially catastrophic.

Products sold to the aviation, security, healthcare, energy and consumer/domestic industries are critical products, where the consequences of failure could be particularly severe.

Furthermore, over half the Group's sales are in the US, where there is potentially increased litigation risk.

Any liability claim against the Group, with or without merit, could be costly to defend and could increase our insurance premiums. Some claims might not be covered by our insurance policies, either adequately or at all.

An adverse event involving one of our products could damage our reputation and reduce market acceptance and demand for all of our products.

Mitigation

Quality assurance processes are embedded in our manufacturing locations for critical equipment, supporting compliance with industry regulations.

A global best practice programme is continuing to enhance product quality processes across the Group. This is sponsored by the Executive Committee and leverages the ongoing work in Smiths Medical and John Crane.

The divisions have procedures for dealing with product liability issues and potential product recalls. These procedures are informed by crisis management planning workshops and rehearsals.

The Group has insurance cover for certain product liability risks. The US Safety Act provides legislative protection for certain Smiths Detection products in the US; and we support efforts to implement similar legislation in other markets.

Any litigation is managed under the supervision of the Group's legal function. We have detailed action plans to manage actual or threatened litigation.

Read more on page 30
and in note 22 on page 178

Supply chain disruption and business continuity

Potential impact
Medium

Trend
No change

Velocity
Medium

Risk and potential impact

The Group's business depends on the availability and timely delivery of raw materials and purchased components, and could be affected by a disruption to its supply chain. In particular, we rely on sole suppliers to provide raw materials or components for some of our products.

The Group's manufacturing facilities are exposed to a number of natural catastrophe risks that, like other external events such as terrorist attacks or a disease pandemic, could have significant adverse consequences. The Group is also affected by the social, economic, regulatory and political conditions in the countries in which it operates. These are often unpredictable and outside the Group's control, particularly in developing countries.

The concentration of manufacturing in lower cost countries, in particular in Mexico and China, increases the length of the supply chain and means that an adverse event could have more significant consequences for our ability to supply customers on time. A longer supply chain also affects transport costs, which could be exacerbated by energy cost inflation.

Mitigation

Business continuity and disaster recovery plans are in place and tested for critical locations, to reduce the impact of an event.

Single-source supplier risks are identified and, where possible, key materials or components are dual sourced to mitigate the impact of an event.

The Group regularly evaluates its key sites for a range of risk factors using externally benchmarked assessments, and takes action to improve these ratings where appropriate.

The Group has business interruption and property damage insurance.

Business challenges / thematic risks

Government customers

Potential impact
Medium

Trend
No change

Velocity
Medium

Risk and potential impact

We derive a significant proportion of our revenues in mature Western economies with a notable element directly related to government expenditure. Additionally, a high proportion of our products and services are in some way influenced by government regulation and certification.

Smiths Detection, Smiths Medical and Smiths Interconnect frequently tender for government contracts. The timing of contract awards and payments under these contracts may be uncertain and uneven over a given financial year.

Any significant disruption or deterioration in relationship with these governments could result in fewer contracts and lower revenues.

At a time when government finances are under pressure, these headwinds may lead to slower growth across the business. A decrease in spending by key government customers could materially affect the Group's results and financial condition. Delays in awarding government contracts can affect the Group's sales, margins and cash conversion in a particular reporting period.

Mitigation

The Group has a diversified portfolio of businesses that mitigates exposure to any one country or sector.

Some of our government-related business has a services or consumables component, which can be more resilient during an economic downturn.

The Group has a Government Relations function so that it can inform policy and maintain close relationships with customers.

Technology and innovation

Potential impact
Medium

Trend
No change

Velocity
Medium

Risk and potential impact

Developing new products and improving existing products is critical to our business. There is a risk that competitors may innovate more effectively. The emergence of a disruptive technology could have an impact on a major cash-flow contributor to the Group over time.

The speed of innovation in certain markets may lead to shorter product lifecycles, increasing the need for innovation. Additionally, the entry of new competitors, the consolidation of existing competitors and changed or irrational competitor behaviour could significantly affect the Group's business.

The failure of the Group to develop its products and services, or more effective innovation by a competitor, could have a materially adverse effect on sales growth.

Mitigation

The Group has a diversified technology portfolio in a range of sectors and geographies.

Our continued investment in R&D supports new product and service development.

The Group looks to expand the addressable markets of its key businesses by building capabilities in adjacent markets, through organic investment and through targeted acquisitions.

Talent and succession planning

Potential impact
Medium

Trend
Reduced

Velocity
Low

Risk and potential impact

The loss of key personnel, or the failure to plan adequately for succession or develop new talent may impact the reputation of the Group, or lead to a disruption in the leadership of the business.

