

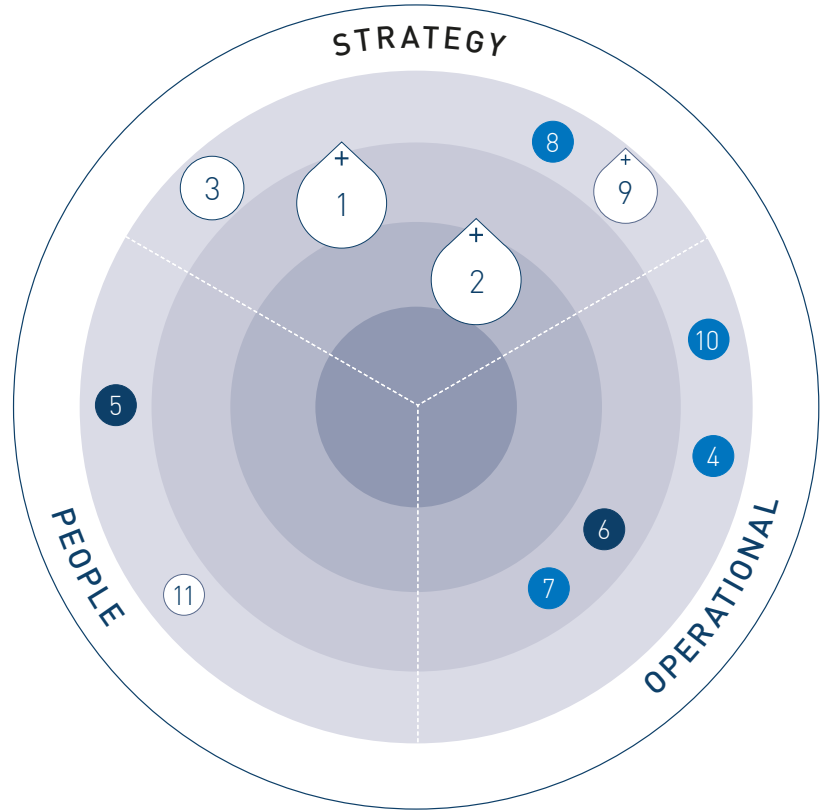
PRINCIPAL RISKS AND UNCERTAINTIES

We maintain a register of principal risks and uncertainties covering the strategic, financial, compliance and operational risks faced by the Group.

We review each risk and rate a number of factors: gross impact, applying the hypothetical assumption there are no mitigating controls in place; residual impact and likelihood, taking into account existing mitigating controls; target impact; the reputational impact of a risk; and its velocity, which reflects the expected time we would have to react should a risk materialise. These, in turn, drive mitigation priorities. A trend metric shows the net position of the risk year-on-year.

We updated our register of principal risks and uncertainties following review by the Executive Committee and approval by the Board. Two risks reported in FY2018 have been merged to form the integrated supply chain risk. Customer has been added as a new principal risk.

While we continue to monitor and manage a wider range of risks, the risk map (right) and the tables that follow summarise those risks considered to have the greatest potential impact if they were to materialise.



OUR STRATEGIC OBJECTIVES



OUTPERFORM OUR CHOSEN MARKETS



DELIVER WORLD-CLASS COMPETITIVENESS

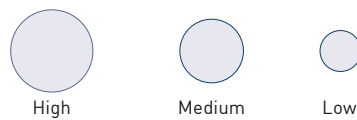


STRONG FINANCIAL FRAMEWORK

Principal risks

1 Technology	6 Cyber security
2 Economy and geopolitics	7 Integrated supply chain
3 Acquisition/integration and divestment/separation	8 Markets
	9 Customers
4 Product quality	10 Contractual obligations
5 Ethical breach	11 People

Residual impact



Likelihood



Trend (net position of risk vs FY2018)




Velocity



TECHNOLOGY

Differentiated new products and services are critical to our success. We may be unable to maintain technological differentiation or to meet customers' needs and may face disruptive innovation by a competitor.