Competition for personnel is intense and the Group may not be successful in attracting or retaining qualified personnel, particularly engineering professionals. In addition, certain personnel may be required to receive security clearance and substantial training to work on certain programmes. The loss of key employees, the Group's inability to attract new or adequately trained employees, or a delay in hiring key personnel, could seriously harm the Group's business.

Over time, our competitive advantage is defined by the quality of our people – should we fail to attract, develop and retain key talent, in time our competitive advantage will erode, leading to weaker growth potential or returns.

Mitigation

Each division or function holds talent and succession plan reviews at least annually. These plans are reviewed by the Nomination Committee.

Remuneration packages, including variable and long-term elements of the compensation arrangements, are evaluated regularly against market practice.

The Chief Executive assesses, on an annual basis, the Top 25 people in the organisation for performance, skills and competencies and presents development and succession plans to the Board.

Leadership development programmes and formal career counselling support the talent pipeline.

Read more on pages 67-69

Business challenges / thematic risks

Programme delivery

Potential impact
Medium

Trend
No change

Velocity
Low

Risk and potential impact

Failure to deliver, in a timely fashion or at all, the products and services Smiths is obliged to deliver, or any fault in contract execution due to delays or breaches by its suppliers or other counterparties, may lead to higher costs, liquidated damages or other penalties.

Differences between the estimated costs in the Group's medium- and long-term contracts and actual costs may arise from a number of factors including production delays, cost overruns and other items.

Certain of the Group's contracts, particularly those with governments, may include terms that provide for unlimited liabilities on the part of the Group or allow the government body or counterparty to terminate unilaterally, reduce or modify the relevant contracts or seek alternative sources of supply at the Group's expense.

Mitigation

Contracts are managed and delivered by programme management teams that regularly review contract risks and take appropriate action.

A Group-level procedure for reviewing and approving high-risk contracts is in place.

Divisional boards review significant contracts.

The diversified nature of the Group mitigates the exposure to any single contract.

Acquisitions and disposals

Potential impact
Low

Trend
No change

Velocity
Low

Risk and potential impact

Targeted acquisitions and selected disposals form part of the Group's growth strategy. The success of our acquisition strategy depends on identifying targets, obtaining authorisations and having available financing. Even if an acquisition is completed, the acquired products and technologies may not be successful or may require significantly greater resources and investment than anticipated.

The Group may not be able to integrate the businesses that it acquires. If integration is unsuccessful, anticipated benefits are not realised or trading by acquired businesses falls below expectations, it may be necessary to impair the carrying value of these assets.

The Group's return on capital employed may fall if acquisition hurdle rates are not met. The Group's financial performance may suffer from goodwill or other acquisition-related impairment charges. Insufficient allowance for indemnities and warranties given at disposal may affect our financial position.

Mitigation

The Executive Committee and Board review the acquisition pipeline. There are monthly reviews by the divisional presidents with strategy leads for each division.

We perform comprehensive strategic and financial reviews of all opportunities. Detailed due diligence, including an assessment of the target's talent and competencies, and integration planning is undertaken and reviewed in accordance with Group policy.

The Board only authorises acquisitions after completion of due diligence, and approval is subject to meeting the capital allocation and other financial hurdles set by the Board. The Executive Committee reviews post-acquisition performance and integration.

On disposals, the Group seeks to minimise its exposure to indemnities and warranties and any that are provided are reviewed on a regular basis.

Business challenges / thematic risks

Information technology and cyber-security

Potential impact
Medium to high

Trend
No change

Velocity
High

Risk and potential impact

The Group's information systems, personnel, facilities and products are subject to security risk. The Group is dependent on information technology systems for both internal and external communications and for the day-to-day management of its operations. The incidence and sophistication of cyber-security crime is on the rise and some Group companies operate in sectors where cyber-criminals are active.

Any disruption to the information systems could have significant adverse consequences on the Group's operations or its ability to trade. It could result in the loss of confidential information and intellectual property, which could affect the Group's competitive position and cause reputational damage.

Mitigation

Oversight by the Board ensures information and cyber-security risks have an ongoing and proactive focus with an integrated business-wide approach.

Over the last year, Group capabilities were further evolved and Information Technology and Product resources and capabilities were expanded.

The Group works with advanced technology partners to implement technology solutions as well as following industry-recognised frameworks.

Compulsory awareness training has been deployed to all employees, alongside a rolling real-life simulation programme which ensure that employees are fully aware of the external threats faced by individuals from attacks such as Phishing on a daily basis.

The Group also works with external cyber sharing partnerships, sharing best practice and threat information.