Risk owner Andy Reynolds Smith

Trend 

Link to SES

TECHNOLOGY
CUSTOMER
PROGRAMME

Included in viability assessment:

N/A

Link to strategic objectives



Potential impact

- Material adverse effect on margin and profitable growth
- Erosion of our reputation as a leader in our markets and of our ability to attract and retain talent
- Need for higher R&D spend to maintain sales growth

Key mitigating controls

- Proactive repositioning of the portfolio around the most attractive markets where we can sustainably hold a top three position based on technology leadership
- Diversified technology portfolio serving a range of sectors and geographies, mitigating exposure to any one sector or area
- Increased and smarter investment in R&D (FY2019: 4.5% of continuing operations revenue, FY2018: 4.1%)
- Focus on building a culture of innovation with a long-range Technology Roadmap for each division

- Targets to increase the proportion of spend on next generation and transformational initiatives
- New Product Introduction (NPI) process established across divisions to accelerate projects
- Vitality Index as KPI
- Robust IP protection via patents and other protections, and litigation where appropriate

Assurance

- Vitality data is reviewed and is part of the SES dashboard
- Adherence to NPI process is audited and embedded in systems
- Technology Roadmap is part of the Group strategic cycle

ECONOMY AND GEOPOLITICS

There are external indicators that we are in the late stage of the economic cycle. Threats to free trade are increasing.

Risk owner John Shipsey

Trend 

Link to SES

PRODUCTION

Included in viability assessment:

N/A

Link to strategic objectives



Potential impact

- Governments continue to look for ways to improve tax revenues to ease fiscal budget pressures
- Adverse impact on business performance due to the imposition of tariffs.
- The consequences of Brexit are uncertain. Potential effects, applicable to many businesses, include economic and operational uncertainty, volatility of currency exchange, regulatory changes and the imposition of tariffs on trade between the UK and the Eurozone
- Geopolitical tensions, most notably in China, US, India, the Middle East, South Korea and North Korea

Key mitigating controls

- Diversified portfolio of businesses which mitigates exposure to any one country or sector and geographic spread which mitigates the impact of trade barriers between regions
- Divisions monitor order flows and other leading indicators so that they may respond quickly to deteriorating trading conditions and tariffs/barriers to free trade

- Identification and application of learnings from past downturns through the cycle
- Sustainable tax strategy to optimise the Group's position
- Representation of our interests by the corporate affairs team
- Network of trade compliance officers across the Group who monitor upcoming changes in regulation and oversee import and export activities
- Monitoring of the ongoing negotiations between the UK and the EU in order to assess the potential impact of Brexit and any transitional arrangements which may be agreed

Assurance

- Impact of US sanctions to date has been absorbed
- Order tracking reported and monitored
- Brexit coordination group working effectively


ACQUISITION/INTEGRATION AND DIVESTMENT/SEPARATION

Our strategy is predicated primarily on organic growth. However, acquisitions/divestments can also play a role in building and/or strengthening competitive positions.

Acquisitions bring risk as well as opportunity. We may invest substantial funds and resources in acquisitions which fail to deliver on expectations – due to incorrect appraisal of the target and/or poor execution. The opposite risk is that (perhaps through an excess of caution) we miss out on opportunities to build market-leading positions and growth.

Divestments also carry risk. We may divest an asset at the wrong time, or may not realise appropriate value for the asset. Separation may be complex and, if poorly executed, may impact the wider business.

Risk owner **John Shipsey**

Trend 

Link to SES **PROGRAMME**

Included in viability assessment: **N/A**

Link to strategic objectives 

Potential impact

- Poor acquisitions/divestments, or poorly managed integrations/separations, lead directly to financial damage and indirectly to loss of shareholder confidence
- Newly-acquired products and solutions deliver less value, fewer synergies, or require more investment than anticipated
- Fall in our return on capital employed measure
- Financial performance suffers from goodwill or other acquisition-related impairment charges or inheritance of material unknown liabilities

Key mitigating controls

- Investment in greater internal capability for the evaluation and execution of transactions
- Regular reviews of the acquisition pipeline and a stage-gated M&A process
- Detailed due diligence and integration work in accordance with our acquisitions and disposals policy

- Detailed separation planning, in accordance with our acquisitions and disposals policy
- Governance ensures multi-disciplinary sign off
- Larger transactions approved by the full Board
- Post-transaction reviews with lessons learned incorporated into future projects
- Use of external advisors

Assurance

- Strong internal team
- Proper governance and oversight
- Learnings from previous acquisitions (Morpho Detection, Seebach GmbH, United Flexible) and divestments (PDI, Microwave, Wallace, Bearings)
- Ongoing evaluation measured against original business case


PRODUCT QUALITY

In the ordinary course of business we are potentially subject to product liability claims and lawsuits, including potential class actions. The mission-critical nature of many of our solutions makes the potential consequences of failure more serious than may otherwise be the case.

Risk owner **Divisional Presidents**

Trend 

Link to SES **TECHNOLOGY PROGRAMME PRODUCTION**

Included in viability assessment: 

Link to strategic objectives 

Potential impact

- Recall of products due to manufacturing flaws, component failures, damage to persons/property, and/or design defects, in order to avoid serious, or potentially catastrophic, failure
- Damage to our reputation amongst customers and reduction in market acceptance of, and demand for, our products from an adverse event involving one of our products
- Exposure to losses in the event of a cyber security breach relating to our products
- These include not only customer losses, but also those of a potentially large class of third parties

Key mitigating controls

- Divisional quality risk assessments which address product failures, product compliance, regulatory compliance, product performance, product safety and market authorisation risks
- Quality assurance processes embedded in manufacturing locations for critical equipment, supporting compliance with industry regulations (e.g. FAA, FDA, API, etc.)

- Quality development and quality integration built into NPI processes
- Risk analysis and mitigation processes relating to product cyber resilience embedded in the product lifecycle process. Proactive steps taken to ensure product cyber related risks are continually monitored and managed
- Group-wide Quality Council drives standard definitions, identifies and shares best practice, and reduces the cost of poor quality
- Insurance cover for product liability
- Material litigation managed under the oversight of the Group General Counsel

Assurance


- Quality KPIs (e.g. DPPM, COPQ) are measured and action plans put in place to drive their improvement – these are regularly reported
- Group and divisional governance frameworks (including Delegation of Authority) ensure a close working relationship between legal and commercial teams (includes quality) to manage risks
- Fewer quality issues at launch of new products

ETHICAL BREACH

We have more than 22,000 employees in more than 50 countries. Individuals may not all behave in accordance with the Group's values and ethical standards. We operate in highly regulated markets requiring strict adherence to laws with risk areas including:

- bribery and corruption;
- anti-trust matters;
- international trade laws and sanctions;
- human rights, modern slavery and international labour standards;
- General Data Protection Regulation (GDPR); and
- government contracting regulations

Risk owner **Mel Rowlands**

Trend 

Link to SES **PEOPLE
CUSTOMER
SUPPLY**

Included in viability assessment: 

Link to strategic objectives 

Potential impact

- Failure to comply with export regulations leads to significant fines and a loss of export privileges
- Failure to meet strict conditions within government contracts, particularly in the US, could have serious financial and reputational consequences
- Increased risk of illegal anti-competitive activity such as collusion with competitors as a result of operating in relatively consolidated markets
- US fines and penalties imposed for price fixing, bid rigging and other cartel-type activities can exceed \$100m per violation
- Ethics or compliance breach causes harm to our reputation, financial performance, customer relationships and our ability to attract and retain talent

Key mitigating controls

- Group-wide ethics framework which includes the Smiths Way, the Code of Business Ethics and the Supplier Code of Conduct
- Policies and procedures to mitigate distributor and agent related risks including due diligence, contractual controls and internal approvals
- Anti-bribery and corruption training for all employees supported by the 'Speak Out' line encouraging the reporting of ethics violations (includes ability to report anonymously and a non-retaliation policy)

- Reporting and investigation mechanisms
- Antitrust training programmes and guidance
- Network of trade compliance officers across the Group that monitor upcoming changes in regulation and oversee import and export activities
- Legal function monitors legislative changes and reports and monitors actions as necessary
- Modern Slavery and Transparency Statement and procedures to reduce the risk of modern slavery within the Group and our supply chain
- Multi-functional programme for GDPR compliance

Assurance

- Multiple sources to assess culture including My Say results, 'Speak Out' reports, internal audit findings, exit interviews and ethics questions in performance reviews
- Monitoring and reporting on compliance with ethics and compliance policies
- Tracking of on-line ethics training and compliance modules
- Reporting non-compliance cases to business, Executive and Audit & Risk Committees


CYBER SECURITY

Cyber attacks seeking to compromise the confidentiality, integrity and availability of IT systems and the data held on them are a continuing risk. We operate in markets and product areas which are known to be of interest to cyber criminals.

Risk owner Philippe Roman

Trend 

Link to SES TECHNOLOGY PROGRAMME

Included in viability assessment: 

[Link to strategic objectives](#)



Potential impact

- Compromised confidentiality, integrity and availability of our assets resulting from a cyber attack, impacting our ability to deliver to customers and, ultimately, financial performance and reputation
- Exposure to significant losses in the event of a cyber security breach relating to our security or medical products. These include not only customer losses, but also those of a potentially large class of third parties

Key mitigating controls

- Board oversight of the approach to mitigating cyber risk
- Proactive focus on information and cyber security risks supported by a strong governance framework
- Group-wide assessment of critical information assets and protection to enhance security

- Information Security Awareness programme
- Security monitoring to provide early detection of hostile activity on Smiths networks and an incident management process
- Partnership and monitoring arrangements in place with critical third parties, including communications service providers
- Cyber risk analysis and mitigation processes embedded in the product lifecycle process to increase resilience

Assurance

- Formal reviews with Executive Committee and the Board
- Vulnerability scanning/event reporting embedded
- External reviews of vulnerability controls
- Mandatory staff training
- Compliance with recognised standards
- Cyber leads at divisions

INTEGRATED SUPPLY CHAIN


Timely, efficient supply of raw materials and purchased components is critical to our ability to deliver to our customers. Manufacturing continues to be exposed to external events which could have significant adverse consequences, including natural catastrophes, disease pandemics and terrorist attacks.

We are also affected by the social, economic, regulatory and political conditions where we operate. This applies to our own manufacturing sites and those of our key component suppliers.

Risk owner Philippe Roman

Trend 

Link to SES SUPPLY

Included in viability assessment: 

[Link to strategic objectives](#)



Potential impact

- Inability to deliver products/solutions to customers, impacting financial performance and reputation

Key mitigating controls

- Supply excellence pillar of our SES operating model delivers increased focus on efficient, resilient and cost-effective supply
- Business continuity and disaster recovery plans in place and tested for critical locations
- Regular evaluation of key sites for a range of risk factors using externally benchmarked assessments
- Mitigation plans for sole source suppliers, sub-contractors and service providers are developed and deployed by divisions to include qualification of alternative sources of suppliers where appropriate
- Business interruption and property damage insurance


Assurance

- Externally provided business interruption risk surveys of operational sites
- Business continuity planning (BCP) testing and results
- Insurance requirements driven by the Group's/divisions' risk appetite is validated at least annually
- Mitigation plans reviewed at divisional procurement leadership team meetings and reported in the procurement scorecard

MARKETS

A significant proportion of our revenue comes from the US and European markets, with a notable proportion coming from governments. In addition to geographical markets, there is a risk we do not focus on attractive market sectors where we have, or could have, a sustainable position.

Risk owner Roland Carter

Trend 

Link to SES TECHNOLOGY CUSTOMER

Included in viability assessment: N/A

[Link to strategic objectives](#)



Potential impact

- Failure to develop other markets and geographies impacts strategic progress and financial performance
- Significant disruption to government budgets results in fewer contracts being awarded to Smiths, impacting financial performance

Key mitigating controls

- A diversified portfolio of businesses mitigates exposure to any one country, sector or customer
- Growth strategy which places emphasis on expanding operations in higher-growth markets and regions which are currently underserved, including Asia
- Strategic process to capture continuing opportunities in current and adjacent markets

- Corporate affairs function which collaborates with colleagues across the Group to advise on developments
- More resilient services and consumable components built into some of our government-related business

Assurance


- Increased rate of growth provides assurance that actions are working
- Managing Director councils established in India and China
- Joint venture and partnership arrangement in China
- Digital Forge established

CUSTOMERS

Our markets are evolving at a fast pace, creating potential for customers to change their business models as they look to deliver products and services at higher quality, with better service and at lower cost.

Failure of the Group to keep pace with customer changes/requirements (innovation, go to market, strategies) could have a materially adverse impact on Group performance.

Risk owner Julian Fagge

Trend 

Link to SES CUSTOMER PROGRAMME

Included in viability assessment: N/A

[Link to strategic objectives](#)



Potential impact

- Loss of market share and adverse impact on Group results
- Material adverse effect on profitable growth
- Erosion of our reputation as a leader in our markets

Key mitigating controls

- As part of the Group innovation framework and our approach to potential technology disruption, we include customer disruption as well as competitor and product
- New product innovation feedback through market research and direct feedback from existing and potential customers
- Developing business models is a core component of the Group-wide training agenda


Assurance

- Megatrend workshops and disruption risks reviewed annually
- Customer input gathered on a frequent basis
- Pilot programmes to test products, business models and partnerships
- Strategic review process; divisional deep dives

CONTRACTUAL OBLIGATIONS

We may fail to deliver the products and services we are obliged to deliver, or fail in our contractual execution due to delays or breaches by our suppliers or other counterparties.

Risk owner Mel Rowlands

Trend 

[Link to SES](#)

CUSTOMER
SUPPLY
PROGRAMME
PRODUCTION

Included in viability assessment: N/A

[Link to strategic objectives](#)



Potential impact

- Production delays, unexpected increases in costs of materials, freight, quality and warranty issues resulting from differences between estimated and actual costs in our medium and long-term contracts
- Breach of contract resulting in significant expenses due to disputes and claims, loss of customers, damage to Smiths reputation with other customers/prospective customers, and loss of revenue and profit due to higher costs, liquidated damages or other penalties
- Contracts, particularly those with governments, may include terms that provide for unlimited liabilities, including for loss of profits, IP indemnities, perpetual warranties or allowing the counterparty to cancel modify or terminate unilaterally and seek alternative sources of supply at Smiths expense

Key mitigating controls

- Contracts managed and delivered by programme management teams that regularly review risks and take appropriate action

- Review and approval process for significant and higher-risk contracts in place at Group and divisional levels
- Diversified nature of the Group mitigates exposure to any single contract
- Programmes in place across the Group which harmonise the contract review process
- Cross-divisional US Government working group determines and shares best practice on government contracting


Assurance

- Divisional legal teams embedded in the business, working cross-functionally throughout the contract lifecycle
- Review and approval process for contracts determined by adherence to the Delegation of Authority matrix
- Insurance programme tailored to reflect the risk appetite of the Group
- Uniform diligence and contracting process in place for agents and distributors

PEOPLE

People are our only truly sustainable source of competitive advantage and competition for key skills is intense, especially around science, technology, engineering and mathematics (STEM) disciplines. We may not be successful in attracting, retaining, developing, engaging and inspiring the right people with the right skills to achieve our growth ambitions.

Risk owner Sheena Mackay

Trend 

[Link to SES](#)

PEOPLE

Included in viability assessment: N/A

[Link to strategic objectives](#)



Potential impact

- Inability to attract key talent leading to a loss of competitive advantage
- Difficulty in retaining personnel, at all levels of the organisation, leading to a loss of competitive advantage
- In acquisitions, losing key personnel from the newly-acquired business which may significantly impact performance and value

Key mitigating controls

- Investment to build a learning organisation with a focus on culture, reward and recognition
- Implementation of the right HR infrastructure
- Delivery of a range of learning and development opportunities at all levels of the organisation
- Talent and succession plan reviews
- Remuneration packages evaluated regularly against market trends
- Chief Executive assessment of the leadership team

- Annual performance management reviews for the majority of employees using best practice processes such as 360-degree feedback surveys
- Formal career counselling for senior people in the business
- A clearly defined people integration plan for acquisitions
- People Plan oversight by the Board
- Diversity & Inclusion Plan and initiatives

Assurance

- Participation rates in the Smiths learning and development programmes measured. Capability and performance of alumni are tracked
- Benchmarking ratio of hires into senior roles from internal and external sources
- Formal and informal measures of culture, for example regular engagement surveys with follow up action planning
- Measurement of the effectiveness of the Executive education programme through post completion evaluation tests
- Post-acquisition review meetings